Ejector pins & Ejector sleeves

Slide retainers series

Latch locks series

Pouring gate series

Date stamps & Air valves series

Ejector series

Cooling elements series

Locating parts series

Springs series

Guide pins & Guide bush

Guide strips & Wear plate series

Chuck series

Mold accessories

Mold Partner Ltd.

HU-4002, Debrecen, Jegvirag street 16.

Email: sales@moldpartner.eu

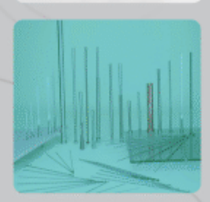
www.moldpartner.eu

Plastic Mould Design Standard

Plastic Mould Design Standard








MOLD PARTNER

Industrial standard introduction

JIS Japanese Industrial Standards

●JIS is the mark of Japanese industrial standard, include MISUMI,PUNCH, Sankyo-oilless, Datong, FUTABA etc.

DIN Deutsches Institute fur Normung Industrial Standards

●DIN is One of the 18 members of european standardization committee.DIN plays an important role in CEN.The main mold parts brand include HASCO、DME-EOC,STRACK,CUMSA, MEUSBURGER, FIBRO, OPITZ etc.

AISI Standard of American Iron and Steel Institute

●The main mold parts brand include DME,DMS,PCS, PROGRESSIVE, SUPERIOR, PARKER etc.

TAIWAN Industrial Standard

●moldpartner cooperate with TAIWAN mold parts company to processing STD parts, include High temperate mould counters, date stamps, air valves, heat pipes, nitrogen springs, guide pins and guide bushes etc.

moldpartner standard

●moldpartner research and develop industrial standards by itself, Include DDT collapsible core, enhanced version latch locks ,ZZ73A & ZZ73B tool safety devices, coating ejector pins, high wear resistance two-stage ejectors, automatic water testing machine.

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Ejector pins & Ejector sleeves





MOLD PARTNER	MOLD PARTNER	AISI	MOLD PARTNER	AISI
Ejector pins(DLC)	Ejector pins(Black)	Ejector pins	Ejector pins(BeCu)	Ejector pins(BeCu)
DS-EEX P4	B-EEX P4	EEX P5	PPCL P6	PPCM P6



AISI	JIS	JIS	DIN	DIN
Ejector pins	Ejector pins	Ejector pins	Ejector pins	Ejector pins
EEPH P6	CCPH-M P8	CCPD P8	ZZ43 P8	ZZ40 P9



MOLD PARTNER	MOLD PARTNER	TAIWAN	TAIWAN	TAIWAN
Ejector pins	Ejector pins(black)	Ejector pins	Ejector pins	Stepped ejector pins
ZZ40S P10	ZZ40B P11	EPSS P12	EPS P12	ESS P13

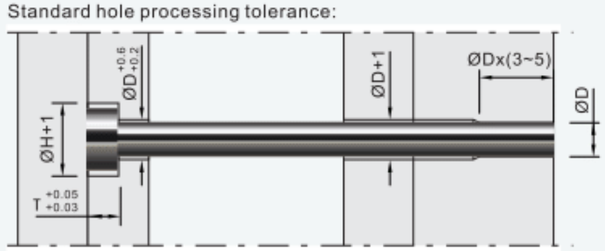


JIS	AISI	DIN	JIS	TAIWAN
Stepped ejector pins	Stepped ejector pins	Stepped ejector pins	Stepped ejector pins	Flat ejector pins
EEDSF P13	EESH P13	ZZ44 P14	EEJS P14	ERPS P15



JIS	TAIWAN	DIN
Flat ejector pins	Ejector sleeves	Ejector sleeves
EERPH P15	ESV P16	ZZ 45 P16

Standard hole processing tolerance:



Products Summary

Product summary:
Ejector pin ,sleeve mainly used in plastic ,pressure casting mold ,The function of these parts is separated forming products from mould.
Common material SKD61 ,SKH51 ect ,when use it will make surface wear and tear due to long time friction , In order to meet special application ,surface of products will add DLC ,TiN coating ect ,coating application illustration refer to P4

Coating ejector pin recommend application situation:
1.Fast cycle forming or request long term for application life of mould
2.Can't apply to this mould with lubricating oil.
3. Usage this material of mould easy to produce air(engineering plastics ,including the fiberglass resin)
4.Ejector pin easy wear and tear to this mould .(die-casting molds ,including the fiberglass resin)
5.Request this mould for high wear resistance ,release,corrosion resistance.

Trunnion tolerance selection method:
The tolerance of shaft diameter is decided this match tolerance by the front of ejector pin and core hole ,In order to reduce friction force,increase air removal efficiency in cavity .This tolerance of bar can adopt max lower deviation to guarantee this edge clearance between shaft diameter and core hole.

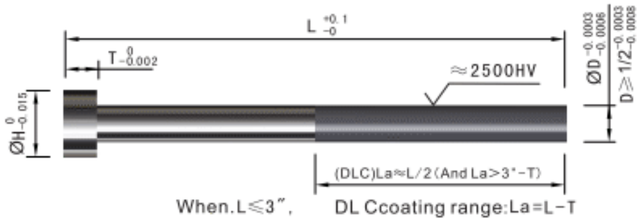
Note :
When use better fluidity resin or increase injection press to shaping processing ,crack position easy to produce burr ,so overall consideration this two side to choose this tolerance ,normal choose +0 -0.005 tolerance.

Product name	Product photos	Standard	Unit	Material	Product feature	Hardness	Code	Page
	Standard type	AISI	Metric	BeCu	BeCu material	-	PPCM	P6
				SKD61	Standard	900HV~	EEX	P5
				BeCu	BeCu material	-	PPCL	P6
	DLC coating			SKD61	Taper head type	900HV~	ZZ43	P8
				SKH51	Standard	58-62HRC	ZZ40	P9
	Taper head type			SKH61	Standard	48-52HRC	CCPD	P8
		TAIWAN	Metric	SKD61	Standard	58-62HRC	EEPH	P15
	Surface black oxide				Standard	58-62HRC	CCPH-M	P8
					Standard	900HV~	EPS	P12
	BeCu material				Standard	48-52HRC	EPSS	P12
			Inch	SKD61	DLC coating	900HV~	ZZ40B	P11
					Standard	48-52HRC	ZZ40S	P10
				SKD61	DLC coating	48-52HRC	DS-EEX	P4
					The surface of the black	900HV~	B-EEX	P4
				SKD61	Standard	900HV~	ZZ44	P14
	Ød			SKD61	Standard	900HV~	EEJS	P14
					Standard	48-52HRC	EEDSF	P13
						58-62HRC	EESH	P13
				SKD61	Standard	900HV~	ESS	P13
Flat ejector pins	Standard type A/B			SKH51	Standard	58-62HRC	EERPH	P15
				SKD61	Standard	900HV~	ERPS	P15
				SKD61	Standard	900HV~	ESV	P16

Ejector pin using the classification description:
According to different request ,ejector pin series choose suggest have 4 classification.
1.Low output ,low request mould ,lower request mould lift 10million times. mould core is normal hardness steel, Suggest prior to choose Taiwan standard or surface nitrided ejector pin .
2.Middle output ,middle request mould :mould life 10 million -50 million ,suggest to choose harden & nitrided ejector pin .
3.High output ,high request mould: mould lift 50million -100million, suggest to choose harden +surface nitrided or SKH51 high -speed steel.
4.High precision, high request mould, life above 100million request high precision mould ,suggest to choose Harden+surface DLC coating ejector pin.

Ejector pins

DS-EEX



When.L≤3″, DL Ccoating range:La=L-T

Order DS-EEX-D-L Material:SKD61 Hardness:48-52HRC Surface:DLC coating

D	H	T	@ /P L
1/ 8	1/ 4	1/ 8	L4"-20"
9/64			
5/32	9/32	5/32	
11/64	11/32	3/16	
3/16	3/ 8		
13/64			
7/32	13/32		
15/64			
1/ 4	7/16	1/ 4	
17/64			
9/32			
19/64	1/ 2		
5/16			
21/64	9/16		
11/32			
23/64	5/ 8		
3/ 8			
25/64			
13/32	11/16		
27/64			
7/16			
29/64			
15/32	3/ 4		
31/64			
1/ 2			
17/32			
9/16	13/16		
5/ 8	7/ 8		
11/16	15/16		
3/ 4	1"		
7/ 8	1-1/8		
1"	1-1/4		

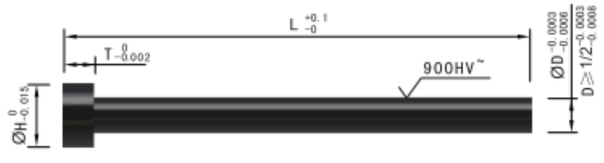
Coating ejector pin feature:

1.The advantage of DLC coating with high hardness ,small friction coefficient to help enhance productivity and products quality .
2.Improve corrosion resistance ,Such as engineering plastics when shaping to produce air ,DLC coating can prevent ejector pin from air corrosion resistance.

Recommend the use of occasions:

1.Fast cycle shaping or ask long service life mould
2.Can't apply to this mould with lubricating oil.
3.Usage this material of mould easy to produce air(engineering plastics ,including the fiberglass resin)
4.Ejector pin easy wear and tear to this mould .
5.Request this mould for high wear resistance,release,corrosion resistance.

B-EEX

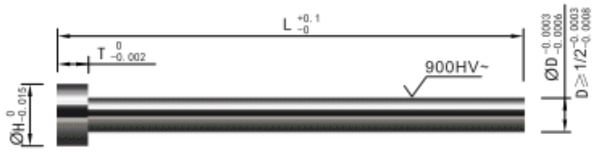


Ejector pins

Order B-EEX-D-L Material:SKD61 Core:38-42HRC Surface:900HV~ Surface treatment:Nitrided+Black oxide

D	H	T	@ /P L4"	L6"	L8"	L10"	L12"	L14"	L16"	L18"	L20"
1/ 8	1/ 4	1/ 8									
9/64											
5/32	9/32	5/32									
11/64	11/32	3/16									
3/16	3/ 8										
13/64											
7/32	13/32										
15/64											
1/ 4	7/16	1/ 4									
17/64											
9/32											
19/64	1/ 2										
5/16											
21/64	9/16										
11/32											
23/64	5/ 8										
3/ 8											
25/64											
13/32	11/16										
27/64											
7/16											
29/64											
15/32	3/ 4										
31/64											
1/ 2											
17/32											
9/16	13/16										
5/ 8	7/ 8										
11/16	15/16										
3/ 4	1"										
7/ 8	1-1/8										
1"	1-1/4										

EEX



Order EEX-D-L Material:SKD61 Surface:900HV~ Core:38-42HRC

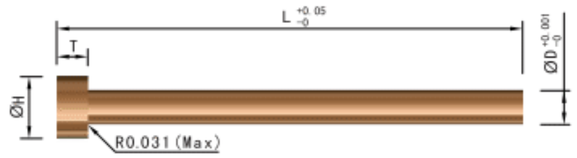
D	H	T	@ /P L4"	L6"	L8"	L10"	L12"	L14"	L16"	L18"	L20"
1/ 8	1/ 4	1/ 8									
9/64											
5/32	9/32	5/32									
11/64	11/32	3/16									
3/16	3/ 8										
13/64											
7/32	13/32										
15/64											
1/ 4	7/16	1/ 4									
17/64											
9/32											
19/64	1/ 2										
5/16											
21/64	9/16										
11/32											
23/64	5/ 8										
3/ 8											
25/64											
13/32	11/16										
27/64											
7/16											
29/64											
15/32	3/ 4										
31/64											
1/ 2											
17/32											
9/16	13/16										
5/ 8	7/ 8										
11/16	15/16										
3/ 4	1"										
7/ 8	1-1/8										
1"	1-1/4										

MOLD PARTNER

AISI

Ejector pins (BeCu)

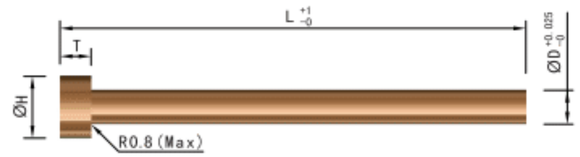
PPCL



Order PPCL-D-L Material: Becu

D	H	T	@ /P			
			L3	L6	L14	L20
3/32	0.25	0.125				-
1/ 8						
5/32	0.281	0.156				
11/64	0.343	0.187			-	-
3/16	0.375					
13/64						-
7/32	0.406					
1/ 4	0.437	0.25				
9/32						-
5/16	0.5					
11/32	0.562					-
3/ 8	0.625					
13/32	0.687		-		-	-
7/16						-
1/ 2	0.75					-
9/16	0.812					-
5/ 8	0.875					-
3/ 4	1					-

PPCM



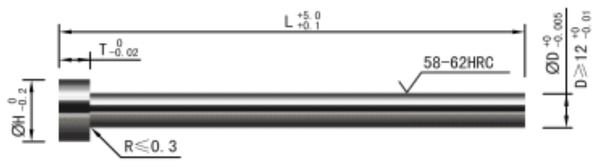
Order PPCM-D-L Material: Becu

D	H	T	@ /P				
			L100	L160	L200	L250	L315
1.5	3	1.5	-	-	-	-	-
2	4	2	-	-	-	-	-
2.5	5						-
3	6	3					-
3.5	7						-
4	8					-	
4.5						-	-
5	10					-	
6	12	5				-	
7							-
8	14					-	
10	16						
12	18	7				-	
14	22					-	
16						-	

JIS

Ejector pins

EEPH



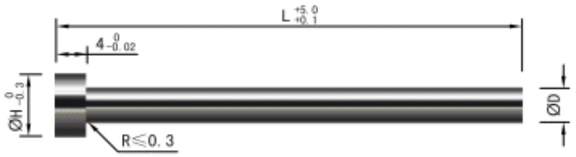
Order EEPH-D-L-T Material:SKH51 Hardness:58-62HRC

D	H	T	@ /P					
			L100	L150	L200	L250	L300	L350
1 -1.1	3	4						
1.2-1.4								
1.5								
1.6								
1.7-1.9	4							
2								
2.1								
2.2-2.4	5							
2.5								
2.6								
2.7-2.9	6							
3								
3.1								
3.2-3.4	7	4/6						
3.5								
3.6-3.9								
4								
4.1								
4.2	9	4						
4.3		4/6						
4.4		4						
4.5		4/6						
4.6								
4.7-4.9		4						
5		4.6						
5.1								
5.5	10							
5.6								
6								
6.1								
6.5	11	4.8						
6.6								
7								
7.1								
7.5	13							
7.6								
8								
8.1								
8.5-8.6	14							
9								
9.1								
9.5-9.6	15							
10								
10.1								
10.5-11.1	16							
11.5-11.6	17							
12								
12.1								

JIS

Ejector pins

CCPH-M CCPD



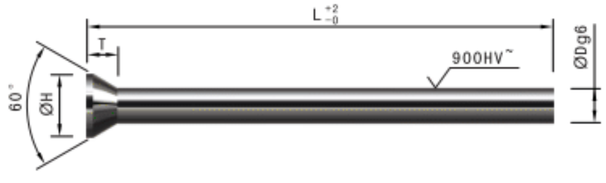
CCPH-M Tolerance: ØD $^{+0}_{-0.005}$ CCPD Tolerance: ØD $^{-0.01}_{-0.02}$

Order CCPH-M-D-L Material:SKH51 Hardness:58-62HRC

Order CCPD-D-L Material:SKD61 Hardness:48-52HRC

D	H	T	SKH51 @ /P		SKD61 @ /P	
			L40	L50	L40	L50
0.3-0.4						
0.5						
0.6	2					
0.7						
0.8-0.9						
1						
1.1	3					
1.2-1.6						
1.7-2	4					
2.1						
2.2-2.4						
2.5	5					
2.6						
2.7-2.9						
3	6					
3.1						
3.2-3.4						
3.5						
3.6-3.9	7					
4						
4.1		4				
4.2-4.4						
4.5						
4.6-4.9	9					
5						
5.1						
5.2-5.4						
5.5						
5.6-5.9	10					
6						
6.1						
6.5						
6.6	11					
7						
7.1						
7.5-7.6	13					
8						
8.1	14					
8.5-9						
9.5	15					
10						
11	16					
12	17					
13	18					
14	19					
16	21					

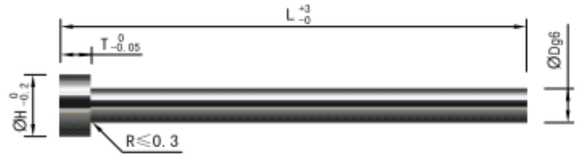
ZZ43



Order ZZ43-D-L Material:SKD61 Surface:900HV~ Core: 38-42HRC

D	H	T	@ /P					
			L100	L125	L160	L200	L250	L315
3	4.5						-	-
4	5.5	1.8					-	-
5	6.5							-
6	8	2.2						-
8	10							-
10	12	2.7	-					
12	14		-					

ZZ40

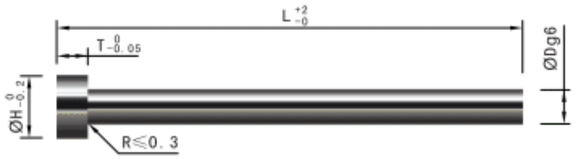


Order ZZ40-D-L Material:SKH51 Hardness:58-62HRC

D	T	H	@ /P										
			L40	L50	L63	L80	L100	L125	L160	L200	L250	L315	L400	L500
0.8														
1	1.2	2.5												
1.1														
1.2														
1.3														
1.4														
1.5														
1.6	1.5	3												
1.7														
1.8														
1.9														
2	2	4												
2.2		5												
2.5														
3		6												
3.2														
3.5		7												
3.7														
4	3													
4.2		8												
4.5														
5														
5.2		10												
5.5														
6														
6.2		12												
6.5														
7														
7.5														
8	5	14												
8.2														
8.5														
9														
10		16												
10.2														
10.5														
12		18												
12.2														
12.5	7													
13		20												
14														
14.5		22												
16														
20	8	26												
25	10	32												

Ejector pins

ZZ40S

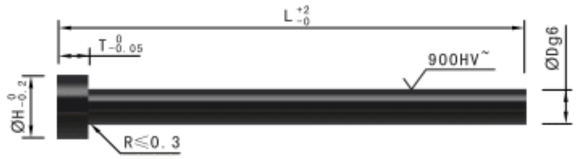


Order ZZ40S-D-L Material:SKD61 Hardness:48-52HRC Surface treatment: hardened

D	T	H	@ /P											
			L40	L50	L63	L80	L100	L125	L160	L200	L250	L315	L400	L500
0.8	1.2	2.5												
1														
1.1														
1.2														
1.3	1.5	3												
1.4														
1.5														
1.6														
1.7														
1.8														
1.9														
2	2	4												
2.2		5												
2.5	3	6												
3														
3.2														
3.5		7												
3.7														
4														
4.2		8												
4.5														
5														
5.2		10												
5.5														
6	5	12												
6.2														
6.5														
7														
7.5		14												
8														
8.2														
8.5														
9		16												
10														
10.2														
10.5	7	18												
12														
12.2														
12.5														
13		20												
14		22												
14.5														
16														
20	8	26												
25	10	32												

Ejector pins

ZZ40B



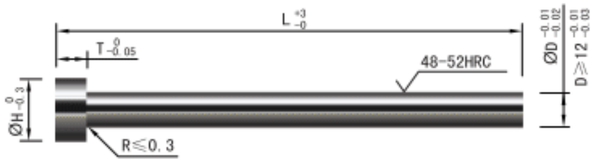
Order ZZ40B-D-L Material:SKD61 Core:38-42HRC Surface:900HV~ Surface Treatment: Nitrided+Black oxide

D	T	H	@ /P											
			L40	L50	L63	L80	L100	L125	L160	L200	L250	L315	L400	L500
1											-	-	-	-
1.1	1.2	2.5									-	-	-	-
1.2											-	-	-	-
1.3											-	-	-	-
1.4											-	-	-	-
1.5												-	-	-
1.6	1.5	3		-								-	-	-
1.7											-	-	-	-
1.8											-	-	-	-
1.9											-	-	-	-
2		4		-									-	-
2.2	2		-	-	-	-							-	-
2.5		5		-										-
3		6		-										-
3.2			-	-	-	-								-
3.5		7	-	-	-	-								-
3.7			-	-	-	-						-	-	-
4				-										-
4.2	3	8	-	-	-	-							-	-
4.5			-	-	-	-								-
5				-									-	-
5.2		10	-	-	-	-					-	-	-	-
5.5			-	-	-	-								
6				-										
6.2			-	-	-	-							-	-
6.5		12	-	-	-	-								-
7			-	-	-	-								-
7.5			-	-	-	-						-	-	-
8	5		-	-										
8.2			-	-	-	-						-	-	-
8.5		14	-	-	-							-	-	-
9			-	-	-							-	-	-
10			-	-	-									
10.2		16	-	-	-							-	-	-
10.5			-	-	-	-								
12			-	-	-									
12.2		18	-	-	-							-	-	-
12.5			-	-	-	-						-	-	-
13	7	20	-	-	-	-						-	-	-
14			-	-	-	-								
14.5		22	-	-	-	-						-	-	-
16			-	-	-	-								
20	8	26	-	-	-									
25	10	32	-	-	-							-	-	-

TAIWAN

Ejector pins

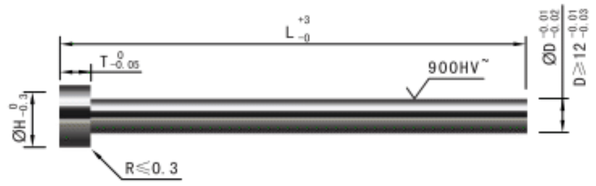
EPSS



Order EPSS-D-L Material:SKD61 Hardness:48-52HRC

D	H	T	@ /P								
			L100	L150	L200	L250	L300	L350	L400	L450	L500
1	3(6)	4									
1.2											
1.5											
1.6	6										
2											
2.5											
3											
3.5	7										
4	8	6									
4.5											
5	9										
5.5	10										
6											
6.5											
7	11										
8	13	8									
9	14										
10	15										
12	17										
13	18										
16	21										
20	25										
25	30										

EPS



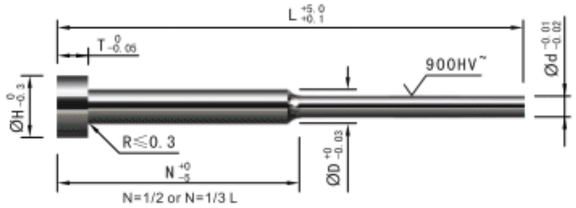
Order EPS-D-L Material:SKD61 Surface:900HV~ Core:38-42HRC

D	H	T	@ /P								
			L100	L150	L200	L250	L300	L350	L400	L450	L500
1	6	4									
1.2											
1.5											
1.6											
2											
2.5											
3											
3.5	7										
4	8	6									
4.5											
5	9										
5.5	10										
6											
6.5											
7	11										
8	13	8									
9	14										
10	15										
12	17										
13	18										
16	21										
20	25										
25	30										

TAIWAN

Stepped ejector pins

ESS

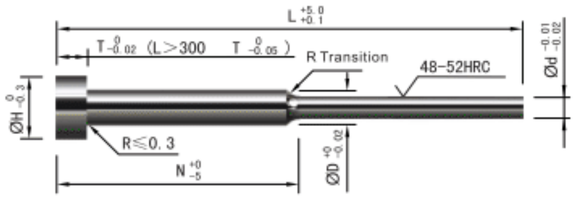


Order ESS-D-L-d-N1/2 Material:SKD61 Surface:900HV~ Core:38-42HRC

D	d1	N	H	T	@ /P			
					L100	L150	L200	L250
2	0.8	N=1/2 N=1/3	6	4				
	1							
	1.2							
	1.5							
2.5	0.8							
	1							
	1.2							
	1.5							
3	1							
	1.2							
	1.5							
	2							

JIS

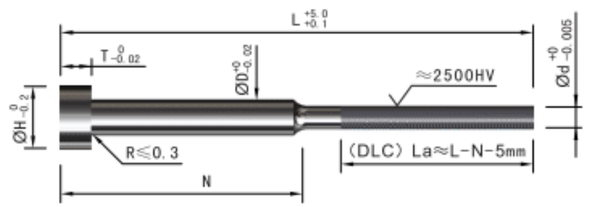
EEDSF



Order EEDSF-D-L-d-N15 Material:SKD61 Hardness:48-52HRC

D	d	N	H	T	@ /P						
					L50	L60	L100	L150	L200	L250	L300
1.5	0.6- 1.6	N=15- 40 N=50-120 N= 125 N= 150 N= 180	3	4							
2	0.8- 1.9		4								
2.5	0.8- 2.4		5								
3	1 - 2.9		6								
3.5	1.5- 3.4		7								
4	1.5- 3.9										
4.5	2.5- 4.4		8								
5	3 - 4.9										
5.5	3.5- 5.4		9								
6	4 - 5.9										
6.5	4.5- 6.4		10								
7	4.9- 6.9										
8	5.9- 7.9		11								
9	6.9- 8.9		14								
10	7.9- 9.9		15								
12	8.9-11.9		17								
13	9.9-12.9		18								

EESH



AISI

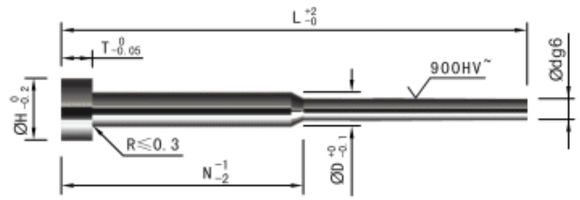
Stepped ejector pins

Order EESH-D-L-d-N15 Material:SKH51 Hardness:58-62HRC

D	d	N	H	T	@ /P					
					L50	L60	L100	L150	L200	L250
1	0.3	N=15- 35 N=40-100 N= 105 N= 125	2	4						
	0.4									
	0.5-0.6									
	0.7-0.8									
1.5	0.3		3							
	0.4									
	0.5									
	0.6-1									
2	0.7-1.6		4							
2.5	0.8-2.1		5							
3	1 -2.3		6							
	2.4-2.6									
4	2 2.5 3.5		7							
4.5	2 2.5		9	6						
5	3									

ZZ44

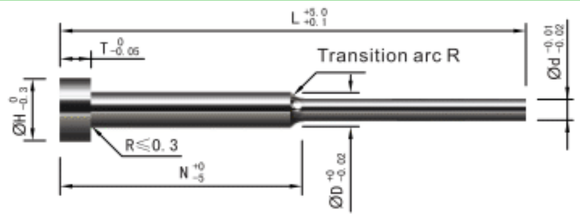
DIN



Order ZZ44-D-L-d-N35 Material:SKD61 Surface:900HV~ Core:38-42HRC

D	d	N	H	T	@ /P					
					L80	L100	L125	L160	L200	L250
2	0.8	N= 35 N= 50 N= 75 N=100	4	2						
	0.9									
	1									
	1.1									
	1.2									
	1.3									
	1.4									
3	1.5		6	3						
	1.6									
	1.7									
	1.8									
	1.9									
	2									
	2.2									
	2.5									

EEJS



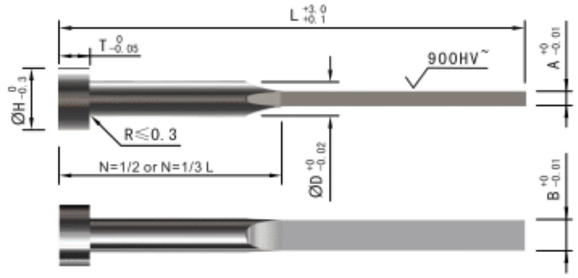
Order EEJS-D-L-d-N Material:SKD61 Surface:900HV~ Core:38-42HRC

D	L	d	N	H	T	@ /P
4	100 -150	1.5-3	50	8	6	
	150.01-200		70 100			
	200.01-250		100 125			
5	100 -150	3 -4	50	9		
	150.01-200		70 100			
	100 -150		100 125			
6	200.01-250	4	50	10		
	150.01-200		70 100			
	200.01-250		100 125			

TAIWAN

Flat ejector pins

ERPS



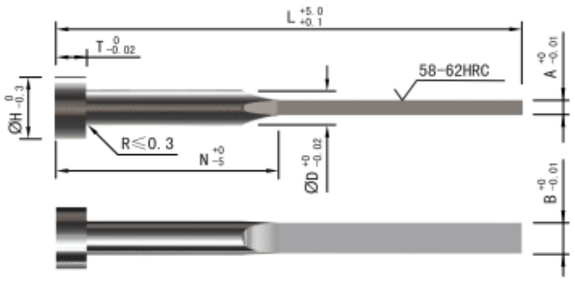
Attention: vacuum nitrided flat ejector pin, four sharp edges will have fillets that are within R0. 1. If it's to mold high flow plastic material(PP PA66 etc), please use SKD61 vacuum heat treatment or SKH51 material model, and please tell us flat position requires maintaining sharp corner.

Order ERPS-D-L-B-A-N Material:SKD61 Surface:900HV~ Core:38-42HRC

D	A	B	N	H	T	@ /P				
						L100	L150	L200	L250	L300
2	0.5-1	1 -1.5	N=1/2L N=1/3L	6	4					
2.5	0.5-1.2	2								
3	0.5-1.5	2.5								
3.5	0.5-2	3		7						
4	0.6-2	3.5		8	6					
4.5	0.7-2	4								
5	2	4.5		9						
5.5	1 -2	5		10						
6										
6.5		5.5								
7	1 -2			11						
8	1.5-2	7.5		13	8					
9				14						
10	2	9.5		15						

JIS

EERPH



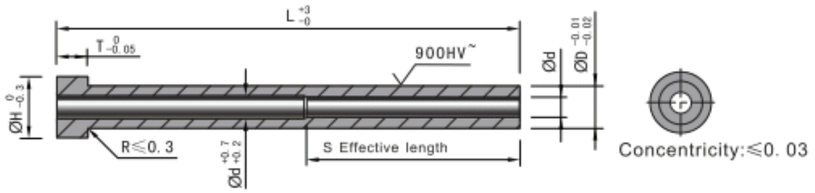
Order EERPH-D-L-A-B-N-T Material:SKH51 Hardness:58-62HRC

D	A&B	N	T	H	@ /P			
					L100	L150	L200	L250
2	0.5-1	N= 30- 50 N= 40- 90 N= 75-100 N=100-120	4	4				
2.5	0.5-2			5				
3	0.5-2.5			6				
3.5	0.5-3		4 6	7				
4	0.5-3.5							
4.5	0.5-4			9				
5	0.6-4.5							
5.5	0.6-5			10				
6	0.8-5.5							
6.5	0.8-6		4 8	11				
7	0.8-6.5							
8	0.8-7.5			13				
9	0.8-8.5			14				
10	0.8-9.5			15				

TAIWAN

Ejector sleeves

ESV

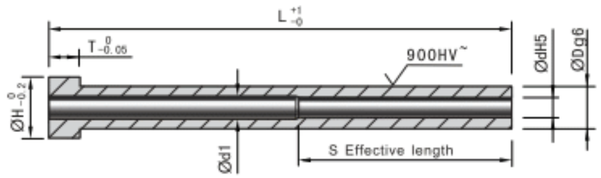


☎Order ESV-d-D-L Material:SKD61 Surface:900HV~ Core:38-42HRC

d	D	H	T	@ /P										
				L100	L125	L150	L175	L200	L225	L250	L275	L300	L350	L400
3	5	9	6											
3.5	6	10												
4														
3	6.5													
3.5														
4														
3	7	11												
3.5														
4														
4.5														
4	8	13	8											
4.5														
5														
5.5	10	15												
5														
5.5														
6														
6.5														
7														

Diameter of pin	Effective length of sleeve	Cut effective length(sleeve)
2.0- 2.5mm	About 20mm	≤5mm
2.5- 3.8mm	About 30mm	
3.8- 6.2mm	About 40mm	≤8mm
6.2-10.0mm	About60mm	

ZZ45



☎Order ZZ45-d-D-L Material:SKD61 Surface:900HV~ Core:38-42HRC

d	D	H	T	S	@ /P							
					L75	L100	L125	L150	L175	L200	L225	L250
2	3.5	7	3	25								
	4	8										
2.5	5	10										
2.7												
3												
3.2												
3.5	5.5											
4												
3.5	6	12	5									
3.7												
4												
4.5	7											
5												
4.2	8	14										
5												
5.2				35								
5.5	9											
6	10	16										
6.2												
7	11	18										
8												
8.2	12	20	7									
9												

Slide Retainers Series





DIN	MOLD PARTNER	DIN	DIN	MOLD PARTNER
Slide holding devices	Slide holding devices	Slide holding devices	Slide holding devices	Slide holding devices
ZZ5130 P21	ZZ5130B P22	ZZ5134 P23	ZZ5140-0/1 P24	ZZ5140-0/1B P25



DIN	DIN	AISI	AISI	AISI
Slide holding devices	Slide holding devices	Slide holding devices	Slide holding devices	Slide holding devices
ZZ5140-2 P26	EE3044 P27	SSLK-8A P28	SSLK-8AB P29	SSLK-25A P30



AISI	AISI	(American) AISI	(Metric system) AISI	(American) AISI
Slide holding devices	Slide holding devices	Slide holding devices	Slide holding devices	Slide holding devices
SSLK-25AB P31	SSLK-50A P32	SSRT P33	SSRTM P33	PPSR P34



AISI	(Metric system) AISI	JIS	JIS	JIS
Slide holding devices	Slide holding devices	Slide holding devices	Slide holding devices	Slide holding devices
PPSR P35	PPSR P36	SSLLK P37	BSJ P38	BPJ P38



JIS	DIN	DIN	DIN	MOLD PARTNER
Slide Stoppers	Slide retainers	Slide retainers	Slide retainers	Slide retainers
SSLSP P37	RRC P39	RRM P40	ZZ189 P41	ZZ189 P42



DIN	DIN	AISI	MOLD PARTNER	AISI
Slide retainers	Slide retainers	Slide retainers	Slide retainers	Slide retainers
ZZ5135 P43	ZZ5136 P43	PPSL P45	PPSL P46	PPSM P47



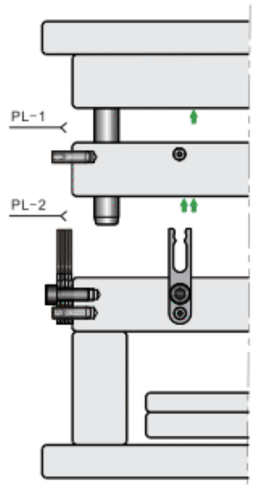
MOLD PARTNER	AISI	MOLD PARTNER
Slide retainers	Slide retainers	Slide retainers
PPSM P48	MMRT P49	MMRT P50

MOLD PARTNER

Products Summary

Picture	Parts name	Model	Type: American/ Metric system	Type: Standard	Material	Page	Instruction
	Slide holding devices	ZZ5130-13 ZZ5130-18 ZZ5130-27	Metric system DIN	(Machine processing)	SKD61	P21	1.Standard slide holding devices adopt alloy material to processing, firm and durable. 2.Precision slide holding device adopt machining precision processing, fixed position much accuracy.
		ZZ5130-13B ZZ5130-18B	Metric system MOLD PARTNER	Standard type (Precision casting)	SKD61	P22	
		ZZ5134	Metric system DIN	-	SKD61	P23	
		ZZ5140-0 ZZ5140-1	Metric system DIN	(Machine processing)	SKD11	P24	
		ZZ5140-0B ZZ5140-1B	Metric system MOLD PARTNER	Standard type (Precision casting)	4118	P25	
		ZZ5140-2	Metric system DIN	(Machine processing)	SKD11	P26	
		EE3044	Metric system DIN	-	SKD11	P27	
		SSLK-8A	American AISI	(Machine processing)	SKD11	P28	
		SSLK-8AB	American AISI	Standard type (Precision casting)	4118	P29	
		SSLK-25A SSLK-50A	American AISI	(Machine processing)	SKD11	P30	
		SSLK-25AB	American AISI	Standard type (Precision casting)	4118	P31	
		SSRT	American AISI	Standard type (Precision casting)	FDAC	P33	
		SSRTM	Metric system AISI	-	FDAC	P33	
		PPSR	American AISI	(Machine processing)	SKD11	P34	
				Standard type (Precision casting)	SCM435	P35	
			Metric system AISI	-	SKD11	P36	
		SSLLK	Metric system JIS	-	SKD11	P37	
		BSJ	Metric system JIS	-	S45C	P38	
		BPJ	Metric system JIS	-	SUS304	P38	

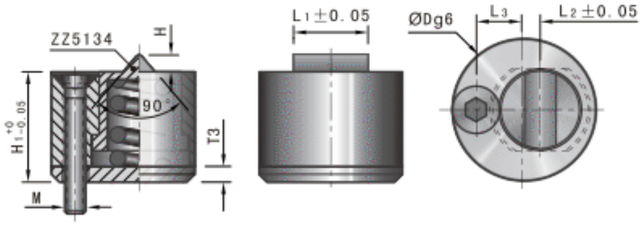
Picture	Parts name	Model	Type: American/ Metric system	Type: Standard	Material	Page	Instruction
	Slide holding devices	RRC	Metric system DIN	-	8047	P39	1.Standard slide holding devices adopt alloy material to processing, firm and durable. 2.Precision slide holding device adopt machining precision processing, fixed position much accuracy. 3.RRC, RRM, PPSL, PPSM slide retainer not only with limit function, but also with latch lock function when not request during closed mould sequence.
		RRM	Metric system DIN	-	8407	P40	
		ZZ189	Metric system DIN	(Machine processing)	SKD11	P41	
			Metric system MOLD PARTNER	Standard type (Precision casting)	4118	P42	
		ZZ5135 ZZ5136	Metric system DIN	-	Cr12MoV	P43	
		PPSL	American AISI	(Made in Tai Wan)	4118	P45	
			American MOLD PARTNER	Standard type (Precision casting)	SCM435	P46	
		PPSM	Metric system AISI	(Made in Tai Wan)	4118	P47	
			Metric system MOLD PARTNER	Standard type (Precision casting)	SCM435	P48	
		MMRT	Metric system AISI	(Made in Tai Wan)	4118	P49	
			Metric system MOLD PARTNER	Standard type (Precision casting)	SCM435	P50	



Mold opened

DIN

Slide holding devices





ZZ5130

CAD 2D

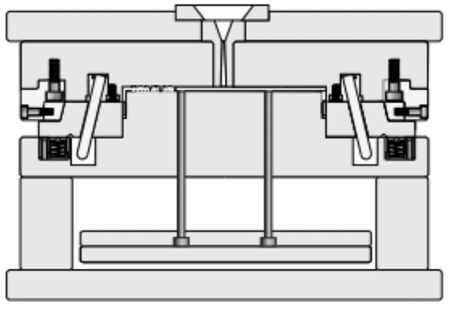
Features:
1.ZZ5130 Slide holding devices with outside small shape and occupy the small space.
2.ZZ5130 Slide holding devices is the best convenient installment of the slide retainer series.
3.ZZ5130 Slide holding devices adopts precision machining to make location more accurate.

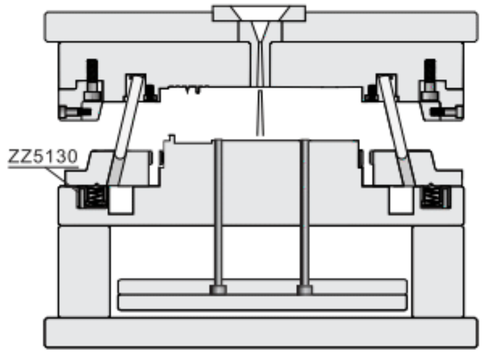
Order ZZ5130-13 Material :SKD61 Hardness:52±2 HRC Service environment: Max100℃

Code		D	L1	L2	L3	H	H1	T3	Mounting screws	(Kgf) Max. holding weight	@¥/P
ZZ5130-13	precision	13	6.6	1.4	4.3	1	10	1.6	M2-16	3.5	
ZZ5130-18		18	9.6	2	6	1.8	14	2	M3-20	4.5	
ZZ5130-27		27	14.4	3	9	2.8	21	3	M4-25	9.5	

Installation Guidelines:
- Use this type mold must process the"∧"groove at the corresponding position on the slide.
- The processing installed hole in mold and "∧"groove must be 90 degree, to make the biggest function from the lock.

Functional chart:


Mold closed



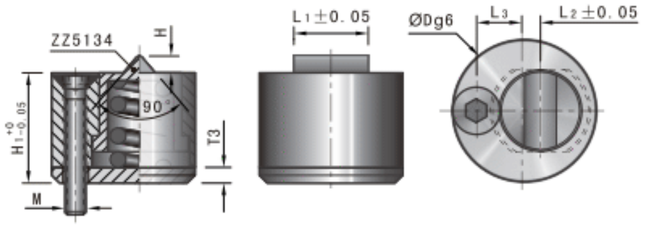
Mold opened

DIN

Slide holding devices

ZZ5130B





Features:

1.ZZ5130 Slide holding devices with outside small shape and occupy the small space.
2.ZZ5130 Slide holding devices is the best convenient installment of the slide retainer series.
3.ZZ5130 Slide holding devices adopts precision machining to make location more accurate.

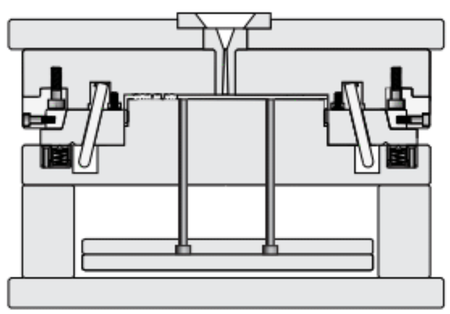
Order ZZ5130-13B Material :SKD61 Hardness:52±2 HRC Service environment: Max100°C

Code		D	L1	L2	L3	H	H1	T3	Mounting screws	(Kgf) Max. holding weight	@¥/P
ZZ5130-13B	standard	13	6.6	1.4	4.3	1	10	1.6	M2-16	3.5	
ZZ5130-18B		18	9.6	2	6	1.8	14	2	M3-20	4.5	

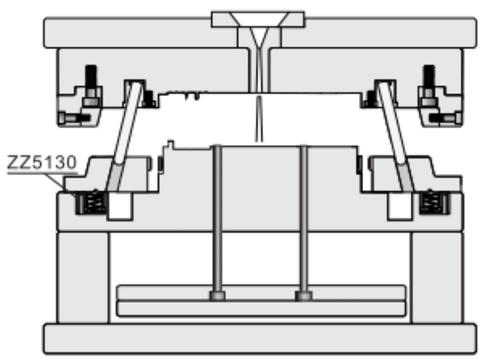
Installation Guidelines:

- Use this type mold must process the"∧"groove at the corresponding position on the slide.
- The processing installed hole in mold and "∧"groove must be 90 degree,to make the biggest function from the lock.

Functional chart:



Mold closed



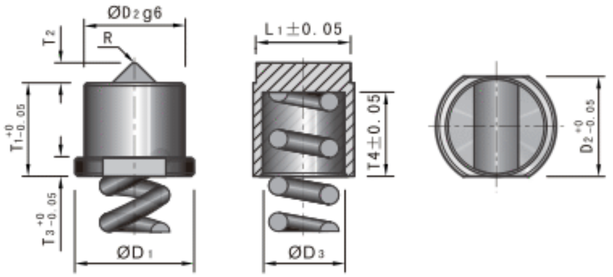
Mold opened

DIN

Slide holding devices

ZZ5134





Features:

1.Simple structure, convenient installment.
2.Use widely, can be single installment for using , also can be used to match up with Slide retainer ZZ4200.

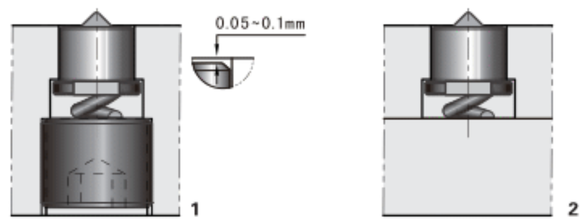
Installation Guidelines:

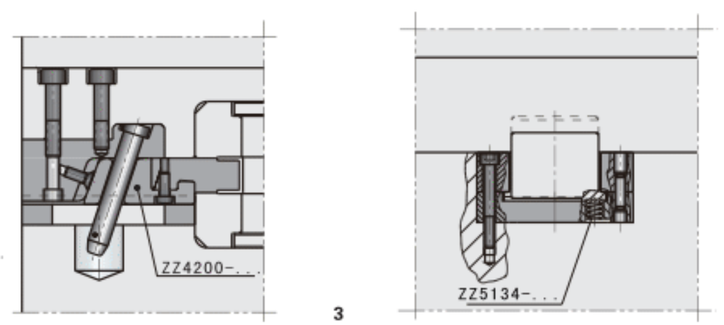
·Surface on the slide holding devices should be lower than surface of template installed or wear plate about for 0.05mm to 0.1mm.

Order ZZ5134-7 Material :SKD61 Hardness:52±2 HRC Service environment: Max100°C

Code	D2	L1	T1	T2	T3	T4	D1	D3	R	(Kgf) Max. holding weight	@¥/P
ZZ5134- 7	7	6.6	7	1	1.4	6.3	8.4	5.3	0.35	3.5	
ZZ5134-10	10	9.6	10	1.8	2	9	12	8.3	0.50	4.5	
ZZ5134-15	15	14.4	15	2.8	3	13.5	18	12.4	0.75	9.5	

Installation Diagram:





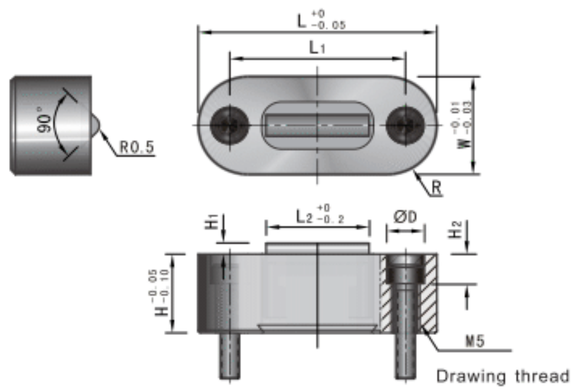
MOLD PARTNER

DIN

Slide holding devices

ZZ5140





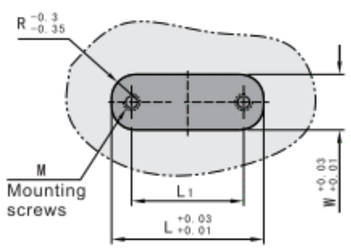
Features:
1.Compared with SSLK series, Spring adopt built-in type, easy to installation.
2. The extended 90 ° degree V-groove shoulder ensure the lock more balanced and stable.

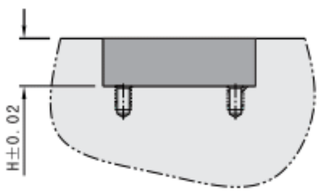
☎Order ZZ5140-0 Material :SKD11 Hardness:52-54HRC Service environment : Max100℃

Code		D	R	L	L1	L2	W	H	H1	H2	Mounting screws	(Kgf) Max. holding weight	@¥/P
ZZ5140-0	precision	8	6	38	28	16.5	14	12	1.8	4.5	M4-16	7	
ZZ5140-1			8	53	43	32	18	14			M4-25	12	

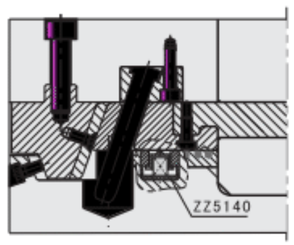
Installation Guidelines:
·As opened size diagram to process and install groove.
·When need to take out product , use one end of puller to connect with drawing thread to pull out.

Dimension chart:





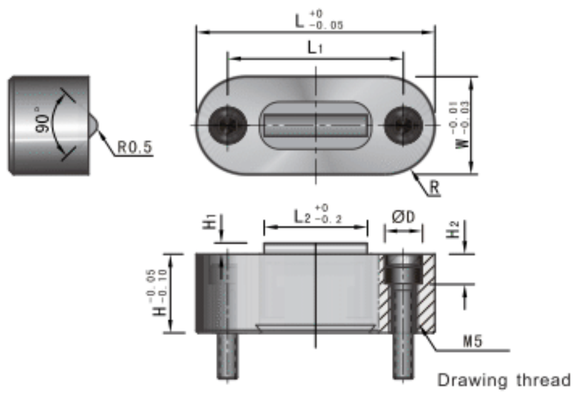
Installation Diagram:



Slide holding devices

ZZ5140





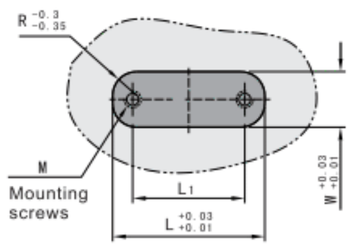
Features:
1.Precision alloy casting, Firm and durable.
2.Compared with SSLK series, Spring adopt built-in type, easy to installation.
3.The extended 90 degree slide shoulder ensure the lock more balanced and stable.

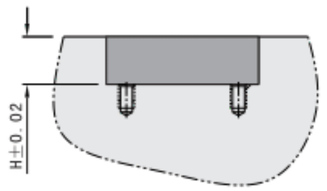
☎Order ZZ5140-0B Material :4118 Hardness:55-60HRC Service environment : Max100℃

Code		D	R	L	L1	L2	W	H	H1	H2	Mounting screws	(Kgf) Max. holding weight	@¥/P
ZZ5140-0B	standard	8	6	38	28	16.5	14	12	1.8	4.5	M4-16	7	
ZZ5140-1B			8	53	43	32	18	14			M4-25	12	

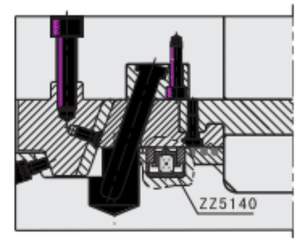
Installation Guidelines:
·As opened size diagram to process and install groove.
·When need to take out product , use one end of puller to connect with drawing thread to pull out.

Dimension chart:





Installation Diagram:

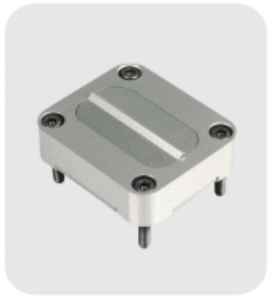


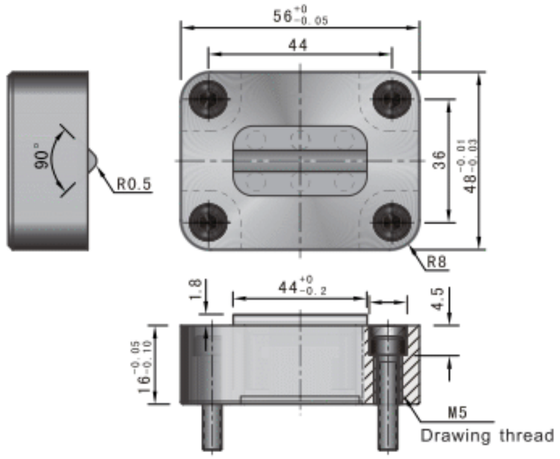
MOLD PARTNER

DIN

Slide holding devices

ZZ5140





Order ZZ5140-2 Material :SKD11 Hardness:52-54HRC Service environment: Max100℃

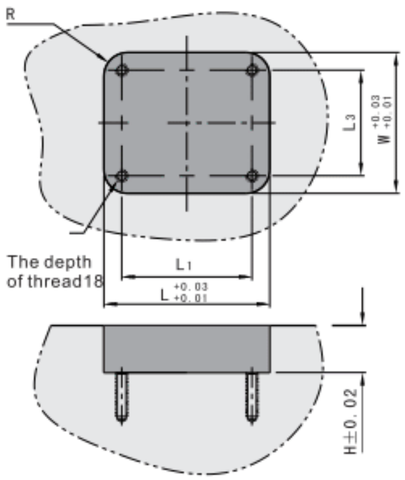
Code	Mounting screws	(Kgf) Max. holding weight	@¥/P
ZZ5140-2	M4-25	25	

Installation Guidelines:

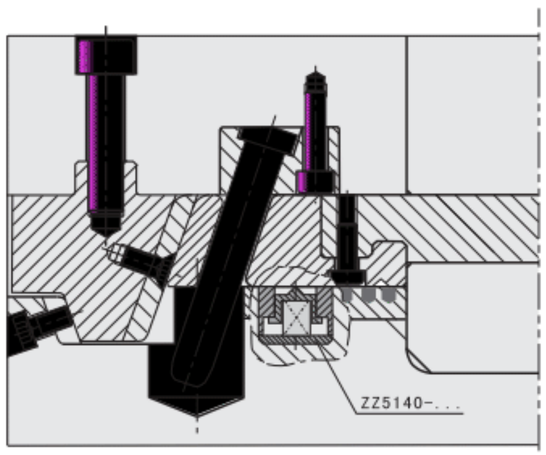
·As opened size diagram to process and install groove.

·When need to take out product , use one end of puller to connect with drawing thread to pull out.

Dimension chart:



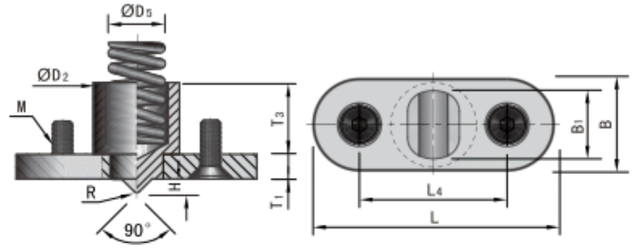
Installation Diagram:



DIN

Slide holding devices

EE3044





Features:

1.Unique structure Design, simple and convenient installment.

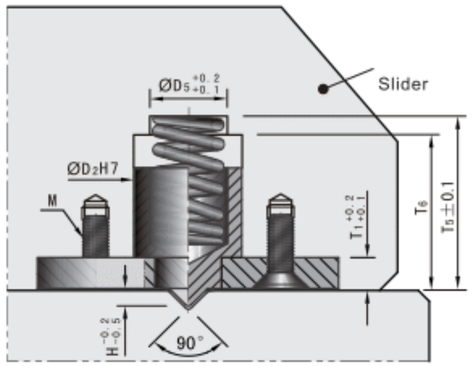
2.It is consist of spring, inner insert, baffle and screw.

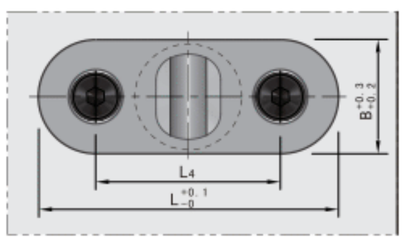
3.The material is SKD11 for inner insert, which is prolonged and durable use.

Order EE3044-8

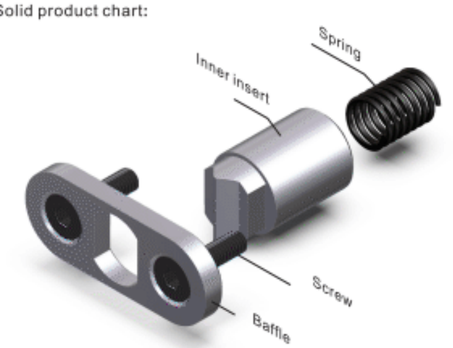
Code	D2	D5	B	B1	F(N)	L	L4	T1	T3	T5	T6	H	R	M	@ /P
EE3044- 8	9	5	12	8	28	30	18	3	11	19	17	1.2	0.35	M4	
EE3044-12	13	8	16	12	38	38	22	4	14	24	22	2.2	0.5		
EE3044-16	18	12	20	16		50	30	5	22	34	32	3.2	0.8	M5	

Installation Diagram:





Solid product chart:



② Inner insert: **Material :SKD11** **Hardness:55-60HRC**

Installation Guidelines:

·The product can adopt flip chip in slider.

·"V" groove need be processed by yourself.

·Need to calculate the travel accurately before installment.

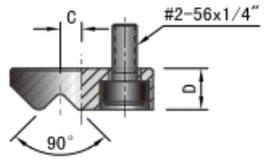
AISI

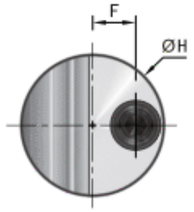
Slide holding devices

SSLK

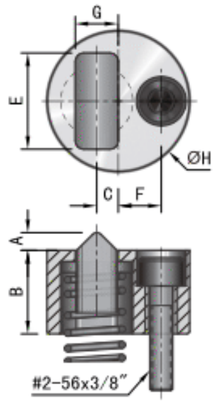








cover



body

Notice:the standard type don't offer cover.

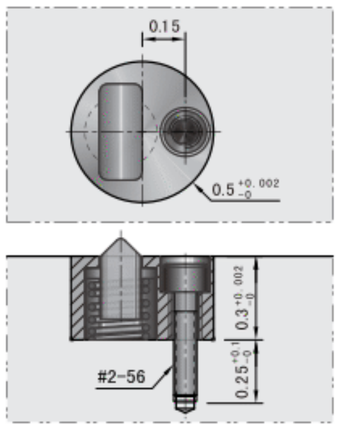
Order SSLK-8A Material :SKD11 Hardness:55-62HRC

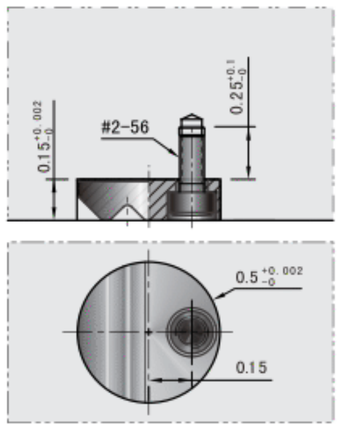
Code		A	B	C	D	E	F	G	H	(Kgf) Max. holding weight	@¥/P
SSLK-8A	precision	1.57 (0.062)	7.49 (0.295)	1.9 (0.075)	3.68 (0.145)	8.64 (0.34)	3.81 (0.15)	3.81 (0.15)	12.65 (0.498)	3.5	

Features:
1. Ultra-compact design fits with the mold in very limited installation.
2. The slide devices can coordinate and hold more precise with their cover.
3. Prevent the slider become flexible.
4. High strength tool material construction provides durable production life.

Installation Guidelines:
- The cover need on the slide, body need on the module when install.
- The slide stroke need refined calculation before opened.

Installation Diagram:

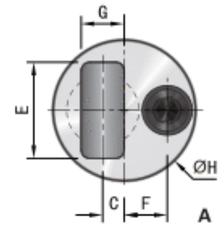


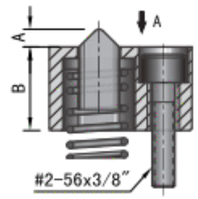


AISI

Slide holding devices

SSLK







Notice:the standard type don't offer cover.

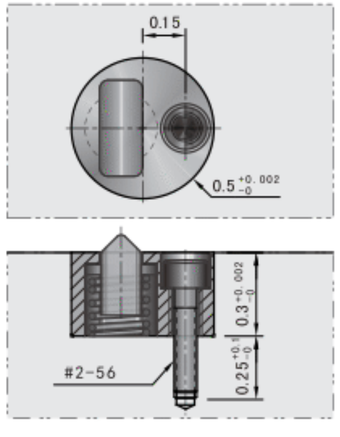
Features:
1. This product are smallest volume in all slide retainer can fully and reasonably to use of space. Adopt alloy material precision casting, firm and durable.
2. The slide devices can coordinate and hold more precise with their cover.

Order SSLK-8AB Material :4118 Hardness:55-60HRC

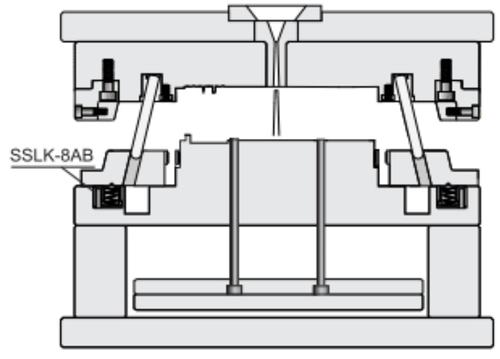
Code		A	B	C	D	E	F	G	H	(Kgf) Max. holding weight	@¥/P
SSLK-8AB	standard	1.57 (0.062)	7.49 (0.295)	1.9 (0.075)	3.68 (0.145)	8.64 (0.34)	3.81 (0.15)	3.81 (0.15)	12.65 (0.498)	3.5	

Installation Guidelines:
- SSLK-8AB don't offer cover, need customer own process "∧-groove"on the slide when installation.
- The installed hole need be vertical with "∧-groove" to make the biggest function from the lock.

Installation Diagram:



Functional chart:



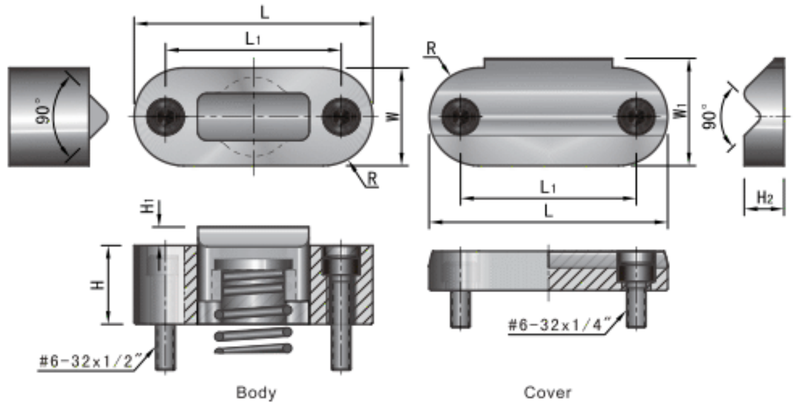
Mold opened

AISI

Slide holding devices

SSLK





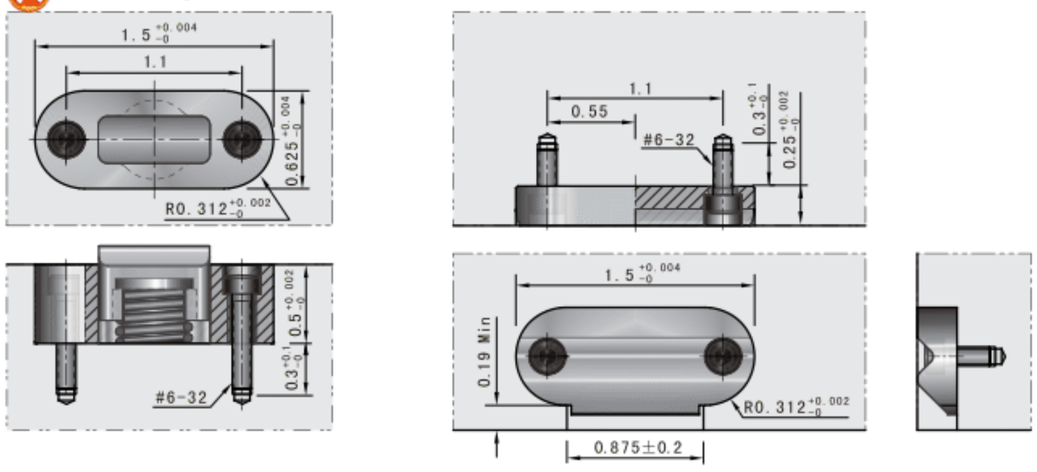
Features:
1.Compared with SSLK-8A, SSLK-25A is oval with reasonable size to rate up holding more weight.
2.The extended 90 degree shoulder ensure the lock more balanced and stable.

Installation Guidelines:
·The cover need on the slide,body install on mould board.
·The slide stroke need refined calculation before opened.

Order SSLK-25A Material :SKD11 Hardness:55-62HRC

Code		L	L1	H	H1	H2	W	W1	R	Mounting screws	(Kgf) Max. holding weight	@¥/P
SSLK-25A	precision	37.95 (1.494)	27.94 (1.1)	12.67 (0.499)	2.97 (0.117)	6.32 (0.249)	15.75 (0.62)	17.27 (0.68)	7.92 (0.312)	#6-32-1/2 #6-32-1/4	11.25	

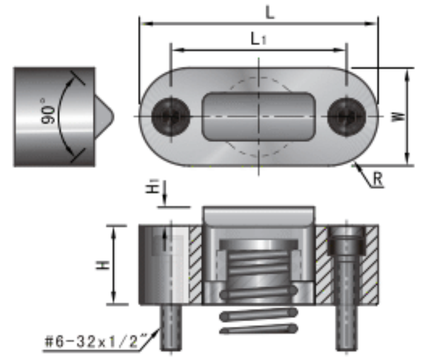
Installation Diagram:



AISI

Slide holding devices

SSLK





Notice:the standard type don't offer cover.

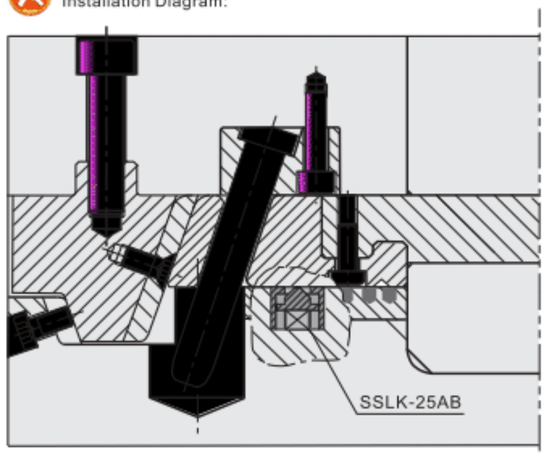
Features:
1.Compared with SSLK-8A, SSLK-25A is oval with reasonable size to rate up holding more weight.
2.The extended 90 degree shoulder ensure the lock more balanced and stable.
3.SSLK-25A adopts precision alloy, with strong,durable construction.

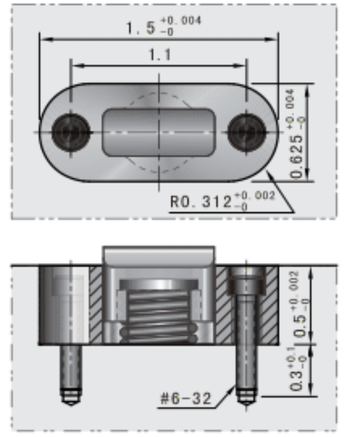
Installation Guidelines:
·SSLK-25A don't offer cover, need customer own process "∧-groove"on the slide when installation.

Order SSLK-25AB Material :4118 Hardness:55-60HRC

Code		L	L1	H	H1	H2	W	W1	R	Mounting screws	(Kgf) Max. holding weight	@¥/P
SSLK-25AB	standard	37.95 (1.494)	27.94 (1.1)	12.67 (0.499)	2.97 (0.117)	6.32 (0.249)	15.75 (0.62)	17.27 (0.68)	7.92 (0.312)	#6-32-1/2 #6-32-1/4	11.25	

Installation Diagram:



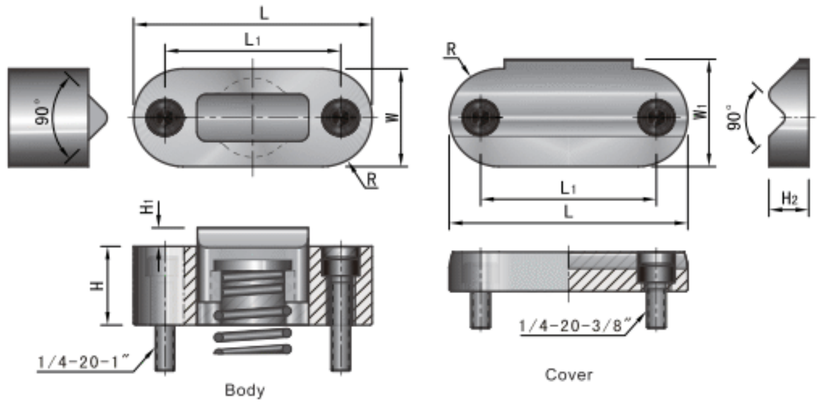


AISI

Slide holding devices

SSLK





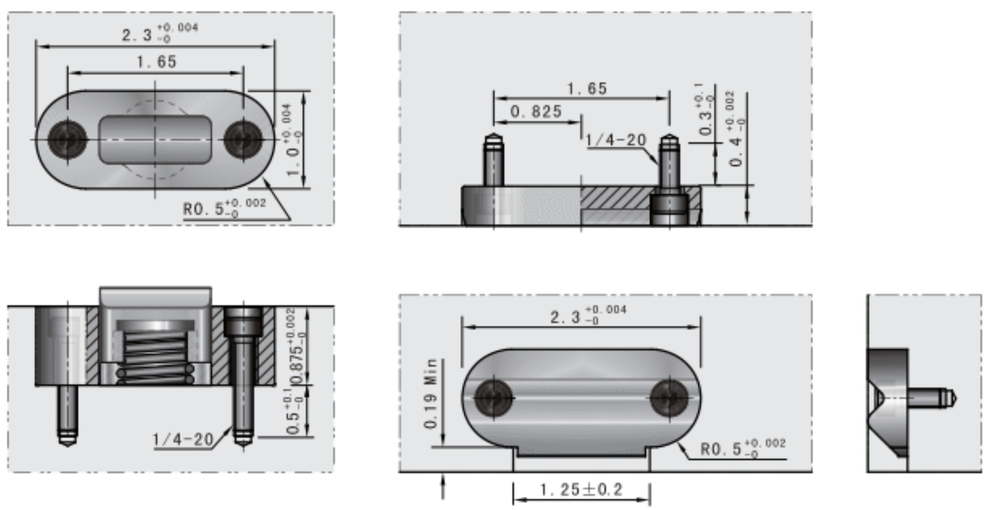
Order SSLK-50A Material :SKD11 Hardness:55-62HRC

Code	L	L1	H	H1	H2	W	W1	R	Mounting screws	(Kgf) Max. holding weight	@ ¥ /P
SSLK-50A	58.22 (2.292)	41.91 (1.65)	21.84 (0.86)	4.34 (0.171)	9.78 (0.385)	25.3 (0.996)	26.87 (1.058)	12.7 (0.498)	1/4-20-1" 1/4-20-3/8	22.5	

Installation Guidelines:

·The slide holding devices of SSLK-50A can hold weight 22.5kgf, be mainly used to Injection mould.
·Several slide retainers can be installed in mold, in order to bear more load.
·The cover is usually installed in slider, with oval shape design, easy to mold open and installment.

Installation Diagram:

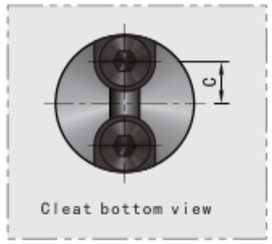


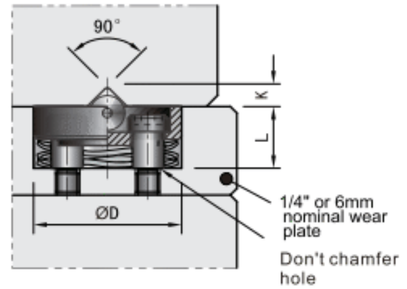
AISI

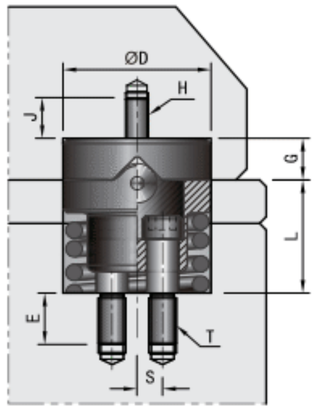
Slide holding devices

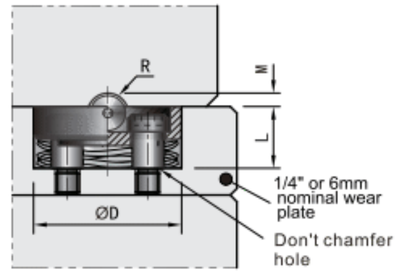
SSRT SSRTM











Features:

1.Compared with other slide holding devices, can protect the retainer from damage.
2.The location parts is ball, can be friction reduced and slide smooth.
3.Don't chamfer hole when install, the screw will fall into hole if chamfer.

Order SSRT-30 Material :FDAC Hardness:900HV~

Code	D +0.005 -0	L ±0.001	S ±0.002	T	E	(lbs) Max.holding weight	@ /P	Cleat code	G ±0.001	C ±0.002	H	J	@ /P
SSRT-30	0.75	0.5	0.15	#8-32	0.19	30		SSRTC-30	0.25	0.25	#6-32	0.25	
SSRT-80	0.875	0.75			0.245	80		SSRTC-80		0.3			

Order SSRTM-04 Material :FDAC Hardness:900HV~

Code	D +0.005 -0	L ±0.001	S ±0.002	T	E	(lbs) Max.holding weight	@ /P	Cleat code	G ±0.001	C ±0.002	H	J	@ /P
SSRTM-13	19.1	12.7	3.8	M4	4.8	13.5		SSRTMC-13	6.35	6.35	M3	6.35	
SSRTM-36	22.3	19.05			6.2	36		SSRTMC-36		7.6			

Code	V-Groove	Ball Cut		Code	V-Groove	Ball Cut	
	K	R	M		K	R	M
SSRT-30 SSRT-80	0.078	0.125	0.03	SSRTM-13 SSRTM-36	2mm	3mm	0.75mm

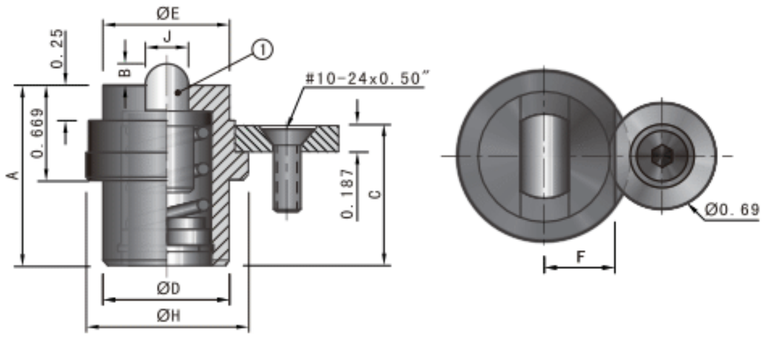
MOLD PARTNER

AISI

Slide holding devices

PPSR



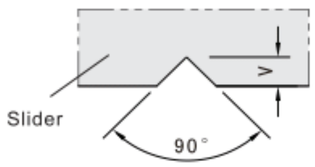


Order PPSR-1000 Material :SKD11 Hardness:58-62HRC

Code		A	B	C	D	E	F	H	J
PPSR-1000	precision	1.08	0.072	0.795	0.62	0.63	0.375	0.866	0.188
PPSR-2000		1.32	0.121	1.035	0.74	0.748	0.42	0.984	0.250
PPSR-4000		1.26	0.149	0.975	0.87	0.866	0.468	1.102	0.312

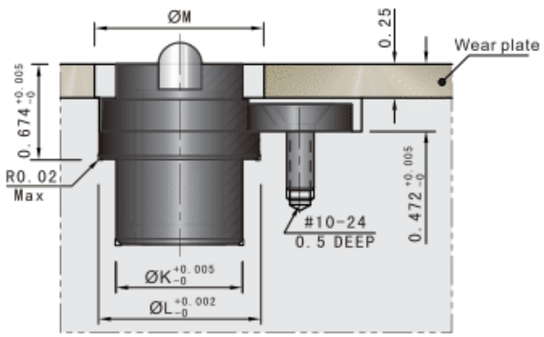
Code		V	K	L	M	N	(Kgf) Max. holding weight	@¥/P
PPSR-1000	precision	0.091	0.625	0.869	0.94	0.67	4.5	
PPSR-2000		0.153	0.750	0.987	1.06	0.715	9	
PPSR-4000		0.194	0.875	1.105	1.19	0.763	18	

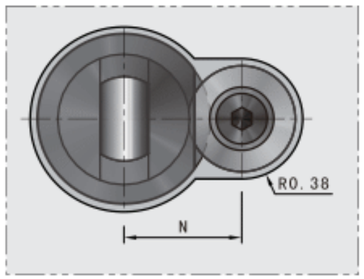
Installation Diagram:



Features:
1.Self-contained design,integrative device.
2.Easy installation, and small in size.
3.Must process "V"groove in the mold to install PPSR.
4.Strong, durable construction.can be used to bear load by one or more to meet requirements.

Installation Guidelines:
·Strict to process installment as opening size of installation.
·Can use several product to install for adding load.



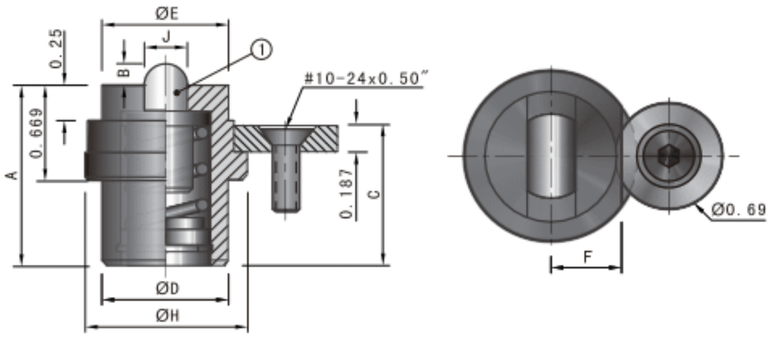


AISI

Slide holding devices

PPSR



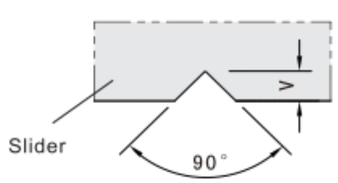


Order PPSR-1000B Material :SCM435 Hardness:50-55HRC

Code		A	B	C	D	E	F	H	J
PPSR-1000B	standard	1.08	0.072	0.795	0.62	0.63	0.375	0.866	0.188
PPSR-2000B		1.32	0.121	1.035	0.74	0.748	0.42	0.984	0.250

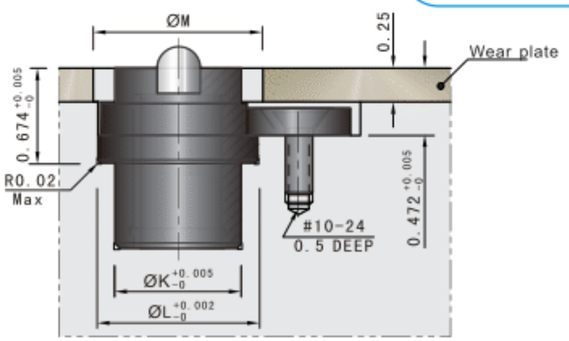
Code		V	K	L	M	N	(Kgf) Max. holding weight	@¥/P
PPSR-1000B	standard	0.091	0.625	0.869	0.94	0.67	4.5	
PPSR-2000B		0.153	0.750	0.987	1.06	0.715	9	

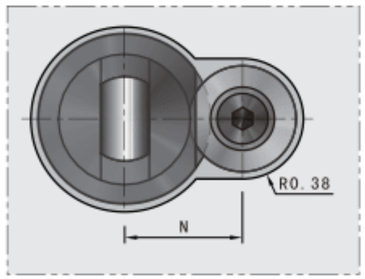
Installation Diagram:



Features:
1.Self-contained design,integrative device.
2.Easy installation, and small in size.
3.Must process "V"groove in the mold to install PPSR.
4.Strong, durable construction.can be used to bear load by one or more to meet requirements.

Installation Guidelines:
·Strict to process installment as opening size of installation.
·Can use several product to install for adding load.

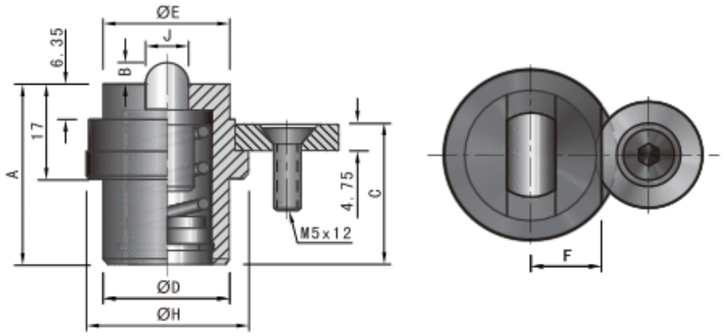




AISI

Slide holding devices

PPSR





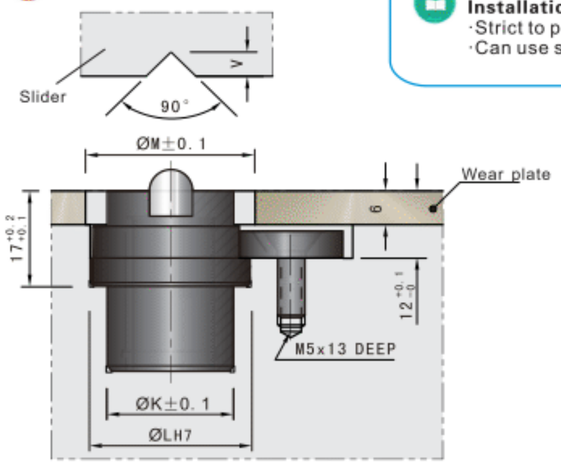
Features:
1. Self-contained design,integrative device.
2. Easy installation, and small in size.
3. Must process "V"groove in the mold to install PPSR.
4. Strong, durable construction.can be used to bear load by one or more to meet requirements.

Order PPSR-100 Material :SKD11 Hardness:58-62HRC

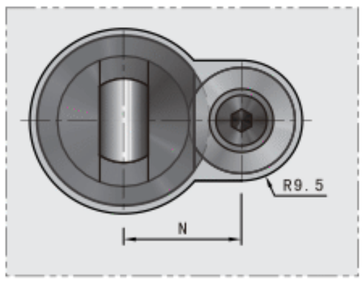
Code	A	B	C	D	E	F	H	J
PPSR-100	27.43	1.83	20.2	15.75	16	9.52	22	4.78
PPSR-200	33.53	3.07	26.3	18.8	19	10.67	25	6.35
PPSR-400	32	3.78	24.76	22.1	22	11.86	28	7.92

Code	V	K	L	M	N	(Kgf) Max. holding weight	@¥/P
PPSR-100	2.3	15.87	22	24	17	4.5	
PPSR-200	3.9	19.05	25	27	18.2	9	
PPSR-400	4.9	22.23	28	30	19.4	18	

Installation Diagram:



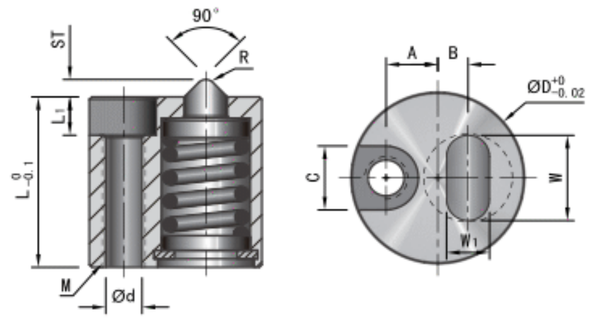
Installation Guidelines:
·Strict to process installment as opening size of installation.
·Can use several product to install for adding load.



JIS

Slide holding devices

SSLLK





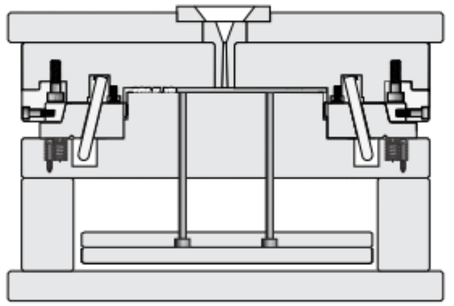
Order SSLLK16-C Material :SKD11 Hardness:58-62HRC

Code	D	ST	L	L1	A	B	C	d	W	W1	R	Mounting screws	(Kgf) Max. holding weight	@ /P
SSLLK16-C	16	1.6	15	3.3	5	2.5	6	3.2	8	4	1	M3	28.6	
SSLLK16-F													78.8	
SSLLK20-F	20	2	20	4.5	6	3.5	7.5	4.3	10	5	1.1	M4	62.9	
SSLLK20-L													110	

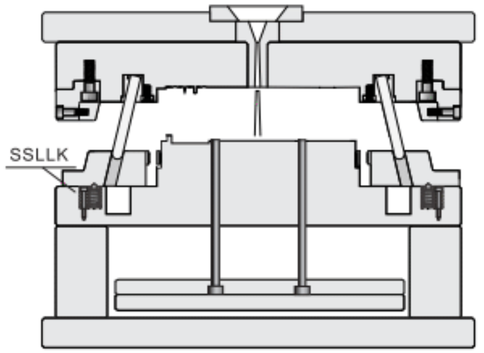
Features:
1. This type slide holding devices are mainly used in large-scale retainer construction.
2. Face to face design, to reduce the pressure of surface and be effective to protect retainer construction from damage.

Installation Guidelines:
·The mold will use SSLLK, need process "∧-groove" on the corresponding location of the lock.
·The installed hole on the mold need be vertical with "∧-groove" to make the biggest function from the lock.
·The heavy load may lead to the slider angle pin to sintering, Be better to reduce the hinder strength or use the underload slide holding devices .

Functional chart:



Mold closed



Mold opened

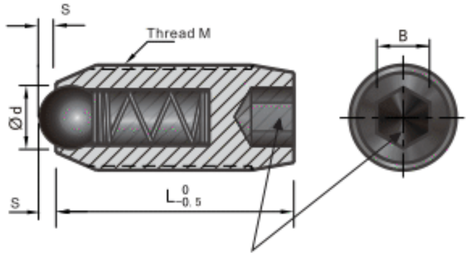
JIS

Slide holding devices / Slide Stoppers

BSJ BPJ

CAD 2D





"–" slotted head screw is available

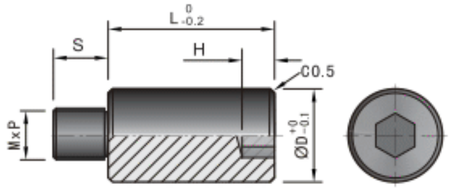
Order BSJ-M BSJ Material： S45C BPJ Material： SUS304

Code	M	d	L	B	S	min.	max.	@ /P
BSJ BPJ	4	2.5	9	2	0.7	3.9	9.8	
	5	3	12	2.5	0.9	4.9	19.6	
	6		13	3	1	9.8	29.4	
	8	4	15	4	1.5	12.7	39.2	
	10	5	16	5	2.0	18.6	49	
	12	7	20	6	2.5	19.6	58.8	
	16	9.5	25	8	3.5	29.4	98	

SSLSP

CAD 2D

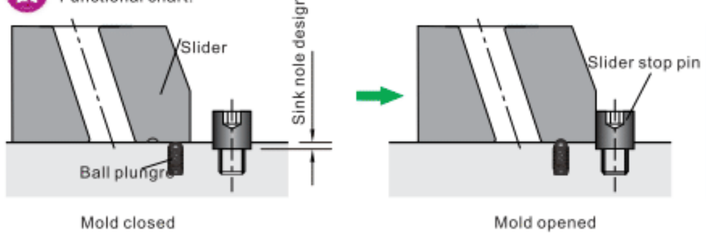




Order SSLSP-D Material： S45C Hardness:33-38HRC Surface treatment:Blacking

D	M×P	SW	H	S	@ /P L
10	M 6×1.0	5	4	10	15-40
16	M10×1.5	8	5	15	
20	M12×1.75	10	6	18	
25	M16×2.0	14	9	24	

Functional chart:



Installation Guidelines:
- Use inner hex wrench to lock stop pin.
- To improve strength, it is better to adopt countersink design.

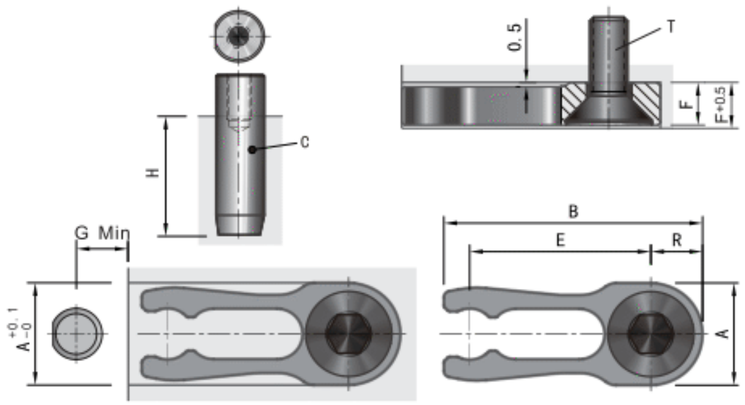
DIN

Slide retainers

RRC

CAD 2D | ADD FL





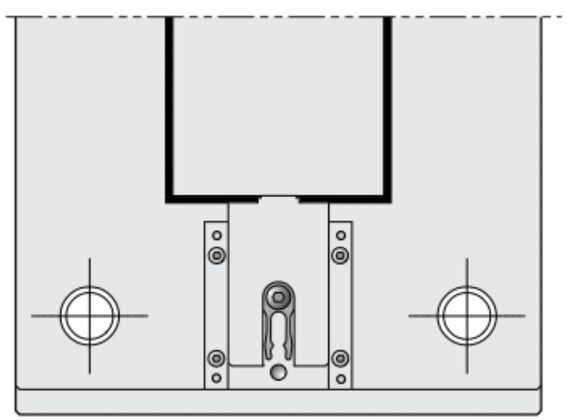
Order RRC-123006 Material :8407 Hardness:40-45HRC

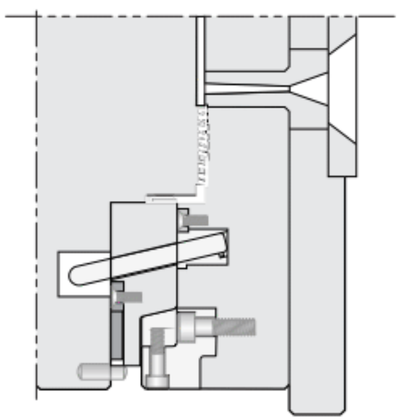
Code	A	B	C	E	F	G	H	K(kg)	R	T	@¥/P
RRC-123006	12	30	6×20	21	5	4	16	5	6	M 5×16	
RRC-164008	16	40	8×20	28	6	5	15	7	8	M 6×25	
RRC-205010	20	50	10×24	34	8	6	17	14	10	M 8×30	
RRC-246012	24	60	12×32	42	10	7	23	21	12	M10×40	
RRC-328012	32	80	16×40	56	12	9	27	28	16	M12×50	
RRC-328016					16		25	38			

Installation Guidelines:
- The product usually to be installed on the bottom of slide retainer.
- Dowel pin installed and the opening of slide retainer must be in the same direction.
- Retainer travel need accurate calculation before installment to protect the product from damage.

Features:
1. Simple structure and practical using, occupy small space for installment and fixation.

Installation Diagram:



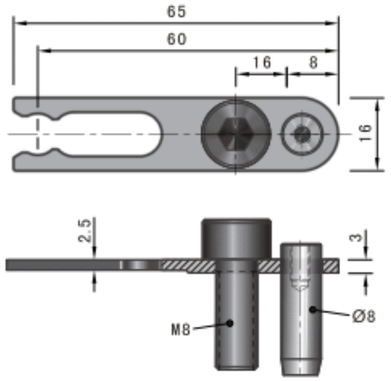


DIN

Slide retainers

RRM



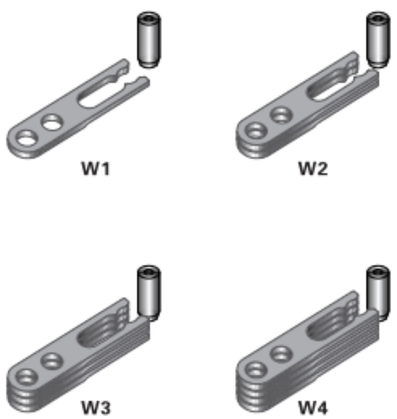


Features:

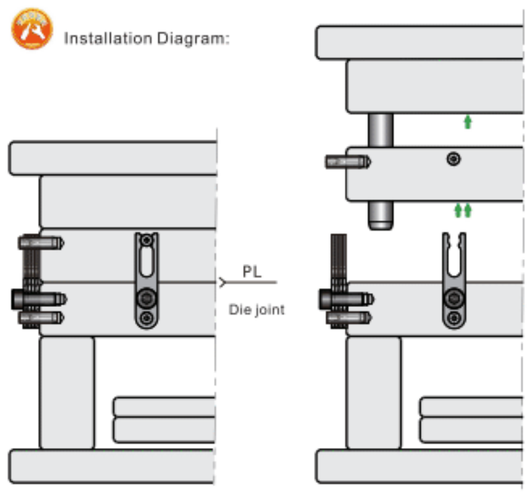
The RRM retainer is,useful for moulds that require delayed opening of parting line . Standard holding weight is 7.5kgf,Can be increased by adding clips. can be easy installation and operate.

Order RRM-651608 Material :8047 Hardness:40-45HRC

Code	(Kgf) Max. holding weight				@ /P
	W1	W2	W3	W4	
RRM-651608	7.5	15	22.5	30	



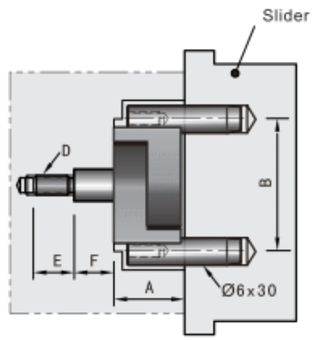
Installation Diagram:

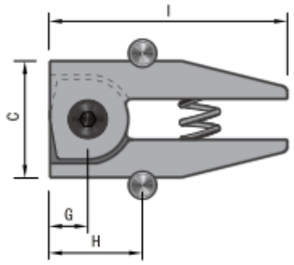


DIN

Slide retainers

ZZ189







Features:

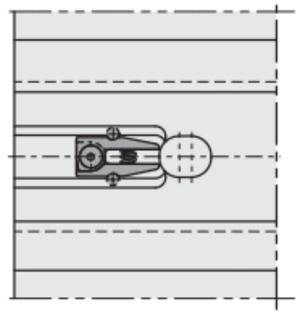
1.ZZ189 slide retainer is mainly used to large-scale slide construction.

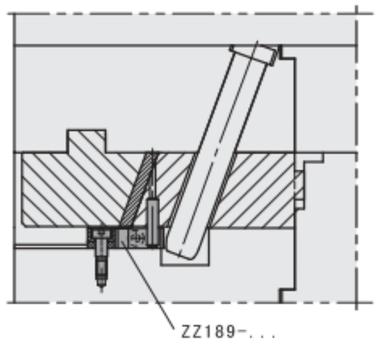
2.Simple installation, Adopt double dowel pin to fixed position, make much force balance.

Order ZZ189-10 Material :SKD11 Hardness:55-62HRC

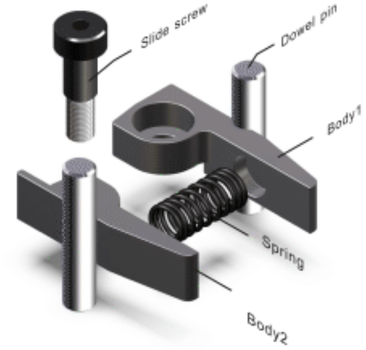
Code		A	B	C	E	F	G	H	I	D	Max.holding weight	Dowel pin	@ /P
ZZ189-10	precision	10	21.5	18	9.5	5.1	7	17.5	40	M5	Ø6-30	10	
ZZ189-12		12	25.5	22	11	6.1	7.5	18	43	M6		15	
ZZ189-16		16	31.5	28		3.1	9.5	20.5	50			25	

Installation Diagram:





Product space chart:



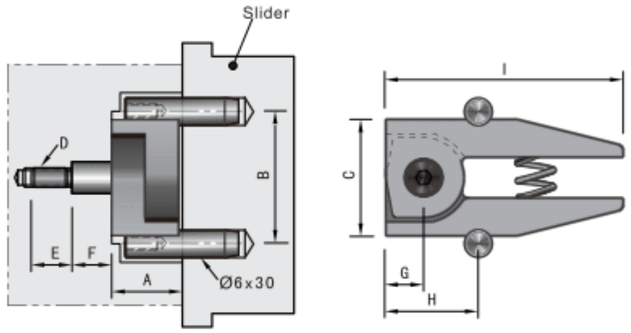
Installation Guidelines:

- The installed hole of slide screw(F) can not be too deep, must work smoothly to match with body after lock.
- The dowel pin is on the slider,the body is fixed on the template, and need calculate the distance of slider accurately.

Slide retainers

ZZ189



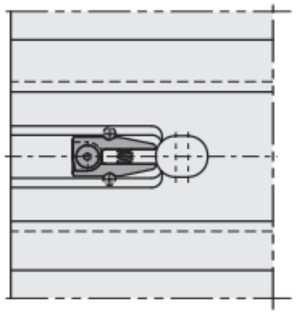


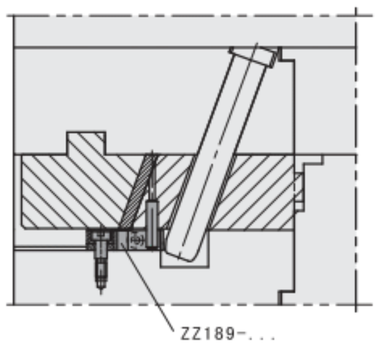
Features:
1.ZZ189 slide retainer adopts precision alloy to mould , which is with Strong ,durable construction.
2.Simple installation, ZZ189 slide retainer with two dowel pins to locate , which will lock more balanced.

Order ZZ189-10B Material :4118 Hardness:55-60HRC

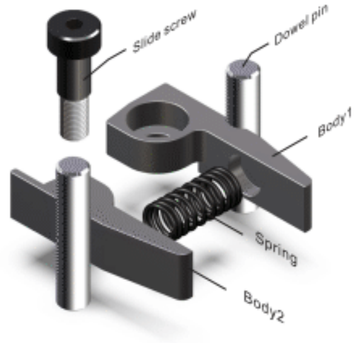
Code		A	B	C	E	F	G	H	I	D	Max.holding weight	Dowel pin	@ /P
ZZ189-10B	standard	10	21.5	18	9.5	5.1	7	17.5	40	M5	Ø6-30	10	
ZZ189-12B		12	25.5	22	11	6.1	7.5	18	43	M6		15	

Installation Diagram:





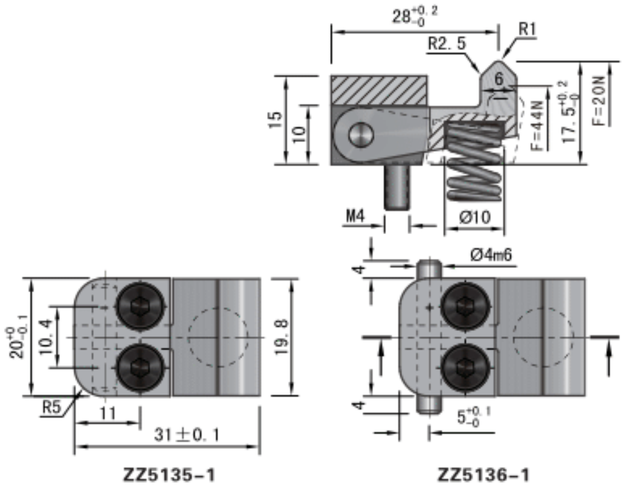
Product space chart:



Installation Guidelines:
·The installed hole of slide screw(F) can not be too deep, must work smoothly to match with body after lock.
·The dowel pin is on the slider,the body is fixed on the template, and need calculate the distance of slider accurately.

Slide retainers

ZZ5135 ZZ5136



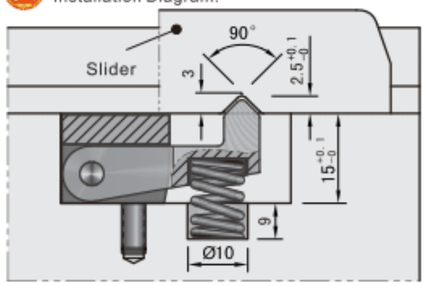
ZZ5135-1 ZZ5136-1

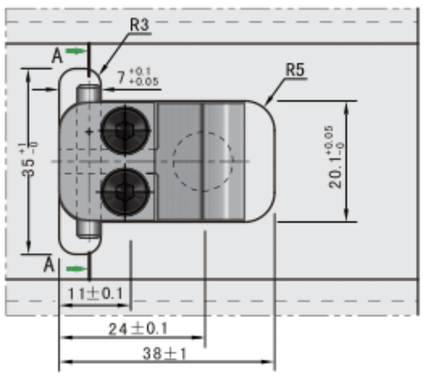


Order ZZ5135-1 Material :Cr12MoV Hardness:58-62HRC

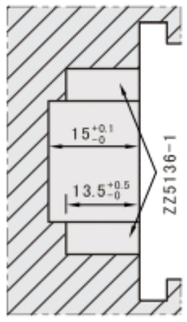
Code	Mounting screws	(Kgf) Max. holding weight min.	(Kgf) Max. holding weight max.	@ /P
ZZ5135-1 ZZ5136-1	M4×16	2	4.4	

Installation Diagram:





Installation Guidelines:
·Maximum working temperature:Max 100□ .
·The dowel pin for ZZ5136 is 4mm higher than that for ZZ5135, can be accurate positioning.
·Without 90° "V" groove on the slider, which need processed by yourself.



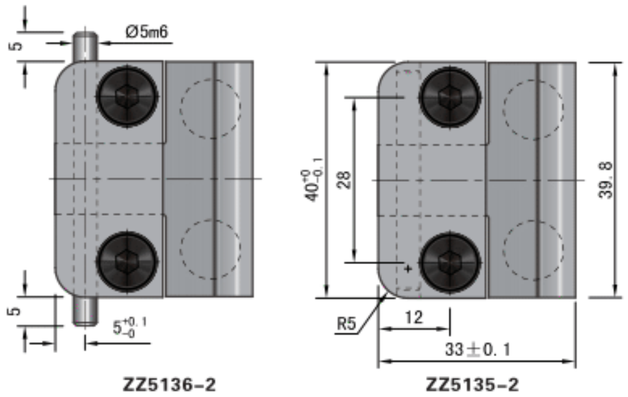
A-A

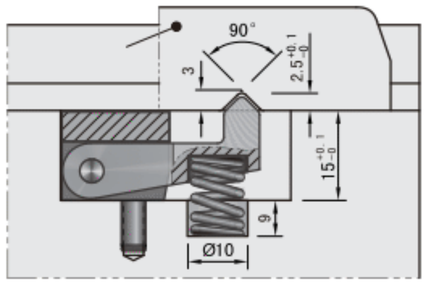
DIN

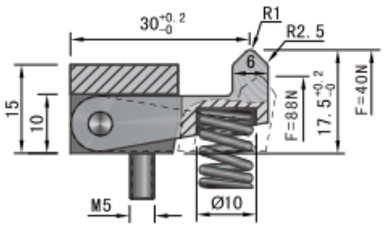
Slide retainers

ZZ5135
ZZ5136

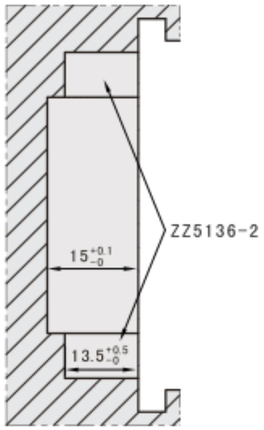




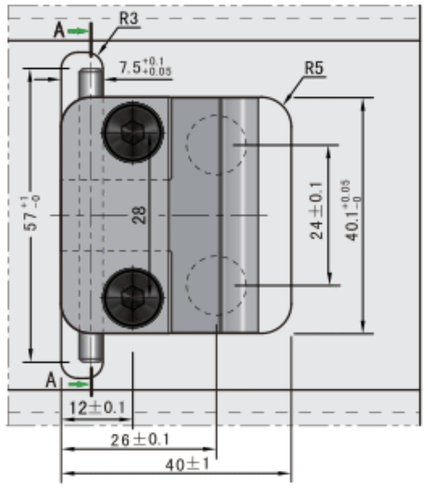




Installation Diagram:



A–A



Order ZZ5135-2 Material :Cr12MoV Hardness:58-62HRC

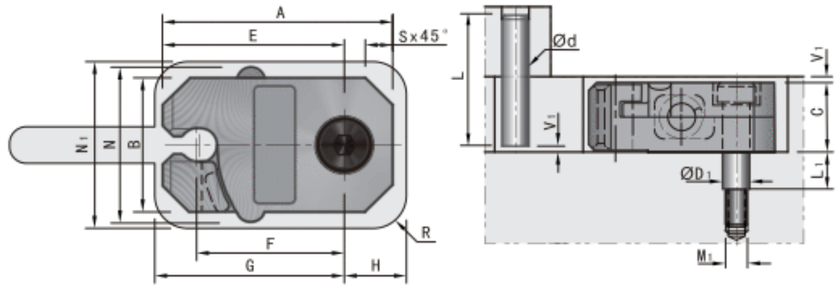
Code	Mounting screws	(Kgf) Max. holding weight		@ /P
		min.	max.	
ZZ5135-2 ZZ5136-2	M5×16	4	8.8	

AISI

Slide retainers

PPSL





Installation Guidelines:
·Dowel pin need to install with 90°.
·Dowel pin installed and the opening of slide retainer must be in the same direction.
·Retainer travel need accurate calculation.

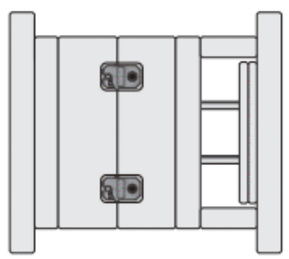
Features:
1.Strong, durable construction.
2.PPSL series are inch, can meet various countries customer requirements.
3.It can be used as latch lock if there is no special request on the sequence of the mold closing.
4.Designed with over-travel,to avoid the damage by the inaccurate settle of the travel.

Order PPSL-0001 Material :4118 Hardness:55-62HRC

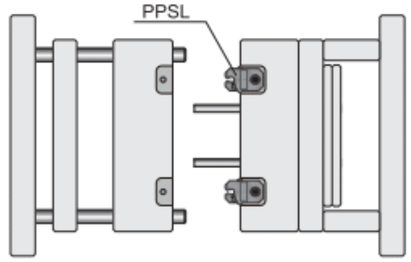
Code		A	B	C	E	F	N	S	d	L	G	H
PPSL-0001	precision	1.5	0.76	0.63	1.23	0.98	0.94	0.14	0.25	1.25	1.35	0.39
PPSL-0002		2.13	1.26	0.79	1.69	1.375	1.44	0.25	0.312	1.5	1.81	0.56
PPSL-0003		3.38	1.76	1.18	2.63	2.125	1.94	0.38	0.375	2.25	2.75	0.88

Code		N1	R	D1	L1	V1	M1	(Kgf) Max. slide weight	@¥/P
PPSL-0001	precision	1	0.31	0.249	0.31	0.06	# 10-24×0.5 DEEP	10	
PPSL-0002		1.5	0.37	0.3115	0.43		1/ 4-20×0.56DEEP	20	
PPSL-0003		2	0.5	0.374	0.58		5/16-18×0.62DEEP	40	

Functional chart:



Mold closed

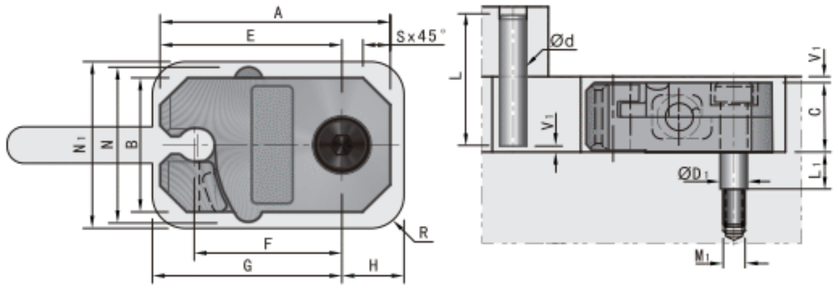


Mold opened

Slide retainers

PPSL





Installation Guidelines:
- Dowel pin need to install with 90°.
- Dowel pin installed and the opening of slide retainer must be in the same direction.
- Retainer travel need accurate calculation.

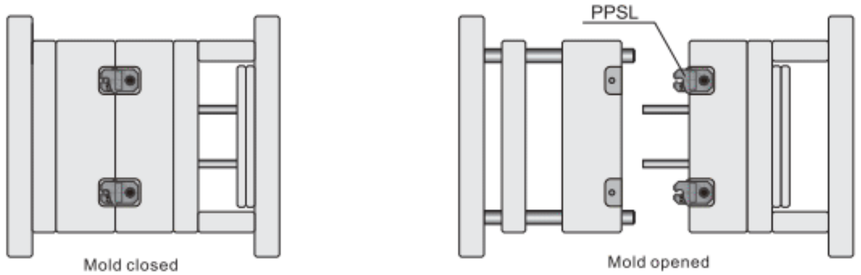
Features:
1. Strong, durable construction.
2. PPSL series are inch, can meet various countries customer requirements.
3. It can be used as latch lock if there is no special request on the sequence of the mold closing.
4. Designed with over-travel,to avoid the damage by the inaccurate settle of the travel.

Order PPSL-0001B Material :SCM435 Hardness:50-55HRC

Code		A	B	C	E	F	N	S	d	L	G	H
PPSL-0001B	standard	1.5	0.76	0.63	1.23	0.98	0.94	0.14	0.25	1.25	1.35	0.39
PPSL-0002B		2.13	1.26	0.79	1.69	1.375	1.44	0.25	0.312	1.5	1.81	0.56

Code		N1	R	D1	L1	V1	M1	(Kgf) Max. slide weight	@¥/P
PPSL-0001B	standard	1	0.31	0.249	0.31	0.06	# 10-24×0.5 DEEP	10	
PPSL-0002B		1.5	0.37	0.3115	0.43		1/ 4-20×0.56DEEP	20	

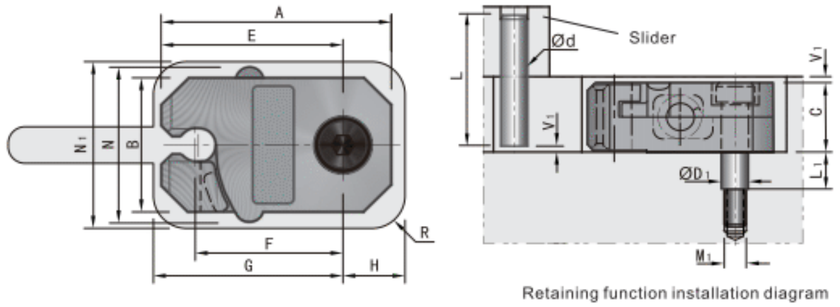
Functional chart:



Slide retainers

PPSM





Retaining function installation diagram

Installation Guidelines:
- Dowel pin need to install with 90°.
- Dowel pin installed and the opening of slide retainer must be in the same direction.
- Retainer travel need accurate calculation.

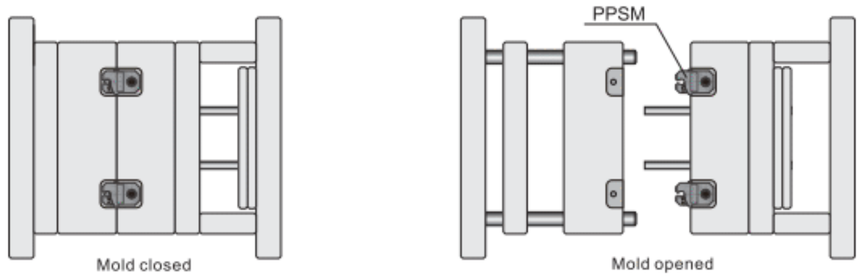
Features:
1. Strong, durable construction.
2. PPSM series are metric, can meet various countries customer requirements.
3. It can be used as latch lock if there is no special request on the sequence of the mold closing.
4. Designed with over-travel, to avoid the damage by the inaccurate settle of the travel.

Order PPSM-0001 Material :4118 Hardness:55-62HRC

Code		A	B	C	E	F	N	G	H
PPSM-0001	precision	38	19	16	31.5	24.89	24	34.5	10
PPSM-0002		54	32	20	43	34.93	36.5	46	14.5
PPSM-0003		86	45	30	67	53.98	49.5	70	22.5

Code		N1	R	D1	L1	V1	M1	d	(Kgf) Max. slide weight
PPSM-0001	precision	25.5	8	6	8.5	1.5	M5×11.5DEEP	6	10
PPSM-0002		38	10	8	10.5		M6×14.5DEEP	8	20
PPSM-0003		51	12	10	17		M8×18 DEEP	10	40

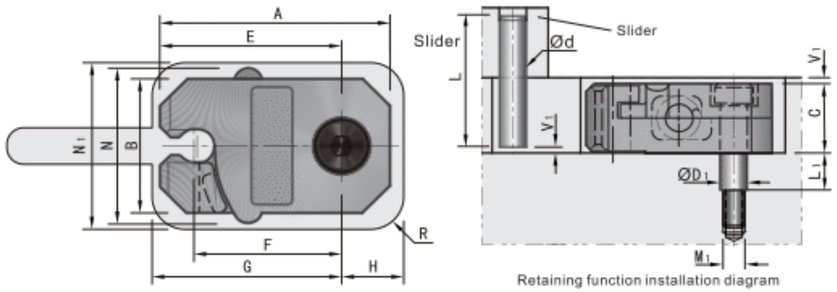
Functional chart:



Slide retainers

PPSM





Retaining function installation diagram

Installation Guidelines:

·Dowel pin need to install with 90°.
·Dowel pin installed and the opening of slide retainer must be in the same direction.
·Retainer travel need accurate calculation.

Features:

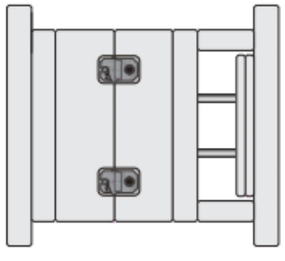
1.Strong, durable construction.
2.PPSM series are metric, can meet various countries customer requirements.
3.It can be used as latch lock if there is no special request on the sequence of the mold closing.
4.Designed with over-travel, to avoid the damage by the inaccurate settle of the travel.

Order PPSM-0001B Material :SCM435 Hardness:50 ‾ 55HRC

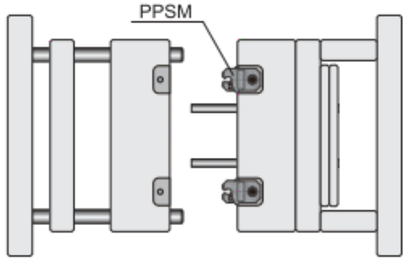
Code		A	B	C	E	F	N	G	H
PPSM-0001B	standard	38	19	16	31.5	24.89	24	34.5	10
PPSM-0002B		54	32	20	43	34.93	36.5	46	14.5

Code		N1	R	D1	L1	V1	M1	d	(Kgf) Max. slide weight
PPSM-0001B	standard	25.5	8	6	8.5	1.5	M5×11.5DEEP	6	10
PPSM-0002B		38	10	8	10.5		M6×14.5DEEP	8	20

Functional chart:



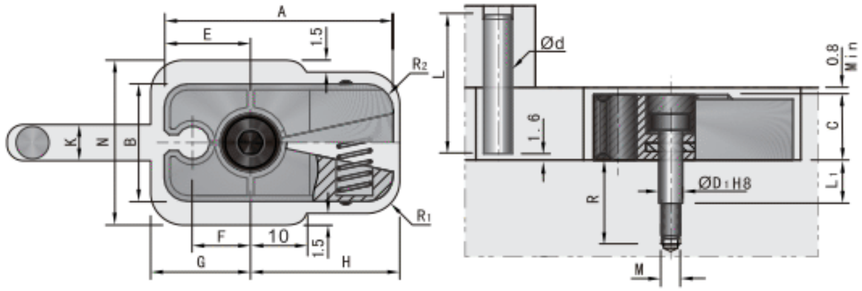
Mold closed



Mold opened

Slide retainers

MMRT





Order MMRT-10M Material :4118 Hardness:55-62HRC

Code		A	B	C	E	F	G	H	N	K
MMRT-10M	precision	38	19	16	16	9.1	19	26	25	8
MMRT-20M		54	32	20	21	12.7	24	36	36	10
MMRT-40M		86	45	30	53	20.3	36	56	56	12

Code		D1	L1	R	R1	R2	M	d	(Kgf) Max. slide weight
MMRT-10M	precision	6	6	15.5	8	5	M5	6	10
MMRT-20M		8	8.5	20.5	10	6	M6	8	20
MMRT-40M		10	10	25	13	10	M8	10	40

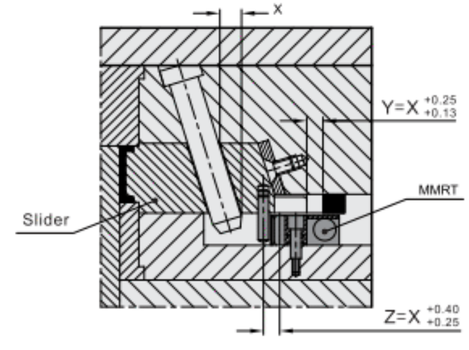
Features:

1.Same function as PPSL and PPSM,comparatively ,the F of this slide retainer is shorter,and locked with more precision..

Installation Guidelines:

·The body can not be dead lock with retainer screws, need reserve some room to move unlimited.
·The distance from the center of the dowel pin to the center of the stripper bolt must be calculate available while stocks lasts.
·To avoid the mold be in danger of slipping, the code what you used should more loader than it need .

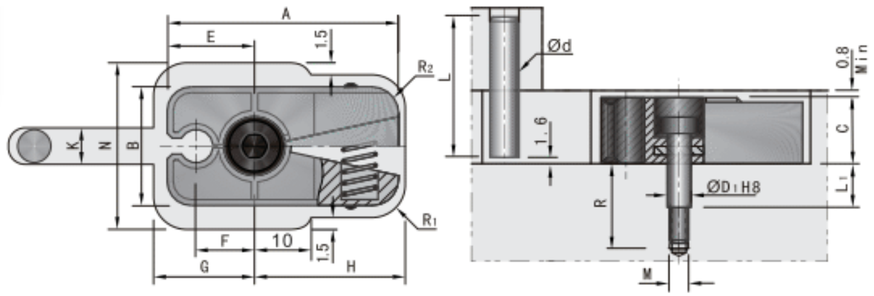
Installation Diagram:



Slide retainers

MMRT





Order MMRT-10MB Material :SCM435 Hardness:50-55HRC

Code		A	B	C	E	F	G	H	N	K
MMRT-10MB	standard	38	19	16	16	9.1	19	26	25	8
MMRT-20MB		54	32	20	21	12.7	24	36	36	10

Code		D1	L1	R	R1	R2	M	d	(Kgf) Max. slide weight
MMRT-10MB	standard	6	6	15.5	8	5	M5	6	10
MMRT-20MB		8	8.5	20.5	10	6	M6	8	20

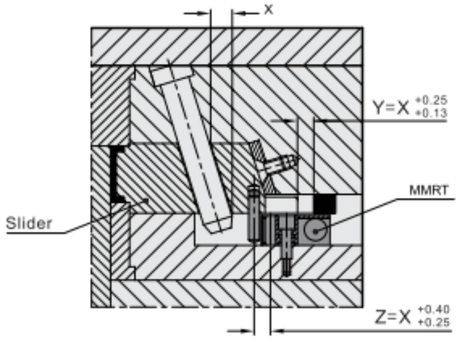
Features:

1.Same function as PPSL and PPSM,comparatively ,the F of this slide retainer is shorter,and locked with more precision..

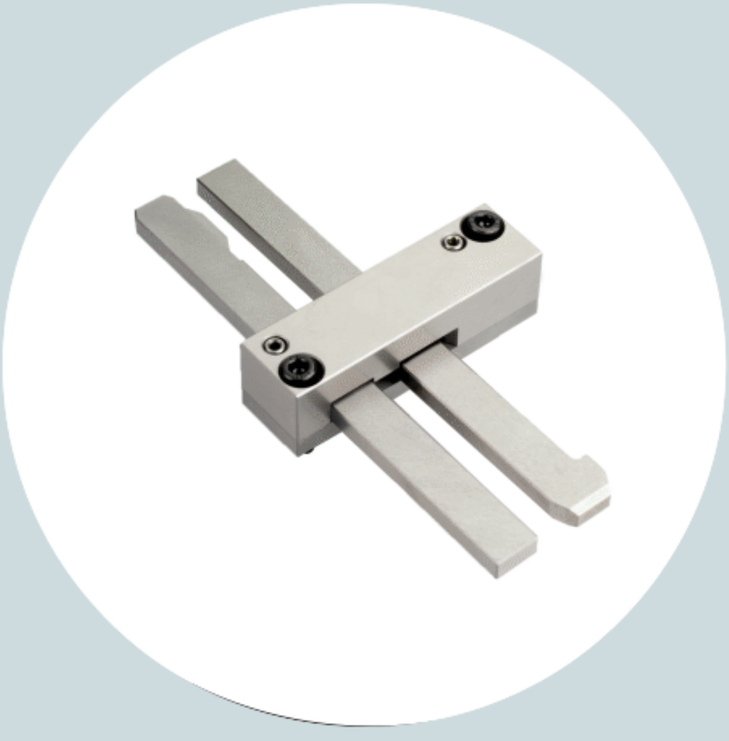
Installation Guidelines:

·The body can not be dead lock with retainer screws, need reserve some room to move unlimited.
·The distance from the center of the dowel pin to the center of the stripper bolt must be calculate available while stocks lasts.
·To avoid the mold be in danger of slipping, the code what you used should more loader than it need .

Installation Diagram:



Latch Locks Series





JIS	DIN	JIS	JIS	DIN
Parting locks screws	Parting locks screws	Latch locks	Latch locks	Latch locks
PL P58	ZZ172 P57	MMLKC P59	MMLK P60	RRPL-P P61



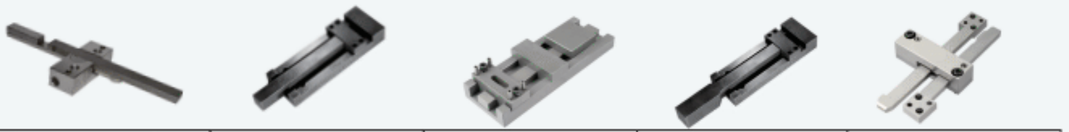
TAIWAN	TAIWAN	TAIWAN	TAIWAN	TAIWAN
Latch locks	Latch locks	Latch locks	Latch locks	Latch locks
DTP-03 P62	DTP-04 P62	DTP-05 P63	DTP-06 P64	DTP-07 P64



TAIWAN	DIN	DIN	DIN	DIN
Latch locks	Latch locks	Latch locks	Latch locks	Latch locks
DTP-08 P65	ZZ170 P66	ZZ270 P69	ZZ171 P73	ZZ271 P75



DIN	JIS	JIS	JIS	JIS
Latch locks	Latch locks	Latch locks	Latch locks	Latch locks
GGS P78	PPLSW P80	PPLMZ P82	PPLSZ P82	PPLM/PPLL/PPLS 84



JIS	DIN	DIN	MOLD PARTNER	MOLD PARTNER
Latch locks	Latch locks	Latch locks	Latch locks	Latch locks
LLL P87	ZZ174 P89	ZZ4 P95	MLL P109	SLL P111



DIN	DIN	DIN	DIN	AISI
Latch locks	Latch locks	Latch locks	Latch locks	Latch locks
ZZ5 P113	RREF-460 P120	RREF-461 P120	RREF-462 P120	KKL P122



AISI	DIN	DIN	AISI	AISI
Latch locks	Latch locks	Latch locks	Latch locks	Latch locks
KKU P125	ZZ3 P129	ZZ173 P136	DDKL P139	SSK-GHA P142

Product summary

Product summary:

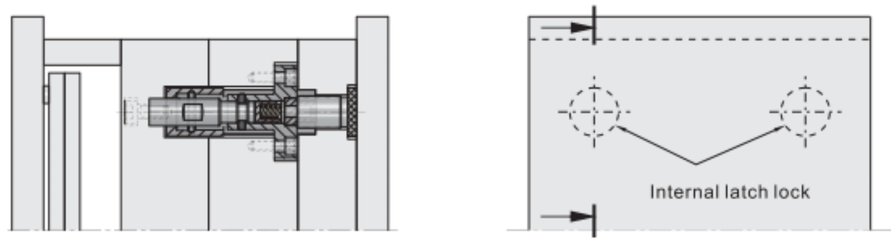
- Latch lock was named switching ware or parting lock set,which was used for three-plate mold,its control mold plate's process sequence unit by the way of mechanical.
- This latch lock should be install inside the mold or the external side:
  (Internal installation type)Internal latch lock: install inside the mold,avoid clashing with outside parts or the waterway, its save space and don't effect the beauty of the mould as a whole.
  Prevents mold accidental collision damage in the process of transportation,for example 1.
  (External installation type)Latch lock: install external side,its safe and reliable,easy to installation and maintenance, and big latching strength,suitable for all kinds of large、middle、small mold for example 2.

Note:

- A minimum of two sets latch lock are requested to be mounted symmetrically at least with the same specification in one mold.

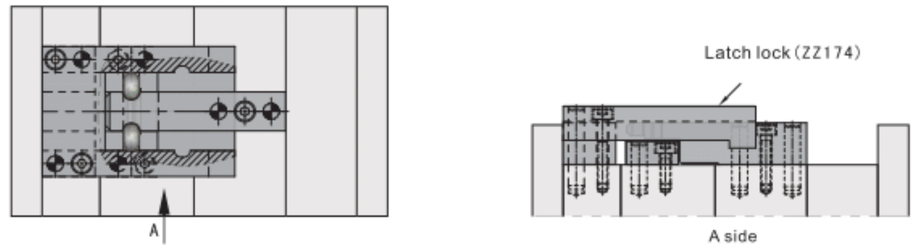
Installation for example:

For example 1:



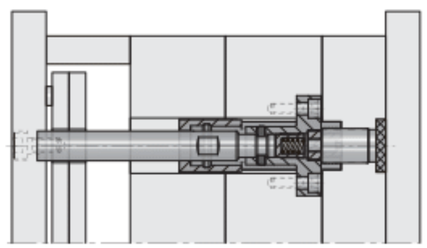
Internal installation

For example 2:



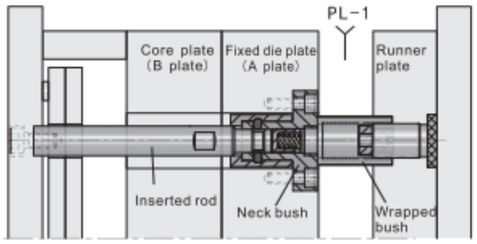
External installation

Opened-closed mold sequence in three-plate mold for example:



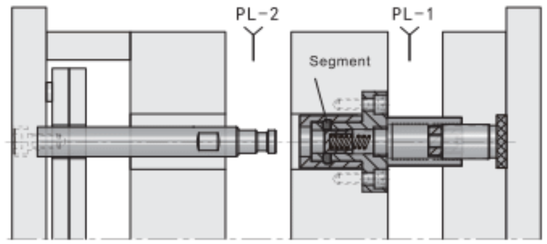
Mold closed

Product summary



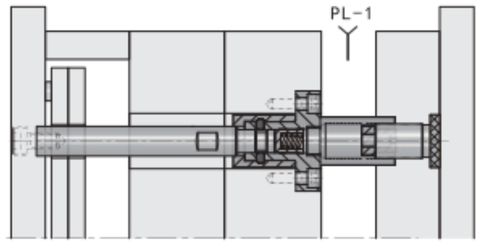
The 1st mold opened

1.The 1st mold opened
When mold opening,1st parting line (PL-1) of "A" plate and runner pate will be opened first , due to "A" and "B" plate will be locked tightly with latch bar and inner bushing.



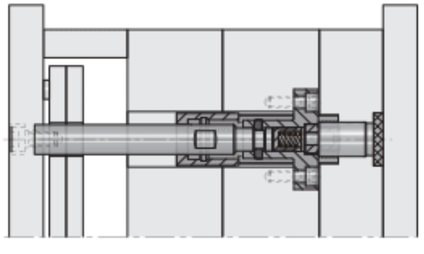
The 2nd mold opened

2.The 2nd mold opened
When mold opened completely for the first time, Positive stop of Internal latch lock will release latch bar,meanwhile inner bushing and outer bushing will be locked tightly,2nd parting line (PL-2) of "A"and "B"plate will be opened. The 2nd mold opening process finished.



The 1st mold closed

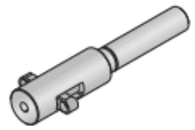
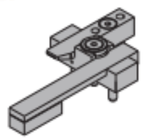
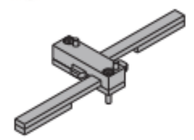
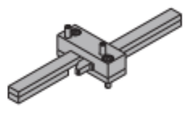
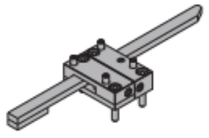
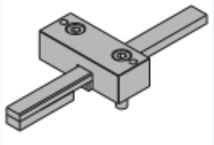
3.The 1st mold closed
When mold closing,parting line of "A"and "B" plate will be closed first,because of inner bushing and outer bushing are locked for the 1st mold opened completely,the 1st mold closing process finished.



Mold closed

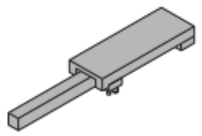
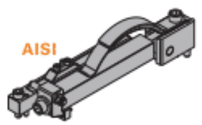
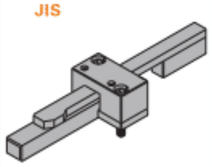
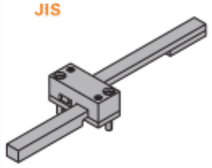
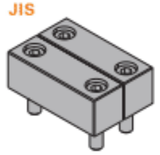
4.Mold closed
When we finished mold closed,Latch bar reinsert into inner bushing,then positive stop reset,and release inner bushing and outer bushing,"A" and runner plate will be closed,all process of mold closed would been finished.

Product summary

Diagram	Modle	Instruction	Installation	Page
DIN 	ZZ3	Allows control of the mold plate opening and closing sequence on mold bases. Suitable for mold plate opening and closing sequence are required.	Internal installation	P129
AISI 	DDKL	Allows control of the mold plate opening and closing sequence on mold bases. Suitable for mold plate opening and closing sequence are required.	Internal installation	P139
DIN 	GGS	Allows control of the mold plate opening and closing sequence on mold bases. Suitable for mold plate opening and closing sequence are required.	External installation	P78
DIN 	ZZ171	P. . . Allows control of the mold plate opening sequence on mold bases,but not control of mold plate closing sequence function. Only suitable for mold plate opening sequence are required.	External installation	P73
DIN 	ZZ170	Allows control of the mold plate opening and closing sequence on mold bases. Suitable for mold plate opening and closing sequence are required.	External installation	P66
JIS 	PPLS PPLM PPLL	Allows control of the mold plate opening sequence on mold bases,but not control of mold plate closing sequence function. Only suitable for mold plate opening sequence are required.	External installation	P84
AISI 	LLL	Allows control of the mold plate opening sequence on mold bases,but not control of mold plate closing sequence function. Only suitable for mold plate opening sequence are required.	External installation	P87

MOLD PARTNER

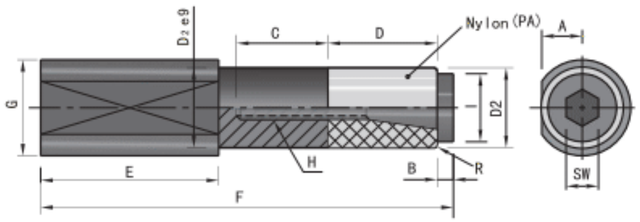
Product summary

Diagram	Modle	Instruction	Installation	Page
DIN 	ZZ174	Allows control of the mold plate opening and closing sequence on mold bases. Suitable for mold plate opening and closing sequence are required.	External installation	P89
	ZZ4			P95
DIN AISI  DIN	ZZ5	Allows control of the mold plate opening sequence on mold bases,but not control of mold plate closing sequence function. Only suitable for mold plate opening sequence are required.	External installation	P113
	KKL/KKU			P122 P125
	RREF460			P120
JIS 	PPLSW	Allows control of the mold plate opening sequence on mold bases,but not control of mold plate closing sequence function. Only suitable for mold plate opening sequence are required.	External installation	P80
JIS 	PPLSZ PPLMZ	Allows control of the mold plate opening and closing sequence on mold bases. Suitable for mold plate opening and closing sequence are required.	External installation	P82
JIS 	MMLK MMLKC	Magnet latch lock,using the attraction of the magnet for clamping function.	External installation	P170

JIS

Parting locks

ZZ172



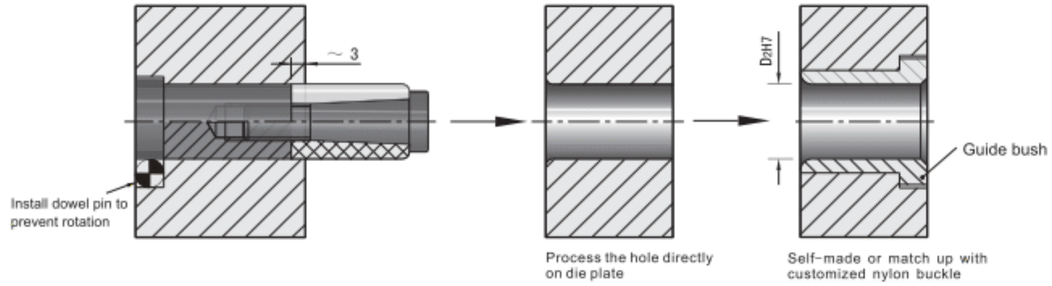
No using oil!



Order ZZ172-10 High grade Nylon+SCM435

Code	D2	R	A	B	C	D	E	F	G	I	SW	H	Max.℃	@¥/P
ZZ172-10	10	1	5	2	12	16	22	51	12	8.5	4	M5	80	
ZZ172-16	16	1.5	8	4	14	25	23	72	18	13	6	M8		

Installation Diagram:



Features:
1.Allows adjustment of friction between the mold plate and Nylon by tightening conical bolt.
2.With excellent wear resistance and heat resistance.

Installation Guidelines:
- The Nylon by itself has heat resistant temperature of 150°C. But use it at 80°C or less because the durability will reduce due to tightening stress by the conical bolt in the practically continuous use.
- Its can process the "R"angle for the hole to insert on the mold,and also by using a PLBS bushing that is specially designed.
- When you process the hole,the inlet edge will be made by R-chamfered edge,the parting locks will be damaged by the sharp edge,the parting lock's durability becomes lower with a C-chamfered edge.
- Do not lubricate this parting locks. Lubrication reduces its friction force and nullifies its function.

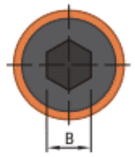
MOLD PARTNER

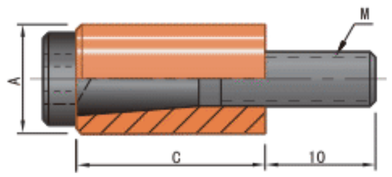
JIS

Parting locks

PL-J







No using oil!

Order PL-J-10

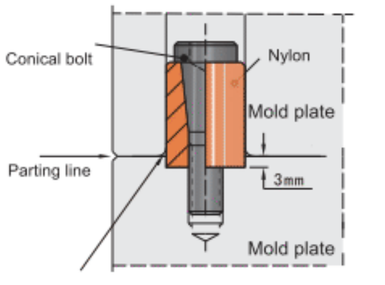
High grade Nylon+SCM435

Code	A	B	C	M	Heat resistant temperature	@¥/P
PL-J-10	10	4	18	M 5	80℃	
PL-J-12	12	5	20	M 6		
PL-J-13	13					
PL-J-16	16	6	25	M 8		
PL-J-20	20	6	30	M10		

Features:
1.Allows adjustment of friction between the mold plate and Nylon by tightening conical bolt.
2.With excellent wear resistance and heat resistance.

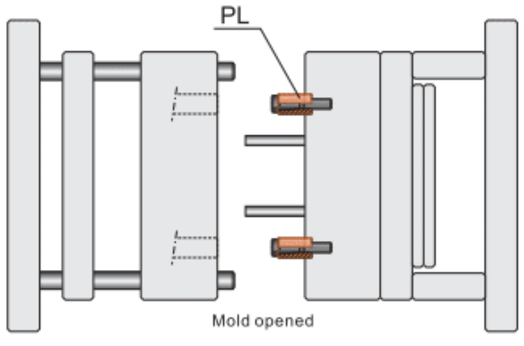
Installation Guidelines:
- The Nylon by itself has heat resistant temperature of 150°C. But use it at 80°C or less because the durability will reduce due to tightening stress by the conical bolt in the practically continuous use.
- Its can process the "R"angle for the hole to insert on the mold,and also by using a PLBS bushing that is specially designed.

Installation Diagram:



Process the "R" angle for the hole to insert

Functional chart:



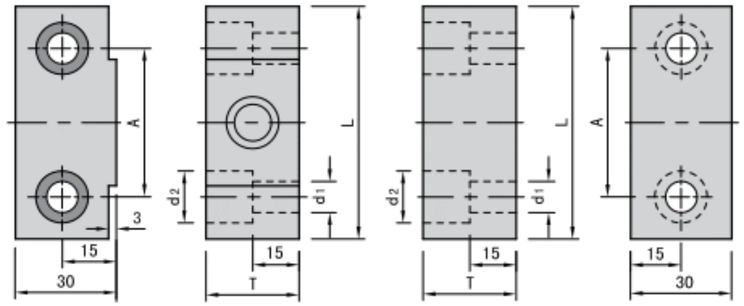
Mold opened

DIN

Latch locks

MMLKC





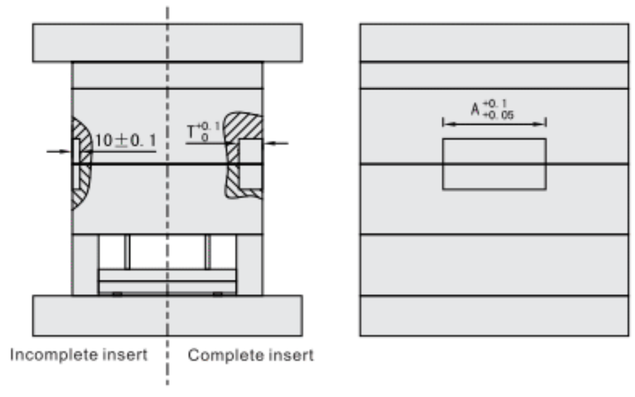
Features:
1.Compared with MMLK,this MMLKC overall dimensions is reduced 50%-60%.
2.Compared with other latch lock sets,it is easier to installation,no need slow down when mold closing, and reduce the molding cycle.

Installation Guidelines:
- Use Shoulder Bolts if bolt breakage is anticipated.
- Install the magnet lock sets with the mold closed. Place them onto the mold's center, and fasten with the supplied bolts.
- Heat resistance: up to 80°C or lower.

Order MMLKC-30

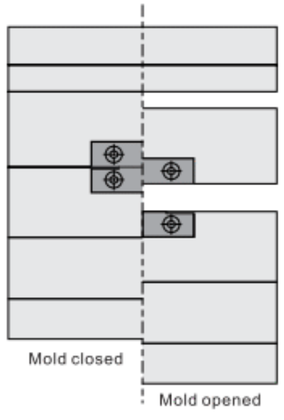
Code	A	L	T	d1	d2	Pulling force MaX. F(kgf)	@¥/P
MMLKC-30	36	50	25	6.5	11	30	
MMLKC-75	52	70	40	9	14	75	

Dimension chart:



Incomplete insert | Complete insert

Functional chart:



Mold closed

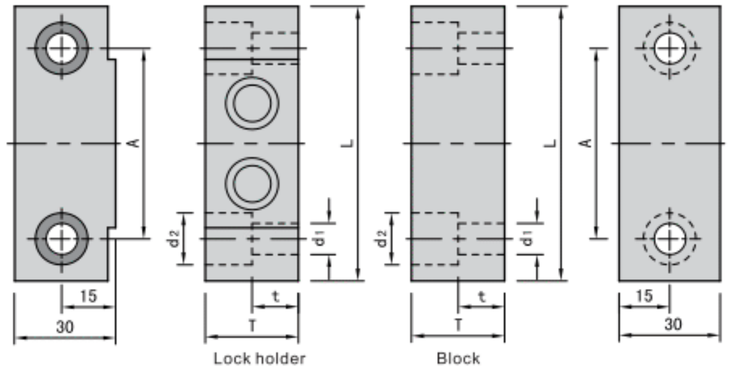
Mold opened

JIS

Latch locks

MMLK





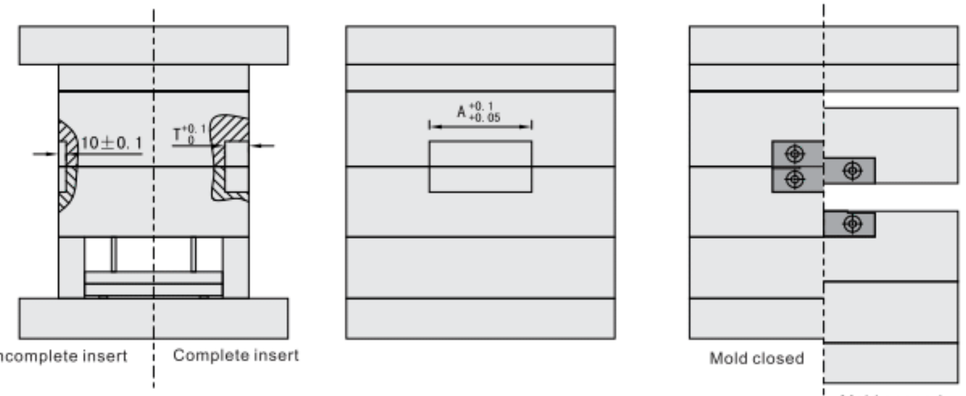
Order MMPLK-60

Code	A	L	T	t	d1	d2	Pulling force MaX. F(kgf)	@¥/P
MMLK- 60	63	80	25	12	9	14	60	
MMLK-150	100	126	40	15	11	18	150	

Installation Guidelines:

- Please install the latch locks symmetrically when mold closing,it will be selected according to mold base and pulling force by user.
- Install them so that the magnetic face is in parallel to the parting line.
- After installation,carry out a functional test,check whether the individual parts of the latch lock set are in right place.
- Heat resistance: up to 80°C or lower.

Dimension chart:

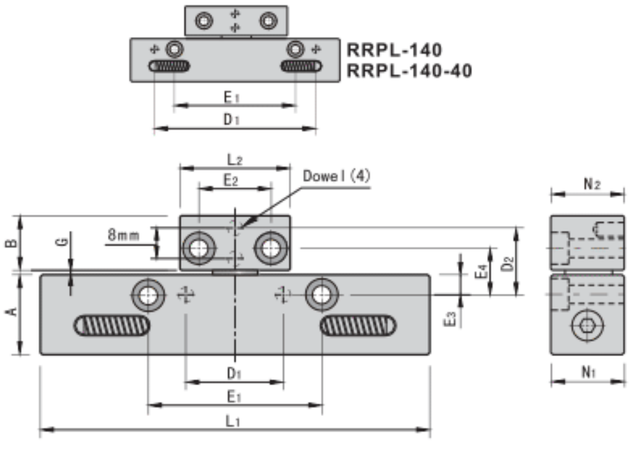


Functional chart:

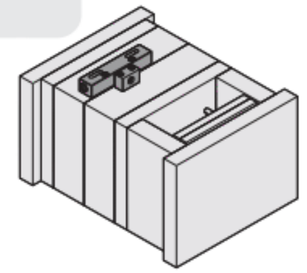
DIN

Latch locks

RRPL-P





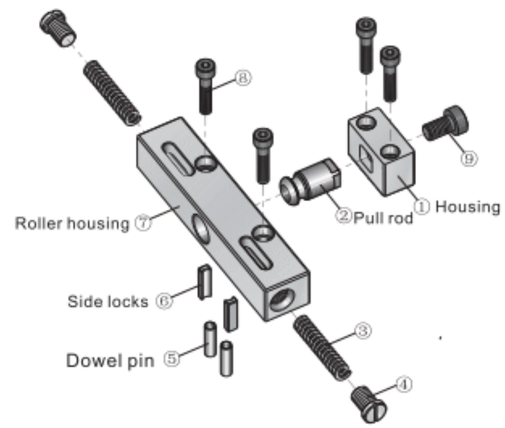


Order RRPL-P-135

Code	L1	L2	N1	N2	A	B	G	Dowel pin
RRPL-P-135	135	38	25	25	28	19	1	Ø5
RRPL-P-135-40							40	
RRPL-P-140	140	64	32		32	22	2	Ø6
RRPL-P-140-40							38	

Code	E1	E2	E3	E4	D1	D2	Mounting screws	Pulling force Max. F(kgf)	@¥/P
RRPL-P-135	60	25	7	15.6	30	22.1	M 6×25	100	
RRPL-P-135-40				54.6		61.1			
RRPL-P-140	70	35	10	23.1	100	28.1	M10×35	150	
RRPL-P-140-40				59.3		64.3			

Product space chart:



Pos	Part name	Material	Hardness
01	Housing	P20	26-33HRC
02	Pull rod	SKD61	48-52HRC
07	Roller housing	P20	26-33HRC
05	Dowel pin	SUJ2	58-62HRC
06	Side locks	S45C	-

Installation Guidelines:

- Please install the roller lock symmetrically, otherwise,it would be fractured with the unbalanced force due to only one side of lock set be forced.
- This Roller lock is the precise standardized item, please do not apply together with other own customer machined parts.
- If mold need to maintain,please remove the roller locks first.

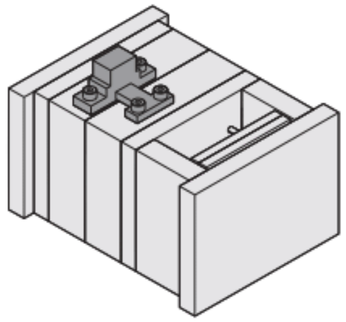
MOLD PARTNER

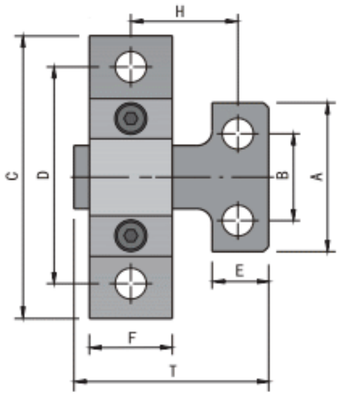
TAIWAN

Latch locks

DTP-03



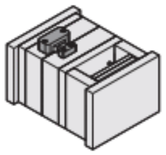




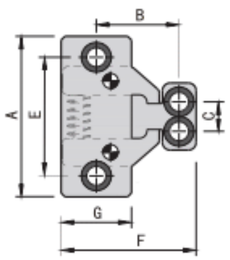
Order DTP-03A

Code	A	B	C	D	E	F	H	T	Mounting screws	Pulling force Max. F(kgf)	@¥/P
DTP-03A	40	26	73	60	20	20	23	48	M 8	150	
DTP-03B	40	22					66	96			
DTP-03C	50	30	113	90	22	30	38	72	M10	250	
DTP-03D							79	114			
DTP-03E							38	75	M12	350	
DTP-03F					25		103	139			

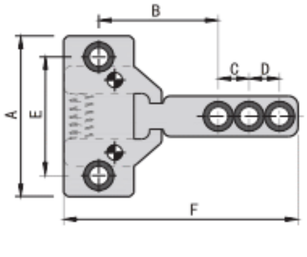
DTP-04







DTP-04A

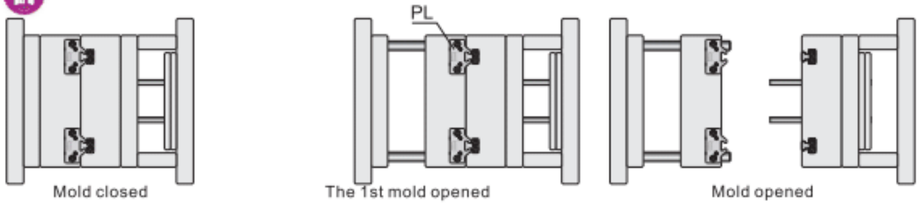


DTP-04B

Order DTP-04A

Code	A	B	C	D	E	F	G	Mounting screws	Pulling force Max. F(kgf)	@¥/P
DTP-04A	78	40	15	-	60	68	38	5/16"	500	
DTP-04B		58		15		116				

Functional chart:

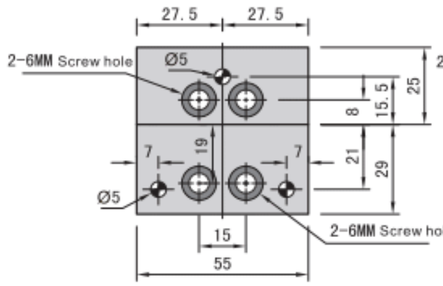


TAIWAN

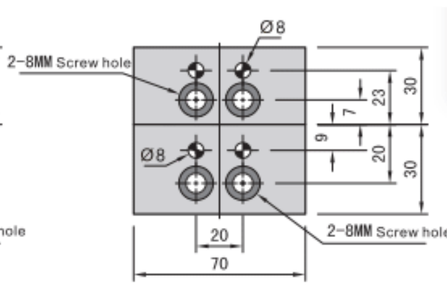
Latch locks

DTP-05





DTP-05(100/200/300Kgf)



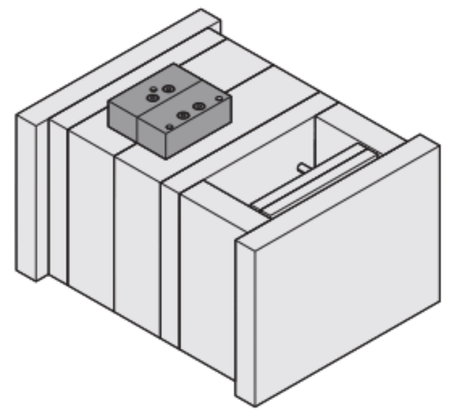
DTP-05(600Kgf)

Features:
1. This latch lock is made of casting, with high precision.
2. Its strong undercuts are made of alloy steel with heat treatment and grinding.
3. Opposite sides with the Heat-resistant springs, have thousands of lifespan.
4. Pulling force: 600kg, curve lead springs

Order DTP-05

Code	Pulling force Max. F(kgs)	@¥/P
DTP-05	100	
	200	
	300	
	600	

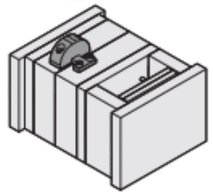
Installation instruction:
1. It is suitable for ejection mold of three plate mold, can snap the remnants and stripping at one single time.
2. The acting force is outward to avoid break the mold.
3. Mount symmetrically, ream the dowel pin with 5mm reamer, then fix it to increase fixity.

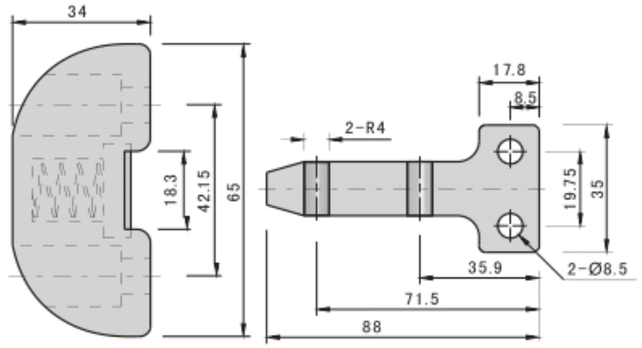


TAIWAN
Latch locks

DTP-06





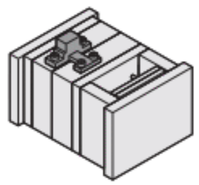


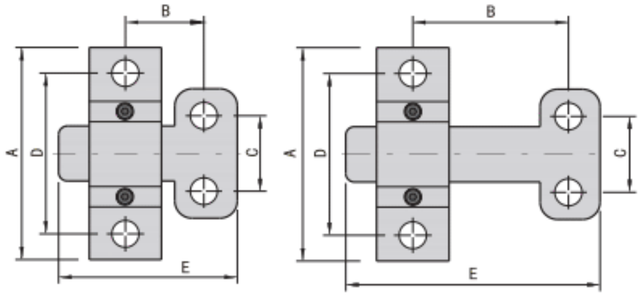
Order DTP-06

Code	@¥/P
DTP-06	

DTP-07





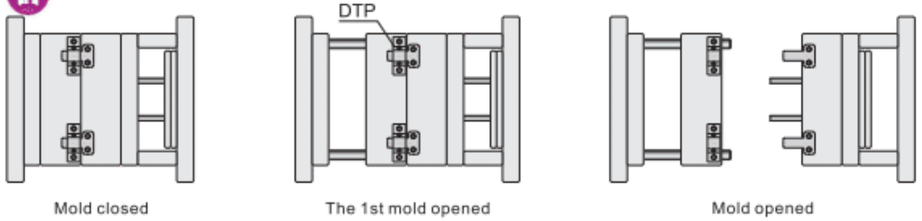


DTP-07A DTP-07B

Order DTP-07A

Code	A	B	C	D	E	Mounting screws	Pulling force Max. F(kgs)	@¥/P
DTP-07A	62	28	20	45	54	5/16"	400	
DTP-07B		62			88			

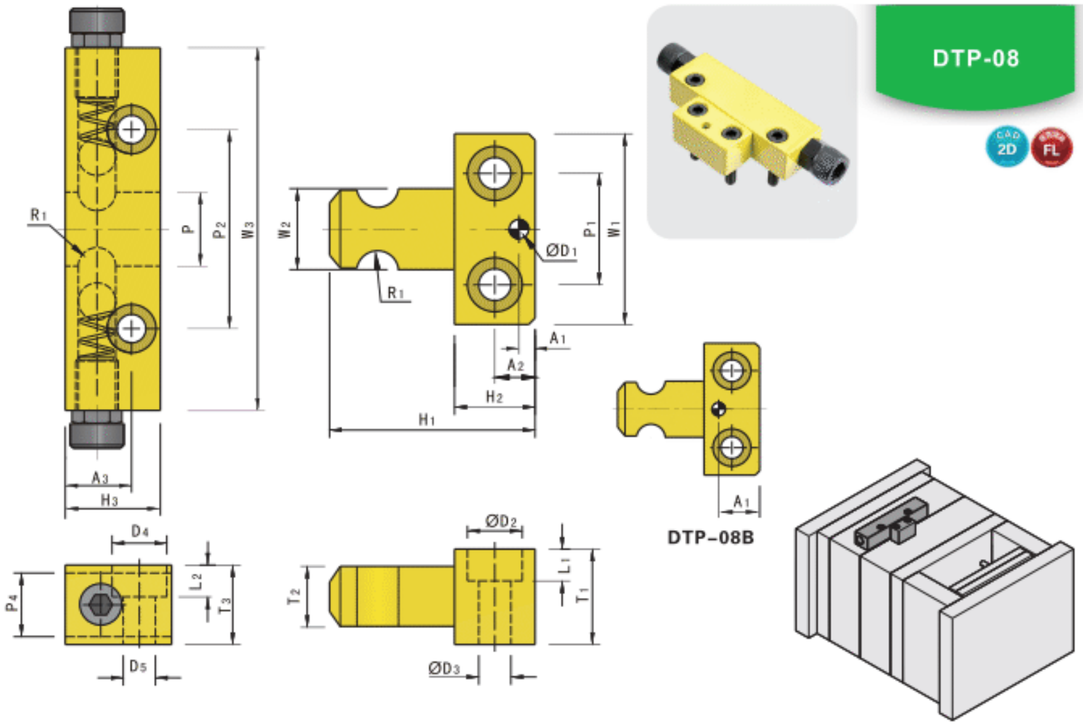
Functional chart:



Mold closed | The 1st mold opened | Mold opened

TAIWAN
Latch locks

DTP-08

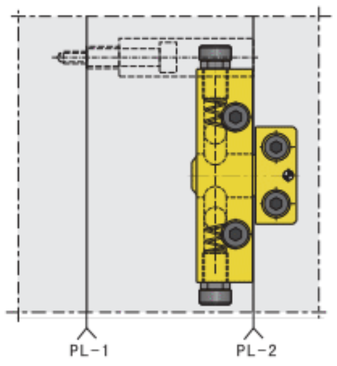


DTP-08B

DTP-08A

A1	A2	A3	D1	D2	D3	D4	D5	H1	H2	H3	L1	L2
6	12	21	Ø5	Ø10.5	Ø6.5	Ø11	Ø6.5	48	20	28	6.5	6.5
20	12.5	23	Ø6	Ø17	Ø10	Ø17	Ø10	62.5	25	33	10	10

Code	P	P1	P2	P4	R1	T1	T2	T3	W1	W2	W3	@¥/P
DTP-08A	18	25	60	12.5	R4.25	20.5	12	20.5	40	17.5	86	
DTP-08B	26	35	70	20	R6.5	30	19.5	25	60	25.5	127.5	



Installation Guidelines:

- Please install the latch lock symmetrically,otherwise,it would be fractured with the unbalanced force due to only one side of lock set be forced.
- This latch lock is the precise standardized item,please do not apply together with other own customer machined parts.
- If mold need to maintain,please remove the roller locks first.

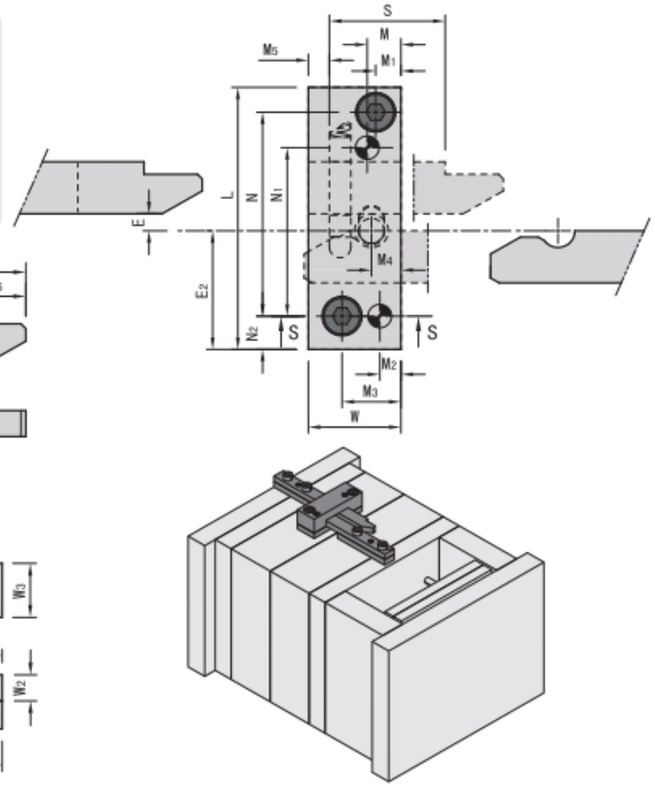
MOLD PARTNER

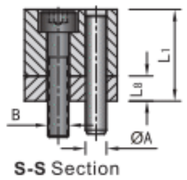
DIN

Latch locks

ZZ170







S-S Section

Features:
1. mechanical interlocking design ,safe and reliable.
2. Insert bar, end of pull rod adopt high frequency annealing treatment, so that easy to second time processing installed holes.
3. This latch parts not only control opening mold sequence, But also control closed open sequence.

☎Order ZZ170-1

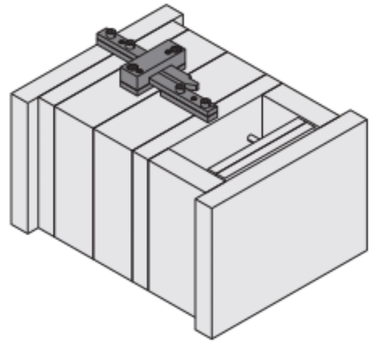
Code	L	L1	L2	L3	L4	L5	L6	L7	L8	E	E2	M3	N	N1	N2
ZZ170-1	63	22	63	100	16	125	13.8	80	6	4	28.5	14	49	40.5	8
ZZ170-2	90	32.5	100	140	22.5	160	17.7	125	7.5	6	45	24	69	62	13
ZZ170-3	110	44		200	25	250	17.6		12	7	55	31	80	80	15

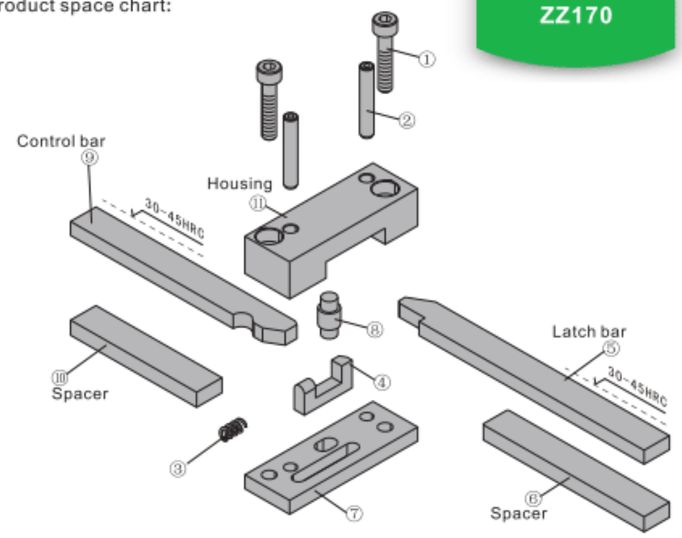
Code	M	M1	M2	M3	M4	M5	W	W1	W2	W3	W4	W5	W6	A	B
ZZ170-1	8	6	5	14	7	5	22	6.5	6	12.5	6.5	6	12.5	Ø5	M5
ZZ170-2	18	8	8	24	16		34	8	12.5	20	8	12.5	16	Ø6	M6
ZZ170-3	22	9	9	31	20	7	42	12.5	16	25	12.5	16	20	Ø8	M8

Code	(min.) Stroke	(max.) Stroke	Pulling force F(≈kgf)	@¥/P
ZZ170-1	5.5	80	800	
ZZ170-2	9.5	110	1400	
ZZ170-3	10.5	190	2400	

DIN
Latch locks
ZZ170

Product space chart:





Pos	Part name	Material	Hardness
5	Latch bar	Cr12MoV	56± 3HRC
6	Spacer	S45C	-
9	Control bar	Cr12MoV	56± 3HRC
10	Spacer	S45C	-
11	Housing	SKD61	48-52HRC

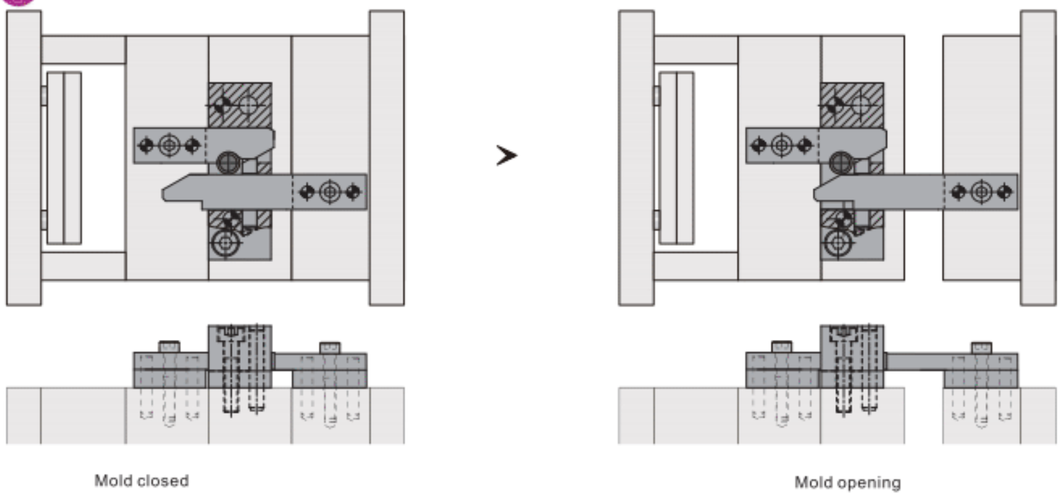
Installation Guidelines:

- Please install the housing in parallel to the parting line first.
- Before install the control bar,please cut it to the necessary length,form the bolt hole. Please tighten the screw when mold closed.(Please note:Make sure in a fully position mold before fix the control bar,and eliminate the clearance between the control bar and locking roller).
- Please cut the latch bar to the necessary length,and installation in parallel to the parting line.
- Please install the latch lock symmetrically,otherwise,it would be fractured with the unbalanced force due to only one side of lock set be forced.
- This latch lock is the precise standardized item,please do not apply together with other own customer machined parts.
- If mold need to maintain,please remove the latch locks first.
- After installed,carry out a functional test,check whether the individual parts of the latch lock units moves smoothly,the stroke is applicable. Recommend testing on matched Molds machine or Injection machine, no Lifting Machine.

DIN

Latch locks

Functional chart:

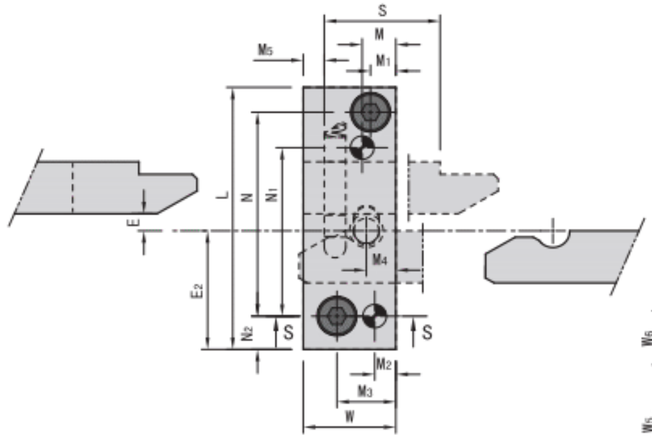


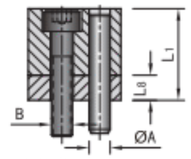
DIN

Latch locks

ZZ270

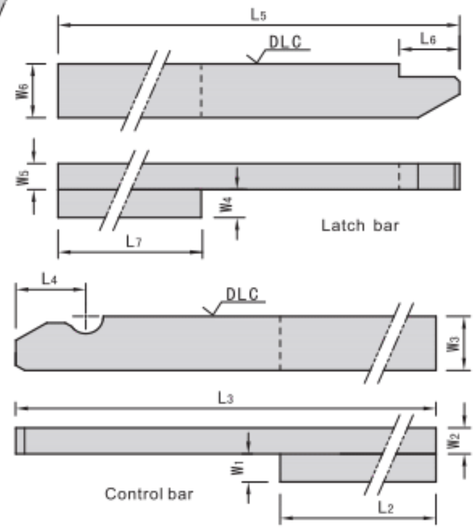
2D 3D FL

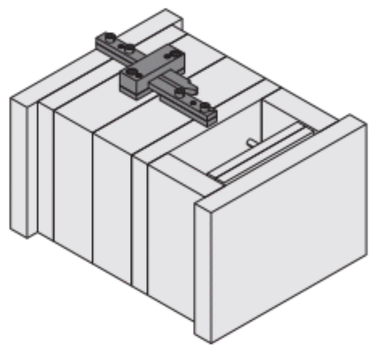




S-S Section







Features:

1. Mechanical interlocking design ,safe and reliable.
2. Insert bar, end of pull rod adopt high frequency annealing treatment, so that easy to second time processing installed holes.
3. This latch parts not only control opening mold sequence, But also control closed open sequence.
4. It's the external version of ZZ170, there added DLC coating on the surface of inserting rod,pulling rod, it's more wearable and more living life.

☎Order ZZ270-1

Code	L	L1	L2	L3	L4	L5	L6	L7	L8	E	E2	M3	N	N1	N2
ZZ270-1	63	22	63	100	16	125	13.8	80	6	4	28.5	14	49	40.5	8
ZZ270-2	90	32.5	100	140	22.5	160	17.7	125	7.5	6	45	24	69	62	13
ZZ270-3	110	44		200	25	250	17.6		12	7	55	31	80	80	15

Code	M	M1	M2	M3	M4	M5	W	W1	W2	W3	W4	W5	W6	A	B
ZZ270-1	8	6	5	14	7	5	22	6.5	6	12.5	6.5	6	12.5	Ø5	M5
ZZ270-2	18	8	8	24	16		34	8	12.5	20	8	12.5	16	Ø6	M6
ZZ270-3	22	9	9	31	20	7	42	12.5	16	25	12.5	16	20	Ø8	M8

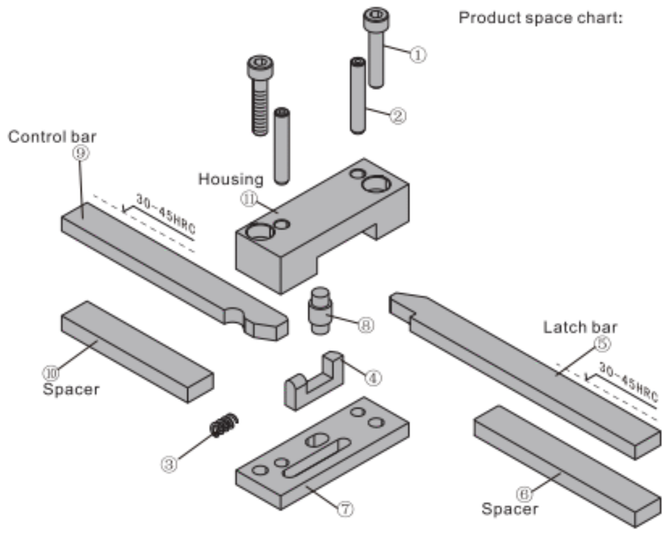
Code	(min.) Stroke	S(max.) Stroke	Pulling force F(≈kgf)	@ ¥ /P
ZZ270-1	5.5	80	800	
ZZ270-2	9.5	110	1400	
ZZ270-3	10.5	190	2400	

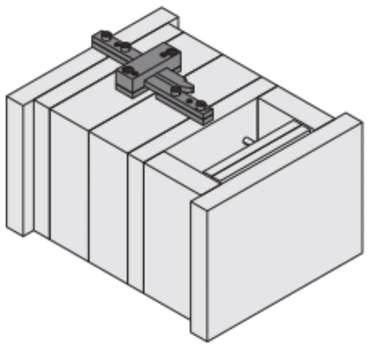
DIN

Latch locks

ZZ270

Product space chart:





Pos	Part name	Material	Hardness
5	Latch bar	Cr12MoV	56± 3HRC
6	Spacer	S45C	-
9	Control bar	Cr12MoV	56± 3HRC
10	Spacer	S45C	-
11	Housing	SKD61	48-52HRC

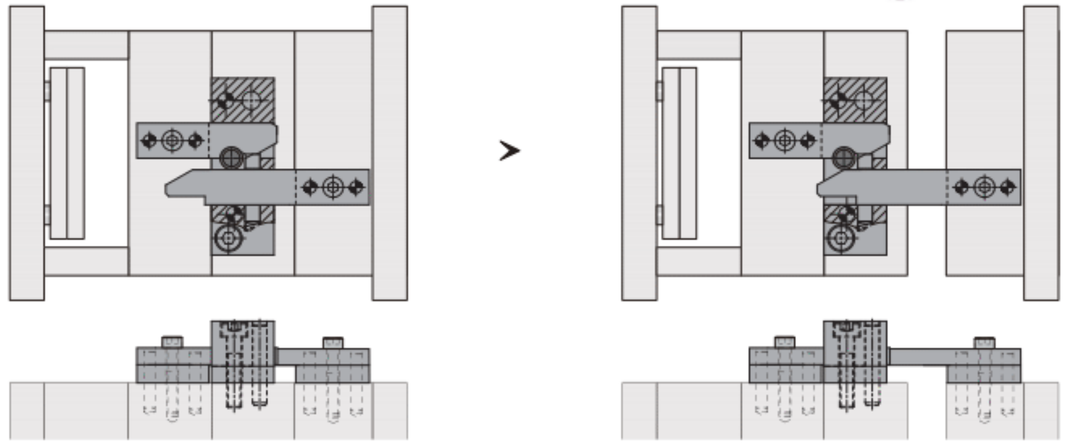
Installation Guidelines:

- Please install the housing in parallel to the parting line first.
- Before install the control bar,please cut it to the necessary length,form the bolt hole. Please tighten the screw when mold closed.(Please note:Make sure in a fully position mold before fix the control bar,and eliminate the clearance between the control bar and locking roller).
- Please cut the latch bar to the necessary length,and installation in parallel to the parting line.
- Please install the latch lock symmetrically,otherwise,it would be fractured with the unbalanced force due to only one side of lock set be forced.
- This latch lock is the precise standardized item,please do not apply together with other own customer machined parts.
- If mold need to maintain,please remove the latch locks first.
- After installed,carry out a functional test,check whether the individual parts of the latch lock units moves smoothly,the stroke is applicable. Recommend testing on matched Molds machine or Injection machine, no Lifting Machine.

DIN

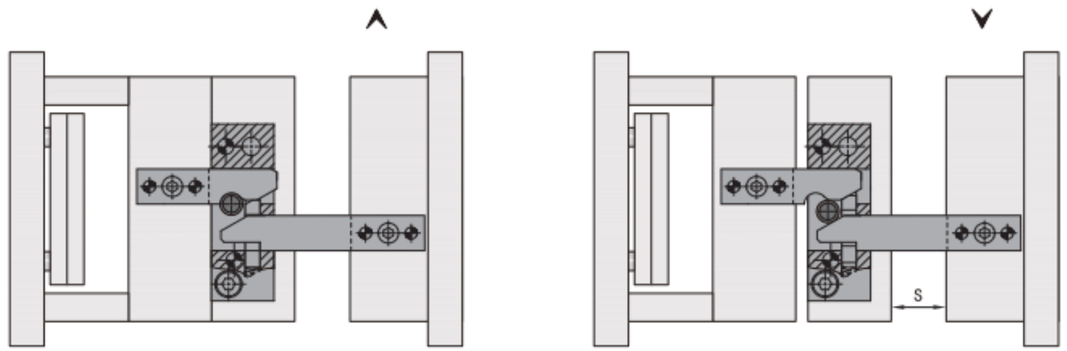
Latch locks

Functional chart:



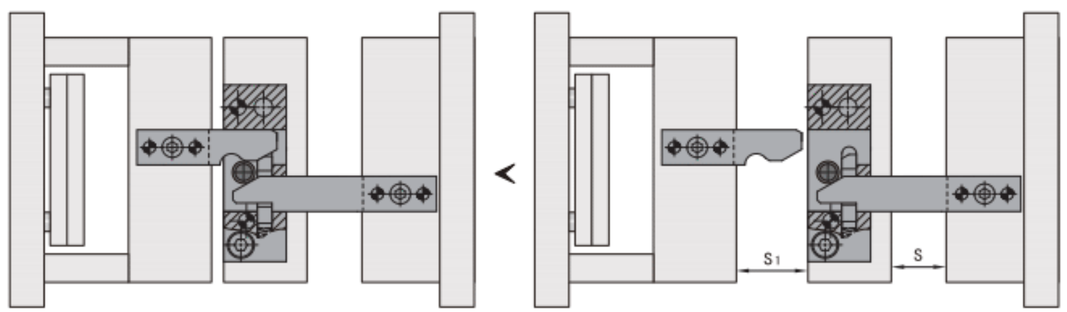
Mold closed

Mold opening



The 1st mold closed

The 1st mold opened



The 1st mold closing

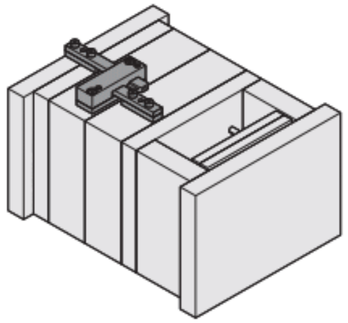
The 2nd mold opened

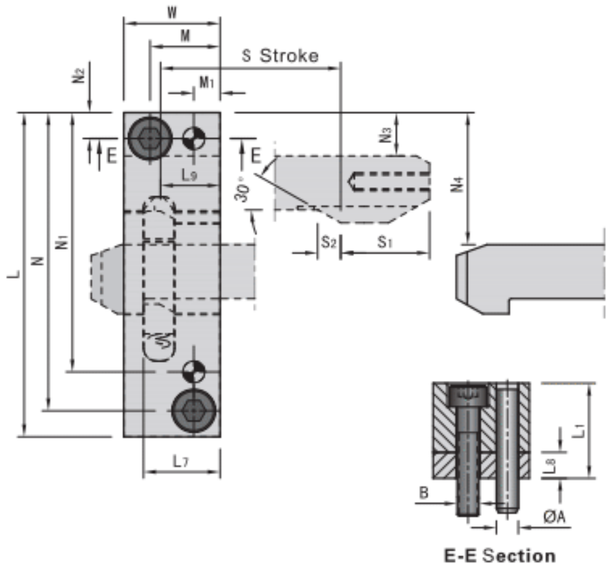
DIN

Latch locks

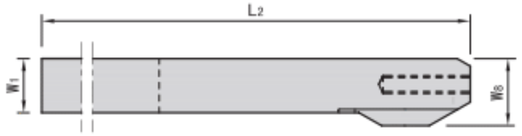
ZZ171

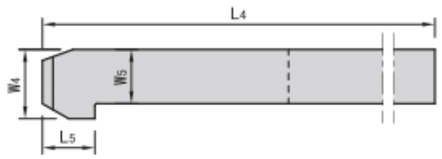


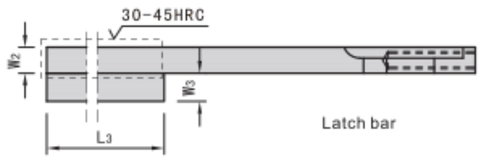




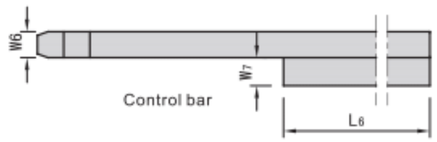
E-E Section







Latch bar



Control bar

Order ZZ171-1

Code	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	N	N1	N2	N3	N4
ZZ171-1	75	22	140	63	140	12	63	17.5	**6**	13.5	69	60	6	10	30.5
ZZ171-2	90	32.5	180	100	180	16	100	25	7.5	19	83	73	7	12	38
ZZ171-3	112	43.5	250	125	250	20	125	32	**12**	25	103	88	9	16	48

Code	M	M1	W	W1	W2	W3	W4	W5	W6	W7	W8	S1	S2	A	B
ZZ171-1	16	6	22	12.5	6	6.5	16	12.5	6	6.5	15.5	20	14	Ø5	M5
ZZ171-2	24	8	31.5	16	12.5	8	20.5	16	12.5	8	20	27	6.95	Ø6	M6
ZZ171-3	30	10	40	20	16	12.5	25.5	20	16	12.5	25	36	8.7	Ø8	M8

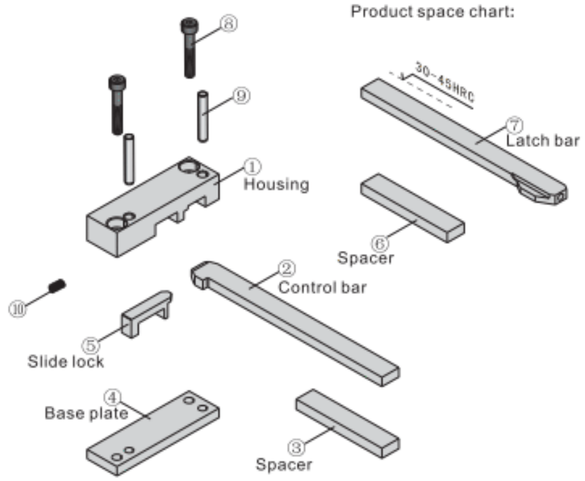
Code	(min.) Stroke	(max.) Stroke	Pulling force F(≈kgf)	@¥/P
ZZ171-1	5.5	80	650	
ZZ171-2	7	110	1550	
ZZ171-3	9	160	2200	

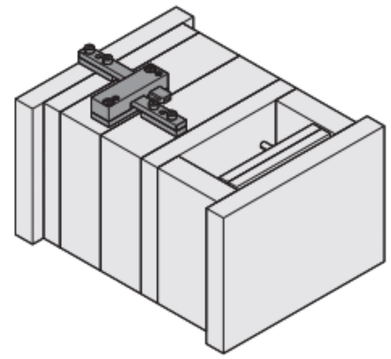
DIN

Latch locks

ZZ171

Product space chart:





Features:
1. Due to double-sided locking system, safe and reliable.
2. High-frequency heat-treatment, easy to process mounting hole on the tail of latch bar and control bar.

Pos	Part name	Material	Hardness
1	Housing	P20	26-33HRC
2	Control bar	718H	Surface nitrided
3	Spacer	S45C	-
4	Base plate	P20	26-33HRC
5	Slide lock	SKD61	48-52HRC
6	Spacer	S45C	-
7	Latch bar	Cr12MoV	56±3HRC

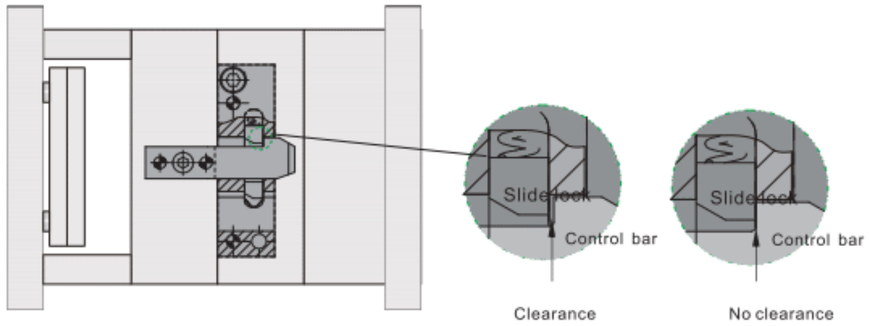
Installation Guidelines:

- Please install the housing in parallel to the parting line first.
- Before install the control bar, please cut it to the necessary length, form the bolt hole. Please tighten the screw when mold closed. (Please note: Make sure in a fully position mold before fix the control bar, and eliminate the clearance between the control bar and locking roller).
- Please cut the latch bar to the necessary length, and installation in parallel to the parting line.
- Please install the latch lock symmetrically, otherwise, it would be fractured with the unbalanced force due to only one side of lock set be forced.
- Allows control of the mold plate opening sequence on mold bases, but not control of mold plate closing sequence function.
  Only suitable for mold plate opening sequence are required.
- This latch lock is the precise standardized item, please do not apply together with other own customer machined parts.
- If mold need to maintain, please remove the latch locks first.
- After installed, carry out a functional test, check whether the individual parts of the latch lock units moves smoothly, the stroke is applicable. Recommend testing on matched Molds machine or Injection machine, no Lifting Machine.

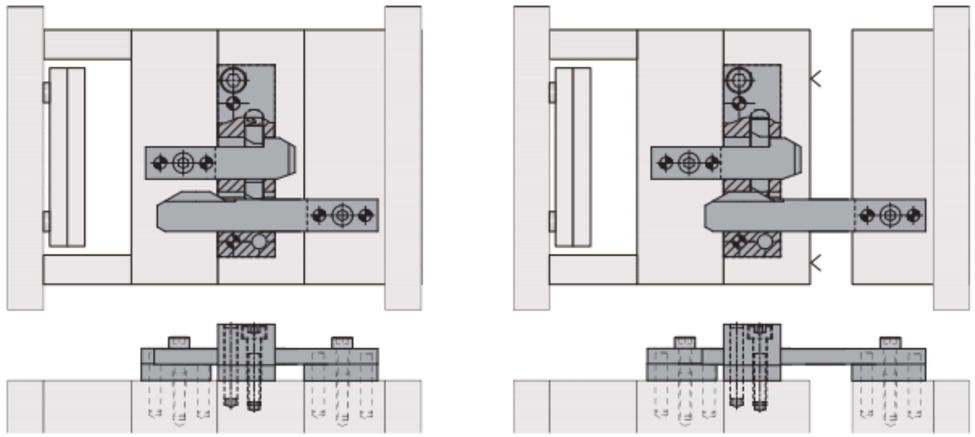
DIN
Latch locks

ZZ171

Installation Diagram:

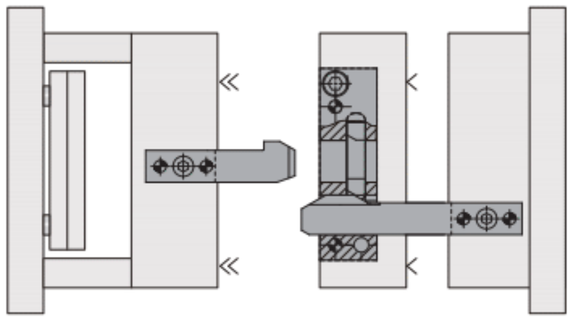


Functional chart:

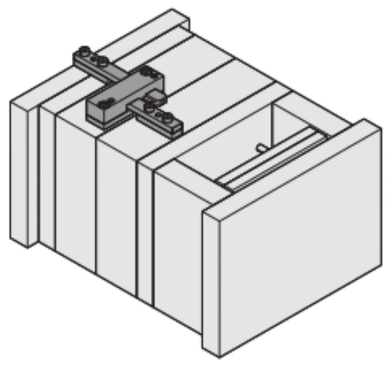


Mold closed

The 1st Mold opened

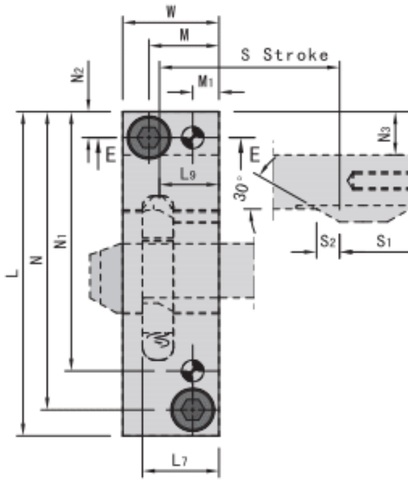


Complete mold opened



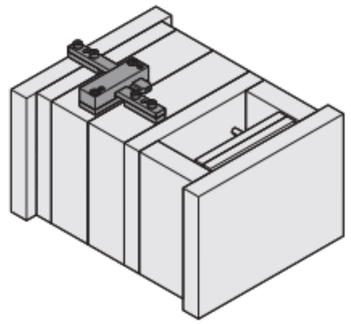
DIN
Latch locks

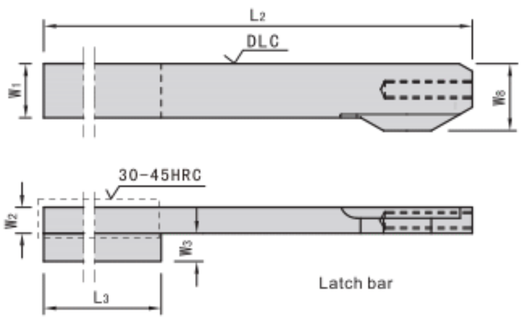
ZZ271

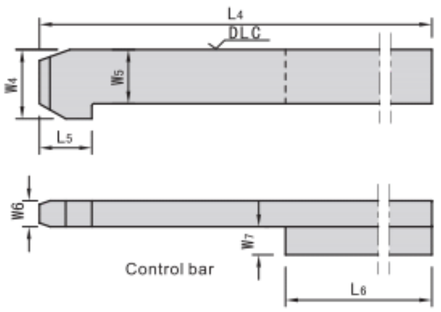


E-E Section









Order ZZ271-1

Code	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	N	N1	N2	N3	N4
ZZ271-1	75	22	140	63	140	12	63	17.5	**6**	13.5	69	60	6	10	30.5
ZZ271-2	90	32.5	180	100	180	16	100	25	7.5	19	83	73	7	12	38
ZZ271-3	112	43.5	250	125	250	20	125	32	**12**	25	103	88	9	16	48

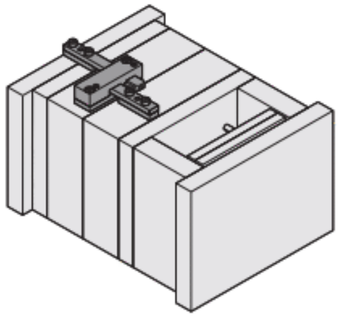
Code	M	M1	W	W1	W2	W3	W4	W5	W6	W7	W8	S1	S2	A	B
ZZ271-1	16	6	22	12.5	6	6.5	16	12.5	6	6.5	15.5	20	14	Ø5	M5
ZZ271-2	24	8	31.5	16	12.5	8	20.5	16	12.5	8	20	27	6.95	Ø6	M6
ZZ271-3	30	10	40	20	16	12.5	25.5	20	16	12.5	25	36	8.7	Ø8	M8

Code	(min.) Stroke	(max.) Stroke	Pulling force F(≈kgf)	@¥/P
ZZ271-1	5.5	80	650	
ZZ271-2	7	110	1550	
ZZ271-3	9	160	2200	

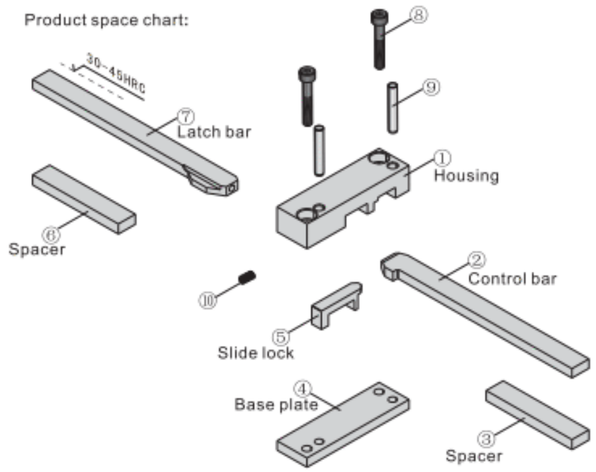
DIN

Latch locks

ZZ271



Product space chart:



Features:

1. Due to double-sided locking system,safe and reliable.
2. High-frequency heat-treatment,easy to process mounting hole on the tail of latch bar and control bar.
3. It's the external version of ZZ171, there added DLC coating on the surface of inserting rod,pulling rod, it's more wearable and more living life.

Pos	Part name	Material	Hardness
1	Housing	P20	26-33HRC
2	Control bar	718H	
3	Spacer	S45C	-
4	Base plate	P20	26-33HRC
5	Slide lock	SKD61	48-52HRC
6	Spacer	S45C	-
7	Latch bar	Cr12MoV	56±3HRC

Installation Guidelines:

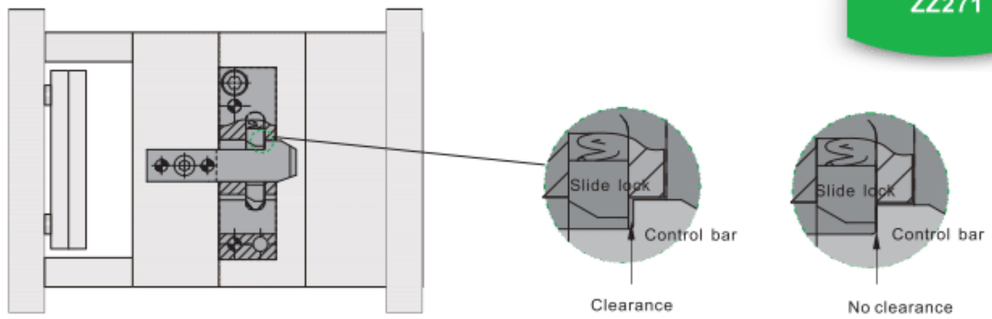
- Please install the housing in parallel to the parting line first.
- Before install the control bar,please cut it to the necessary length,form the bolt hole. Please tighten the screw when mold closed.(Please note:Make sure in a fully position mold before fix the control bar,and eliminate the clearance between the control bar and locking roller).
- Please cut the latch bar to the necessary length,and installation in parallel to the parting line.
- Please install the latch lock symmetrically,otherwise,it would be fractured with the unbalanced force due to only one side of lock set be forced.
- Allows control of the mold plate opening sequence on mold bases,but not control of mold plate closing sequence function.
  Only suitable for mold plate opening sequence are required.
- This latch lock is the precise standardized item,please do not apply together with other own customer machined parts.
- If mold need to maintain,please remove the latch locks first.
- After installed,carry out a functional test,check whether the individual parts of the latch lock units moves smoothly,the stroke is applicable. Recommend testing on matched Molds machine or Injection machine, no Lifting Machine.

DIN

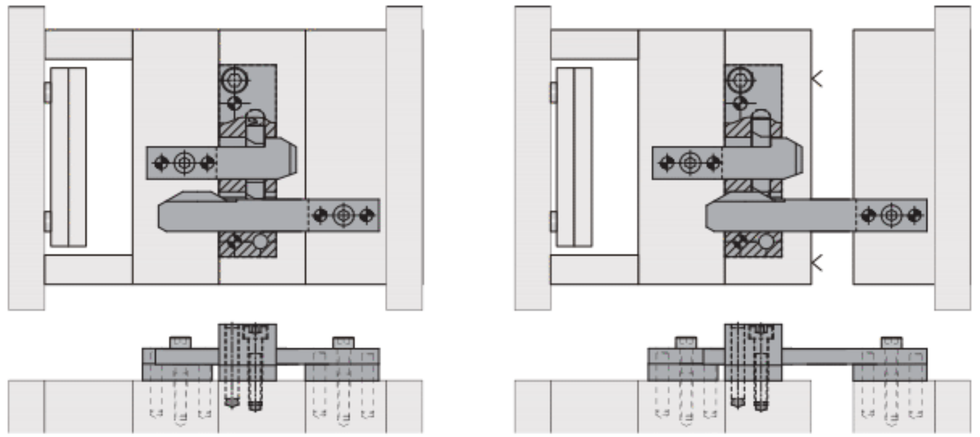
Latch locks

ZZ271

Installation Diagram:

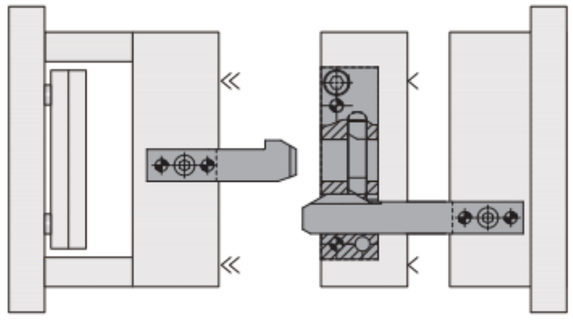


Functional chart:

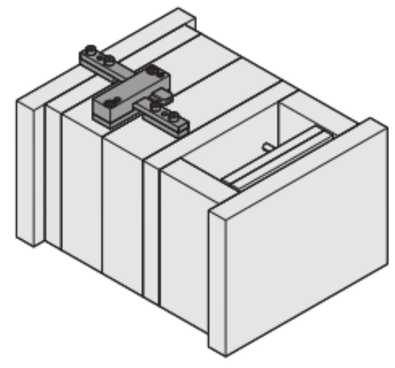


Mold closed

The 1st Mold opened



Complete mold opened

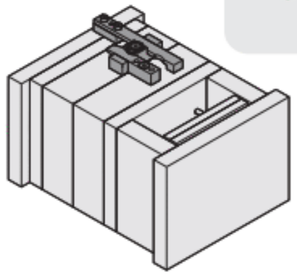


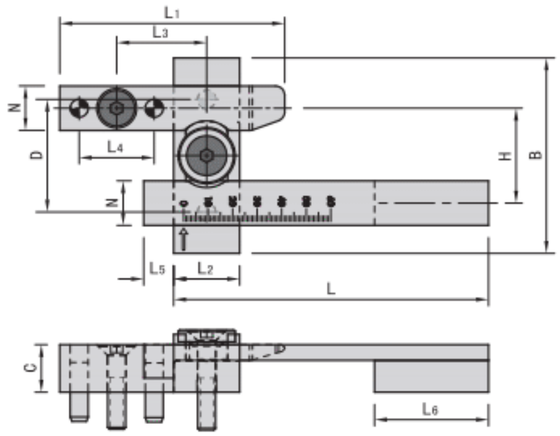
DIN

Latch locks

GGS





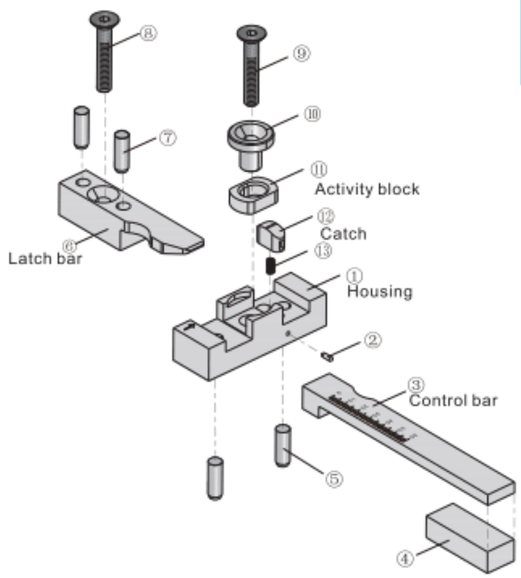


Order GGS-226616

Code	B	C	D	H	H1(min.)	L	L1	L2	L3
GGS-226616	66	16	38	32	10	105	75	22	30
GGS-368619	86	19	46	42.7	11.5	153	102	36	43
GGS-421024	106	24	56	50.2	14	190	124	42	51

Code	L4	L5	L6	N	Pos				@¥/P
					5	7	8	9	
GGS-226616	25	10	38	15	Ø 6×20	Ø 6×30	M 6×30	M 6×35	
GGS-368619	32	12	50	20	Ø 8×24	Ø 8×36	M 8×36	M 8×40	
GGS-421024	40	15	60	24.5	Ø10×30	Ø10×40	M10×40	M10×45	

Product space chart:



Pos	Part name	Material	Hardness
1	Housing	SKD11	55-62HRC
3	Control bar	Cr12MoV	55-58HRC
6	Latch bar		
11	Activity block	SKD61	52± 2HRC
12	Catch	SKD11	58-62HRC

Features:
1. Designed for two steps opening molds, The gradual scale allows selection of the first opening.
2. After selecting the required stroke, fix the scale lever with the spacer.

DIN

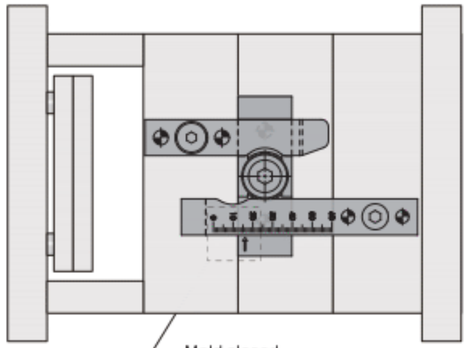
Latch locks

The working principle of products:
- After the 1st mold opened, the arrow of the housing(1) will point to 0 calibration of the control bar(3), the activity block is on moving, till insert into R groove of the control bar(3) completely.
- When the activity block on moving, the Latch bar(6) is opening till out of housing completely. The catch (12)are bouncing under the force of spring, and lock the activity block, this is the 2nd mold opened finish.
- The Latch bar insert into the housing again in the 1st mold closed, the latch bar press the catch, and release the activity block till the 2nd mold closed finish.

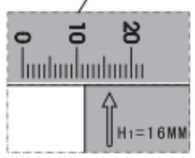
Installation information:
A minimum of two or more latch lock must be mounted symmetrically.

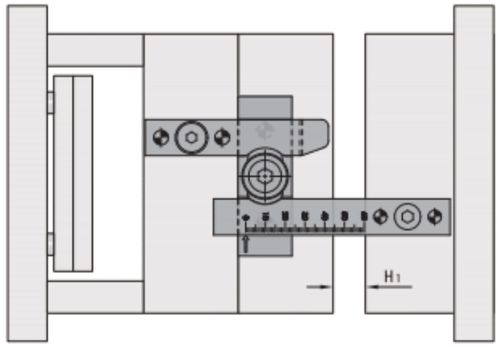
The latch lock control of the mold opening and closing sequence on mold bases.
Mold opening sequence: View1 ➤ View2 ➤ View3
Mold closing sequence: View3 ➤ View2 ➤ View1

Functional chart:



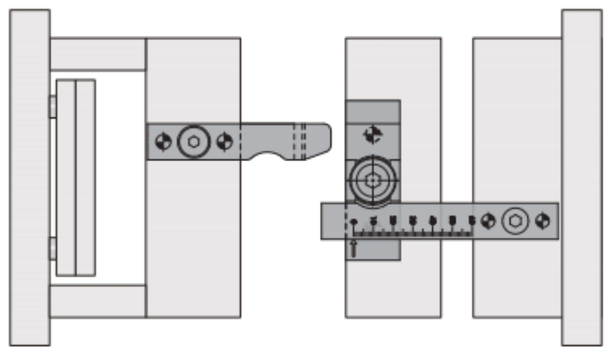
Mold closed





The first mold opened

Code	Pulling force F(≤kgf)
GGS-226616	200
GGS-368619	400
GGS-421024	800



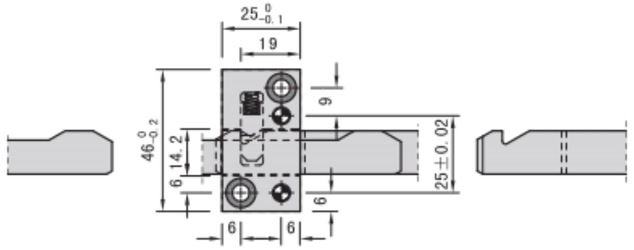
Completely mold opened

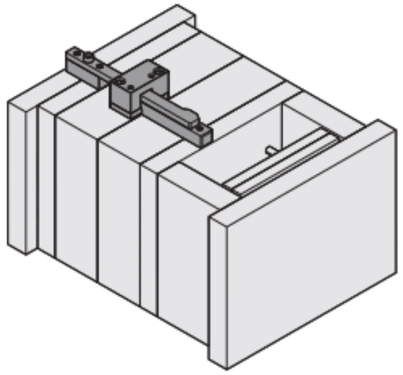
DIN

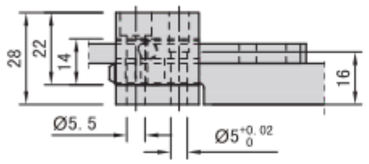
Latch locks

PPLSW

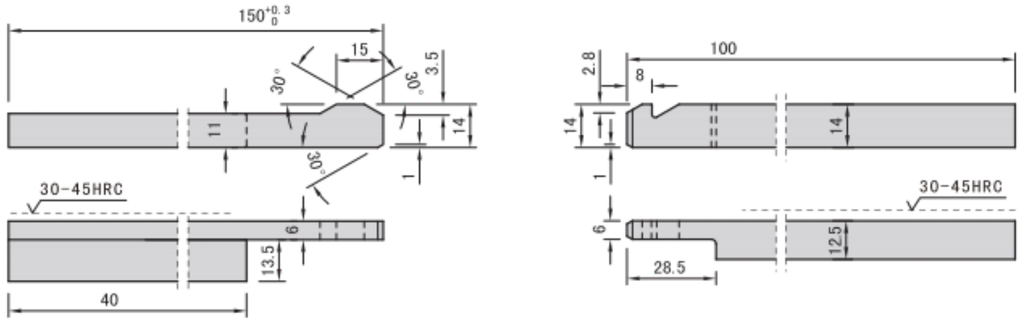




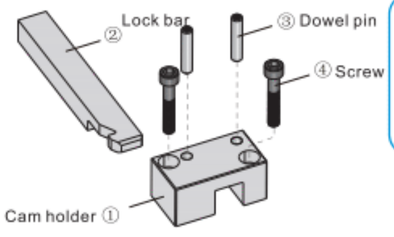




Order PPLSW



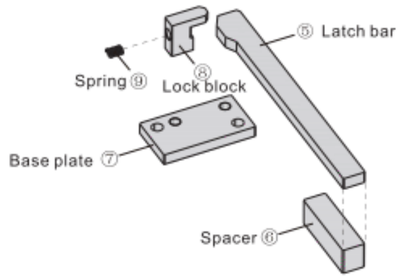
Product space chart:



Features:
1. Due to double-sided locking system,safe and reliable.
2. High-frequency heat-treatment,easy to process mounting hole on the tail of latch bar and control bar.

DIN

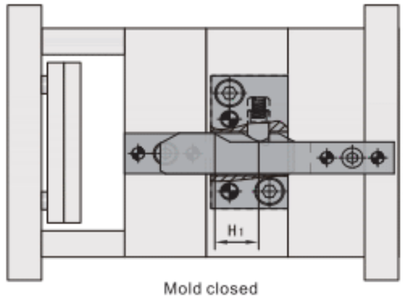
Latch locks



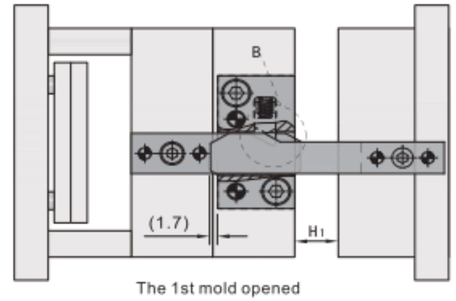
Pos	Part name	Material	Hardness	Specification	Q'ty
1	Cam holder	SKD61	50-55HRC	-	1
2	Control bar	SKS3	58-62HRC		
3	Housing	-	-	Ø5×25	2
4	Screw	-	-	M5×30	
5	Latch bar	SKS3	50-55HRC		
6	Spacer	S45C	-		
7	Base plate	SKS3	50-55HRC	-	1
8	Lock block	SKD11	58-62HRC		
9	Spring	-	-		

Installation Guidelines:
- Please install the cam holder in parallel to the parting line.
- Before install the Lock bar,please cut it to the necessary length,form the bolt hole. Please tighten the screw when mold closed.(Please note:Make sure in a fully position mold before fix the control bar,and eliminate the clearance between the lock bar and lock block).
- Please cut the release bar to the necessary length,and installation in parallel to the parting line.
- Please install the latch lock symmetrically at least two sets or more.
- This latch lock is the precise standardized item,please do not apply together with other own customer machined parts,we will not be responsible for the anomaly which caused by it.
- If mold need to maintain,please remove the latch locks first.
- After installed,carry out a functional test,check whether the individual parts of the latch lock units moves smoothly,the stroke is applicable. Recommend testing on matched Molds machine or Injection machine, no Lifting Machine.

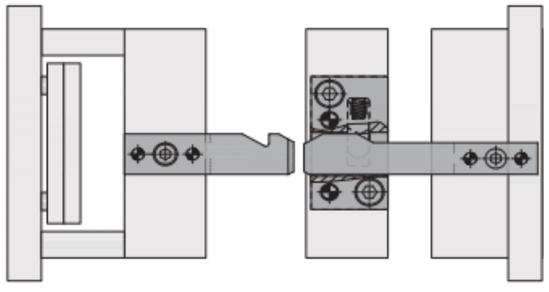
Functional chart:



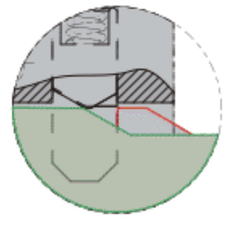
Mold closed



The 1st mold opened



Mold opened completely



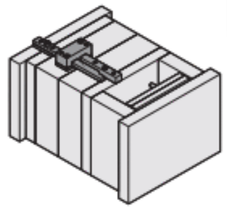
B section

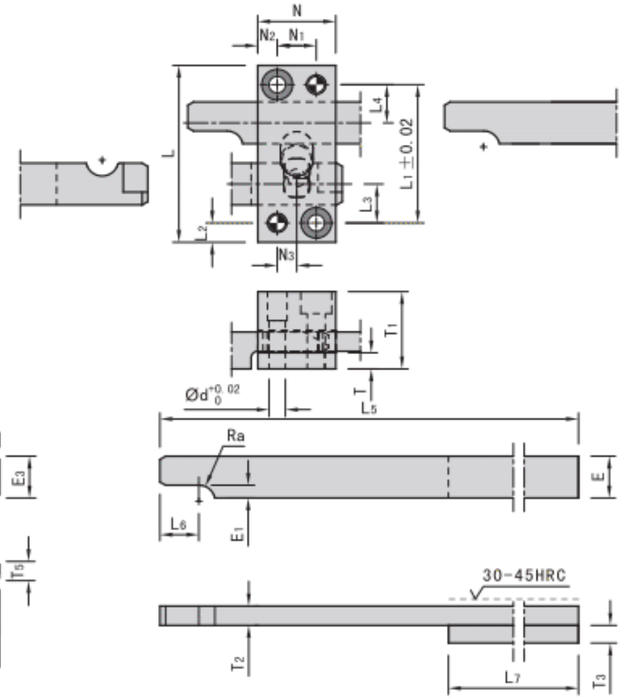
DIN

Latch locks

PPLSZ
PPLMZ





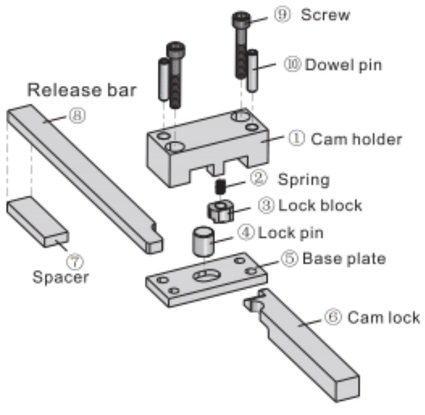


Order PPLSZ

Code	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	N	N1	N2	N3
PPLSZ	55	43	6	12	12	150	12	40	100	14	28	24	12	6	6
PPLMZ	67	53	7	15	14	200	16	50	150	18	36	32	16	8	8

Code	d	E	E1	E3	E4	R	Ra	T	T1	T2	T3	T4	T5	@¥/P
PPLSZ	5	13	4	13	4	5	5	5	24	6	5.5	11.5	6	
PPLMZ	6	16	5	18	5	6	6	6	32.5	10	6.5	16.5	10	

Product space chart:



Features:
1.Due to double-sided locking system,safe and reliable.
2.High-frequency heat-treatment,easy to process mounting hole on the tail of latch bar and control bar.

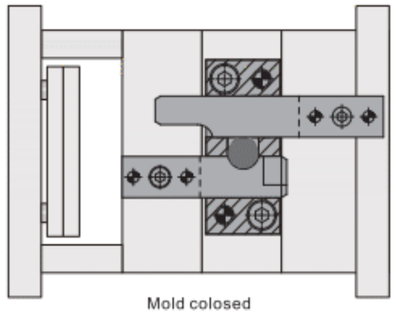
Pos	Part name	Material	Hardness	Specification		Q'ty
				PPLSZ	PPLMZ	
1	Cam holder	SKD61	50-55HRC	-	-	1
2	Spring	-	-			
3	Lock block					
4	Lock pin	SKD11	58-62HRC			
5	Base plate	S45C	-			
6	Cam lock	SKS3	58-62HRC			
7	Spacer	-	-			
8	Release bar	SKS3	58-62HRC			
9	Screw	-	-	M5×25	M6×35	2
10	Dowel pin			Ø5×30	Ø6×35	

DIN

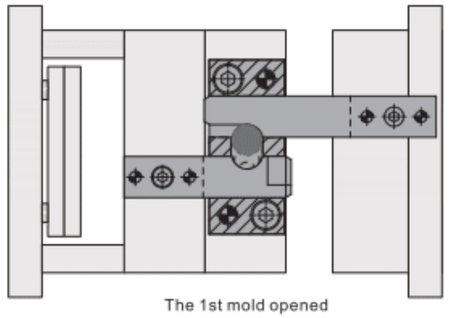
Latch locks

Installation Guidelines:
- Please install the cam holder in parallel to the parting line.
- Cut the cam lock to the necessary length, form the bolt holes and reamer pilot holes, tighten the cam lock with the bolts while pulling it, carry out position adjustment by matching with the actual part, form the dowel holes, and fix the cam lock.
- Please cut the release bar to the necessary length,and install it perpendicularly to the mold. Make sure overhang length L of each release bar the same in order to equalize the release points. (Maintain proper alignment of the release points to avoid uneven contact and resultant breakage.)
- Please install the latch lock symmetrically at least two sets or more.

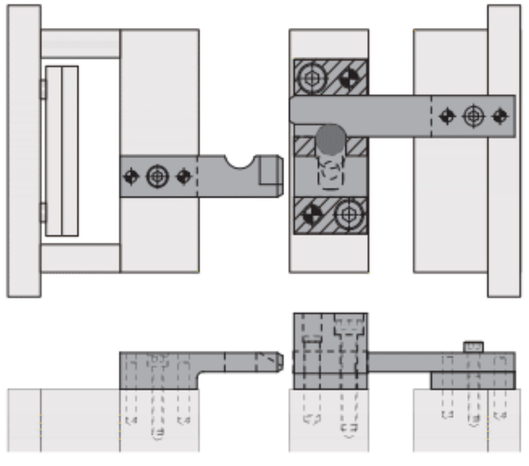
Functional chart:



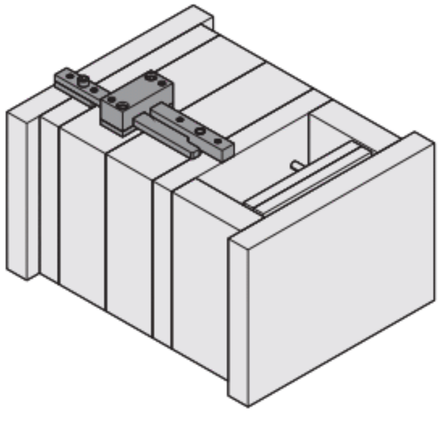
Mold colosed



The 1st mold opened



Mold opened completely

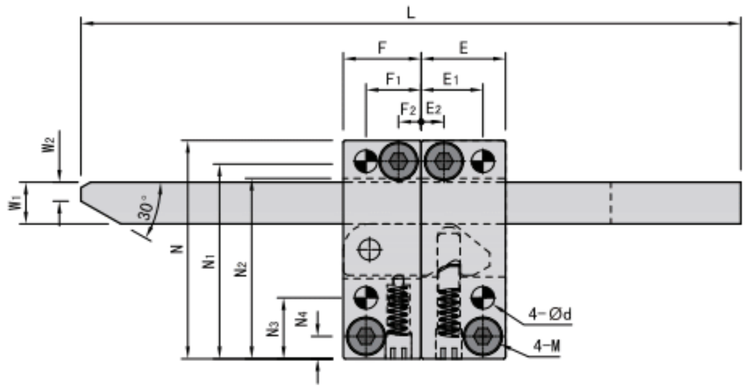


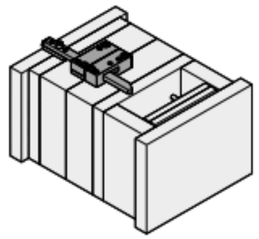
JIS

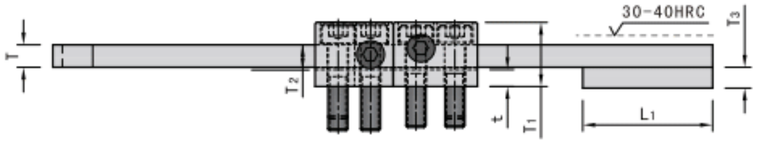
Latch locks

PPLS
PPLM
PPLL









Features:
1.Compact structure, small installation space .
2.Mechanical mold locking design, safety and dependable, right opening mold, no reacting force.
3.No mold locking load, apply to low pressure mold locking shaping.
4.No auto-lock function of closed mould, no matter first or second joint face during closed mould, don't worry interference phenomenon.
5.The end of insert bar adopt high frequency annealing treatment ,Convenient second processing.

Order PPLS

Code	N	N1	N2	N3	N4	E	E1	E2	F	F1	F2	d	t
PPLS	68	61.5	55	19	7	26	19	7	24	17	7	Ø 6	6
PPLM	88	79	70	24	9	38	29	9	30	21	9	Ø 8	7
PPLL	104	93	82	27	11	48	37	11	38	27	11	Ø10	8

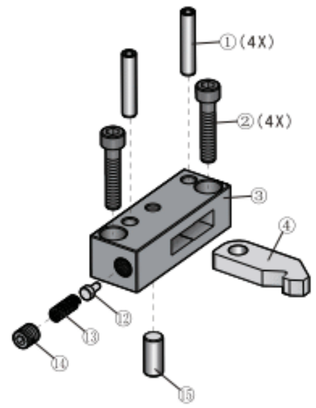
Code	T	T1	T2	T3	W1	W2	L	L1	Mounting screws	Dowel pin	@¥/P
PPLS	7	20	8	6.5	13	5.9	250	40	M 6×25	Ø 6×30	
PPLM	10	30	12	8	16	8	300	50	M 8×35	Ø 8×40	
PPLL	15.5	45	20	10.2	20	9.5	350	55	M10×50	Ø10×50	

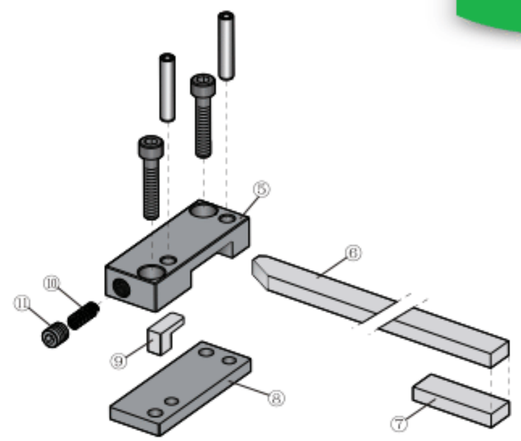
JIS

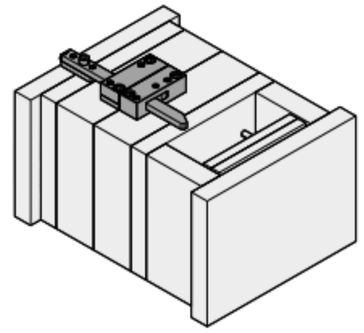
Latch locks

PPLS
PPLM
PPLL

Product space chart:







Pos	Parts name	Material	Hardness
3	Cam housing	S50C	45± 2HRC
4	Cam lock	SKD61	50± 2HRC
5	Slide lock	S50C	45± 2HRC
6	Latch bar	Cr12MoV	58-62HRC
7	Spacer	S50C	-
8	Catching		45± 2HRC
9	Cam holder	SKD61	50± 2HRC

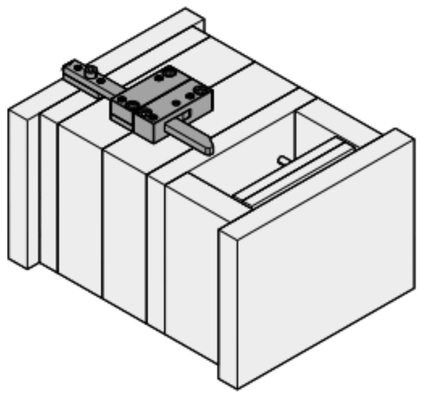
Installation Guidelines:
- Drawing 1:Install the cam holder on the movable mold.
- Drawing 2:Install the slide holder with the cam holder, it might cause a looseness between the cam lock and the slide lock.
- Drawing 3:In order to eliminate looseness between the cam lock and the slide lock, insert the release bar temporarily fix the slide holder while pulling it parallel to the cam holder, ream the holes and press-fit the dowel pins.
- Drawing 4:Install the die in the molding machine, cut the release bar to the necessary length, form the bolt holes and reamer pilot holes, temporarily fix the release bar, check the sliding operation for the parting lock, and then ream the holes and press-fit the dowel pins.
- Drawing 5:When the front of insert bar distance from locking base S position, first opening mould stroke will be completely open.
- Latch lock is precision device, please rely on real object to fixed position and symmetry install, choose corresponding quantity (2set above) and code according to different mould size and load.(reserve three code to choose)
- Guarantee all install insert bar of latch lock stroke can release from pull hook and lock base when opening mould .otherwise only reply on press will break latch lock.
- Coordinate function test, check these parts of latch lock structure whether smoothly and stroke coincide or not .
- First remove latch lock device to follow-up operation if need maintenance and change.

JIS

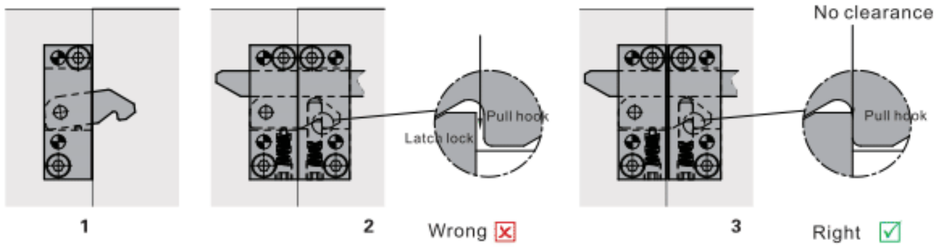
Latch locks

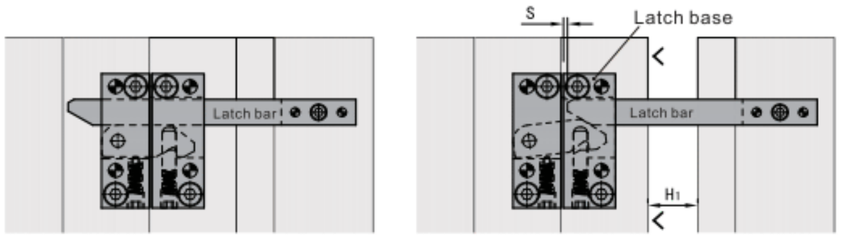
PPLS
PPLM
PPLL

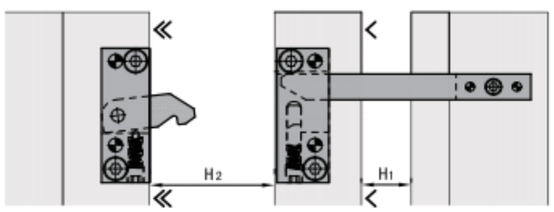




Installation Diagram:







Second opening mould

Code	S
PPLS	About 2mm
PPLM	About 11mm
PPLL	About 15mm

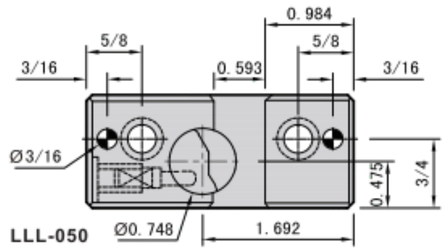
"S"size only for reference, please confirm opening mould according to real object.

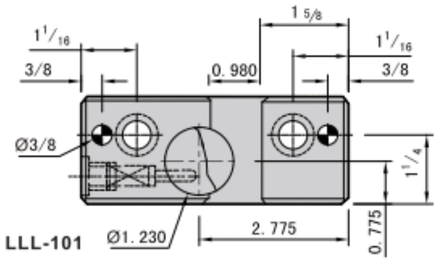
AISI

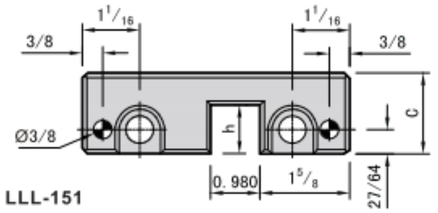
Latch locks

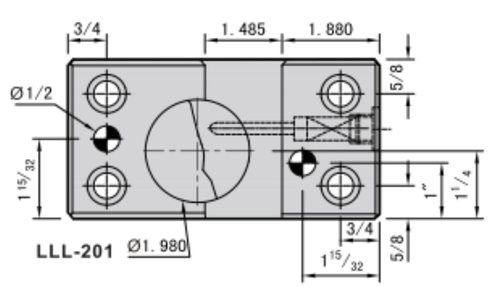
LLL

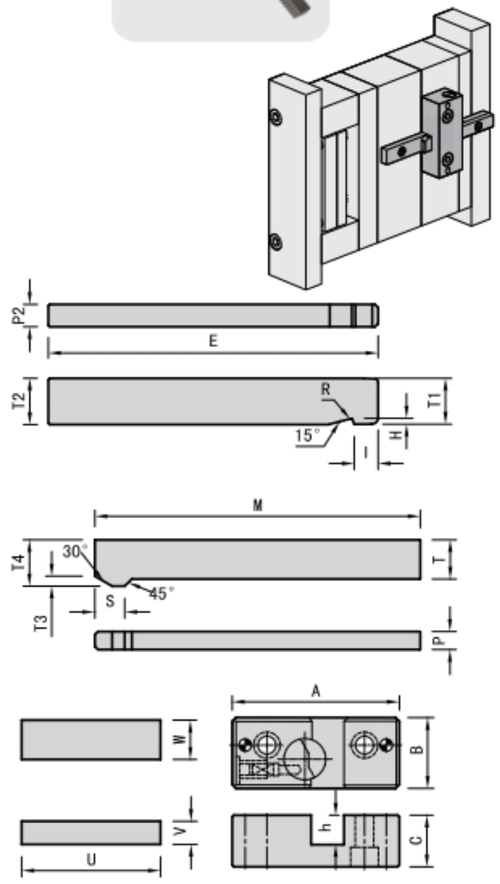












Order LLL-050

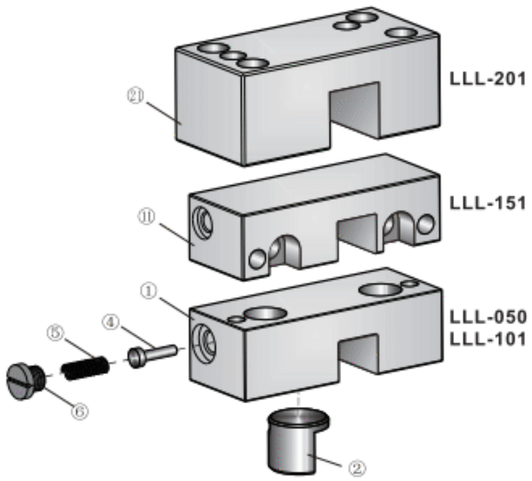
Code	A	B	C	h	H	E	I	P	P2	R	S
LLL-050	3	1 3/16	15/16	0.535	0.07	7	0.3	0.23	0.23	0.018	0.375
LLL-101	5	1 15/16	1 7/16	0.875	0.115	10	0.5	0.355	0.355	0.03	0.625
LLL-151											
LLL-201	6	2 15/16	2 7/16	1.5	0.187	16	0.625	0.475	0.475	0.04	0.875

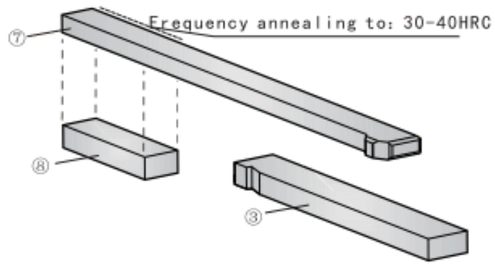
Code	T	T1	T2	T3	T4	U	V	W	M	Mounting screws	@¥/P
LLL-050	0.5	0.585	0.59	0.125	0.59	1.75	0.295	0.5	7	5/16	
LLL-101	0.825	0.967	0.977	0.1875	0.977	3	0.488	0.875	10	0.5	
LLL-151											
LLL-201	1.255	1.465	1.475	0.275	1.475	4.5	0.995	1.5	16		

AISI

Latch locks

Product space chart:



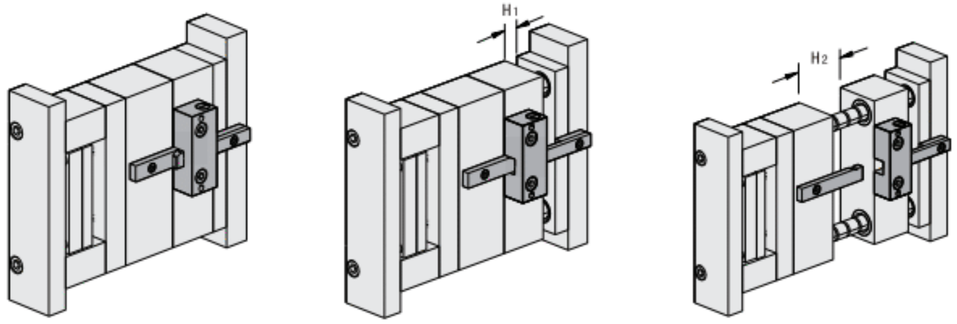


Pos	Parts name	Material	Hardness
1	Housing		
11	Control Bracket	718H	28-38HRC
21			
2	Roller insert	SKD61	52± 2HRC
3	Control bar	718H	Surface nitrided
7	Latch bar	Cr12MoV	55-58HRC
8	Spacer	S45	-

Installation Guidelines:

- Body parallel to joint face installed on fixed mould plate, bar vertical on joint face installed on removable mould plate, please notes when install this bar ensure mould in closed mould, at the same eliminate the space between bar and roller inserts.
- These parts of Latch lock have to symmetrical install on the mould ,According to stroke to confirm bar length, Guarantee various parts accurate installation and running, then to do bar and installed in dowel pin holes.
- Every mould suggest to symmetrical installed 4sets, please notes precision control make stroke same during opening mould, if no symmetrical install or different stroke will make single set latch lock get force, imbalance force will cause lath lock break.
- Coordinate function test, check these parts of latch lock structure whether smoothly and stroke coincide or not.
- First remove latch lock device to follow-up operation if need maintenance and change.

Functional chart:



Mold closed

First finish opening mold

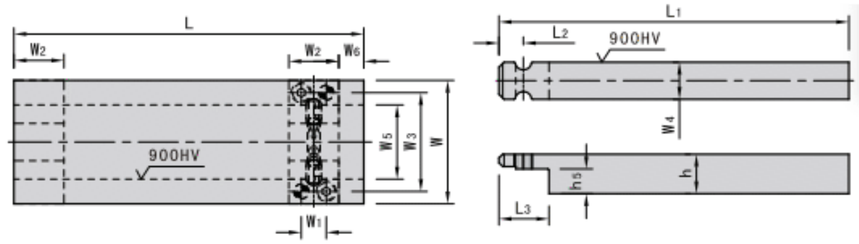
Mold opened

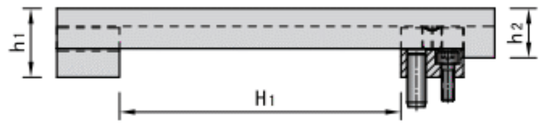
DIN

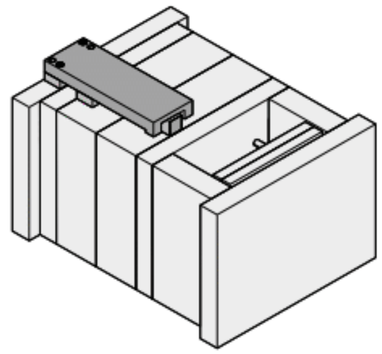
Latch locks

ZZ174

CAD 2D · CAD 3D · FL









Features:

1. Due to double-sided locking system ,safe and reliable.
2. The key parts are made of SKD11,with high wearproof ,more durable.
3. With the extended HV stroke latch bar ,extensively usage.
4. Big locking force .choose corresponding quantity and code according to mould size and load. (reserve three code to choose)

☎Order ZZ174-W-H1

W	H1 max.	H1 min.	L	L1	L2	L3	Dowel pin	Pulling force Max. F(kgf)	Mounting screws
50	90	4	140	140	9.75	20	6×20	1600	M4×12
	130		180	180					
80	117	5.5	200	200	16.75	34		2700	M6×16
	167		250	250					
100	145	7			22.25	45	8×24	4800	M8×18
	195		300	300					

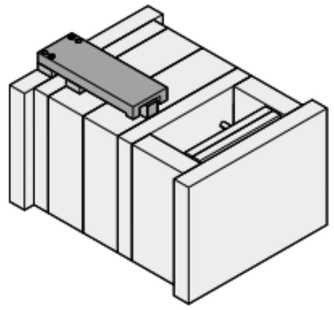
W1	W2	W3	W4	W5	h	h1	h2	h5	@¥/P
10	20	40	15	30.05	16	22.3	16	10	
16	34	60	20	40.05	21	30.3	22	13	
22	45	80	25	60.05	27	37.5	27	16	

kgf=N × 0.101972

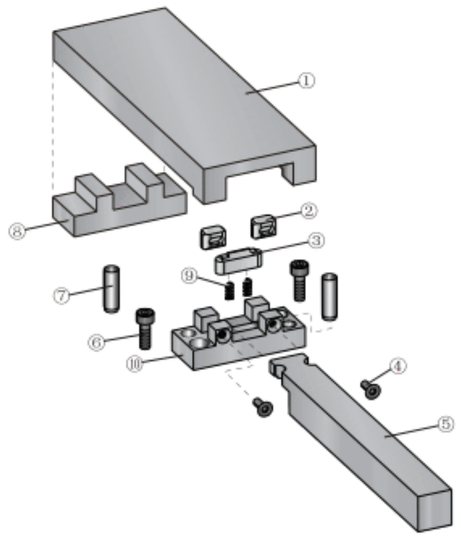
DIN
Latch locks

ZZ174





Product space chart:

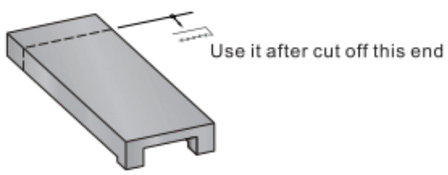


Pos	Parts name	Material	Hardness
1	Control Bracket	718H	≈900HV
2	Catch	SKD11	58-62HRC
3	Stop		
5	Latch bar	718H	28-38HRC
8	Spacer	S45C	-
10	Catch housing	718H	28-38HRC

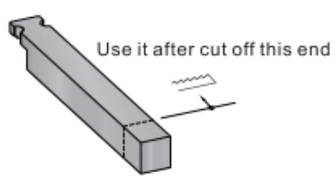
Installation Guidelines:

- Installed ball slide ,request parallel with joint face to install.
- Installed insert bar ,cut off insert bar length according to real demand .and processing screw holes . make sure mould completely closed mould before locking screw .at the same eliminate the space between insert bar and ball .then to do with dowel pin holes.
- Ball slide and insert bar symmetrical install on the mould ,According to stroke to confirm body length. Ensure various parts install correctly and normal running,then to do with body and install fixed position dowel pin holes.
- Every mould suggest to symmetrical installed 2sets or above 2sets ,please notes same stroke and symmetrical install during opening mould ,if no symmetrical install or different stroke will cause lath lock break.
- Coordinate function test ,check these parts of latch lock structure whether smoothly and stroke coincide or not.
- First remove latch lock device to follow-up operation if need maintenance and change.

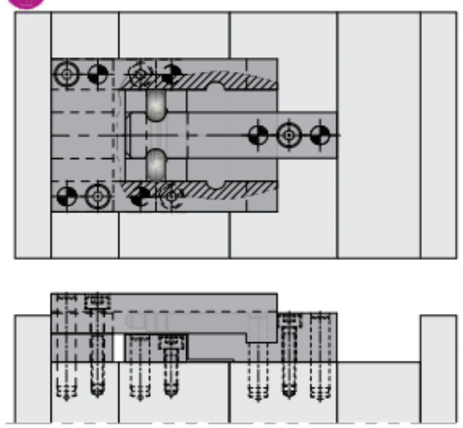
Body cut off drawing:



Insert bar cut off drawing:

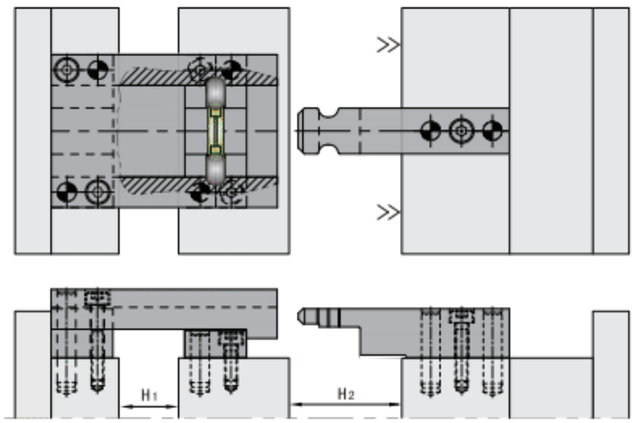


Functional chart:



Mold closed

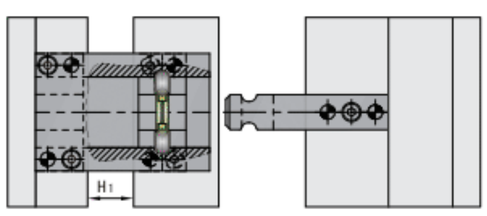
Drawing 2 first opening (closed) mould finished



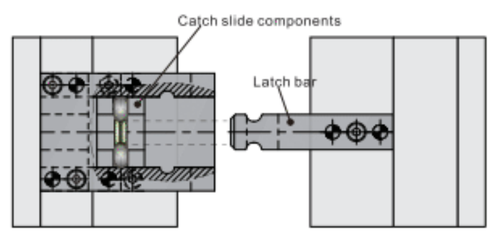
Second opening mould

This latch lock with control opening and closed mould function opening mould sequence:
drawing 1>drawing 2>drawing 3
closed mould sequence :
drawing 3>drawing 2>drawing 1

Warning:
As below drawing show, when insert bar release ball slide parts. must be sure ball slide in this A drawing position, otherwise will cause insert bar can't insert into ball slide and break latch lock mechanism.



A Right ☑

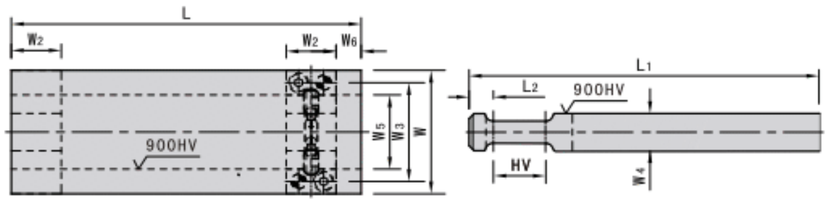


B Wrong ☒

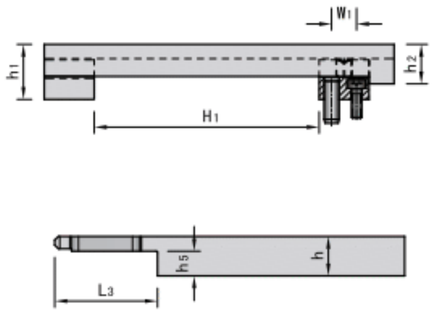
DIN

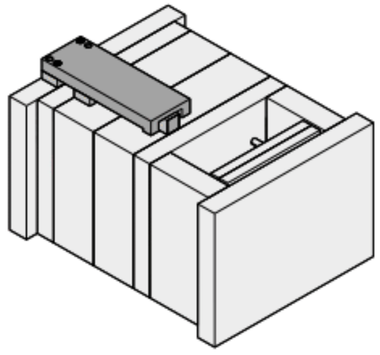
Latch locks

ZZ174









Features:

1.1.Due to double-sided locking system, safe and reliable.
2.The key parts are made of SKD11, with high wearproof, more durable.
3.With the extended HV stroke latch bar, extensively usage.
4.Big locking force. choose corresponding quantity and code according to mould size and load.(reserve three code to choose)

Order ZZ174-W-H1-Hv

W	H1 max.	H1 min.	Hv	L	L1	L2	L3	Dowel pin	Pulling force MaX. F(kgf)	Mounting screws
50	90	4	20	140	140	9.75	20	6×20	1600	M4×12
	130		50	180	180					
80	117	5.5	32	200	200	16.75	34		2700	M6×16
	167		75	250	250					
100	145	7	50			22.25	45	8×24	4800	M8×18
	195		80	300	300					

W1	W2	W3	W4	W5	h	h1	h2	h5	@¥/P
10	20	40	15	30.05	16	22.3	16	10	
16	34	60	20	40.05	21	30.3	22	13	
22	45	80	25	60.05	27	37.5	27	16	

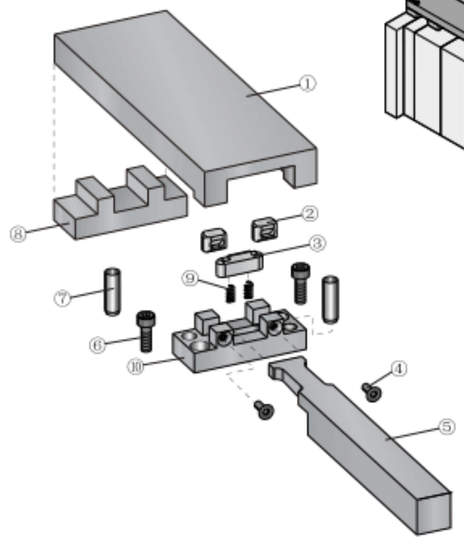
kgf=N × 0.101972

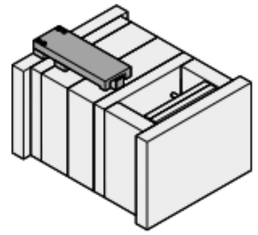
DIN

Latch locks

ZZ174

Product space chart:







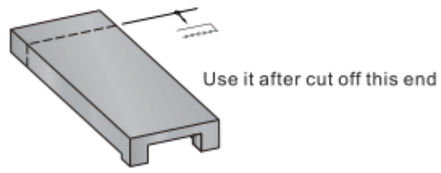
Screw (4)no real application function, before latch lock installed on the mould, prevent ball slide (2)drop out or forget during installing.

Pos	Parts name	Material	Hardness
1	Control Bracket	718H	=900HV
2	Catch	SKD11	58-62HRC
3	Stop		
5	Latch bar	718H	28-38HRC
8	Spacer	S45C	-
10	Catch housing	718H	28-38HRC

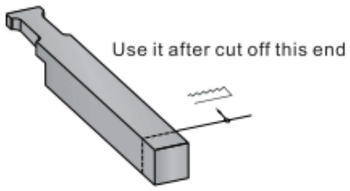
Installation Guidelines:

- Installed ball slide, request parallel with joint face to install.
- Installed insert bar, cut off insert bar length according to real demand.and processing screw holes. mould HV stroke in completely opening condition. at the same eliminate the space between insert bar and ball.then to do with dowel pin holes.
- Ball slide and insert bar symmetrical install on the mould,According to stroke to confirm body length. Ensure various parts install correctly and normal running, then to do with body and install fixed position dowel pin holes.
- Every mould suggest to symmetrical installed 2sets or above 2sets, please notes same stroke and symmetrical install during opening mould,if no symmetrical install or different stroke will cause lath lock break.
- Coordinate function test, check these parts of latch lock structure whether smoothly and stroke coincide or not.
- First remove latch lock device to follow-up operation if need maintenance and change.

Body cut off drawing:



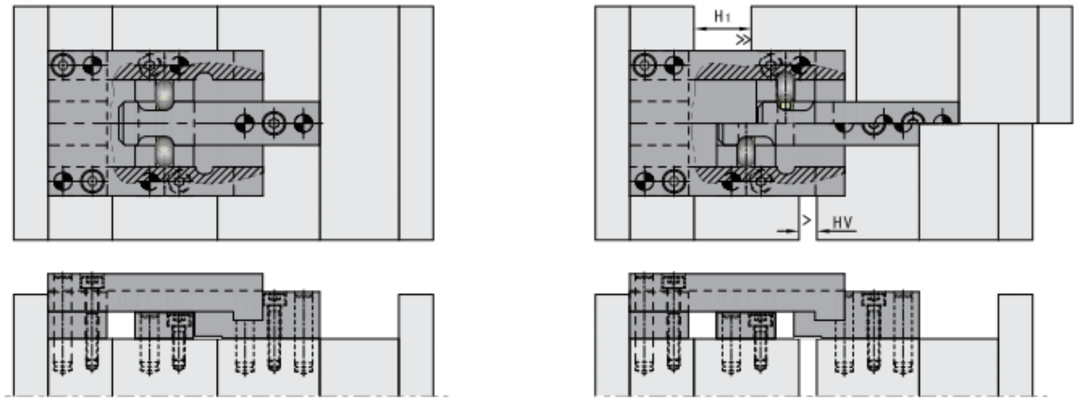
Insert bar cut off drawing:



DIN

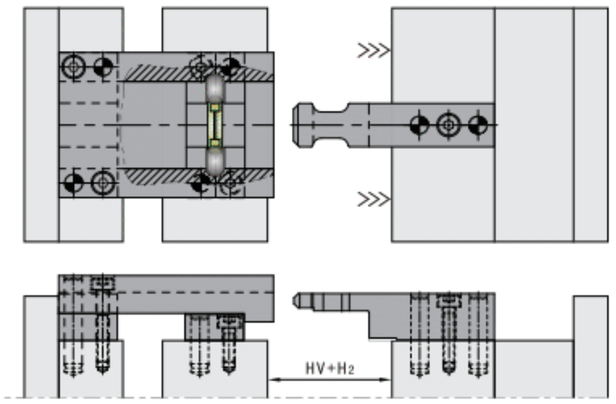
Latch locks

Functional chart(Hv):



Mold closing

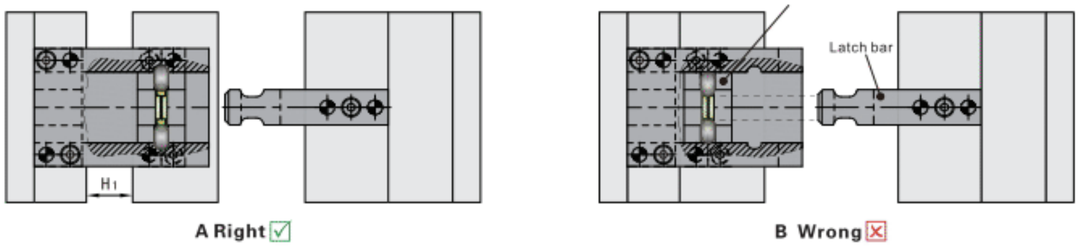
Drawing 2 first opening（closed）mould finished



Second opening mould

This latch lock with control opening and closed mould function:
opening mould sequence:
drawing 1>drawing 2>drawing 3
closed mould sequence:
drawing 3>drawing 2>drawing 1

Warning:
As below drawing show, when insert bar release ball slide parts. must be sure ball slide in this A drawing position, otherwise will cause insert bar can't insert into ball slide and break latch lock mechanism.



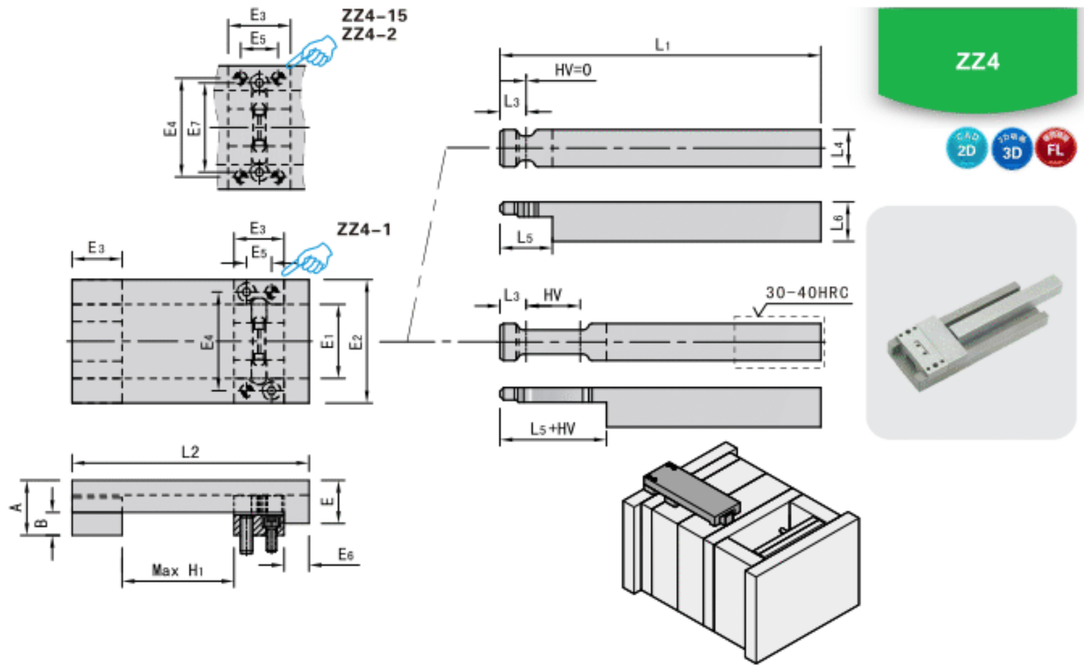
A Right ☑　　B Wrong ☒

DIN

Latch locks

ZZ4

2D 3D FL



Features:
1.Due to double-sided locking system, safe and reliable .
2.The end of insert bar high frequency annealing treatment .easy to install and processing.
3.With the extended HV stroke latch bar ,extensively usage.

☎Order　ZZ4-1-0-0

E2	Hv	A	B	H1	E	E1	E3	E4	E5	E6
50	0 25 50 75	22.3	9.3	96	17.5	30	20	40	10	10
75	0 25 50 75	30.3	12.3	121	23.5	45	30	65	20	15
90	0 25 50 75	37.5	15.5	159	29	60	36	74	25	

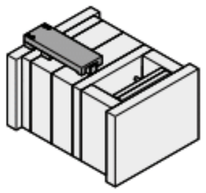
Code	E7	L1	L2	L3	L4	L5	L6	Dowel pin	Mounting screws	@¥/P
ZZ4- 1- 0-0 ZZ4- 1-25-0 ZZ4- 1-50-0 ZZ4- 1-75-0	-	146	146	10	15	21	16	Ø5×16	M4×12	
ZZ4-15- 0-0 ZZ4-15-25-0 ZZ4-15-50-0 ZZ4-15-75-0	56	196	196	15	20	31	21	Ø5×20	M8×16	
ZZ4- 2- 0-0 ZZ4- 2-25-0 ZZ4- 2-50-0 ZZ4- 2-75-0	74	246	246	18	25	38	27	Ø6×20	M8×20	

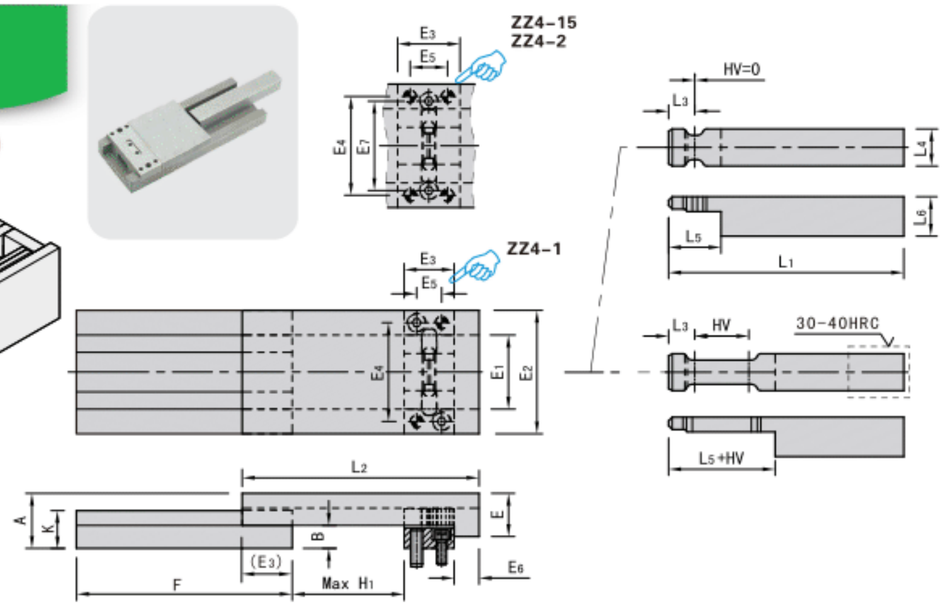
DIN

Latch locks

ZZ4

2D 3D FL





Features:
1.Due to double-sided locking system, safe and reliable.
2.The end of insert bar high frequency annealing treatment.easy to install and processing.
3.With the extended HV stroke latch bar, extensively usage.

☎Order ZZ4-1-0-41

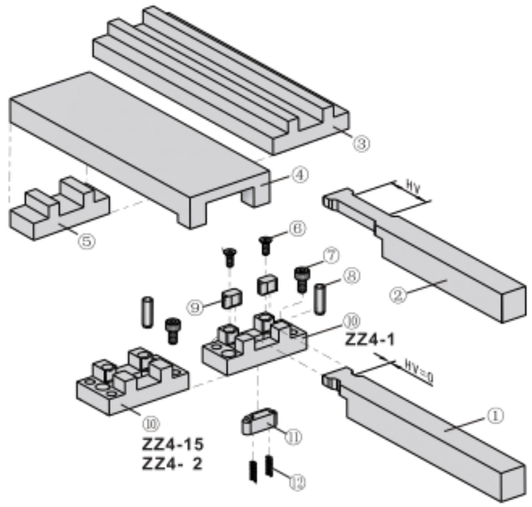
E2	Hv	H1	A	B	F	E	E1	E3	E4	E5	E6	E7
50	0 25 50 75	96	22.3	9.3	146	17.5	30	20	40	10	10	-
75	0 25 50 75	121	30.3	12.3	196	23.5	45	30	65	20	15	56
90	0 25 50 75	159	37.5	15.5	246	29	60	36	74	25		74

Code	K	L1	L2	L3	L4	L5	L6	Dowel pin	Mounting screws	@¥/P
ZZ4- 1- 0-41	16	146	146	10	15	21	16	Ø5×16	M4×12	
ZZ4- 1-25-41										
ZZ4- 1-50-41										
ZZ4- 1-75-41										
ZZ4-15- 0-41	21	196	196	15	20	31	21	Ø5×20	M8×16	
ZZ4-15-25-41										
ZZ4-15-50-41										
ZZ4-15-75-41										
ZZ4- 2- 0-41	27	246	246	18	25	38	27	Ø6×20	M8×20	
ZZ4- 2-25-41										
ZZ4- 2-50-41										
ZZ4- 2-75-41										

DIN

Latch locks

Product space chart:

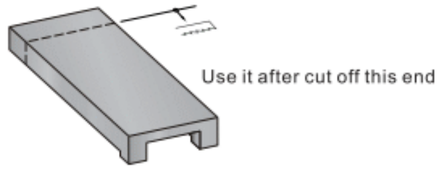


1.screw (6)no real application function, before latch lock installed on the mould , prevent ball slide (9)drop out or forget during installing.
2.ZZ4-15, ZZ4-2 compare with ZZ4-1 add 2pcs dowel pin.

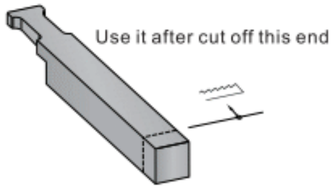
Pos	Parts name	Material	Hardness
1	Latch bar	Cr12MoV	55-58HRC
2	Spacer	S45C	-
3	Control Bracket	718H	≈900HV
4	Spacer	S45C	-
5	Catch	SKD11	58-62HRC
9	Catch housing	718H	28-38HRC
10	Stop	SKD11	58-62HRC

Installation Guidelines:
- Installed ball slide, request parallel with joint face to install.
- Installed insert bar, cut off insert bar length according to real demand.and processing screw holes. make sure mould is closed mould before locking tight the screw to do dowel pin holes.(Install insert bar with HV stroke, mould HV stroke shall be in completely opening condition. at the same eliminate the space between insert bar and ball .then to do with dowel pin holes.
- Ball slide and insert bar symmetrical install on the mould, According to stroke to confirm body length. Ensure various parts install correctly and normal running, then to do with body and install fixed dowel pin holes.
- Every mould suggest to symmetrical installed 2sets or above 2sets ,please notes same stroke and symmetrical install during opening mould ,if no symmetrical install or different stroke will cause lath lock break.
- Coordinate function test, check these parts of latch lock structure whether smoothly and stroke coincide or not.
- First remove latch lock device to follow-up operation if need maintenance and change.

Body cut off drawing:



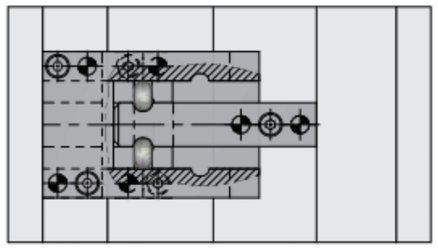
Insert bar cut off drawing:



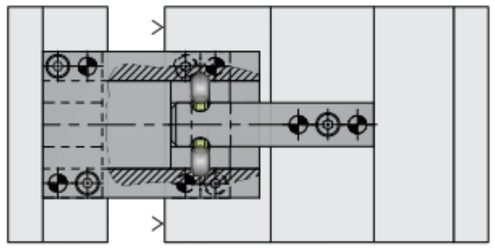
DIN

Latch locks

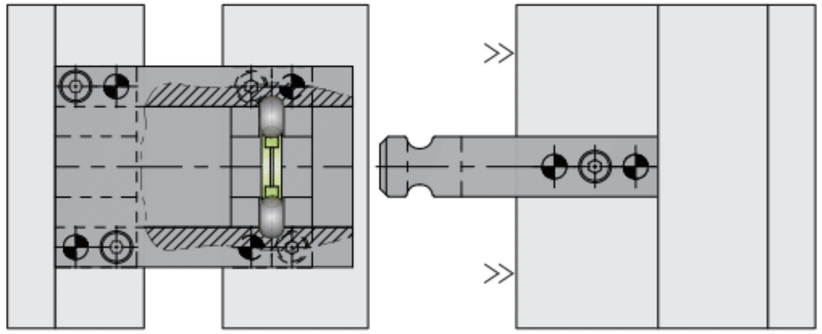
Functional chart(Hv=0):

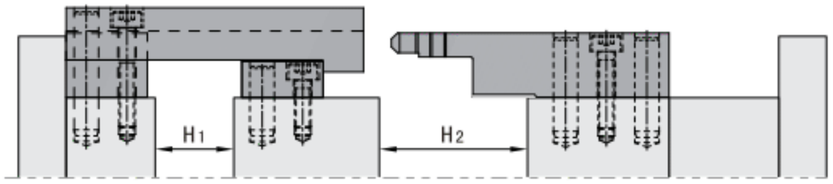


Mold closed



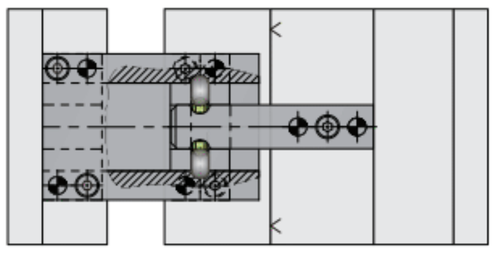
Second opening mould



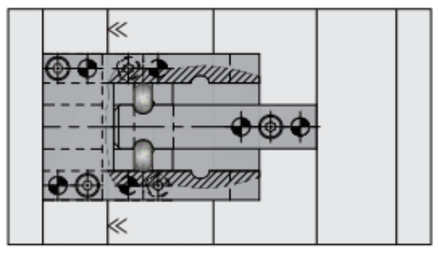


Second opening mould

This latch lock with control opening and closed mould function:
opening mould sequence:drawing 1>drawing 2>drawing 3
closed mould sequence:drawing 3>drawing 4>drawing 5



First closed mould finished



Closed mould

DIN

Latch locks

Functional chart(Hv):

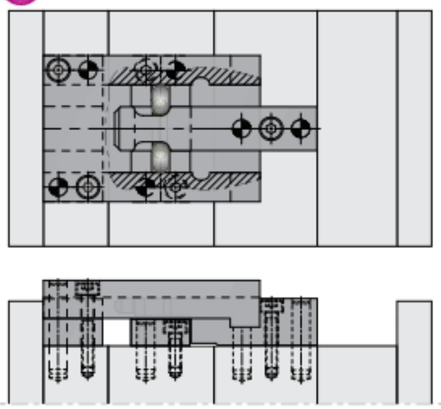


Diagram1 Mold closed

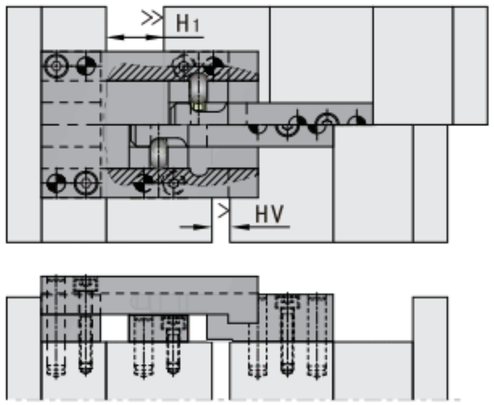
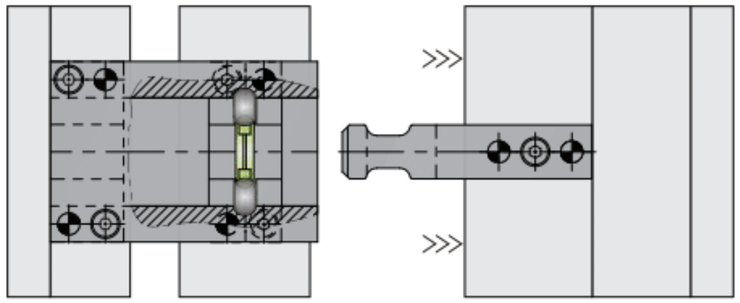


Diagram2: First finish opening(closed) mold



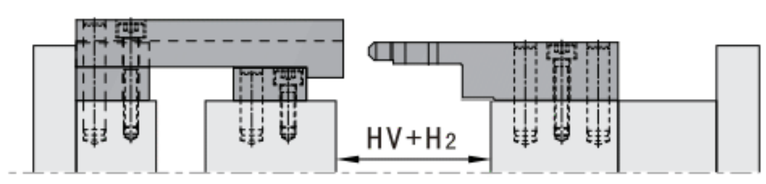
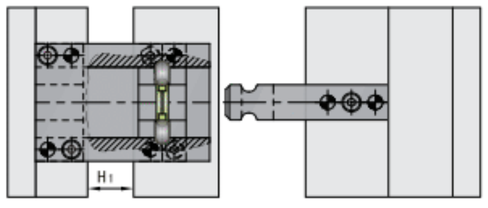


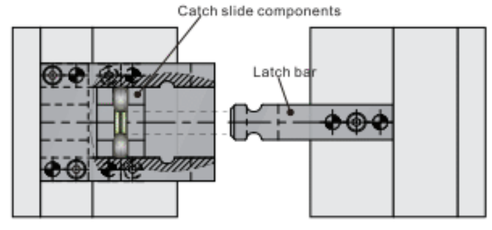
Diagram3: Second opening mould

This latch lock with control opening and closed mould function:
opening mould sequence:drawing 1>drawing 2>drawing 3
closed mould sequence:drawing 3>drawing 2>drawing 1

Warning:
As below drawing show, when insert bar release ball slide parts.must be sure ball slide in this A drawing position, otherwise will cause insert bar cant insert into ball slide and break latch lock mechanism.



A Right ☑

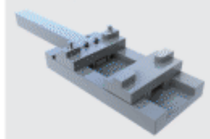


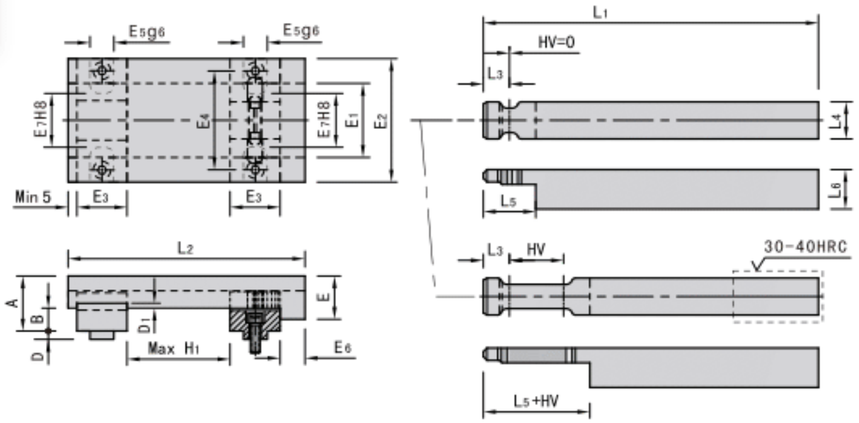
B Wrong ☒

DIN

Latch locks

ZZ4





Features:
1.Due to double-sided locking system ,safe and reliable.
2.The end of insert bar high frequency annealing treatment. easy to install and processing.
3.With the extended HV stroke latch bar, extensively usage.
4.Ball slide and the base of pad add a fixed position bulge, instead of traditional dowel pin to fixed position.

☎Order ZZ4-11-0-0

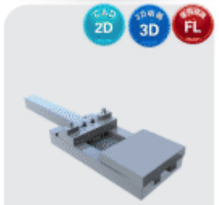
E2	Hv	H1	A	B	E	E1	E3	E4	E5	E6	E7
50	0 25 50 75	91	22.3	9.3	17.5	30	20	38	10	10	22
75	0 25 50 75	116	30.3	12.3	23.5	45	30	56	12	15	30
90	0 25 50 75	154	37.5	15.5	29	60	36	72	14		38

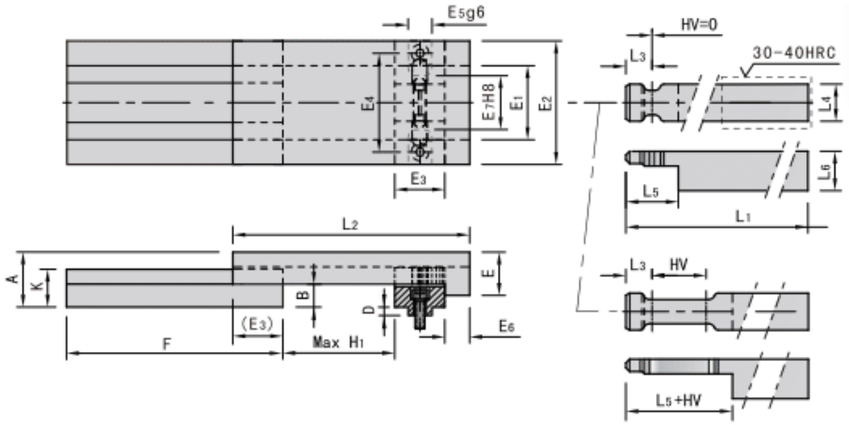
Code	D	D1	L1	L2	L3	L4	L5	L6	Mounting screws	@¥/P
ZZ4-11- 0-0 ZZ4-11-25-0 ZZ4-11-50-0 ZZ4- 11-75-0	4	3	146	146	10	15	21	16	M 6×20	
ZZ4-16- 0-0 ZZ4-16-25-0 ZZ4-16-50-0 ZZ4-16-75-0	5	4.5	196	196	15	20	31	21	M 8×25	
ZZ4-21- 0-0 ZZ4-21-25-0 ZZ4-21-50-0 ZZ4-21-75-0	6	6	246	246	18	25	38	27	M10×30	

DIN

Latch locks

ZZ4





Features:
1.Due to double-sided locking system, safe and reliable.
2.The end of insert bar high frequency annealing treatment. easy to install and processing.
3.With the extended HV stroke latch bar, extensively usage.
4.Ball slide and the base of pad add a fixed position bulge, instead of traditional dowel pin to fixed position.

☎Order ZZ4-11-0-41

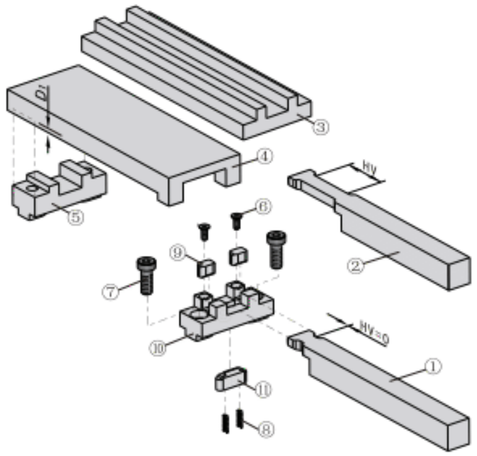
E2	Hv	H1	A	B	F	E	E1	E3	E4	E5	E6	E7
50	0 25 50 75	91	22.3	9.3	4	17.5	30	20	38	10	10	22
75	0 25 50 75	116	30.3	12.3	5	23.5	45	30	56	12	15	30
90	0 25 50 75	154	37.5	15.5	6	29	60	36	72	14		38

Code	K	L1	L2	L3	L4	L5	L6	D	Mounting screws	@¥/P
ZZ4-11- 0-41 ZZ4-11-25-41 ZZ4-11-50-41 ZZ4-11-75-41	16	146	146	10	15	21	16	4	M 6×20	
ZZ4-16- 0-41 ZZ4-16-25-41 ZZ4-16-50-41 ZZ4-16-75-41	21	196	196	15	20	31	21	5	M 8×25	
ZZ4-21- 0-41 ZZ4-21-25-41 ZZ4-21-50-41 ZZ4-21-75-41	27	246	246	18	25	38	27	6	M10×30	

DIN

Latch locks

Product space chart:



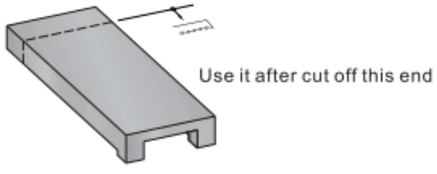
Pos	Parts name	Material	Hardness
1	Latch bar	Cr12MoV	55-58HRC
2	Spacer	S45C	-
3	Control Bracket	718H	=900HV
4	Spacer	S45C	-
5	Catch	SKD11	58-62HRC
9	Catch housing	718H	28-38HRC
10	Stop	SKD11	58-62HRC
11			

Screw (6)no real application function, before latch lock installed on the mould, prevent ball slide (9)drop out or forget during installing.

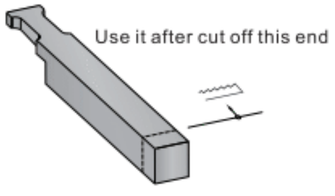
Installation Guidelines:

- Installed ball slide, request parallel with joint face to install.
- Installed insert bar, cut off insert bar length according to real demand. and processing screw holes. make sure mould is closed mould before locking tight the screw to do dowel pin holes.(Install insert bar with HV stroke, mould HV stroke shall be in completely opening condition. at the same eliminate the space between insert bar and ball .then to do with dowel pin holes.
- Ball slide and insert bar symmetrical install on the mould, According to stroke to confirm body length. Ensure various parts install correctly and normal running,then to do with body and install fixed dowel pin holes.
- Every mould suggest to symmetrical installed 2sets or above 2sets ,please notes same stroke and symmetrical install during opening mould ,if no symmetrical install or different stroke will cause lath lock break.
- Coordinate function test, check these parts of latch lock structure whether smoothly and stroke coincide or not.
- First remove latch lock device to follow-up operation if need maintenance and change.

Body cut off drawing:



Insert bar cut off drawing:



DIN

Latch locks

Functional chart(Hv=0):

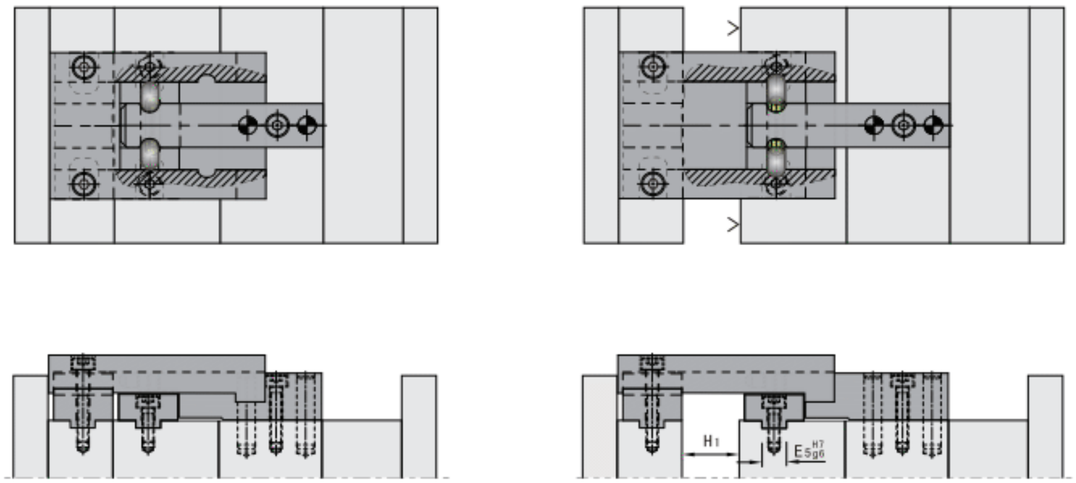


Diagram1: Mold closed

Diagram: First finish opening(closed) mold

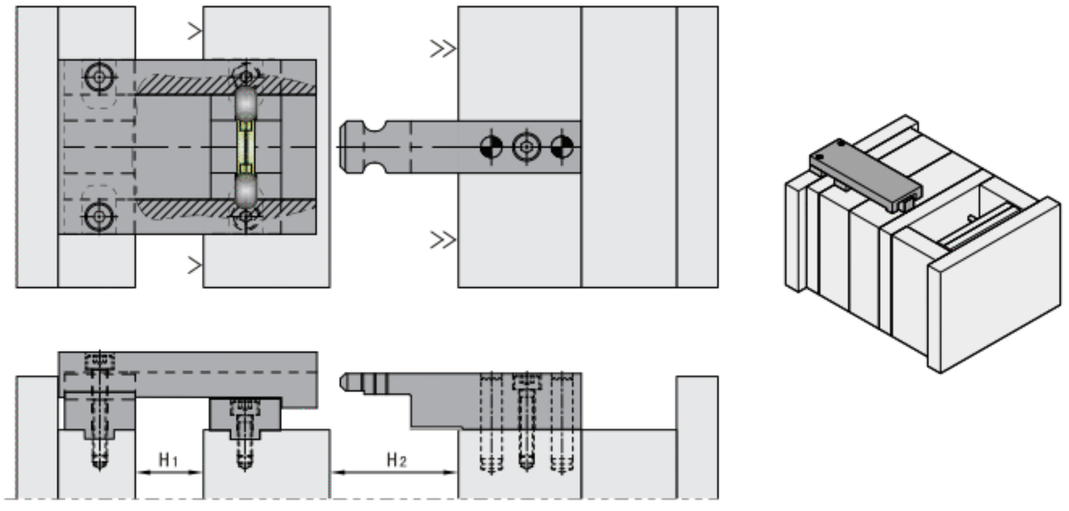


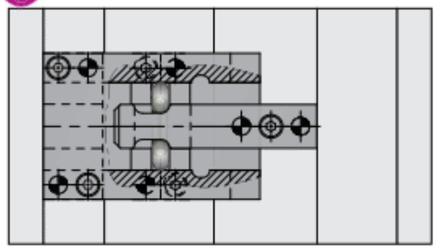
Diagram3: Second opening mould

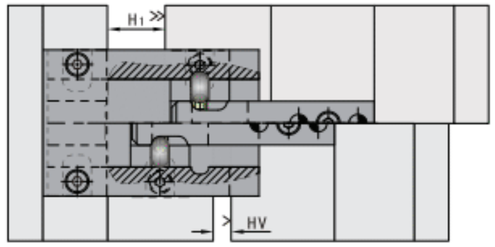
This latch lock with control opening and closed mould function:
opening mould sequence:drawing 1>drawing 2>drawing 3
closed mould sequence: drawing 3>drawing 2>drawing 1

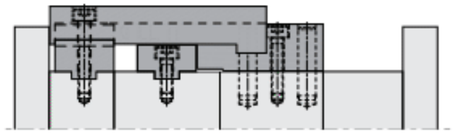
DIN

Latch locks

Functional chart(Hv):







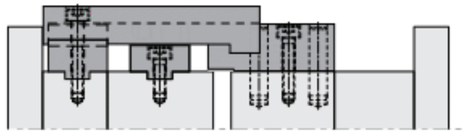
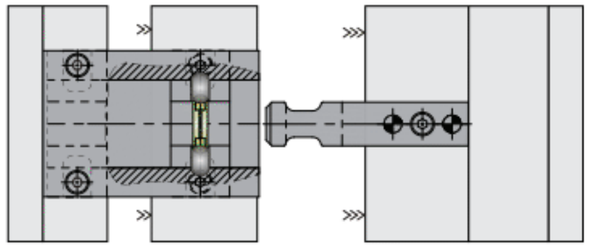
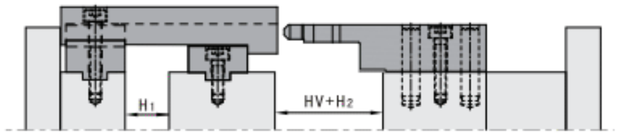


Diagram1: Mold closed

Diagram2: First finish opening(closed) mold

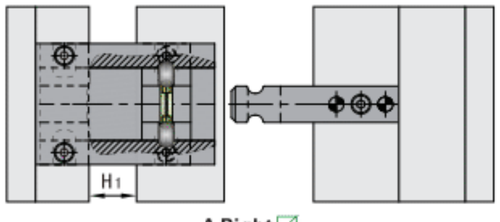




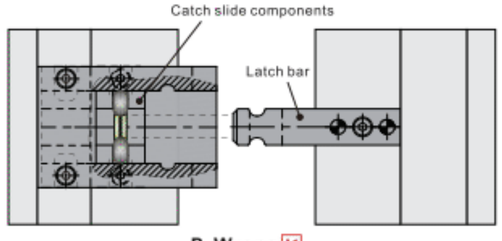
This latch lock with control opening and closed mould function:
opening mould sequence:
drawing 1>drawing 2>drawing 3
closed mould sequence:
drawing 3>drawing 2>drawing 1

Diagram3: Second opening mould

Warning:
As below drawing show, when insert bar release ball slide parts.must be sure ball slide in this A drawing position, otherwise will cause insert bar cant insert into ball slide and break latch lock mechanism.



A Right ☑

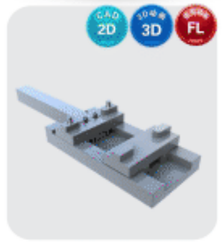


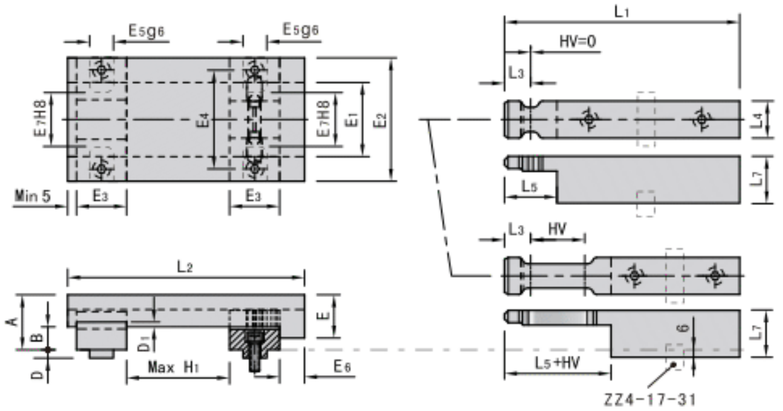
B Wrong ☒

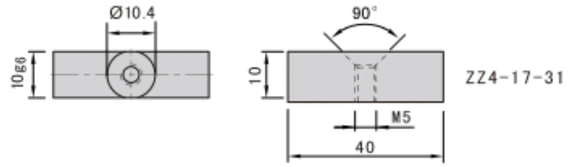
DIN

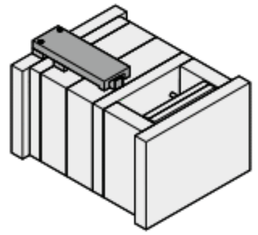
Latch locks

ZZ4









Features:
1.Due to double-sided locking system, safe and reliable.
2.The end of insert bar high frequency annealing treatment.asy to install and processing.
3.With the extended HV stroke latch bar, extensively usage.

☎Order ZZ4-12-0-0

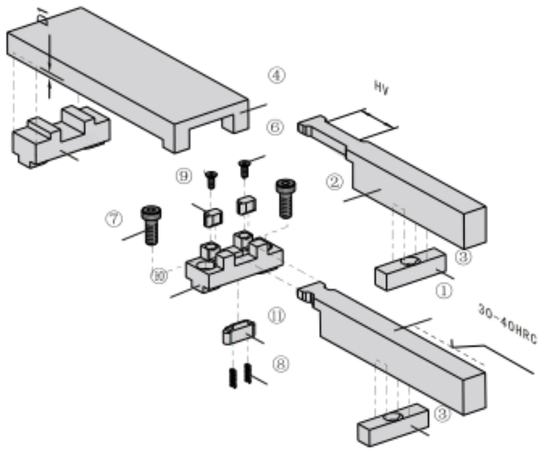
E2	Hv	H1	A	B	E	E1	E3	E4	E5	E6	E7
50	0 25 50 75	91	22.3	9.3	17.5	30	20	38	10	10	22
75	0 25 50 75	116	30.3	12.3	23.5	45	30	56	12	15	30
90	0 25 50 75	154	37.5	15.5	29	60	36	72	14		38

Code	D	D1	L1	L2	L3	L4	L5	L7	Mounting screws	@¥/P
ZZ4-12- 0 ZZ4-12-25 ZZ4-12-50 ZZ4-12-75	4	3	146	146	10	15	21	22	M 6×20	
ZZ4-17- 0 ZZ4-17-25 ZZ4-17-50 ZZ4-17-75	5	4.5	196	196	15	20	31	27	M 8×20	
ZZ4-22- 0 ZZ4-22-25 ZZ4-22-50 ZZ4-22-75	6	6	246	246	18	25	38	33	M10×30	

DIN

Latch locks

Product space chart:



ZZ4-17-31

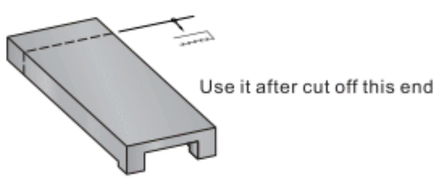
1. Screw (6)no real application function, before latch lock installed on the mould, prevent ball slide (9)drop out or forget during installing.
2. Use lock block can fixed position or self -processing dowel pin holes in insert bar.
3. The end of insert bar annealing treatment.

Pos	Parts name	Material	Hardness
1	Latch bar	Cr12MoV	55-58HRC
2			
3	Parallel Key	S45C	-
4	Control Bracket	718H	=900HV
5	Spacer	S45C	-
9	Catch	SKD11	58-62HRC
10	Catch housing	718H	28-38HRC
11	Stop	SKD11	58-62HRC

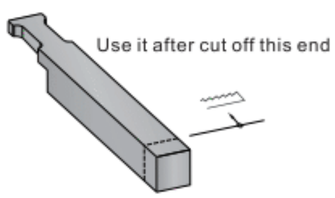
Installation Guidelines:

- Installed ball slide,request parallel with joint face to install.
- Installed insert bar,cut off insert bar length according to real demand .and processing screw holes. make sure mould is closed mould before locking tight the screw to do dowel pin holes.(Install insert bar with HV stroke, mould HV stroke shall be in completely opening condition. at the same eliminate the space between insert bar and ball .then to do with dowel pin holes.
- Ball slide and insert bar symmetrical install on the mould, According to stroke to confirm body length. Ensure various parts install correctly and normal running, then to do with body and install fixed dowel pin holes.
- Every mould suggest to symmetrical installed 2sets or above 2sets ,please notes same stroke and symmetrical install during opening mould, if no symmetrical install or different stroke will cause lath lock break.
- Coordinate function test, check these parts of latch lock structure whether smoothly and stroke coincide or not.
- First remove latch lock device to follow-up operation if need maintenance and change.

Body cut off drawing:



Insert bar cut off drawing:



Functional chart:

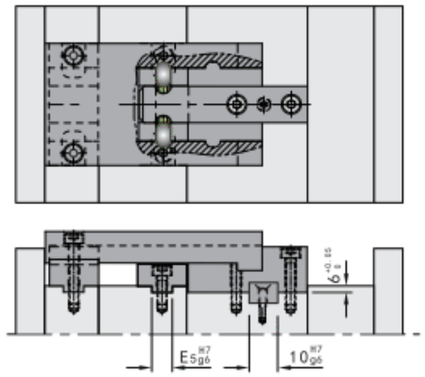


Diagram1: Mold closed

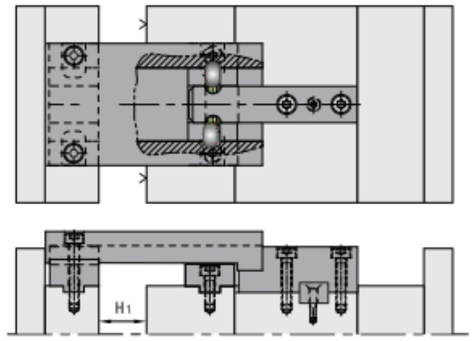


Diagram2: First finish opening mold

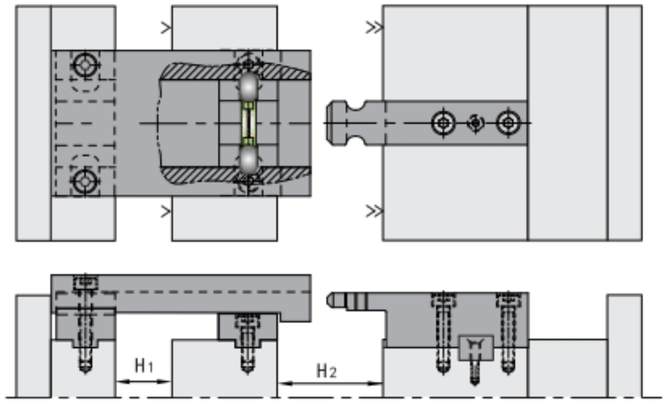
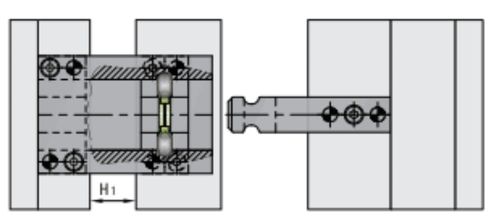


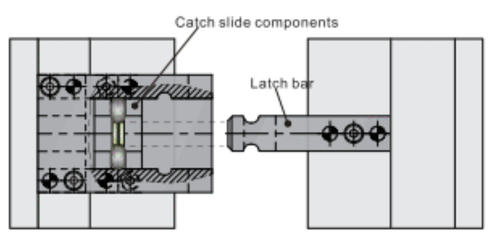
Diagram3: Second opening mould

This latch lock with control opening and closed mould function:
opening mould sequence:
drawing 1>drawing 2>drawing 3
closed mould sequence:
drawing 3>drawing 2>drawing 1

Warning:
As below drawing show, when insert bar release ball slide parts.must be sure ball slide in this A drawing position, otherwise will cause insert bar cant insert into ball slide and break latch lock mechanism.



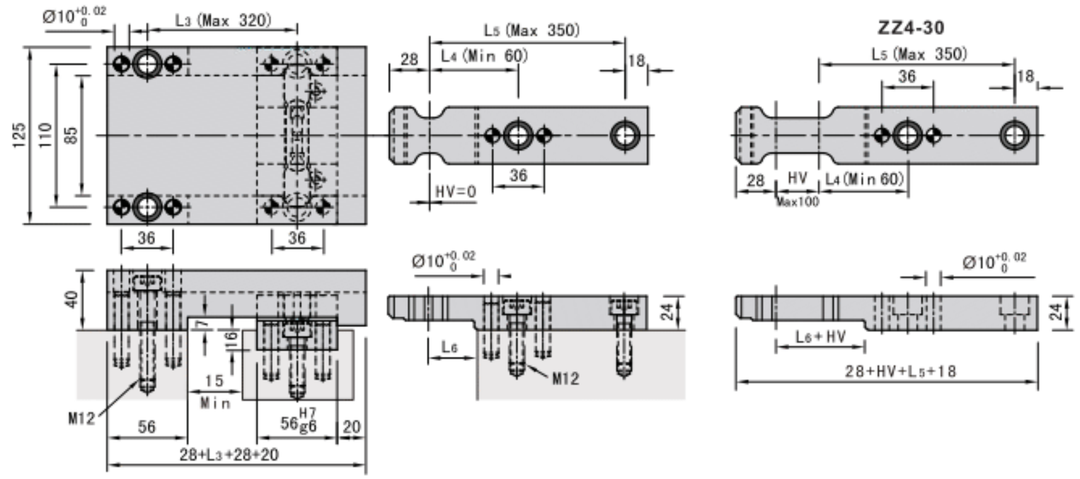
A Right ☑



B Wrong ☒

DIN

Latch locks

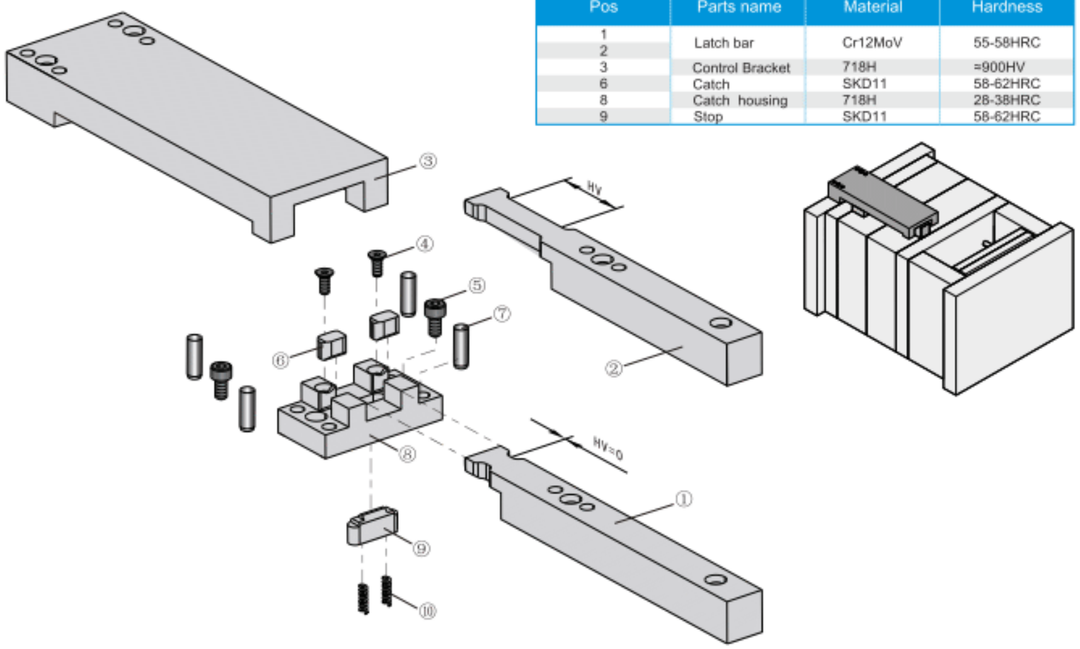


Order ZZ4-30-Hv-L3-L4-L5-L6

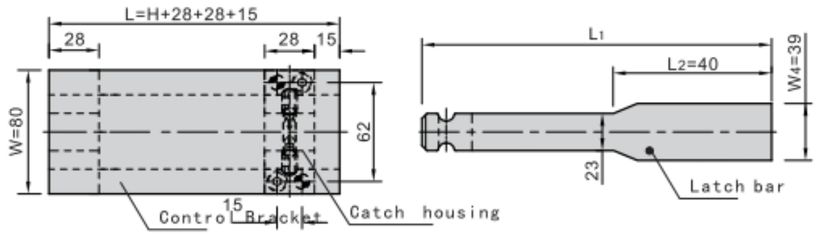
Features:
1.Due to double-sided locking system, safe and reliable.
2.This code isZZ4 series enhanced latch lock,bigger locking force ,apply to big mould
3.With the extended HV stroke latch bar, extensively usage.

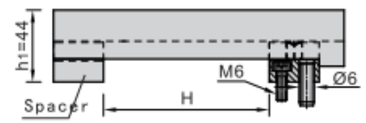
Product space chart:

Pos	Parts name	Material	Hardness
1	Latch bar	Cr12MoV	55-58HRC
2	Control Bracket	718H	=900HV
3	Catch	SKD11	58-62HRC
6	Catch housing	718H	28-38HRC
8	Stop	SKD11	58-62HRC
9			



MLL









Order MLL-H-L1

Features:
1.MLL is enhanced latch lock for the ZZ174, The principle of design and application same as ZZ174.
2. Locking force is bigger than ZZ174 standard parts, apply to large household electrical, automobile mould ect.
3.Stroke "H " can custom made according request, Break through stroke limit compare with ZZ174 standard.

Installation Guidelines:
- Installed ball slide, request parallel with joint face to install.
- Installed insert bar, processing screw holes. make sure mould is closed mould before locking screw. at the same eliminate the space between insert bar and ball, then to do dowel pin holes.
- Ball slide and insert bar symmetrical install on the mould. Ensure various parts install correctly and normal running, then to do with body and install fixed dowel pin holes.
- Every mould suggest to symmetrical installed 2sets or above 2sets ,please notes same stroke and symmetrical install during opening mould ,if no symmetrical install or different stroke will cause lath lock break.
- Coordinate function test, check these parts of latch lock structure whether smoothly and stroke coincide or not.
- First remove latch lock device to follow-up operation if need maintenance and change.

Latch locks

Functional chart:

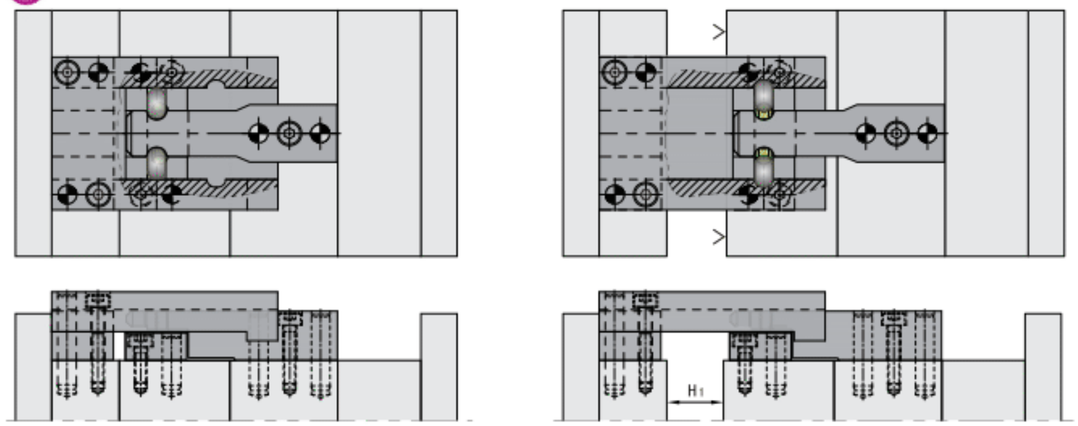


Diagram1: Mold closed

Diagram2: First finish opening(closed) mold

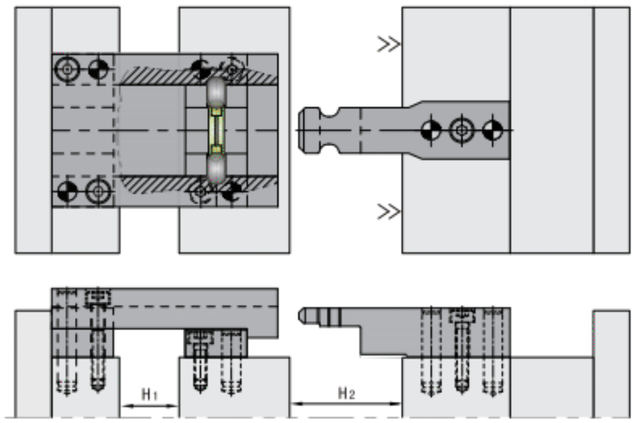
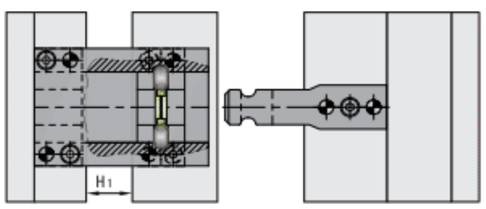


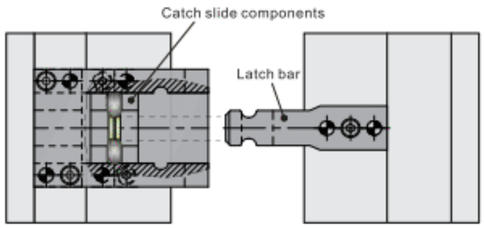
Diagram3: Second opening mould

This latch lock with control opening and closed mould function:
opening mould sequence:
drawing 1>drawing 2>drawing 3
closed mould sequence:
drawing 3>drawing 2>drawing 1

Warning:
As below drawing show, when insert bar release ball slide parts.must be sure ball slide in this A drawing position, otherwise will cause insert bar cant insert into ball slide and break latch lock mechanism.



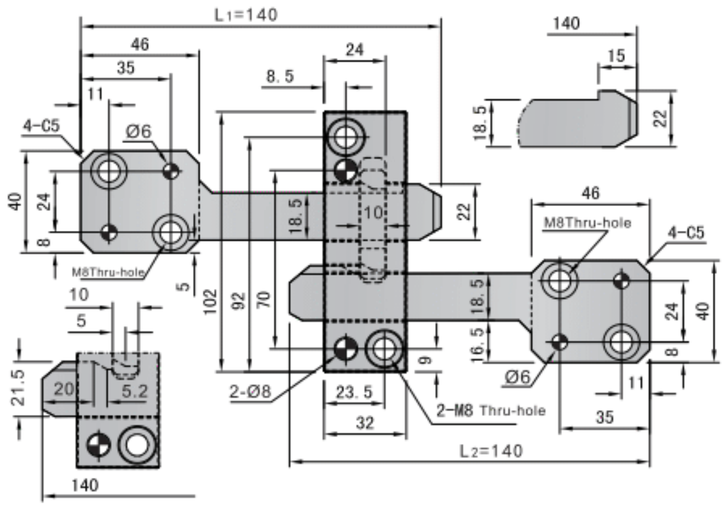
A Right ☑

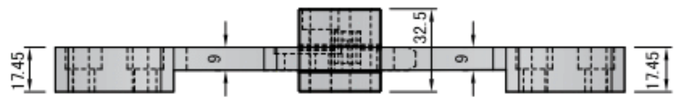


B Wrong ☒

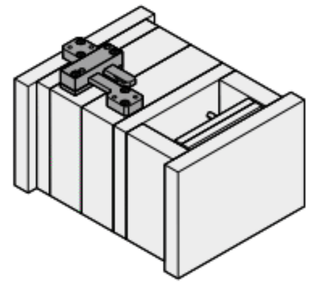
SLL







☎Order SLL-L1-L2



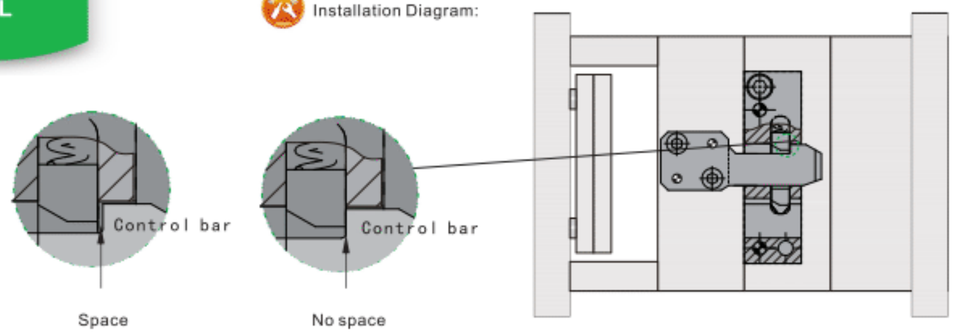
Features:
1. SLL is enhanced latch lock for the ZZ171, The principle of design and application same as ZZ171.
2. Locking force is bigger than ZZ171 standard parts, apply to large household electrical, automobile mould ect.
3. Stroke can custom made according request, Break through stroke limit compare with ZZ171 standard.

Installation Guidelines:
- First install body, request parallel with joint face to install .
- Installed insert bar, processing screw holes. Locking tight screw under mould is closed mould situation (notes: Make sure mould is closed mould situation before fixed bar. eliminate the space between bar and slide, then lock tight screw.
- Perpendicular to joint face to install bar.
- Every mould suggest to symmetrical installed 2sets or above 2sets, please notes same stroke and symmetrical install during opening mould ,if no symmetrical install or different stroke will cause lath lock break.
- This latch lock only apply to opening mould sequence request.
- First remove latch lock device to follow-up operation if need maintenance and change.
- After finish installed, please slowly to proceed opening or closed sequence test in closing device or injection machine to confirm right .(not suggest use hoist, because hoist easy lead to imbalance)

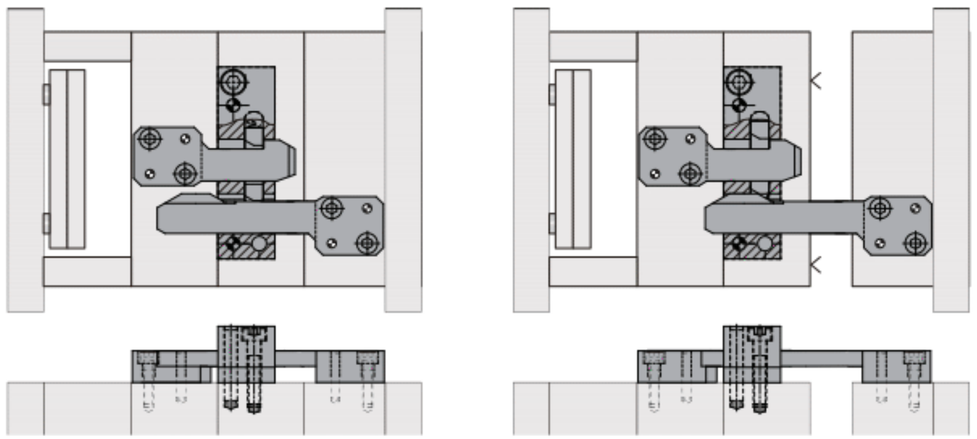
Latch locks

SLL

Installation Diagram:

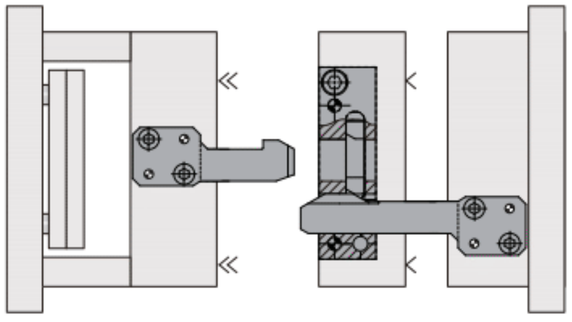


Functional chart:

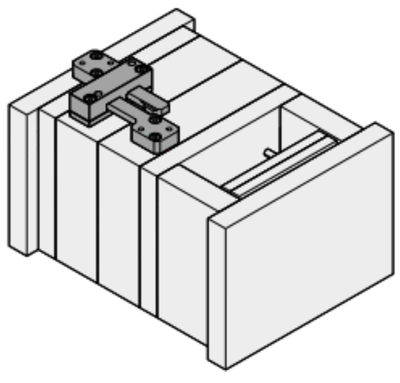


Mold closing

First finish opening mold



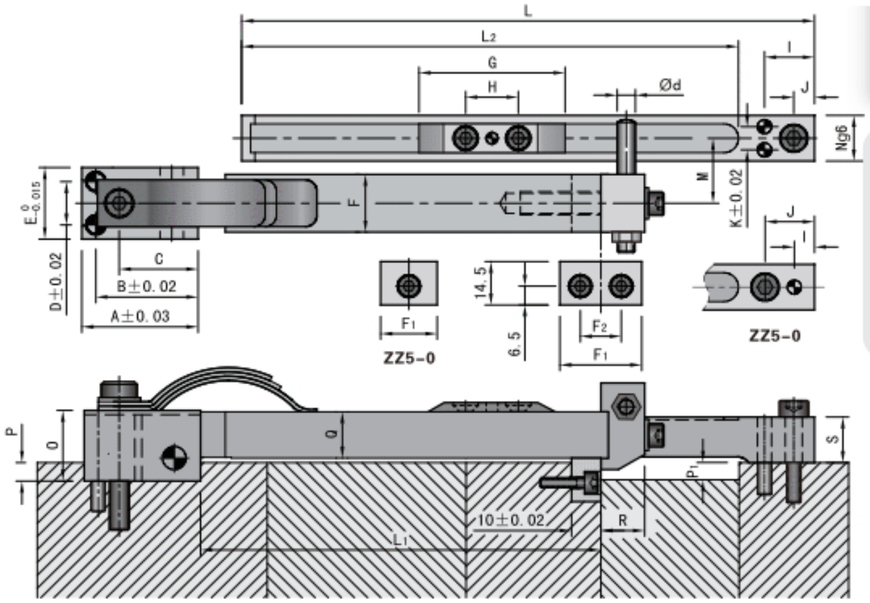
Mold opened



DIN

Latch locks

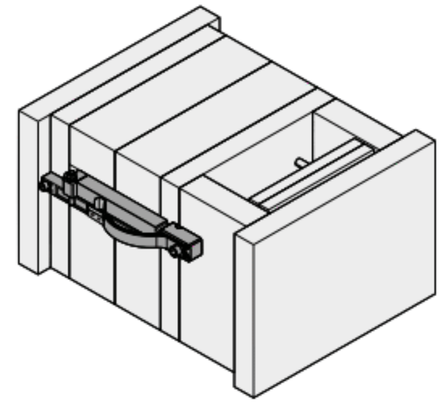
ZZ5





Features:

1. Unique spring design , safe and reliable.
2. Large pull force for latch . Suitable big mould.
3. External installation , easy to install and maintenance.



Order ZZ5-0

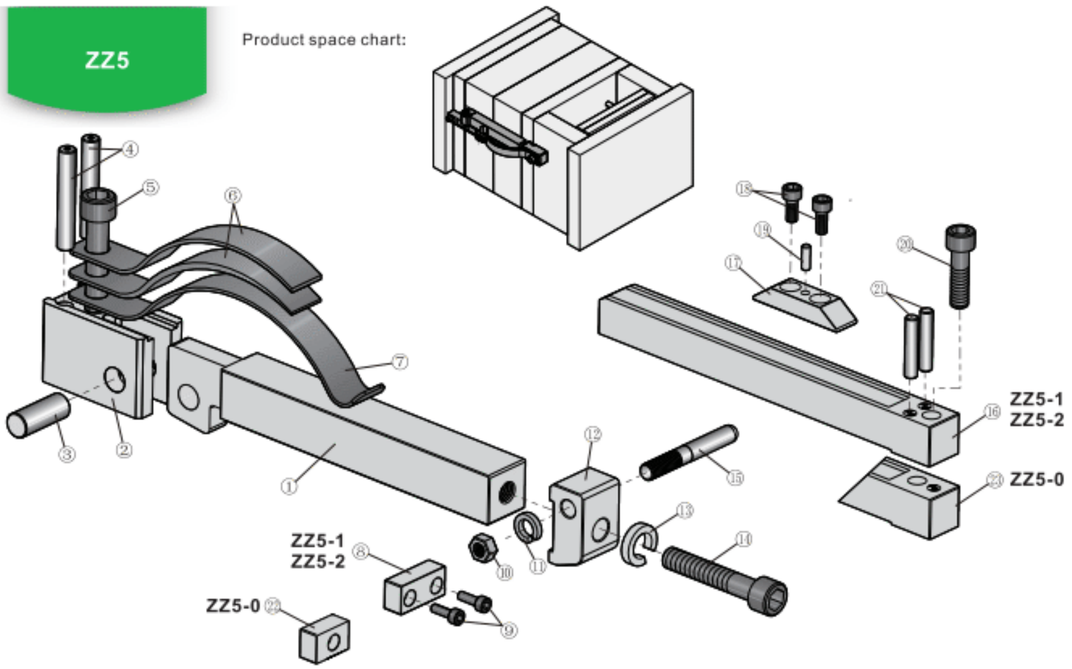
Code	A	B	C	D	E	F	F1	F2	G	H	I	J	K
ZZ5-0	39.8	35	27	15	24.8	20	20	18	50	18	6	16	-
ZZ5-1	60	52	40	16	30	25	30.1				16.5	8	10
ZZ5-2	80	70	55	20	40	30	30	18	75	20	19.5	10	

Code	L	L1	L2	d	S	M	N	O	P	P1	Q	R	@¥/P
ZZ5-0	196	137	170	6.2	15.8	21	15.8	24.5	7.5	5	16	15	
ZZ5-1	200	170		8.2	20	25.5	20	40	14.5	6	25	20	
ZZ5-2	396	256	356	10.2	30	31	30	56		8.5	40	27	

DIN
Latch locks

ZZ5

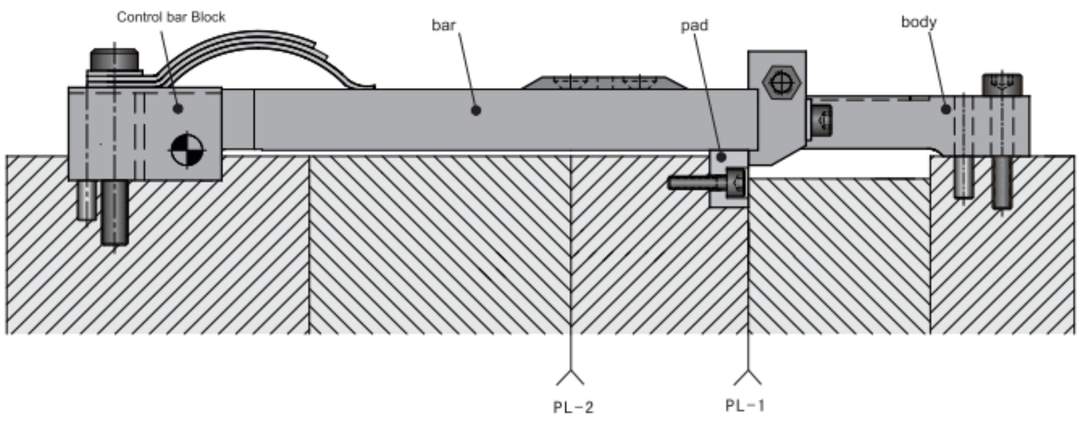
Product space chart:



Pos / Code	4	5	9	14	18	19	20	21
ZZ5-0	Ø 6×32	M 8×40	M4×12	M 8×25	M4×12	M4×16	M8×30	Ø6×24
ZZ5-1	Ø 8×40	M10×55		M10×30	M5×12			Ø6×32
ZZ5-2	Ø10×60	M12×70		M16×50	M5×16		M8×40	Ø6×40

Pos	1	2	3	8、22	12	15	16、23	17
Parts Name	Latch arm	Control bar Block	Dowel Pin	Spacer	Catch	Pin	Control bracket	Fixed block
Material	P20	P20	SUJ2	S45C	SKD61	SKD61	P20	Cr12MoV
Hardness	26-33HRC	26-33HRC	58-62HRC	40-45HRC	50-54HRC	45-50HRC	26-33HRC	50-58HRC

Installation Diagram:



DIN
Latch locks

ZZ5

Installation Guidelines

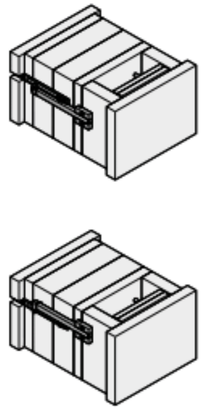
- Installed pad , pad parallel with joint face to install one mould plate by cup head screws.
- Installed bar fixing base , Use cup head screw make bar fixing base vertical with joint face , note eliminate the space between barb and pad .can cut off bar length to change bar fixed base installed position .
- Install body,by mean of body vertical joint face fixed on mould plate .
- Install stroke fixed block , lockings parts symmetrical install on the mould,make sure right install and normal running , then make dowel pin holes .
- Latch lock is precision device , please rely on real object to fixed position and symmetry install , Make sure same opening mould stroke , if no symmetrical install or different stroke will cause single set latch lock stress , lead to latch lock break due to imbalance force .
- Every mould suggest to installed 2sets or 4sets according to mould size to choose corresponding code.
- Notes the body of ZZ5-0 is fixed dowel pin holes , pad is a install screw holes.
- Coordinate function test , check these parts of latch lock structure whether smoothly and stroke coincide or not .
- First remove latch lock device to follow-up operation if need maintenance and change .

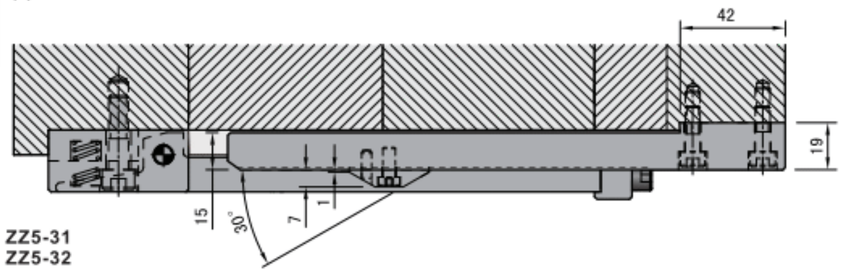
DIN

Latch locks

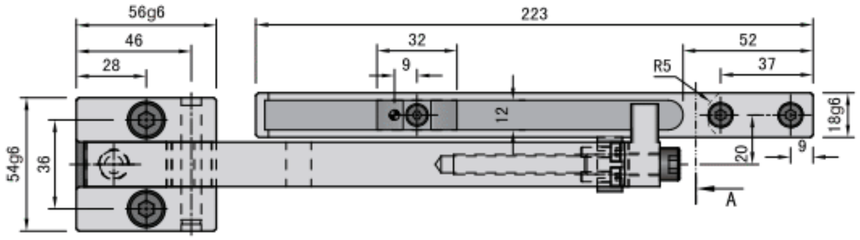
ZZ5

Order ZZ5-31

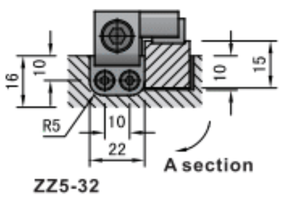




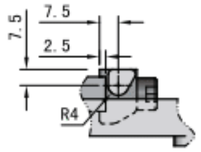
ZZ5-31
ZZ5-32



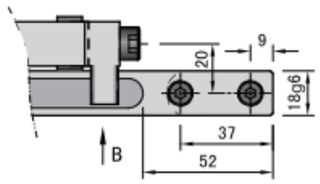
ZZ5-31
ZZ5-32



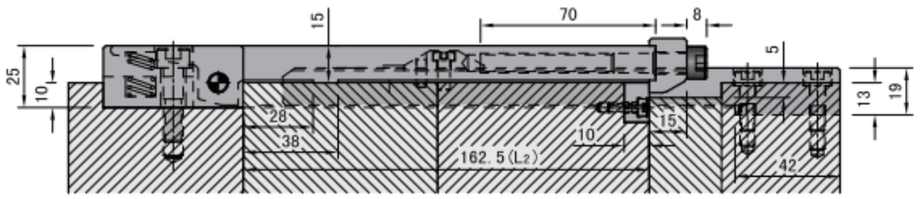
A section



B section



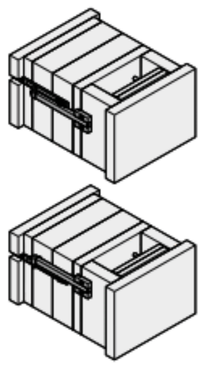
ZZ5-32

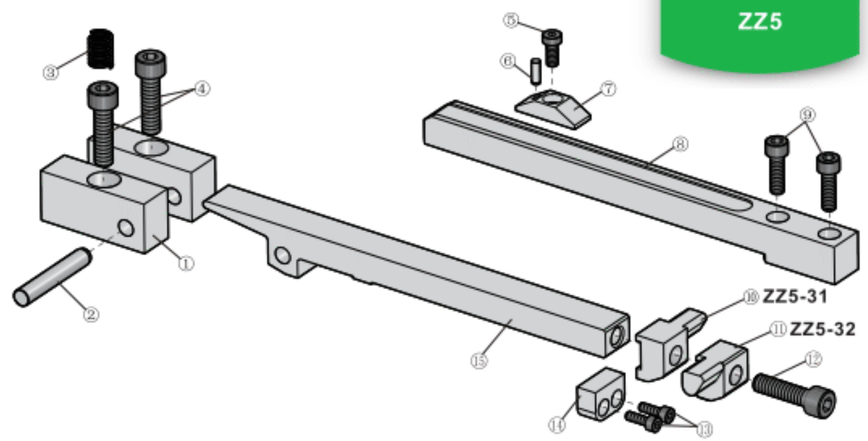


Features:

1.This latch lock have two code ZZ5-31, ZZ5-32 for left and right mirror element.
2.Large pull force for latch .Suitable big mould.
3.External installation , easy to install and maintenance.

Product space chart:





Pos	2	4	5	6	9	12	13
Description	Ø8×50	M8×30	M5×12	M4×12	M6×20	M8×30	M4×12

Pos	1	2	7	8	10、11	14	15
Parts Name	Control bar Block	Dowel Pin	Fixed block	Control bracket	Catch	Spacer	Latch arm
Material	Cr12MoV	SUJ2	Cr12MoV	P20	SKD61	S45C	P20
Hardness	50-58HRC	58-62HRC	58-62HRC	26-33HRC	50-54HRC	40-45HRC	26-33HRC

Installation Guidelines

- Latch lock is precision device, Each mould at least symmetry installed 2sets.
- More sets latch lock mechanism install must be sure same stroke , otherwise will cause single set latch lock stress , lead to latch lock break due to imbalance force.
- Coordinate function test , check these parts of latch lock structure whether smoothly and stroke coincide or not .
- First remove latch lock device to follow-up operation if need maintenance and change.
- Latch lock ZZ5-31 is mirror element with ZZ5-32, choose one set to installed when use these two sets.
- Suggest install latch lock on left and right two sides of mould , Due to weight problem of products , if install on top and low two sides will impact locking force.

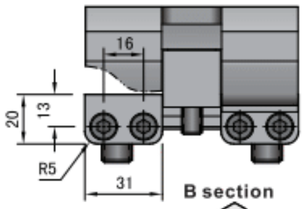
DIN

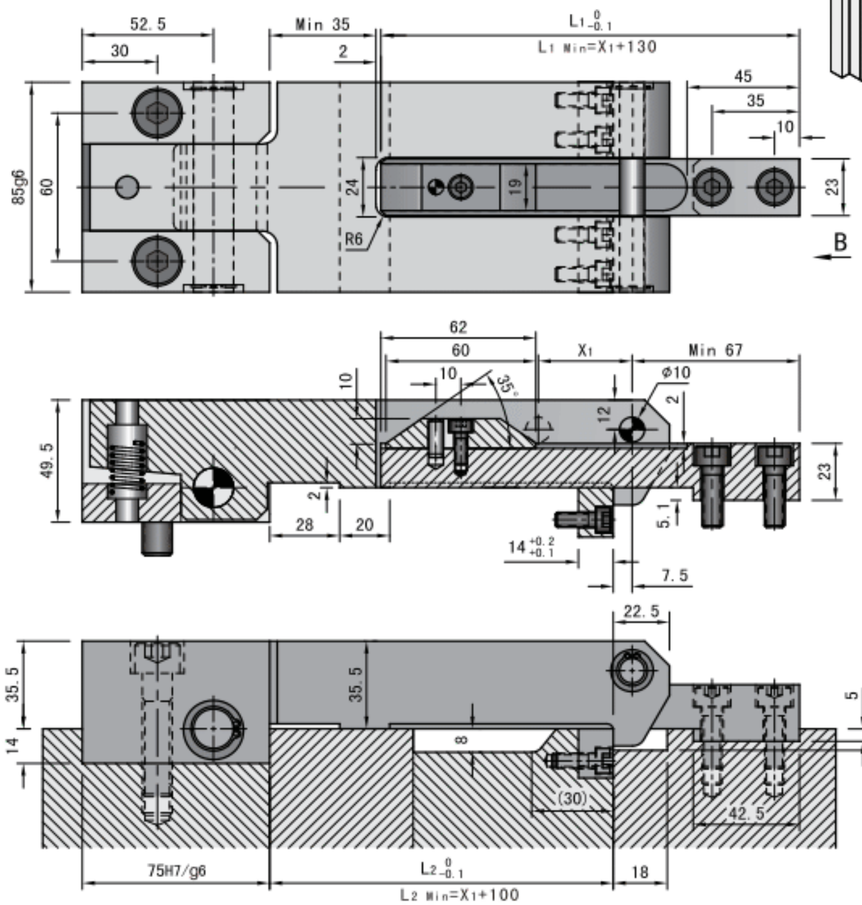
Latch locks

ZZ5

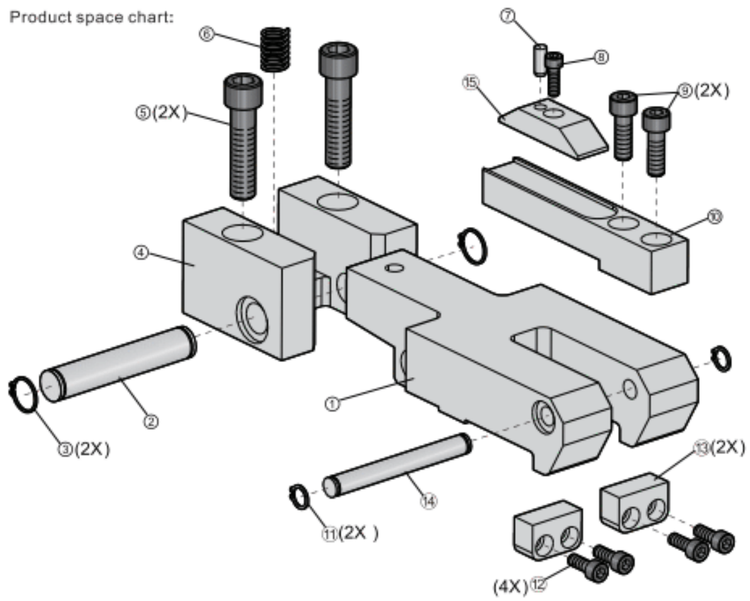


Order ZZ5-4-L1-L2-X1

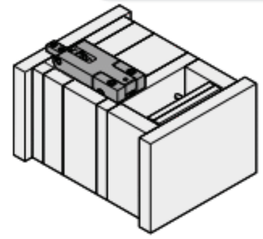




Product space chart:







Pos	2	5	7	8	9	12	14
Description	16×85	M12×50	Ø6×16	M5×16	M8×25	M6×16	10×85

Pos	1	2	4	10	13	14	15
Parts Name	Latch arm	Control Bar1	Holder	Control bracket	Spacer	Control Bar2	Fixed block
Material	P20	SKD16	Cr12MoV	P20	S45C	SKD16	Cr12MoV
Hardness	26-33HRC	50-54HRC	50-58HRC	26-33HRC	40-45HRC	50-54HRC	50-58HRC

Installation Guidelines

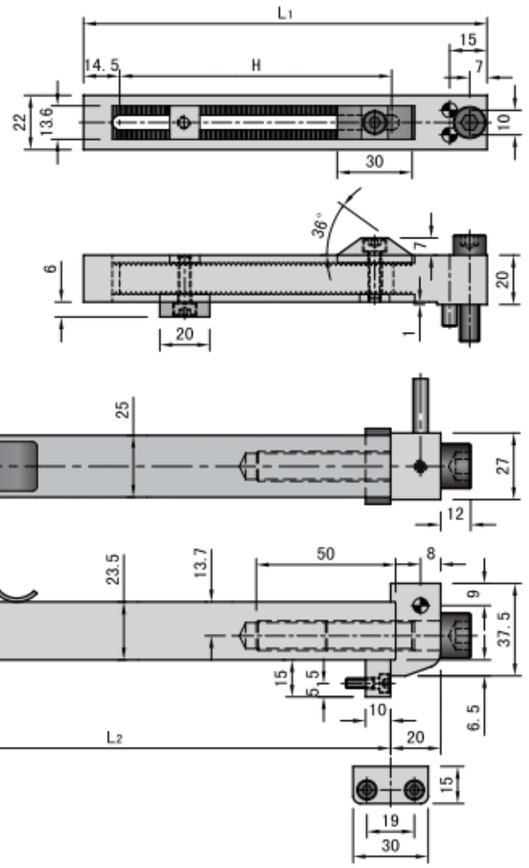
- Please calculate opening mould stroke before purchase , X1 is theoretical opening mould distance. specify length shall be meet below term:L1Min=X1+130, L2Min=X1+100
- Latch lock is precision device , Each mould at least use 2sets to symmetry installed according to mould size specify corresponding code.
- Suggest install latch lock on left and right two sides of mould , Due to weight problem of products , if install on top and low two sides will impact locking force.
- More sets latch lock mechanism install must be sure same stroke , otherwise will cause latch lock break due to imbalance force.
- When use it , frequently to check up various installed screw whether fastening or not, if need maintenance and change.
- Please first remove latch lock device to follow-up operation.

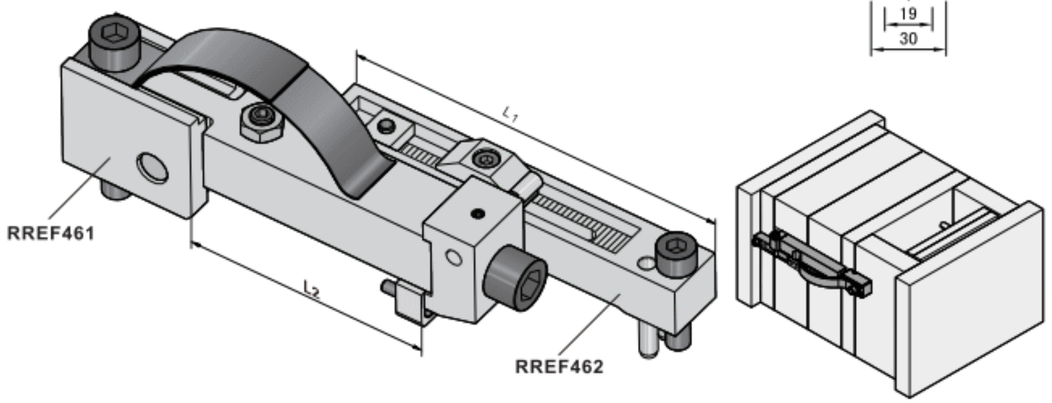
DIN

Latch locks

RREF







Order RREF460-140-90 Standard puarchase =

Code	L1	H	L2
RREF460-140- 90	140	83.5	90
RREF460-204-170	204	152	170
RREF460-254-220	254	194.5	220

Order RREF462-140 +

Code	L1	H	@¥/P
RREF462-140	140	83.5	
RREF462-204	204	152	
RREF462-254	254	194.5	

Flexible purchase

Order RREF461-90

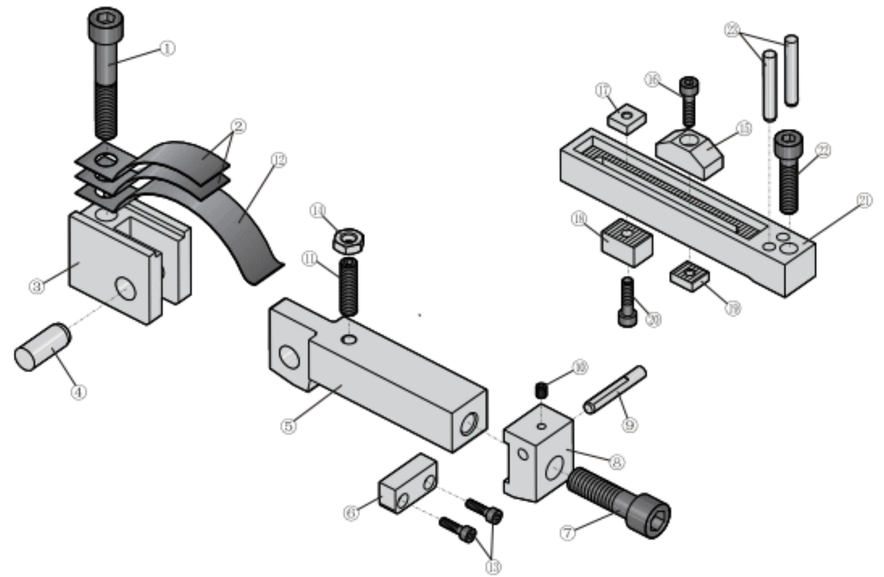
Code	L2	@¥/P
RREF461- 90	90	
RREF461-170	170	
RREF461-220	220	

DIN

Latch locks

1.The part of stroke adjustable adopt dental saw design , save dowel pin holes process, at the same simplify stroke adjustable.
2.Unque shrapnel design , safety and reliable ,and easy to install .
3.Suggest install latch lock on left and right two sides of mould , Due to weight problem of products , if install on top and low two sides will impact locking force.
4.More sets latch lock mechanism install must be sure same stroke , otherwise will cause latch lock break due to imbalance force.
5.When use it , frequently to check up various installed screw whether fastening or not, if need maintenance and change. Please first remove latch lock device to follow-up operation.

Product space chart:



Pos	1	4	7	9	11	13	14	16	20	22	23
Description	M10×60	Ø12×30	M12×40	Ø12×40	M8	M4×14	M8	M5×20	M5×20	M8×35	Ø6×40

Pos	1	2	4	10	13	14
Parts Name	Control bar Block	Latch arm	Spacer	Catch	Dowel pin	Control bracket
Material	Cr12MoV	P20	Cr12MoV	SKD61	SKD11	P20
Hardness	58-62HRC	26-33HRC	55-58HRC	52±2HRC	55-58HRC	26-33HRC

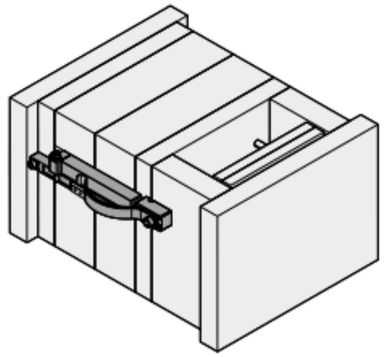
Code	RREF460																					
	RREF461													RREF462								
Pos	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
(Pcs)	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	2

AISI

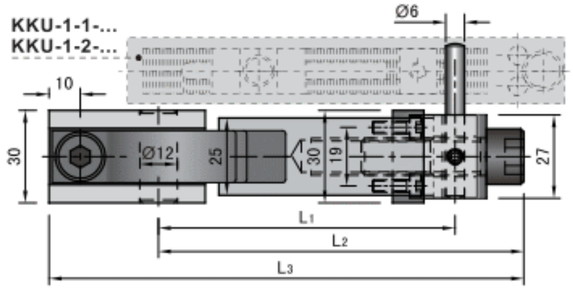
Latch locks

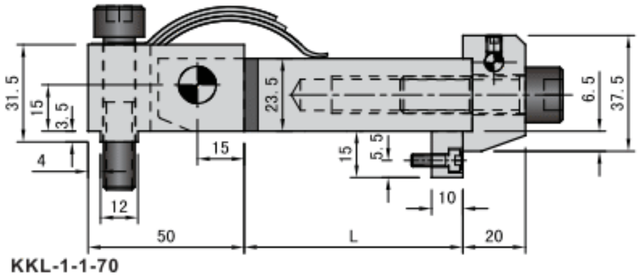
KKL



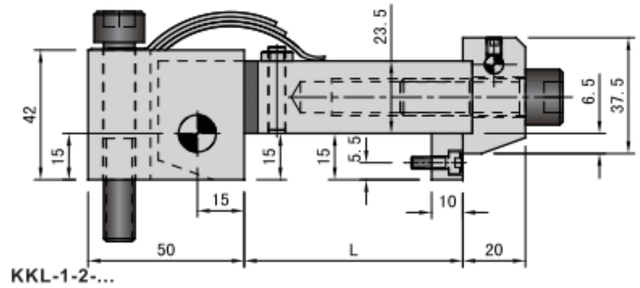


KKU-1-1-...
KKU-1-2-...





KKL-1-1-70



KKL-1-2-...

Code	F(Kgf) Max
KKL-1-2- 90	1600
KKL-1-2-170	
KKL-1-2-220	
KKL-1-2-270	
KKL-1-1- 70	

☎Order KKL-1-1-70

Code	L	L1	L2	L3	To be ordered seperately	@¥/P
KKL-1-2- 90	90	117	137	172	KU	
KKL-1-2-170	170	197	217	252		
KKL-1-2-220	220	247	267	302		
KKL-1-2-270	270	297	317	352		
KKL-1-1- 70	70	97	117	152		

Notes:

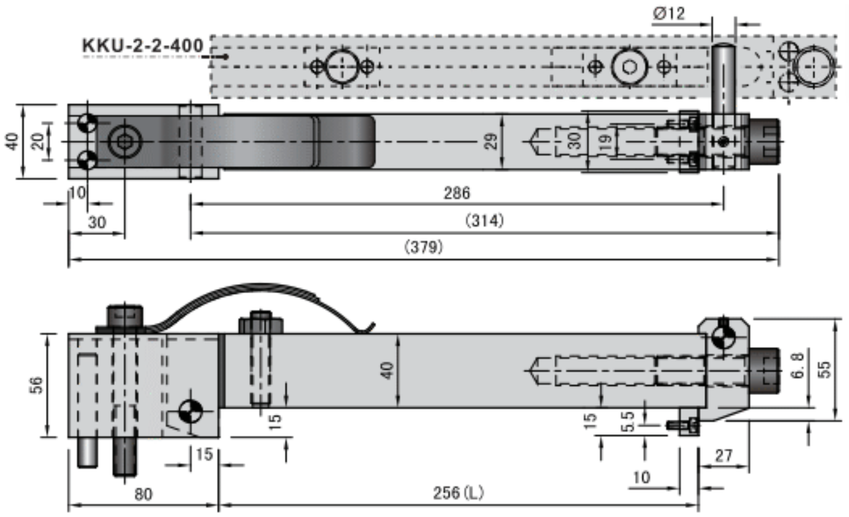
KKL Latch lock only one half of whole set parts , have to match to use with another half part KKU(KKU need alone purchase)

KKL-1-1
KKL-1-2
KKL-1-3
— KKU-1-1
— KKU-1-2

KKL-2-2 — KKL-2-2

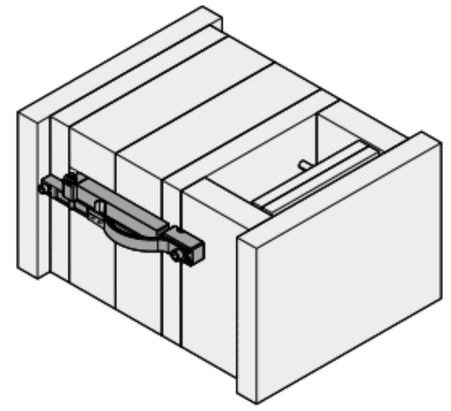


KKU-2-2-400

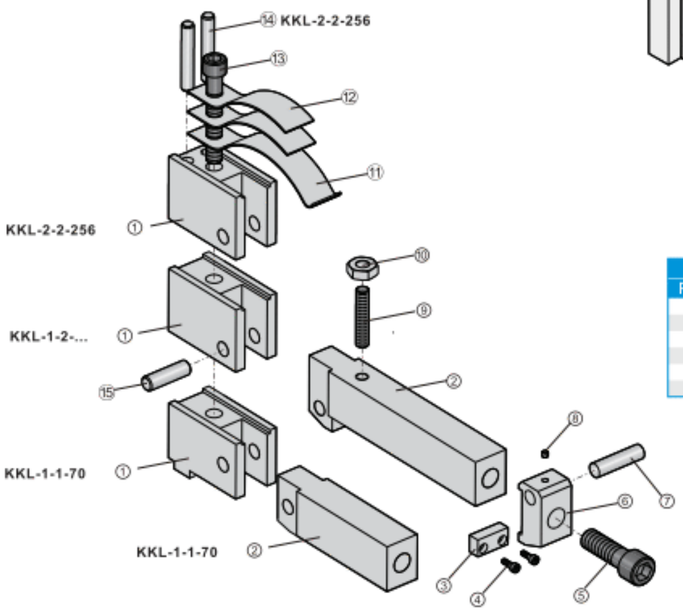


☎Order KKL-1-1-70

Code	F(Kgf) Max	@¥/P
KKL-2-2-256	4000	



Product space chart:

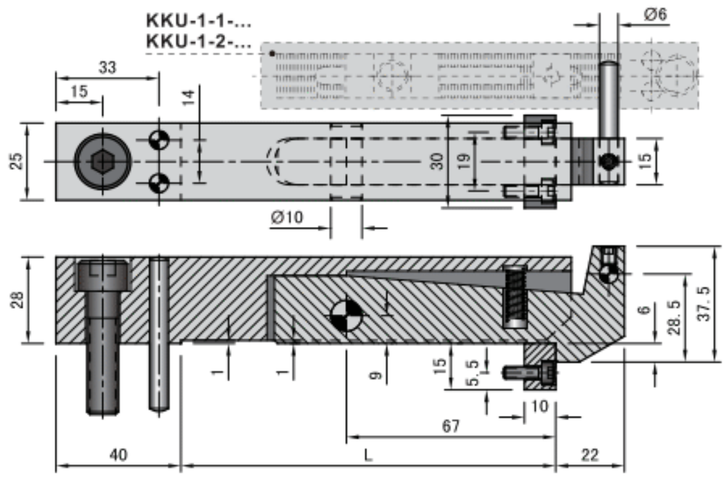


KKL-1-1-70		KKL-1-2-...		KKL-2-2-256	
Pos	Description	Pos	Description	Pos	Description
04	M4	04	M4	04	M44
05	M12×40	05	M12×40	05	M16×50
07	Ø6	07	Ø6	07	Ø12
13	M10×55	13	M10×56	13	M12×80
14	-	14	-	14	Ø10×80
15	Ø12	15	Ø12	15	Ø12

AISI
Latch locks

KKL

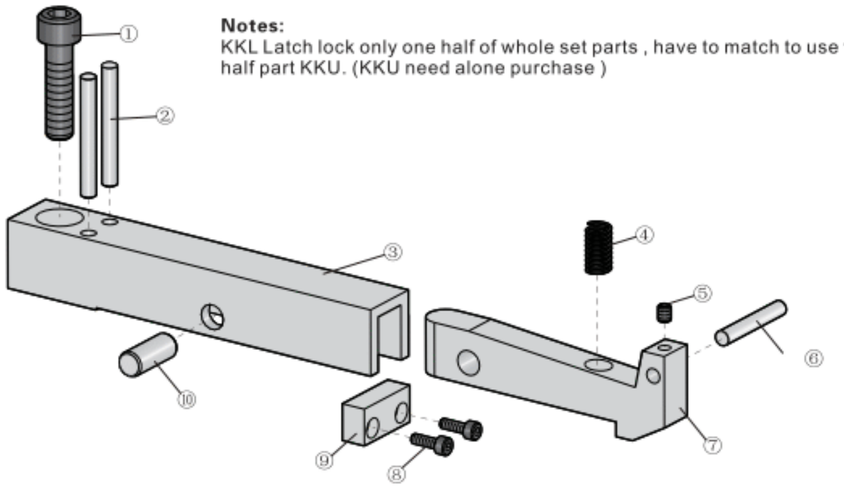




Order KKL-1-3-120

Code	L	L3	To be ordered seperately	@¥/P
KKL-1-3-120	120	182	KU	
KKL-1-3-170	170	232		
KKL-1-3-220	220	282		

Product space chart:



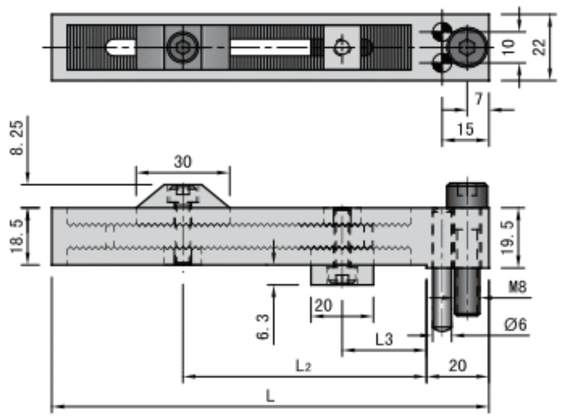
Notes:
KKL Latch lock only one half of whole set parts , have to match to use with another half part KKU. (KKU need alone purchase)

Pos	1	2	6	8	10
Description	M10×40	Ø6×50	Ø6	M4×20	Ø10×25

AISI
Latch locks

KKU

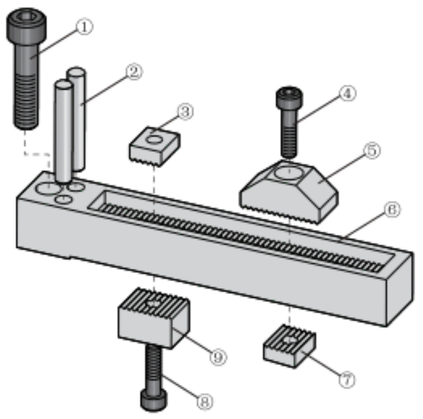


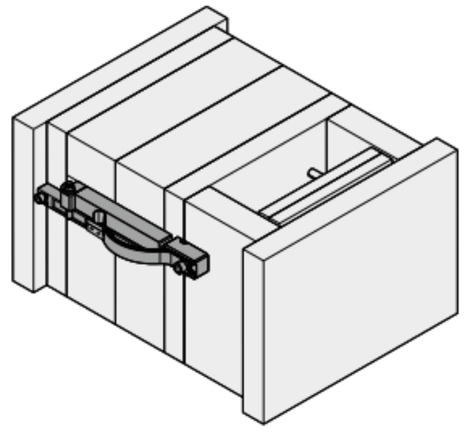


Order KKU-1-1-...

1.The part of stroke adjustable adopt dental saw design , save dowel pin holes process, at the same simplify stroke adjustable.
2.KKU Latch lock only one half of whole set parts , have to match to use with another half part KKL (KKL need alone purchase)

Product space chart:





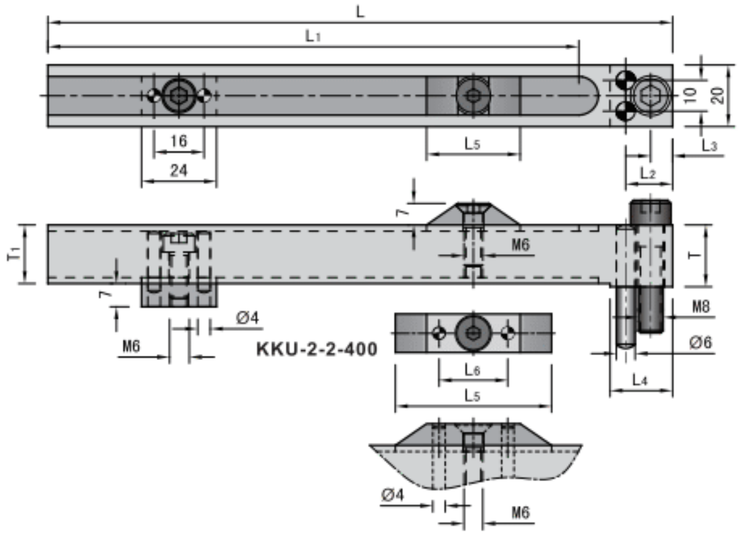
Pos	1	2	4	8
Description	M8×35	Ø6×40	M5×20	M5×20

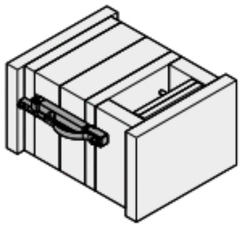
AISI

Latch locks

KKU



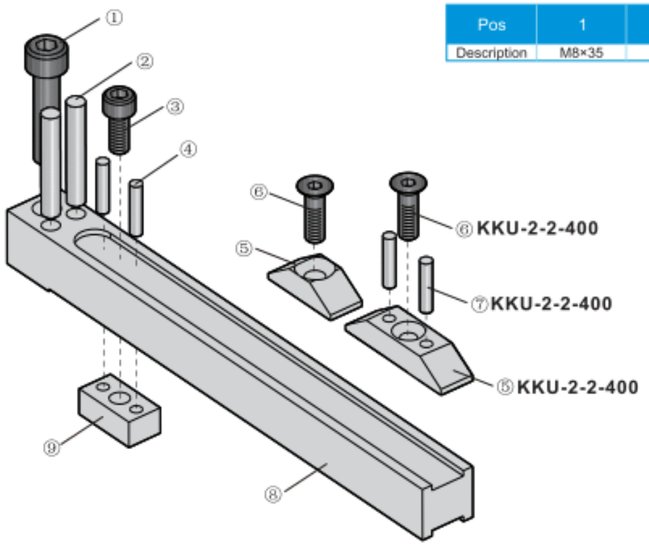




Order KKL-1-2-200

Code	L	L1	L2	L3	L4	L5	L6	T	T1	@¥/P
KKU-1-2-200	200	170								
KKU-1-2-250	250	220	15	7	20	30	-	20	19	
KKU-1-2-300	300	270								
KKU-2-2-400	400	360	19.5	10	25	50	22	30	29	

Product space chart:



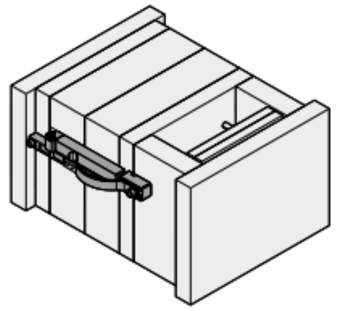
Pos	1	2	6	4	6	7
Description	M8×35	Ø6×40	M6×16	Ø4×20	M6×20	Ø4×20

1.KKU Latch lock only one half of whole set parts , have to match to use with another half part KKL. (KKL need alone purchase)
2.KKU-2-2-400 stroke compare with KKU-1-2 have 2pcs dowel pin holes .

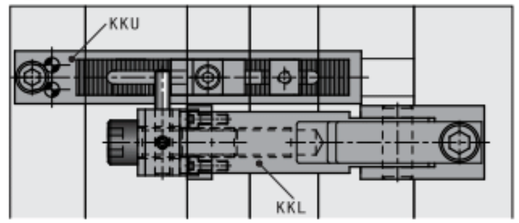
AISI

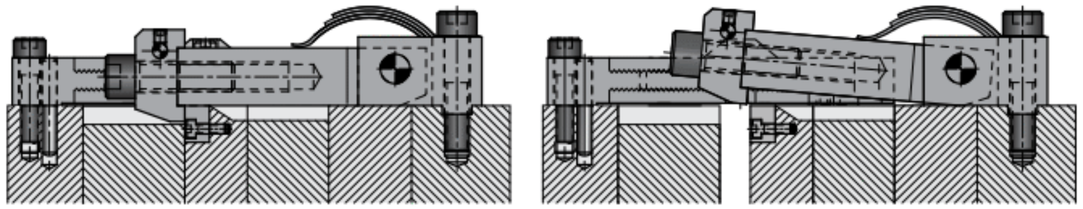
Latch locks

Features:
1.Unique spring design , safe and reliable ,easy to install.
2.Precision symmetry installation , stroke have to calculate right , otherwise products will be breakdown.
3.Transfer big force , various code , apply to different mould (Multi plate mould)opening and closed mould request.



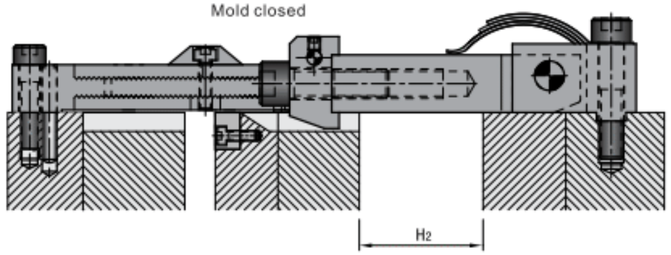
Installation Diagram:





First finish opening mold

Mold closed

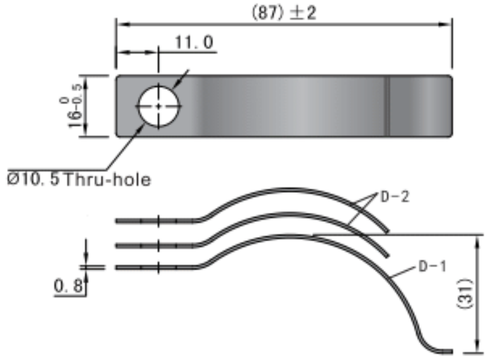


Second opening mould

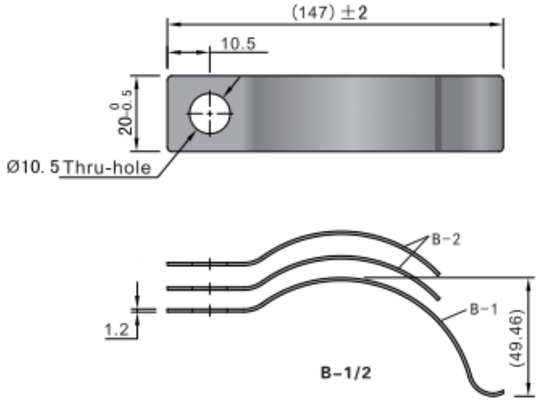
Installation Guidelines:

- Each mould at least use 2sets to symmetry installed according to mould size specify corresponding code .
- All latch lock installed in the mould must be calculate same stroke , whole mechanism installation at right angles with opening mould direction.
- When use it , frequently to check up various installed screw whether fastening or not, if need maintenance and change . Please first remove latch lock device to follow-up operation.

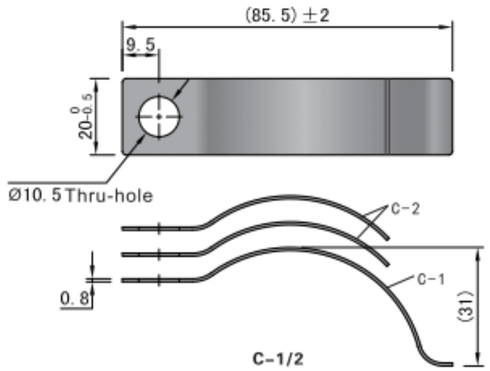
Latch locks



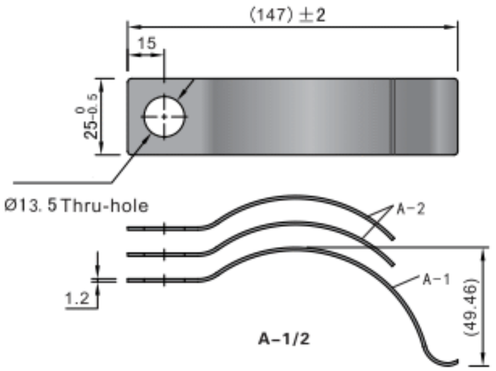
D-1/2



B-1/2



C-1/2



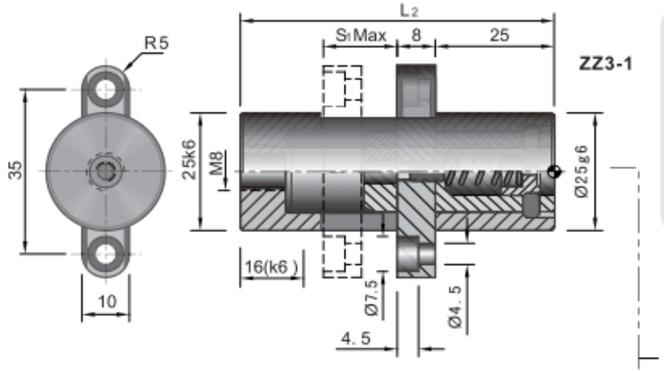
A-1/2

Order Material: 65Mn Hardness: 50-55HRC Surface treatment:Blacking

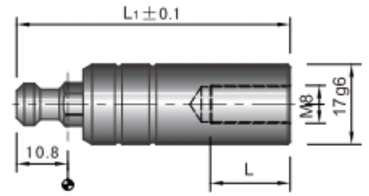
Code	Components		Applicable Type
	1Pcs	2Pcs	
A-1/2	A-1	A-2	KKL-2-2-256 ZZ5-2
B-1/2	B-1	B-2	KKL-1-2-170 、 KKL-1-2-220 、 KKL-1-2-270 RREF450-300-270 、 RREF460-254-220 、 RREF460-204-170 RREF470-220 、 ZZ5-1
C-1/2	C-1	C-2	KKL-1-2-90、RREF460-14090
D-1/2	D-1	D-2	ZZ5-0

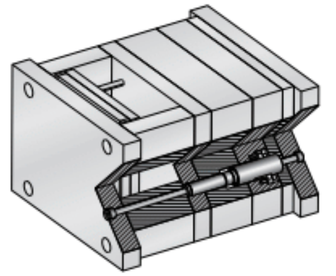
Latch locks

ZZ3





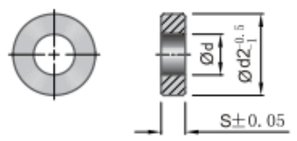




Order ZZ3-1-S1-L1

S1max.	L	L1	L2	@¥/P
16	20	45	66	
	40	70		
40		100	90	
		125		
60		150	110	

ZZ59



Order ZZ59-d2-S Material:S45C

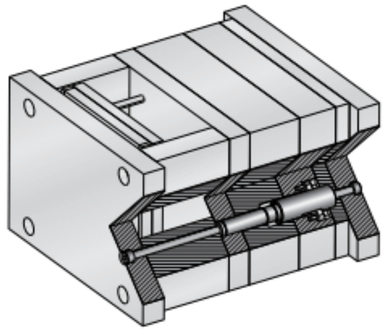
d2	S	d	@¥/P
17	5	8.5	
	10		
25	5		
	10		

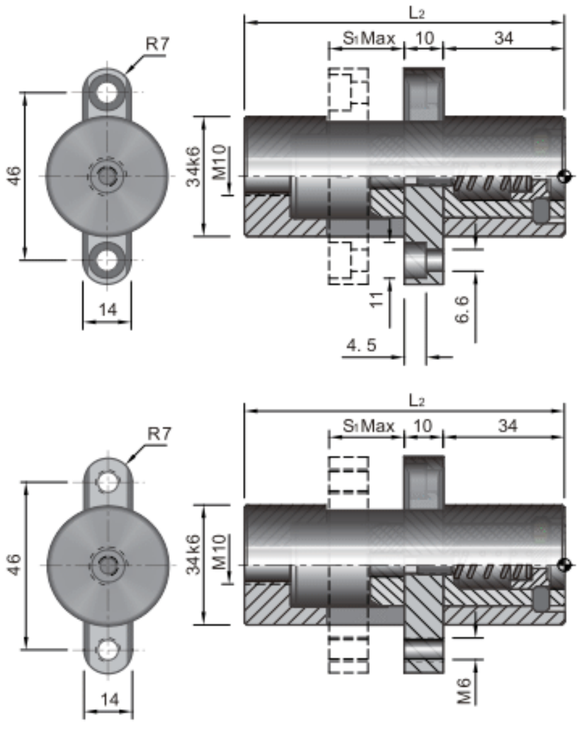
DIN

Latch locks

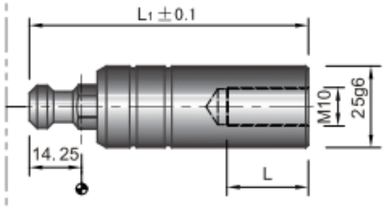
ZZ3







ZZ3-2



ZZ3-21

Order ZZ3-2-S1-L1

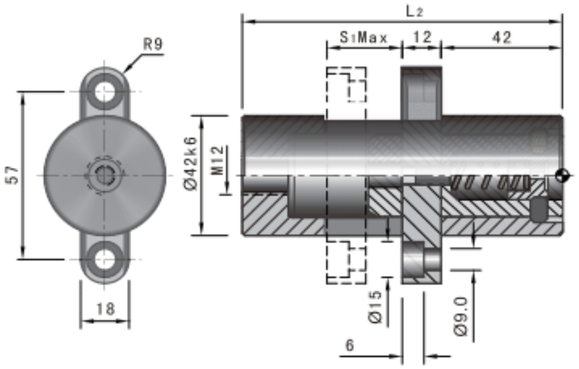
S1max.	L	L1	L2	@¥/P
25	40	70 120 170	86	
50		120 170	111	
75		120 170	136	
100		220 270	161	
125		220 270	186	
150		220 270	211	

DIN

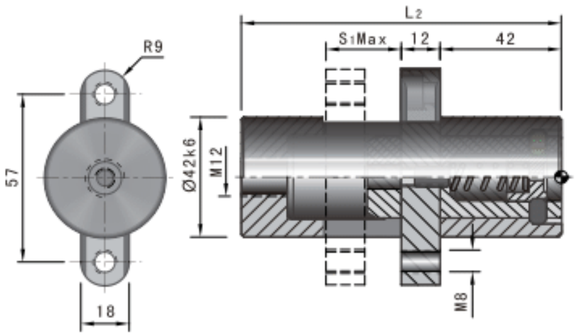
Latch locks

ZZ3

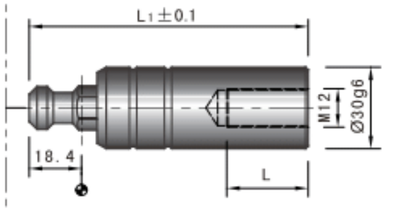


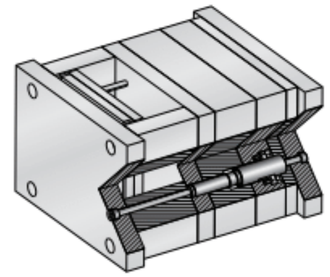


ZZ3-3



ZZ3-31





Features:

1.Internal installation avoids interferences with water line connectors and externally mounted components.
2.Can be used as early return unit ,inter latch locks , Two -stage ejectors.
3.Some important parts are made of SKD61 , Provide good lubricating while working . longer life.

Order ZZ3-3-S1-L1

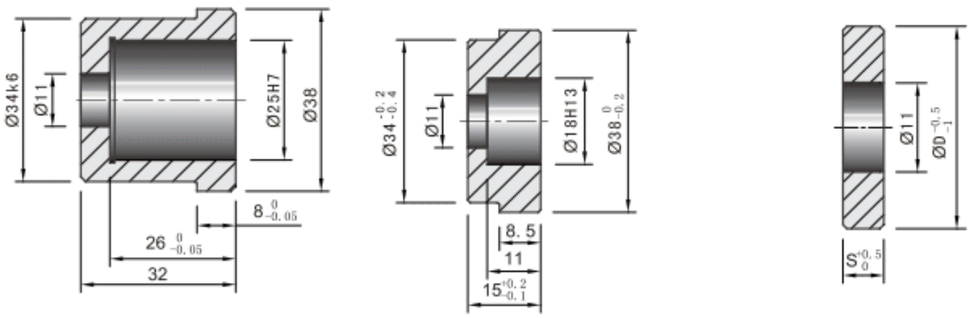
S1max.	L	L1	L2	@¥/P
50	50	125 175 225	130	
75		175 225	155	
100		175 225	180	
125		275 325	205	
150		275 325	230	
175		275 325	255	

DIN

Latch locks

ZZ3



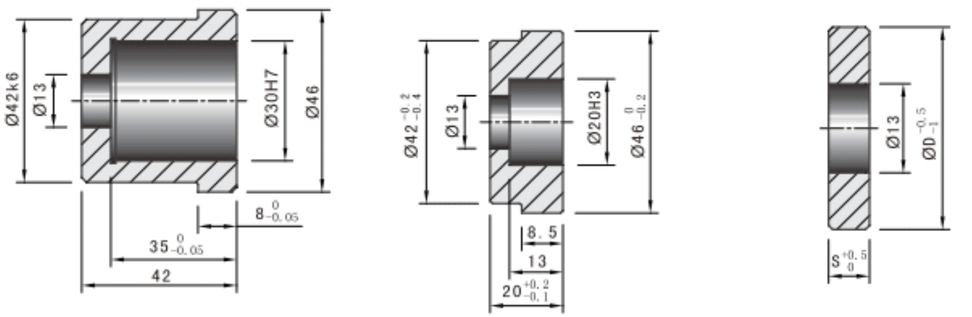


Order ZZ3-2 Material:S45C

Pos	@¥/P
09	

Pos	@¥/P
10	

Pos	S	D	@¥/P
11	5 10	25	
12	5 10	34	



Order ZZ3-3 Material:S45C

Pos	@¥/P
09	

Pos	@¥/P
10	

Pos	S	D	@¥/P
11	5 10	30	
12	5 10	42	

DIN

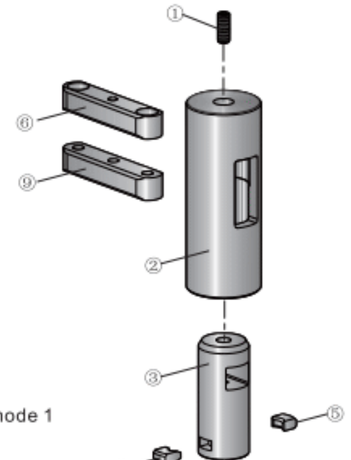
Latch locks

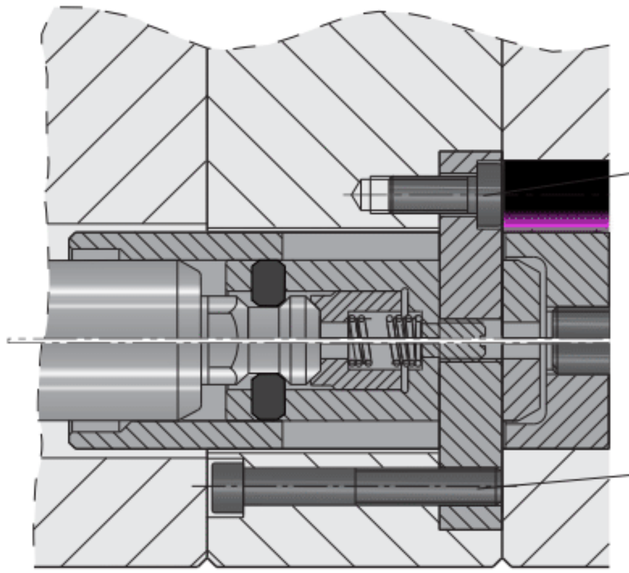
ZZ3

Code	Pos	Parts Name	Parts Name	Hardness	Q'ty(Pcs)
ZZ3-1 ZZ3-2 ZZ3-3	1	Grub screw	-	-	1
	2	Control bracket	SKD61	48-52HRC	
	3	Piston		52± 2HRC	
	4	Safety bush	Cr12MoV	55-58HRC	
	5	Catch	SKD11	58-62HRC	2
	6	Stroke block	SKD61	52± 2HRC	
	7	Pulling rod	SUJ2	55-62HRC	1
	8	Compression spring	-	-	

Code	Pos	Parts Name	Parts Name	Hardness	Q'ty(Pcs)
ZZ3-11 ZZ3-21 ZZ3-31	1	Grub screw	-	-	1
	2	Control bracket	SKD61	48-52HRC	
	3	Piston		52± 2HRC	
	4	Safety bush	Cr12MoV	55-58HRC	
	5	Catch	SKD11	58-62HRC	2
	7	Pulling rod	SUJ2	55-62HRC	
	8	Compression spring	-	-	1
	9	Stroke block	SKD61	52± 2HRC	

Product space chart:





ZZ3 series have two fixing method:

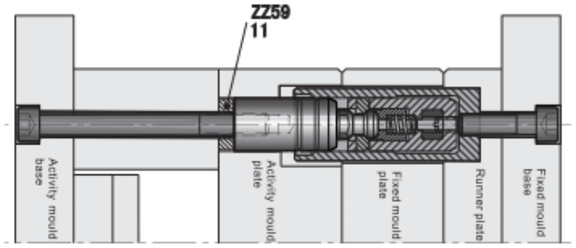
First :Install mould plate to tapping, pass through stroke block screw holes to install screw and fixed latch lock. (apply to ZZ3-1/2/3 series)

Second :Install mould plate to processing screw holes , use screw pass through mould plate to contact stroke block to screw thread fixed. (apply to ZZ3-11/21/31series)

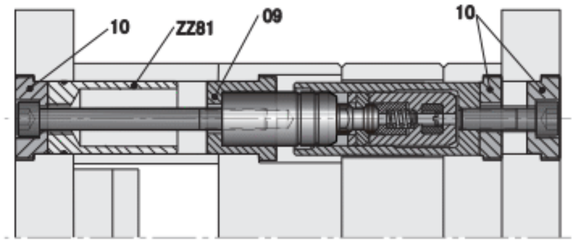
DIN

Latch locks

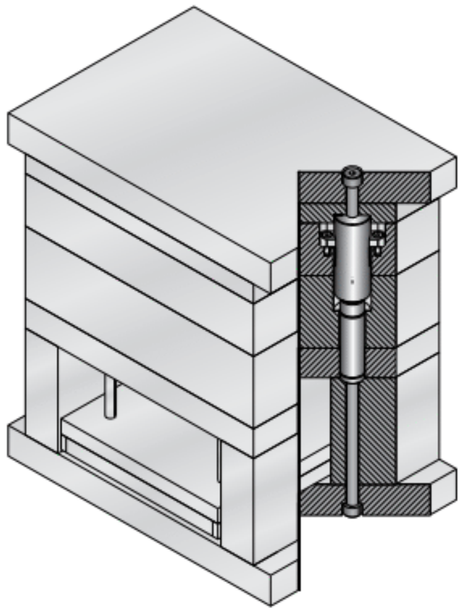
Installation Diagram:



Install 1



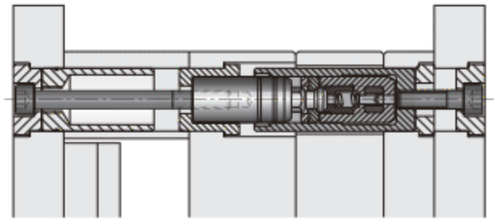
Install 2



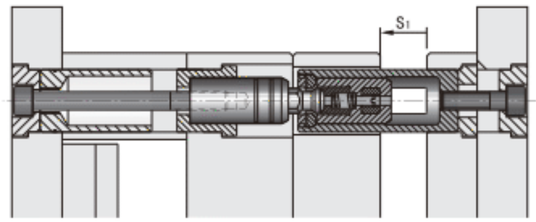
Installation Guidelines

- Installed stroke block, Use cup head screw make stroke block vertical with joint face fixed mould plate. Need accurate calculate first opening mould stroke.
- Installed body, Use cup head screw make body vertical with joint face fixed runner plate, request same concentric plunger.
- Install bar, stroke block and body symmetrical install on the mould,make sure right install and normal running, then fixed bar.
- Latch lock is precision device , please rely on real object to fixed position and symmetry install , if no symmetrical install or different stroke will cause single set latch lock stress , lead to latch lock break due to imbalance force.
- Every mould suggest to installed 2sets or 4sets.
- Coordinate function test , check these parts of latch lock structure whether smoothly and stroke coincide or not.
- Precision parts , please don't use it with other auto-processing parts . thus make some abnormal your company self responsible.
- First remove latch lock device to follow-up operation if need maintenance and change.

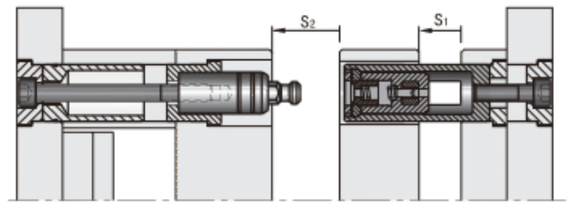
Functional chart:



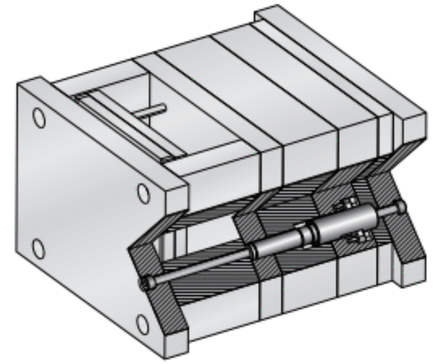
Mold closed



First finish opening mold

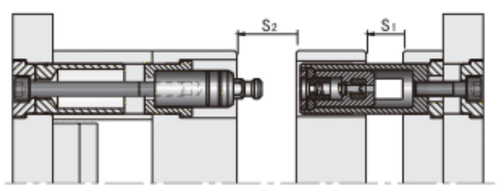


Second opening mould

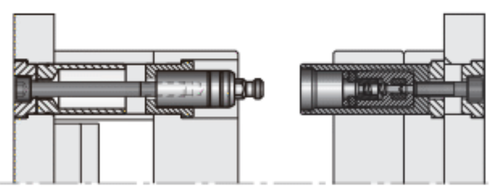


Warning:

As below drawing show, when insert bar release plunger (second time opening mould start to open or completely open. must be sure first opening mould stroke in opening condition , otherwise will cause insert bar can't insert into and break latch lock mechanism during closed mould.



B Right ☑



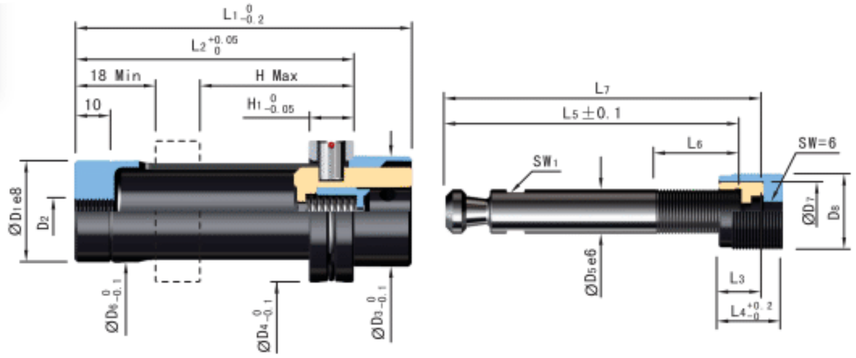
C Wrong ☒

DIN

Latch locks

ZZ173





Features:

1.Internal installation avoids interferences with water line connectors and externally mounted components
2.Can be used as early return unit , inter latch locks , Two -stage ejectors.
3.Some important parts are made of SKD61 , Provide good lubricating while working . longer life.

☎Order ZZ173-32×28×14×63 Material:SKD61 Hardness:52±2HRC

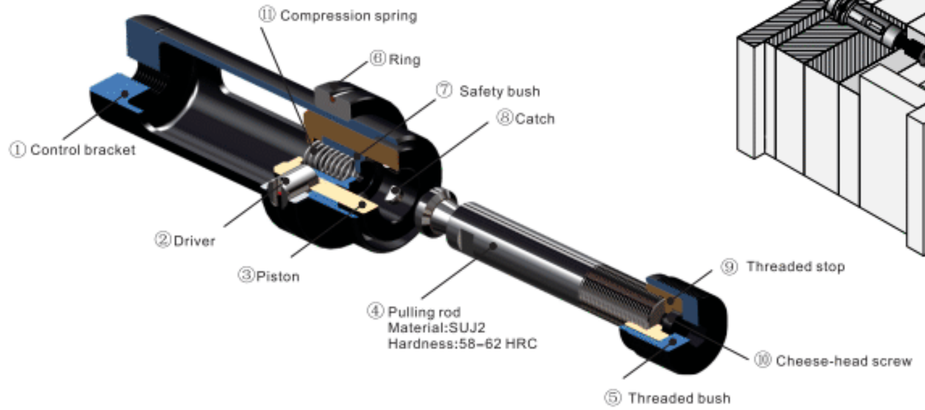
D1	H max.	D5	L7	D2	D3	D4	D6	D7	D8	D5
32	28	14	63 80 100 125	M10	34.8	44.8	32.2	18.5	M24×1	14
	56		63 80 100 125							
38	36	18	80 100 125 140	M12	40.8	51.8	38.2	23.5	M30×1.5	16
	71		80 100 125 140							

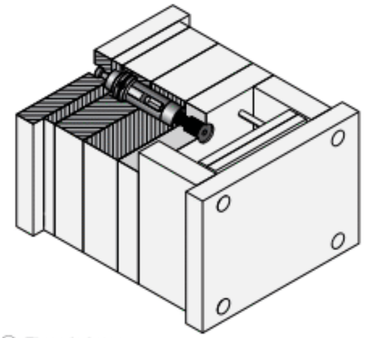
Code	L1	L2	L3	L4	L5	L6	Sw1	@¥/P
ZZ173-32×28×14× 63	78	60	14	20	56	20	12	
ZZ173-32×28×14× 80					73	25		
ZZ173-32×28×14×100					93			
ZZ173-32×28×14×125					118			
ZZ173-32×56×14× 63	106	88			73			
ZZ173-32×56×14× 80					93			
ZZ173-32×56×14×100					118			
ZZ173-32×56×14×125					133			
ZZ173-32×36×18× 80	90	70	16	22	56	20	15	
ZZ173-32×36×18×100					73	30		
ZZ173-32×36×18×125					93			
ZZ173-32×36×18×140					118			
ZZ173-32×71×18× 80	125	105			73			
ZZ173-32×71×18×100					93			
ZZ173-32×71×18×125					118			
ZZ173-32×71×18×140					133			

DIN

Latch locks

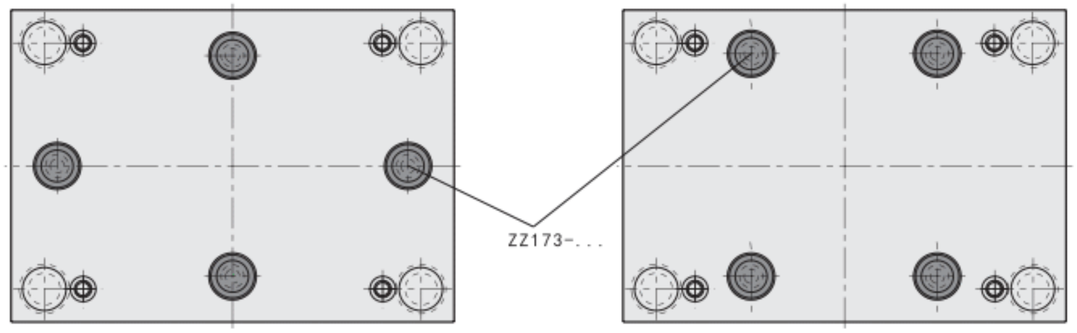
Product space chart:





Installation Guidelines

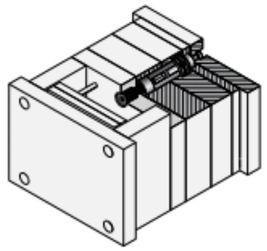
- It is precision standard element. A minimum of two Round latch locking units must be mounted symmetrically. quantit and size are subjected to the mold base and the pulling forces.
- If not be mounted symmetrically. the uneven force will caused the parts damaged.
- Make sure grub screw is screw down tightly when using.
- If the molds need to be maintained or changed. please remove the Round latch locking units first.
- After installation. carry out a functional test. check whether the individual parts work well. and the stroke is applicable.
- Working temperature :please use this product below 120℃.



DIN

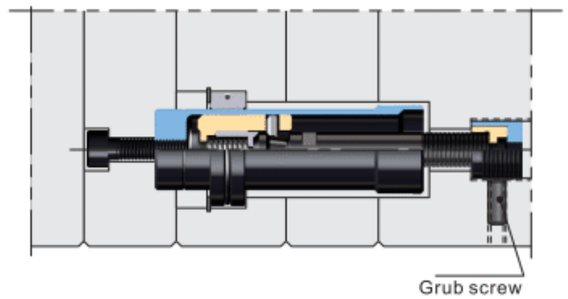
Latch locks

ZZ173

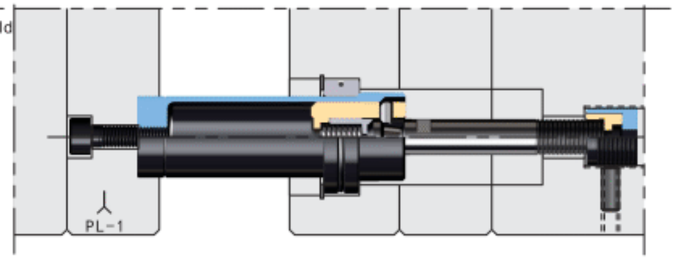


Functional chart:

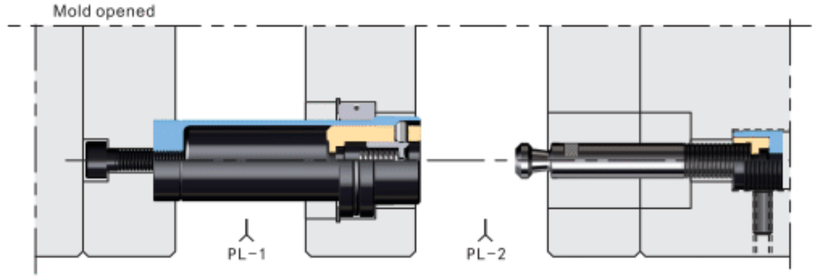
Mold closed



First finish opening mold



Mold opened



operational principle:

- Closed mould :mould completely closed condition.
- First opening mould :when mould start opening, stop block will make bar and body bush tightly locked , first joint face will start.
- Second opening mould :First opening mould finished . stop block release bar , at the same lock the body and body liner bushing, bar will pull off liner bush , Second joint face will be completely open.

AISI

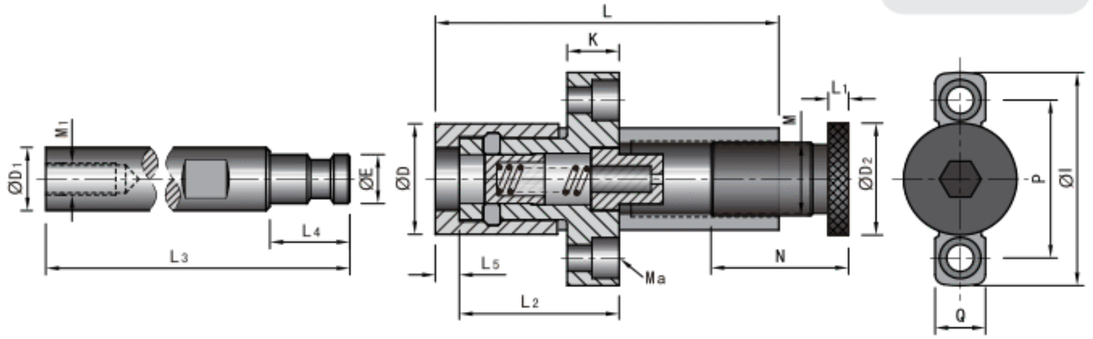
Latch locks

DDKL



Features:

1.Internal installation avoids interferences with water line connectors and externally mounted components.
2.Can be used as early return unit , inter latch locks , Two -stage ejectors .



☎Order DDKL-2811

Code	D	D1	D2	L	L1	L2	L3	L4	L5
DDKL-2811	28	16	28	86	5	40	140	21	6
DDKL-2812							250		
DDKL-2821				111			140		
DDKL-2822							250		
DDKL-3411	34	19	33		6	51	160	24	7
DDKL-3412							280		
DDKL-3421				146			160		
DDKL-3422							280		
DDKL-4511	45	26	42	152	10	68	200	31	10
DDKL-4512							310		
DDKL-4521				198			200		
DDKL-4522							310		

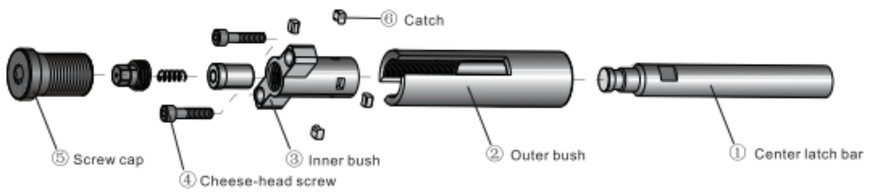
I	K	N	E	P	Q	M	M1	Ma	@¥/P
54	13	34	12.4	40	12.6	M22×1.25	M 8×1.25	M6	
60	15	46	14.5	46		M26×1.5	M10×1.5		
78	20	59	19.5	60	17	M34×1.5	M12×1.75	M8	

AISI

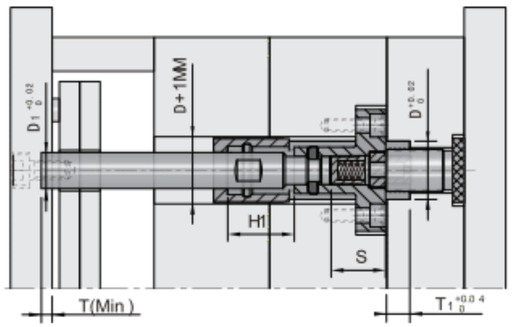
Latch locks

DDKL

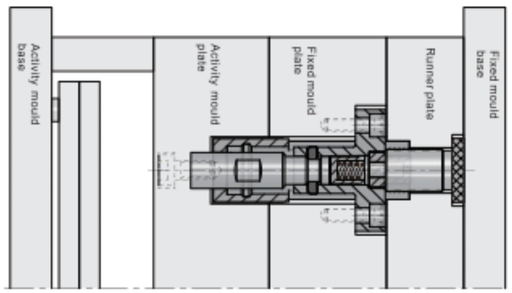
Product space chart:



Installation Diagram:



Install 1



Install 2

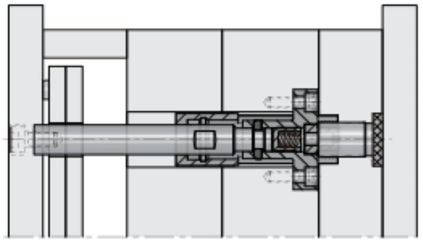
Installation Guidelines

- Installed inner liner bushing, Use cup head screw make liner bushing vertical with joint face fixed on mould plate . Need accurate calculate first opening mould stroke.
- Installed outside liner bushing, Use cup head screw make outside liner bushing vertical with joint face fixed runner plate, request same concentric with inner liner bushing.
- Install middle bar, outside liner bushing and inner liner bushing symmetrical install on the mould, make sure right install and normal running ,then fixed middle bar.
- Coordinate function test, check these parts of latch lock structure whether smoothly and stroke coincide or not.
- Latch lock is precision device, please rely on real object to fixed position and symmetry install.
- Every mould suggest to installed 4sets.
- Three diameter sizes to choose from -28mm, 34mm,and 45mm-depending on the size of the mold and the application , Two travel ranges and two center puller pin lengths to choose from each of the three sizes.
- First remove latch lock device to follow-up operation if need maintenance and change.

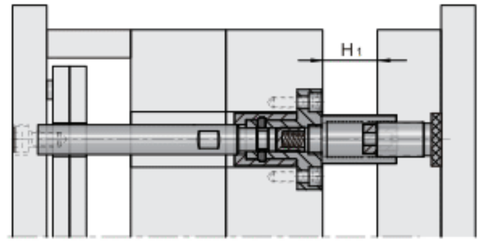
AISI

Latch locks

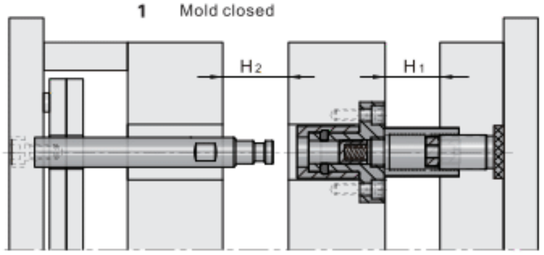
Functional chart:



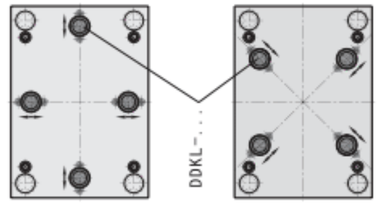
1 Mold closed



First finish opening mold



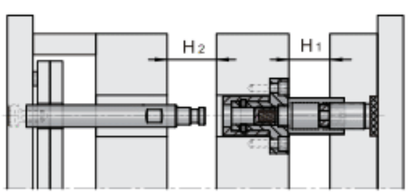
Mold opened



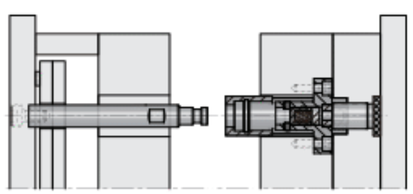
Code	Stroke(H1) min	Stroke(H1) max	T	T1	S	(Load)
DDKL-2811	5	30	4	10	23	100kg
DDKL-2812						
DDKL-2821	30	55				
DDKL-2822						
DDKL-3411	6	41		12	32	200kg
DDKL-3412						
DDKL-3421	41	76				
DDKL-3422						
DDKL-4511	12	58		16	43	380kg
DDKL-4512						
DDKL-4521	58	104				
DDKL-4522						

Warning:

As below drawing show, when insert bar release plunger (second time opening mould start to open or completely open. must be sure first opening mould stroke in opening condition, otherwise will cause insert bar can't insert into and break latch lock mechanism during closed mould.



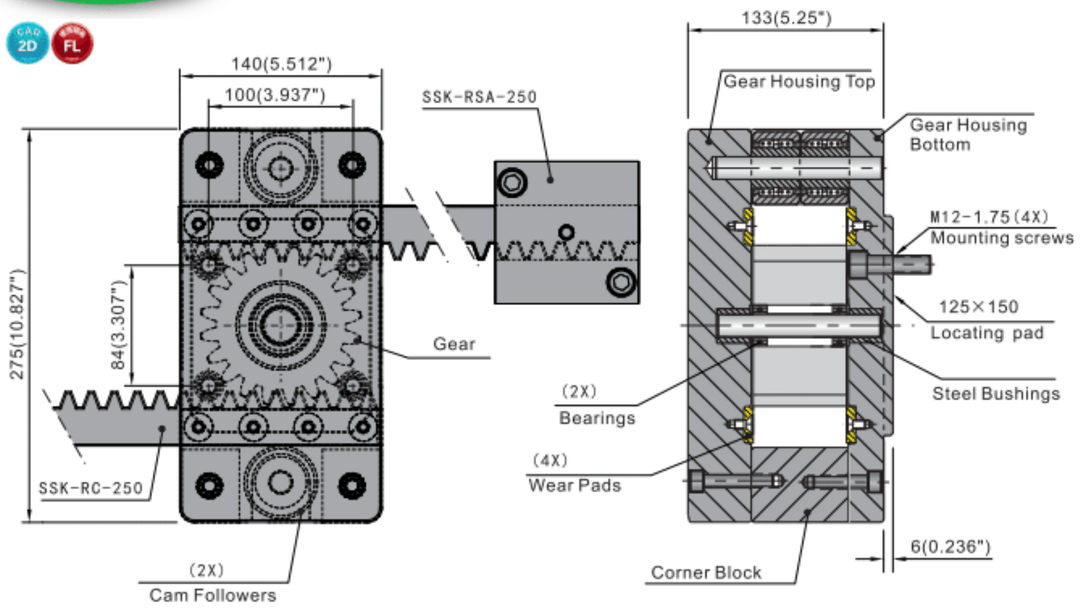
B Right ☑



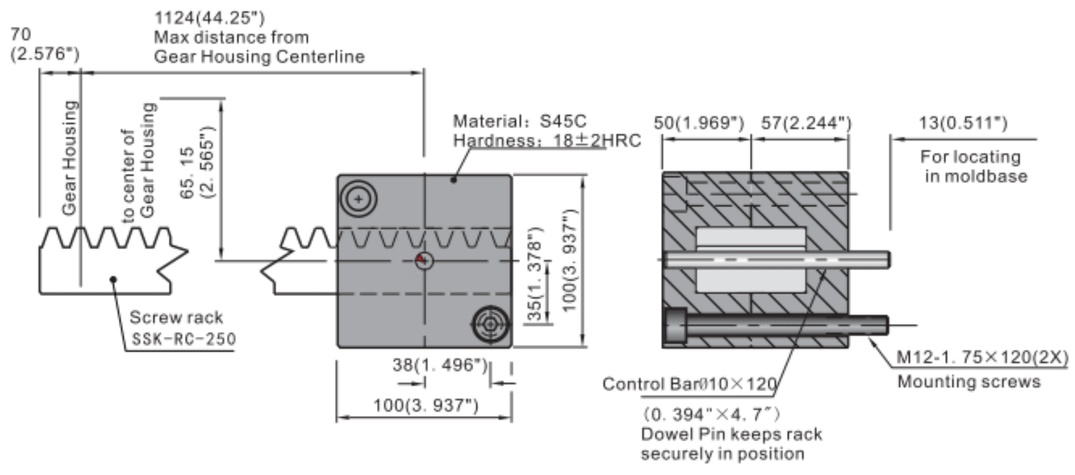
C Wrong ☒

AISI
Latch locks

SSK-GHA



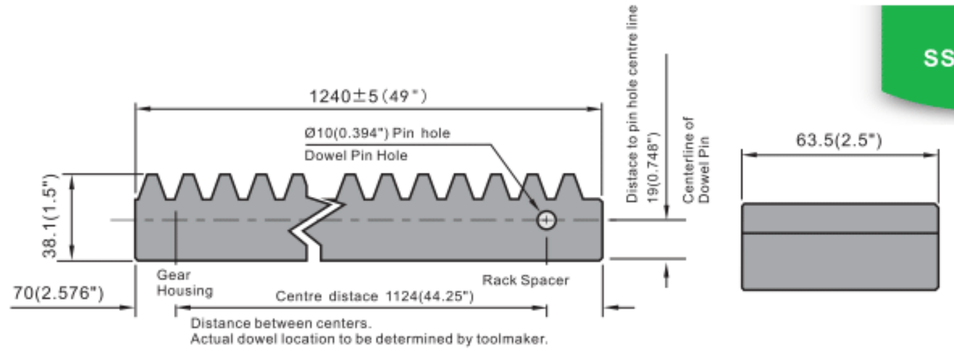
Order SSK-GHA-250



Order SSK-RSA-250

AISI
Latch locks

SSK-GHA

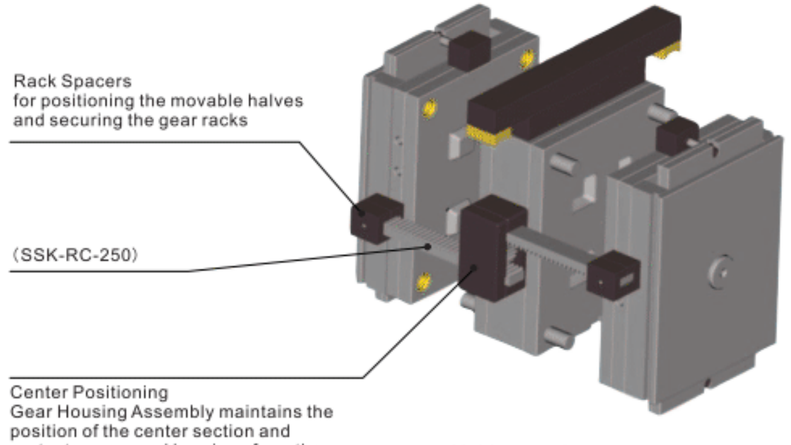


Order SSK-RC-250

Installation Guidelines:

- Install gear case ,use cup hear screw to make gear case parallel install on mould plate .
- Install rack, by mean of pad to fix rack, count opening mould stroke before installation, under closed mould condition, make sure eliminate this space between gears and gear racks, Then locking pad to fixed screw.

Installation Diagram:



Mold opened

Pouring Gate Series

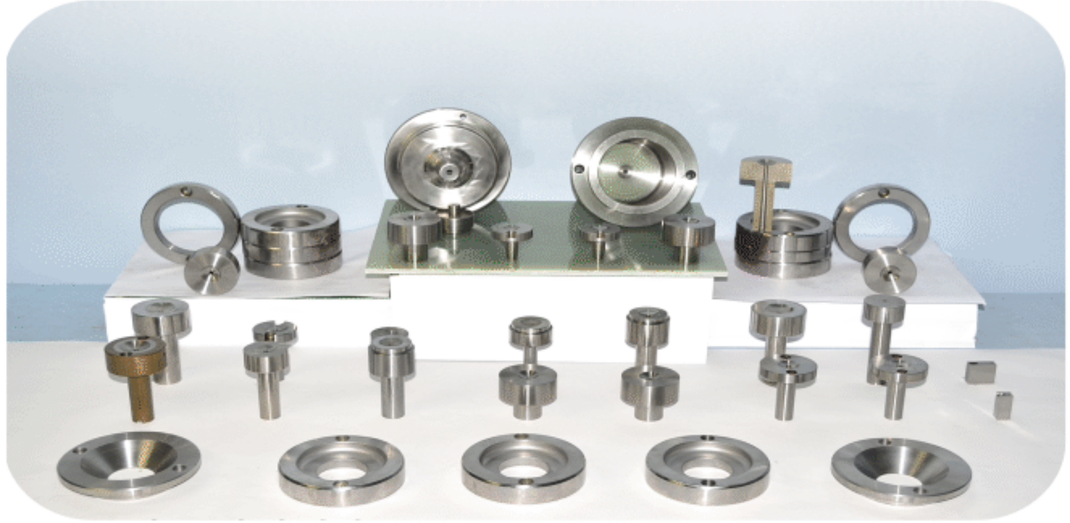








DIN	DIN	DIN	TAIWAN	TAIWAN
Sprue bushing	Locating rings	Locating rings	Sprue bushing	Sprue bushing
ZZ511 P146	KK100 P148	KK500 P150	JAA P152	JAB P152



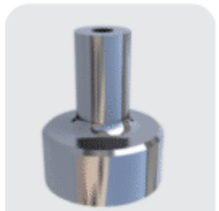
Email: sales@moldpartner.eu

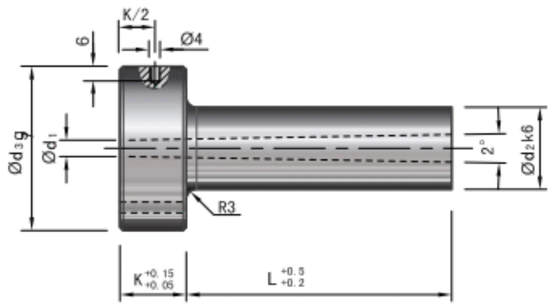
MOLD PARTNER

DIN

Sprue bushing

ZZ511





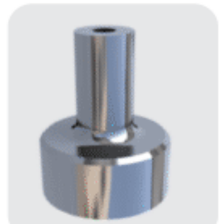
Order ZZ511-d2-L-d1 Material:SKD61 Hardness:48-52HRC

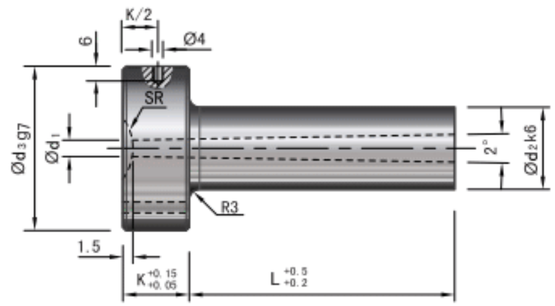
Code	d2	L	d1	d3	K	@ /P
ZZ511-12× 22-2.5	12	22	2.5	28	13	
ZZ511-12× 27-2.5		27				
ZZ511-12× 36-2.5		36				
ZZ511-12× 46-2.5		46				
ZZ511-12× 22-3.5		22	3.5			
ZZ511-12× 27-3.5		27				
ZZ511-12× 36-3.5		36				
ZZ511-12× 46-3.5		46				
ZZ511-12× 56-3.5		56				
ZZ511-18× 27-3	18	27	3	38	18	
ZZ511-18× 36-3		36				
ZZ511-18× 46-3		46				
ZZ511-18× 56-3		56				
ZZ511-18× 66-3		66				
ZZ511-18× 76-3		76				
ZZ511-18× 86-3		86				
ZZ511-18× 96-3		96				
ZZ511-18×116-3		116				
ZZ511-18× 27-4		27	4			
ZZ511-18× 36-4		36				
ZZ511-18× 46-4		46				
ZZ511-18× 56-4		56				
ZZ511-18× 66-4		66				
ZZ511-18× 76-4		76				
ZZ511-18× 86-4		86				
ZZ511-18× 96-4		86				
ZZ511-18×116-4		116				

DIN

Sprue bushing

ZZ511





Order ZZ511-d2-L-d1-SR Material:SKD61 Hardness:48-52HRC

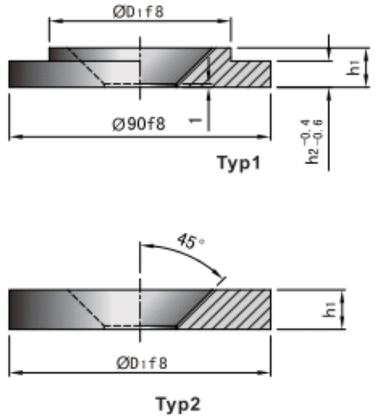
Code	SR	Code	SR	d2	L	d1	d3	K	@ /P
ZZ511-12× 22-2.5-15.5	15.5	ZZ511-12× 22-2.5-40	40	12	22	2.5	28	13	
ZZ511-12× 27-2.5-15.5		ZZ511-12× 27-2.5-40			27				
ZZ511-12× 36-2.5-15.5		ZZ511-12× 36-2.5-40			36				
ZZ511-12× 46-2.5-15.5		ZZ511-12× 46-2.5-40			46				
ZZ511-12× 22-3.5-15.5		ZZ511-12× 22-3.5-40			22	3.5			
ZZ511-12× 27-3.5-15.5		ZZ511-12× 27-3.5-40			27				
ZZ511-12× 36-3.5-15.5		ZZ511-12× 36-3.5-40			36				
ZZ511-12× 46-3.5-15.5		ZZ511-12× 46-3.5-40			46				
ZZ511-12× 56-3.5-15.5		ZZ511-12× 56-3.5-40			56				
ZZ511-18× 27-3 -15.5		ZZ511-18× 27-3 -40		18	27	3	38	18	
ZZ511-18× 36-3 -15.5		ZZ511-18× 36-3 -40			36				
ZZ511-18× 46-3 -15.5		ZZ511-18× 46-3 -40			46				
ZZ511-18× 56-3 -15.5		ZZ511-18× 56-3 -40			56				
ZZ511-18× 66-3 -15.5		ZZ511-18× 66-3 -40			66				
ZZ511-18× 76-3 -15.5		ZZ511-18× 76-3 -40			76				
ZZ511-18× 86-3 -15.5		ZZ511-18× 86-3 -40			86				
ZZ511-18× 96-3 -15.5		ZZ511-18× 96-3 -40			96				
ZZ511-18×116-3 -15.5		ZZ511-18×116-3 -40			116				
ZZ511-18× 27-4 -15.5		ZZ511-18× 27-4 -40			27	4			
ZZ511-18× 36-4 -15.5		ZZ511-18× 36-4 -40			36				
ZZ511-18× 46-4 -15.5		ZZ511-18× 46-4 -40			46				
ZZ511-18× 56-4 -15.5		ZZ511-18× 56-4 -40			56				
ZZ511-18× 66-4 -15.5		ZZ511-18× 66-4 -40			66				
ZZ511-18× 76-4 -15.5		ZZ511-18× 76-4 -40			76				
ZZ511-18× 86-4 -15.5		ZZ511-18× 86-4 -40			86				
ZZ511-18× 96-4 -15.5		ZZ511-18× 96-4 -40			96				
ZZ511-18×116-4 -15.5		ZZ511-18×116-4 -40			116				

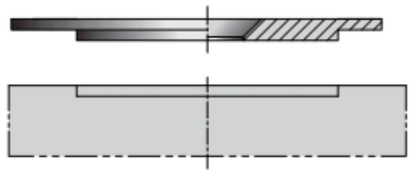
DIN

Locating rings

KK100







Order KK100-D1-h1 Material:S45C

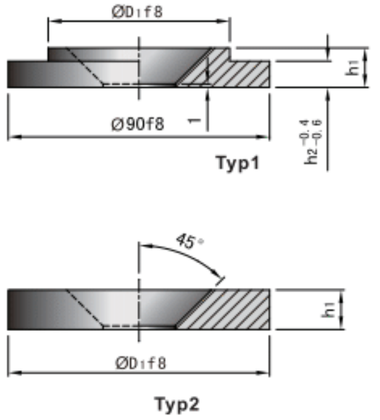
D1	h1	h2	D2	Typ	@ /P
60		4		1	
80					
90	8	-		2	
100					
110					
	12				
120	8				
	12				
125	8				
	12		36		
130					
140		4		3	
150	8				
	12				
160	8				
175					
	12				
180					
200					
250					

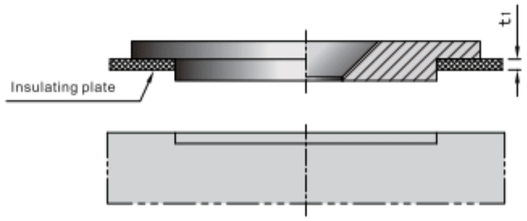
DIN

Locating rings

KK100







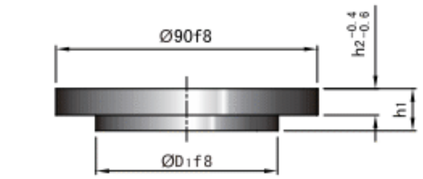
Order KK100-D1-h1 Material:S45C

D1	h1	h2	D2	t1	Typ	@ /P
60	11	7	26	3	1	
	13	9		5		
80	11	7		3		
	13	9		5		
90	11	-	36	3	2	
	13			5		
	15			7		
	16.5			8.5		
100	11	7		3	3	
	13	9		5		
	15	11		7		
	16.5	12.5		8.5		
110	11	7		3		
	13	9		5		
	15	11		7		
	16.5	12.5		8.5		
120	11	7		3		
	13	9		5		
	15	11		7		
	16.5	12.5		8.5		
125	11	7		3		
	13	9		5		
	15	11		7		
	16.5	12.5		8.5		
160	11	7		3		
	13	9		5		
	15	11		7		
	16.5	12.5		8.5		
175	11	7		3		
	13	9		5		
	15	11		7		
	16.5	12.5		8.5		

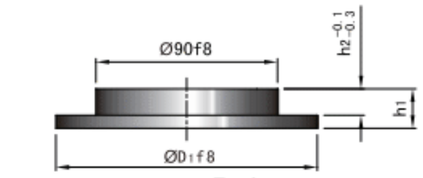
Locating rings

KK500

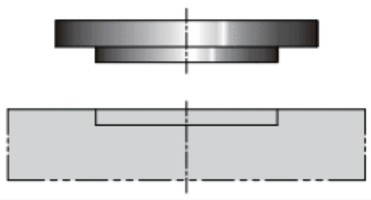




Typ1



Typ3



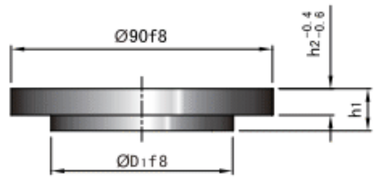
Order KK500-D1-h1 Material:S45C

D1	h1	h2	Typ	@ /P
60	8	4	1	
80				
100			3	
110	12			
120	8			
	12			
125	8			
	12			
140	8			
150				
160	12			
175	8			
200	12			
250				

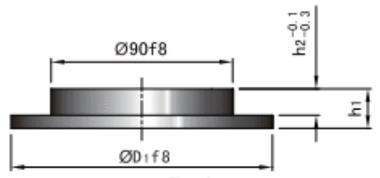
Locating rings

KK500

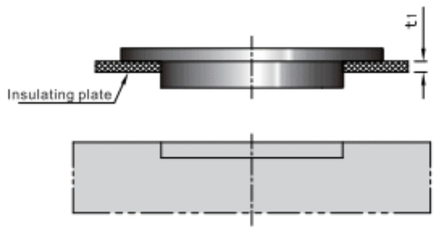




Typ1



Typ3



Order KK500-D1-h1 Material:S45C

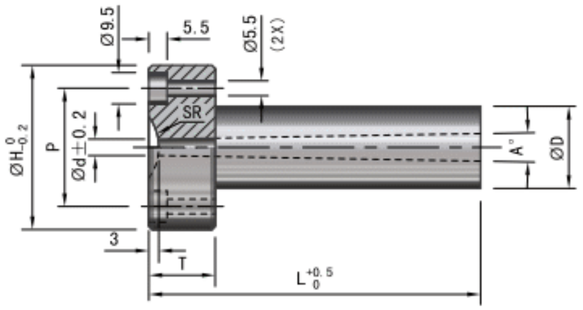
D1	h1	h2	t1	Typ	@ /P
60	11	7	3	1	
	13	9	5		
80	11	7	3		
	13	9	5		
100	11	7	3	3	
	13	9	5		
	15	11	7		
	16.5	12.5	8.5		
110	11	7	3		
	13	9	5		
	15	11	7		
	16.5	12.5	8.5		
120	11	7	3		
	13	9	5		
	15	11	7		
	16.5	12.5	8.5		
125	11	7	3		
	13	9	5		
	15	11	7		
	16.5	12.5	8.5		
160	11	7	3		
	13	9	5		
	15	11	7		
	16.5	12.5	8.5		
175	11	7	3		
	13	9	5		
	15	11	7		
	16.5	12.5	8.5		

TAIWAN

Sprue bushing

JAA



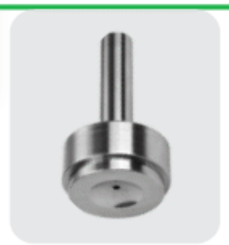


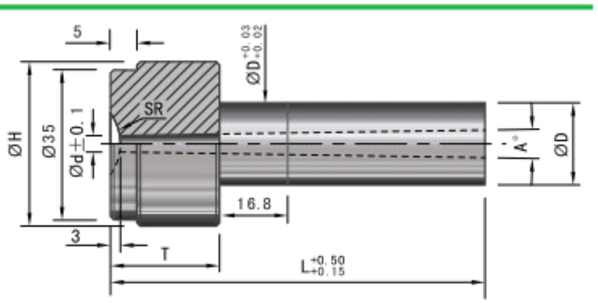
Order JAA-D-L-T-SR-d-A Material:S45C

ØD		ØH	ØP	T	SR	Ød	A
12	g -0.009	35	25	10	0 11 12 13	2 2.5 3 3.5 4 4.5 5	1° 2° 3°
16				15			
16	g -0.011	50	36	10	0 11 12 13 16		
20	g -0.013			15			
25				20			

@ /P											
L40	L50	L60	L70	L80	L90	L100	L110	L120	L130	L140	L150

JAB





JAB-D-L-T-SR-d-A Material:S45C

ØD		ØH	T	SR	Ød	A
16	g -0.011	40	20	0 11 12 13 16 19 21	2 2.5 3 3.5 4 4.5 5	1° 2° 3°
			25			
			30			
20	g -0.013		20			
			25			
			30			

@ /P											
L40	L50	L60	L70	L80	L90	L100	L110	L120	L130	L140	L150

Date stamps & Air valves Series





DIN	
Date stamps	
ZZ48	P156



DIN	
Date stamps	
ZZ4861	P157



DIN	
Date stamps	
ZZ4800/ZZ48705	P158



DIN	
Date stamps	
FFA/IIA	P159



DIN	
Date stamps	
DDATI-1000	P160



DIN	
Date stamps	
DDATI-1200	P161



DIN	
Date stamps	
DDATI-1300	P162



DIN	
Date stamps	
DDATI-1800	P163



DIN	
Date stamps	
DDATI-2000	P164



DIN	
Date stamps	
DDATI-2200	P165



DIN	
Date stamps	
FFD	P166



AISI	
Date stamps	
FFOB	P167



AISI	
Date stamps	
UUOB	P168



JIS	
Date stamps	
DDTN/DDTNX	P169



TAIWAN	
Date stamps	
CO	P171



AISI DIN	
Recycling insert	
Recycling insert	P172



TAIWAN	
Air valves	
AJV	P173



DIN	
Air valves	
VVA-C	P175



DIN	
Air valves	
ZZ491	P174



AISI	
Air valves	
VVA	P175



AISI	
Air valves	
PPV	P175



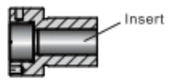
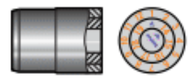
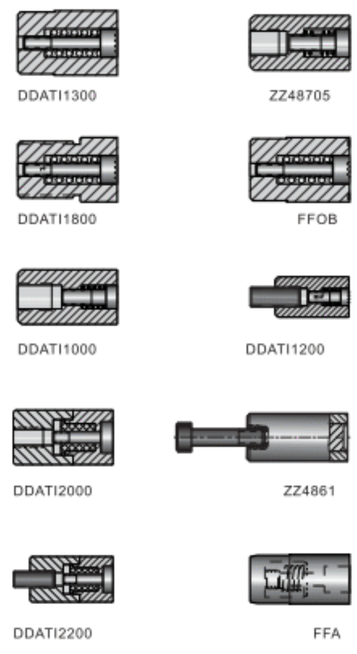
DIN	
Double valves	
VVD	P176

Products Summary

Date stamps summary:

Date stamps is a Identifies components which used in the plastic parts showed in Character .

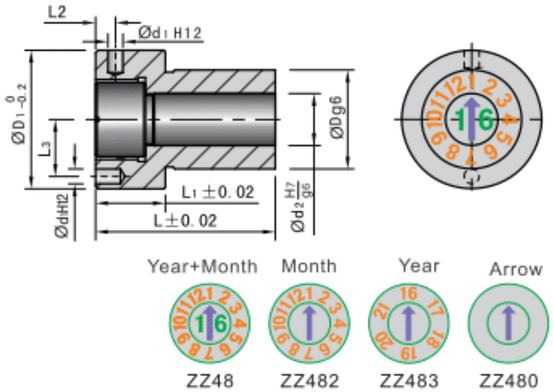
Date stamps inner structure have below kinds:catch structure,spring structure,switch core structure,No steps structure while using and so on.

Graphic	Sturcture		Code	Page	Instruction
 Insert ZZ48 DDTN	Catch structure	Insert be able to replaced from the Back.	ZZ48 DIN	P156	When adjust the insert wont have Bump phenomenon,after open the mold plate then can replace the insert.
			DDTN JIS	P169	
 DDTNX UUOB		Insert be able to replaced from front.	DDTNX JIS	P170	When adjust the insert wont have the bump phenomenon, no need to open the mold can just replace the insert throung the Sub-surface
			UUOB AISI	P168	
 FFD(Double date stamp) CO		Insert not be able to replaced.	FFD DIN	P166	The insert not avalible to replaced. FFD type date stamps is combined with year and month, cansave the mold space.
			CO TAIWAN	P171	
 DDATI1300 ZZ48705 DDATI1800 FFOB DDATI1000 DDATI1200 DDATI2000 ZZ4861 DDATI2200 FFA	Spring Structure	No need to open the mold ,can replce the insert throught the sub-surface.	DDATI1300 DIN	P162	While adjust the insert will have the bump phenomenon.No need to open the mold ,can replce the insert throught the sub-surface.
			ZZ48705 DIN	P156	
			FFOB AISI	P167	
			DDATI1800 DIN	P163	
			DDATI1000 DIN	P160	
			DDATI1200 DIN	P161	
			FFA DIN	P159	When adjust the insert wont have the bump phenomenon, no need to open the mold can just replace the insert throung the Sub-surface
			ZZ4861 DIN	P157	
			DDATI2200 DIN	P165	
			DDATI2000 DIN	P164	
	-	-	Recyling insert DIN/AISI	P172	Letters in the plastic products showed is Convex Letter.

DIN
Date Stamps

ZZ48





Features:
1.Inner insert are replaceable,cost reduction.
2.Insert and main body adopts unique Hang machine appearance Effectively solve the problems with date stamps fall off the mould when produce.
3.The dowel pin holes on the bottom and the sides are used to stop the date stamps.
4.Adjust the inner insert will have not bump phenomenon.
5.Position with inner ball bearing, arrows indicate exactly.

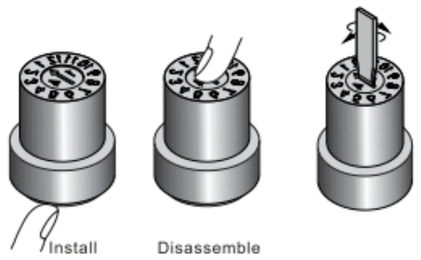
Order ZZ482-6 Material:S136 Hardness:50-55HRC

Year+Month	Months	Year	D	D1	L	L1	L2	L3	d1	Ød2	@ /P
ZZ48- 6	ZZ482- 6	ZZ483- 6	6	10	14	5	0.9	5	1.5	3.5	
ZZ48- 8	ZZ482- 8	ZZ483- 8	8	12	17	6	0.9	6	1.5	4.5	
ZZ48-12	ZZ482-12	ZZ483-12	12	20	22	10	3.5	8	2	6.5	
ZZ48-16	ZZ482-16	ZZ483-16	16	23	27	11	3.5	9.25	2	9	
ZZ48-20	ZZ482-20	ZZ483-20	20	28	36	14	4	11.5	3	10.5	

Purchase year code date stamps, please mark which year you need on end code.

Inner insert to install and tear down:

Disassemble chart for inner insert :

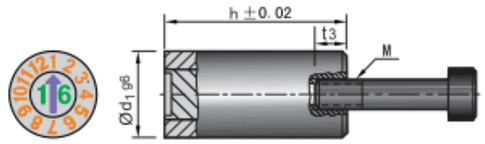


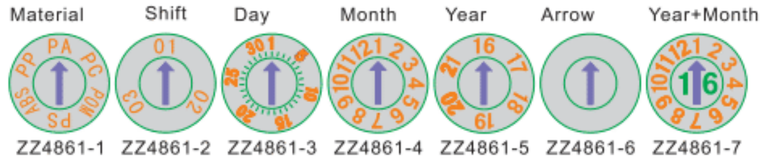
Installation Guidelines:
- When inner insert to install and tear down(see the left picture), it is easy to install and tear down with your finger . (when tear down small diameter inner insert,can eject by screwdriver.)
- As right picture,can rotate clockwise and anticlockwise to adjust arrows to indicate needing months(use professional screwdriver to adjust , see page "P635")

DIN
Date Stamps

ZZ4861







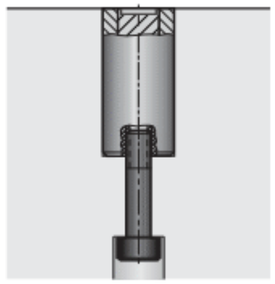
Features:
1.Inner inserts are be adjusted unlimitedly by left and right side,surface is smoothly with Inscription.

Order ZZ4861-2-4 Material:S136 Hardness:50-55HRC

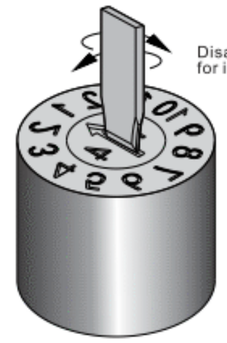
Materials	Shift	Days	Months	Year	d1	h	t3	M	@ /P
ZZ4861-1- 4	ZZ4861-2- 4	ZZ4861-3- 4	ZZ4861-4- 4	ZZ4861-5- 4	4	12.5	2.5	M2 ×20	
ZZ4861-1- 5	ZZ4861-2- 5	ZZ4861-3- 5	ZZ4861-4- 5	ZZ4861-5- 5	5	14	3.0	M2.5×20	
ZZ4861-1- 6	ZZ4861-2- 6	ZZ4861-3- 6	ZZ4861-4- 6	ZZ4861-5- 6	6	16			
ZZ4861-1- 8	ZZ4861-2- 8	ZZ4861-3- 8	ZZ4861-4- 8	ZZ4861-5- 8	8	18		M3 ×20	
ZZ4861-1-10	ZZ4861-2-10	ZZ4861-3-10	ZZ4861-4-10	ZZ4861-5-10	10	22	5.5		
ZZ4861-1-12	ZZ4861-2-12	ZZ4861-3-12	ZZ4861-4-12	ZZ4861-5-12	12	25		M4 ×20	

Purchase year code date stamps, please mark which year you need on end code.

Installation Diagram:



Disassemble chart for inner insert :



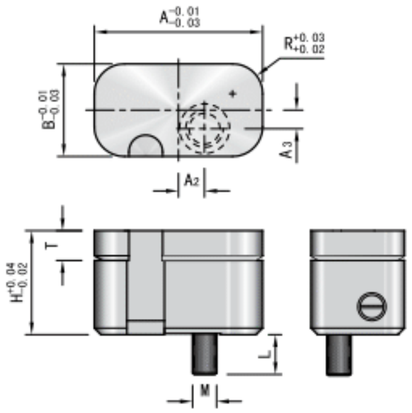
Installation Guidelines:
- Press the date stamp closely into mold with thumbs. fix it at the back side by using screws.
- As right picture, can rotate clockwise and anticlockwise to adjust arrows to indicate needing months (use professional screwdriver to adjust , see page "P635")

DIN

Date Stamps

ZZ4800





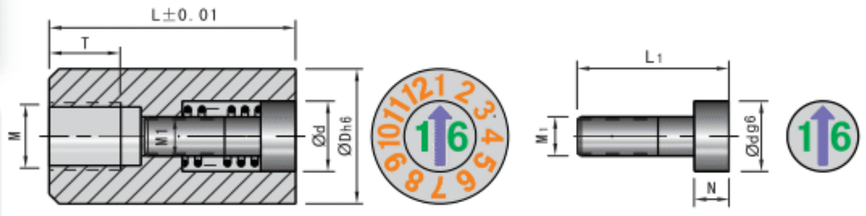
Features:
1.Square and circular angle design,easy to process install hole.
2.Unique Structure design, can replace identifying insert without tearing down the template, cost reduction.

Order ZZ4800-18-10 Material:S136 Hardness:50-55HRC

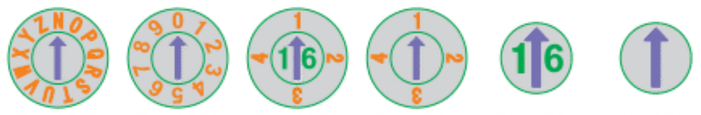
Code	A	B	A2	A3	H	L	T	R	M	@ /P
ZZ4800-18-10	18	10	2.5	2	11.2	5	3.2	3.2	M3	
ZZ4800-25-20	25	20	4.5	4	12.7	4		3.5		
ZZ4800-35-25	35	25	8	6.5						

ZZ48705









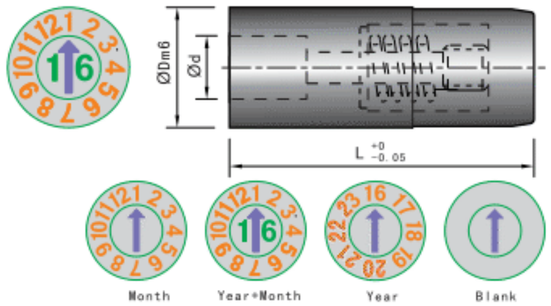
Order ZZ48705-4 Material:S136 Hardness:50-55HRC

T	L	D	d	N	L1	M	M1	@¥/S
3	14	4	2.5	2.3	10.5	M2	M1.4×0.2	
3.5	17	5	3.1	3	13	M3	M1.6×0.2	
		6						
4	20	8	4.6	4	14	M4	M2.5×0.35	
		10				M5		
6	25	12	6.4		17	M6	M3 ×0.5	

DIN

Date Stamps

FFA





Features:
1.Inner insert can be removed from front,no need to dismantle the mold,more simple.
2.Inner insert are replaceable,cost reduction.
3.Turn clockwise infinitely and smoothly. the surface have not bump phenomenon with Inscription.

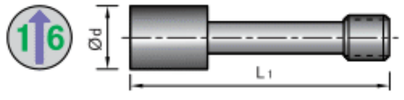
Installation Guidelines:
・Date stamps tight installation in parting mold.

Order FFA-0422SF Material:S136 Hardness:50-55HRC

Months	Year+Month	Year	Blank	D	L	@ /P
FFA-0422SF	FFA-042212	FFA-042204	FFA-042200	4	12	
FFA-0530SF	FFA-053012	FFA-053004	FFA-053000	5		
FFA-0632SF	FFA-063212	FFA-063205	FFA-063200	6		
FFA-0847SF	FFA-084712	FFA-084705	FFA-084700	8	20	
FFA-1057SF	FFA-105712	FFA-105706	FFA-105700	10		
FFA-1267SF	FFA-126712	FFA-126708	FFA-126700	12		
FFA-1687SF	FFA-168712	FFA-168710	FFA-168700	16		
FFA-2007SF	FFA-200712	FFA-200710	FFA-200700	20		

Purchase year code date stamps, please mark which year you need on end code.

IIA



Arrow Year



Installation Guidelines:
・When replace inner insert, rotate in clockwise by screwdriver , finished with hearing "click" change arrow clockwise, take out inner insert anticlockwise(use specified screwdriver to adjust, see page"P635")

Order IIA-2275SF Material:S136 Hardness:50-55HRC

Arrow	Year	d	L1	@ /P
IIA-2275SF	IIA-2275	2.2	7.5	
IIA-3075SF	IIA-3075	3		
IIA-3217SF	IIA-3217	3.2	17	
IIA-4717SF	IIA-4717	4.7		
IIA-5717SF	IIA-5717	5.7		
IIA-6717SF	IIA-6717	6.7		
IIA-8717SF	IIA-8717	8.7		
IIA-1007SF	IIA-1007	10.7		

Purchase year code date stamps, please mark which year you need on end code.

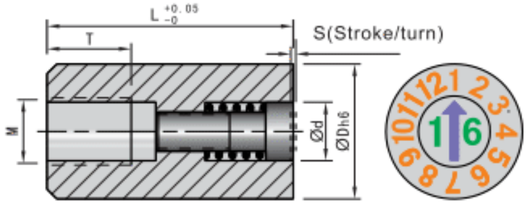
MOLD PARTNER

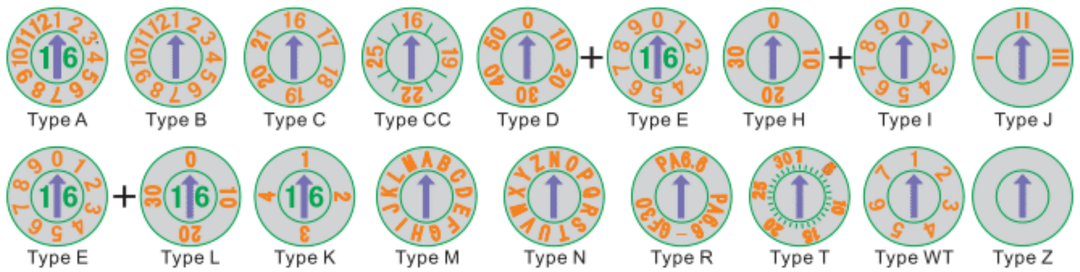
DIN

Date Stamps

DDATI1000







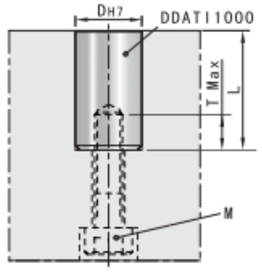
Features:
1.Simple structure and install conveniently.
2.Can replace the inner insert.

Order DDATI1000-D-Type Material:S136 Hardness:50-55HRC

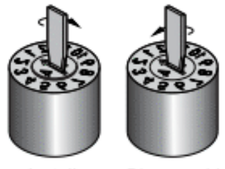
D	d	L	M	T	s	@ /P
4	2.5	14	2	3	0.20	
5	3.1	17	3			
6		17				
8	4.6	20	4	4	0.35	
10		20	5			
12	6.4	25	6	6	0.50	
16	8.4	33	8	8	0.60	

Purchase year code date stamps, please mark which year you need on end code.

Installation Diagram:



Disassemble chart for inner insert :



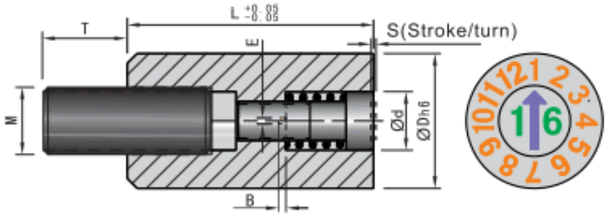
Installation Guidelines:
- Date stamps and mold need install clockwise with pressing by thumb.
- fix at back side with head cap screw.
- Inner inserts can not be adjusted unlimitedly.
- When adjusting, the inner inserts are not smooth enough.
- As right picture, inner insert to install clockwise and tear down anticlockwise.(use specified screwdriver to adjust, see page "P635")

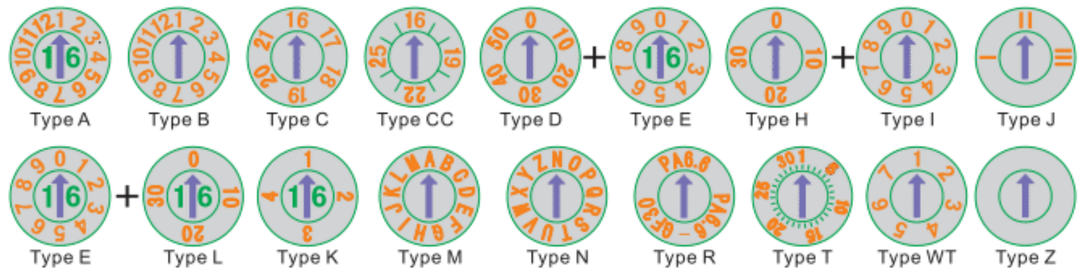
DIN

Date Stamps

DDATI1200







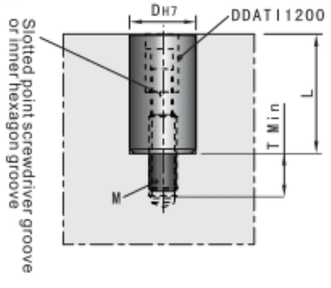
Features:
1.Simple Structure, to secure outside of the mold by a threaded pin.
2.Inner inserts can be replaceable.

Order DDATI1200-D-Type Material:S136 Hardness:50-55HRC

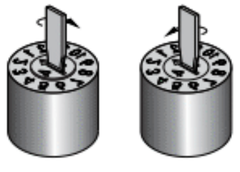
D	d	L	M	T	s	B	E	@ /P
3	1.6	14	2	4	0.20	1.5	SW1.3	
4	2.5				0.30		SW1.5	
5	3.1	17	3		0.40	0.5	0.8	
6								
8	4.6	20	4			0.7	1	
10			5					
12	6.4	25	6	6	0.60	1	1.5	
16	8.4	33	8	8				

Purchase year code date stamps, please mark which year you need on end code.

Installation Diagram:



Disassemble chart for inner insert :



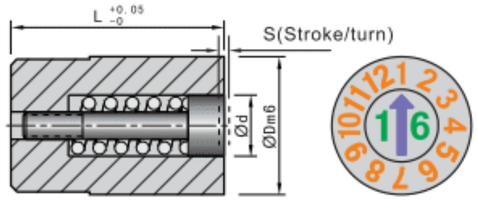
Installation Guidelines:
- Date stamps and mold need to install clockwiseDate stamps and mold need to install clockwise.
- As right picture, inner insert to install clockwise and tear down anticlockwise. (use specified screwdriver to adjust, see page "P635")
- Inner inserts can not be adjusted unlimitedly.
- When adjusting, the inner inserts are not smooth enough.

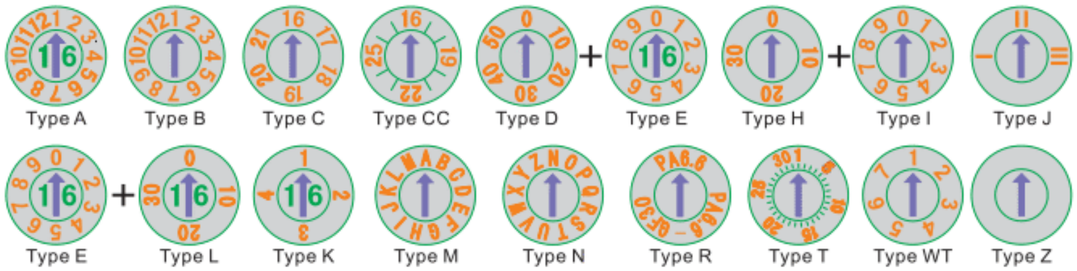
DIN

Date Stamps

DDATI1300







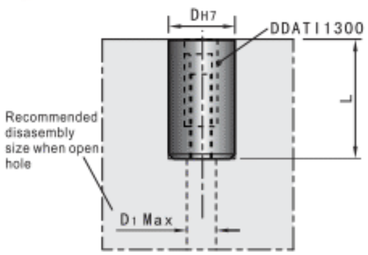
Features:
1.Simple Structrue and easy to install.
2.Inner insert can be replaceable, cost reduction.

Order DDATI1300-D-Type Material:S136 Hardness:50-55HRC

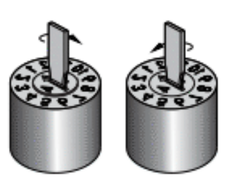
D	d	L	S	D1	@ /P
2.6	1.4	4	0.20	1.5	
2.8					
3	1.5			1.6	
3.5	1.8	5	0.25	1.8	
4	2.1			2.2	
5	3.1	8	0.20	3.2	
6					
8	4.4	10	0.25	4.2	
10	5.2	12	0.35	5.2	
12	6.2	14		6.2	
16	8.2			8.2	

Purchase year code date stamps, please mark which year you need on end code.

Installation Diagram:



Disassemble chart for inner insert :

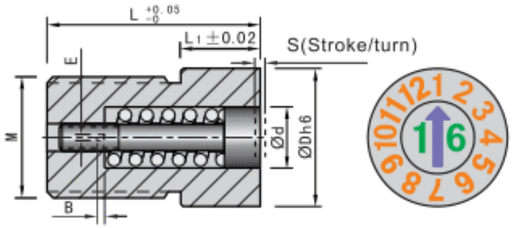


Installation Guidelines:
- Strike date stamps into hole with Rubber hammer, small hole will stop the inner insert from rotate(tear down inner insert before install,if need to install all the whole date stamps, need keep the hole which is ejected by back side before install)
2.Inner inserts are not be adjusted unlimitedly.
3.When adjusting, the inner inserts are not smooth enough.
4.As right picture,inner insert to install clockwise and tear down anticlockwise.(use specified screwdriver to adjust, see page "P635")

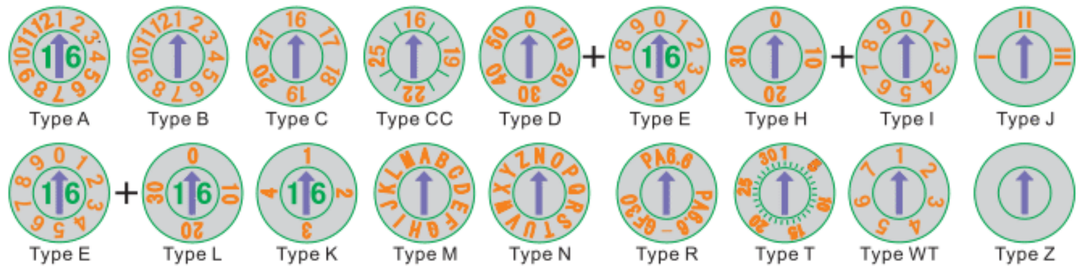
DIN

Date Stamps

DDATI1800







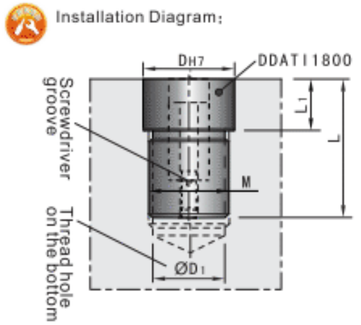
Features:
1.Simple structure,can tear down date stamps from front.
2.Inner insert can be replaceable.

Order DDATI1800-D-Type Material:S136 Hardness:50-55HRC

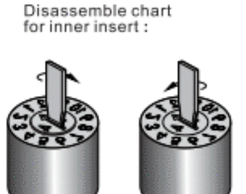
D	d	L	D1	L1	M	S	B	E	@ /P
3	1.5	4	2.2	1.8	2.5×0.35	0.2	0.4	0.3	
3.5		5	2.7	2	3×0.35	0.25	0.5	0.4	
4	2.1		3.2		3.5×0.35				
5	3.1	8	4.1		4.5×0.5	0.2		0.6	
6			4.6		5 ×0.5				
8	4.4	10	5.6	3	6 ×0.5	0.25	0.7	0.8	
10	5.2	12	7.4		8 ×0.75	0.35		1	
12	6.2	14	9.4	4	10 ×0.75		1	1.2	
16	8.2		11	5	12 ×1				

Purchase year code date stamps, please mark which year you need on end code.

Installation Diagram:



Disassemble chart for inner insert :



Installation Guidelines:
- As right picture,inner insert to install clockwise and tear down anticlockwise. (use specified screwdriver to adjust, see page"P635")
- Can't unlimited to adjust inner inserts.
- Inner inserts will have rugged phenomenon when adjust them.

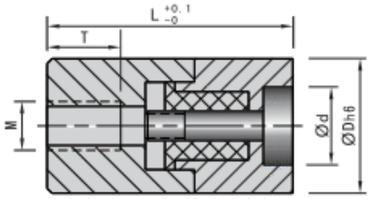
MOLD PARTNER

DIN

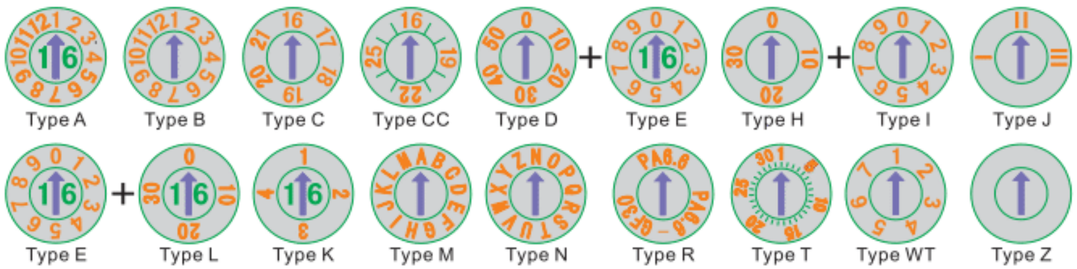
Double date Stamps

DDATI2000









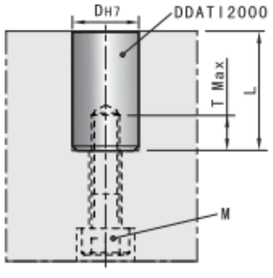
Features:
1.Simple Structure, to secure outside of the mold by a threaded pin.
2.Inner insert can be replaceable.
3.When adjusting, the inner inserts are smooth enough.

☎Order DDATI2000-D-Type Material:S136 Hardness:50-55HRC

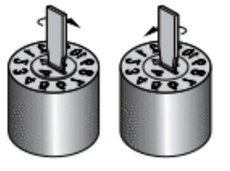
D	d	L	M	T	@ /P
4	2.5	14	2	3	
5	3.1	17	3		
6					
8	4.6	20	4	4	
10			5		
12	6.4	25	6	6	
16	8.4	33	8	8	

Purchase year code date stamps, please mark which year you need on end code.

Installation Diagram:



Disassemble chart for inner insert :

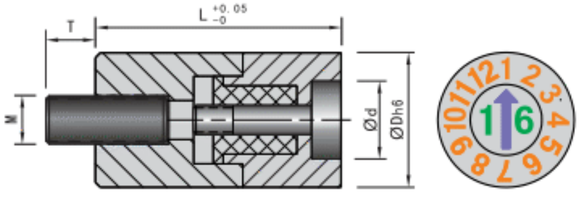


Installation Guidelines:
- Date stamps and mold need install clockwise with pressing by thumb fix at back side with head cap screw.
- As right picture,inner insert to install clockwise and anticlockwise revolve to disassemble inner insert . (use specified screwdriver to adjust, see page "P635")

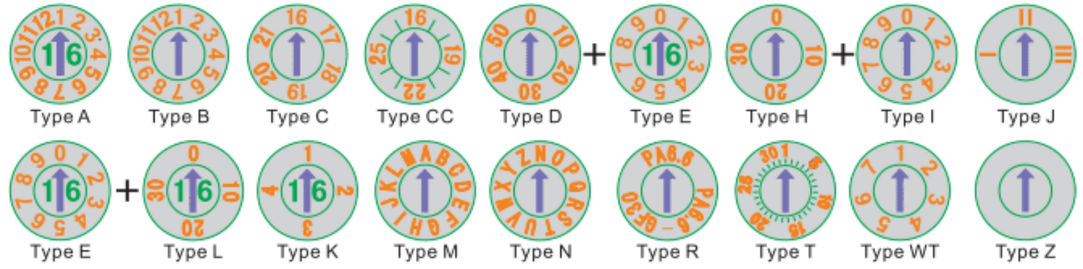
DIN

Date Stamps

DDATI2200







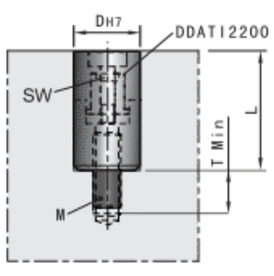
Features:
1.Simple Structure,to secure outside of the mold by a threaded pin.
2.Inner inserts are replaceable,cost reduction.

☎Order DDATI2200-D-Type Material:S136 Hardness:50-55HRC

D	d	L	M	T	@ /P
3	1.6	14	2	4	
4	2.5				
5	3.1	17	3		
6					
8	4.6	20	4		
10			5		
12	6.4	25	6	6	
16	8.4	33	8	8	

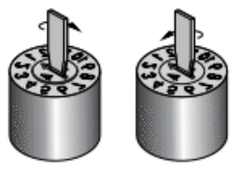
Purchase year code date stamps, please mark which year you need on end code.

Installation Diagram:



Inner hexagon

Disassemble chart for inner insert :



Installation Guidelines:
- Date stamps and mold need install clockwise with pressing by thumb, fix at back side with headless screw.
- Inner inserts are not be adjusted unlimitedly.
- As right picture,inner insert to install clockwise and tear down anticlockwise.(use specified screwdriver to adjust, see page "P635")

MOLD PARTNER

DIN

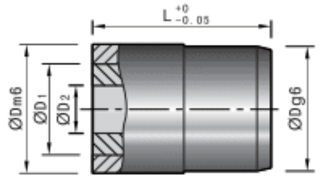
Date Stamps

FFD









Features:
1.This type of date stamps is consist of twelve months and six groups years,cost reduction,more effectively to make use of the room and long lifespan.
2.Rotate inner insert clockwise to adjust arrows to indicate years,rotate anticlockwise to indicate the months,without Bump phenomenon.
3.Adopt ball plug and degrees groove to locate,Indicates a more accurate.
4.can carve with year,month,day.

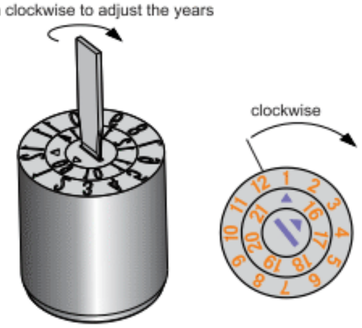
☎ FFD-080512 Material:S136 Hardness:50-55HRC

12Months+Year	Blank	D	D1	D2	L	@ /P
FFD-080512	FFD-080500	8	5.5	3	20	
FFD-100612	FFD-100600	10	6			
FFD-120812	FFD-120800	12	8	4		
FFD-161012	FFD-161000	16	10.5	5.3		

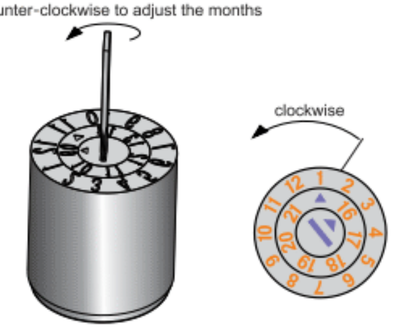
Purchase year code date stamps, please mark which year you need on end code.

Installation Guidelines:
- Install for date stamps and mold to interwork, Strike date stamps into hole with Rubber hammer. (small hole will stop the inner insert to rotate)
- A whole one , inner inset can not be replaceable.

turn clockwise to adjust the years



turn counter-clockwise to adjust the months

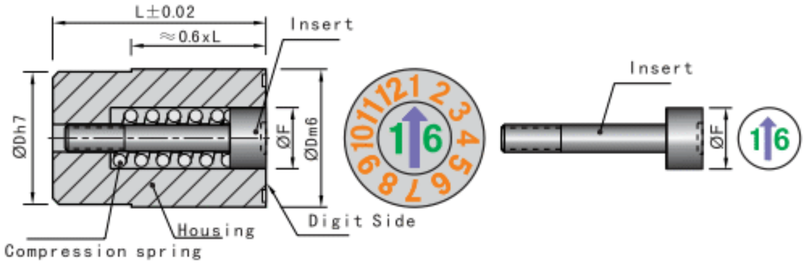


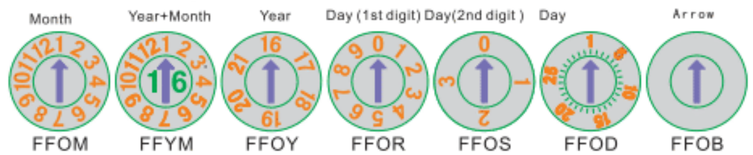
AISI

Date Stamps

FFOB









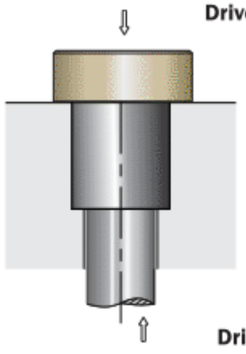
Features:
1.Simple structure,easy install.
2.Inner insert can be replaceable from front, No need disassemble mold,simple and convenient.

☎Order FFOB-6 Material:S136 Hardness:50-55HRC

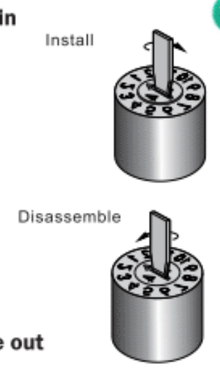
Months	Year&Months	Year	Days(1st digit)	Days(2nd digit)	Days	D	L	F	@ /P
FFOM	FFYM	FFOY	FFOR	FFOS	FFOD	6	8	3.1	
						8	10	4.4	
						10	12	5.2	
						12	14	6.2	
						16	14	8.2	
						20	16	11	

Purchase year code date stamps, please mark which year you need on end code.

Diagram of install and tear down:



Disassemble chart for inner insert :



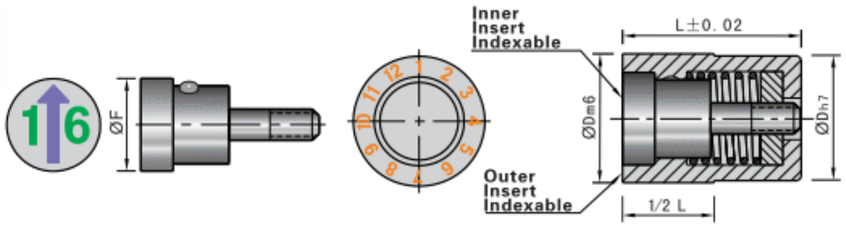
Installation Guidelines:
- Strike date stamps into hole with Rubber hammer. (small hole will stop the inner from rotate.(tear down inner insert before install. if need tear down the whole date stamps need keep the hole which is drive out by back side before install)
- As right picture,inner insert to install clockwise and tear down anticlockwise.
- When adjusting,the inner inserts are not smooth enough.

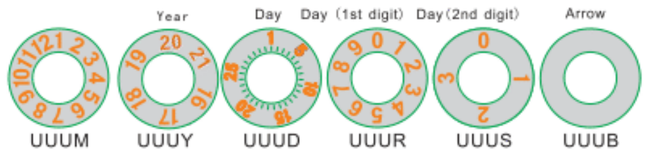
AISI

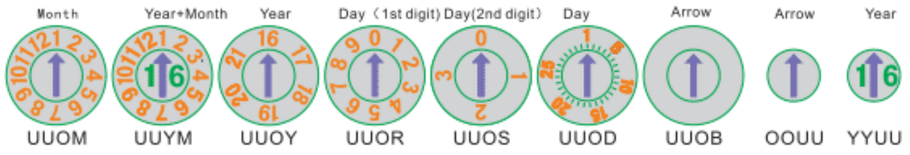
Date Stamps

UUOB









Features:
1.Indexable and front removable, without tearing down mold, simple and convenient.
2.The arrows indicate its digits exactly, with the springs and ball.
3.Easily and smoothly adjustable inner insert that is removable using a screwdriver.

☎Order UUOB-6 Material:S136 Hardness:50-55HRC

Year&Months	Months	Year	Days	Days(1st digit)	Days(2nddigit)	Blank	Year	Arrow	Months
UUYM- 6	UUOM- 6	UUOY- 6	-	UUOR- 6	UUOS- 6	UUOB- 6	YYUU- 6	OOUU- 6	UUUM- 6
UUYM- 8	UUOM- 8	UUOY- 8		UUOR- 8	UUOS- 8	UUOB- 8	YYUU- 8	OOUU- 8	UUUM- 8
UUYM-10	UUOM-10	UUOY-10		UUOR-10	UUOS-10	UUOB-10	YYUU-10	OOUU-10	UUUM-10
UUYM-12	UUOM-12	UUOY-12		UUOR-12	UUOS-12	UUOB-12	YYUU-12	OOUU-12	UUUM-12
UUYM-16	UUOM-16	UUOY-16	UUOD-16	UUOR-16	UUOS-16	UUOB-16	YYUU-16	OOUU-16	UUUM-16
UUYM-20	UUOM-20	UUOY-20	UUOD-20	UUOR-20	UUOS-20	UUOB-20	YYUU-20	OOUU-20	UUUM-20

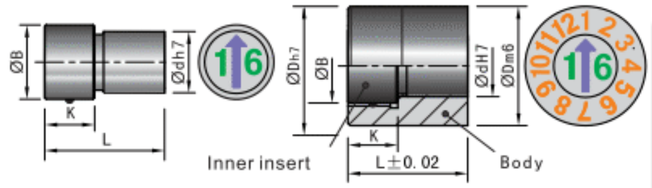
Year	Days	Days(1st digit)	Days(2nddigit)	Blank	Dia	D	L	F	@ /P
UUUY- 6	-	UUUR- 6	UUUS- 6	UUUB- 6	6	6	8	3.7	
UUUY- 8		UUUR- 8	UUUS- 8	UUUB- 8	8	8	10	5	
UUUY-10		UUUR-10	UUUS-10	UUUB-10	10	10	12	6.3	
UUUY-12		UUUR-12	UUUS-12	UUUB-12	12	12	14	7.5	
UUUY-16	UUUD-16	UUUR-16	UUUS-16	UUUB-16	16	16		11	
UUUY-20	UUUD-20	UUUR-20	UUUS-20	UUUB-20	20	20	16	13.2	

Purchase year code date stamps, please mark which year you need on end code.

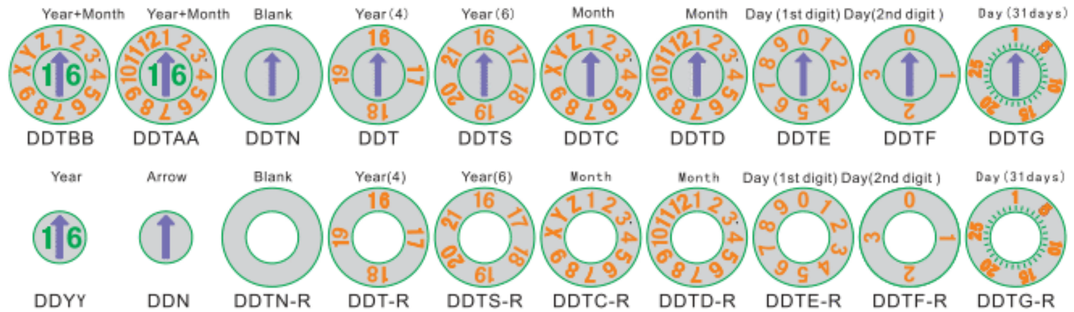
JIS

Date Stamps

DDTN







Features:
1.Inner inserts can be replaceable,cost reduction.
2.Adopt ball plug structure , Indicates a more accurate.
3.When adjusting, the inner inserts are smooth enough.

☎Order DDTN-4 Material:S136 Hardness:50-55HRC

Days(2nddigit)	Days	Blank	Year	Blank	Year&Months	Year&Months	4Years	6Years
DDTF 4	-	DDTN 4	DDYY 4	DDN 4	DDTAA 4	DDTBB 4	DDT 4	DDTS 4
DDTF 5		DDTN 5	DDYY 5	DDN 5	DDTAA 5	DDTBB 5	DDT 5	DDTS 5
DDTF 6		DDTN 6	DDYY 6	DDN 6	DDTAA 6	DDTBB 6	DDT 6	DDTS 6
DDTF 8		DDTN 8	DDYY 8	DDN 8	DDTAA 8	DDTBB 8	DDT 8	DDTS 8
DDTF10		DDTN10	DDYY10	DDN10	DDTAA10	DDTBB10	DDT10	DDTS10
DDTF16	DDTG16	DDTN16	DDYY16	DDN16	DDTAA16	DDTBB16	DDT16	DDTS16
DDTF20	DDTG20	DDTN20	DDYY20	DDN20	DDTAA20	DDTBB20	DDT20	DDTS20

Months	Months	Days(1st digit)	Dia		D	d	L	@ /P
DDTC 4	DDTD 4	DDTE 4	4	1.9	4	1.9	8	
DDTC 5	DDTD 5	DDTE 5	5	2.3	5	2.3		
DDTC 6	DDTD 6	DDTE 6	6	2.8	6	2.8		
DDTC 8	DDTD 8	DDTE 8	8	4	8	4	10	
DDTC10	DDTD10	DDTE10	10	5	10	5	12	
DDTC16	DDTD16	DDTE16	16	10	16	10	14	
DDTC20	DDTD20	DDTE20	20	12	20	12	16	

Purchase year code date stamps, please mark which year you need on end code.

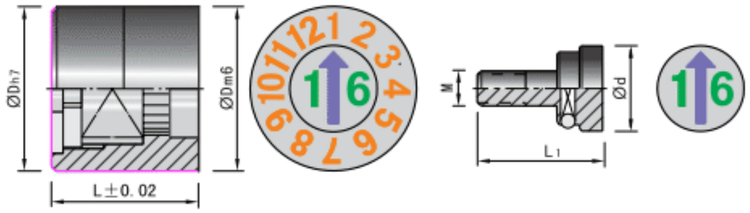
Installation Guidelines:
・Install for date stamps and mold to interwork, Strike date stamps into hole with Rubber hammer. (small hole will stop the inner insert to rotate)
・Inner insert can be not replaceable from front, need to tear down mold to replace another.

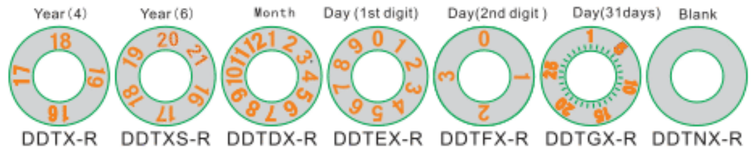
JIS

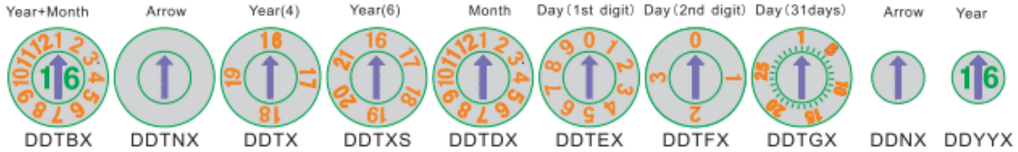
Date Stamps

DDTNX









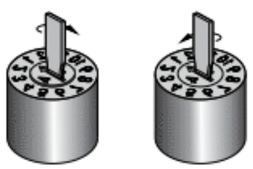
Features:
1.Inner insert can be replaceable from front , no need to tear down mold , sample and convenient.
2.Adopt ball plug structure , Indicates a more accurate.
3.When adjusting, the inner inserts are smooth enough.

Order DDTNX-6 Material:S136 Hardness:50-55HRC

D	Dm6		Dm7		L	L1	d	M	@ /P
4	4	+0.012 +0.004	4	0 -0.012	8	7.7	2.4	M1.6×0.20	
5	5		5				2.9		
6	6		6				3.7		
8	8	+0.015 +0.006	8	0 -0.015	10	9.7	5	M2.3×0.25	
10	10		10		12	11.7	6.3	M2.5×0.35	
12	12	+0.018 +0.007	12	0 -0.018	14	13.7	7.5	M3.0×0.35	
16	16		16				11	M4.0×0.35	
20	20	+0.021/+0.008	20	0/-0.021	16	15.7	13.2		

Purchase year code date stamps, please mark which year you need on end code.

Disassemble chart for inner insert :



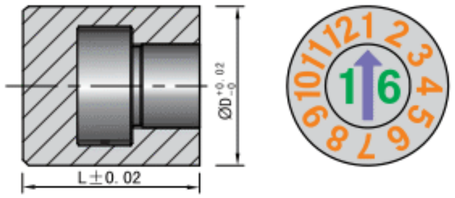
Installation Guidelines:
- Install for date stamps and mold to interwork,Strike date stamps into hole with Rubber hammer.(small hole will stop the inner insert to rotate)
- As right picture,inner insert to install clockwise and tear down anticlockwise.
- Rotate clockwise inner insert to adjust months with screwdriver.(use specified screwdriver to adjust,see page "P635")

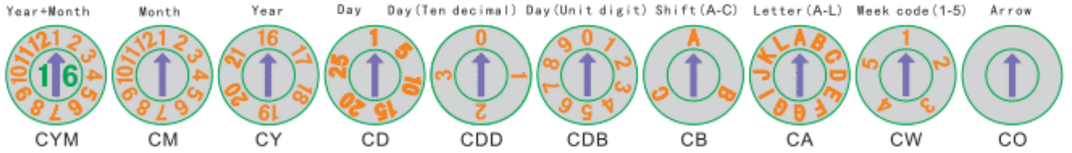
TAIWAN

Date Stamps

CO







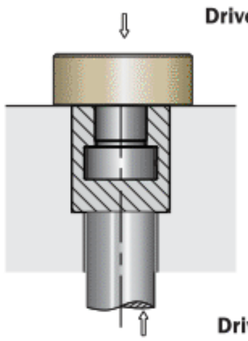
Features:
1.A whole one,can be not replaceable.
2.The arrows indicate its digits exactly with its excellent inner ball bearing structure.

Order CO-6-10 Material:S136 Hardness:50-55HRC

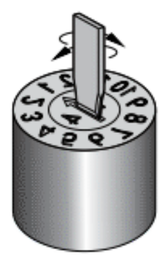
Year+Month	Months	Year	Days	2nd digit	1st digit	Shift	Letters	Diameter-Length	@ /P
CYM 4- 6	CM 4- 6	CY 4- 6	-	CDD 4- 6	CDB 4- 6	CB 4- 6	CA 4- 6	4- 6	
CYM 4- 8	CM 4- 8	CY 4- 8	-	CDD 4- 8	CDB 4- 8	CB 4- 8	CA 4- 8	4- 8	
CYM 5- 8	CM 5- 8	CY 5- 8	CD 5- 8	CDD 5- 8	CDB 5- 8	CB 5- 8	CA 5- 8	5- 8	
CYM 6- 8	CM 6- 8	CY 6- 8	CD 6- 8	CDD 6- 8	CDB 6- 8	CB 6- 8	CA 6- 8	6- 8	
CYM 6-10	CM 6-10	CY 6-10	CD 6-10	CDD 6-10	CDB 6-10	CB 6-10	CA 6-10	6-10	
CYM 8-10	CM 8-10	CY 8-10	CD 8-10	CDD 8-10	CDB 8-10	CB 8-10	CA 8-10	8-10	
CYM10-10	CM10-10	CY10-10	CD10-10	CDD10-10	CDB10-10	CB10-10	CA10-10	10-10	
CYM10-12	CM10-12	CY10-12	CD10-12	CDD10-12	CDB10-12	CB10-12	CA10-12	10-12	
CYM12-12	CM12-12	CY12-12	CD12-12	CDD12-12	CDB12-12	CB12-12	CA12-12	12-12	
CYM12-14	CM12-14	CY12-14	CD12-14	CDD12-14	CDB12-14	CB12-14	CA12-14	12-14	
CYM16-14	CM16-14	CY16-14	CD16-14	CDD16-14	CDB16-14	CB16-14	CA16-14	16-14	
CYM20-14	CM20-14	CY20-14	CD20-14	CDD20-14	CDB20-14	CB20-14	CA20-14	20-14	
CYM20-16	CM20-16	CY20-16	CD20-16	CDD20-16	CDB20-16	CB20-16	CA20-16	20-16	

Purchase year code date stamps, please mark which year you need on end code.

Diagram of install and tear down:



Disassemble chart for inner insert :

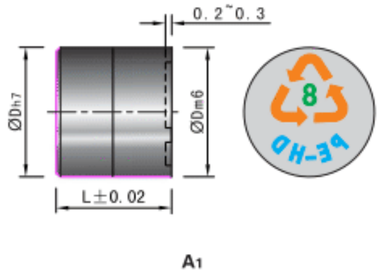


Installation Guidelines:
- Strike date stamps into hole with Rubber hammer. (small hole will stop the inner from rotate.(tear down inner insert before install. if need tear down the whole date stamps need keep the hole which is drive out by back side before install)
- As right picture,rotate clockwise and t anticlockwise inner insert to adjust the arrows to indicate the months.

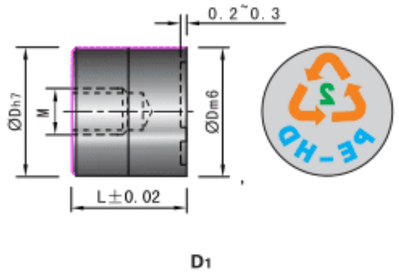
AISI DIN

Recycling insert





A1



D1

Order A1-6-8 Material:S136 Hardness:50-55HRC

	D	L	@ /P
1 PET A1 / 2 HDPE A2	6	8	
3 PVC A3 / 4 LDPE A4	8	10	
5 PP A5 / 6 PS A6	10	12	
7 OTHER A7 / 8 PE-HD A8	16	14	
9 PE-LD A9 / 10 PE-BD A10			
A11	20	16	

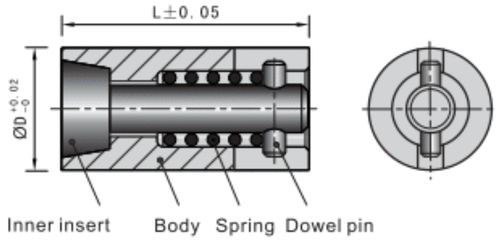
Order D1-6-8 Material:S136 Hardness:50-55HRC

	D	L	M	@ /P
1 PET D1 / 2 PE-HD D2	6	8	M4	
3 PVC D3 / 4 PE-LD DLD4	8	10		
4 PE-BD DLD5 / 5 PP D5	10	12	M5	
6 PS D6 / 7 0 D7	16	14	M6	
	20	16		

TAIWAN

Air valves

AJV





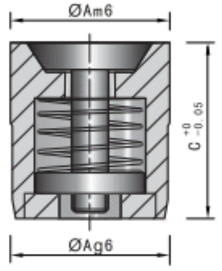
Features:
1. Body and valves are manufactured completely from stainless steel , Excellent rust resistance.
2. An effective method of release the vacuum created during plastic injection molding.
3. To substitute ejector pins or other ejector parts for diemould.

Order AJV-D Material:S136 Hardness:50-55HRC

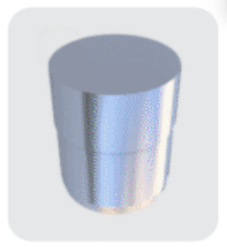
Code	ØD	L	@ /P
AJV	8	15	
	10	20	
	12	25	
	16	30	
	20		
	25		
	30		

DIN

VVA-C



Features:
1. Small room with install,choice for many kinds standard.
2. Be better to use under the temperature 150.



Order VVA-C-065212 Material:S136 Hardness:50-55HRC

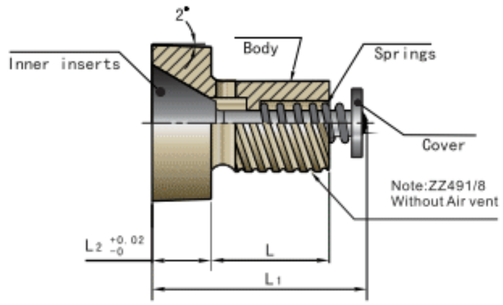
Code	A	C	@ /P
VVA-C-065212	6	12	
VVA-C-086512	8		
VVA-C-100812	10		
VVA-C-121012	12		
VVA-C-161320	16	20	
VVA-C-201720	20		

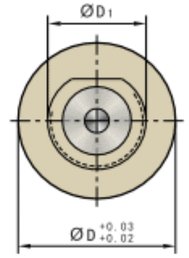
DIN

Air valves

ZZ491



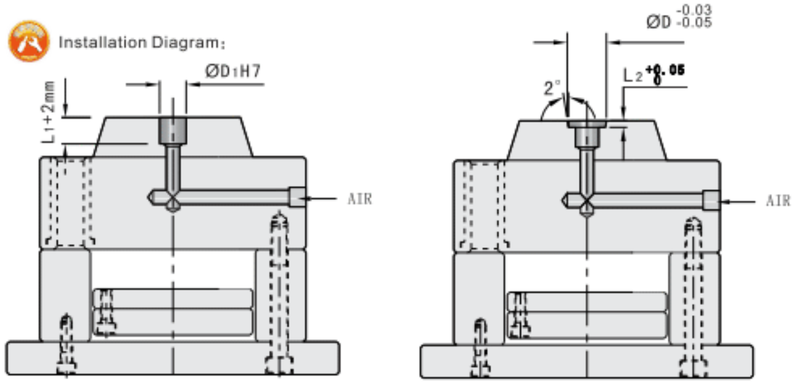




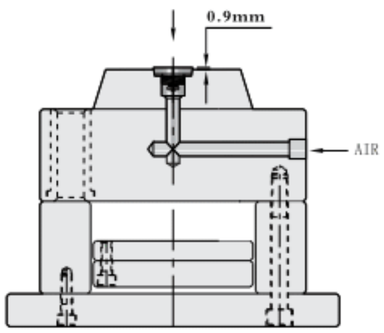
Order ZZ491-8 Material:Becu+Stainless steel

Code	D	D1	L	L1	L2	max.℃	@ /P
ZZ491- 8	8	6	8	16	5	250	
ZZ491-12	12	8	13	21			
ZZ491-16	16	10	12	22	6		

Installation Diagram:



1 2



3

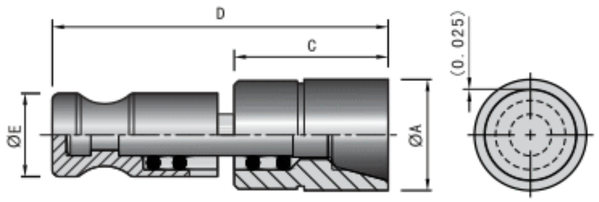
Installation Guidelines:

- Drill holes for air supply,drill and ream guide bore for special counter bore.
- Machine tapered counter bore using EDM or reamer for receiving air valves.(match with concrete objects)
- When placing Z491 loosely into receiving bore it will protrude approx 0.9mm above the contour surface.
- After pressing it into home position,the valves is secured against any extreme operation condition.

AISI

Air valves

VVA

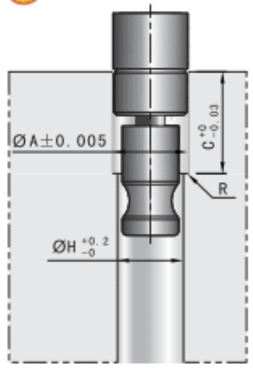




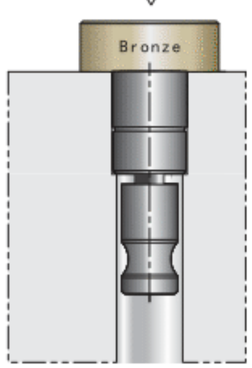
Order VVA-01 Material:S136 Hardness:50-55HRC

Code	A	C	D	E	H	R(max.)	@ /P
VVA-01	8	11	24	6	6.75	0.1	
VVA-02	12	18	34	8	9	0.2	
VVA-03	18	22	45.5	12	14	0.3	

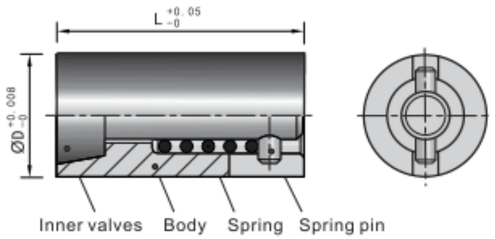
Dimension chart:



Drive in



PPV





Order PPV-025 Material:S136 Hardness:50-55HRC

Code	L	D	@ /P
PPV-025	9.53	6.36	
PPV-037		9.54	
PPV-050	12.7	12.7	
PPV-075	19.05	19.06	
PPV-100	25.4	25.41	
PPV-150	38.1	38.12	

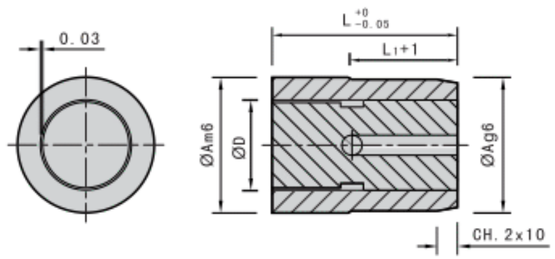
Date stamps Air valves series

DIN

Double valves

VVD



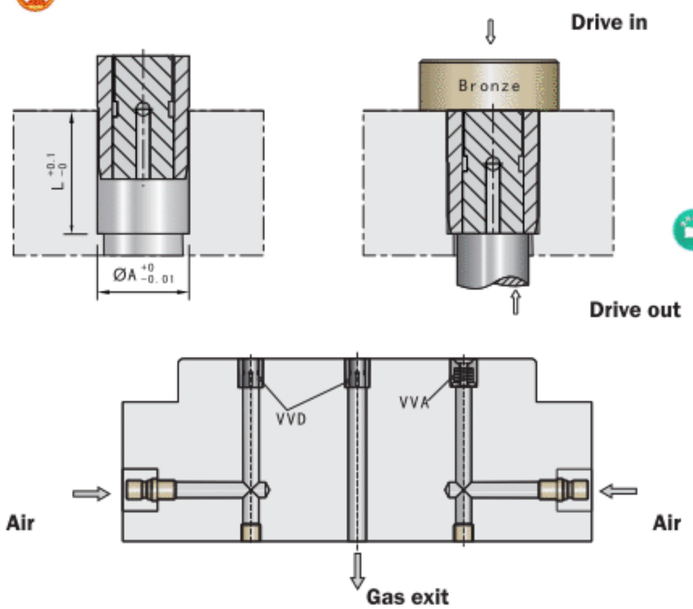


1. An effective method of semi pneumatic ejection
2. For tools with ribs or areas forming gas traps or vaccum condition.

Order VVD-080512 Material:S136 Hardness:50-55HRC

Code	A	D	L	L1	@ /P
VVD-080512	8	5			
VVD-100612	10	6	12	7	
VVD-120812	12	8			
VVD-161020	16	10	20	12	

Installation Diagram:



Installation Guidelines:

- Strike valves into hole with Rubber hammer.(when tear down valves , holes reservation which are drive out at the back side before install)

Ejector Series





DIN	DIN	DIN	DIN	DIN
Two-stage ejectors	Two-stage ejectors	Two-stage ejectors	Two-stage ejectors	Two-stage ejectors
ZZ169 P186	ZZ1691 P188	ZZ1695 P191	ZZ5085 P195	ZZ1697 P195



DIN	DIN	DIN	DIN	DIN
Two-stage ejectors	Two-stage ejectors	Two-stage ejectors	Two-stage ejectors	Two-stage ejectors
ZZ1692 P198	EE1860 P201	LLR P204	AAL P204	DDX P206



AISI	AISI	DIN	JIS	AISI
Two-stage ejectors	Two-stage ejectors	Two-stage ejectors	Round latch locks	Round latch locks
TTSTL P208	TTSBL P211	ZZ4 P214	EERST P221	EER P224



DIN	DIN	DIN	DIN	DIN
Round latch locks	Round latch locks	Push Locks	Push Locks	Ejector institutions
Z Z163 P227	Z Z164 P227	ZZ6 P229	ZZ7 P231	DT12 P233



AISI	DIN	DIN	DIN	AISI
Ejector institutions	Accelerated ejector	Accelerated ejector	Accelerated ejector	Accelerated ejector
AAR-D P235	ZZ141 P237	EEP P238	AAE P239	AAEB P241



AISI	AISI	AISI	AISI	AISI
Accelerated ejector	Accelerated ejector	Slide units	Slide units	Core pin
AAEP P241	AAKO P243	CCA P244	CCAMM P244	CCAP1 P250



AISI	AISI	AISI	AISI	AISI
Core pin	Core pin	Core pin	Core pin	Core pin
CCAP1MM P250	CCAP2 P250	CCAP2MM P250	CCAP3 P250	CCAP3MM P250



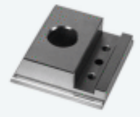
AISI	AISI	AISI	DIN	DIN
Core pin	Core pin	Slide units	Slide units	Slide units
CCSE2 P251	CCSE3 P251	CCBR P251	ZZ4290 P252	ZZ4292 P254



DIN	DIN	DIN	DIN	DIN
Slide units	Slide units	Slide units	Slide units	Slide units
ZZ4293 P254	ZZ4294 P257	ZZ4295 P258	ZZ4296 P258	ZZ4298 P259



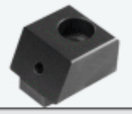
DIN	DIN	DIN	DIN	DIN
Slide units	Slide units	Slide units	Slide construction kits	Slide units
ZZ181 P260	ZZ1810 P261	ZZ1812 P262	ZZ1880 P263	ZZ1881 P264



DIN	DIN	DIN	DIN	DIN
Slide units	Slide units	Slide construction kits	Slide casings	Slide units
ZZ1801 P265	ZZ1802 P266	ZZ4200 P267	ZZ4205 P270	ZZ4210 P271



DIN	DIN	DIN	DIN	DIN
Slide units	Locking heels	Locking heels	Wear plates	Slide units
ZZ4211 P271	ZZ4220 P272	ZZ4222 P273	ZZ4230 P273	ZZ180 P274

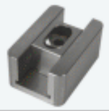


DIN	JIS	JIS	JIS	JIS
Locking heels	Slide units	Slide units	Slide units	Slide units
ZZ1820 P275	MMSCSG P276	MMSCSGM P276	MMSCSB P277	MMSCSBM P277



DIN	DIN	DIN	DIN	DIN
Sprung cores	Sprung cores	Sprung cores	Sprung cores	Sprung cores
PPW P280	EE3200 P282	EE3202 P283	PPF P287	MMP P287







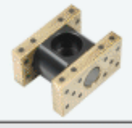
DIN		DIN		DIN		JIS		JIS	
Slide core units		Slide core units		Slide core units		Slide core units		Slide core units	
DDF	P288	BBD	P288	ZZ1811	P289	DTK	P290	SSCZN	P291

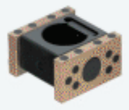
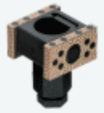






JIS		JIS		JIS		JIS		JIS	
Slide core units		Slide core units		Slide core units		Slide core units		Slide core units	
SSCZA	P292	KKOCUM	P293	KKOCUF	P293	RRCSUF	P294	RRCSUM	P298

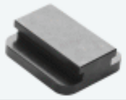



JIS		JIS		JIS		JIS		JIS	
Slide core units		Slide core units		Slide core units		Slide core units		Slide core units	
KKPHF	P299	RRCPHF	P299	SSCZNP	P300	SSCZAP	P300	MMTGHL	P301



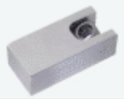




JIS		JIS		JIS		AISI		AISI	
Slide core units		Slide core units		Slide core units		Slide core units		Slide core units	
MMTGHR	P301	MMTGL	P302	MMTGR	P302	UULC	P303	UULG	P303







AISI		AISI		AISI		AISI		AISI	
Flatcore blades		Slide core units		Slide core units		Slide core units		Slide core units	
UULB	P304	VF/.../SS	P306	VF/.../JS	P306	VF/.../US	P306	VF/.../SB	P307







AISI		AISI		AISI		AISI		AISI	
Slide core units		Slide core units		Slide core units		Slide core units		Slide core units	
VF/.../JB	P308	VF/.../UB	P308	VF/.../GR	P308	VF/.../GP	P309	VF/.../HB	P309

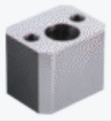






DIN		DIN		*MOLD PARTNER*		DIN		DIN	
Slide core units		Slide core units		Collapsible core		Helical spindle		Helical spindle	
SSD	P312	CCI	P312	DDT	P313	ZZ1500	P317	ZZ1520	P318



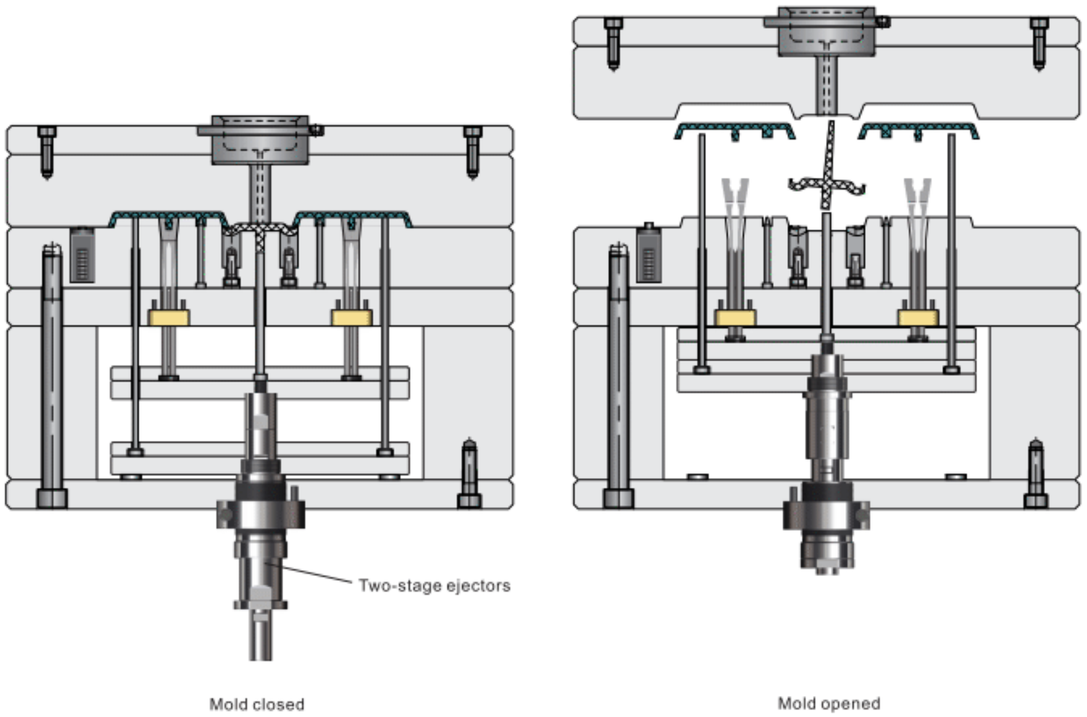
DIN		DIN		JIS		JIS	
Angle pin housing		Angle pin housing		Angle pin housing		Angle pin housing	
BBG	P320	GGR	P321	AAPRSS	P322	AAPRWS	P323



Products Summary

Products Summary:

· Under normal circumstances, when finished products out of the mold, , finished the ejector movement in single or multielement one time. But for special shape products, when bulk processing, the products keep in the mold cave, can not out of the mold automatically, two-stage ejector parts help ejection



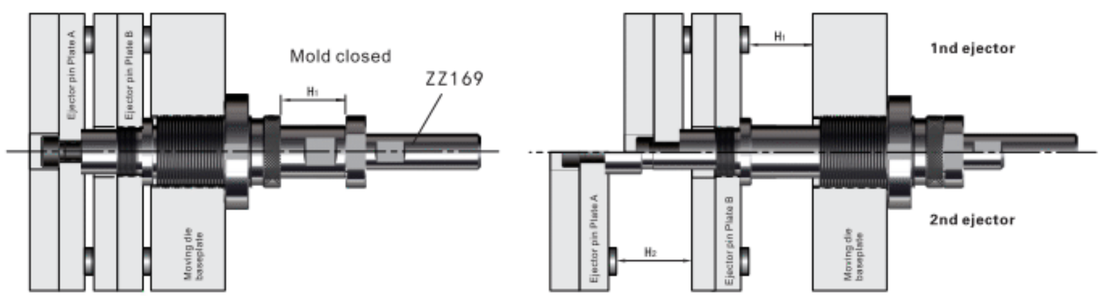
Mold closed

Mold opened

Two-stage ejector Install example:

Example1:external install type:

1. After A, B plate eject H1 stroke, B plate stop working, A plate eject to H2, as drawing 1

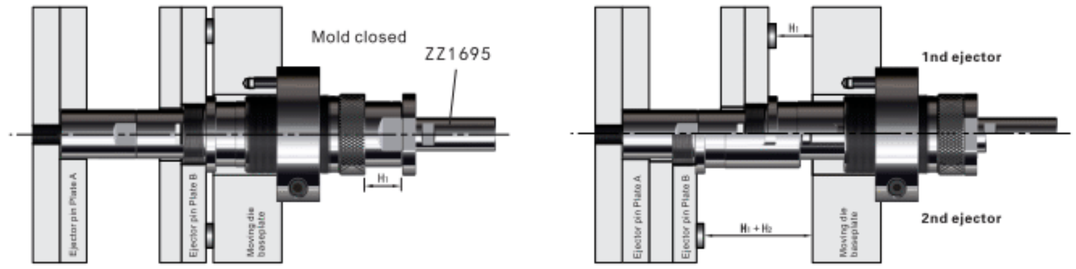


Drawing1

Products Summary

Example 2:Outside install type

2. After A, B plate eject H1 stroke, A plate stop working, B plate eject to H1+H2 position, as drawing 2



Drawing 2

Products spec:

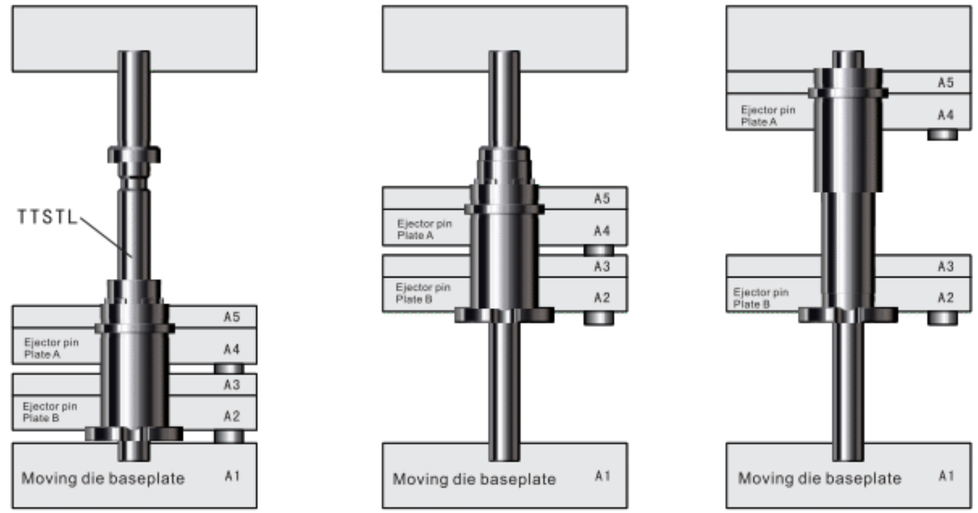
One sets two-stage ejector install in one mould, the install position in the moving die baseplate, just processing screw on the plate, easy install with two-stage ejector.

Pay attention:

All the mounting hole must vertical with the plate, and with the same concentricity.

Example 2:Inner install type

1. After A, B plate eject stroke, B plate stop working, A plate continue eject, as drawing 3



Mold closed

1nd ejector

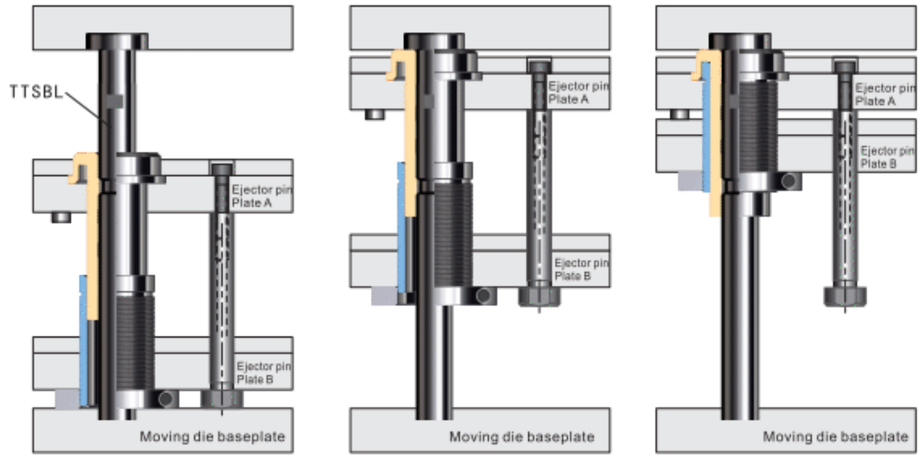
2nd ejector

Drawing 3

Products Summary

Example 4:Inner install type

1.After A,B plate eject stroke,A plate stop working,B plate continue eject,as drawing 4



Drawing4

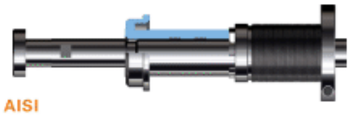
Products spec:

Install in the inner,avoid the conflict without parts,save space,avoid damage during the transport processing.

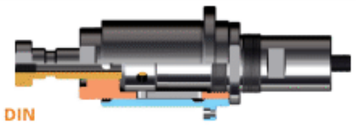
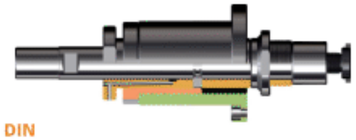
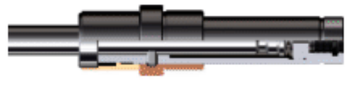
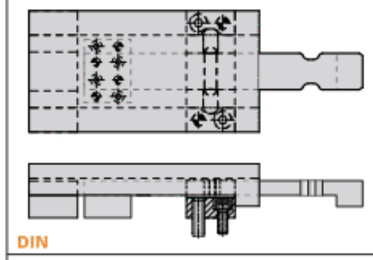
Pay attention:

Two sets two-stage ejector install in one mould, all the mounting hole must vertical with the plate, and with the same concentricity.

H1: 1nd ejector stroke H2: 2nd ejector stroke

Drawing	Type	H1 Min	H1 Max	H2 Min	H2 Max	Code	Page
 AISI	3	8	82	12	82	TTSBL-20A	P211
		10	92	18	92	TTSBL-26A	
		12	102	24	102	TTSBL-32A	
 AISI	4	4	79	4	79	TTSTL-20A	P208
		6	84	6	84	TTSTL-26A	
		8	92	8	92	TTSTL-32A	
 DIN	3	6	76	3	76	ZZ1697-16	P186
		8	96	4	96	ZZ1697-20	
		10	130	5	130	ZZ1697-26	
 DIN	3	-	42	-	48	DDX-142622	P206
		-	54	-	80	DDX-163027	

H1:1nd ejector stroke H2:2nd ejector stroke

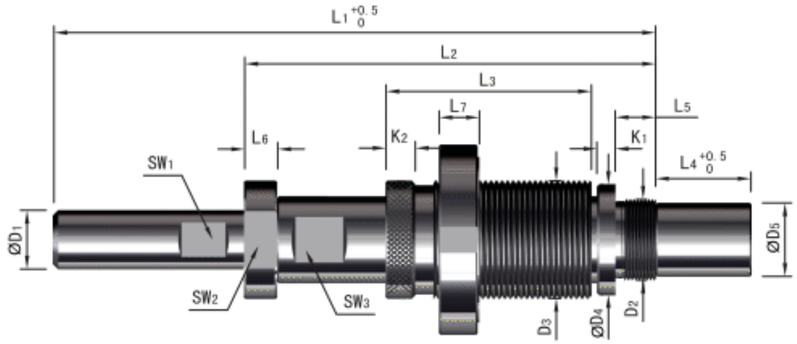
Drawing	Type	H1 Min	H1 Max	H2 Min	H2 Max	Code	Page
 DIN	1	5	30	3	50	ZZ169-16	P186
		6	40	4	70	ZZ169-22	
		7	50	4	70	ZZ169-30	
		7.5	60	5	80	ZZ169-40	
 DIN	1	3	20	-	44	ZZ1691-13	P188
		4	30	-	65	ZZ1691-17	
		5	42	-	80	ZZ1691-22	
		10	60	-	95	ZZ1691-30	
		14	86	-	130	ZZ1691-40	
		18	110	-	180	ZZ1691-52	
 DIN	2	4	45	4	45	ZZ1692-25-45	P198
		6	60	5	60	ZZ1692-32-60	
		8	80	6	80	ZZ1692-40-80	
 DIN	2	6	48	4	36	ZZ1695-22	P191
		8	60	5	50	ZZ1695-25	
		10	86	6	60	ZZ1695-32	
 DIN	1	-	30	-	50	EE1860-15	P201
		-	40	-	62	EE1860-18	
		-	50	-	82	EE1860-25	
		-	71	-	110	EE1860-33	
		-	100	-	160	EE1860-44	
 DIN	1	5	30	-	53	ZZ5085-16	P193
		10	40	-	72	ZZ5085-22	
		10	40	-	84	ZZ5085-28	
		10	40	-	88	ZZ5085-37	
 DIN	Single ejector pin plate achieve eject function	-	40	-	40	LLR-061620	P204
		-	40	-	40	LLR-081620	
		-	40	-	40	LLR-101620	
 DIN	Install on the side of the mould,different install method with different function. The type of the two-stage ejector have eject and latch lock functions.					Z Z4 Series	P214

DIN

Two-stage ejectors

ZZ169





Features:

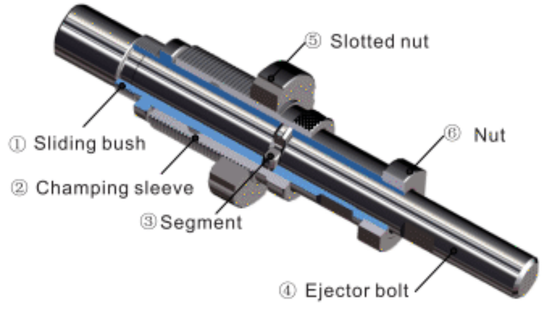
1.Interlocking mechanism design, safe and reliable.
2.The ejector bolt surface is processed with high-frequency treatment, easy to process and install.
3.Some important parts are made of SKD11 and by high quality heat treatment process to make it to be more resistant.
4.The surface with coating treatment, higher wear resistance creates longer lifespan.
5.Sizes are available for 4 different loading weights.

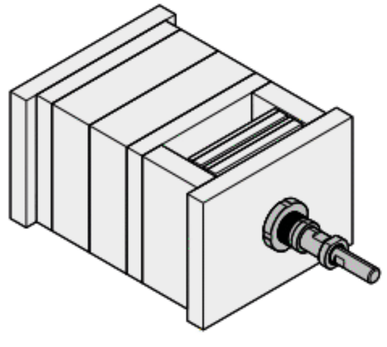
☎Order ZZ169-16

Code	D2	D3	D4	D5	L1	L2	L3	L4	L5	L6	L7
ZZ169-16	M22×1	M32×1.5	30	20	164	112	56	26	11	9	11
ZZ169-22	M30×1.5	M42×1.5	40	28	220	148	75	36	16		12
ZZ169-30	M40×1.5	M60×1.5	50	38	255	170	80	45	21	11	13
ZZ169-40	M52×1.5	M70×1.5	60	50	270	200	98		22	12	14

Code	D1	K1	K2	Sw1	Sw2	Sw3	H1		H2		@ /P
							min.	max.	min.	max.	
ZZ169-16	16	5	8	13	28	20	5	30	3	50	
ZZ169-22	22	6	10	17	38	27	6	40	4	70	
ZZ169-30	30	7		24	55	38	7	50			
ZZ169-40	40	8	14	32	65	46	7.5	60	5	80	

Product space chart:

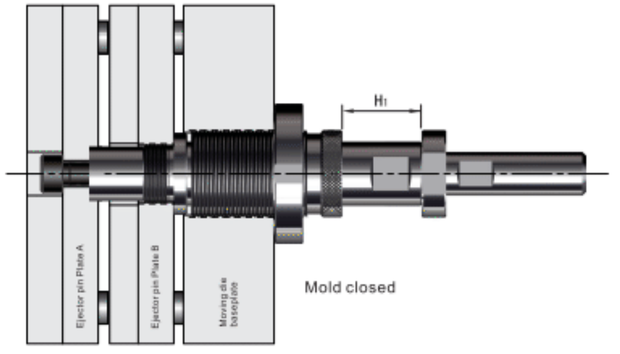


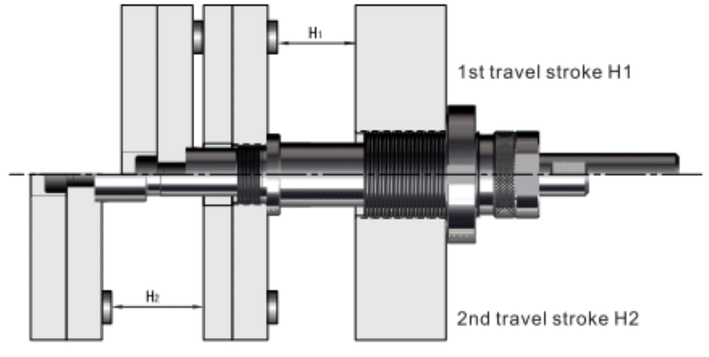


Installation Guidelines:

·Firstly process through holes into A ejector plate, process srew holes into B ejector plate and champing plate (screw holes dimension refer to the ones need matched with D2, D3). Customer can also make flange to lock parts.
·Process one mounting hole in the top of the ejector rod, this mounting hole need match with the through hole into B plate.
·Mount the champing sleeve ② directly on the bottom of champing plate, screw the sliding bushing ① into B ejector plate and the head of the ejector bolt ④ into A ejector plate.
·Adjust the position of champing sleeve ② and the champing plat (flange) to preset the travel stroke H1, and then fix the slotted nut ⑤.
·In order to connect with the central ejector bolt of the injection mold, it is available to thread the internal thread at the end of the ejector bolt. Different threads for different Two-stage ejectors.
·After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).
·The nut ⑥ had been strengthened in mounting, do not dismount the nut freely anytime to ensure normal function of the product.
·Request precise installation (only 1 set for 1 mold). Make sure the STROKE is exactly applicable, otherwise the product would be easy to damage.

Functional chart:



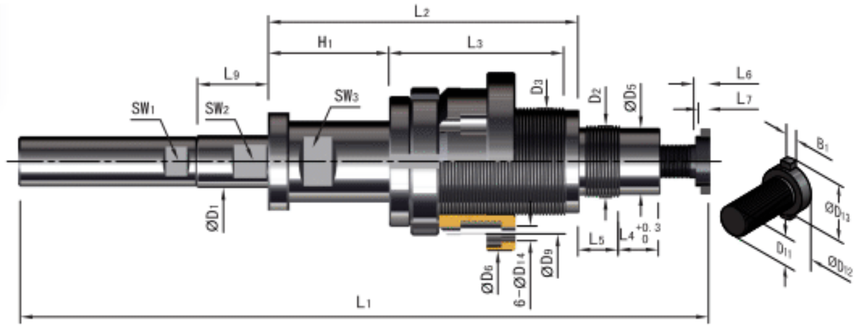


DIN

Two-stage ejectors

ZZ1691





Features:

1.Interlocking mechanism design, safe and reliable.

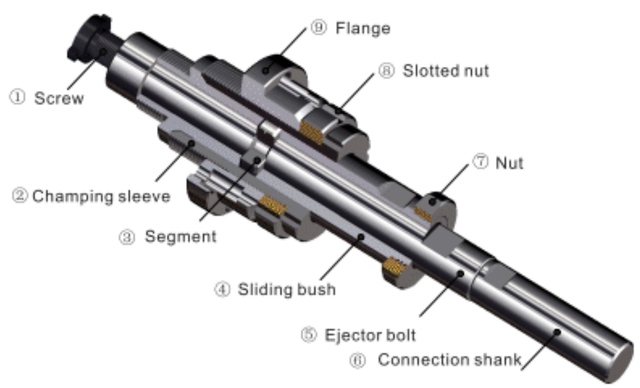
2.The surface with coating treatment. Higher wear resistance creates longer lifespan.

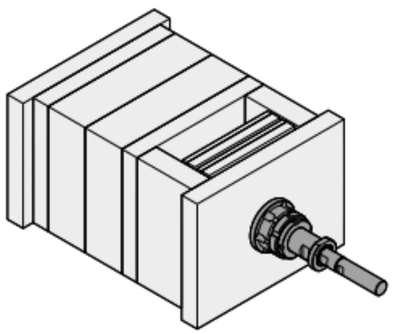
Order ZZ1691-13

Code	D2	D3	D5	D6	D9	D11	D12	D13	D14	B1	Sw1	Sw2	Sw3
ZZ1691-13	M20×1	M28×1.5	18.5	50	41.6	M 8×0.75	13.4	17.6	4.3	3.2	10	10	17
ZZ1691-17	M24×1.5	M35×1.25	22	60	48	M11×1	17.4	22	5.4	4	13	12	21
ZZ1691-22	M30×1.5	M45×1.5	28	75	61	M14×1	21	27	6.5	5	17	17	27
ZZ1691-30	M40×1.5	M60×1.5	38	100	82	M18×1	26	33	8.8	6	24	22	36
ZZ1691-40	M55×1.5	M75×1.5	52	125	104	M25×1.5	35	43	11	8	32	32	46
ZZ1691-52	M72×1.5	M98×2	69	150	128	M34×1.5	48	58	11	9	41	41	65

Code	D1	L1	L2	L3	L4	L5	L6	L7	L9	H1	H2 max.	@ /P
ZZ1691-13	13	164	72	38.8	21	9	4	2.6	22	3- 20	44	
ZZ1691-17	17	228	110	63		12	5	3.5	25	4- 30	65	
ZZ1691-22	22	270	131	74	17	17	6	4	30	6- 42	80	
ZZ1691-30	30	340	166	89	27		7	5	38	10- 60	95	
ZZ1691-40	40	470	232	122	41	27	10	7	50	14- 86	130	
ZZ1691-52	52	583	295	155	51		15	11	60	18-110	180	

Product space chart:





DIN

Two-stage ejectors

Installation Guidelines:

·Process through holes into A plate and champing plate, screw holes into B plate and 6 screw holes into champing plate (holes dimension refer to "Dimension chart"). Please note that all holes should be homocentric and perpendicular to parting surface.

·Fix the flange onto champing plate by hexagonal socket head cap screw, pre-tight the screw and lock it after other parts installation.

·Turn the champing sleeve ② into the flange⑨, screw the sliding bushing ④ into B ejector plate,lock the head of ejector bolt⑤ on ejector A plate by Screw ①.

·Adjust the position of champing sleeve ② and the champing plat (flange) to preset the travel stroke H1, and then fix the slotted nut ⑧.

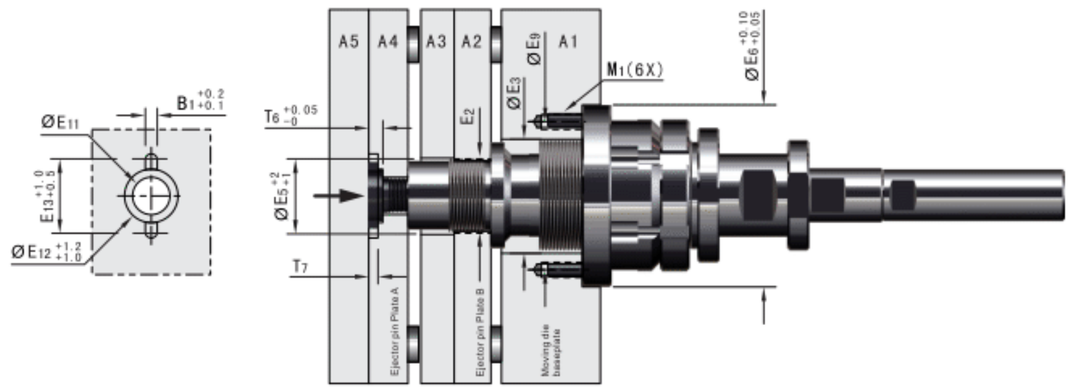
·The internal thread at the end of the ejector bolt had been threaded in order to connect with the central ector bolt of the injection mold. Different threads for different Two-stage ejectors.

·After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).

·The nut ⑦ had been strengthened in mounting, do not dismount the nut freely anytime to ensure normal function of the product.

·Request precise installation (only 1 set for 1 mold). Make sure the STROKE is exactly applicable, otherwise the product would be easy to damage.

Dimension chart:



D1	B1	E2	E3	E5	E6	E9	E11	E12	E13	T6	T7	M1
13	3.2	M20×1	30	21	50	41.6	10	13.4	18	4	3	M 4
17	4	M24×1.5	37	25	60	48	13	17.4	21	5	4	M 5
22	5	M30×1.5	47	31	75	61	16	21	28	6	4.5	M 6
30	6	M40×1.5	62	41	100	82	20	26	34	7	5.5	M 8
40	8	M55×1.5	77	56	125	104	27	35	44	10	7.5	M10
52	9	M72×1.5	100	73	150	128	36	48	59	15	11.5	

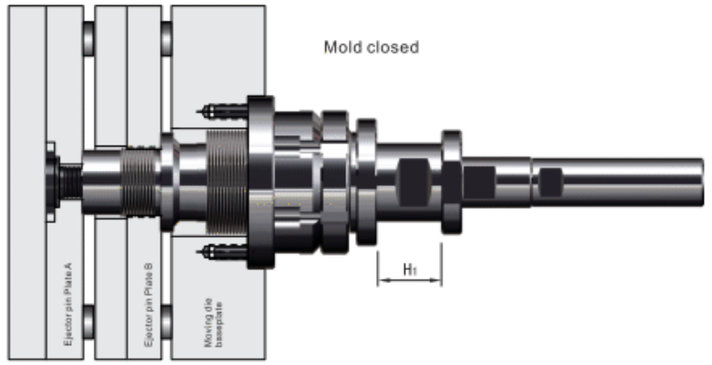
DIN

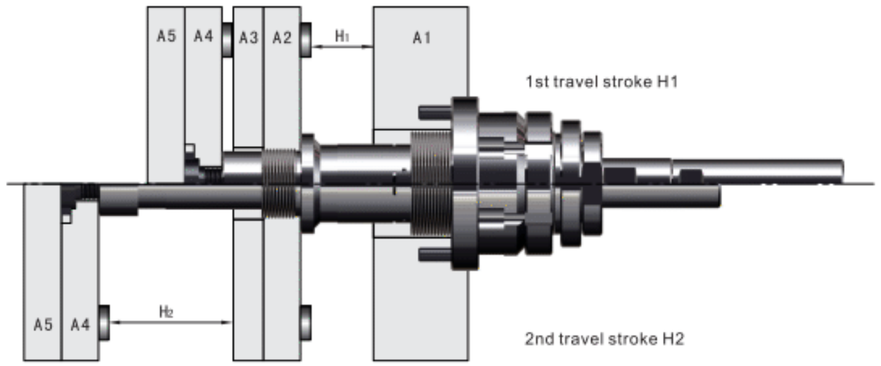
Two-stage ejectors

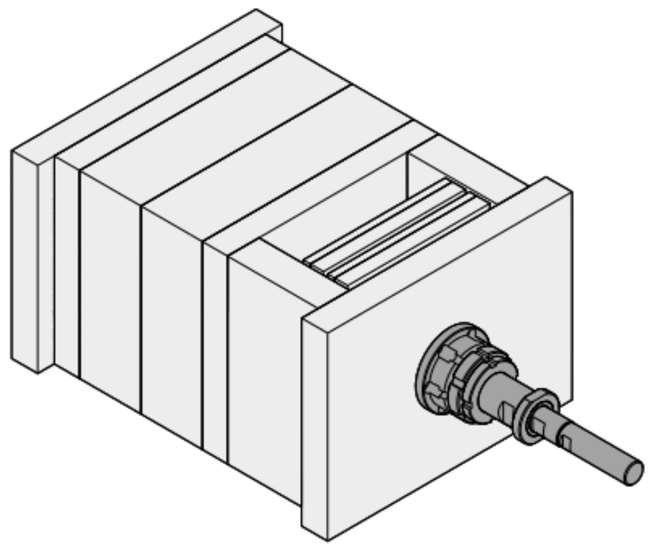
ZZ1691



Functional chart:





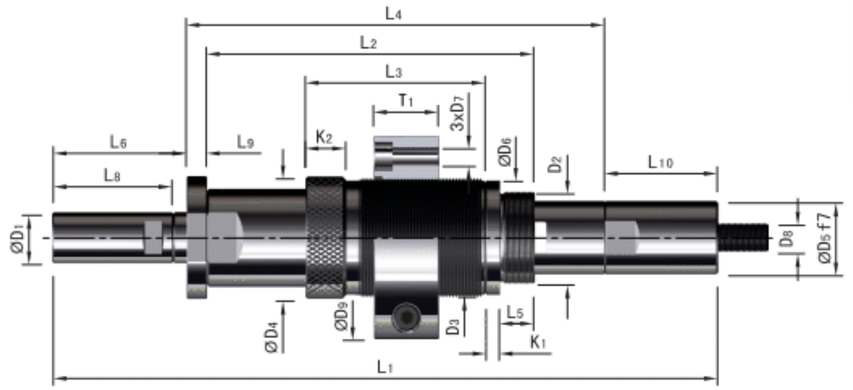


DIN

Two-stage ejectors

ZZ1695





Features:
1. Interlocking mechanism design, safe and reliable.
2. The surface with coating treatment, higher wear resistance creates longer lifespan.

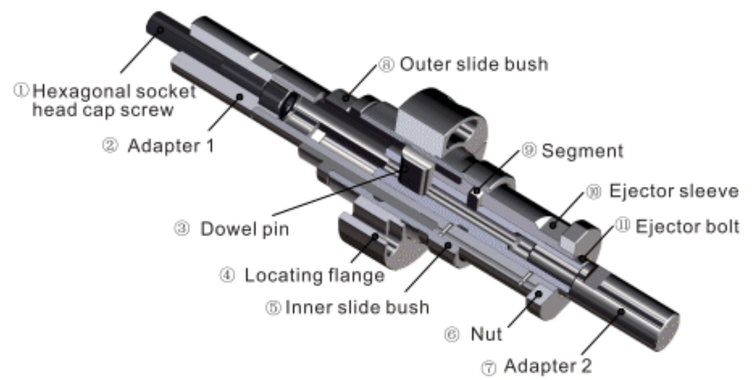
Order ZZ1695-22

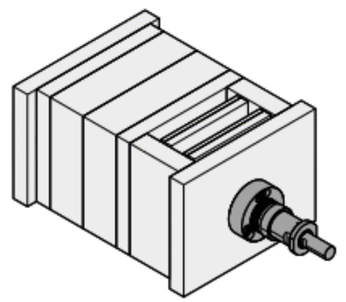
Code	D2	D3	D4	D5	D6	D7	D8	D9	T1
ZZ1695-22	M40×1.5	M52×1.5	52	31.5	50	9	M12×1.5	90	25
ZZ1695-25	M45×1.5	M60×1.5	60	36	56		M14×1.5	100	32
ZZ1695-32	M55×1.5	M72×1.5	72	44	70	11	M16×1.5	110	42

Code	L1	L2	L3	L4	L5	L6	L8	L9	L10
ZZ1695-22	278	141	82	175	17	58	52	10	45
ZZ1695-25	329	163	89	207		66	60		56
ZZ1695-32	430	196	106	257	22	102	82	12	71

Code	D1	K1	K2	Sw1	Sw2	Sw3	H1		H2		@ /P
							min.	max.	min.	max.	
ZZ1695-22	22	6	18	17	46	36	6	48	4	36	
ZZ1695-25	25	7		19	55	41	8	60	5	50	
ZZ1695-32	32	8	16	27	65	50	10	86	6	60	

Product space chart:



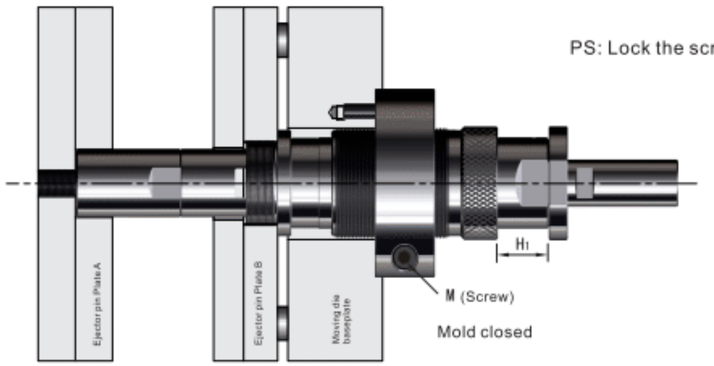


Two-stage ejectors

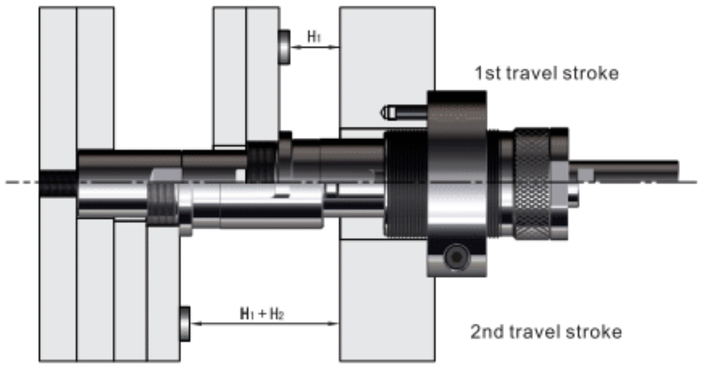
Installation Guidelines:

- Fix the locating flange④ onto the champing plate by hexagonal socket head cap screw, pre-tight the screw and lock it after other parts installation.
- Turn the inner slide bush⑤ into the locating flange ④, screw the outer slide bush ⑧ into B ejector plate. Customer can make small flange and lock it onto B ejector plate to match with outer slide bush ⑧.
- Fix the Adapter 1 ② onto A ejector plate by hexagonal socket head cap screw.
- Adjust the position of inner slide bush⑤ and the locating flange④ to preset the travel stroke H1, and then fix the locating flange④.
- After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).
- The nut ⑥ had been strengthened in mounting, do not dismount the nut freely anytime to ensure normal function of the product.
- Request precise installation (only 1 set for 1 mold). Make sure the STROKE is exactly applicable, otherwise the product would be easy to damage.

Functional chart:

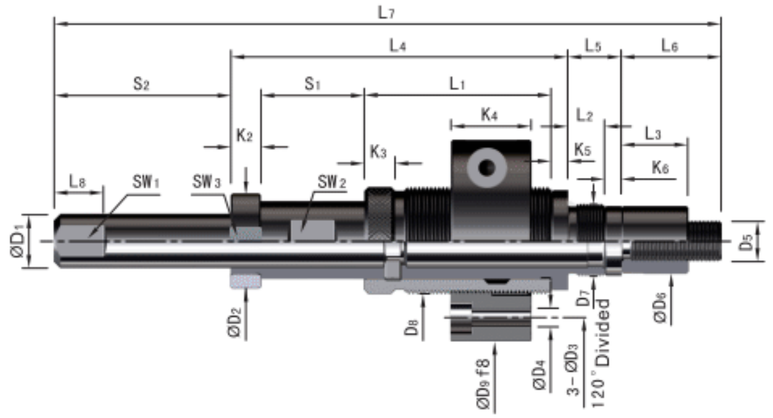


PS: Lock the screw "M" after stroke adjustment.



Dismount adapter 2 ⑦ before mounting adapter 1 ② .
Insert the adapter 1 from the axis of ejector rod by hexagon wrench, and then fix it onto A ejector plate by hexagonal socket head cap screw① .

Two-stage ejectors



ZZ5085



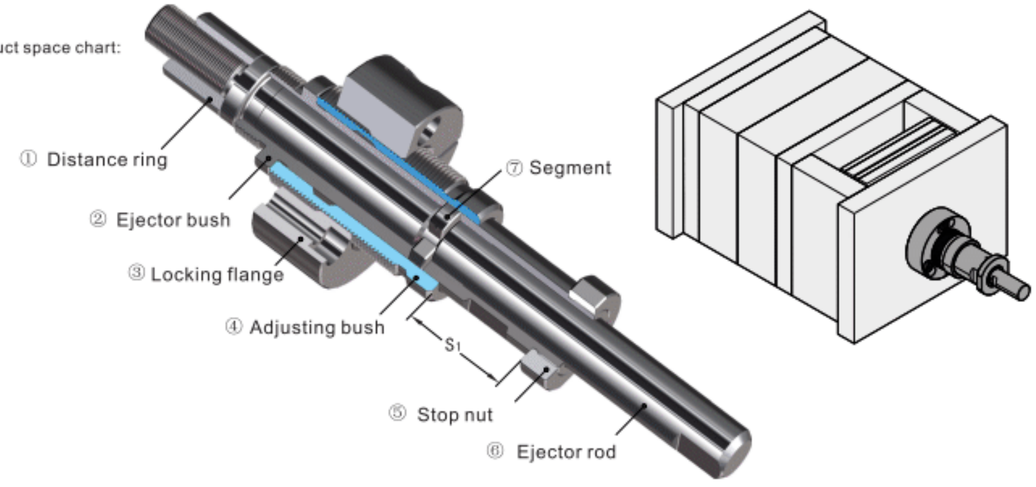
Features:
1.Interlocking mechanism design, safe and reliable.
2.The surface with coating treatment, higher wear resistance creates longer lifespan.

Order ZZ5085-16

Code	D2	D3	D4	D5	D6	D7	D8	D9	K2	K3	K4	K5	K6	L1
ZZ5085-16	32	46	5.6	M12×1	20.6	M22×1	M32×1.5	60	9	8	24	5	5	56
ZZ5085-22	42	62	6.6	M16×1.5	28	M30×1.5	M42×1.5	80		10		6		
ZZ5085-28	53	72	9	M20×1.5	36	M38×1.5	M52×1.5	90	10.5	12	30		6	75
ZZ5085-37	64	80		M24×1.5	44	M48×1.5	M62×1.5	102	10.6			8		

Code	D1	L2	L3	L4	L5	L6	L7	L8	S1	S2	Sw1	Sw2	Sw3	@ /P
ZZ5085-16	16	11	20	101	16	30	200	15	5-30	53	13	20	28	
ZZ5085-22	22		30	132		40	266	18		72	17	27	38	
ZZ5085-28	28	16	35	134	22	45	285	20	10-40	84	22	35	48	
ZZ5085-37	37		40	140		50	300			88	30	44	60	

Product space chart:



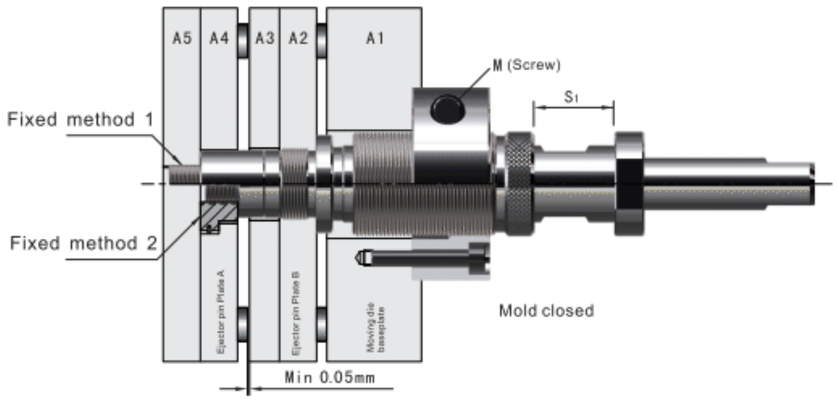
DIN

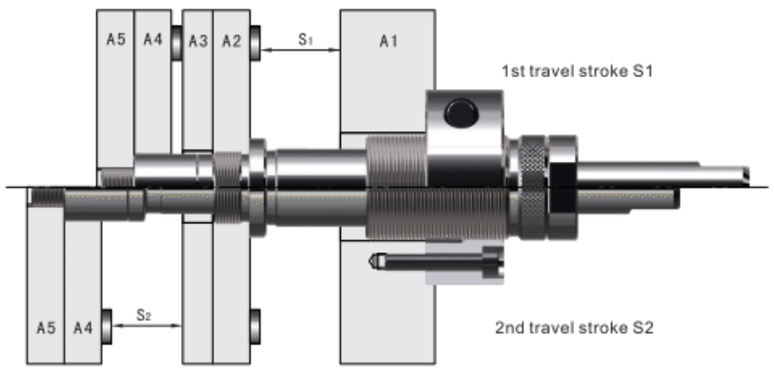
Two-stage ejectors

Installation Guidelines:

·Fix the locking flange③ onto the champing plate by hexagonal socket head cap screw, pre-tight the screw and lock it after other parts installation.
·Turn the Adjusting Bush ④ into the Locking Flange ③, screw the Ejector Bush ② onto B ejector plate, lock the head of Ejector Rod ⑥ onto ejector A ejector plate. Customer can make small flange and then fix it onto B ejector plate to lock with Ejector Bush ② or Ejector Rod ⑥.
·Adjust the position of Adjusting Bush ④ and the Locking flange③ to preset the travel stroke S1, and then fix the Locking flange③.
·After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).
·The Stop Nut ⑤ had been strengthened in mounting, do not dismount the nut freely anytime to ensure normal function of the product.
·Request precise installation (only 1 set for 1 mold). Make sure the STROKE is exactly applicable, otherwise the product would be easy to damage.

Functional chart:

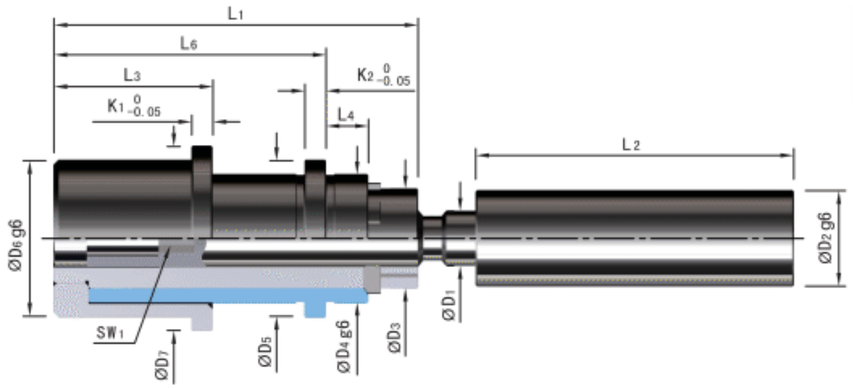




DIN

Two-stage ejectors

ZZ1697



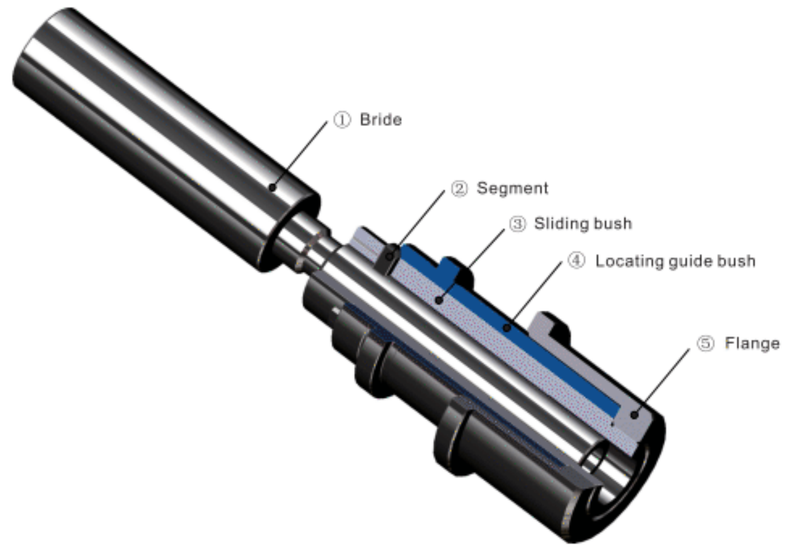


Order ZZ1697-16

Code	D2	D3	D4	D5	D6	D7	L1	L2	L3	L4	L5
ZZ1697-16	27	28	36	44	44	52	103	90	45	12	5
ZZ1697-20	32	34	43	51	51	59	134	100	59	17	6
ZZ1697-26	42	43	54	63	64	73	168	150	74	22	7

Code	D1	L6	K1	K2	Sw1	H1		H2		@ /P
						min.	max.	min.	max.	
ZZ1697-16	16	77	6	6	8	6	76	3	76	
ZZ1697-20	20	101	7	7	10	8	96	4	96	
ZZ1697-26	26	126	8	8	14	10	130	5	130	

Product space chart:



DIN

Two-stage ejectors

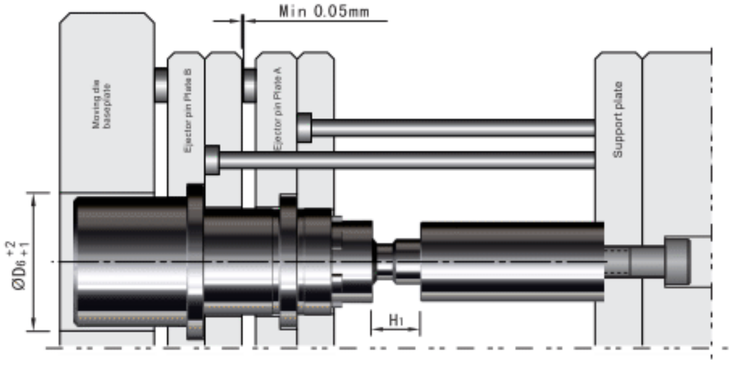
Features:

1. Interlocking mechanism design, safe and reliable.
2. The bride surface is processed with high-frequency treatment, easy to process and install.
3. Some important parts are made of SKD11 and by high quality heat treatment process to make it to be more resistant.
4. The surface with coating treatment, higher wear resistance creates longer lifespan.
5. It is mounted into the mold to avoid to collide with the outside parts of mold.

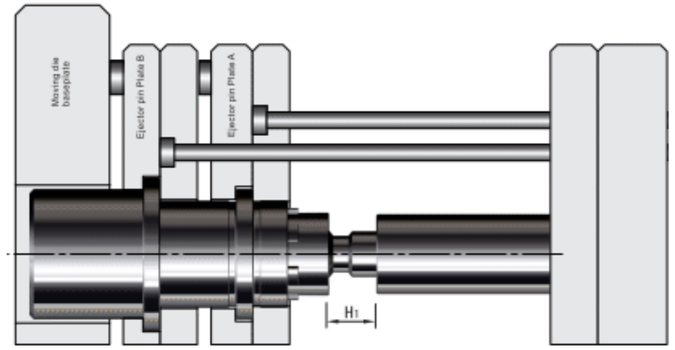
Installation Guidelines:

- Firstly process through holes into champing plate, process precise screw holes into the A, B ejector plates.
- Mount the flange onto B ejector plate, locating guide bush onto A ejector plate.
- Mount the bride after calculating the 1st travel stroke H1 accurately. Customer can process the screw holes after cutting the needed length from the bigger diameter side of bride and then screw the bride onto the bearing plate by hexagonal socket head cap screw. (Please make sure that : 1. the surface after cutting should be perpendicular to bride; 2. the bride should be in line with the central of sliding bush before locking; 3. The stroke could not be adjusted after mounting.)。
- After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).
- A minimum 2 sets Two-stage ejector must to be mounted symmetrically in mold. Make sure the STROKE is exactly applicable,otherwise the product would be easy to damage.

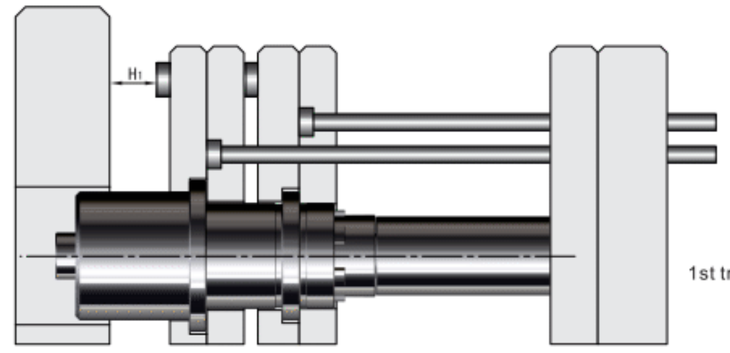
Dimension chart:



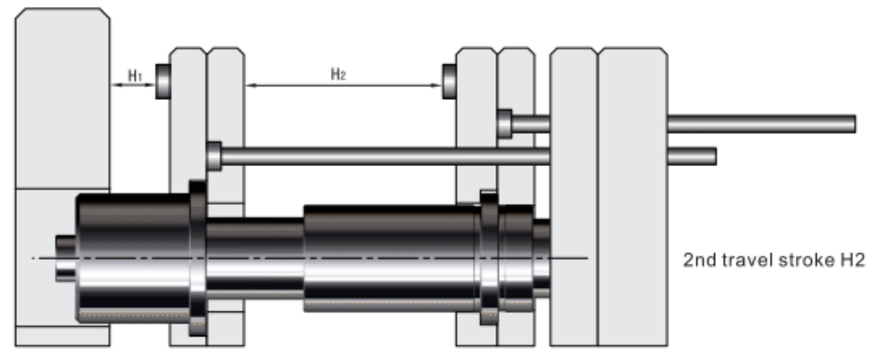
Functional chart:



Mold closed



1st travel stroke H1



2nd travel stroke H2

DIN

Two-stage ejectors

ZZ1697

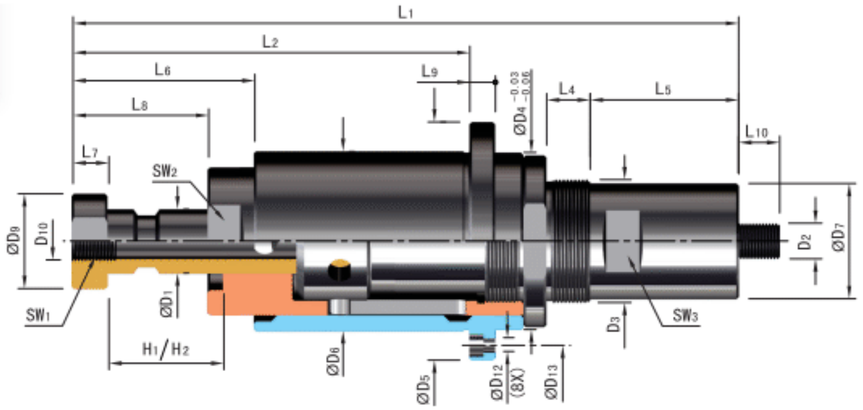


DIN

Two-stage ejectors

ZZ1692



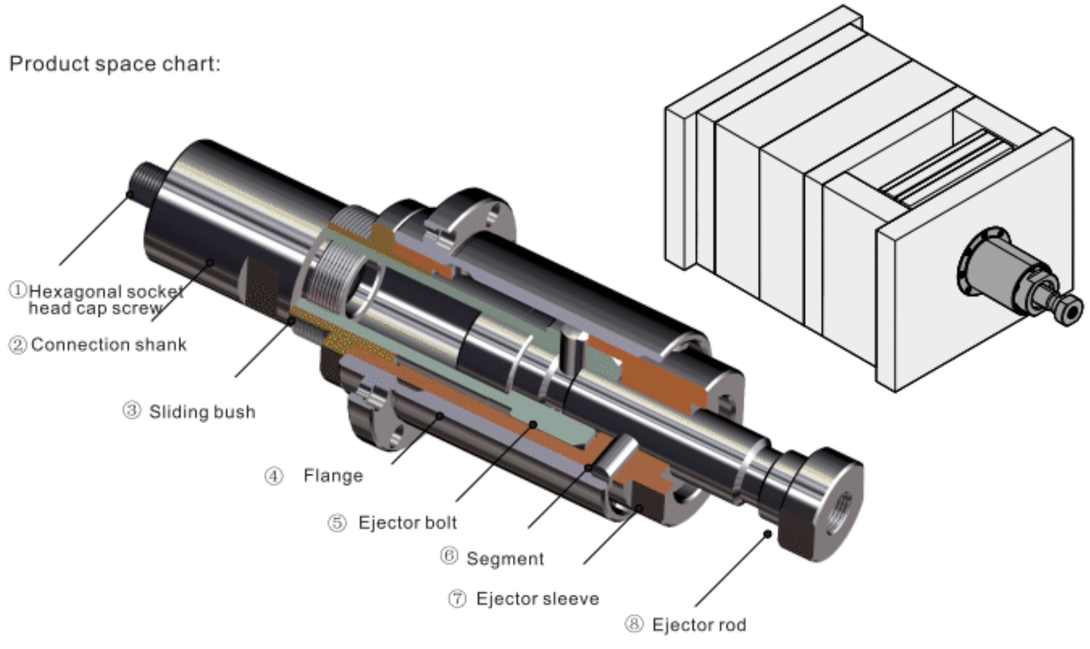


Order ZZ1692-25-45

Code	D2	D3	D4	D5	D6	D7	D9	D10	D12	D13	SW1	SW2	SW3	H1
ZZ1692-25-45	M14×1	M48×1.5	69	93	70	45	37	M16	5.4	81	32	50.2	38	4-45
ZZ1692-32-60	M18×1	M58×1.5	80	110	82	55	46		6.4	95	41	60.2	46	6-60
ZZ1692-40-80	M24×1.5	M76×1.5	106	140	108	73	56	M24	8.5	123	50	80.2	65	8-80

Code	D1	L1	L2	L4	L5	L6	L7	L8	L9	L10	H2 min.	H2 max.	@ /P
ZZ1692-25-45	25	260	155	17	58	71	14	53	10	16	4	45	
ZZ1692-32-60	32	325	198		80	89	15	68	12	25	5	60	
ZZ1692-40-80	40	471	258	22	152	116	18	90	14	24	6	80	

Product space chart:



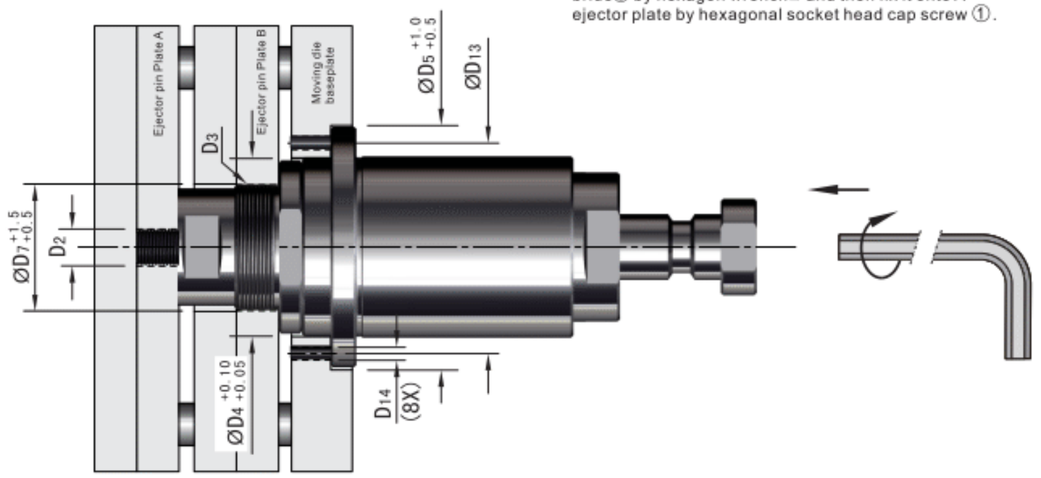
DIN

Two-stage ejectors

Features:
1. Interlocking mechanism design, safe and reliable.
2. Some important parts are made of SKD11 and by high quality heat treatment process to make it to be more resistant.
3. The surface with coating treatment, higher wear resistance creates longer lifespan.
4. Sizes are available for different loading weights.

Dimension chart:

Insert the connection shank ② from the end of the bride⑧ by hexagon wrench□ and then fix it onto A ejector plate by hexagonal socket head cap screw ①.



Code	D2	D3	D4	D5	D7	D13	D14
ZZ1692-25-45	M14×1	M48×1.5	69	93	49	81	M5
ZZ1692-32-60	M18×1	M58×1.5	80	110	59	95	M6
ZZ1692-40-80	M24×1.5	M76×1.5	160	140	77	123	M8

Installation Guidelines:
- Screw the flange ④ onto champing plate, sliding bush ③ onto B ejector plate.
- Insert the connection shank ② from the end of the bride ⑧ by hexagon wrench and then fix it onto A ejector plate by hexagonal socket head cap screw ①.
- Do not adjust the stroke after installation, and make that that H2≤H1.
- After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).
- Request precise installation (only 1 set for 1 mold). Make sure the STROKE is exactly applicable, otherwise the product would be easy to damage.

MOLD PARTNER

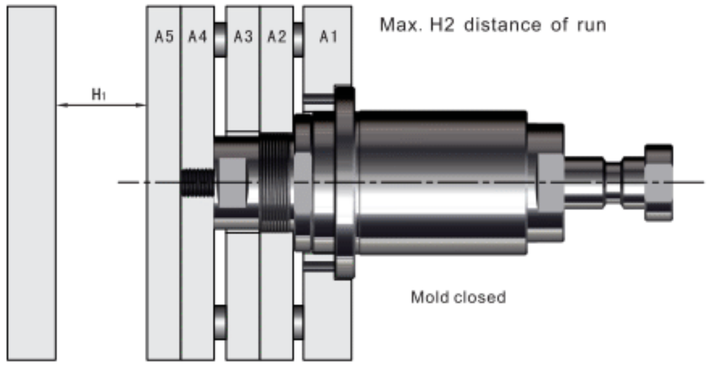
DIN

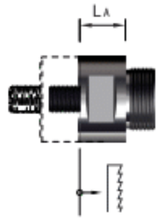
Two-stage ejectors

ZZ1692

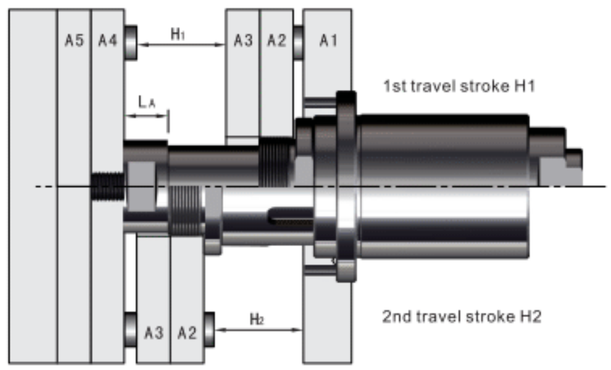


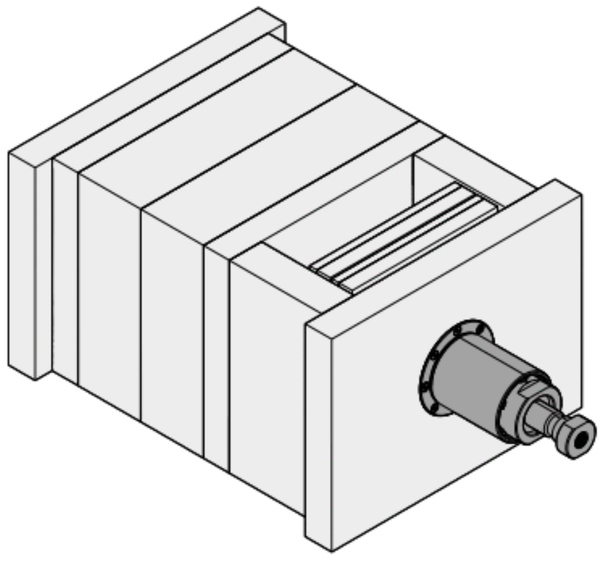
Functional chart:





"Connection shank" could be cut for needed length.



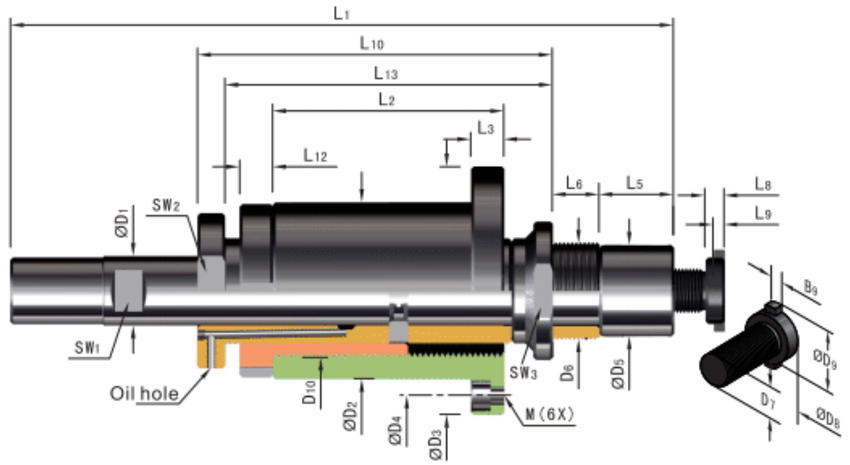


DIN

Two-stage ejectors

EE1860





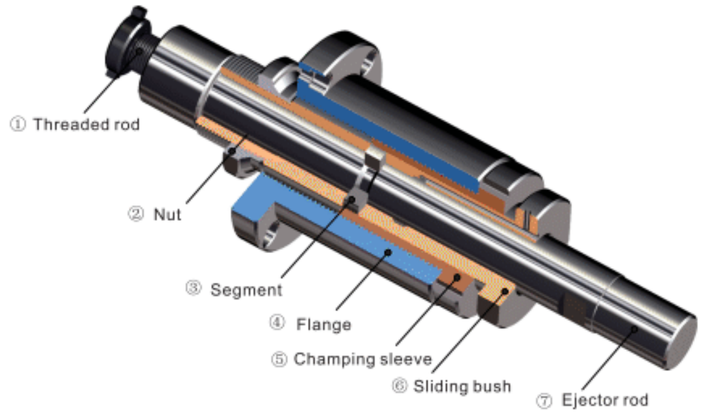
Features:
1. Interlocking mechanism design, safe and reliable.
2. The surface with coating treatment, higher wear resistance creates longer lifespan.

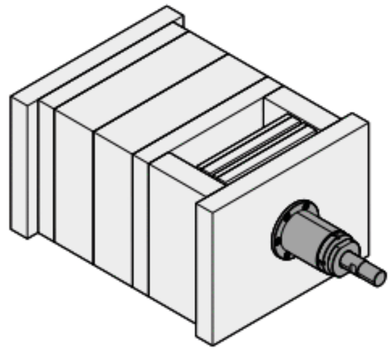
EE1860-15

Code	D2	D3	D4	D5	D6	D7	D8	D9	D10	B9	M	L1
EE1860-15	38	55	46	18.7	M20×1	M 9×1	15.5	20	M31×1.25	3.5	M 4	157
EE1860-18	50	72	60	24	M26×1.5	M12×1	18.5	23	M40×1.5	4	M 5	190
EE1860-25	64	90	76	33	M35×1.5	M16×1	24	30	M52×1.5	5	M 6	241
EE1860-33	80	114	96	43	M45×1.5	M20×1.25	29	37	M66×1.5	6	M 8	315
EE1860-44	100	138	118	56	M58×1.5	M28×1.5	40	48	M84×2	7	M10	428

Code	D1	L2	L3	L5	L6	L8	L9	L10	L12	L13	Sw1	Sw2	Sw3	@ /P
EE1860-15	15	54	8	19	12	5	3.6	90	10	82	12	27	27	
EE1860-18	18	64	10	17	17	6	4	101	8	92	14	36	34.2	
EE1860-25	25	84	12	27		7	5	129	10	119	20	50	46	
EE1860-33	33	111	13	32	22	9		170	15	156	27	60	60	
EE1860-44	44	156	16	41	27	11	6	236	20	220	36	75	75	

Product space chart:





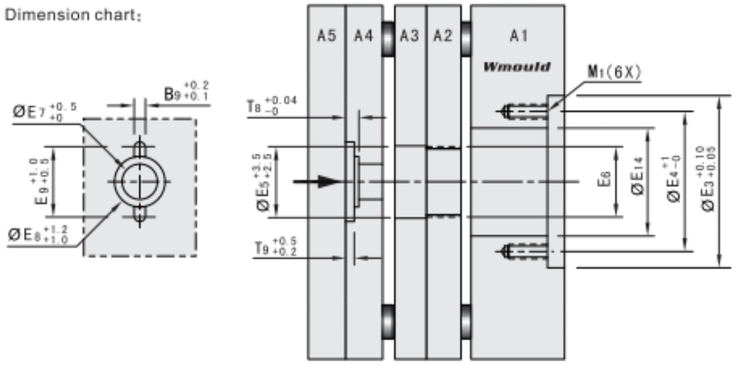
DIN

Two-stage ejectors

EE1860

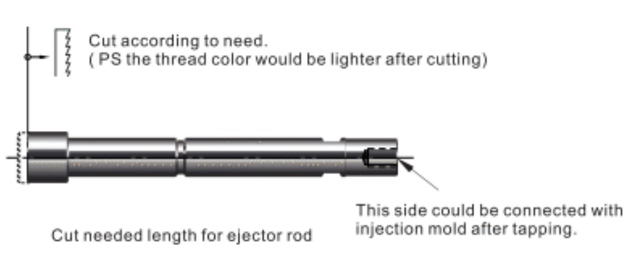


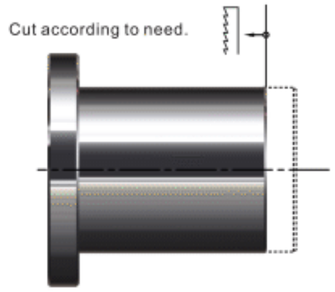
Dimension chart:

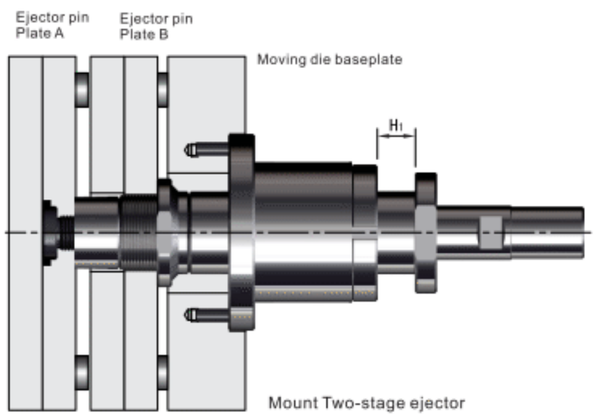


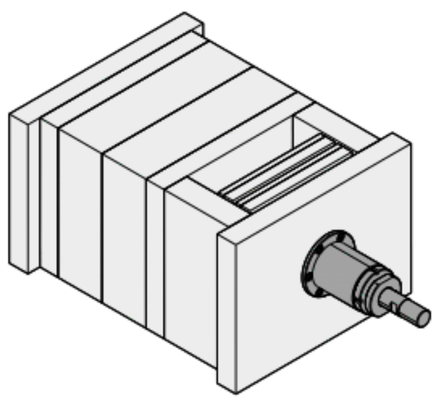
D1	E3	E4	E5	E6	E7	E8	E9	E14	T8	T9	H1	H2	M1
15	55	46	18.7	M20×1	10	15.5	20	33	5	3.6	30	50	M 4
18	72	60	24	M26×1.5	13	18.5	23	42	6	4	40	62	M 5
25	90	76	33	M35×1.5	17	24	30	54	7	5	50	82	M 6
33	114	96	43	M45×1.5	22	29	37	68	9		71	110	M 8
44	138	118	56	M58×1.5	30	40	48	86	11	6	100	160	M10

Installation Diagram:









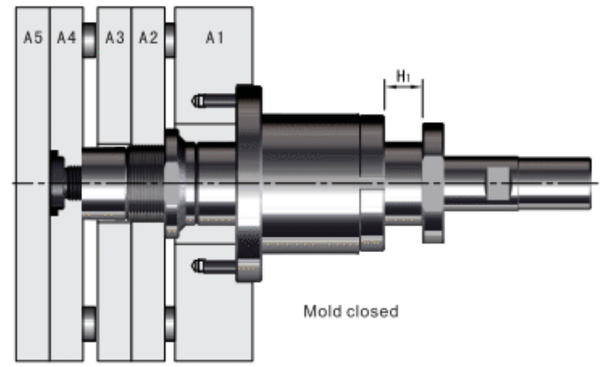
DIN

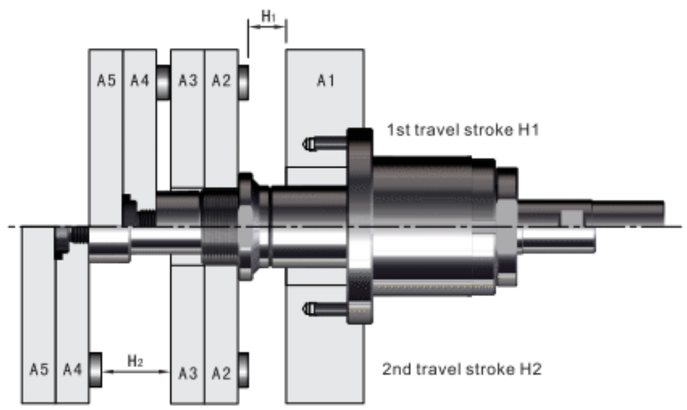
Two-stage ejectors

Installation Guidelines:

- Process the mounting holes as per dimension chart.
- Calculate the travel strokes accurately and cut the needed length for flange④ and ejector rod ⑦. Do not adjust the strokes after installation.
- Mount the flange ④ into the champing plate, screw the sliding bushing ⑥ into B ejector plate and the ejector rod ⑦ into A ejector plate.
- In order to connect with the central ejector rod of the injection mold, it is available to thread the internal thread at the end of the ejector rod. Different threads for different Two-stage ejectors.
- After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).
- Request precise installation (only 1 set for 1 mold). Make sure the STROKE is exactly applicable, otherwise the product would be easy to damage.
- If need to maintain, please remove the two-stage ejector firstly.

Functional chart:



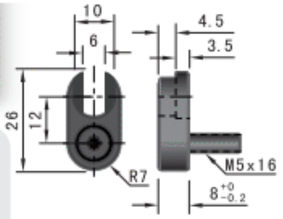


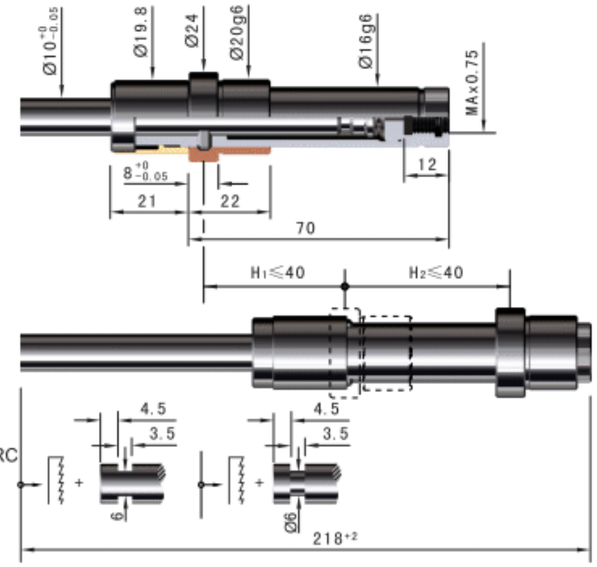
DIN

Two-stage ejectors

LLR



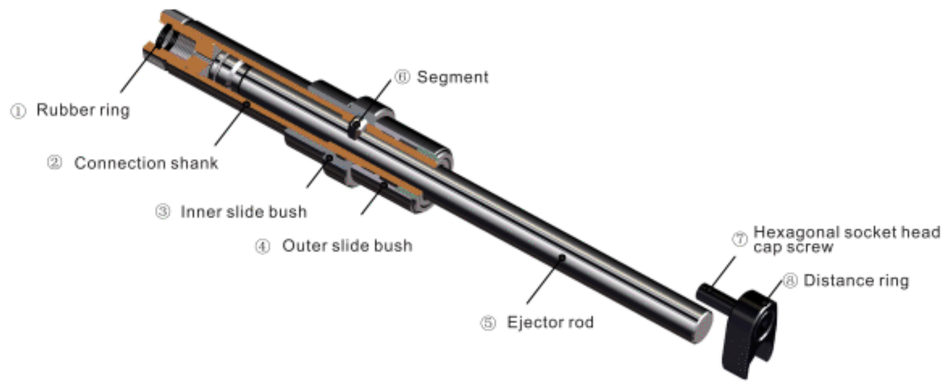




Order LLR-061620 Material:SUJ2 Hardness:58-62HRC

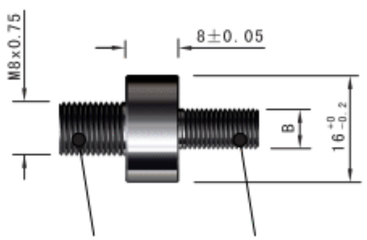
Code	A	AAL	@ /P
LLR-061620	6	-	
LLR-081620	8	•	
LLR-101620	10	-	

Product space chart:



AAL





Order AAL-0800M4 Material:SUJ2 Hardness:58-62HRC

Code	B	@ /P
AAL-0800M4	M4	
AAL-0800M5	M5	
AAL-0800M6	M6	
AAL-0800M8	M8	

Connect:LLR-081620 Connect:PPW/PPS series

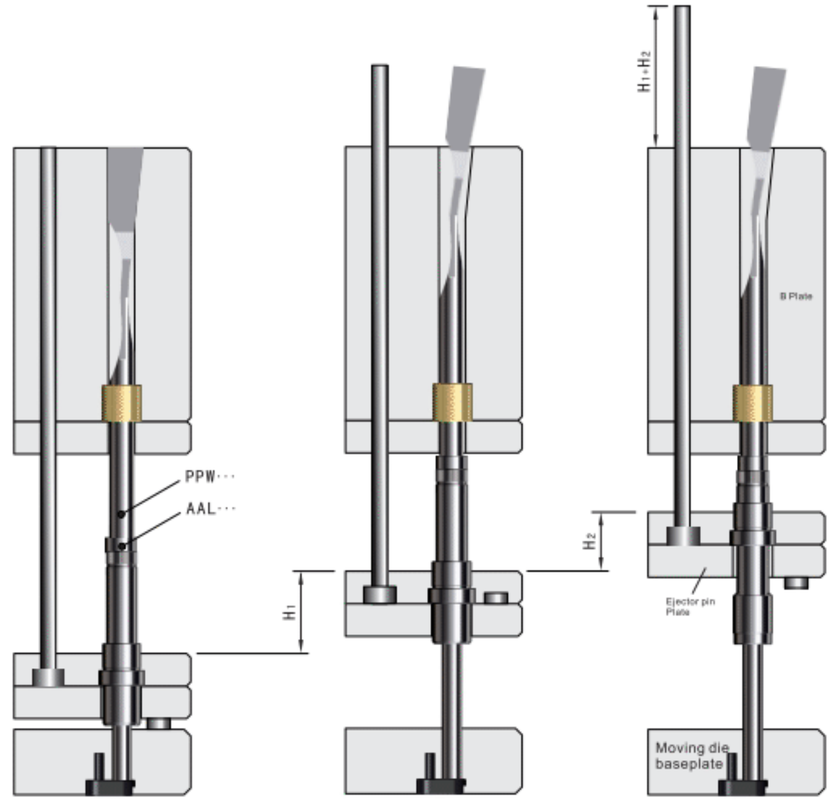
DIN

Two-stage ejectors

Installation Guidelines:

- Firstly dismount the Outer slide bush and fix it onto ejector plate, and then reinstall it into two-stage ejector.
- Fix the two-stage ejector with sprung core or ejector pin which had been inserted through B ejector plate.
- Calculate the strokes accurately, cut the needed length for ejector rod and process the connection groove, and then mount the ejector rod onto the champing plate.
- Do not adjust the strokes after installation.
- All movable parts must be kept clean and lubricated smoothly periodically.

Functional chart:



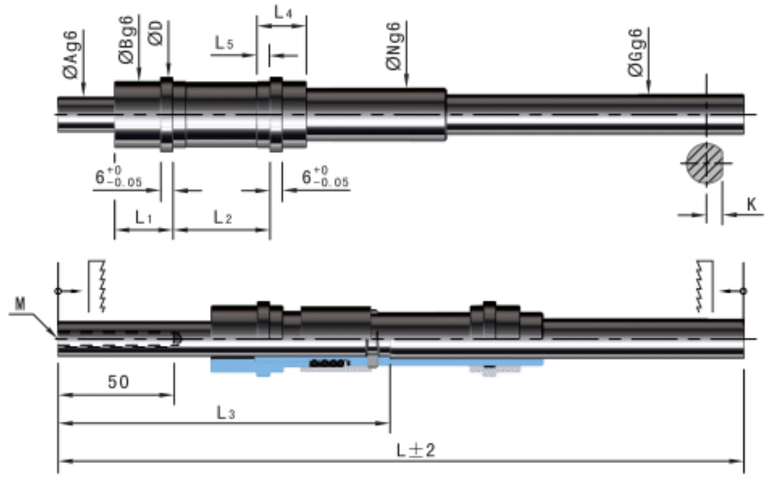
Mold closed | 1st travel stroke H1 | 2nd travel stroke H2

DIN

Two-stage ejectors

DDX





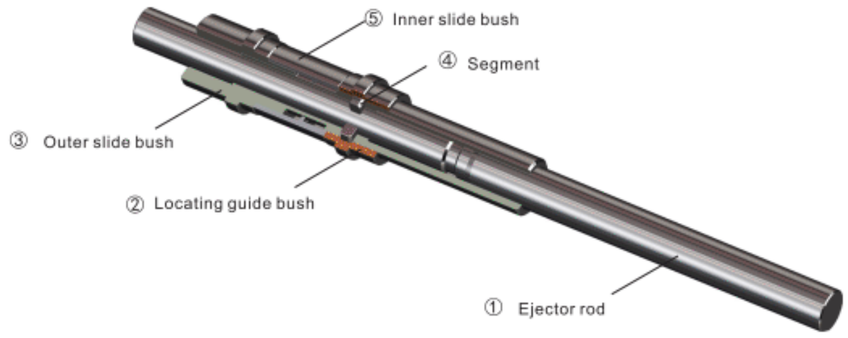
Features:

1. This type two-stage ejector structure is simple, easy for mount and need only small space for installation.
2. ome important parts are made of SKD11 and by high quality heat treatment process to make it to be more resistant.
3. The surface with coating treatment, higher wear resistance creates longer lifespan.

Order DDX-142622

Code	A	B	D	G	K	L	L1	L2	L3	L4	L5	N	H1	H2	M	@	/P
DDX-142622	14	26	30	16	7.2	243	22	34	125	20	4	21	42	48	M6		
DDX-163027	16	30	34	18	8	314	27	44	152	23	6	24	54	80	M8		

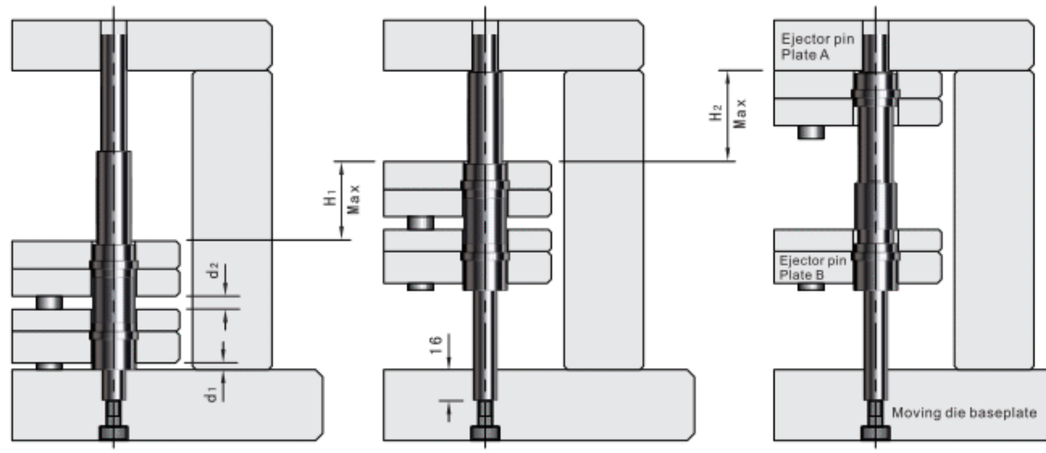
Product space chart:



Installation Guidelines:

- Calculate the travel strokes accurately and cut the needed length from the both sides of ejector rod.
- Mount the locating guide bush onto A ejector plate, outer slide bush onto B ejector plate.
- Screw the ejector rod onto champing plate by hexagonal socket head cap screw.
- The travel strokes could not be adjusted after installation.
- All movable parts must be kept clean and lubricated smoothly periodically;
- After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).
- Recommend 4 sets two-stage ejectors be mounted in one mold, and must be mounted symmetrically and with same strokes, otherwise the product would be easy to damage.
- All mounting holes must be homocentric and perpendicular to parting surface.

Functional chart:

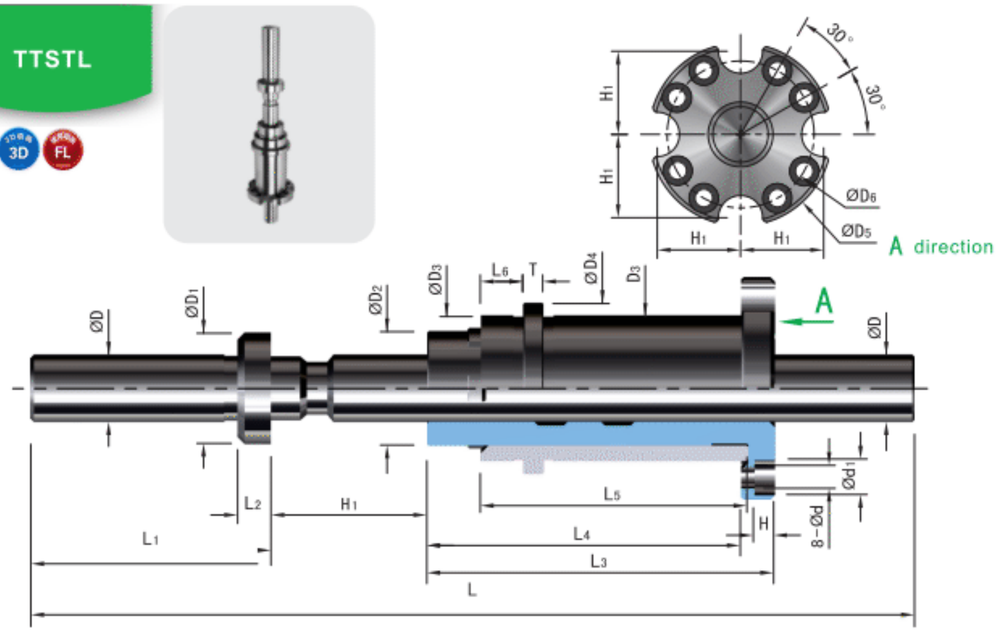


Mold closed | 1st travel stroke H1 | 2nd travel stroke H2

DIN

Two-stage ejectors

TTSTL

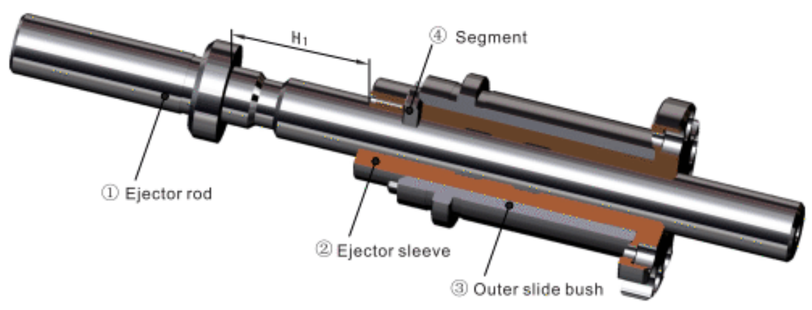


Order TTSTL-20A

D	D1	D2	D3	D4	D5	D6	T	d	d1	H	H1
20 0/-0.01	33	34	43 0/-0.03	50.8	66 0/-0.03	53	6 0/-0.01	6.4	10.6	6.1	30
0.787 0/-0.004	1.3	1.34	1.693 0/-0.001	2	2.598 0/-0.001	2.09	0.236 0/-0.004	0.25	0.42	0.24	1.18
26 0/-0.01	42	44	54 0/-0.03	63	84 0/-0.03	67	8 0/-0.01	8.7	13.8	8.2	37
1.024 0/-0.004	1.65	1.69	2.126 0/-0.001	2.48	3.307 0/-0.001	2.64	0.315 0/-0.004	0.34	0.54	0.32	1.46
32 0/-0.01	53	54	68 0/-0.03	78	105 0/-0.03	85	10 0/-0.01	10.8	16.8	10.2	47
1.26 0/-0.004	2.09	2.13	2.677 0/-0.001	3.07	4.134 0/-0.001	3.35	0.394 0/-0.004	0.43	0.66	0.4	1.85

Code	L	L1	L2	L3	L4	L5	L6	Center Rod Dia	Component Item Number	单位	@ /P
TTSTL-20A	265	72	10	104	94	79.96	12.7	20mm (Small)	TTSTL-20CR	mm	
	10.43	2.83	0.39	4.09	3.7	3.148	0.5			in	
TTSTL-26A	290	76	12	43	103	85.32	12.7	26mm (Medium)	TTSTL-26CR	mm	
	11.42	2.99	0.47	1.69	40.6	3.359	0.5			in	
TTSTL-32A	320	82	15	54	113.4	93.68	15.88	32mm (Large)	TTSTL-32CR	mm	
	12.6	3.23	0.59	2.13	4.46	3.688	0.625			in	

Product space chart:



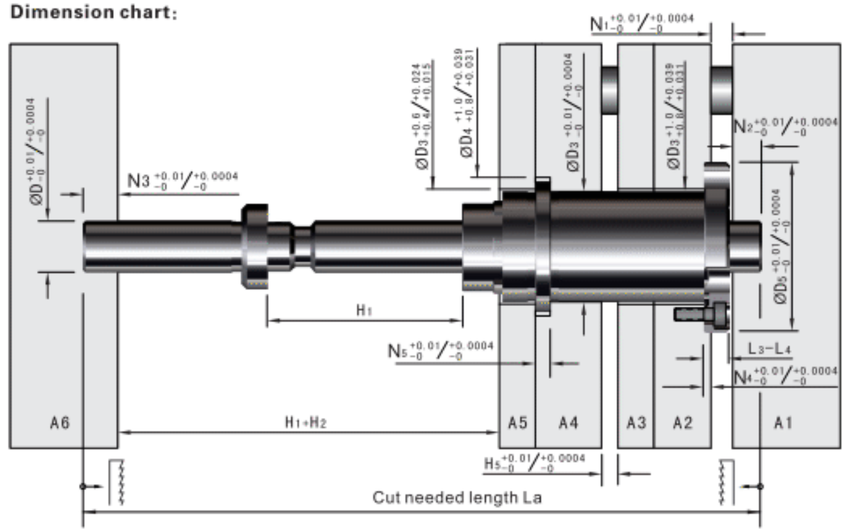
DIN

Two-stage ejectors

TTSTL

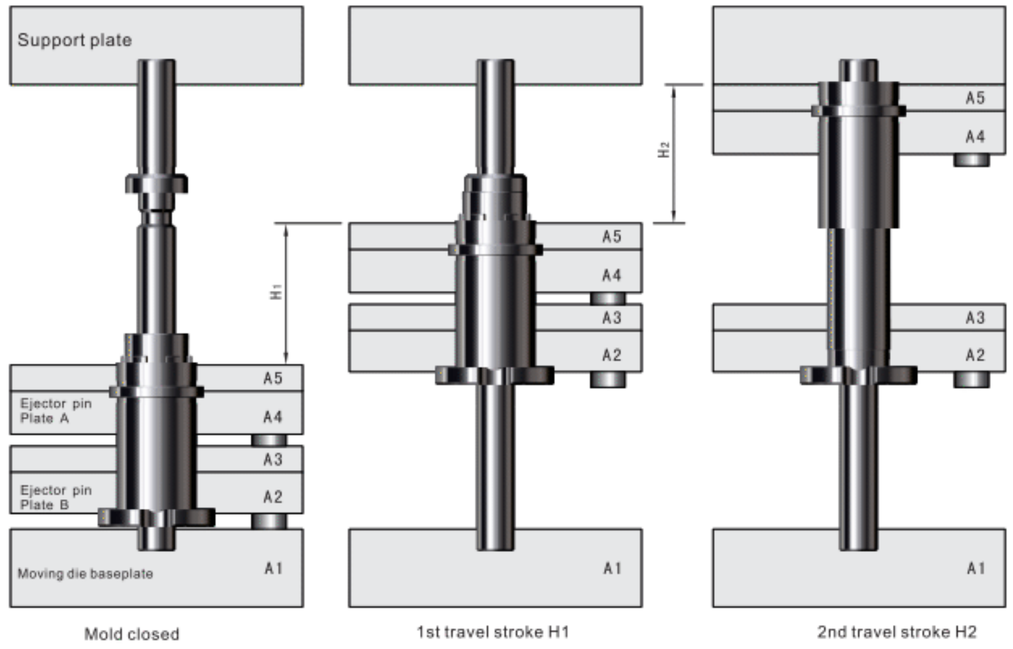


Dimension chart:



A2	A3	A4	A5	N1	N2	N3	N4	N5	H1		H2		单位
									min.	max.	min.	max.	
25.4	12.7	25.4	12.7	8	8	8	3	4.76	4	79	4	79	mn
1	0.5	1	0.5	0.315	0.315	0.315	0.118	0.118	0.16	3.11	0.16	3.11	in
28.58	12.7	28.58	12.7	10	10	10	4	4.76	6	84	6	84	mn
1.125	0.5	1.125	0.5	0.394	0.394	0.394	0.157	0.118	0.24	3.31	0.24	3.31	in
28.58	15.88	28.58	15.88	15	12	12	4	4.76	8	92	8	92	mn
1.125	0.625	1.125	0.625	0.591	0.472	0.472	0.157	0.188	0.31	3.62	0.31	3.62	in

Functional chart:



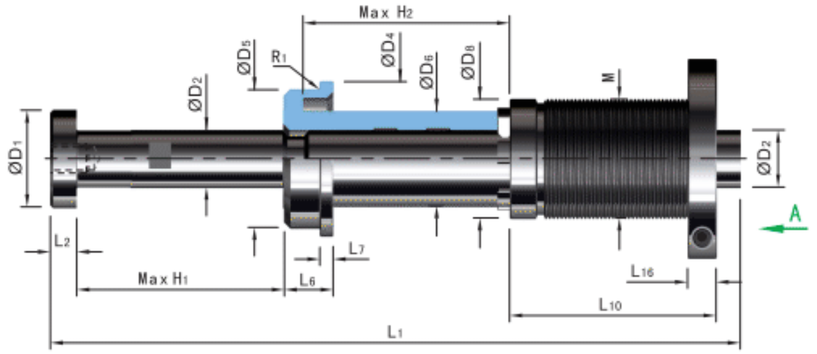
DIN
Two-stage ejectors

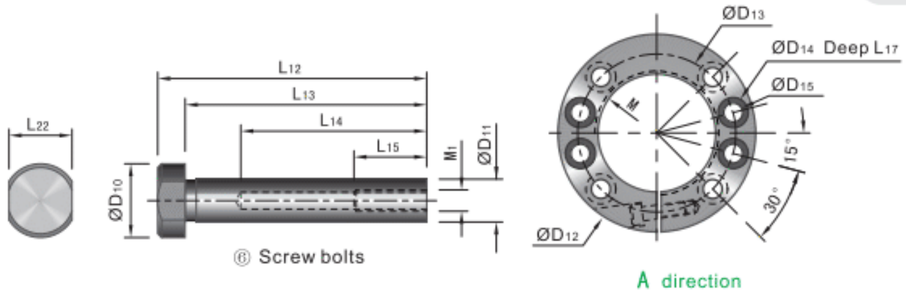
Features:
1.With mechanical bolt, easy to set up and install.
2.Internal installation avoids interferences with water line connectors and external mounted components.
3.The surface with coating treatment, higher wear resistance creates longer lifespan.

Installation Guidelines:
·Calculate the travel strokes accurately and cut the needed length from the both sides of ejector rod.
·Process the mounting holes as per dimension chart, and the holes should be homocentric and be perpendicular to parting surface.
·Dismount the outer slide bush ③ and ejector rod ①, and then mount the slide bush ③ onto A ejector plate, screw the ejector sleeve ② onto ejector B plate.
·Remount the outer slide bush ③ to ejector sleeve ②, inset ejector sleeve ② into and mount them them between wearing plate and champing plate.
·Do not adjust the travel strokes after installation.
·All movable parts must be kept clean and lubricated smoothly periodically.
·After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).
·A minimum 2 sets Two-stage ejector must to be mounted symmetrically in mold. Otherwise, the parts would be broken caused by the unbalanced force of two sides.
·2-stage ejector must not be exposed to temperatures that exceed 120°C at any time.
·The two-stage ejector is precise parts, please do not apply together with any self-regulating parts. MOLD PARTNER will not be responsible for any anomaly caused by it.
·Select 20mmØ (small)、26mmØ (medium) or 30mmØ (large) two-stage ejector based on the width of the mold base.

DIN
Two-stage ejectors

TTSBL





Features:
1.It is mounted into the mold to avoid to collide with the outside parts of mold.
2.The surface with coating treatment, higher wear resistance creates longer lifespan.

Order TTSBL-20A Material:SUJ2/SKD61 Hardness:58-62HRC/50-54HRC

D1	D2	D4	D5	D6	D8	D10	D11	D12	D13
34 0/-0.01	20 0/-0.01	58.2 0/-0.03	50.8 0/-0.02	34	43 0/-0.03	29	18	72	72
1.339 0/-0.004	0.787 0/-0.004	2.291 0/-0.001	2 0/-0.008	1.339	1.693 0/-0.001	1.14	0.71	2.83	2.83
44 0/-0.01	26 0/-0.01	70 0/-0.03	62.6 0/-0.02	43	54 0/-0.03	34	21	90	90
1.732 0/-0.004	1.024 0/-0.004	2.756 0/-0.001	2.46 0/-0.008	1.693	2.126 0/-0.001	1.34	0.83	3.54	3.54
58 0/-0.01	32 0/-0.01	87 0/-0.03	78 0/-0.02	54	68 0/-0.03	43	26	112	112
2.283 0/-0.004	1.26 0/-0.004	3.425 0/-0.001	3.07 0/-0.008	2.126	2.677 0/-0.001	1.69	1.02	4.41	4.41

D14	D15	L1	L2	L6	L7	L10	L12	L13	L14
10.5	6.4	280	10 +0.02/0	22.7	6 0/-0.01	86	136	125	107
0.41	0.25	11.2	0.394 +0.001/0	0.894	0.236 0/-0.0004	3.39	5.35	4.92	4.21
13.8	8.6	314	12 +0.02/0	22.7	6 0/-0.01	94	153	139	120
0.54	0.34	12.36	0.472 +0.001/0	0.894	0.236 0/-0.0004	3.7	6.02	5.47	4.72
16.8	10.8	354	14 +0.02/0	28.88	7 0/-0.01	105	171	154	138
0.66	0.43	13.94	0.551 +0.001/0	1.137	0.276 0/-0.0004	4.13	6.73	6.06	5.43

Code	L15	L16	L17	L22	R1	M	M1	单位	@ /P
TTSBL-20A	30	10	6	26	R0.4	M43.2×1.25	M10	mm	
	1.18	0.39	0.24	1.02	R0.02			in	
TTSBL-26A	40	13	8.1	30	R0.4	M54.2×1.25	M12	mm	
	1.57	0.51	0.32	1.18	R0.02			in	
TTSBL-32A	50	16	10.1	36	R0.4	M68.25×1.25	M16	mm	
	1.97	0.63	0.4	1.42	R0.02			in	

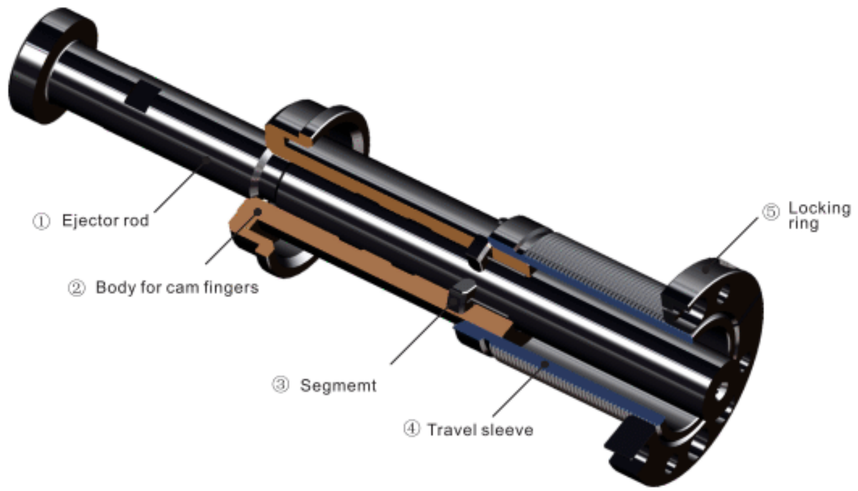
DIN

Two-stage ejectors

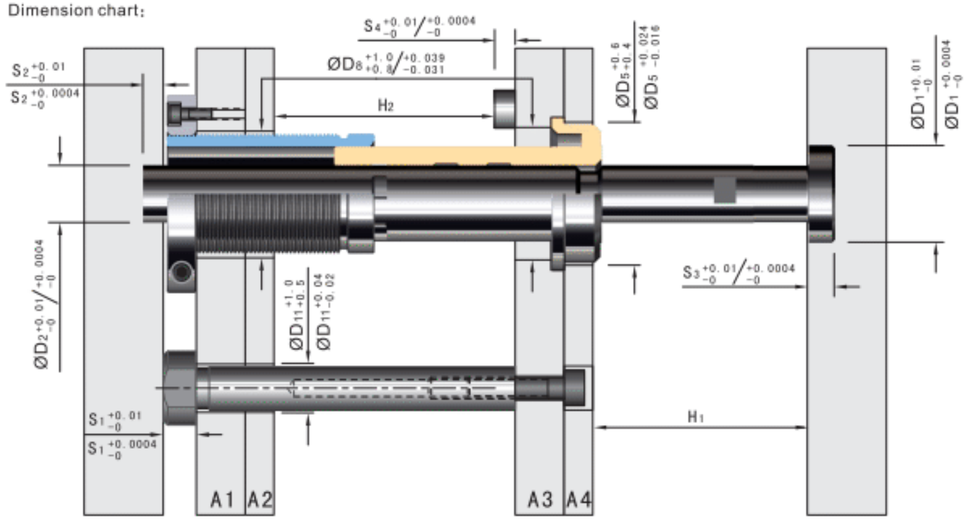
TTSBL



Product space chart:



Dimension chart:



A1	A2	A3	A4	S1	S2	S3	S4	S5	Center Rod Length	Travel Sleeve Length	H1 min.	H1 max.	H2 min.	H2 max.	T4	单位
25.4	12.7	25.4	12.7	11	8	10	4.76	4	277.96	86	8	82	12	82	M 6	mm
1	0.5	1	0.5	0.433	0.315	0.394	1.86	0.157	10.943	3.386	0.32	3.32	0.47	3.32		in
28.58	12.7	28.58	12.7	14	10	12	4.76	4	311.32	94	10	92	18	92	M 8	mm
1.125	0.5	1.125	0.5	0.551	0.394	0.472	1.86	0.157	12.257	3.701	0.39	3.62	0.71	3.62		in
28.58	15.88	28.58	15.88	17	12	14	6.29	6	352.21	105	12	102	24	102	M10	mm
1.125	0.625	1.125	0.625	0.669	0.472	0.551	0.248	0.238	13.867	4.134	0.47	4.02	0.94	4.02		in

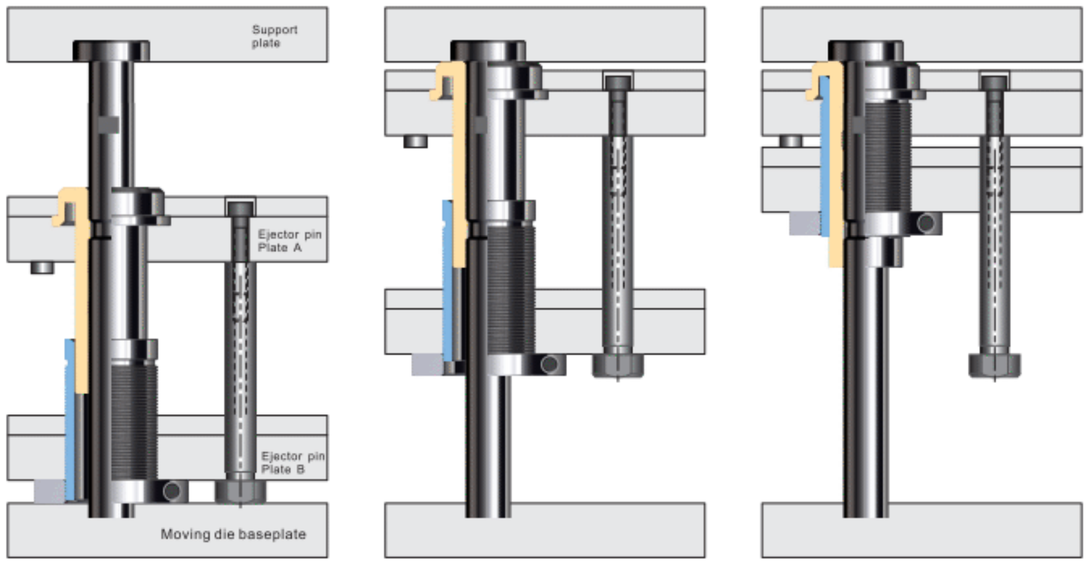
DIN

Two-stage ejectors

Installation Guidelines:

- Firstly process through holes into A ejector plate, process srew holes into B ejector plate and champing plate (screw holes dimension refer to the ones need matched with D2, D3). Customer can also make flange to lock parts.
- Process one mounting hole in the top of the ejector rod, this mounting hole need match with the through hole into B plate.
- Mount the champing sleeve ② directly on the bottom of champing plate, screw the sliding bushing ① into B ejector plate and the head of the ejector bolt ④ into A ejector plate.
- Adjust the position of champing sleeve ② and the champing plat (flange) to preset the travel stroke H1, and then fix the slotted nut ⑤.
- In order to connect with the central ejector bolt of the injection mold, it is available to thread the internal thread at the end of the ejector bolt. Different threads for different Two-stage ejectors.
- After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable. (Recommend test on matched molds machine or injection machines, do not use Lifting Machine).
- The nut ⑥ had been strengthened in mounting, do not dismount the nut freely anytime to ensure normal function of the product.
- Request precise installation (only 1 set for 1 mold). Make sure the STROKE is exactly applicable, otherwise the product would be easy to damage.

Functional chart:

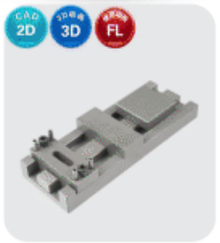


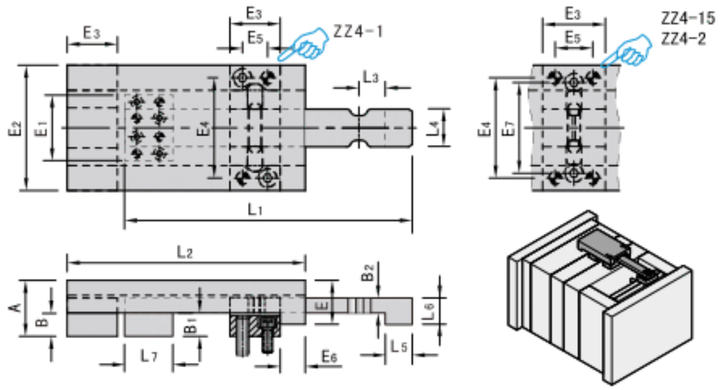
Mold closed | 1st travel stroke H1 | 2nd travel stroke H2

DIN

Two-stage ejectors

ZZ4





Features:

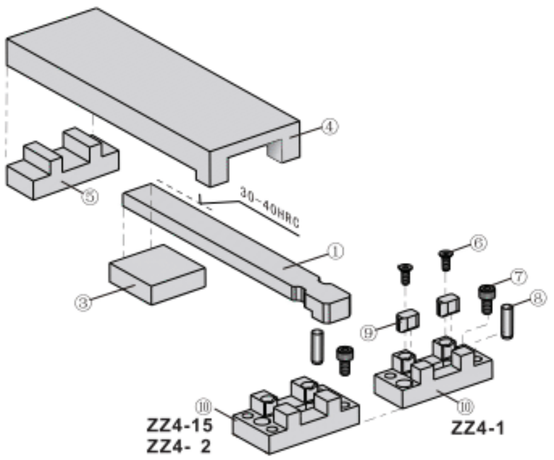
1. Different install methods, different function. This ZZ4 series latch locks with wide applicability which can be used as two-satge ejector, latch lock.

Order ZZ4-1-1-0

E2	A	B	B1	B2	E	E1	E3	E4	E5	E6	E7
50	22.3	9.3	9.2	6.8	17.5	30	20	40	10	10	-
75	30.3	12.3	12.2	8.8	23.5	45	30	65	20	15	56
90	37.5	15.5	15.3	11.8	29	60	36	74	25		74

Code	L1	L2	L3	L4	L5	L6	L7	Dowel pin	Mounting screws	@¥/P
ZZ4- 1-1-0	146	146	10	15	10	9.6	30	Ø5×16	M4×12	
ZZ4-15-1-0	196	196	15	20	12	12	45		M8×16	
ZZ4- 2-1-0	246	246	18	25	15	15	60	Ø6×20	M8×20	

Product space chart:



- ZZ4-1 with more dowel pin holes compared with
- ZZ4-15, ZZ4-2 (refer drawing).

Pos	Name	Material	Hardness
1	Latch bar	Cr12MoV	55-58HRC
3	Spacer	S45C	-
4	Housing	718H	≈900HV
5	Spacer	S45C	-
9	Catch	SKD11	58-62HRC
10	Catch housing	718H	28-38HRC

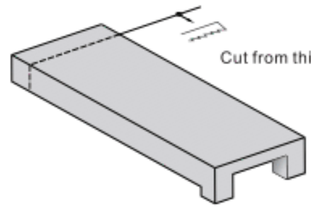
DIN

Two-stage ejectors

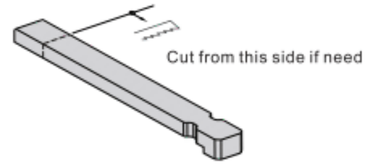
Installation Guidelines:

- Install the Latch housing ⑩ and should be parallel to parting surface.
- Install Reverse latch bar ① after cutting needed length and processing screw holes. Process dowel pin holes after locking screws and in mold closed situation.
- Mount the Latch housing ⑩ and Reverse latch bar ① symmetrically in mold, and then calculate the Control plate ④ length according to the travel stroke. Process the dowel pin holes of Control plate ④ after other parts installation.
- A minimum 2 sets latch lock must to be mounted symmetrically in mold. Otherwise, the parts would be broken caused by the unbalanced force of two sides.
- After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable.
- If need to maintain, please remove the latch lock firstly.

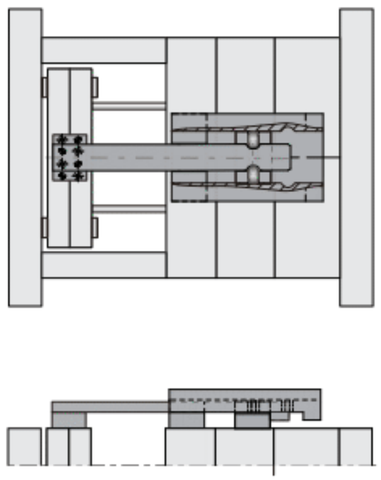
Control plate ④ cutting:



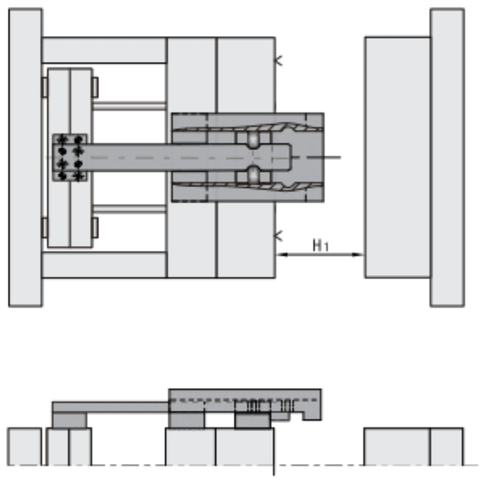
Reverse latch bar ①:



Functional chart:(Install method 1)



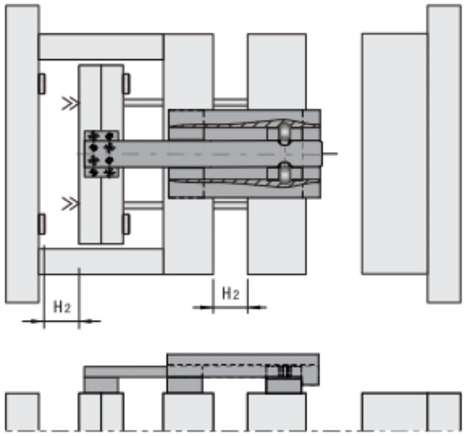
Mold closed



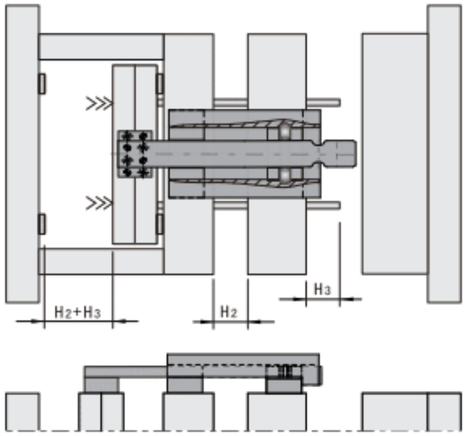
Mold opened

DIN

Two-stage ejectors

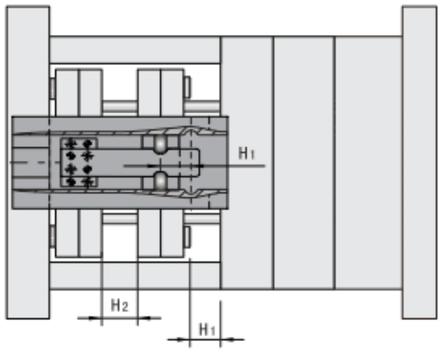


1st travel stroke

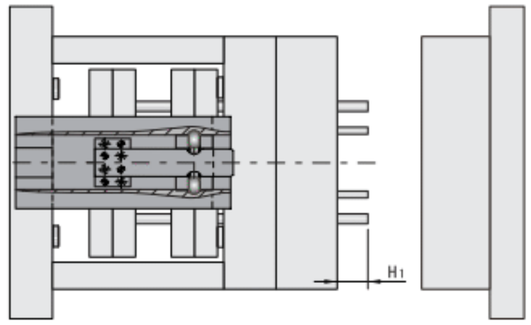


2nd travel stroke

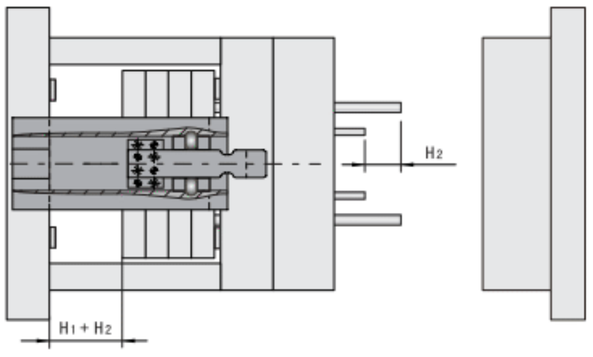
Functional chart:(Install method 2)



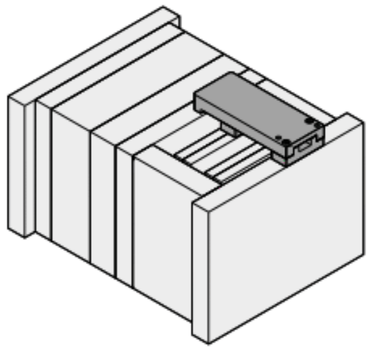
Mold closed



1st travel stroke H1



2nd travel stroke H2

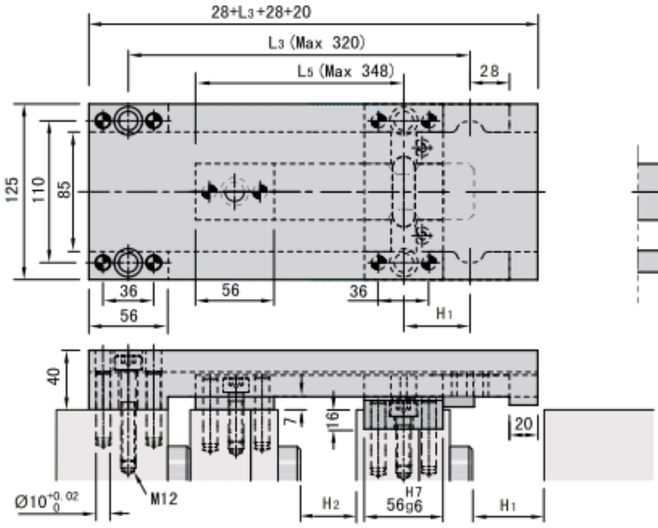


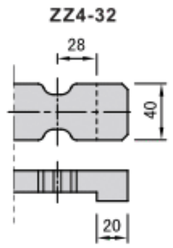
DIN

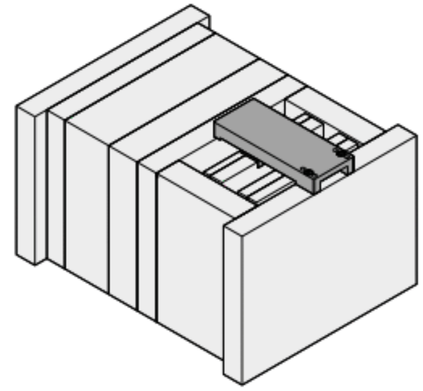
Two-stage ejectors

ZZ4





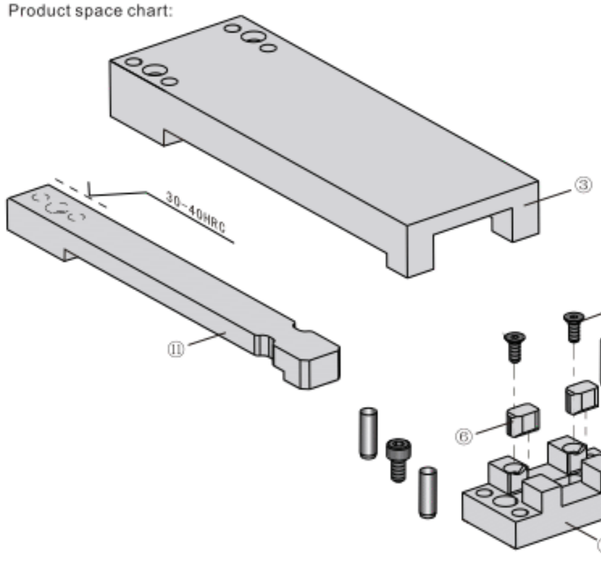


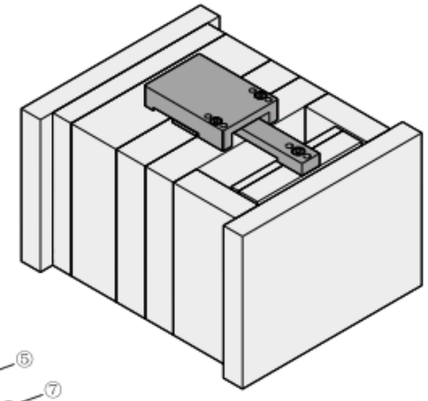


Order ZZ4-32-L3-L5

Pos	Name	Material	Hardness
3	Housing	718H	≈900HV
6	Catch	SKD11	58-62HRC
8	Catch housing	718H	28-38HRC
11	Latch bar	Cr12MoV	55-58HRC

Product space chart:

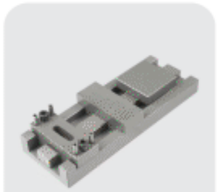


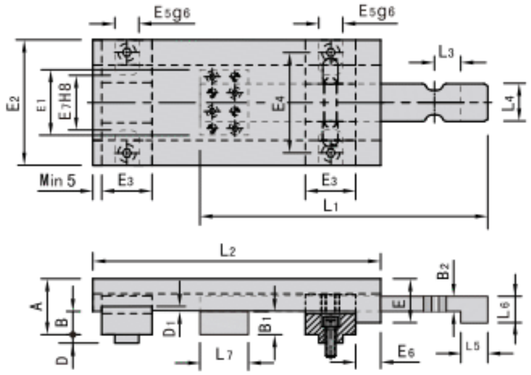


DIN

Two-stage ejectors

ZZ4

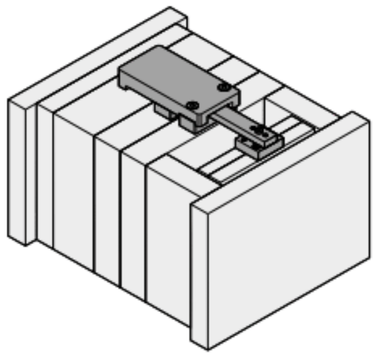


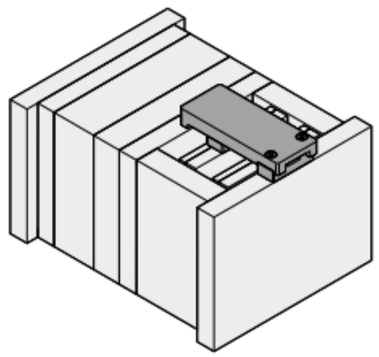


Order ZZ4-11-1-0

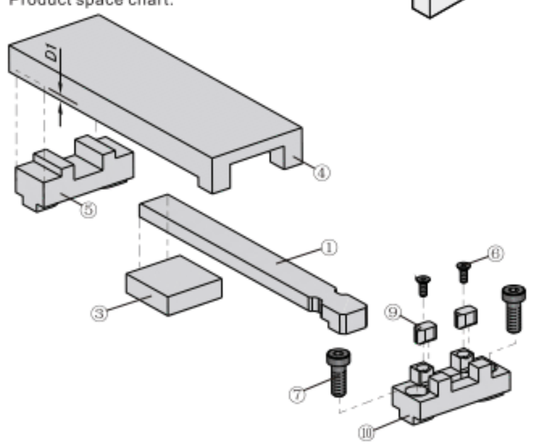
E2	A	B	B1	B2	E	E1	E3	E4	E5	E6	E7
50	22.3	9.3	9.2	6.8	17.5	30	20	38	10	10	22
75	30.3	12.3	12.2	8.8	23.5	45	30	56	12	15	30
90	37.5	15.5	15.3	11.8	29	60	36	72	14		38

Code	L1	L2	L3	L4	L5	L6	L7	D	D1	Mounting screws	@¥/P
ZZ4-11-1-0	146	146	10	15	10	9.6	30	4	3	M 6×20	
ZZ4-16-1-0	196	196	15	20	12	12	45	5	4.5	M 8×25	
ZZ4-21-1-0	246	246	18	25	15	15	60	6	6	M10×30	





Product space chart:



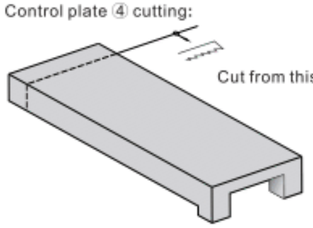
The Countersunk screw⑥has no practical function, just to protect or remind the catch⑨.

Pos	Name	Material	Hardness
3	Latch bar	Cr12MoV	55-58HRC
6	Spacer	S45C	-
8	Housing	718H	≈900HV
11	Spacer	S45C	-
8	Catch	SKD11	58-62HRC
11	Catch housing	718H	28-38HRC

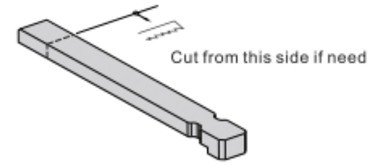
Installation Guidelines:

·nstall the Latch housing and should be parallel to parting surface.
Install Reverse latch bar after cutting needed length and processing screw holes. Process dowel pin holes after locking screws and in mold closed situation.
·Mount the Latch housing and Reverse latch bar symmetrically in mold, and then calculate the Control plate ④ length according to the travel stroke. Process the dowel pin holes of Control plate after other parts installation.
·A minimum 2 sets latch lock must to be mounted symmetrically in mold. Otherwise, the parts would be broken caused by the unbalanced force of two sides.
·After installation, carry out a functional test to check whether the individual parts work well and the stroke applicable.
·If need to maintain, please remove the latch lock firstly.

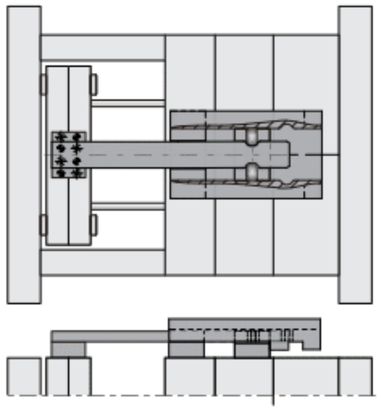
Control plate ④ cutting:



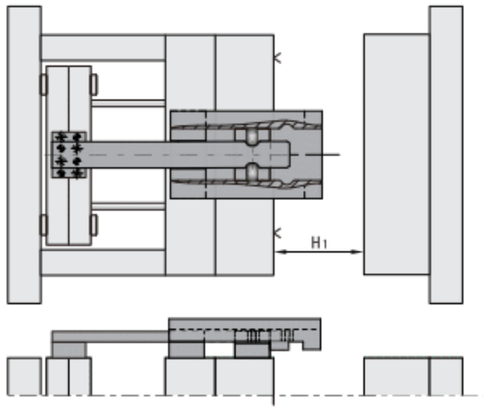
Reverse latch bar ①:



Functional chart:(Install method 1)



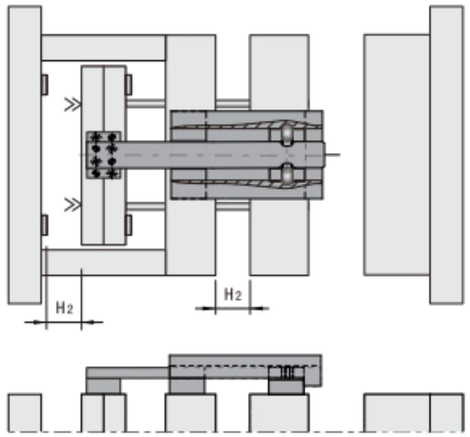
Mold closed



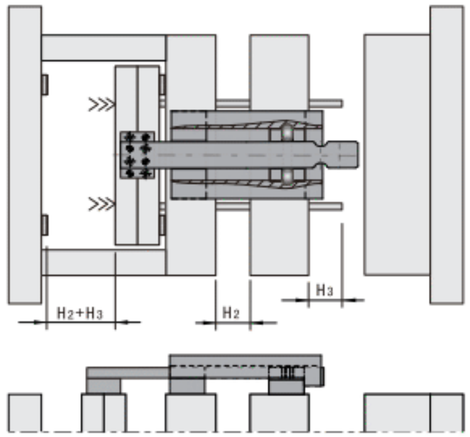
Mold opened

DIN

Two-stage ejectors

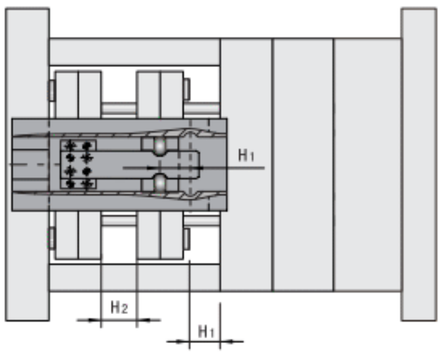


1st travel stroke

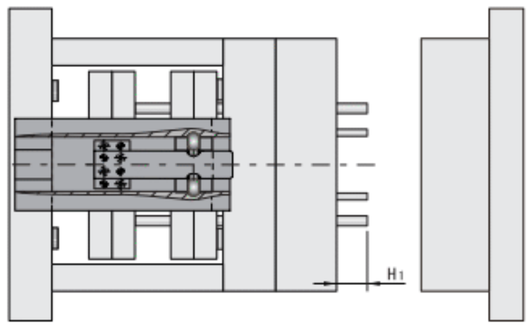


2nd travel stroke

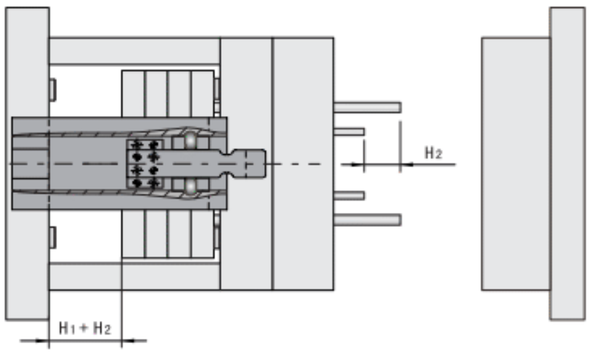
Functional chart:(Install method 2)



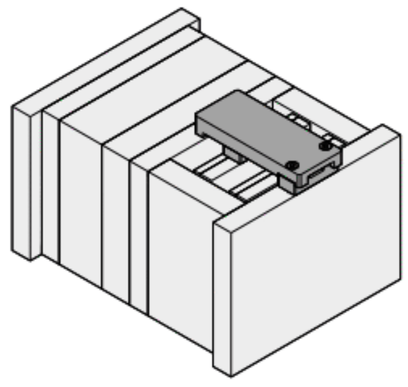
Mold closed



1st travel stroke H1



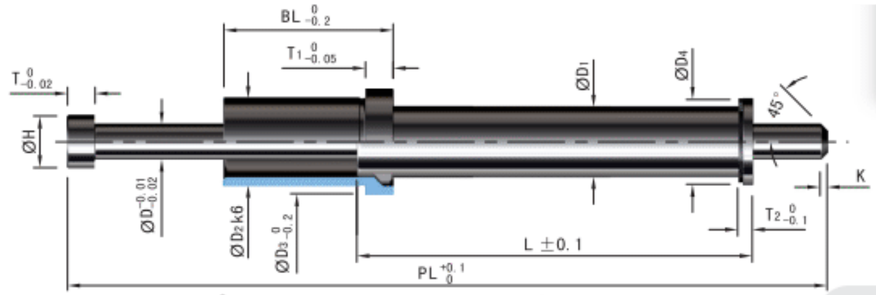
2nd travel stroke H2



JIS

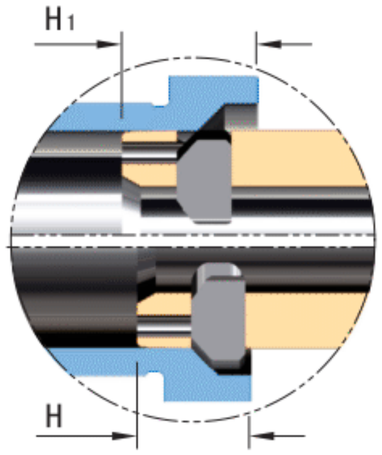
Round latch locks

EERST



When D=16, D $^{0}_{-0.02}$; when D=16 and PL>300, T $^{0}_{-0.05}$





D	H	H1
6	10.5	12
10		12.5
16	16.5	19

The values for activation finishing/starting point "H/H1" are for reference only

Features:

1. This early return unit is used to early return the ejector plate before mold closing,so that to avoid the slide core unit collide by ejector pin.
2. It is mounted into the mold to save the space,The early return function works even the stroke of ejector pin is large.
3. It can be used as Two-satge ejector.
4. It is mounted into the mold to avoid to collide with the outside parts and cooling system of mold.

Order EERST-D-BL-L-PL

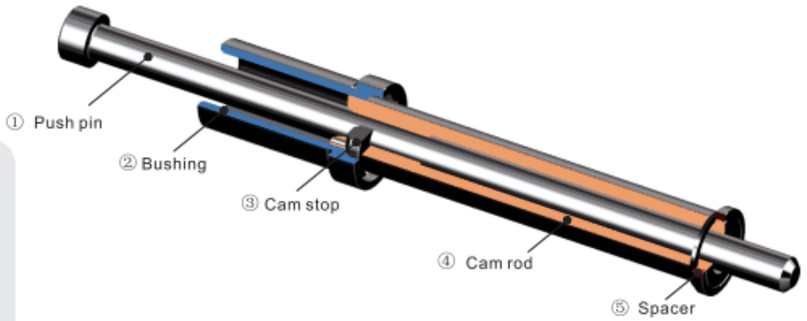
Code	D	D1	D2	D3	D4	T	T1	T2	H	K	BL Designated unit 0.5mm	L Designated unit 0.5mm	PL Designated unit 0.5mm	@¥/P
EERST	6	15 -0.016/-0.027	20 +0.015/+0.002	24	18.8	6	8	4	10	2	25- 60	50 -100	50-200	
												100.5-125		
	10	20 -0.020/-0.033	25 +0.015/+0.002	30	24.5	8			15		35-100	60 -100	50-300	
												100.5-160		
	16	30 -0.020/-0.033	40 +0.018/+0.002	46	35.5		13	8	21	4	40-100	60 -100	50-350	
												100.5-160		

JIS

Round latch locks

EERST

Product space chart:

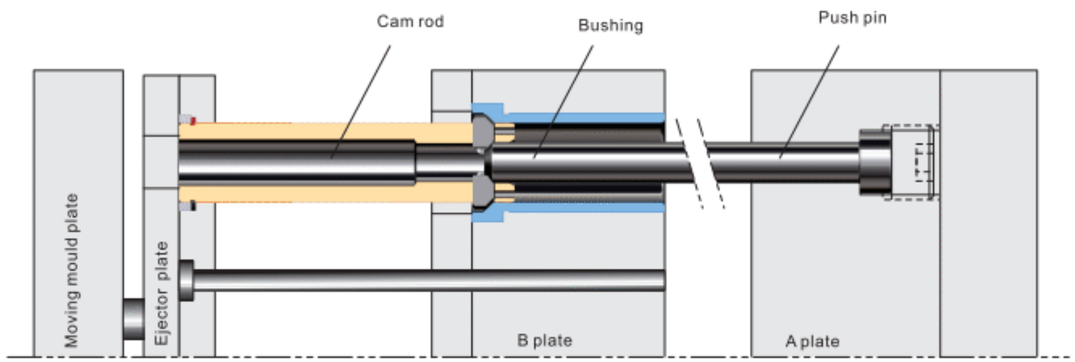




Installation Guidelines:

- Mount cam rod into the ejector plate, bushing into the B plate, push pin into the A plate.
- A minimum 2 sets Early ejector return assembly must to be mounted symmetrically in mold.
- If the early ejector return units were not mounted symmetrically, the uneven force will cause the parts damaged.
- Add the lubricating oil onto the joint area regularly.
- Make sure the early return units are mounted into the cam rod exactly, otherwise, it will cause the mold damaged.
- After the installation, carry out a functional test, check whether the individual parts work well, whether the stroke is applicable.

Installation Diagram:



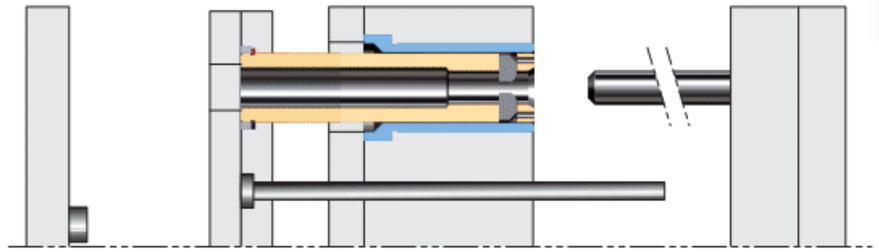
JIS

Round latch locks

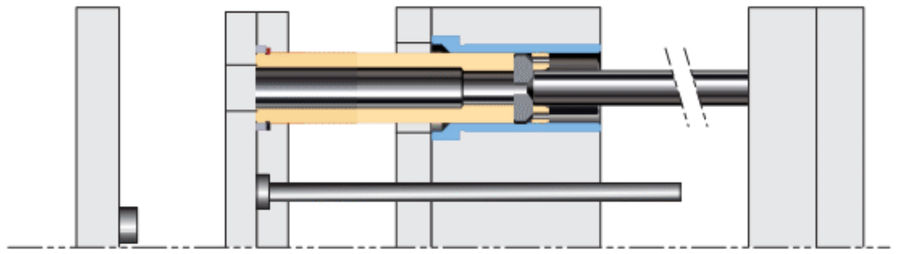
EERST



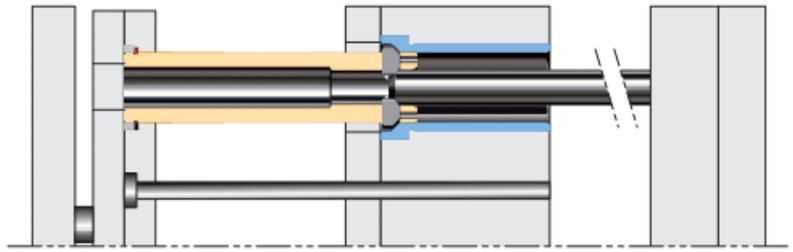
Functional chart:



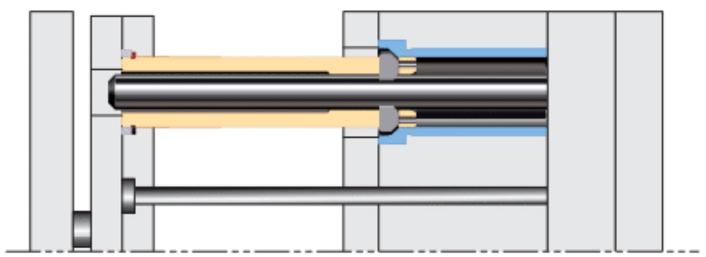
Mold opened



Mold closing 1



Mold closing 2

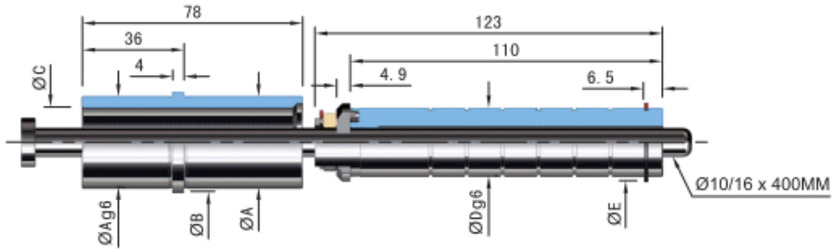


Mold closed

AISI
Round latch locks

EER



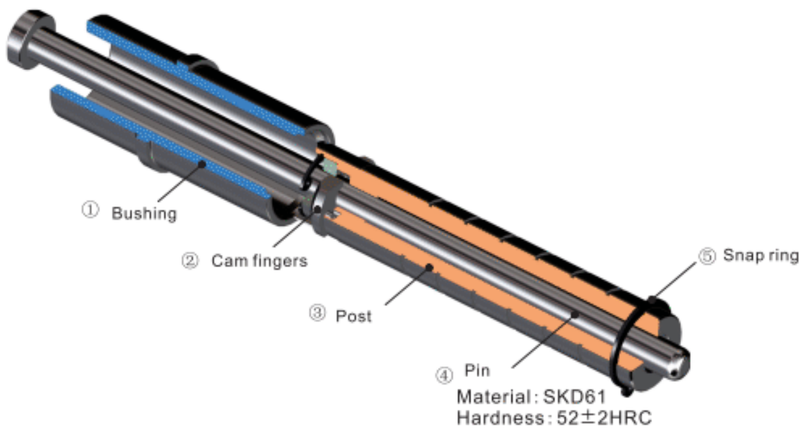


Features:
1. This early return assembly is used to early return the ejector plate before mold closed.
2. It is mounted inside the mold to save space. The early return function works even the stroke of the ejector pin is large.
3. It is mounted inside the mold to avoid to against extrusion the waterway and slides.

☎Order EER-100E Material:SUJ2 Hardness:58-62HRC

Code	A	B	C	D	E	F	G	H	@¥/P
EER-100E	32	35	24.2	24	27	10	5	17	
EER-101E	42	46	32.2	32	36	16	7	24	

Product space chart:

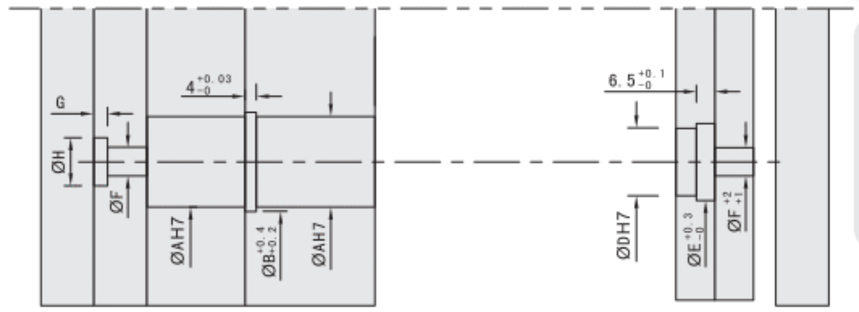


AISI
Round latch locks

EER

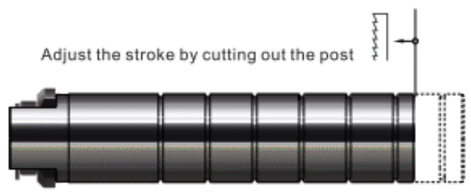


Installation Diagram:



Installation Guidelines:
- Make sure the stroke is applicable. Adjust the stroke by cutting the length of post and pin.
- Process the mounting holes as per dimension chart,and the holes should be homocentric and perpendicular to parting surface.
- A minimum 2 sets Early ejector return assembly must to be mounted symmetrically in mold.
- If the early ejector return units were not mounted symmetrically,the uneven force will cause the parts damaged.
- Add the lubricating oil onto the joint area regularly.
- Make sure the round latch locks are mounted into the cam rod exactly, otherwise,it will cause the mold damaged.
- After the installation, carry out a functional test, check whether the individual parts work well,whether the stroke is applicable.





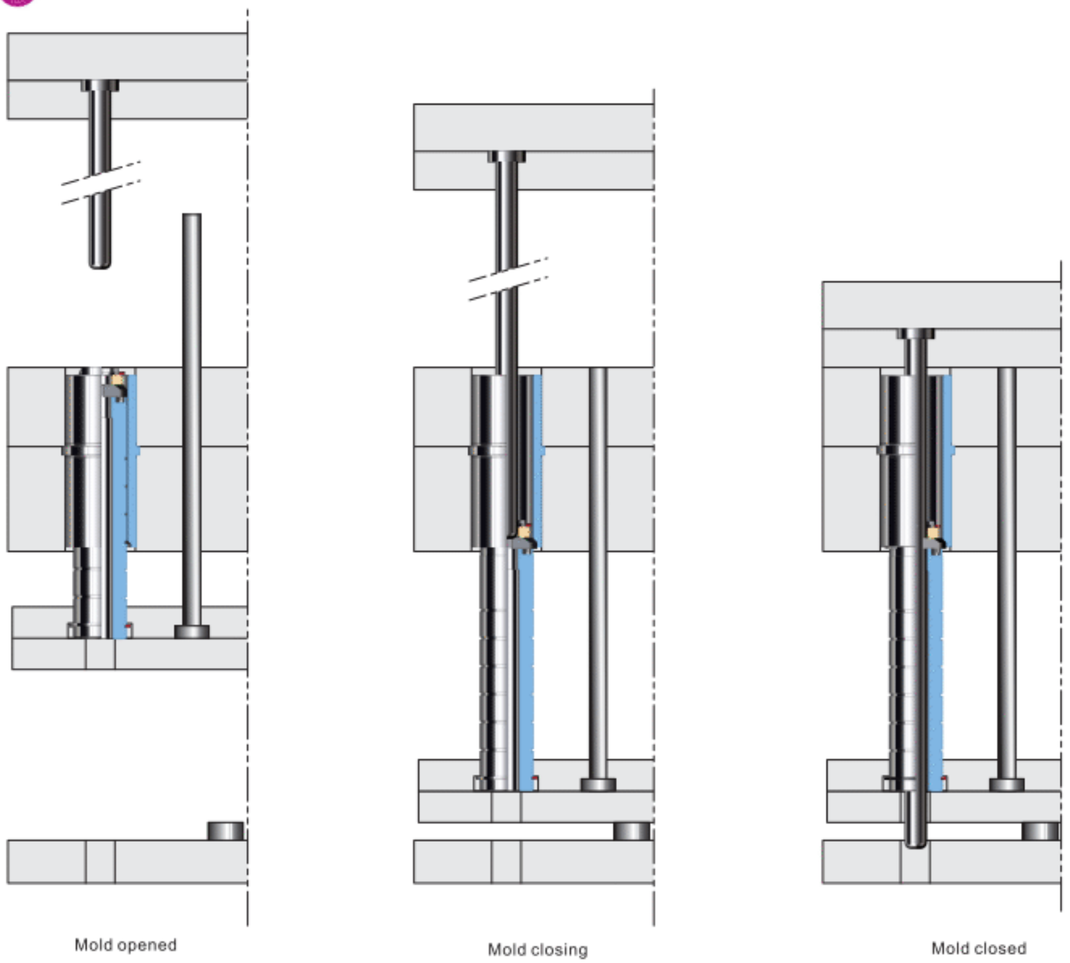
AISI

Round latch locks

EER



Functional chart:

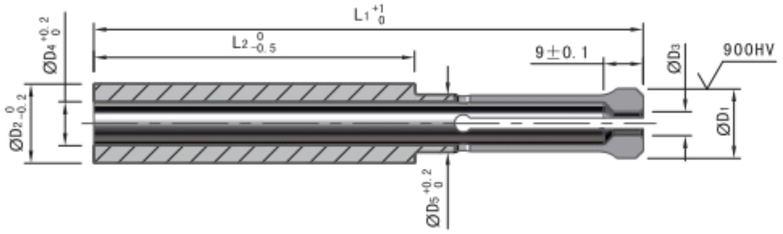


Mold opened　　Mold closing　　Mold closed

DIN

Round latch locks

ZZ163

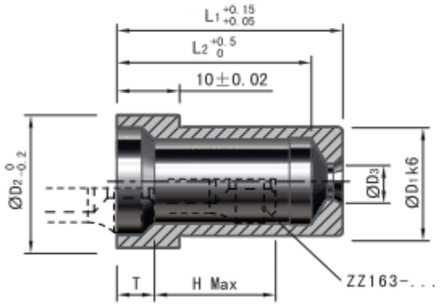




Order ZZ163-6-125　　Material:SKD61　　Hardness:48-52HRC

Code	D1	D2	D3	D4	D5	L1	L2	L3	max.F(N)	@¥/P
ZZ163- 6-125	16	18	6	10	13	125	73	20	12000	
ZZ163-10-160	20	24	10	12.5	17	160	100	25	20000	

ZZ164





Order ZZ164-6-36　　Material:SUJ2　　Hardness:58±2HRC

Code	D1	D2	D3	L1	L2	T	max.H	@¥/P
ZZ164- 6-36	18	22	6	36	31	6.7	24	
ZZ164- 6-46				46	41		34	
ZZ164- 6-56				56	51		44	
ZZ164-10-36	24	29	10	36	30		23	
ZZ164-10-46				46	40		33	
ZZ164-10-56				56	50		43	
ZZ164-10-76				76	70		63	

Features:
1.This early return unit is used to early return the ejector plate before mold closing.
2.Be used as Early Return Units or Two-stage Ejector.
3.It is mounted into the mold to avoid to collide with the outside parts and cooling system of mold.

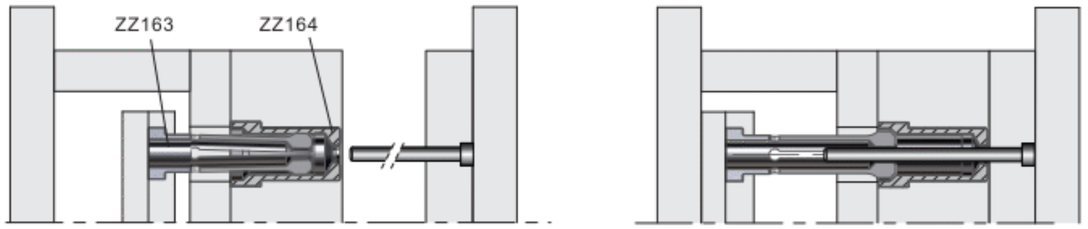
DIN

Round latch locks

Installation Guidelines:

- Mount cam rod into the ejector plate, bushing into the B plate, push pin into the A plate.
- A minimum 2 sets Early ejector return assembly must to be mounted symmetrically in mold.
- If the early ejector return units were not mounted symmetrically, the uneven force will cause the parts damaged.
- Add the lubricating oil onto the joint area regularly.
- Make sure the early return units are mounted into the cam rod exactly, otherwise, it will cause the mold damaged.
- After the installation, carry out a functional test, check whether the individual parts work well, whether the stroke is applicable.

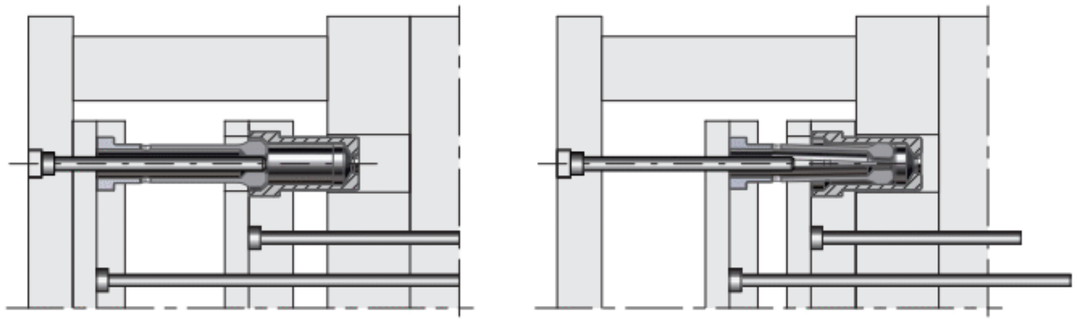
Functional chart(Used as Early Return Unit):



Mold opened

Mold closed

Functional chart(Used as Two-stage Ejector):



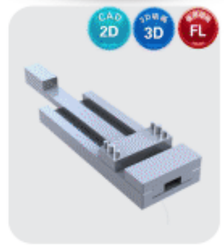
Mold closed

Mold opened

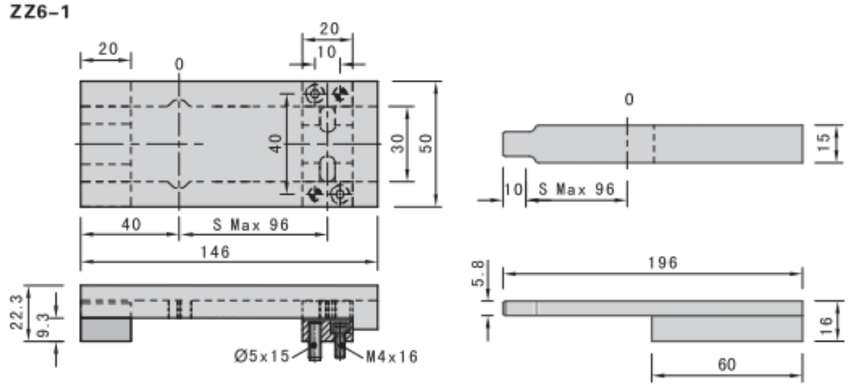
DIN

Push Locks

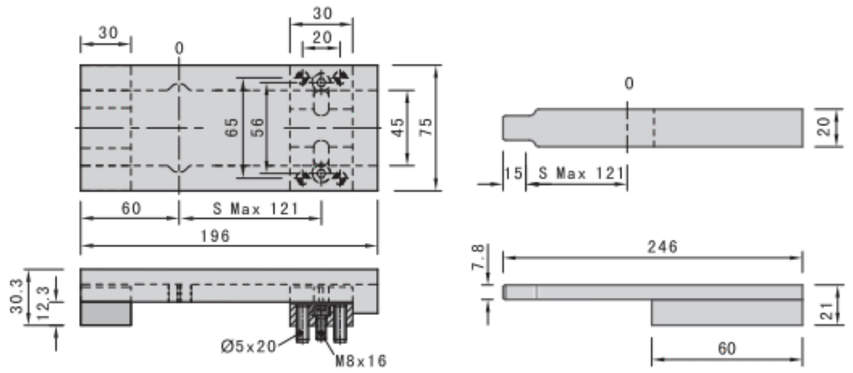
ZZ6



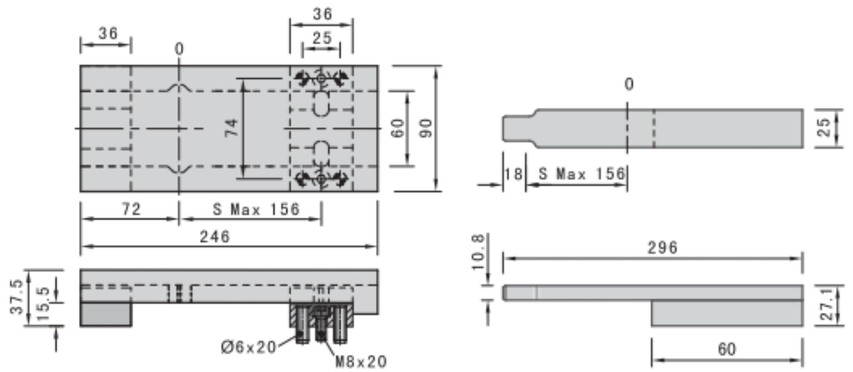
ZZ6-1



ZZ6-15



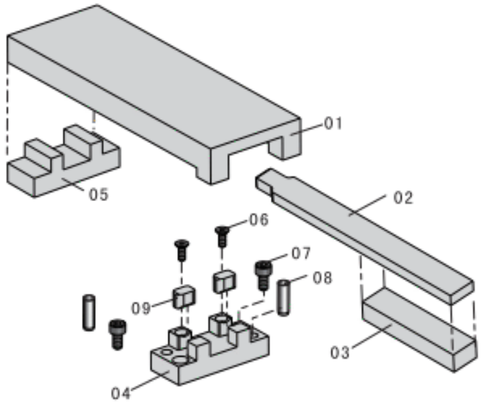
ZZ6-2



DIN

Push Locks

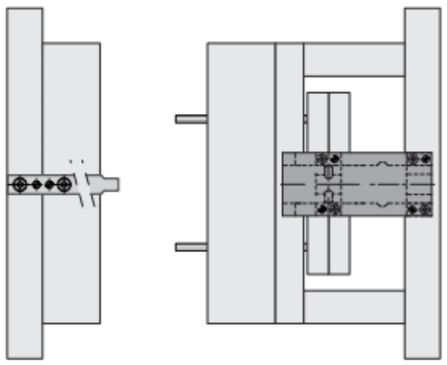
Product space chart:



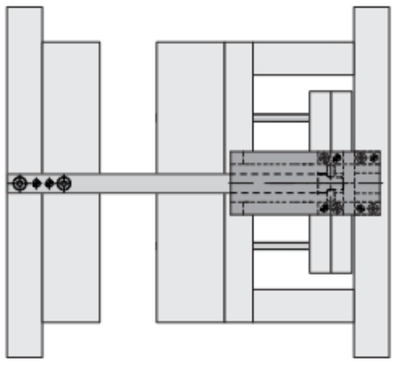
Installation Guidelines:

- This round latch lock is used to early return the ejector plate before mold closing to avoid mold damaged.
- A minimum 2 sets round latch locks must to be mounted symmetrically in mold.
- Make sure the stroke of latch locks are same, otherwise,the uneven force will cause mold damaged.
- S is the maximum stroke of ZZ6 in mold. The final stroke could be confirmed by adjusting the latch housing (04) in use.

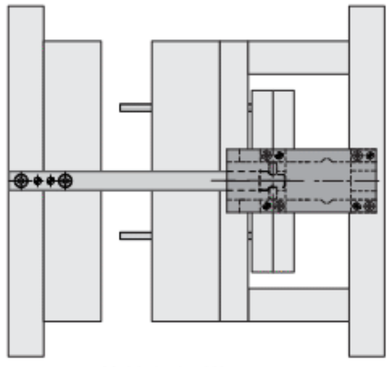
Functional chart:



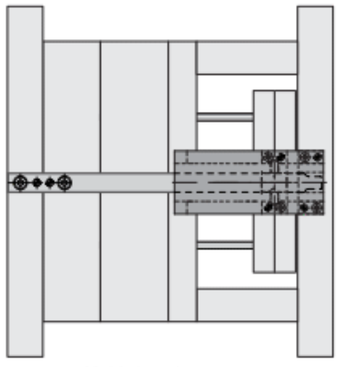
Mold opened



Mold closing(2)



Mold closing(1)

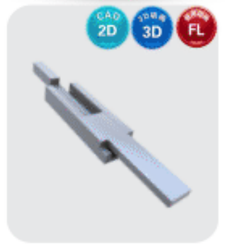


Mold closed

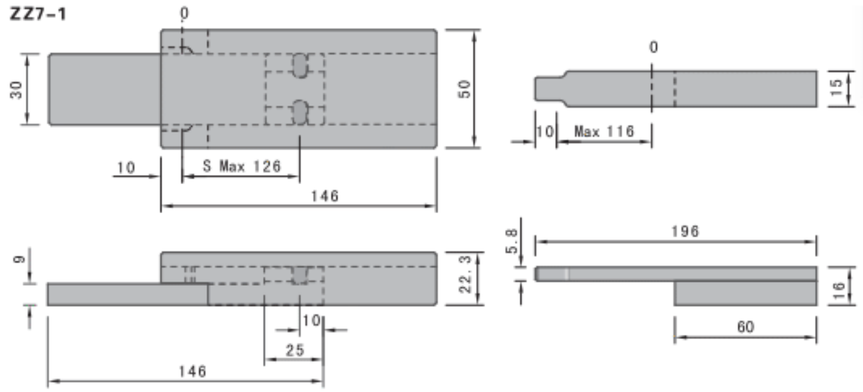
DIN

Push Locks

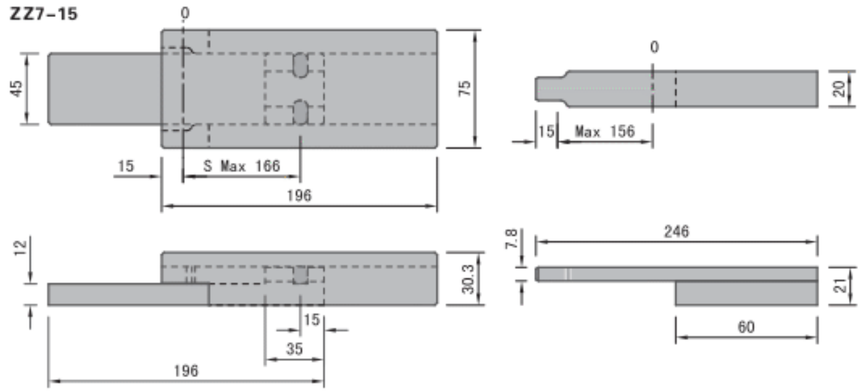
ZZ7



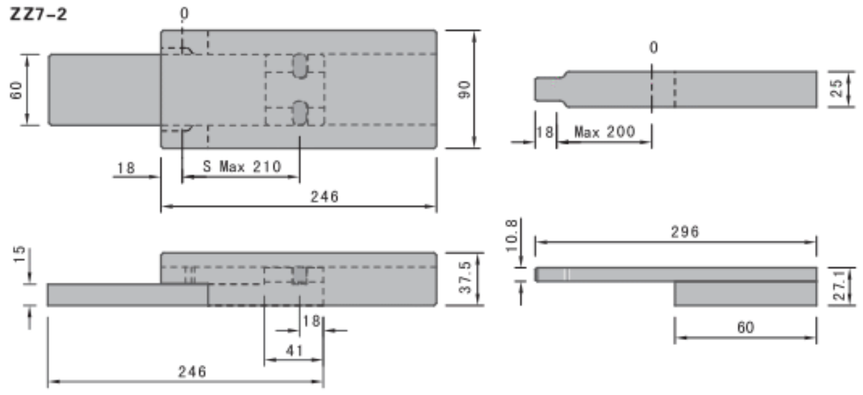
ZZ7-1



ZZ7-15

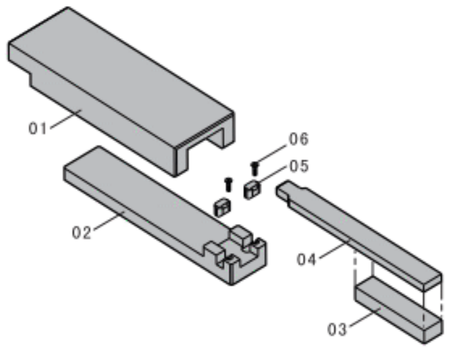


ZZ7-2



Push Locks

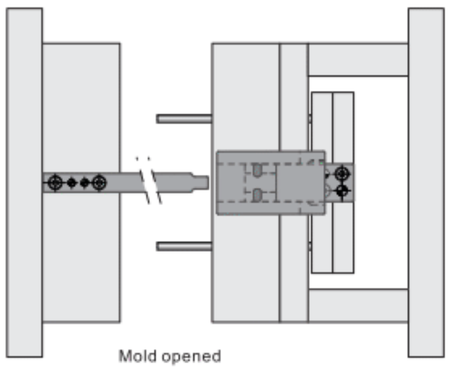
Product space chart:



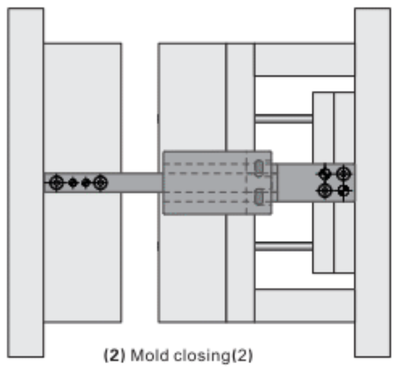
Installation Guidelines:

- This round latch lock is used to early return the ejector plate before mold closing to avoid mold damaged.
- A minimum 2 sets round latch locks must to be mounted symmetrically in mold.
- Make sure the stroke of latch locks are same, otherwise, the uneven force will cause mold damaged
- S is the maximum stroke of ZZ7 in mold.
- The screws (06) without function in mold operation.

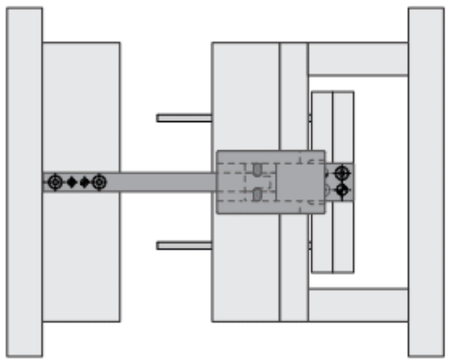
Functional chart:



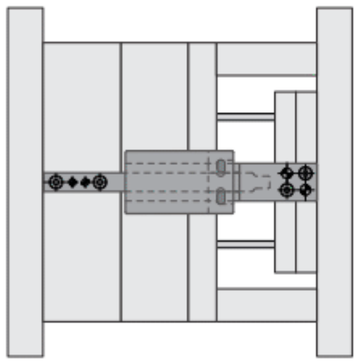
Mold opened



(2) Mold closing(2)

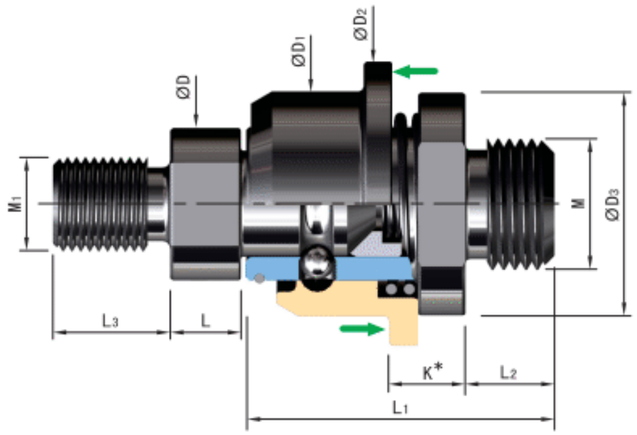


Mold closing(1)



Mold closed

Ejector institutions





DT12

CAD 2D 3D FL

Order DT12-400-A2-B3 Material:SUJ2 Hardness:58-62HRC

Code	D	D1	D2	D3	L	L1	L2	L3	K	拉力(Kgf)	@¥/P
DT12-300-...	0.9	1.26	1.575	1.26	0.425	1.675	0.59	0.79	0.37	1450	
DT12-400-...	1.024	1.496	1.89	1.5	0.498	2.047	0.6	0.787	0.545	2400	
DT12-500-...	1.378	2.205	2.56	2.047	0.653	2.678	0.709	0.984	0.715	3200	
DT12-600-...	1.693	2.52	2.913	2.362	0.709	3.405	0.905	1.181	0.906	10000	
DT12-700-...	2.087	2.992	3.346	2.952	0.474	4.293	1.181		1.2	40000	

DT12-300-...

	M1		M
A1	1/2-13	B1	1/2-13
A2	M12×1.75	B2	5/8-11
		B3	1/2-20
		B4	M12×1.75

DT12-400-...

	M1		M
A1	5/8-11	B1	7/8- 9
A2	M16×2	B2	3/4-10
		B3	M16×2
		B4	M20×1.5
		B5	M20×2.5
		B6	5/8-11

DT12-500-...

	M1		M
A1	5/8-11	B1	7/8- 9
A2	3/4-10	B2	3/4-10
A3	M16×2	B3	M16×2
A4	M20×2.5	B4	M20×1.5
		B5	M20×2.5

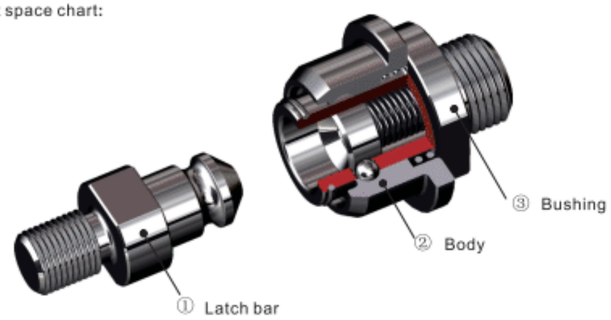
DT12-600-...

	M1		M
A1	1 1/4-7	B1	1 1/2-12

DT12-700-...

	M1		M
A1	1 1/4-7	B1	1 1/2-12

Product space chart:



Ejector institutions

Working diagram:
A: Mold closed.
B: 1st travel stroke: round latch lock opened when part 2(body) reach to the ejector plate.
C: 1st travel stroke finished: The latch bar released totally when part 2(body) reach to K position. Stroke H finished.
D: 2nd travel stroke: latch bar sliding towards right after apart from bushing.
E: Mold closing：latch bar have back into the bush (PS: make sure the latch bar are mounted into bushing exactly before returning the ejector plate).
F: Mold closed.

Installation Diagram:

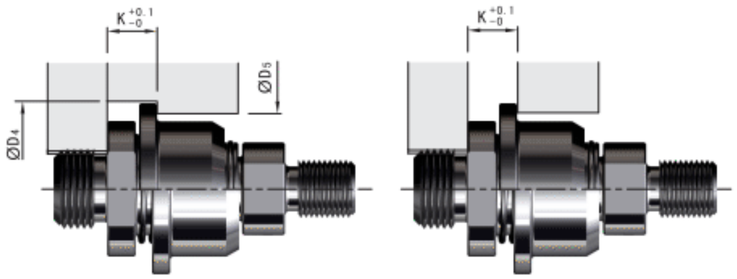
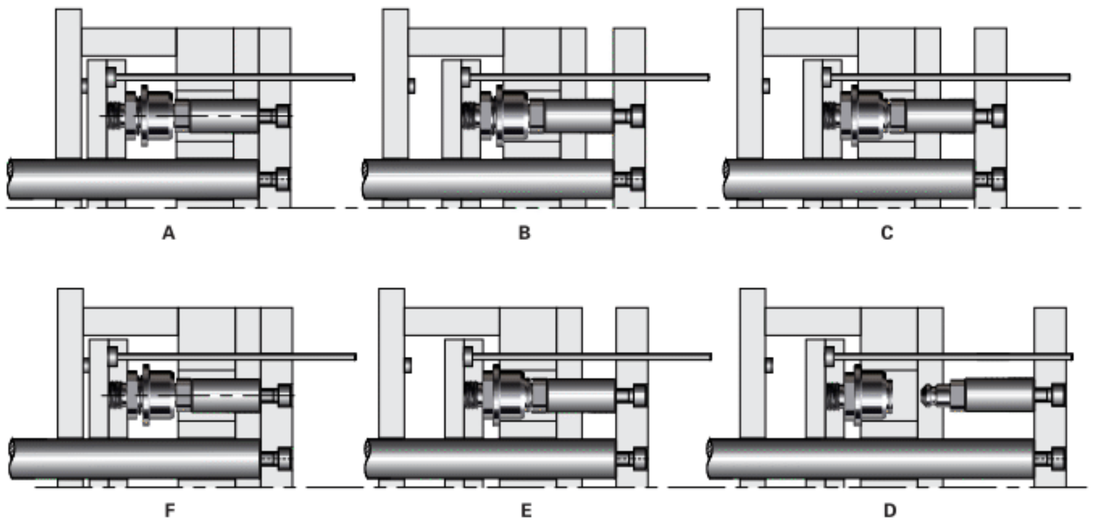


Diagram1

Diagram2

Code	D4	D5
DT12-300-...	1.693	1.338
DT12-400-...	1.99	1.575
DT12-500-...	2.756	2.284
DT12-600-...	3.11	2.598
DT12-700-...	3.425	3.07

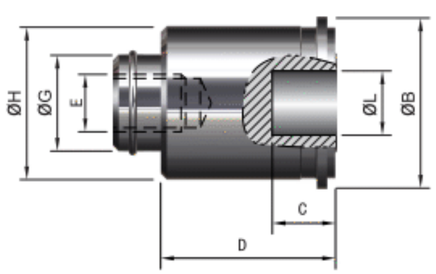
Functional chart:

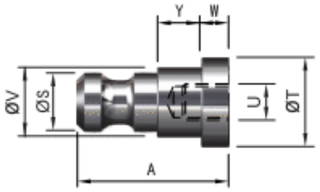


AISI

Ejector institutions

AAR-D







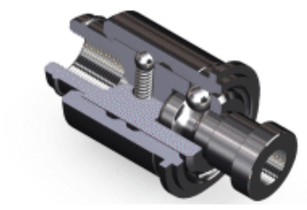
Features:
1.Shorten mold change-over time.
2.Can be put into existing molds to save time and money.
3.Hydraulic return by fixed coupling.

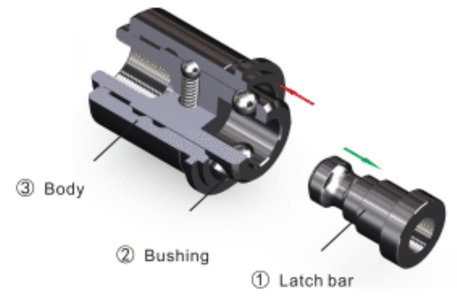
Order AAR-D-01

Code	A	B	C±0.02	D	E	M	N	O +0.05 +0.02	G	H
AAR-D-01	38	43	18	43.5	M16	23	18	7	24	38
AAR-D-02	43	73	24	70.5	M20	42	32		42	67

Code	L	S	Y	U	V	W	T	P Min.	Q Min.	拉力(Kgf)
AAR-D-01	15	14.7	11	M12	17.4	7	22.5	48	C+1	40
AAR-D-02	30	29.5	14	M16	29.4	8	40	80		140

Product space chart:



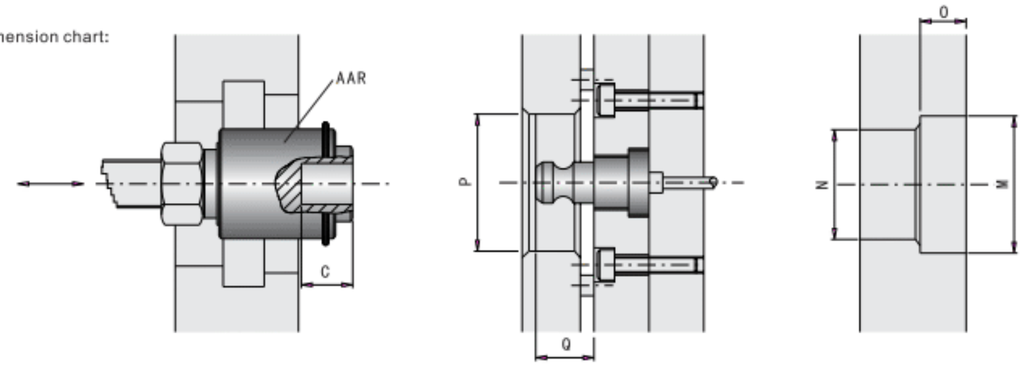


MOLD PARTNER

AISI

Ejector institutions

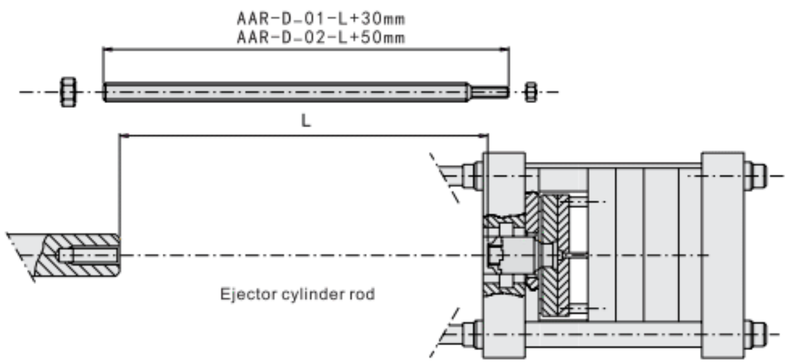
Dimension chart:



Installation Guidelines:

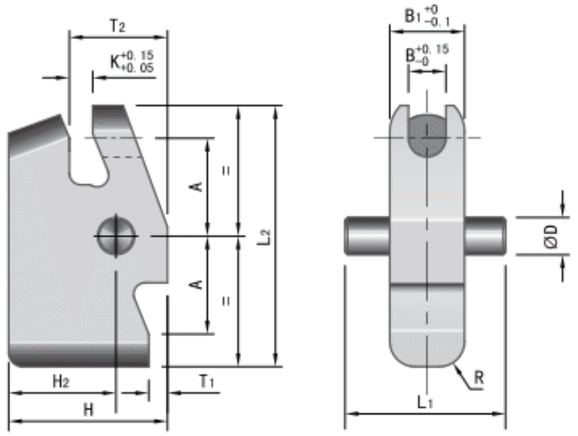
- Move the ejector plate to the molding position (mold closed).
- Move also the ejector cylinder rod to the fully retracted position. It's important to check by hand, that the rod is fully pushed back to the fully retracted position before measuring.
- Measure the distance between the coupling and ejector cylinder rod.
- Extend the ejector cylinder rod with an extra knock-out rod of the measured length +30mm for AAR-D-01 and 50mm for AAR-D-02.
- Move the mold ejector plates to the forward position (mold open).
- Lock both the extra knock-out rod and the other end of the quick coupling.
- Move the mold ejector plates back to the mold closed position and make the coupling between ejector plate and ejector cylinder rod. Make sure that the ejector plate and ejector cylinder rod are both in the mold closed position as soon as the coupling is made, if not, adjust.
- Do not use with quick mold change systems.
- One set AAR for one mold only.

Installation Diagram:



DIN

Accelerated ejectors





ZZ141

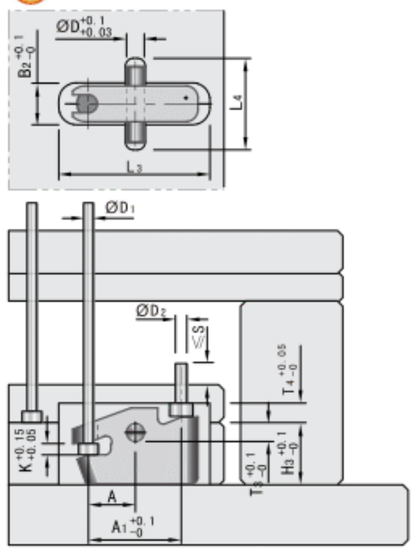
Order ZZ141-3 Material:Cr12MoV Hardness:56±2HRC

Code	D	D2	B	B1	B2	B3	A	A1	T1	T2	T3	T4
ZZ141-3	4	4	3	8	8.5	4	10	20	2	10	4	4
ZZ141-6	8	8	6	16	16.5	8	21	42	4	21	8	8
ZZ141-8			8									

D1	L1	L2	L3	L4	H	H2	H3	K	R	S	@¥/P
3	16	26	31	23	19	14	16	3	4	2.5	
6	36	56	63	45	34	23	27	5	8	7.6	
8											

Functional chart:

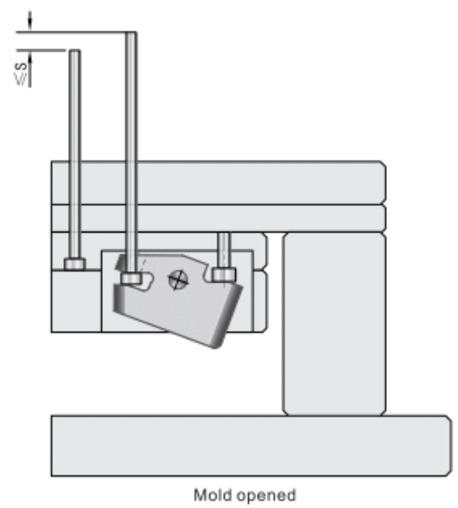
Installation Diagram:



Mold closed

Features:

1. Mount 1pcs ejector pin can enlarge the stroke during ejecting.
2. Save space and cost.



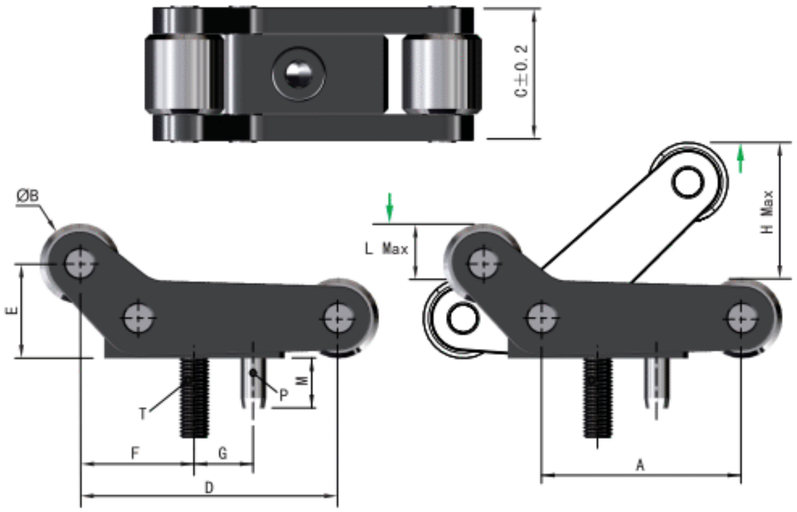
Mold opened

DIN

Accelerated ejectors

EEP





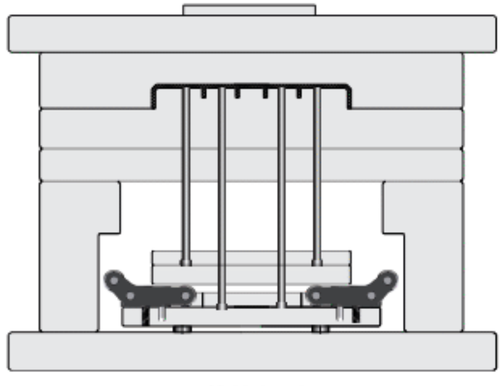
Order EEP-20

Code	A	B	C	D	E	F	G	H max.	L max.	M	N	P	T	(Kg) max.force	@¥/P
EEP-20	20	8	13.2	25.8	9.4	11.4	6	13.6	5.5	5	15	Ø2.5×10	M3×12	M3×12	
EEP-25	25	10	16	32.3	11.8	14.3	7	17	6.8	6	18.5	Ø 3×12	M4×16	M4×16	
EEP-37	37.5	15	22	48.5	17.7	21.5	10.5	25.5	10.2	8	25	Ø 4×16	M6×25	M6×25	
EEP-50	50	20	29.6	64.6	23.6	28.6	14	34	13.6	10	34	Ø 5×20	M8×30	M8×30	

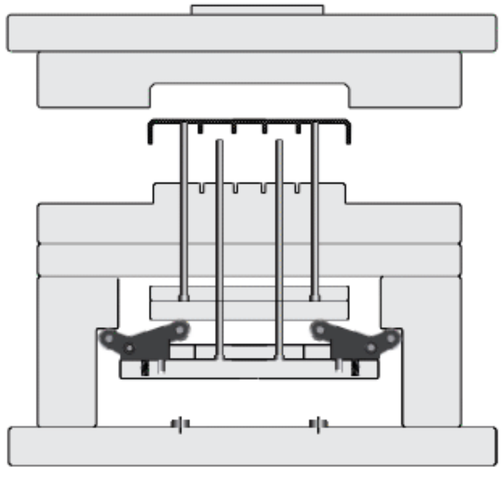
Features:
1. Simple mechanical,minimum space double ejection system.

Installation Guidelines:
- Mount the EEP onto B plate so that can help increasing movement of A plate while ejecting.
- A minimum 2 units must be assembled symmetrically to ensure a balanced movement is achieved.

Functional chart:



Mold closed

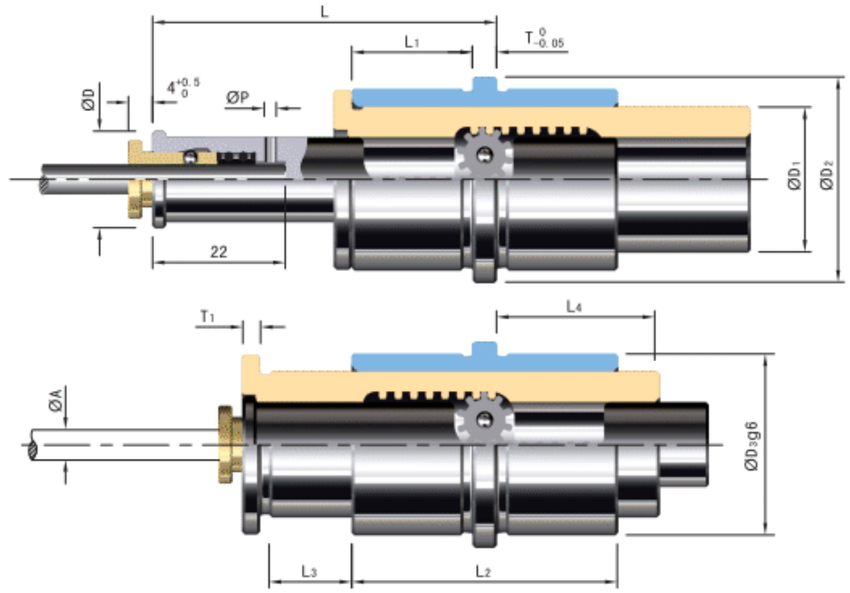


Mold opened

DIN

Accelerated ejectors

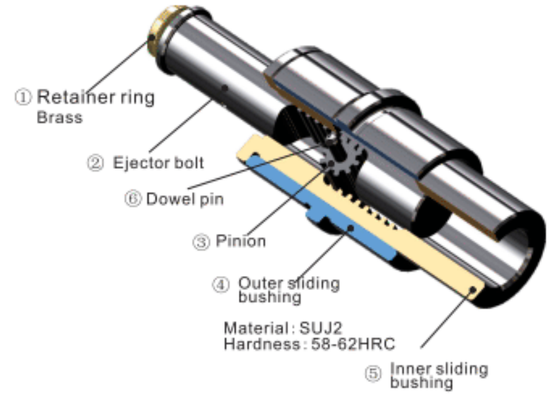
AAE



Order AAE-031620 Material:SKD61 Hardness:48-52HRC

Code	A	D	D1	D2	D3	L	L1	L2	L3	L4	L5	F	P	T	T1	@¥/P
AAE-031620	3	12.5	16	22	20	37	14	32	8	17	22	13	-	4	3	
AAE-041620	4															
AAE-052430	5	16	24	34	30	57	20	44	15	27	36	16	2			
AAE-062430	6															
AAE-082430	8	17										17				
AAE-103036	10	21.5	30	40	36	78	28	62	20	34	46	21		6	4	
AAE-123036	12															

Product space chart:



Features:
1.Quick replacement of ejector pin,minimum space required,save your cost.

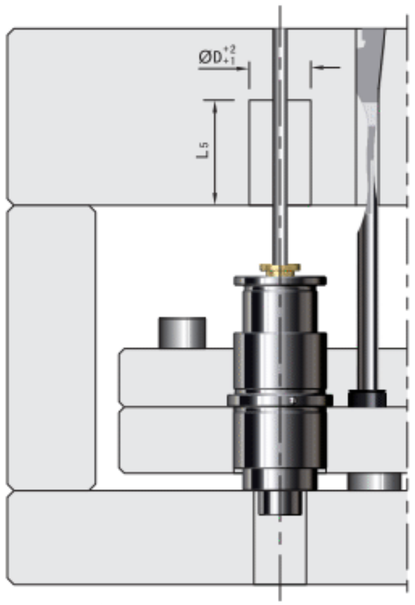
Installation Guidelines:
- The round pocket (ØP) is needed to install dowel pin to stop the turning of ejector pin.
- All mounting holes should be perpendicular to parting surface.

MOLD PARTNER

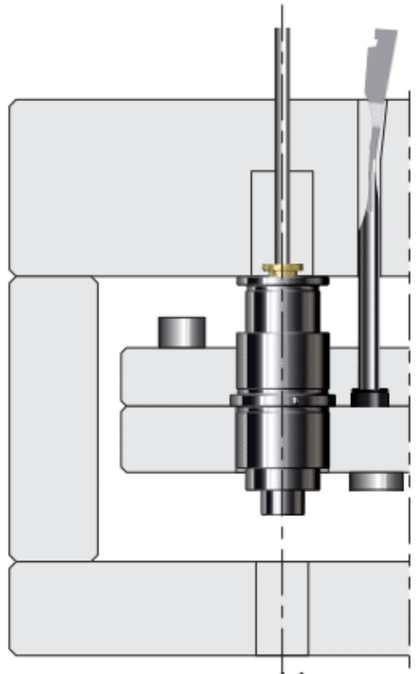
DIN

Accelerated ejectors

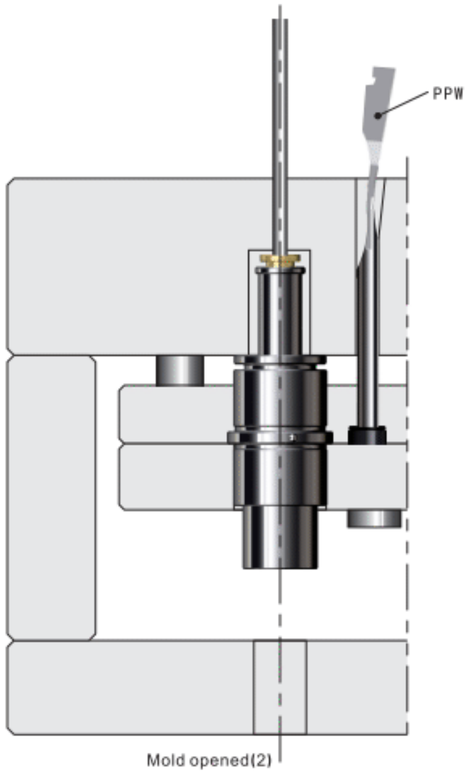
Functional chart:



Mold closed

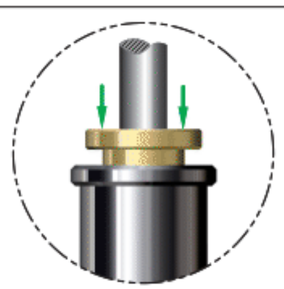


Mold opened(1)

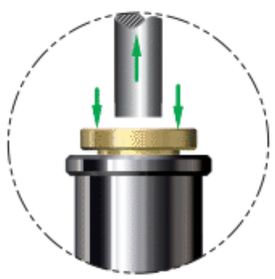


Mold opened(2)

Dismount the ejector pin:



Press down the cooper bush



Pull the ejector pin in the bush

AISI

Accelerated ejectors

AAEB
AAEP

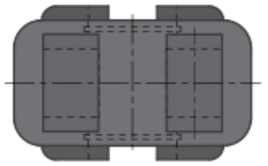
CAD 2D 3D FL

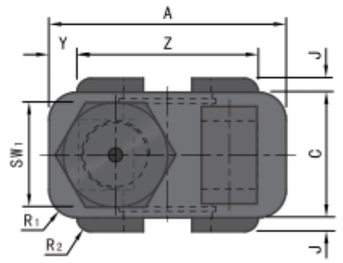


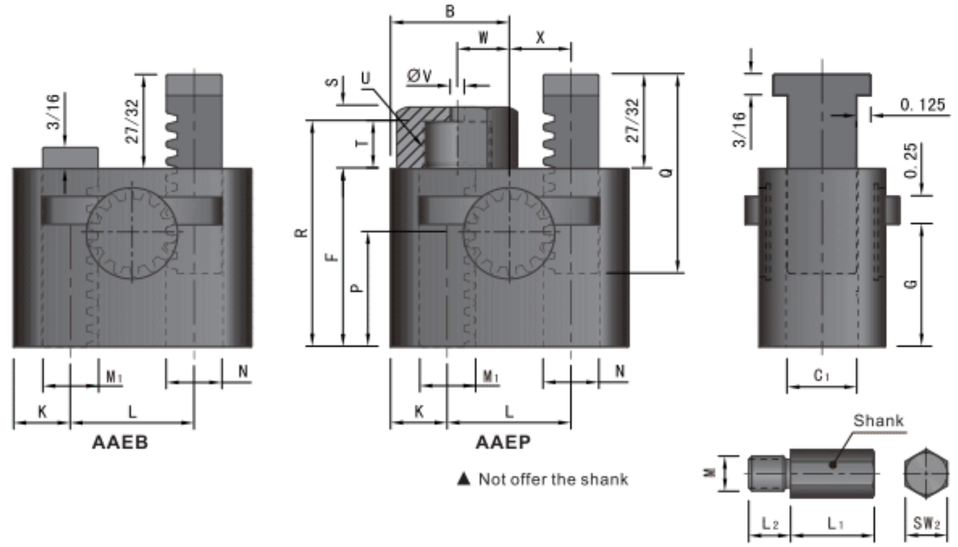
AAEB



AAEP







▲ Not offer the shank

Order AAEB-10

A	B	C	E	F	G	H	J	K	L	M1	N	P	Q	R	S	T
2.125 0/- 0.002	1.062 0/- 0.002	1.125 0/- 0.002	9/16	1.6	1.1	1/2	0.125 ±0.002	0.51	1.103	1/2	1/2	1.03	1.783	2.025 -	0.55 -	0.425 -
2.875 0/- 0.004	1.437 0/- 0.002	1.625 0/- 0.002	13/16	1 7/8	1 1/4	5/8	0.187 ±0.002	5/8	1 5/8	3/4	3/4	1.016	2 1/16	2 3/8 -	0.68 -	1/2 -

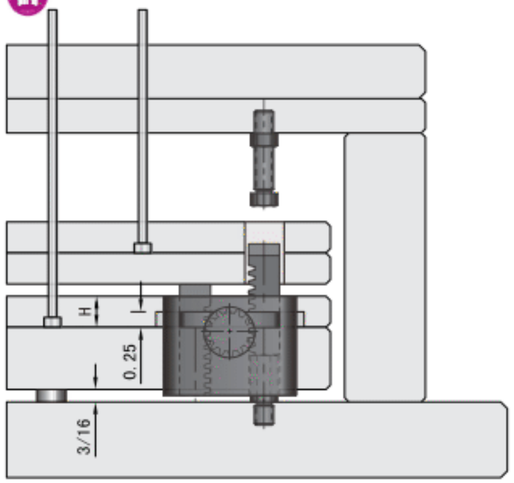
Code	U	V	W	X	Y	Z	Sw1	Sw2	R1	R2	L1	L2	C1	M	@¥/P
AAEP-10	5/8-18	1/8	0.491	0.551	0.25	1.625	15/16 -	3/ 8	1/ 4	1/4	3/4	3/8	5/8	5/16-18	
AAEB-10	-	-	-												
AAEP-20	1 1/8-12	1/4	5/8	13/16		2.375	1 3/8 -	9/16	3/16		0.72	1/2	1 1/8	3/ 8-16	
AAEB-20	-	-	-												

AISI

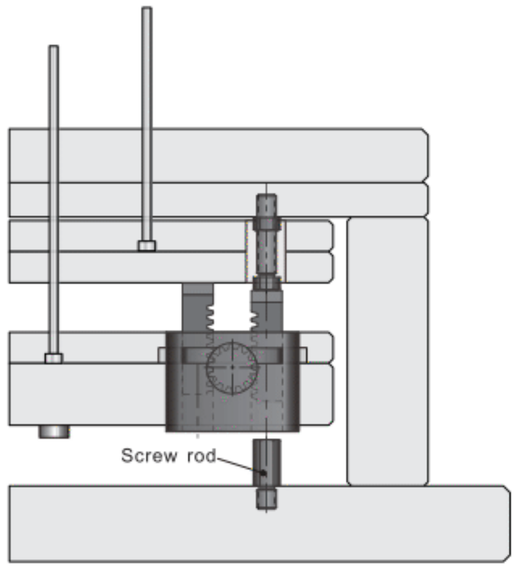
Accelerated ejectors

Features:
Accelerated ejectors use a rack and pinion mechanism to provide up to 15.8 mm additional ejector stroke. Their simple,linear movement can be used to increase the speed and stroke of ejector pins, ejector sleeves or entire ejector assemblies. The flanges and rounded corners on these units facilitate installation within the ejector assembly. The rectangular cross section of the racks prevents them from rotating. Included with each unit is a bumper stud which assures positive return of the racks when the ejector assembly is fully returned.

Functional chart AAEB:

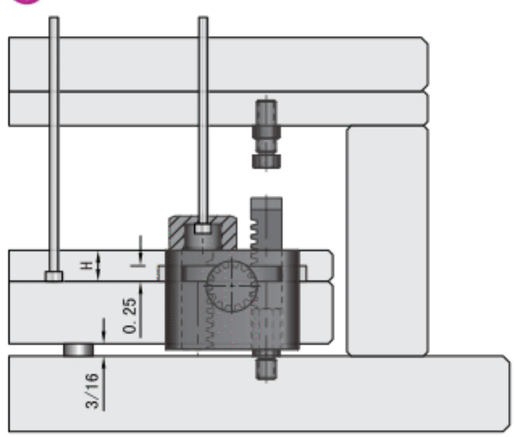


Mold closed

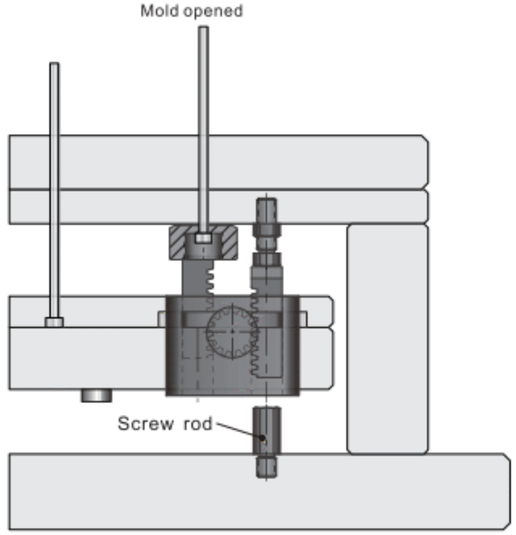


Mold opened

Functional chart AAEP:



Mold closed

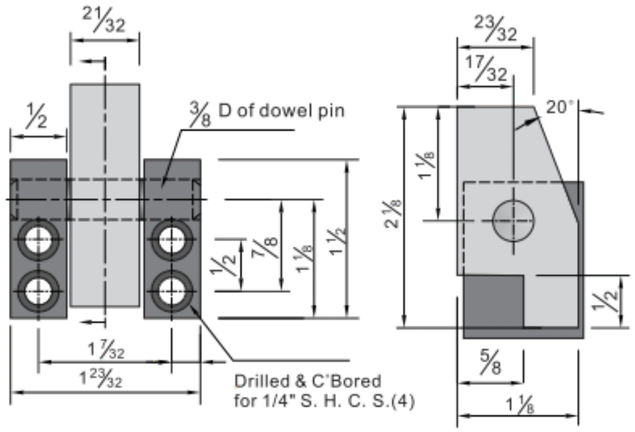


Mold opened

AISI

Accelerated ejectors

AAKO



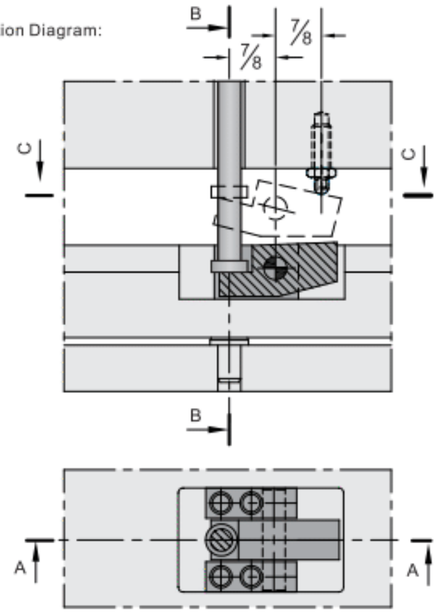


Order AAKO

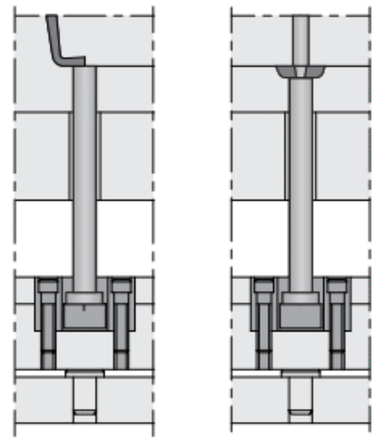
Code	@¥/P
AAKO	

Features:
The products can not be demoulded completely in the first eject if the mold has thick rib or needs greater force to demould,so that requests demould by hand or by adding the ejector stroke and then increase the mold structure.
If use the accelerated ejectors,it can solve the above problem and then improve the automation and simplify the structure.

Installation Diagram:



Functional chart:



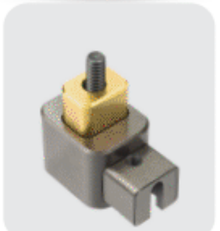
B–B
Application 1

B–B
Application 2

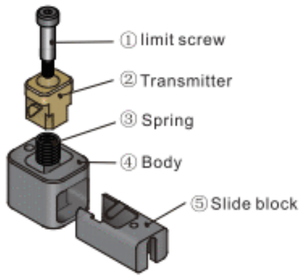
AISI

Slide units

CCA
CCAMM



Product space chart□



☎Order CCA-100

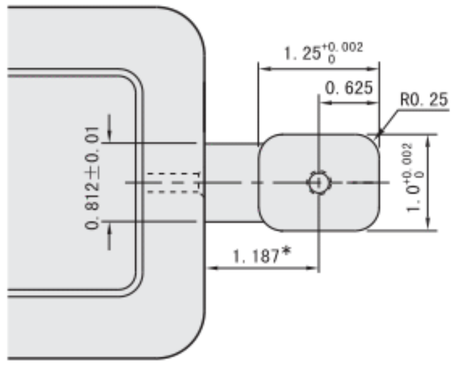
Code	@¥/P
CCA-100(Inch) CCAMM-100 (Metric)	

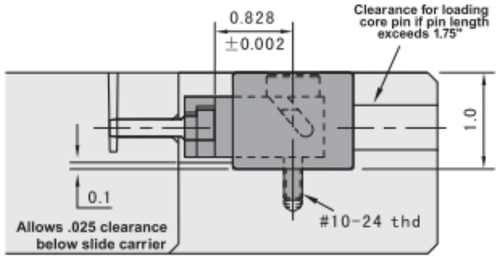
Stroke=0.16"(4mm)

Features:
1.Small shape,easy to install and use.
2.Body ,slide block,transmitter,limit screw,springs are a complete set ,No need to extra processing the angle pin hole and other complicated processing.

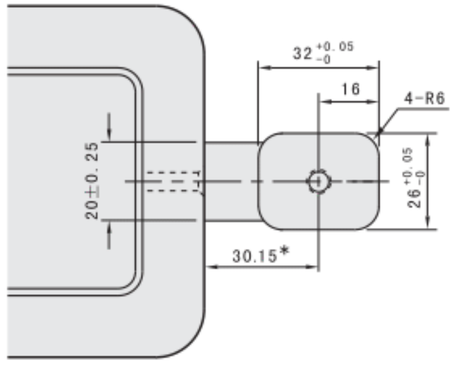
Installation Diagram:

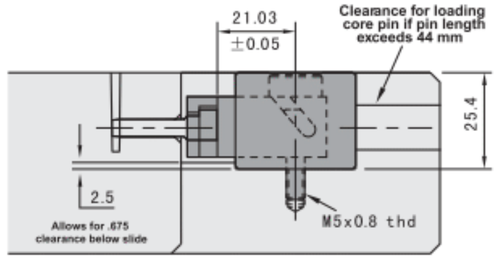
CCA-100 Inch standard





CCAMM-100 Metric standard

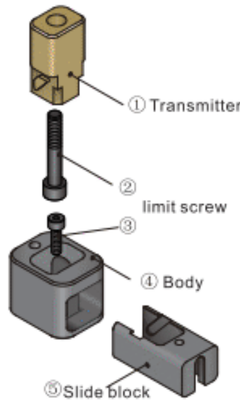




CCA
CCAMM



Product space chart:



④⑤ Surface blackening treatment
① Surface titanizing treatment

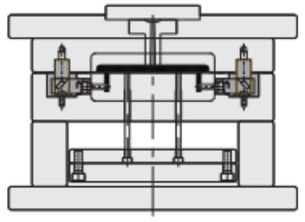
☎Order CCA-200

Code	@¥/P
CCA-200 (Inch)	
CCA-200L(Inch)	
CCAMM-200 (Metric)	
CCAMM-200L (Metric)	

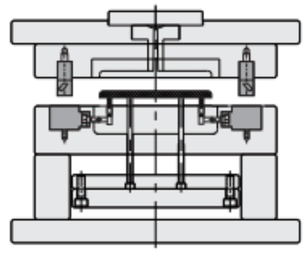
Stroke=0.23''(5.8mm)

Features:
1.Small shape,easy to install and use.
2.body,slide block ,transmitter,limit screw are a complete set,No need to extra processing the angle pin hole and other complicated processing.

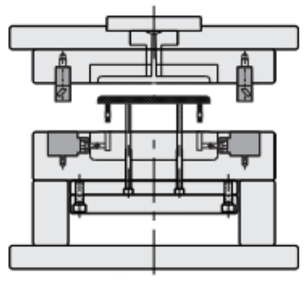
Functional chart:



Mold closed



Mold opening



Mold closed

Installation Guidelines:
- Refer to size drawing to processing installed holes .
- Transmitter will be fixed on A plate by limit screw,body and slide block are both fixed on B plate .
- When mold opening,transmitter drive slide block to move,After transmitter completely drop away from body slide block,ejector pin push plastic parts will finished whole release molds procedure.

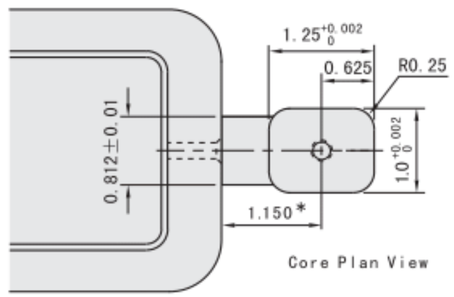
AISI
Slide units

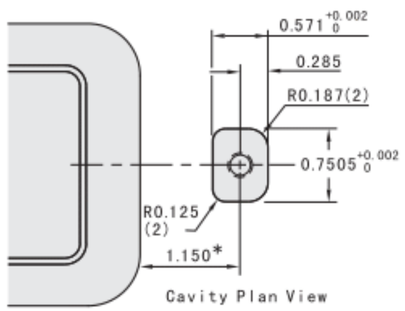
CCA
CCAMM

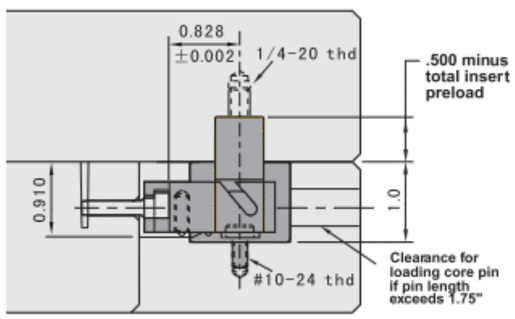


Installation Diagram:

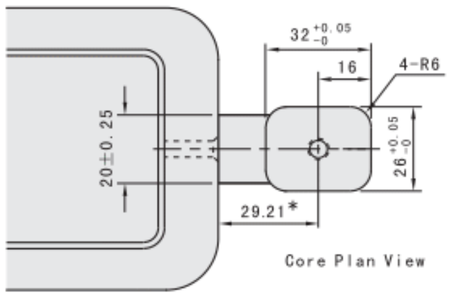
CCA-200/200L Inch standard

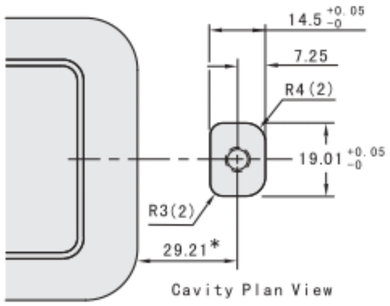


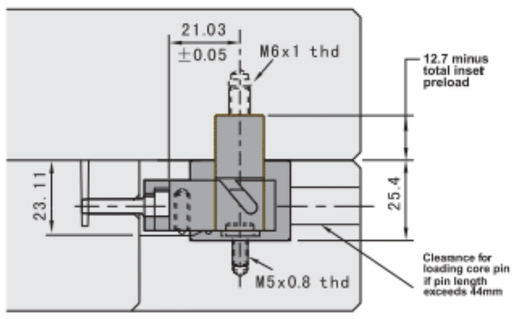




CCAMM-200/200L Metric standard



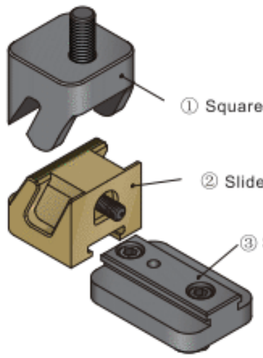




AISI
Slide units

CCA

Product space chart:



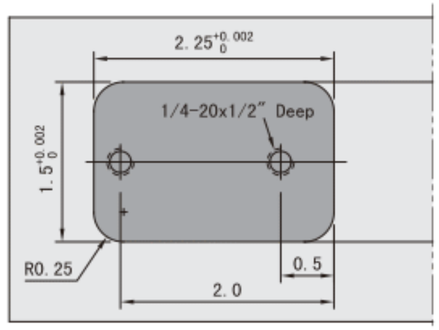


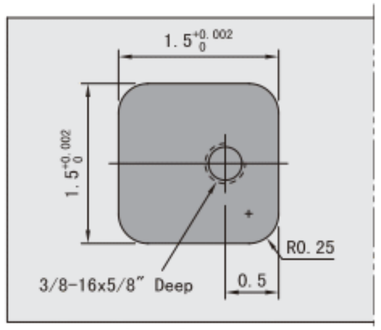
Order CCA-300

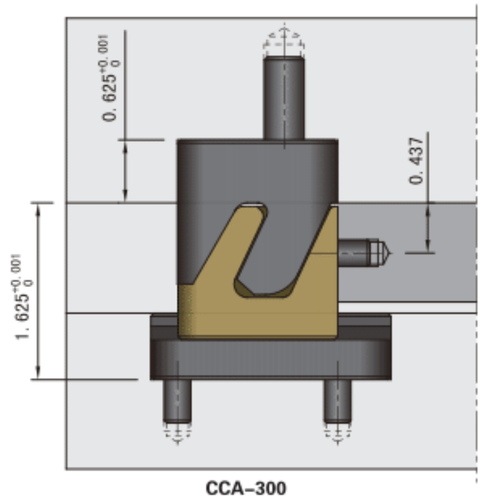
Code	@¥/P
CCA-300	
CCA-300L	

Stroke=0.25"

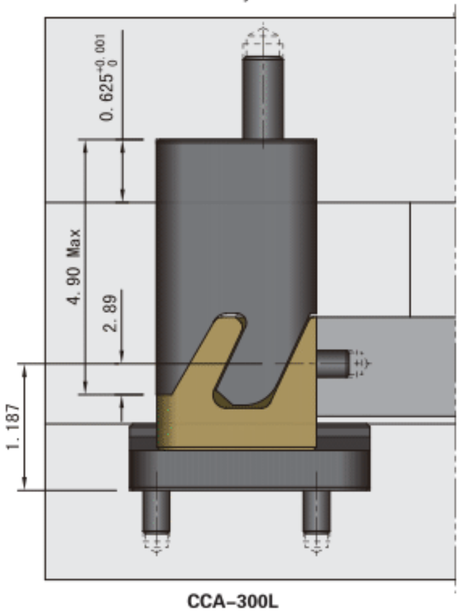
Installation Diagram:







CCA-300



CCA-300L

MOLD PARTNER

AISI

Slide units

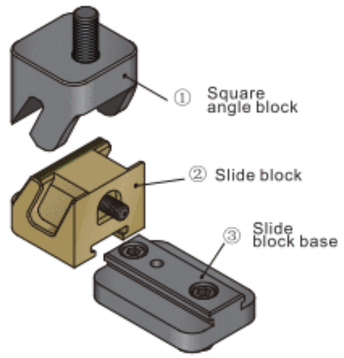
CCAMM



Product space chart:

①③ Surface blackening treatment

② Surface titanizing treatment

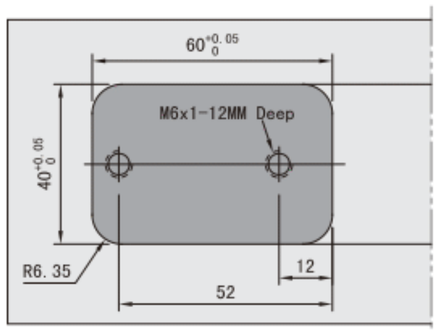


☎Order CCAMM-300

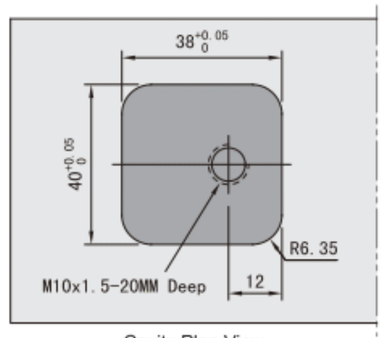
Code	@¥/P
CCAMM-300	
CCAMM-300L	

Stroke=6.35mm

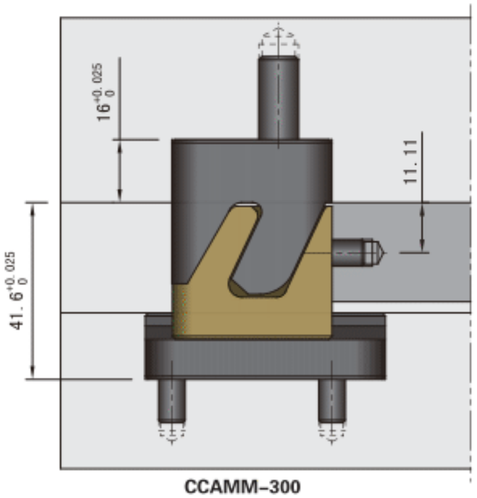
Installation Diagram:



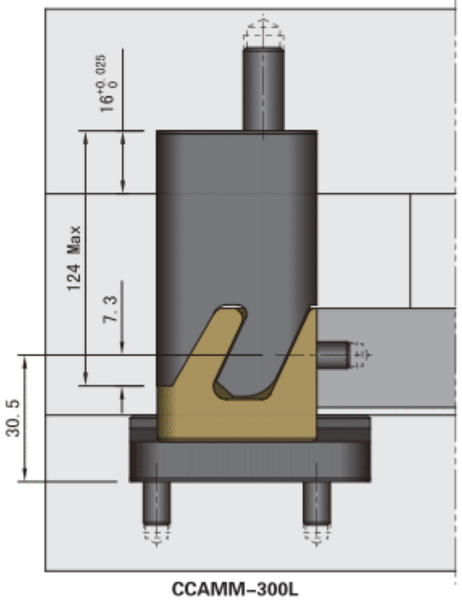
Core Plan View



Cavity Plan View



CCAMM-300



CCAMM-300L

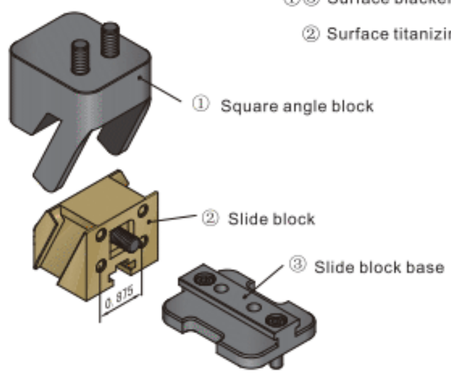
CCAMM



Product space chart:

①③ Surface blackening treatment

② Surface titanizing treatment

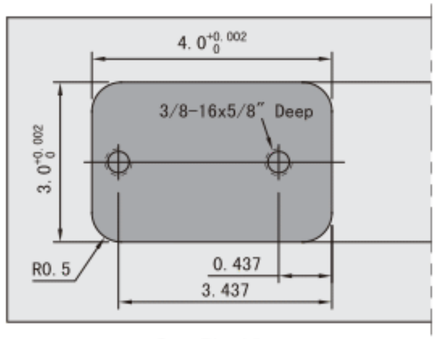


☎Order CCAMM-400

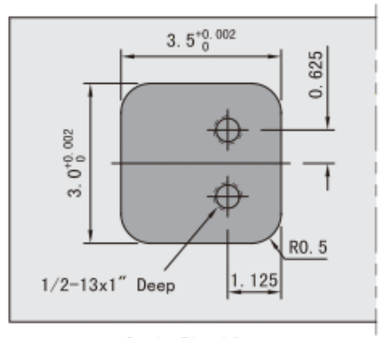
Code	@¥/P
CCAMM-400	

Stroke=1"

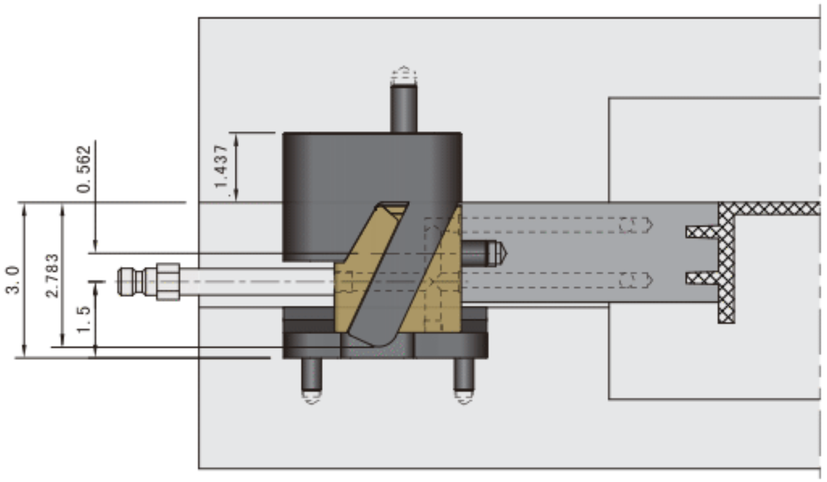
Installation Diagram:



Core Plan View

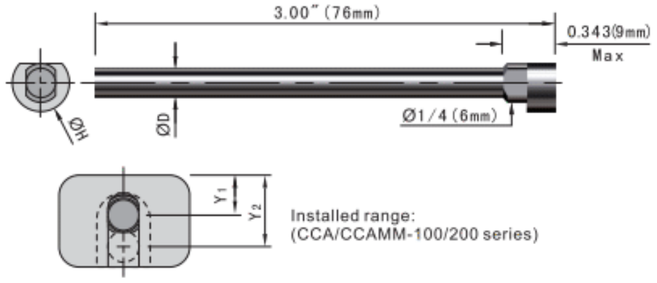


Cavity Plan View



AISI
Core pin

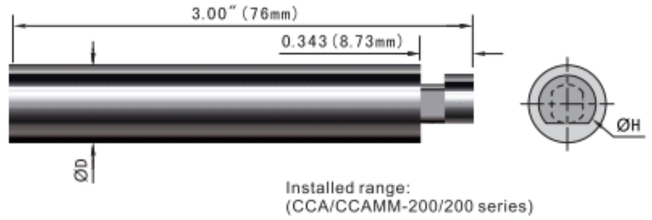
CCAP1
CCAPMM



Order CCAP1-187 Material:SKH51 Hardness:58-62HRC

Code	D	H	Y1	Y2	@¥/P
CCAP1- 187	0.1872/0.1869	0.37	0.5	0.75	
CCAP1- 375	0.3747/0.3744			0.688	
CCAPMM- 5	4.994/5.006mm	9.5mm	12.7mm	19.05mm	
CCAPMM-10	9.984/9.992mm			17.4 mm	

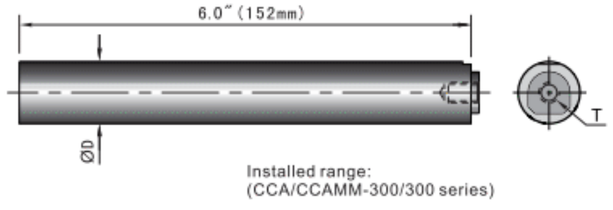
CCAP2
CCAP2MM



Order CCAP2-500 Material:SKH51 Hardness:58-62HRC

Code	D	H	@¥/P
CCAP2-500	0.5001/0.5003	0.37	
CCAP2MM-13	13.002/13.007mm	9.5mm	

CCAP3
CCAP3MM

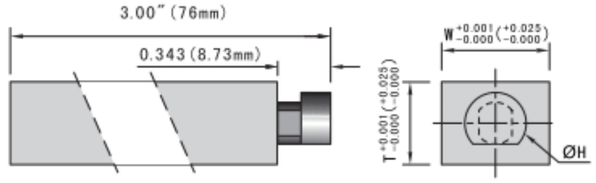


Order CCAP3-750 Material:SKH51 Hardness:58-62HRC

Code	D	T	@¥/P
CCAP3-750	0.7504/0.7508	1/4-20	
CCAP3MM-19	19.009/19.019mm	M6-1	

AISI
Core pin

CCSE2



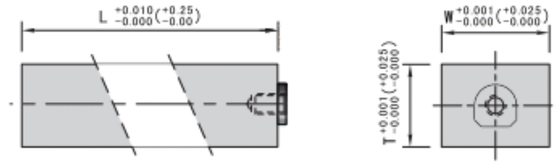
Usage range :(CCA/CCAMM-200/200L series)



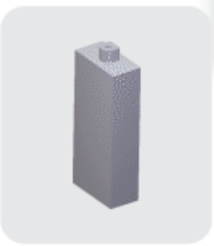
Order CCSE2-62×75 Material:P20 Hardness:≈900HV(Nitrided)

Code	T	W	H	@¥/P
CCSE2-62×75	0.625	0.75	0.37	
CCSE2MM-16×19	16mm	19mm	9.5mm	

CCSE3



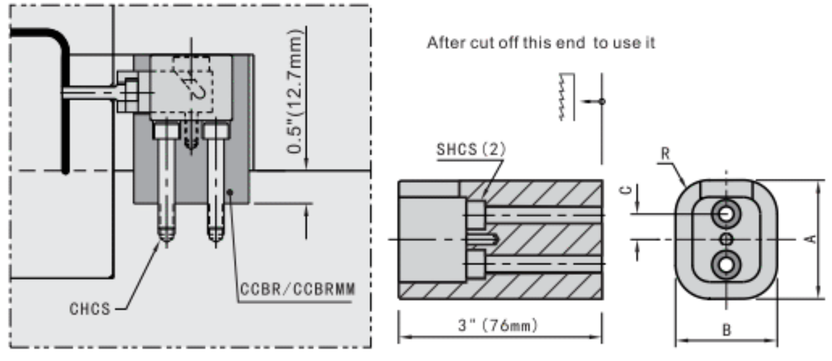
Usage range :(CCA/CCAMM-300/300L series)



Order CCSE3-50 Material:P20 Hardness:≈900HV(Nitrided)

Code	T	W	L	@¥/P
CCSE3- 50	0.875	1.5	0.5	
CCSE3-200			2	
CCSE3MM-12	22mm	38mm	12mm	
CCSE3MM-50			50mm	

CCBR





Order CCBR-100

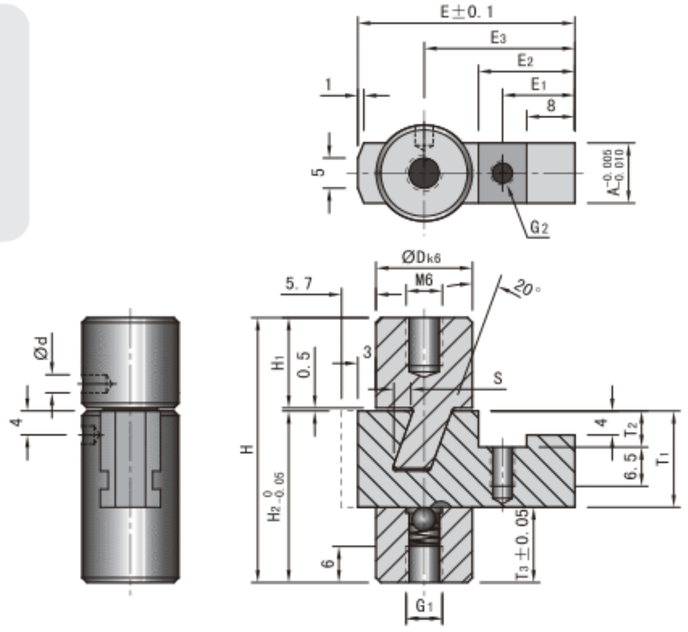
Code	A	B	C	R	SHCS	@¥/P
CCBR-100	1.750	1.50	0.375	0.50	1/4-20	
CCBRMM-100	44mm	38mm	10mm	12.7mm	M6-1	

DIN

Slide units

ZZ4290-0



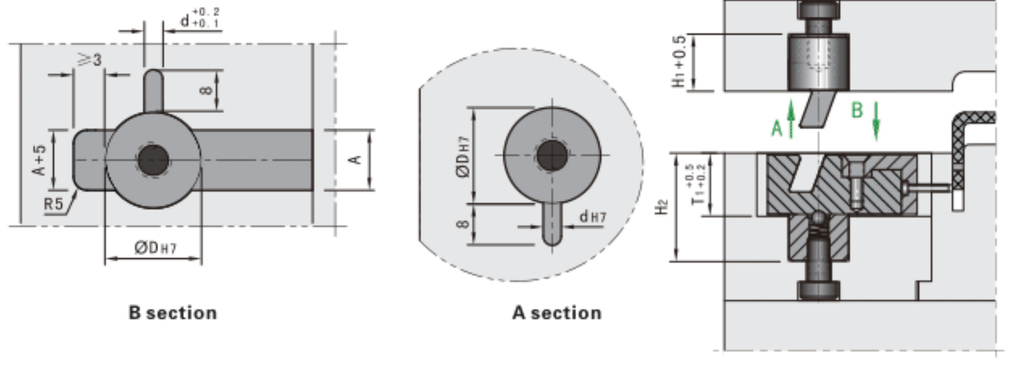


Order ZZ4290-0 Material:SKD61 Hardness:52±2HRC

d	D	A	S	H	H1	H2	G1	G2
3	16	10	2.7	44	15	28.5	M6	M4

Code	T1	T2	T3	E	E1	E2	E3	@¥/P
ZZ4290-0	16	6	12.5	36	12	16	25	

Installation Diagram:

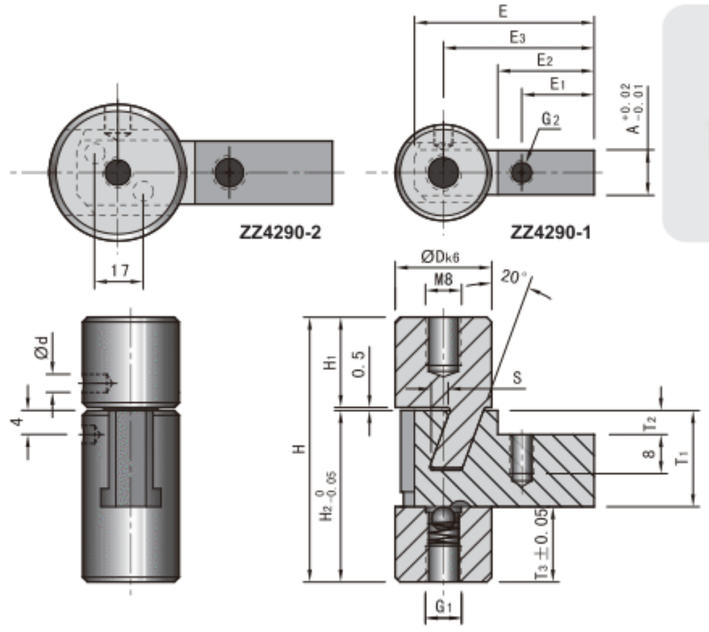


DIN

Slide units

ZZ4290-1 ZZ4290-2



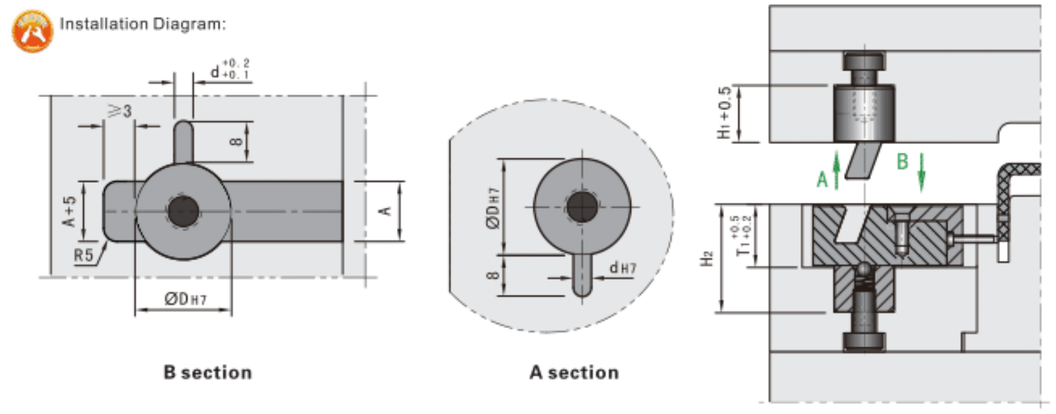


Order ZZ4290-1 Material:SKD61 Hardness:52±2HRC

d	D	A	S	H	H1	H2	G1	G2
3	25	11	3.4	61.5	26.5	34.5	M6	M3
4	40	22	6.4	60.5	20	40	M8	M5

Code	T1	T2	T3	E	E1	E2	E3	@¥/P
ZZ4290-1	18	2.5	16.5	32.8	10.8	13.9	24.2	
ZZ4290-2	28	8	12	50	8	20	37	

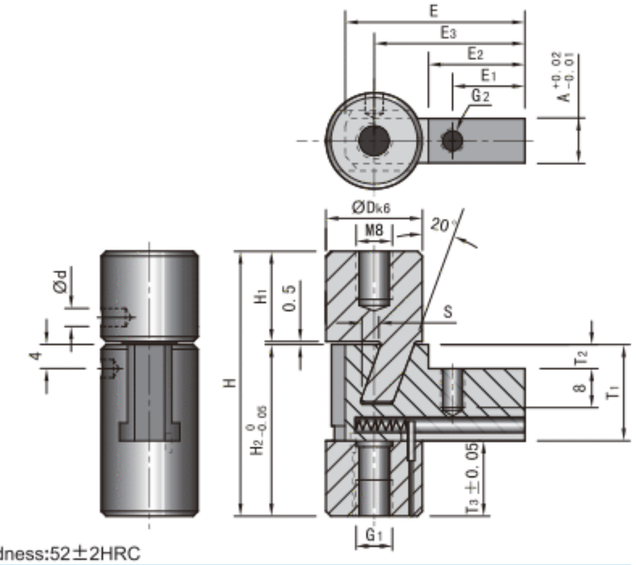
Installation Diagram:



DIN
Slide units

ZZ4292



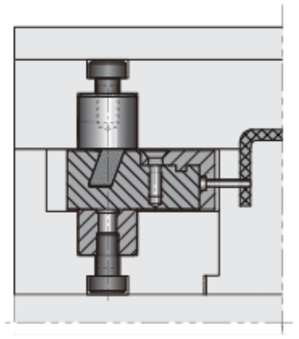


Order ZZ4292-1 Material:SKD61 Hardness:52±2HRC

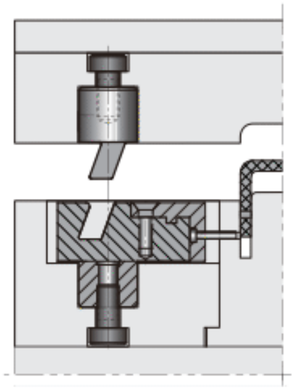
d	D	A	S	H	H1	H2	G1	G2
3	25	11	3.4	61.5	26.5	34.5	M6	M3
4	40	22	6.4	60.5	20	40	M8	M5

Code	T1	T2	T3	E	E1	E2	E3	@¥/P
ZZ4292-1	18	2.5	16.5	32.8	10.8	13.9	24.2	
ZZ4292-2	28	8	12	50	8	20	37	

Functional chart:



Mold closed



Mold opening

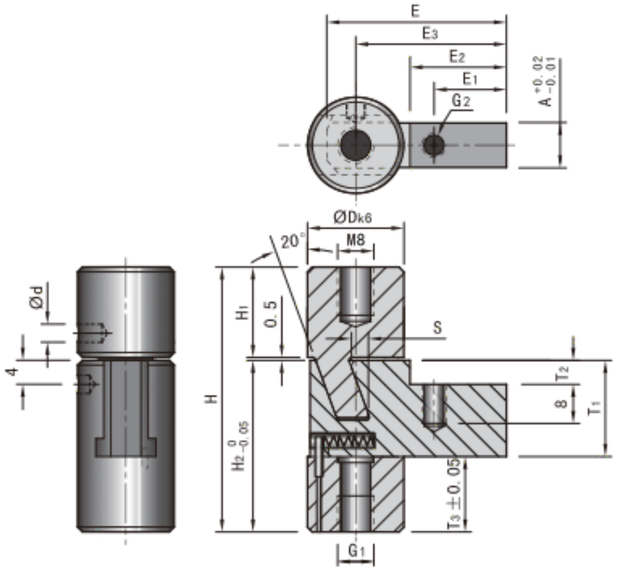
Features:
1.Well-knit structure,save room can reduce mold whole size.
2.Complete product specifications,apply to more occasion.
3.Easy to install and convenient for maintenance.

Installation Guidelines:
・The position of slide core need customer to processing.
・Please notes all movable parts must be lubricated smoothly

DIN
Slide units

ZZ4293



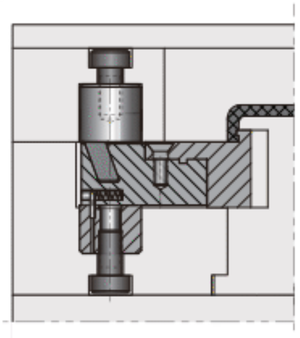


Order ZZ4293-1 Material:SKD61 Hardness:52±2HRC

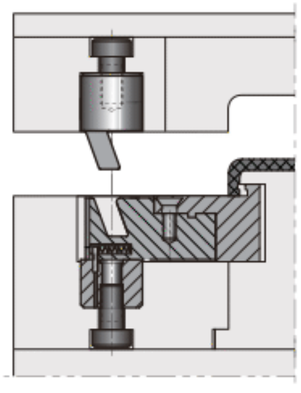
d	D	A	S	H	H1	H2	G1	G2
3	25	11	3.4	61.5	26.5	34.5	M6	M3
4	40	22	6.4	60.5	20	40	M8	M5

Code	T1	T2	T3	E	E1	E2	E3	@¥/P
ZZ4293-1	18	2.5	16.5	36	10.8	13.9	24.2	
ZZ4293-2	28	8	12	56.5	8	20	37	

Functional chart:



Mold closed



Mold opening

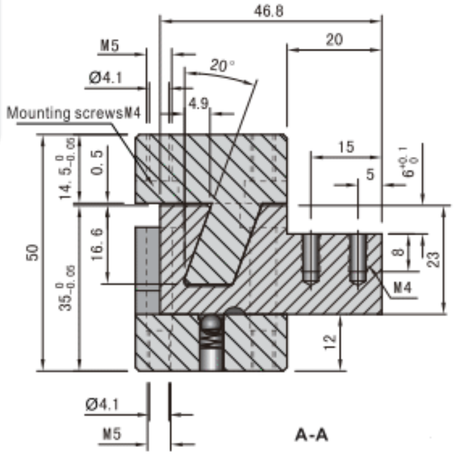
Features:
1.Well-knit structure,save room can reduce mold whole size.
2.Complete product specifications,apply to more occasion.
3.Easy to install and convenient for maintenance.

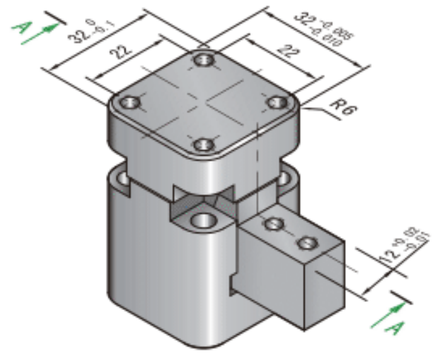
Installation Guidelines:
・The position of slide core need customer to processing.
・Please notes all movable parts must be lubricated smoothly

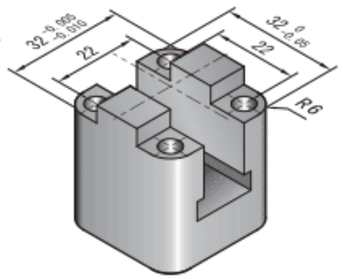
DIN
Slide units

ZZ4294



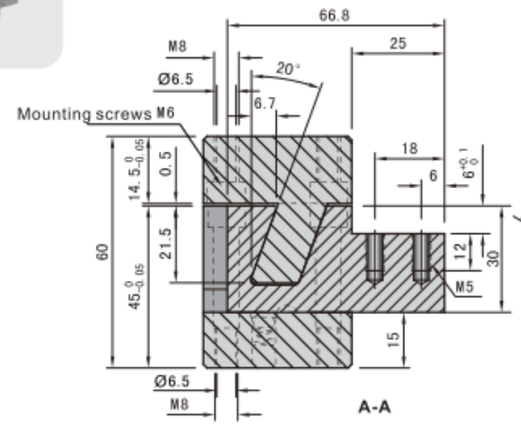


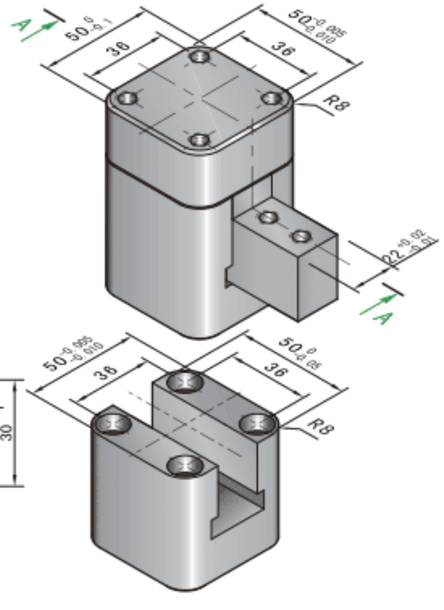




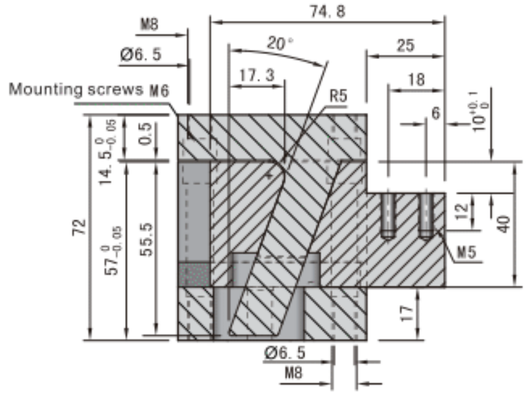
Order ZZ4294-0 Material:SKD61 Hardness:52±2HRC

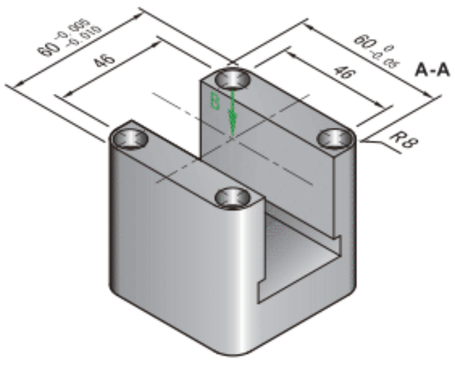




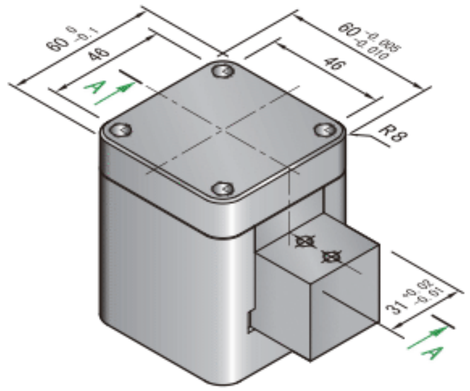


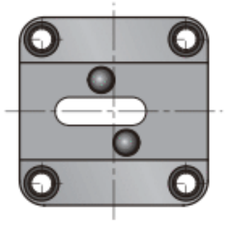
Order ZZ4294-1 M Material:SKD61 H Hardness:52±2HRC











B section

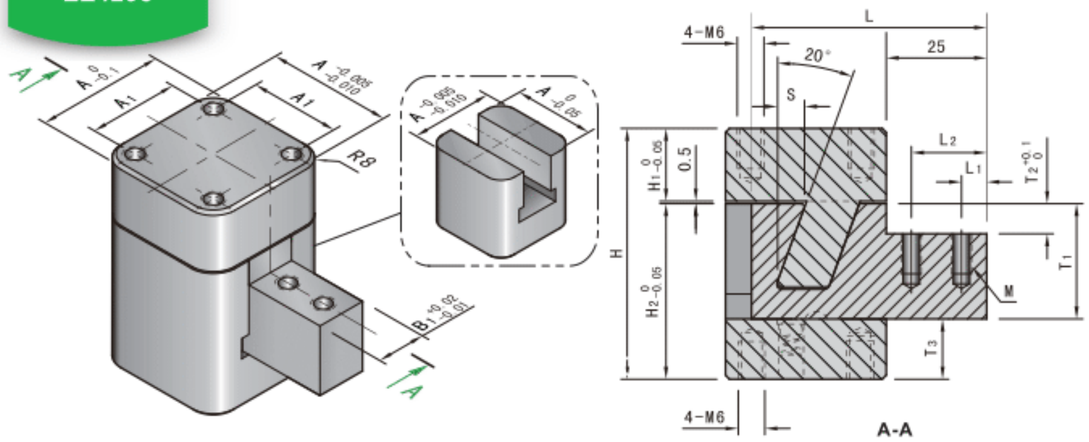
Order ZZ4294-2 Material:SKD61 Hardness:52±2HRC

Features:
1. Lengthening stroke ,Max stroke reach 17.3mm.
2. Adopt to double wave pearl structure locking slide block to prevent slide block unexpected to slide make wrong position and broke.
3. Well-knit structure ,save room can reduce mold whole size.
4. Easy to install and convenient for maintenance.

Installation Guidelines:
- The position of slide core need customer to processing.
- Please notes all movable parts must be lubricated smoothly

DIN
Slide units

ZZ4295

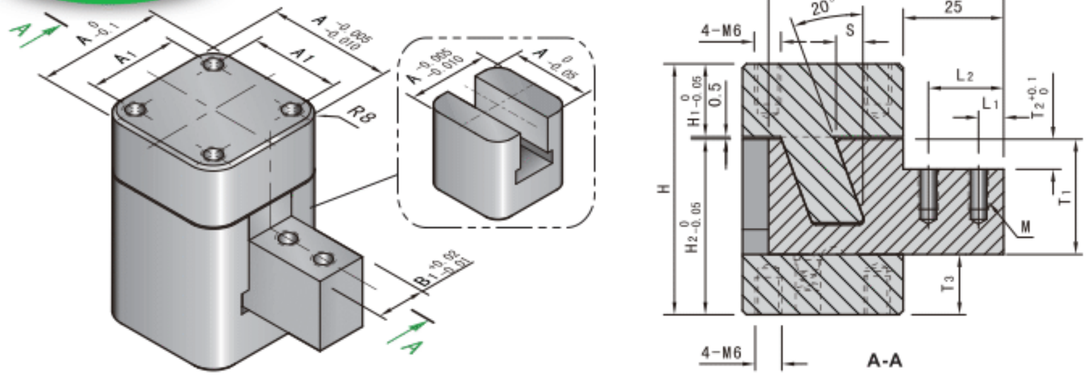


Order ZZ4295-1 Material:SKD61 Hardness:52±2HRC

A	A1	B	S	L	L1	L2	M
40	26	20	4.9	59.8	10	20	M4
60	46	35	9.9	74.8	6	18	M5

Code	H	H1	H2	T1	T2	T3	@¥/P
ZZ4295-1	52	14.5	37	25	6	12	
ZZ4295-2	72		57	40	10	17	

ZZ4296



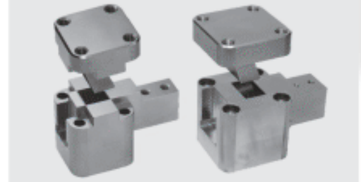
Order ZZ4296-1 Material:SKD61 Hardness:52±2HRC

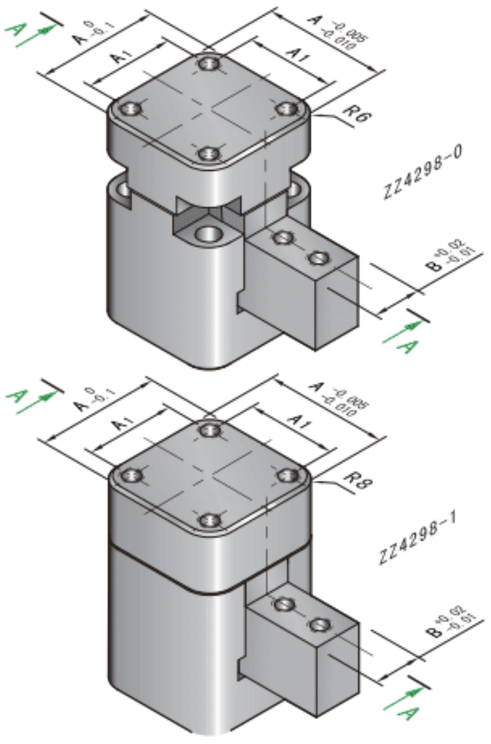
A	A1	B	S	L	L1	L2	M
40	26	20	4.9	59.8	10	20	M4
60	46	35	9.9	84	6	18	M5

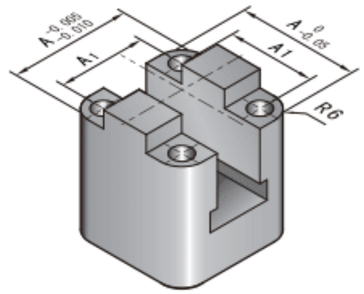
Code	H	H1	H2	T1	T2	T3	@¥/P
ZZ4296-1	52	14.5	37	25	6	12	
ZZ4296-2	72		57	40	10	17	

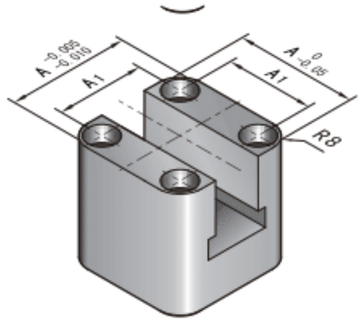
DIN
Slide units

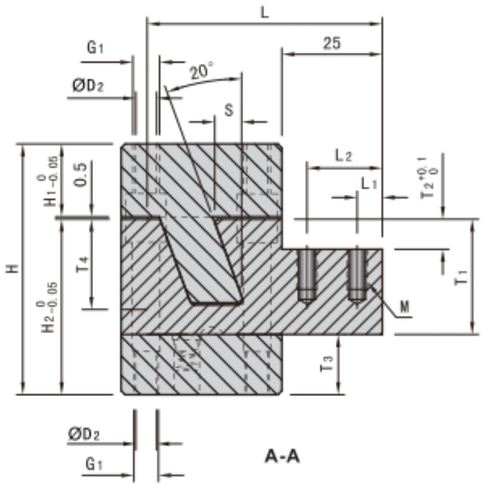
ZZ4298











Order ZZ4298-0 Material:SKD61 Hardness:52±2HRC

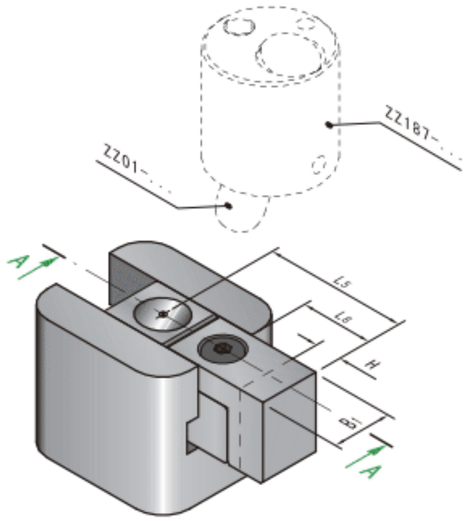
A	A1	B	S	L	L1	L2	L3	M	G1
32	22	12	4.9	51.5	5	15	20	M4	M5
50	36	22	6.7	74.5	6	18	25	M5	M8

Code	H	H1	H2	T1	T2	T3	T4	D2	@¥/P
ZZ4298-0	50	14.5	35	23	6	12	16.6	4.1	
ZZ4298-1	60		45	30		15	21.5	6.5	

DIN
Slide units

ZZ181





Features:
1.Well-knit structure,space saving can reduce mold whole size.
2.Easy to install and convenient for maintenance.

Installation Guidelines:
- The position of slide core need customer to processing.
- Please notes all movable parts must be lubricated smoothly.

Order ZZ181-8×12×16

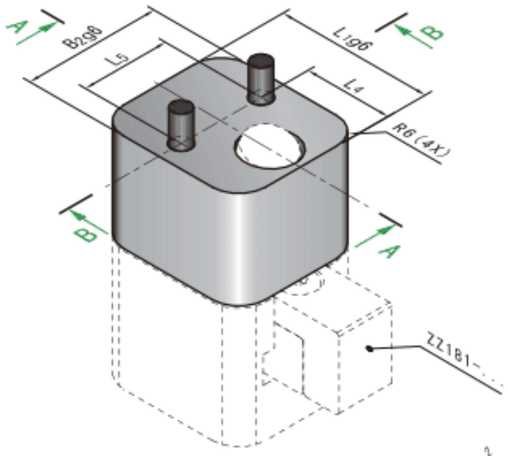
D1	B1	H1	H	H2	B2	D3	T1	L10	M
8	12	16	5	27	28	9	8	8	M5
10	16	18	6.5	32	32	11	10	10	M6

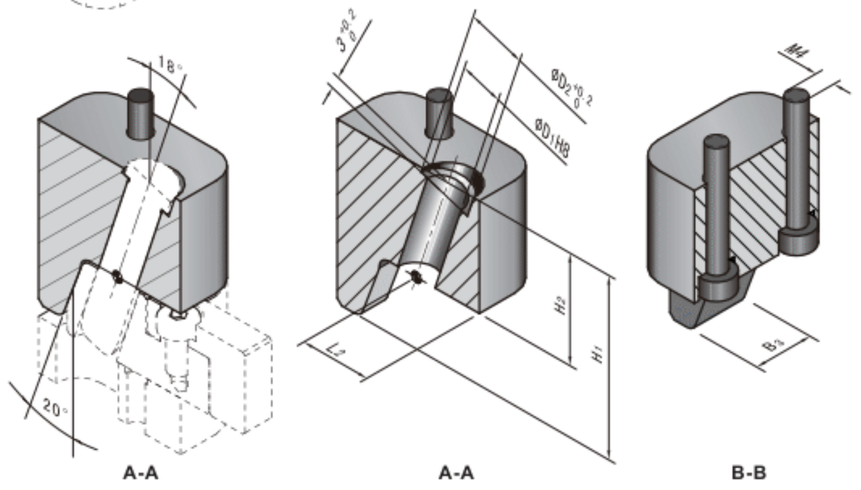
Code	L1	L2	L3	L4	L5	L6	L7	L8	@¥/P
ZZ181- 8×12×16	32	20	18	14	28.5	10	22	14.3	
ZZ181-10×16×18	40	29	20	17	32.5	12	25	15.3	

DIN
Slide units

ZZ1810







Features:
1.Well-knit structure ,space saving can reduce mold whole size.
2.Easy to install and convenient for maintenance.

Installation Guidelines:
- Need ZZ187 or zz1810 to match use it.
- The position of slide core need customer to processing.
- Please notes all movable parts must be lubricated smoothly.

Order ZZ1810-8 Material:Cr12MoV Hardness:53+2HRC

Code	D1	D2	B2	B3	L1	L2	L4	L5	H1	H2	@¥/P
ZZ1810- 8	8	11	28	11	32	14.2	18	18	36	22	
ZZ1810-10	10	13	32	15	40	17.2	22	20	44	27	

MOLD PARTNER

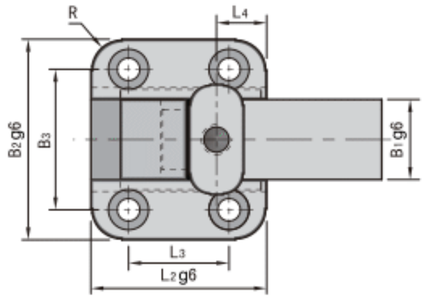
DIN

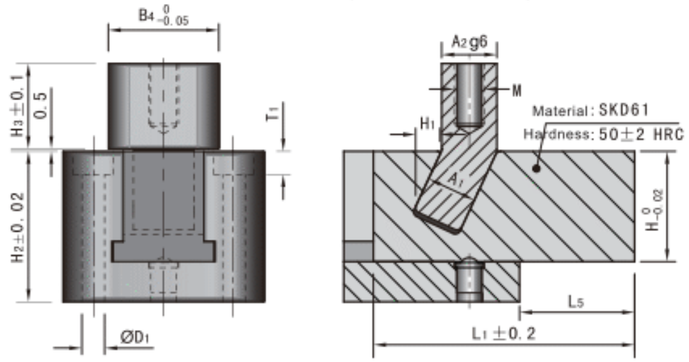
Slide units

ZZ1812

CAD 2D 3D





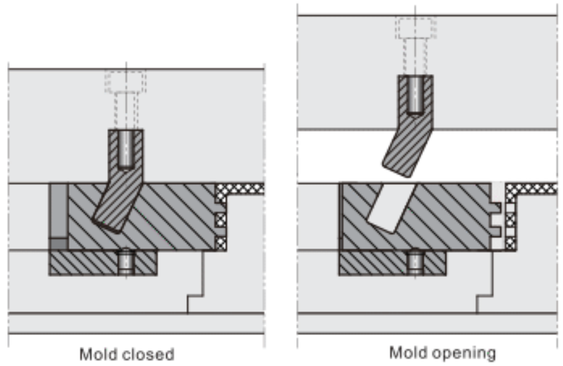


Order ZZ1812-10×16×22

A1	B1	H	H1	H2	H3	A2	B2	B3	B4	D1	T1
10	16	22	4.6	30	17	11	40	28	22	4.5	4.6
12	25	30	7	40	20	13	55	40	30	6.6	6.8

Code	L1	L2	L3	L4	L5	R	M	@¥/P
ZZ1812-10×16×22	52	35	20	10	22.9	6	M6	
ZZ1812-12×25×30	75	50	35	15	33.8	7	M8	

Function diagram:



Features:
1. Well-knit structure, space saving can reduce mold whole size.
2. Easy to install and convenient for maintenance.

Installation Guidelines:
- H1 data is max.
- The position of slide core need customer to processing.
- Please notes all movable parts must be lubricated smoothly.

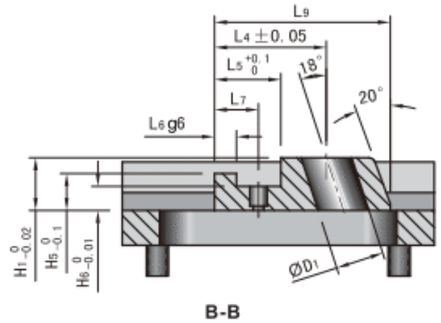
DIN

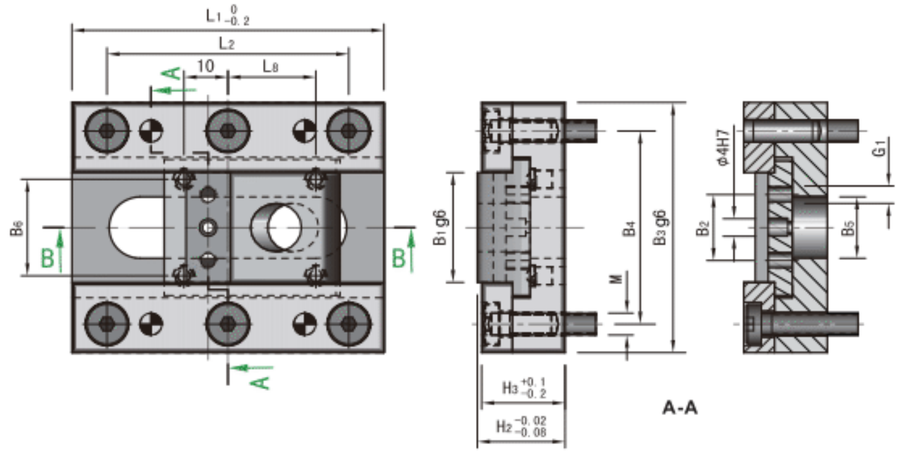
Slide construction kits

ZZ1880

CAD 2D







Order ZZ1880-12×25×71

H1	B1	L1	L2	L4	L5	L6	L7	L8	L9	D1	M	G1
12	25	71	55	25.45	15.1	5	10	20	40	11	M5	M4
	40			24.45						13		
	63											
16	25			28		5.5			45			
	40									15		
	63			27								
20	40	100	84	31.7	18.1	8	13	25	50	13	M6	
	63											
	80			30.7						15		
25	40			33.45	22.1	10	16		55			M5
	63											
	80											

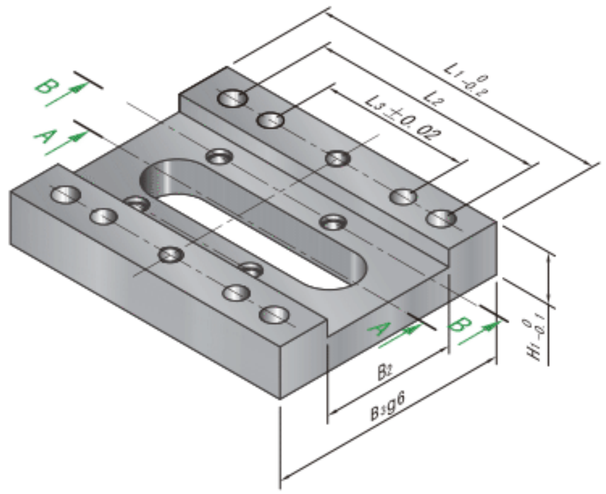
Code	B2	B3	B4	B5	B6	H2	H3	H5	H6	@¥/P
ZZ1880-12×25× 71	15	57	44	14	22	20	19	8.4	5.5	
ZZ1880-12×40× 71	20	72	59		30					
ZZ1880-12×63× 71	30	95	82	16	50					
ZZ1880-16×25× 71	15	57	44	14	22	24	23	9.9	6	
ZZ1880-16×40× 71	20	72	59		30					
ZZ1880-16×63× 71	30	95	82		50					
ZZ1880-20×40×100	20	80	64		30	30	29	13.4	9	
ZZ1880-20×63×100	30	103	87		50					
ZZ1880-20×80×100	40	120	104	16	60					
ZZ1880-25×40×100	20	80	64		30	35	34	15.9	10	
ZZ1880-25×63×100	30	103	87		50					
ZZ1880-25×80×100	40	120	104		60					

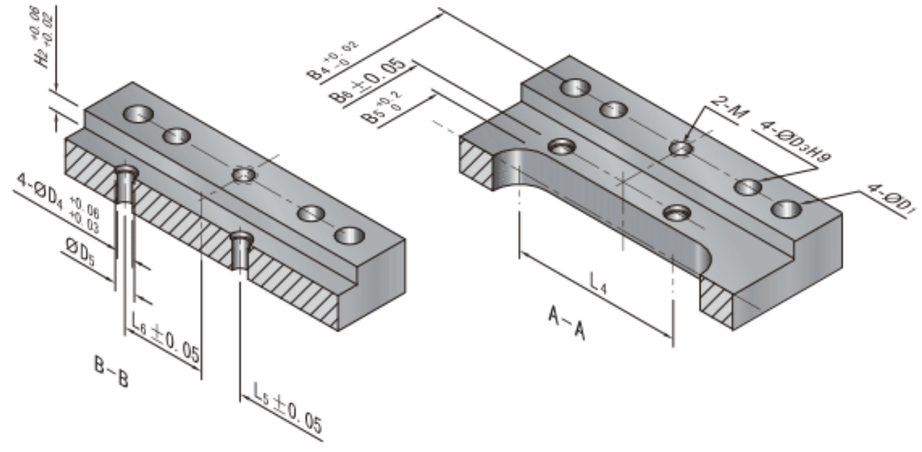
DIN

Slide casings

ZZ1881







Order ZZ1881-25×57×71

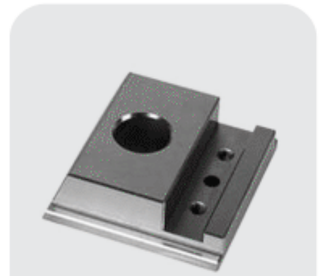
B3	L1	B2	B4	B5	B6	H1	H2	D1	D3	D4
57	71	32	44	14	22	12	4	5.5	5	4
72		47	59		30					
95		70	82	16	50					6
80	100	47	64		30	15	5	6.6	6	
103		70	87		50					
120		87	104		60					

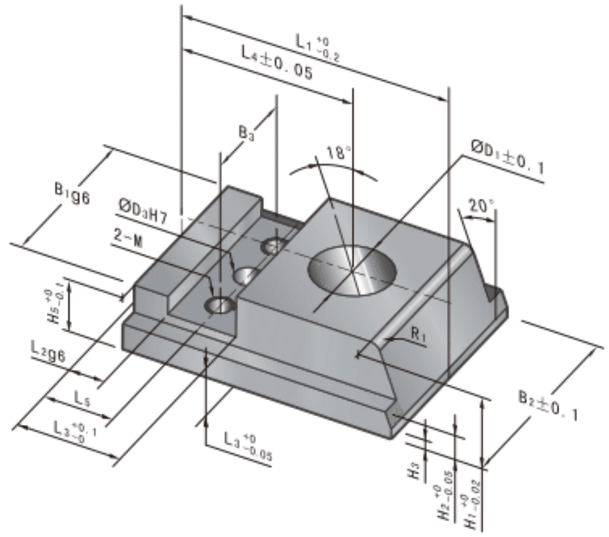
Code	D5	L2	L3	L4	L5	L6	M	ZZ1801-... B1	@¥/P
ZZ1881-25× 57× 71	5	55	35	40	10	20	M5	25	
ZZ1881-40× 72× 71	7							40	
ZZ1881-63× 95× 71								63	
ZZ1881-40× 80×100		84	60	50		25	M6	40	
ZZ1881-63×103×100								63	
ZZ1881-80×120×100								80	

DIN

Slides

ZZ1801





Order ZZ1801-12×25×40

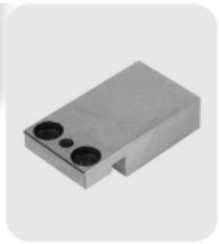
H1	B1	L1	H2	H3	H4	H5	D1	D3	R1
12	25	40	4	1.5	5.5	8.4	11	4	1.5
	40						13		
	63								
16	25	45			6	9.9	15		
	40								
	63								
20	40	50	5	2	9	13.4	13		2
	63								
	80								
25	40	55			10	15.9	15		
	63								
	80								

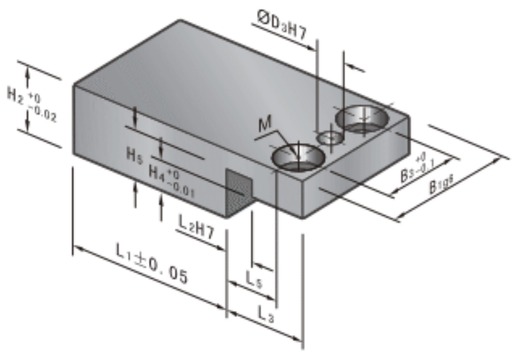
Code	B2	B3	L2	L3	L4	L5	M	@¥/P
ZZ1801-12×25×40	31	15	5	15.1	25.45	10	M4	
ZZ1801-12×40×40	46	20			24.45			
ZZ1801-12×63×40	69	30						
ZZ1801-16×25×45	31	15	5.5		28			
ZZ1801-16×40×45	46	20						
ZZ1801-16×63×45	69	30			27			
ZZ1801-20×40×50	46	20	8	18.1	31.7	13		
ZZ1801-20×63×50	69	30						
ZZ1801-20×80×50	86	40			30.7			
ZZ1801-25×40×55	46	20	10	22.1	33.45	16	M5	
ZZ1801-25×63×55	69	30						
ZZ1801-25×80×55	86	40						

DIN

Slides

ZZ1802





☎ ZZ1802-12×25×30

H1	B1	L1	L2	L3	L5	D3
12	25	30	5	15	10	4
	40					
	63					
16	25		5.5			
	40					
	63					
20	40	40	8	18	13	
	63					
	80					
25	40		10	22	16	
	63					
	80					

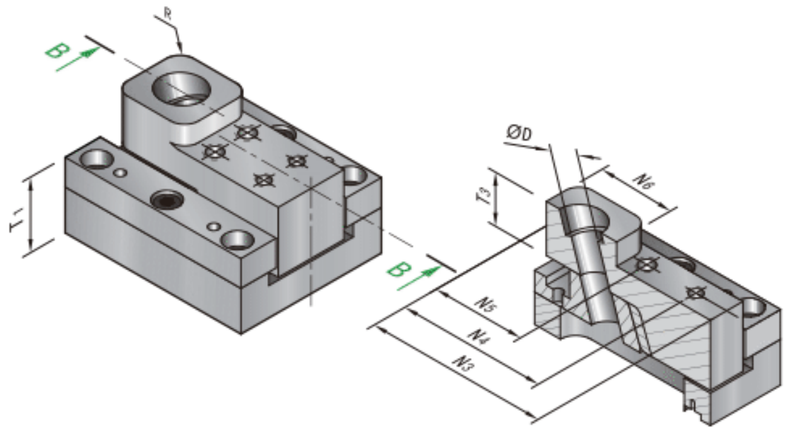
Code	B3	H4	H5	M	@¥/P
ZZ1802-12×25×30	15	5.5	8.5	M4	
ZZ1802-12×40×30	20				
ZZ1802-12×63×30	30				
ZZ1802-16×25×30	15	6	10		
ZZ1802-16×40×30	20				
ZZ1802-16×63×30	30				
ZZ1802-20×40×40	20	9	13.5		
ZZ1802-20×63×40	30				
ZZ1802-20×80×40	40				
ZZ1802-25×40×40	20	10	16	M5	
ZZ1802-25×63×40	30				
ZZ1802-25×80×40	40				

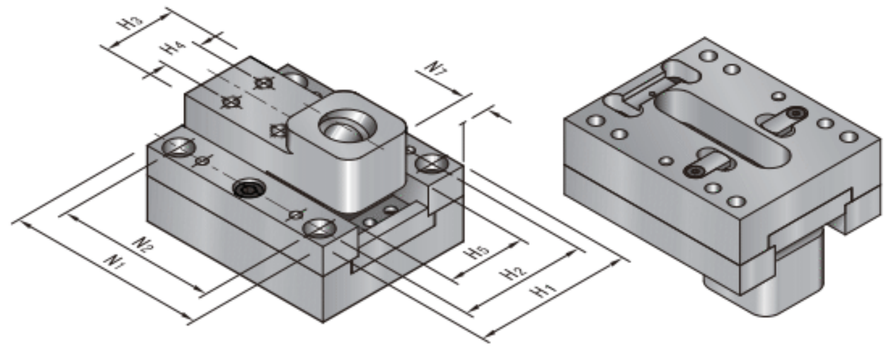
DIN

Slide construction kits

ZZ4200







☎Order ZZ4200-H1-T1-N1

H1	T1	N1	Type	H2	H3	H4	H5	T2	T3	N2	N3	N4
50	28	75	A	38	18	-	20	11	20	60	65	50
55				43	23		25					
60			B	48	28	14	30				70	57
70				58	38	22	40					
80				68	48	32	50					
90				78	58	42	60					
60		90		48	28	14	30			70		
70				58	38	22	40					
80				68	48	32	50					
76	42	100		62	38	18	40			76	82.5	65
86				72	48	28	50					
96				82	58	38	60					

Code	N5	N6	N7	D	D2	D5	D6	R	@¥/P
ZZ4200	26	20	10	8	M6	M5	M5	5	
				10					
	36	30	5	12				6	
	36.5		17.5		M8	M6	M6		

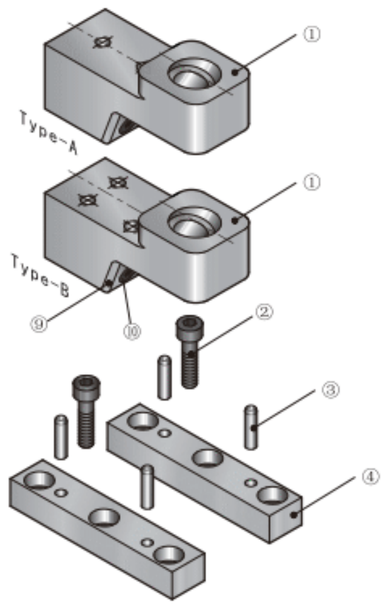
DIN

Slide construction kits

ZZ4200



Product space chart:

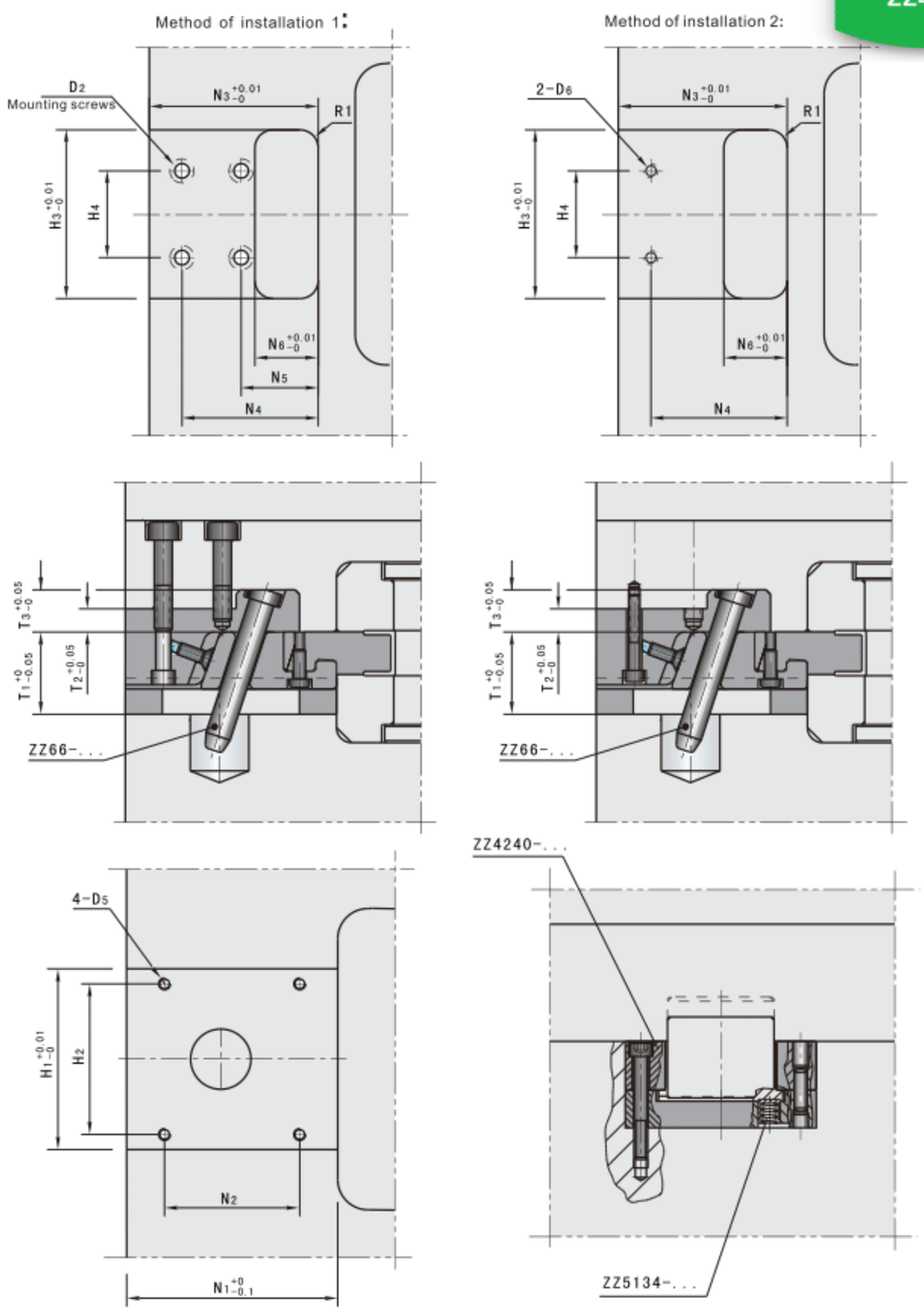


No.	Spec.	QTY(PCS)
1	ZZ4220-...	1
2	Screw bolt	2
3	Dowel pin	4
4	ZZ4240-...	2
5	ZZ4205-...	1
6	ZZ4210-...	1
7	ZZ5134-...	1
8	ZZ4211-...	2
9	ZZ4230-...	1
10	Screw	1/2

Order ZZ4200-H_1-T_1-N_1

ZZ4200	ZZ4205- (1x)	ZZ4210- (1x)	ZZ4220- (1x)	ZZ4230- (1x)	ZZ4240- (2x)	ZZ5134- (1x)	ZZ4211- (2x)	@¥/P
50-28- 75	50-17- 75	20-16-40	18-15-65	18-15-4	15-11- 75	7	1	
55-28- 75	55-17- 75	25-16-40	23-15-65	23-15-4				
60-28- 75	60-17- 75	30-16-45	28-15-70	28-15-4				
70-28- 75	70-17- 75	40-16-45	38-15-70	38-15-4				
80-28- 75	80-17- 75	50-16-45	48-15-70	48-15-4				
90-28- 75	90-17- 75	60-16-45	58-15-70	58-15-4				
60-28- 90	60-17- 90	30-16-45	28-15-70	28-15-4	15-11- 90			
70-28- 90	70-17- 90	40-16-45	38-15-70	38-15-4				
80-28- 90	80-17- 90	50-16-45	48-15-70	48-15-4				
76-42-100	76-20-100	40-30-64	38-29-82.5	38-29-6	18-22-100			
86-42-100	86-20-100	50-30-64	48-29-82.5	48-29-6				
96-42-100	96-20-100	60-30-64	58-29-82.5	58-29-6				

Installation Diagram:

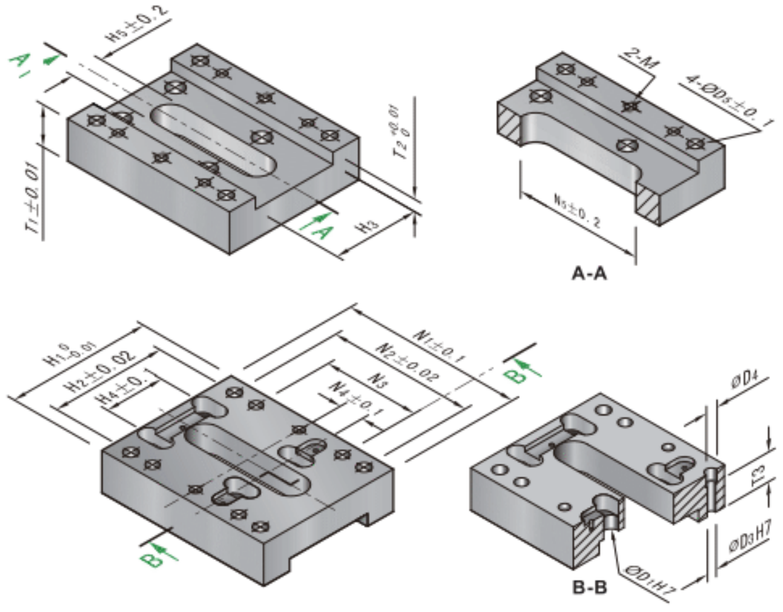


DIN

Slide casings

ZZ4205





Order ZZ4205-H1-T1-N1 Material:SKD11 Hardness:58±2HRC

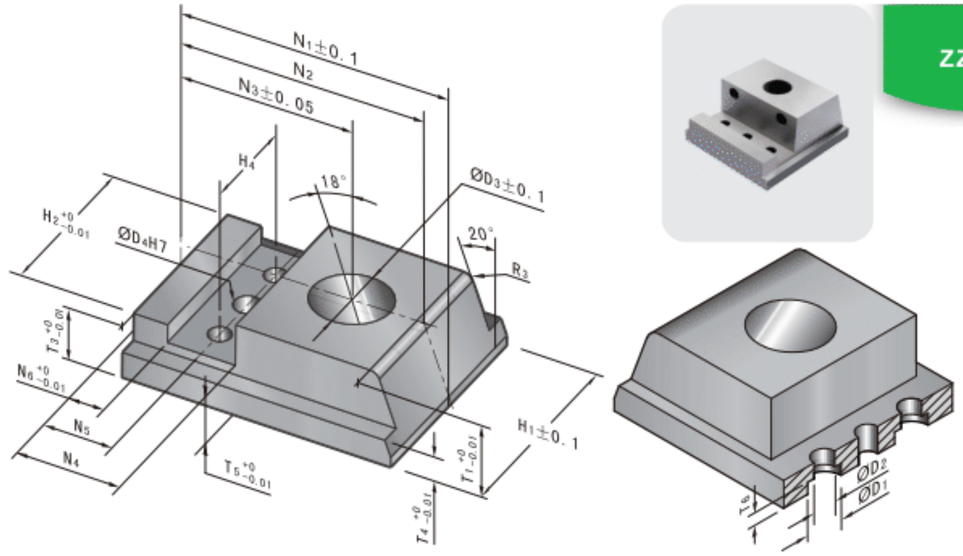
H1	T1	N1	H2	H3	H4	H5	T2	T3	M
50	17	75	38	26	18	9	5	12	M5
55			43	31	21	11			
60			48	36	25	13			
70			58	46	32				
80			68	56	42				
90			78	66	52				
60		90	48	36	25				
70			58	46	32				
80			68	56	42				

Code	N2	N3	N4	N5	D1	D3	D4	D5	@¥/P
ZZ4205	60	40	10	51	7	4	5	5.5	
	70	50		61					

DIN

Slides

ZZ4210

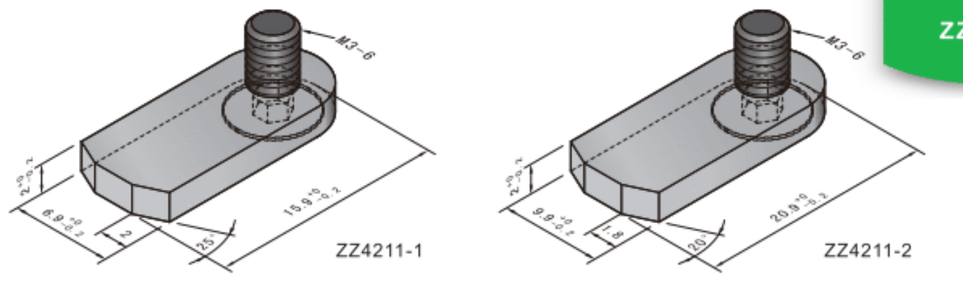


Order ZZ4210-H2-T1-N1 Material:SKD61 Hardness:50-54HRC

H2	T1	N1	H1	H4	T3	T4	T5	T6	N2
20	16	40	25	13	8	5	5	2.4	35
25			30	15					
30		45	35	18				3.2	40
40			45	25					
50			55	30					
60			65	40					

Code	N3	N4	N5	N6	D1	D2	D3	D4	@¥/P
ZZ4210	24	15	10	5	6	3.2	9	3	
	26				8	4.3	11	4	
							13		

ZZ4211



Order ZZ4211-1

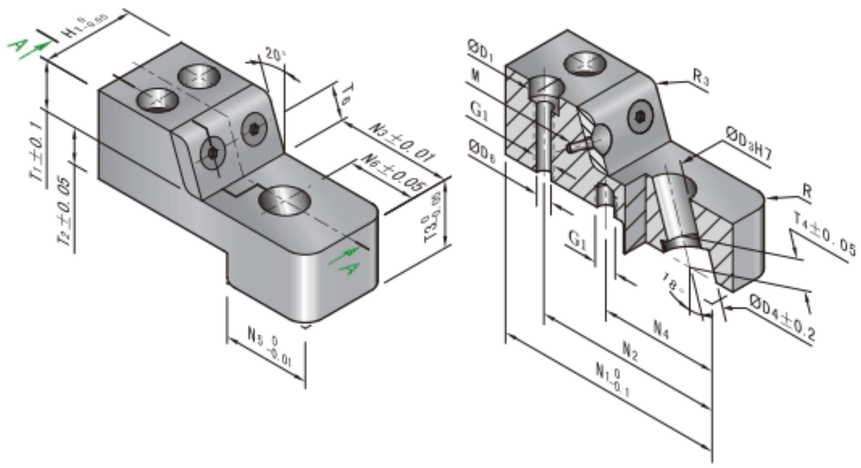
Code	@¥/P
ZZ4211-1	
ZZ4211-2	

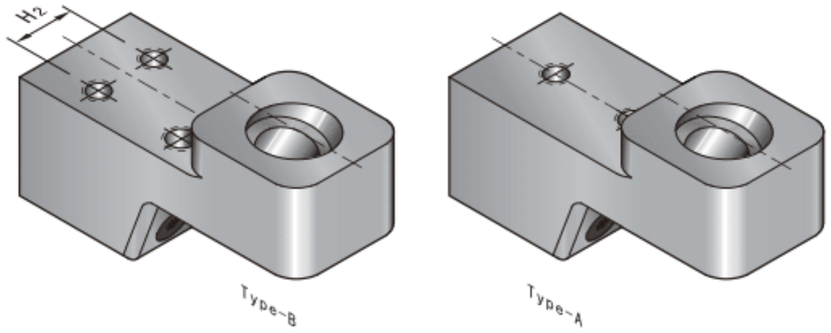
DIN

Locking heels,double sided

ZZ4220







ZZ4220-H1-T1-N1 Material:SKD11 Hardness:60±2HRC

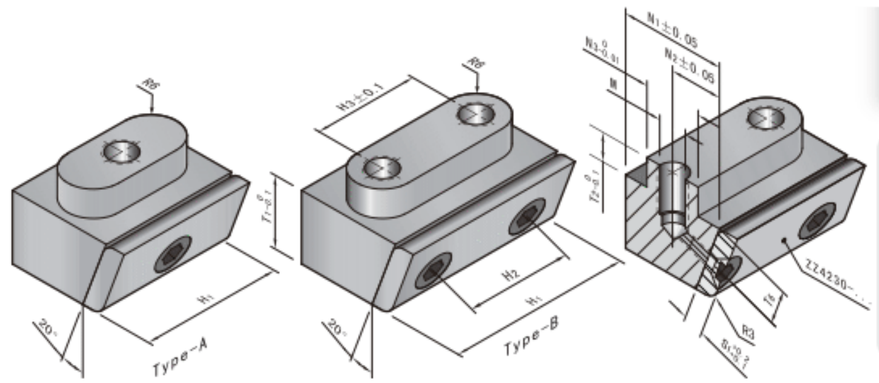
H1	T1	N1	Type	H2	T2	T3	T4	T6	N2	N3	N4	N5
18	15	65	A	-	11	20	3	8	50	25	26	20
23							4					
28		70	B	14			6		57	35	36	30
38				22								
48				32								
58				42								
38	29	82.5		18				15	65	37.5	36.5	
48				28								
58				38								
78		95		44	14	25	8		73	46	49	42
98				64								
35	45	115	A	-	19	33	10	22	94	60	59	47
55			B	28								

Code	N6	D1	D3	D4	D6	R	M	G1	@¥/P
ZZ4220	14	10	8	11.5	5.3	5	M4	M6	
			10	14.5					
	21		12	17		6			
	22.5	11			6.4		M6	M8	
	28	15	16	21	8.4	8		M10	
	33	18	20	26	10.4			M12	

DIN

Locking heels,double sided

ZZ4222

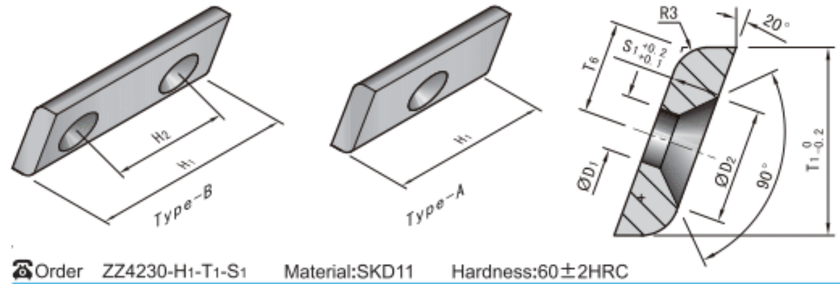


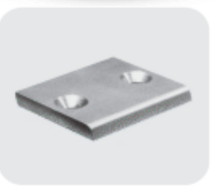


Order ZZ4222-H1-T1 Material:SKD11 Hardness:60±2HRC

Code	H1	T1	Type	H2	H3	T2	T6	N1	N2	N3	S1	D5	M	@¥/P
ZZ4222	18	15	A	-	4	6	8	22	11	12	4	4.3	M6	
	23				9									
	28		B	14	14									
	38			22	22									
	48			32	32									
	58			42	42									
	38	29		18	18	10	15	38.6	18.6	18	6	6.5		
	48			28	28									
	58			38	38									
	78			44	58									
	98			64	78									
	35	45	A	-	13	12	22	48.6	21.6	20			M10	
	55		B	28	28									
	78			50	50									
	98			70	70									

ZZ4230





Order ZZ4230-H1-T1-S1 Material:SKD11 Hardness:60±2HRC

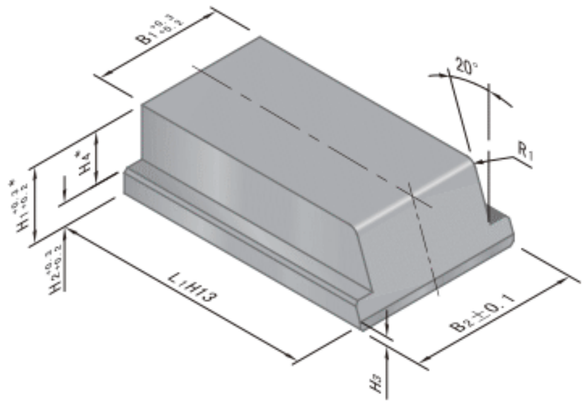
Code	H1	T1	S1	Type	H2	T6	D1	D2	@¥/P
ZZ4230	18	15	4	A	-	8	4.5	9.2	
	23								
	28			B	14				
	38				22				
	48				32				
	58				42				
	38	29	6		18	15	6.6	13.7	
	48				28				
	58				38				
	78				44				
	98				64				
	35	45		A	-	22			
	55			B	28				
	78				50				
	98				70				

DIN

Slides

ZZ180





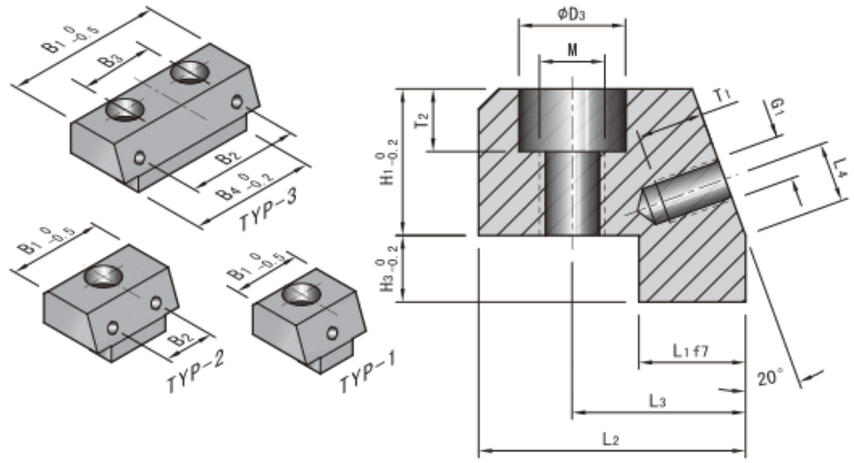
Order ZZ180-H1×L1×B1 Material:SKD61 Hardness:52±2HRC

Code	H1	L1	B1	B2	H2	H3	H4	R1	@¥/P
ZZ180-12× 40× 20	12	40	20	26	4	1.5	8	1.5	
ZZ180-12× 40× 25			25	31					
ZZ180-12× 40× 40			40	46					
ZZ180-12× 40× 63			63	69					
ZZ180-16× 50× 20	16	50	20	26			12		
ZZ180-16× 50× 25			25	31					
ZZ180-16× 50× 40			40	46					
ZZ180-16× 50× 63			63	69					
ZZ180-20× 63× 40	20	63	40	46	5	2	15	2	
ZZ180-20× 63× 63			63	69					
ZZ180-20× 63× 80			80	86					
ZZ180-25× 71× 40	25	71	40	46			20		
ZZ180-25× 71× 63			63	69					
ZZ180-25× 71× 80			80	86					
ZZ180-32×100× 63	32	100	63	71	6	3	26	3	
ZZ180-32×100× 80			80	88					
ZZ180-32×100×100			100	108					
ZZ180-40×100× 63	40		63	71			34		
ZZ180-40×100× 80			80	88					
ZZ180-40×100×100			100	108					
ZZ180-50×112× 80	50	112	80	90	8	4	42	4	
ZZ180-50×112×100			100	110					
ZZ180-50×112×125			125	135					
ZZ180-63×112× 80	63		80	90			55		
ZZ180-63×112×100			100	110					
ZZ180-63×112×125			125	135					

DIN

Locking heels,double sided

ZZ1820



ZZ1820-12×18 Material:SKD11 Hardness:58±2HRC

Code	ZZ180-... H1	B1	H1	H3	L1	L2	L3	L4	d3	@¥/P
ZZ1820-12×18	12	18	11	5	8	20	13	4.5	10	
ZZ1820-12×22		22								
ZZ1820-12×30		30								
ZZ1820-12×50		50								
ZZ1820-16×18	16	18	15		10	25	17	7	11	
ZZ1820-16×22		22								
ZZ1820-16×30		30								
ZZ1820-16×50		50								
ZZ1820-20×30	20	30	19	6	12	32	20	10	15	
ZZ1820-20×38		38								
ZZ1820-20×53		53								
ZZ1820-25×30	25	30	24	8		40	25	13		
ZZ1820-25×38		38								
ZZ1820-25×53		53								
ZZ1820-32×38	32	38	31	9	16	45	28	17		
ZZ1820-32×50		50								
ZZ1820-32×71		71								
ZZ1820-40×38	40	38	39	11		50	30	21		
ZZ1820-40×50		50								
ZZ1820-40×71		71								
ZZ1820-50×50	50	50	49	14	20	56	34	26	18	
ZZ1820-50×63		63								
ZZ1820-50×85		85								

Order ZZ1820-12×18 Material:SKD11 Hardness:58±2HRC

Code	B2	B3	B4	T1	T2	Typ	M	G1	@¥/P
ZZ1820-12×18	-	-	10	5	5.7	1	M 6	M4	
ZZ1820-12×22			12						
ZZ1820-12×30	16		20			2			
ZZ1820-12×50	36	24	40			3			
ZZ1820-16×18	-	-	10	7	6.8	1	M 8		
ZZ1820-16×22			12						
ZZ1820-16×30	16		18			2			
ZZ1820-16×50	36	24	38			3			
ZZ1820-20×30	16	-	16		9	2	M10		
ZZ1820-20×38	24		24						
ZZ1820-20×53	39	25	39			3			
ZZ1820-25×30	16	-	16			2			
ZZ1820-25×38	24		24						
ZZ1820-25×53	39	25	39			3			
ZZ1820-32×38	18	-	20	10		2		M6	
ZZ1820-32×50	30	20	32			3			
ZZ1820-32×71	51	35	53						
ZZ1820-40×38	18	-	20			2			
ZZ1820-40×50	30	20	32			3			
ZZ1820-40×71	51	39	53						
ZZ1820-50×50	30	-	28		11	2	M12		
ZZ1820-50×63	43	30	41			3			
ZZ1820-50×85	65	45	63						

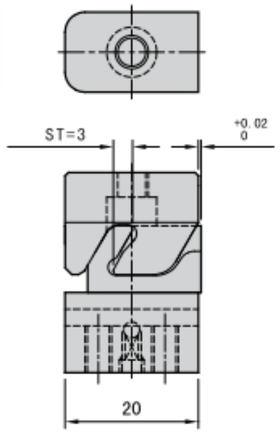
MOLD PARTNER

JIS

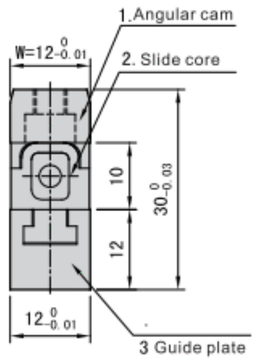
Slide units

MMSCSG
MMSCSGM

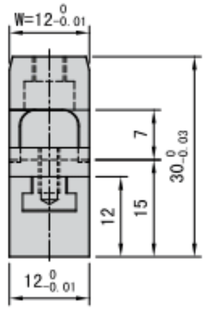




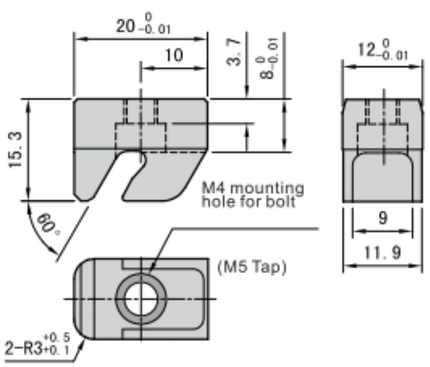
MMSCSG-3-12
Inlay part processed



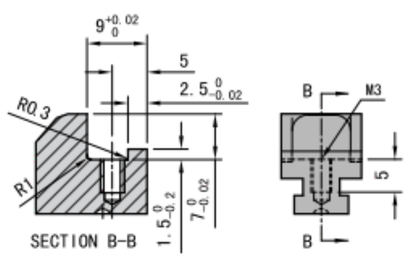
MMSCSGM-3-12
Tapped



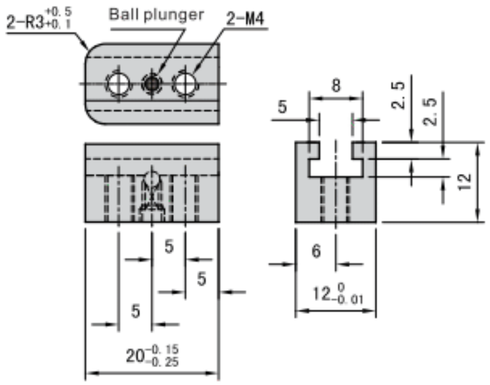
1.Angular Cams



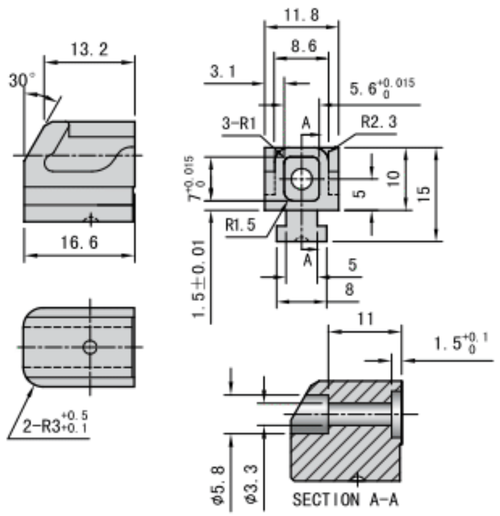
2.Slide cores(Tapped)



3.Guide plates



2.Slide cores(Inlay part processed)



Order MMSCSG-3-12

Code	ST	W	@¥/P
MMSCSG-3-12 MMSCSGM-3-12	3	12	

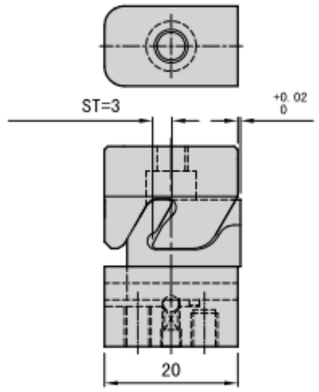
Remark: Whole sets, just can interchange by itself.

JIS

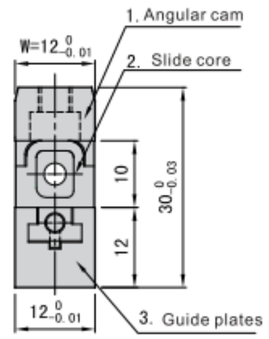
Slide units

MMSCSB
MMSCSBM

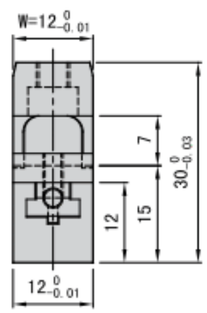




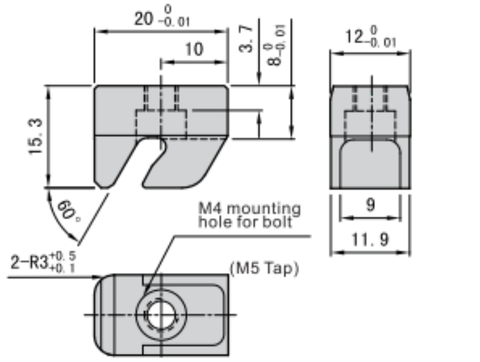
MMSCSB-3-12
(Inlay part processed)



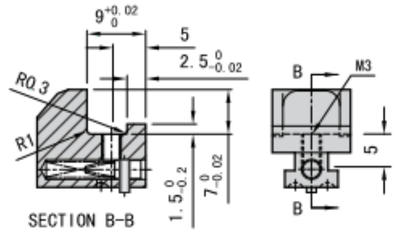
MMSCSBM-3-12
(Tapped)



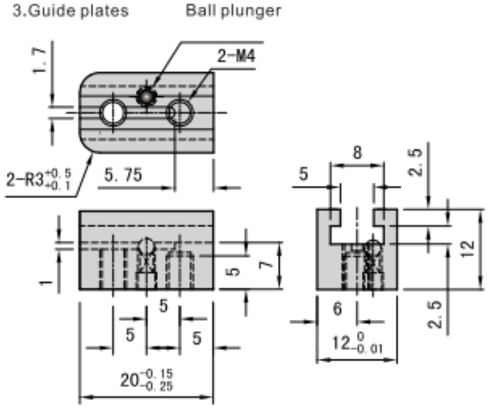
1.Angular Cams



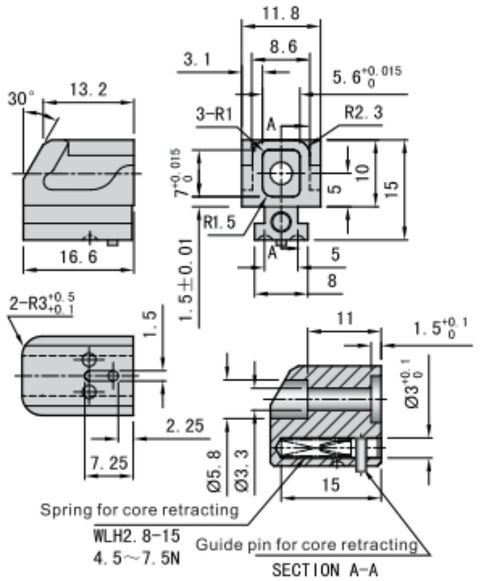
2.Slide cores(Tapped)



3.Guide plates Ball plunger



2.Slide cores(Inlay part processed)



Order MMSCSB-3-12

Code	ST	W	@¥/P
MMSCSB-3-12 MMSCSBM-3-12	3	12	

Remark: Whole sets, just can interchange by itself.

JIS

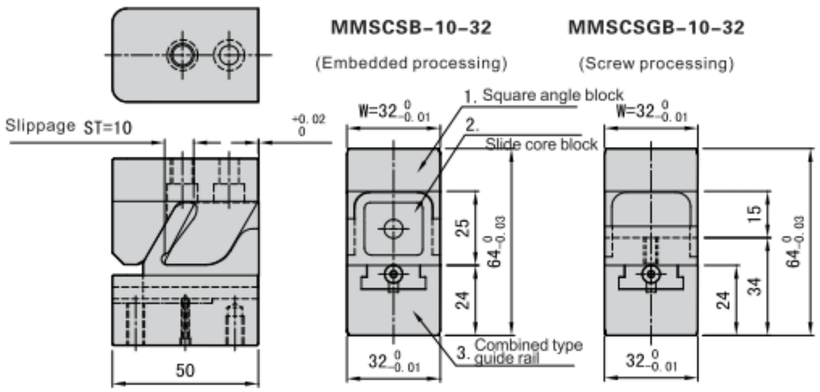
Slide units

MMSCSB
MMSCSBM

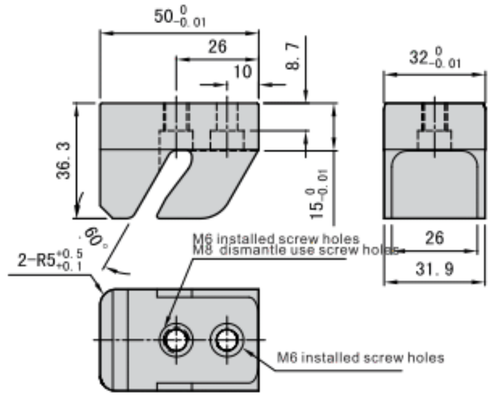


MMSCSB-10-32 (Embedded processing)

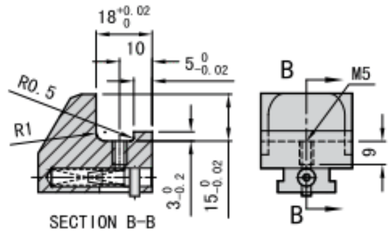
MMSCSGB-10-32 (Screw processing)



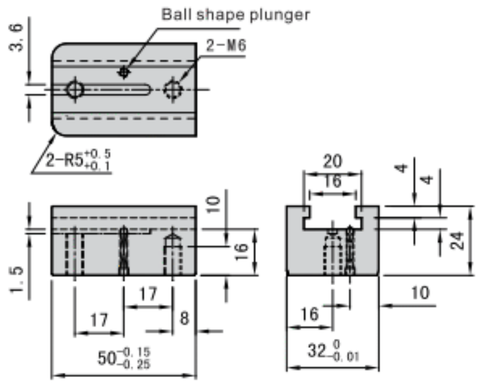
1. Square angle block



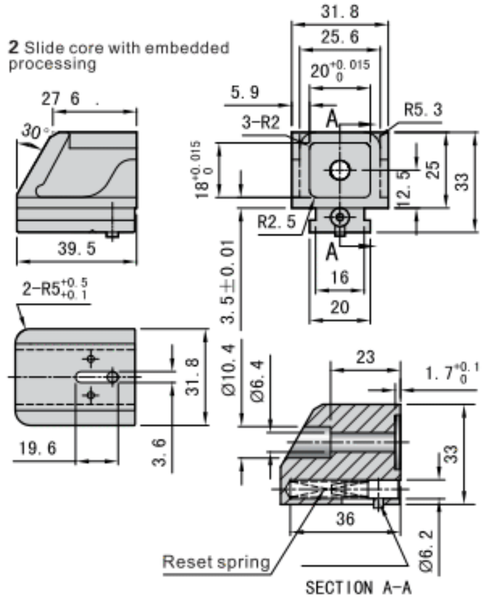
2. Slide core block with screw processing



3. Combined type guide rail



2 Slide core with embedded processing



Order MMSCSB-10-32

Code	ST	W	@¥/P
MMSCSB-10-32 MMSCSBM-10-32	10	32	

Remark: Whole sets, just can interchange by itself.

JIS

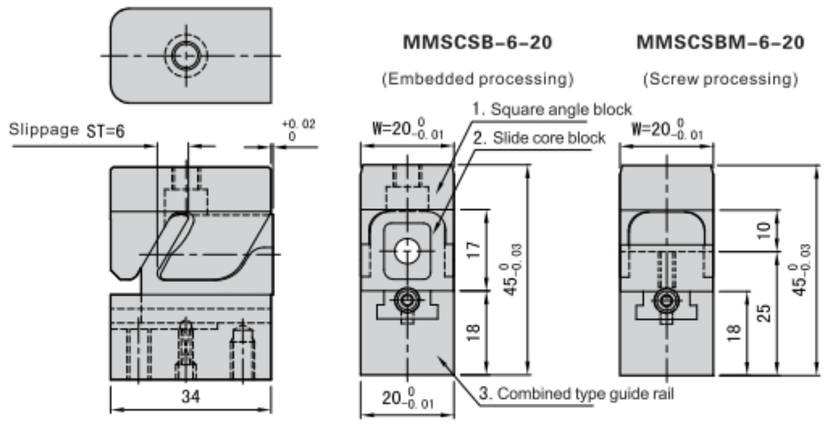
Slide units

MMSCSB
MMSCSBM

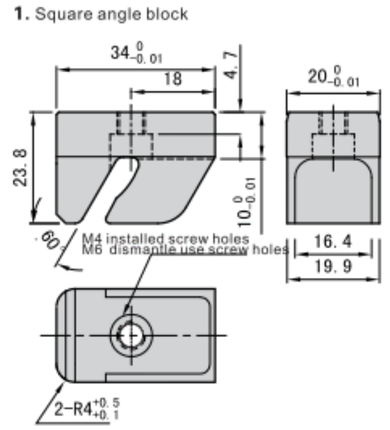


MMSCSB-6-20 (Embedded processing)

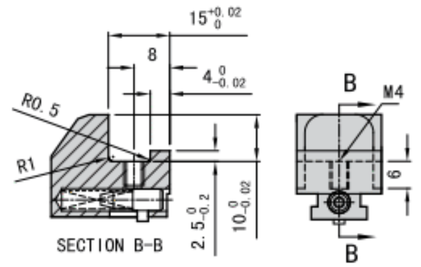
MMSCSBM-6-20 (Screw processing)



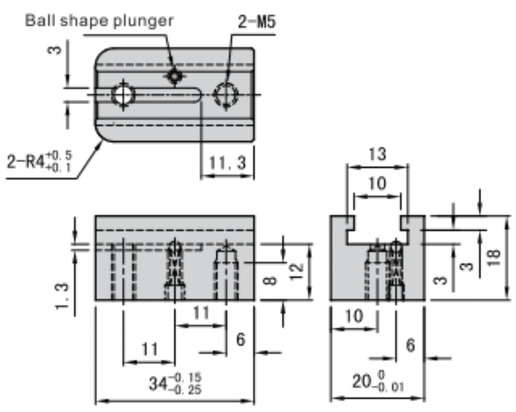
1. Square angle block



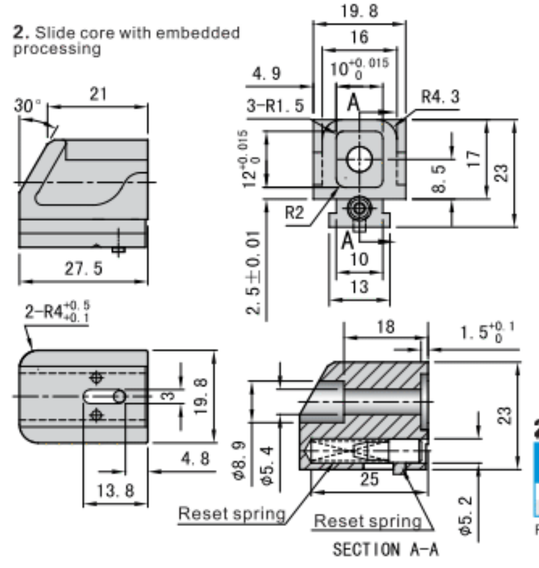
2. Slide core block with screw processing



3. Combined type guide rail



2. Slide core with embedded processing



Order MMSCSB-6-20

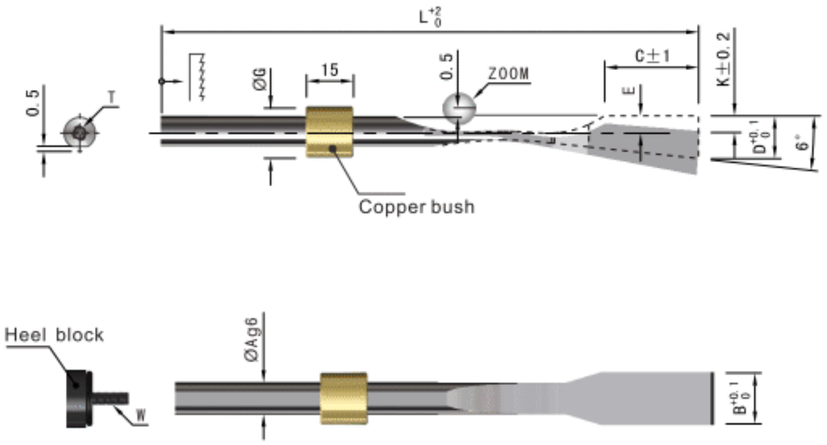
Code	ST	W	@¥/P
MMSCSB-6-20 MMSCSBM-6-20	6	20	

Remark: Whole sets, just can interchange by itself.

DIN
Sprung cores

PPW





Feature:
1.Simple structure, small installation space, only same as ejector pin size.
2.Easy to install, simplify processing procedure and save cost.
3.Can use it lonely or two pcs to use together.
4.Each code of the sprung core have pad and installed screw.
5. 30 ending code of lengthening sprung core have brass bush.

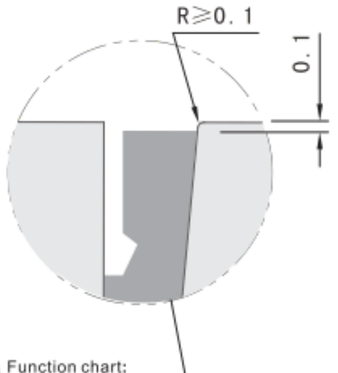
Order PPW-060622

Code	A	B	C	D	E	G	K	L	M	N	R	U	V	T	W	@ /P
PPW-060622	6	6.2	22	9	3.5	-	3.5	125	16	18	1.25	12	5	M4×36	M4×16	
PPW-060630			30	10		12	4.5	175	20	26						
PPW-060822		8.2	22	9		-	3.5	125	16	18						
PPW-060830			30	10		12	4.5	175	20	26						
PPW-080825	8	10.2	25	11.5	4.5	-		140	18	21	2	14	6	M5×36	M5×16	
PPW-081025			30	11.2		12		175	20	26						
PPW-081225		12.2	25	11.5		-		140	18	21						
PPW-081230			30	11.2		12		175	20	26						
PPW-101430	10	14.2		13.6	5.5	16	5.5				2.5	18	8	M6×36	M6×16	
PPW-101630		16.2														
PPW-101830		18.2														

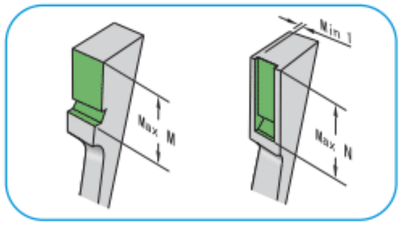
1.When standard parts can't meet real demand, our company can design nonstandard sprung core.
2.If need us to design nonstandard sprung core, please provide plastic products 3D or mould drawing.
3.Any doubt, welcome inquiry us!

DIN
Sprung cores

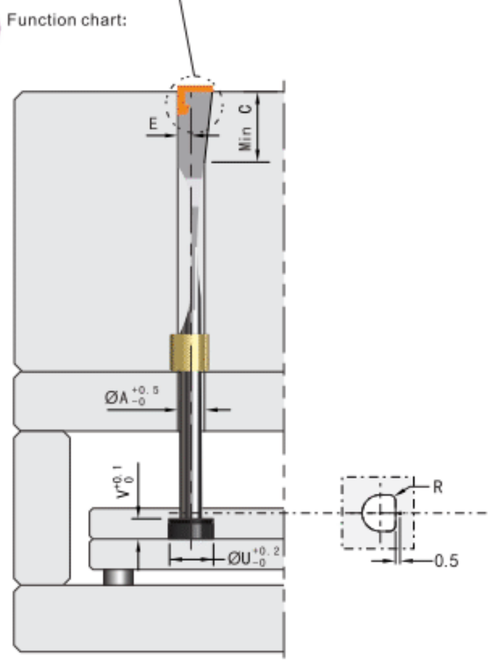
Installation Guidelines:
- In order to sure release smoothly,suggest barb position do corresponading withdrawal gradient.
- Sprung core gradient (the reverse side of rubber position) and core completely plying-up(Guarantee plying -up length C value)
- If sprung core too length when install it, can cut off from end, (after cutting off to locking screw depth corresponading is shallow, if cut off long length, need nonstandard custom made)



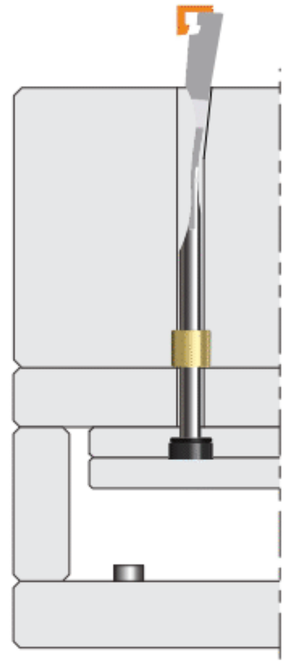
Max.forming position size.



Function chart:



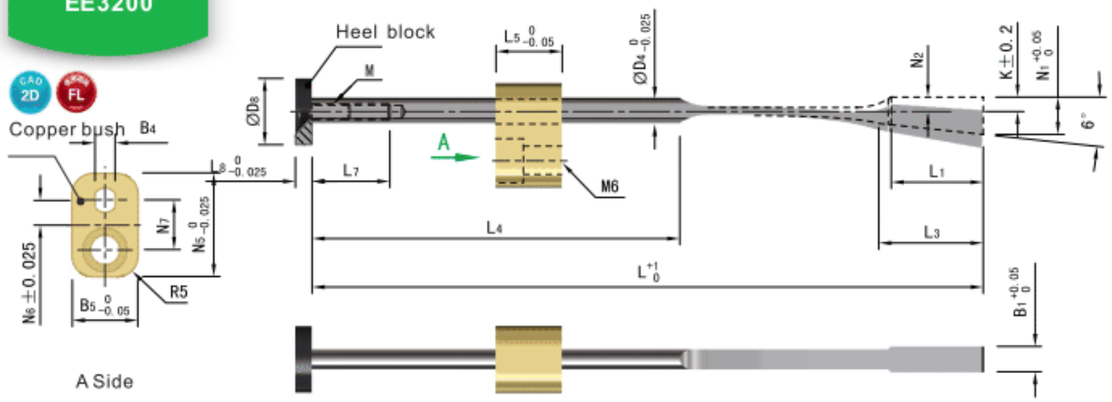
Mold closed



Mold opend

DIN
Sprung cores

EE3200



Feature:
1.Simple structure, small installation space, only same as ejector pin size.
2.Easy to install, simplify processing procedure and save cost.
3.Can use it lonely or two pcs to use together .Match use together refer to code EE3202.
4.Each code of the sprung core have pad and installed screw.
5. 30 ending code of lengthening sprung core have brass bush.

Order EE3200-6-9.0-162

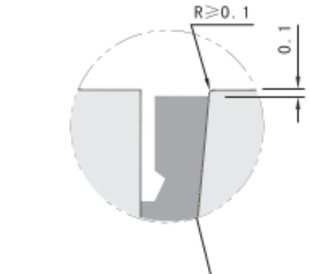
B1	N1	L	L1	L3	L4	L5	L7	L8	N2	K
6.2	9	162	22	24.3	88	16	19	4	3.5	3.5
8.2										
10.2	11.5	200	26	30	111				4.5	4.5
12.2										
14.2	12.5		30	33.1	107					
16.2										

Code	B4	B5	D4	D8	N5	N6	N7	M	@ /P
EE3200- 6- 9.0-162	4.83	16	5.94	16	25	6	12	M4	
EE3200- 8- 9.0-162	5.08		6.35						
EE3200-10-11.5-200	7.37		7.92					M5	
EE3200-12-11.5-200									
EE3200-14-12.5-200									
EE3200-16-12.5-200									

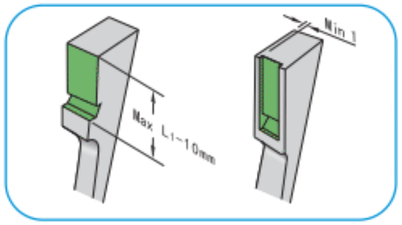
1.When standard parts can't meet real demand, our company can design nonstandard sprung core.
2.If need us to design nonstandard sprung core, please provide plastic products 3D or mould drawing.
3.Any doubt, welcome inquiry us!

DIN
Sprung cores

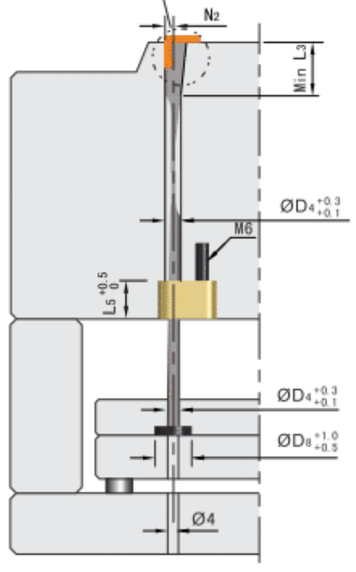
Installation Guidelines:
- Install in mould core, must be sure sprung core gradient (the reverse side of rubber position) and core completely plying-up(Guarantee plying -up length L3 value).
- Sprung core stroke K value is show sprung core max highest stroke after completely spray, From max highest the value corresponading became smaller
- All holes position processing and joint face turn into right angle.
- In order to sure release smoothly, suggest barb position do corresponding withdrawal gradient.
- Nonstandard custom made.



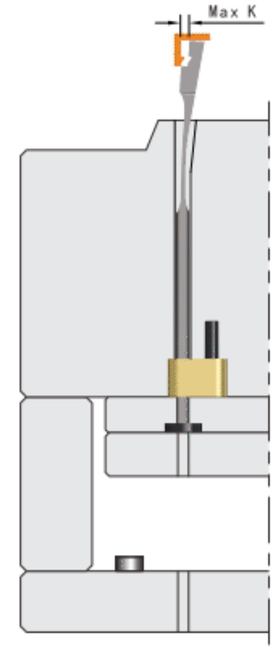
Max.forming position size.



Function chart:



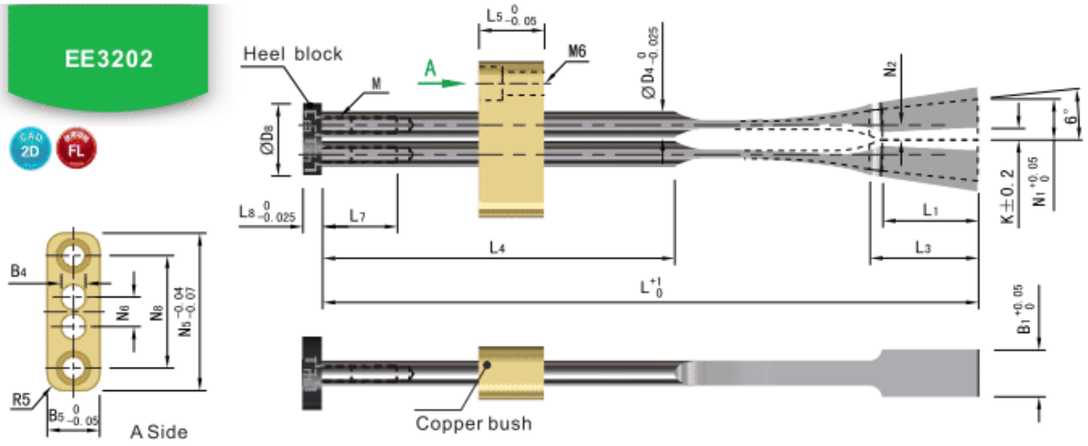
Mold closed



Mold opend

DIN
Sprung cores

EE3202



Feature:
1.Simple structure, small installation space, only same as ejector pin size.
2.Easy to install, simplify processing procedure and save cost.
3.Each code of the sprung core have pad and installed screw.
4.Two pieces use together can come true double face or more faces barb release mould.

Order EE3202-6-9.0-162

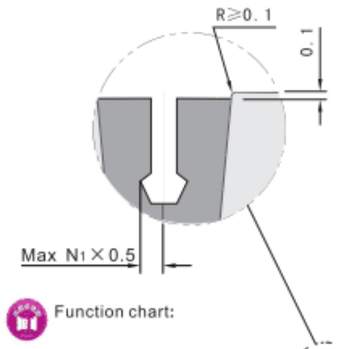
B1	N1	L	L1	L3	L4	L5	L7	L8	N2	L2	N5	N6
6.2	9	162	22	24.3	88	20	19	6	3.5	12.5	45	7
12.2	11.5	200	26	30.0	111				4.5	16.5	48	9
14.2	12.5		30	33.1	107					20		
16.2												

Code	B4	B5	D4	D8	N7	N8	K	M	@ /P
EE3202- 6- 9.0-162	4.83	16	5.94	20	13	32.3	3.5	M4	
EE3202-12-11.5-200	7.37		7.92	22	17	34.3	4.5	M5	
EE3202-14-12.5-200									
EE3202-16-12.5-200									

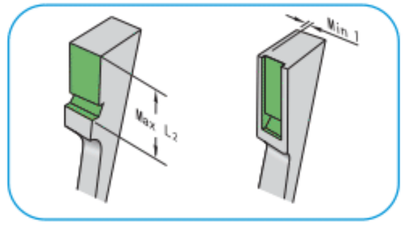
1.When standard parts can't meet real demand, our company can design nonstandard sprung core.
2.If need us to design nonstandard sprung core, please provide plastic products 3D or mould drawing.
3.Any doubt, welcome inquiry us!

DIN
Sprung cores

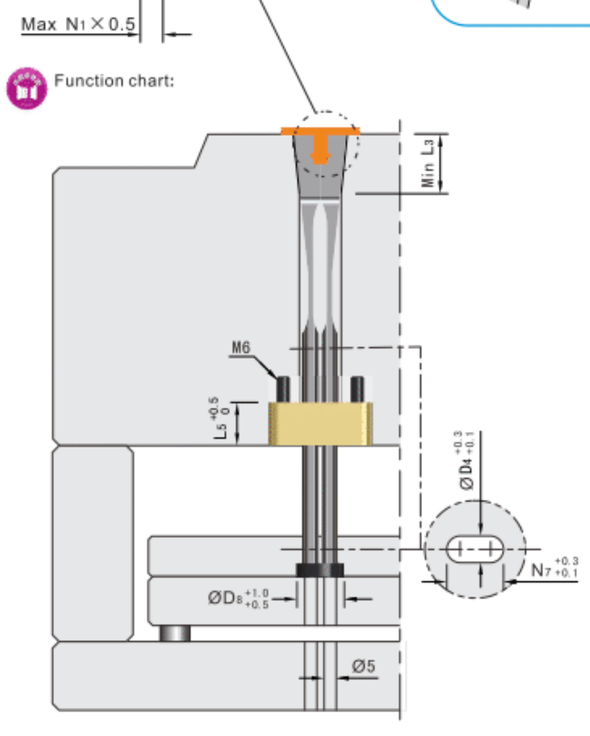
Installation Guidelines:
- Install in mould core, must be sure sprung core gradient (the reverse side of rubber position) and core completely plying-up(Guarantee plying -up length L3 value).
- Sprung core stroke K value is show sprung core max highest stroke after completely spray, From max highest the value corresponading became smaller
- All holes position processing and joint face turn into right angle.
- In order to sure release smoothly, suggest barb position do corresponding withdrawal gradient.
- Nonstandard custom made.



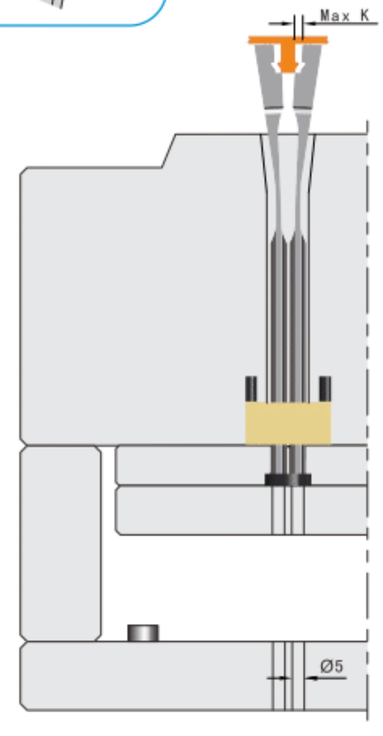
Max.forming position size.



Function chart:



Mold closed



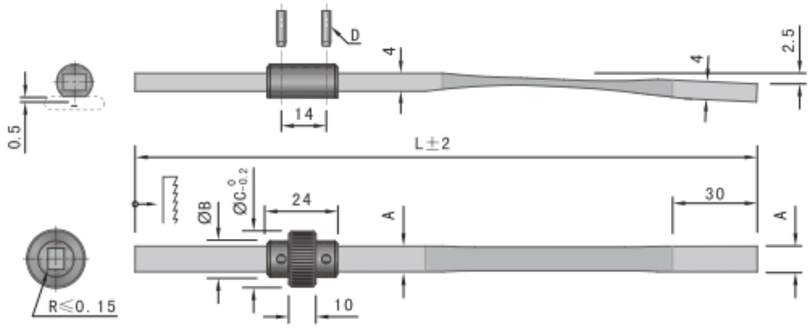
Mold opend

DIN

Sprung cores

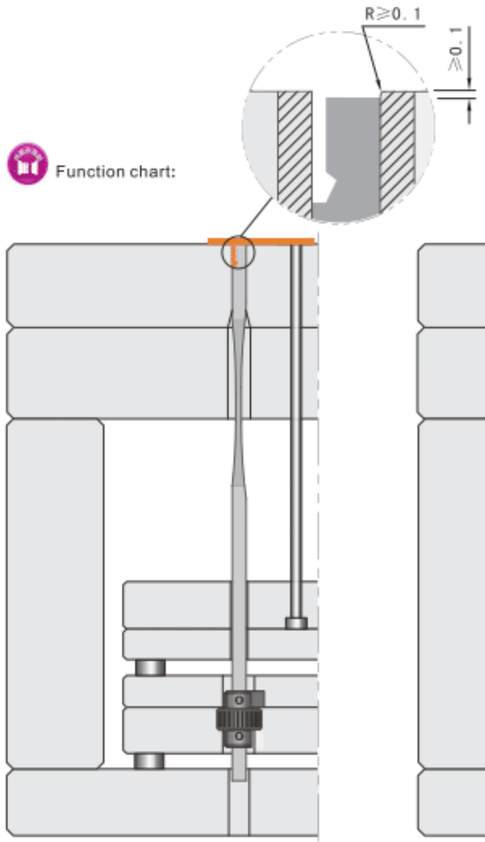
PPF





Order PPF-A

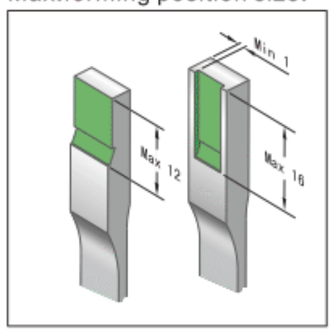
Code	A	ØB	C	ØD	L	@ /P
PPF-06	6	M10×0.75	16	Ø3× 8	150	
PPF-08	8	M12×0.75	18	Ø4×10		
PPF-10	10	M14×0.75	20	Ø4×12	200	
PPF-12	12	M16×0.75	22	Ø4×14		



Mold closed

Mold opend

Max.forming position size.



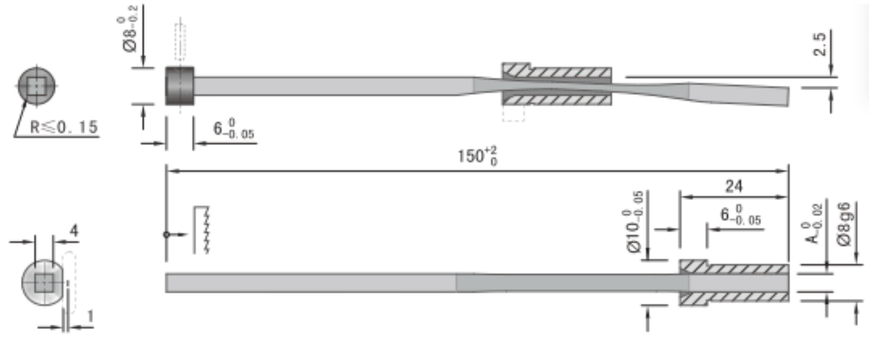
- No this heel block, have to processing and match to do by oneself.
- Function:when sprung core completely ejector,prevent sprung core unexpected move to break.

DIN

Sprung cores

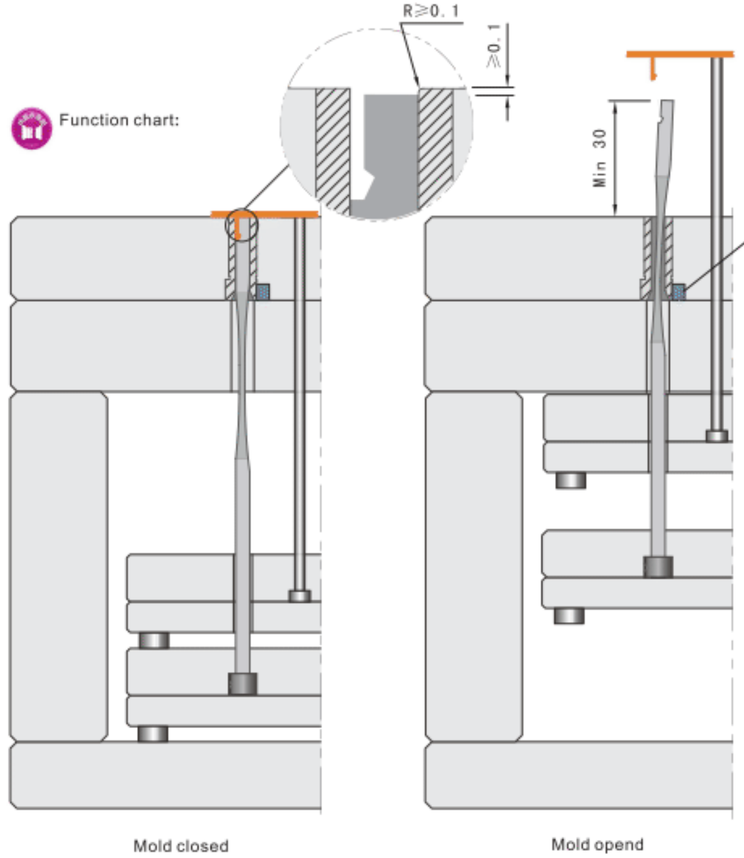
MMP





Order MMP-044150

Code	A	@ /P
MMP-044150	4	
MMP-054150	5	

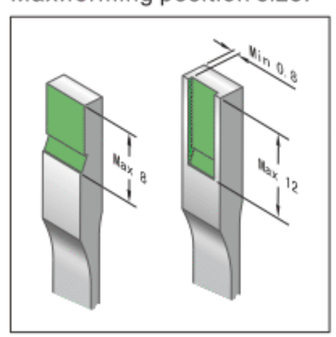


Mold closed

Mold opend

- No this pad, have to processing and match to do by oneself.
- Function:when sprung core completely ejector,prevent sprung core unexpected move to break.

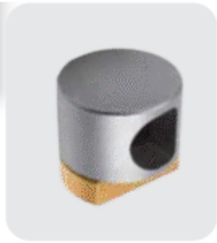
Max.forming position size.

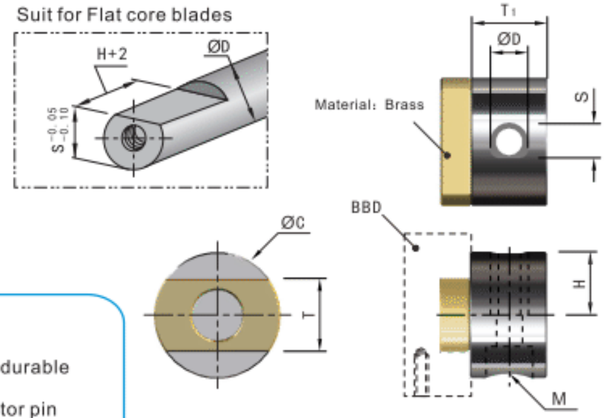


DIN

Slide core units

DDF





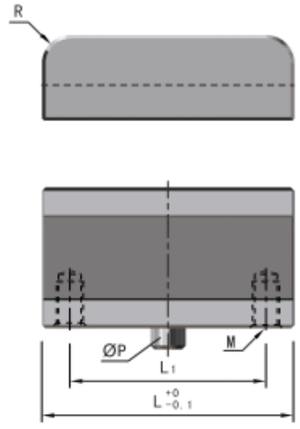
Feature:
1. Slide parts adopt high strength brass made, durable in use.
2. Safety and stable fixed angle bar, same ejector pin plate usage space.

Order DDF-D-T1-C Material:SKD61 Hardness:51±3HRC

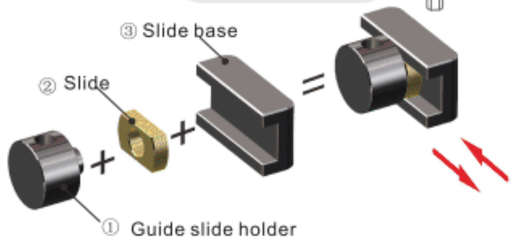
Code	D	T1	C	T	H	S	M	@ /P
DDF-061220	6	12	20	11.5	10	5.5	M 4×12	
DDF-081220	8					7.5	M 5×12	
DDF-101624	10	16	24	13.5	12	9.5	M 6×16	
DDF-121624	12					11	M 8×16	
DDF-162032	16	20	32	19	16	14.5	M 8×22	
DDF-202538	20	25	38	21	19	18.5	M10×25	
DDF-253148	25	31	48	28	24	23	M12×35	

BBD





Product space chart:



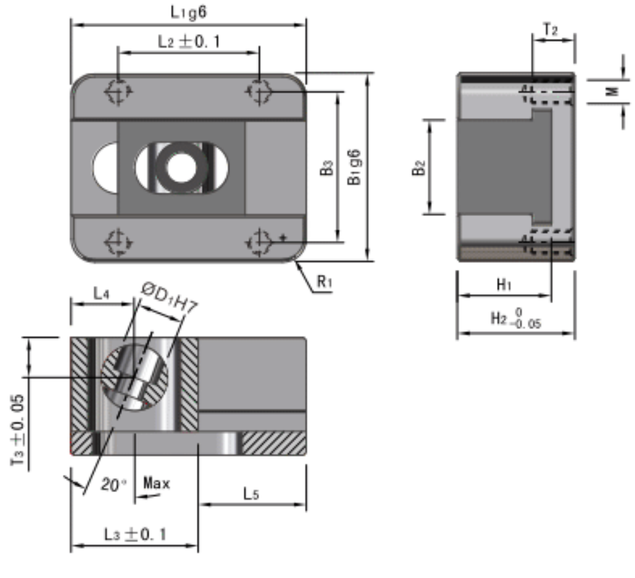
Order BBD-T-Z-L Material:S45C Hardness:≈45HRC

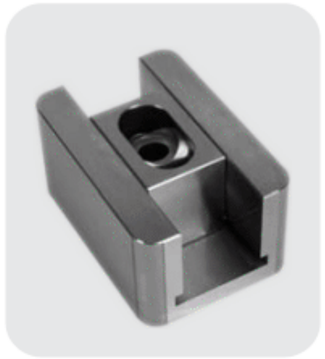
Code	T	Z	L	S	H	G	L2	P	R	L1	M	@¥/S
BBD-122036	12	20	36	4	4.8	11.5	10	Ø 5×12	4	28	M 5	
BBD-142266	14	22	66		6.3					42		
BBD-162440	16	24	40	5		13.5	12	Ø 6×14	5	30	M 6	
BBD-203260	20	32	60		8.3	19	15			44		
BBD-253872	25	38	72	7	10.3	21	18	Ø 8×18	6	56	M 8	
BBD-314890	31	48	90	8	13.3	28		Ø10×28	8	74	M10	

DIN

Slide core units

ZZ1811



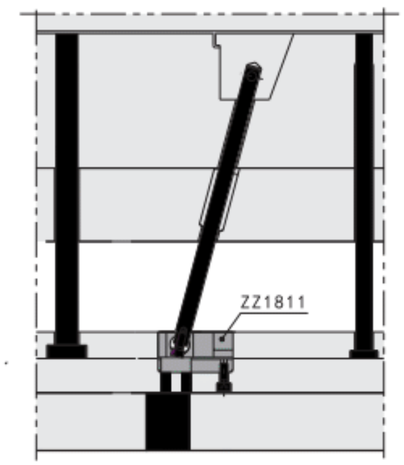


Order ZZ1811-D1

D1	B1	B2	B3	H1	H2	L1	L2	L3	L4
10	40	20	32	20	25	50	30	27	13.5
14	48	25	39	28	35	70	50	35	17.5

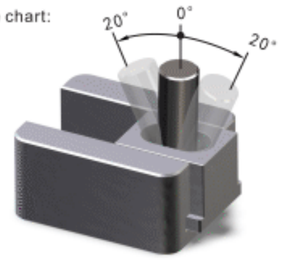
Code	D1	L5	T2	T3	R1	M	@ /P
ZZ1811-10	10	23	10	8.5	5	M5	
ZZ1811-14	14	35	12	12.5	6	M6	

Installation Diagram:



Feature:
1. Compare with DTK, KOCU-F etc slide units, the ZZ1811 with more flexibility and can work from 0-20°.
2. Simple structure and easy to install.

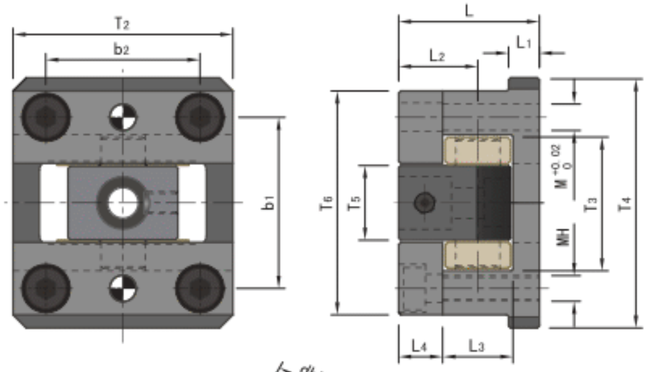
Product space chart:

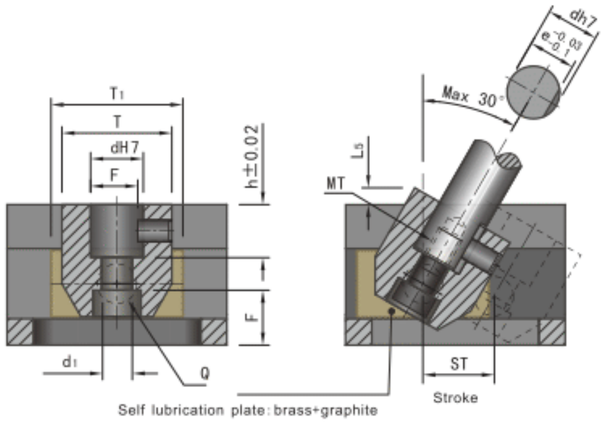


JIS
Slide core units

DTK







This type of slide core unit is fitted to the ejector plate, contain the molding lifter plate parts, after molding, eject the inner uneven slide core with the slide plate parts within the slide stroke, then the plastic can be push out from the mold.

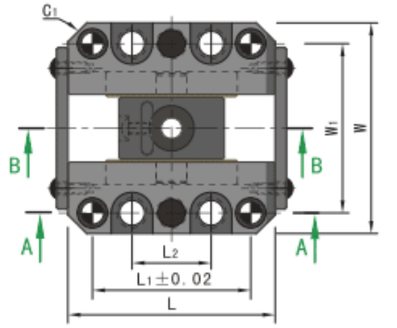
Order DTK-8 Material:S45C

Ød	T	T1	T2	T3	T4	T5	T6	L	L1	L2	L3	L4	L5	ØM
8	20	20	32	19	33	11	30	22	5	12.5	11	7	10.5	3
10	25	25	45	25	45	15	40	27		15.5	15	8	11.3	4
12		30	50	31	57	17	51	32	7	18	16	10	4	6
16	30	40	65	38	65	22	58	36	8	20	20		5	
20	40	50	80	44	80	26	72	42	11	23	22	12	8	8
25	45	55	90	52	93	32	85	50		28	26	15		
30	50	60	100	60	101	38	93	55		30	30		9	
35	60	75	120	70	120	45	110	62	15	35	34	18	10	10
40	70	85	135	80	130	55	120	70		40	44		12	
45	80	95	150	90	140	60	130	80		45	50	20	14	

Code	Ød	h	ØQ	Ød1	b1	b2	e	F	Stroke	MT	MH	@ /P
DTK-08	8	8	7	4.5	24	20	7	10	10	M 4	M 3	
DTK-10	10	10		5.5	32	30	9	12.5	18	M 5	M 4	
DTK-12	12	12	10	7	39	35	11	15	20	M 6	M 6	
DTK-16	16	16	12	9	46	40	14.5		25	M 8		
DTK-20	20	20	14	11	56	55	18	16	30	M10	M 8	
DTK-25	25	25	16	14	66	65	22.5	17	35	M12	M10	
DTK-30	30	30	18		74	70	27		40			
DTK-35	35	35	20		85	80	32	18	45			
DTK-40	40	40	25	18	95	90	36	19	50	M16	M12	
DTK-45	45	45	30		105	110	40	24	55			

JIS
Slide core units

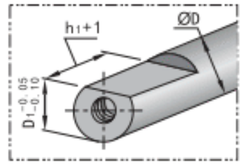
SSCZN

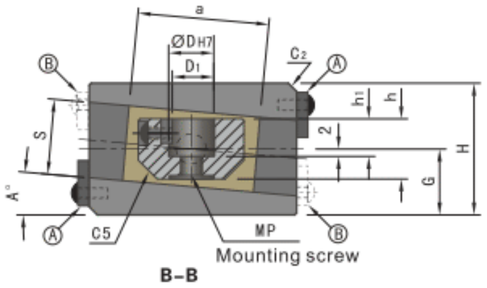




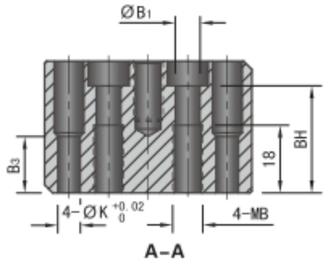
Self lubrication plate: brass+graphite

Suit for Flat core blades





B–B



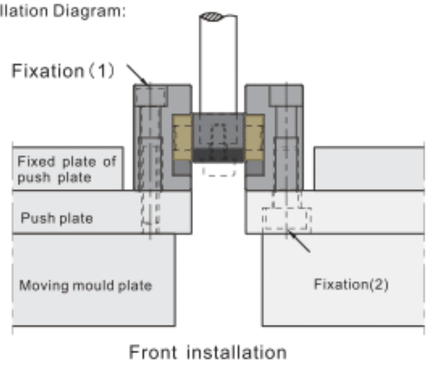
A–A

Order SSCZN-D-A° Material:S45C

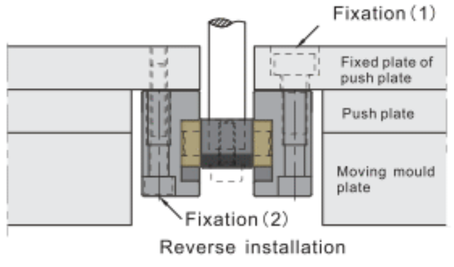
D	W	L	H	C1	C2	D1	d	h	h1	N	S	a	G	K
12	56	55	35	5	-	11	5.5	16	10	30	20	35	17.5	6
16	60	65	36	6	5	15	9	18	11	33		40	18	
20	68	70	43			18	11	22	13	38	24		21.5	8
25	75	80	45			22		26	15	45	26	45	22.5	
30	81	95	54			27.5		30	17	51	30	55	27	

Code	D	L1	L2	W1	B1	B3	BH	MB	A°	Block installation position Ⓐ	Block installation position Ⓑ	MP	@ /P
SSCZN	12	42	21	45	6.6	15	28.5	M 8	0 1 2 3 4 5 6 7 8 9 10	0°-10°	-	M 5	
	16	46	25	48			29.5					M 8	
	20	50		55	8.6	20	34.5	M10		4°-10°	0°-3°	M10	
	25	60	35	62			36.5						
	30	75	50	68			45.5			0°-10°	-		

Installation Diagram:



Front installation



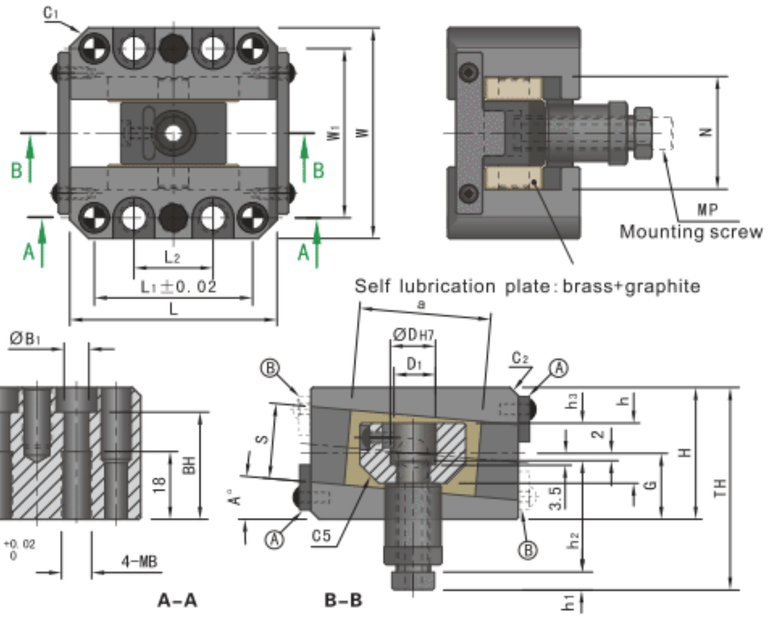
Reverse installation

JIS

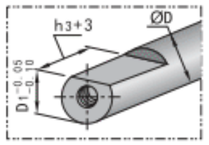
Slide core units

SSCZA





Suit for Flat core blades

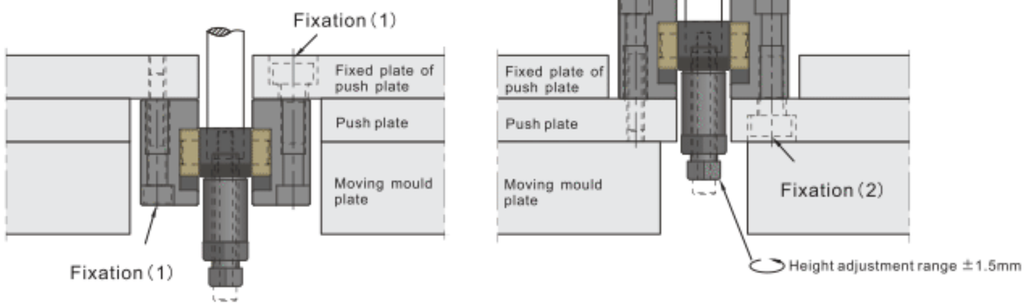


Order SSCZA-D-A° Material:S45C

D	W	L	H	C1	C2	D1	d	h	h1	h2	h3	N	S	a	TH
12	56	55	35	5	-	11	5.5	16	6	33	10	30	20	35	58.5
16	60	65	36	6	5	15	9	18			11	33		40	59
20	68	70	43			18	11	22		36	13	38	24		65.5
25	75	80	45			22		26		39	15	45	26	45	69.5
30	81	95	54			27.5		30		41	17	51	30	55	76

Code	D	L1	L2	W1	B1	B3	BH	G	K	MB	MP	Block installation position Ⓐ	Block installation position Ⓑ	A°	@	/P
SSCZA	12	42	21	45	6.6	15	28.5	17.5	6	M 8	M 5 M 8	0°-10°	-	0 1 2 3 4 5 6 7 8 9 10		
	16	46	25	48			29.5	18								
	20	50		55			34.5	21.5				4°-10°	0°-3°			
	25	60	35	62	8.6	20	36.5	22.5	8	M10	M10					
	30	75	50	68			45.5	27				0°-10°	-			

Installation Diagram:

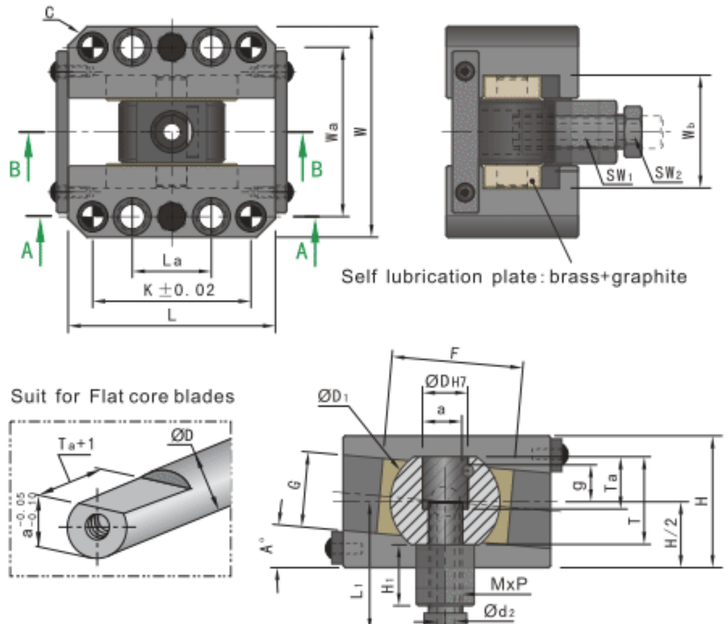


JIS

Slide core units

KKOCUM





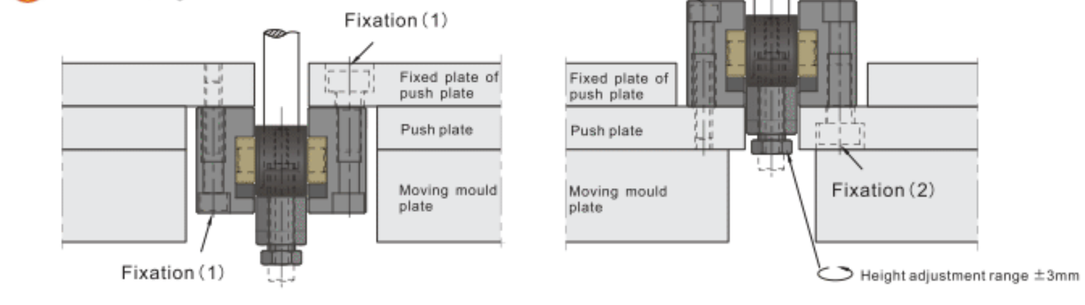
Suit for Flat core blades

Order KKOCUM-D-A° Material:S45C

D	W	Wa	Wb	L	La	L1	K	C	d	d1	d2	H	H1	h	E	e
16	64	50	36	70	25	42	50	6	6.6	11	9	40	21	20	6.6	6
20	76	60	43	75	30	45	55	8	8.6	14	11	46				
25	81	65	48	85	40	49	65				13	48	21.5	25	9	8
30	88	72	55	100	50	55	80					54	26			

D	T	Ta	t	a	G	g	F	D1	Sw1	Sw2	M	Ma	M×P	A Increments of 0°	@	/P	A Increments of 1°	@	/P
16	24	15	6.5	13	24	10	45	30	17	14	M 8	M 8	M14×1.5	0°			1°-10°		
20	30	18		17		13		40	22	19			M18×1.5						
25	35	20.5	8.5	22	26	14	50	45	27	22	M10	M10	M22×1.5						
30	38	22		27	30	15	60	50	32	27			M27×1.5						

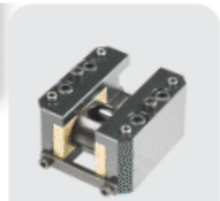
Installation Diagram:

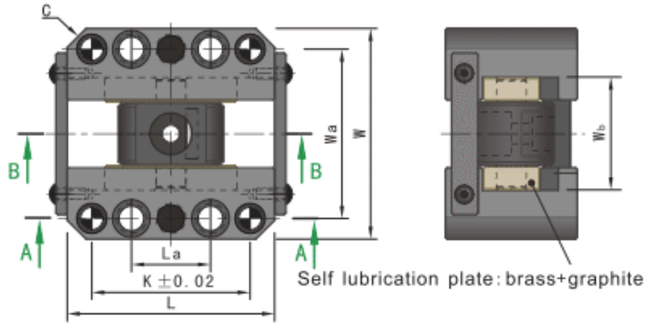


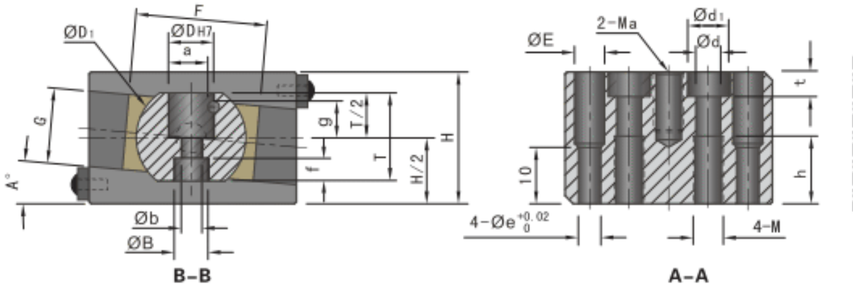
JIS

Slide core units

KKOCUF





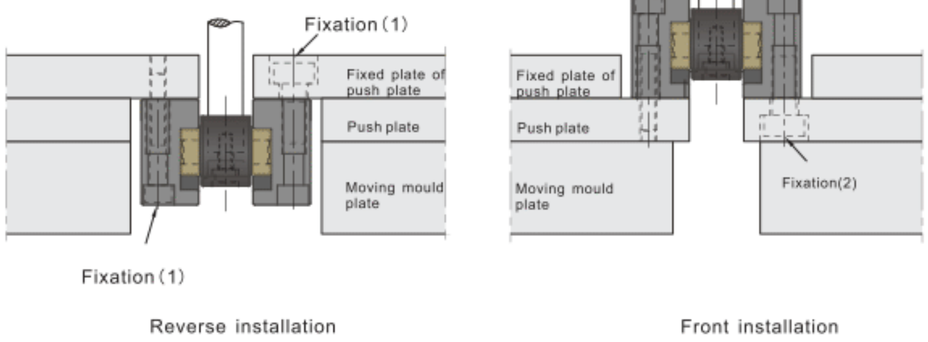


Order KKOCUF-D-A° Material:S45C

D	W	Wa	Wb	L	La	K	C	d	d1	H	h	E	e	t
16	64	50	36	70	25	50	6	6.6	11	40	20	6.6	6	6.5
20	76	60	43	75	30	55	8	8.6	14	46	25	9	8	8.5
25	81	65	48	85	40	65				48				
30	88	72	55	100	50	80				54				

D	D1	a	B	b	g	F	f	G	T	M	Ma	A Increments of 0°	@ /P	A Increments of 1°	@ /P
16	30	13	16	9	10	45	6	24	24	M 8	M 8	0°		1°-10°	
20	40	17	20	11	13		8		30						
25	45	22	25	14	14	50	9.5	26	35	M10	M10				
30	50	27			15	60	9	30	38						

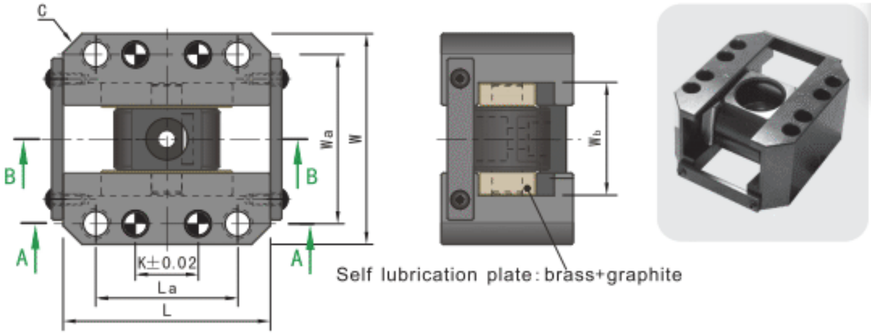
Installation Diagram:



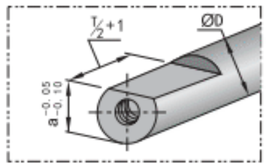
JIS

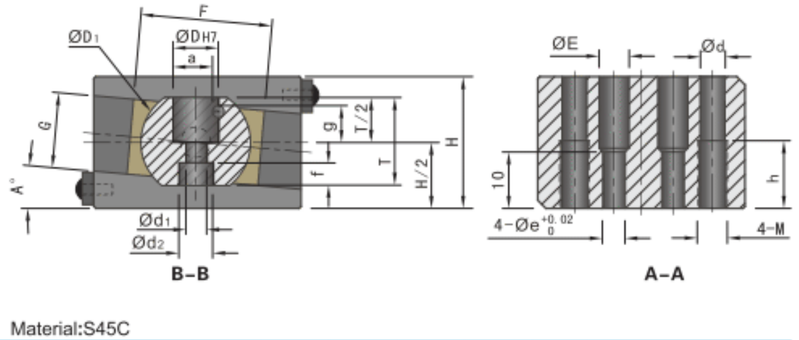
Slide core units

RRCSUF



Suit for Flat core blades



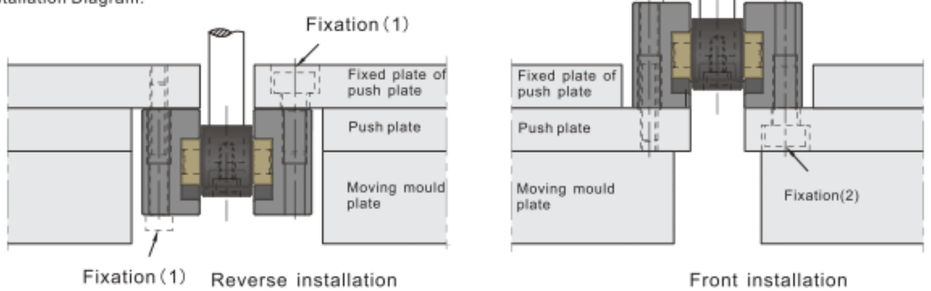


Order RRCSUF-D-A° Material:S45C

D	W	Wa	Wb	L	La	K	C	D1	d	d1	d2	h	H 0°-10°	H 11°-15°	H 16°-20°
10	45	36	26	50	30	16	3	20	3.5	6	10	14	28	-	-
12	51	40	29	60	40	20	4	25	6.6	7	12	20	35		
16	54	44	33	65	38	18	8	30		9	16			41	48
20	64	51	38	70	42			40		11	20		40	47	55
25	70	58	45	80	45	20	10	45	8.6			25	44	52	61
30	78	64	51	100	70	40		50		14	25		54	62	72
35	92	75	58	115	85	50	8	55	10.6			30	60	70	82
40	100	82	66	125				60		18	32		65	78	90

Code	D	T	G	F	f	E	e	p	a	g	M	A Increments of 0°	@ /P	A Increments of 1°	@ /P
RRCSUF	10	16	17	28	3	6	5	3	8.5	6.5	M 5	0°-5°		1°-20°	
	12	20	20	36	5	6.6	6	4	10	8	M 8				
	16	24		40	6			6	13	10					
	20	30	24		7	9	8		17	13	M10				
	25	35	26	45	9.5				22	14					
	30	38	30	50	9				27	15					
	35	40	34	55	10	11	10	8	31		M12				
	40	43	38	60	11.5				36	16					

Installation Diagram:

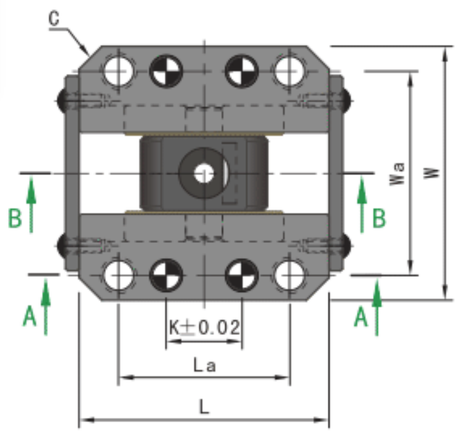


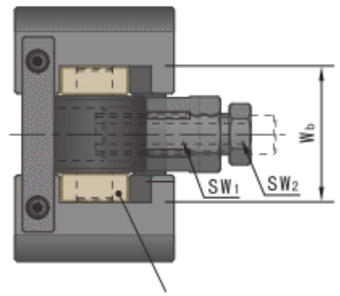
JIS

Slide core units

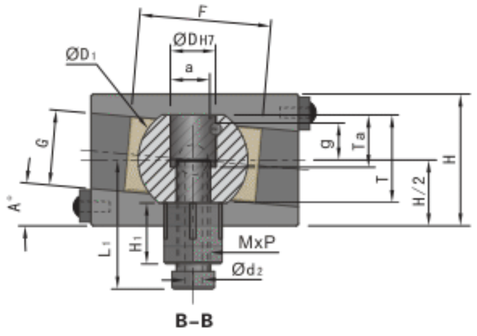
RRCSUM



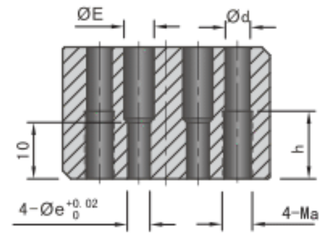




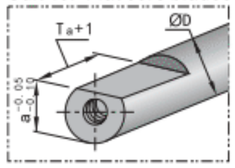
Self lubrication plate: brass+graphite



B–B



A–A



Order RRCSUM-D-A° Material:S45C

D	W	Wa	Wb	L	La	C	D1	d	d2	E	e	K
16	54	44	33	65	38	8	30	6.6	9	6.6	6	18
20	64	51	38	70	42		40		11			
25	70	58	45	80	45	10	45	8.6		9	8	20
30	78	64	51	100	70		50		13			40
35	92	75	58	115	85	8	55	10.6		11	10	50
40	100	82	66	125			60		17			

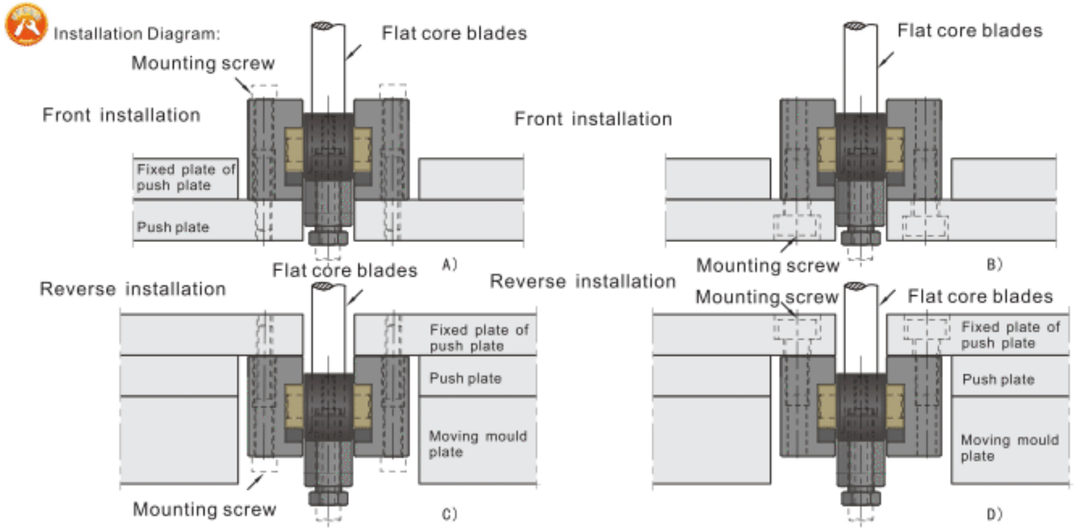
D	h	T	Ta	G	F	a	g	Sw1	Sw2	Ma
16	20	24	15	20	40	13	10	17	14	M 8
20		30	18	24		17	13	22	19	
25	25	35	20.5	26	45	22	14	27	22	M10
30		38	22	30	55	27	15	32	27	
35	30	40	23	34	70	31		36	32	M12
40		43	24.5	38		36	16	41	38	

D	H			H1		L1		M×P	A	@ /P	A	@ /P
	0°-10°	11°-15°	16°-20°	0°-10°	11°-20°	0°-10°	11°-20°		Increments of 5°		Increments of 1°	
16	35	41	48	21	28	42	50	M14×1.5	0°		1°-20°	
20	40	47	55		29	45	54	M18×1.5				
25	44	52	61	21.5	30.5	49	59	M22×1.5				
30	54	62	72	25	35	54	64	M27×1.5				
35	60	70	82	28	38	58	68	M30×1.5				
40	65	78	90	29	39	60.5	70.5	M36×1.5				

JIS

Slide core units

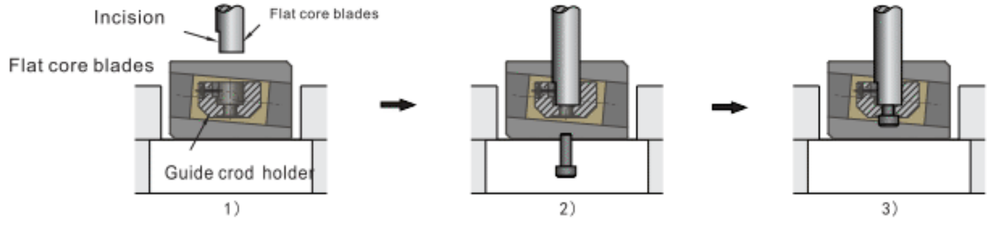
Installation Diagram:



Installation Guidelines:

- Slide unit have obverse and reverse two installation method,every installation method have two different screw fixed method. such as A .B .C.D drawing.
- Above installation method only apply to slide unit SSCZN, SSCZA, KKOCUM, KKOCUF, RRCSUF. RRCSUM series products.
- Slide unit SSCZN, SSCZA, KKOCUM, KKOCUF series drawing A.C different installation method, screw head cant higher than slide unit.

Installation Diagram:



Angle bar installation method:

- The cut of angle bar alignment check rotating surface of angle bar fixed base.
- Angle bar insert into angle bar fixed base to make sure position.
- Apply to head cap screw to fixed.
- Above installed method only apply to SSCZN, KKOCUF, RRCSUF.

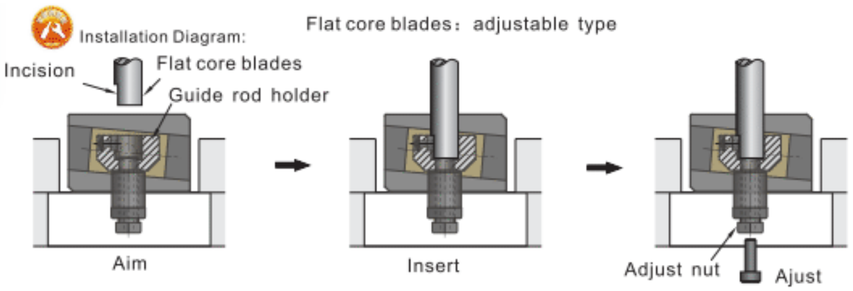
JIS
Slide core units

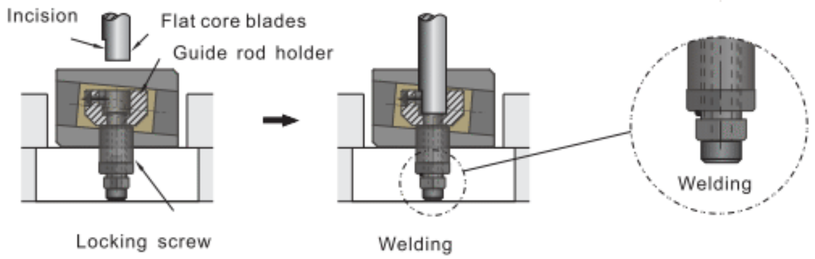
RRCSUM



Installation Diagram:

Flat core blades：adjustable type

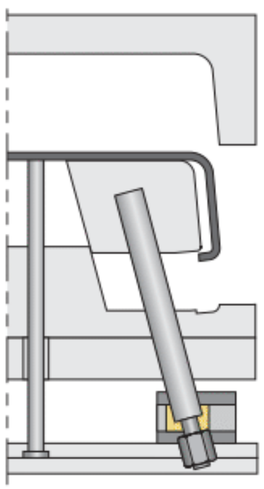




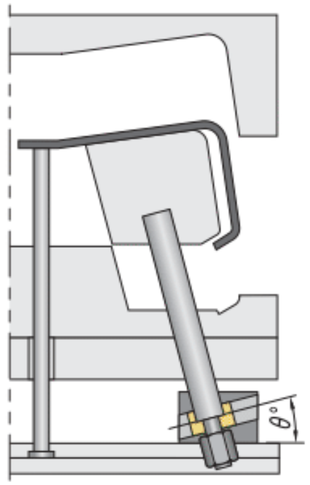
Angle bar installation method:

- The cut of angle bar alignment check rotating surface of angle bar fixed base.
- Angle bar insert into angle bar fixed base to make sure position
- Revolve adjustable nut to confirm angle bar position, (According to different code to adjust height, please refer to code illustration.
- Locking nut, at the same use head cap screw fixed angle bar.
- Please adjust nut and locking nut weld to avoid angle bar loosen.

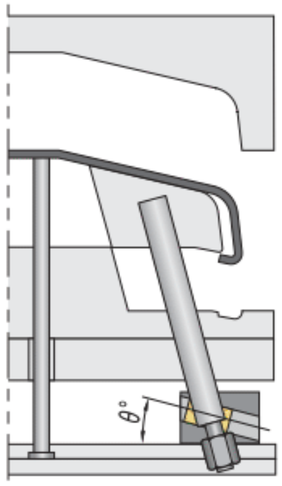
Example:



Drawing 1:0 Angle(level)



Drawing 2:With angle(descend)

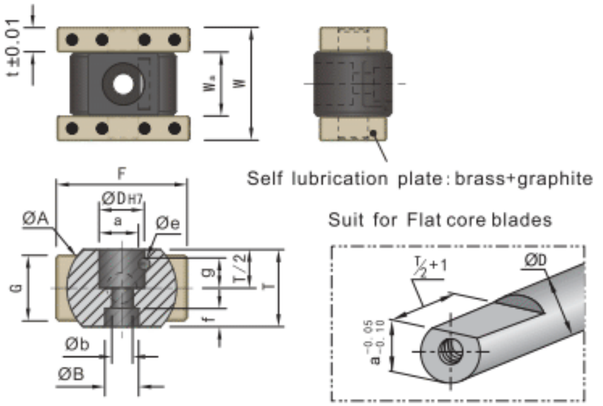


Drawing 3:With angle(ascend)

JIS
Slide core units

KKPHF
RRCPHF





Order KKPHF-D Material:S45C

D	W	Wa	F	t	G	A	a	T
8	24	12	25	6	13	20	7.5	16
10	28	14	32	7	17		8.5	
12	31	17	40		20	25	10	20
16	36	21	45	7.5	24	30	13	24
20	43	28				40	17	30
25	48	33	50		26	45	22	35
30	55	38	60	8.5	30	50	27	38
35	64	44	70	10	34	55	31	40
40	72	50	80	11	38	60	36	43

Code	D	g	f	B	b	e	S.H.C.S Mounting screws	@ /P
KKPHF	8	6.5	5	10	5	3	M 4×10	
	10		4	12	6		M 5×12	
	12	8.5	5	13	7	4	M 6×14	
	16	10	6	16	9	6	M 8×20	
	20	13	8	20	11		M10×25	
	25	14	9.5	25	14		M12×30	
	30	15	9					
	35		10			8		
	40	16	11.5	32	18		M16×35	

Order RRCPHF Material:S45C

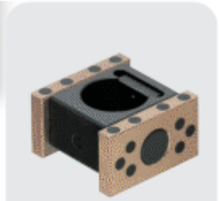
D	W	Wa	F	t	G	A	a	T
10	26	14	28	6	17	20	8.5	16
12	29	17	36	6.5	20	25	10	20
16	33	20	40			30	13	24
20	38	25			24	40	17	30
25	45	30	45	7.5	26	45	22	35
30	51	36	55		30	50	27	38
35	58	42	70	8	34	55	31	40
40	66	48		9	38	60	36	43

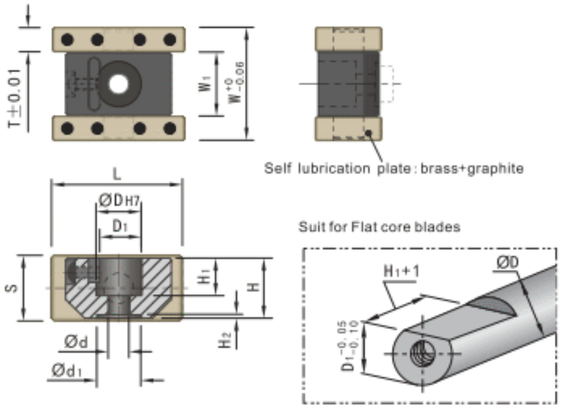
Code	D	g	f	B	d	e	S.H.C.S Mounting screws	@ /P
RRCPHF	10	6.5	3	10	6	3	M 5×12	
	12	8	5	12	7	4	M 6×14	
	16	10	6	16	9	6	M 8×20	
	20	13	7	20	11		M10×25	
	25	14	9.5	25	14		M12×30	
	30	15	9					
	35		10			8		
	40	16	11.5	32	18		M16×35	

JIS

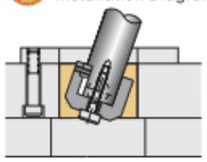
Slide core units

SSCZNP





Installation Diagram:

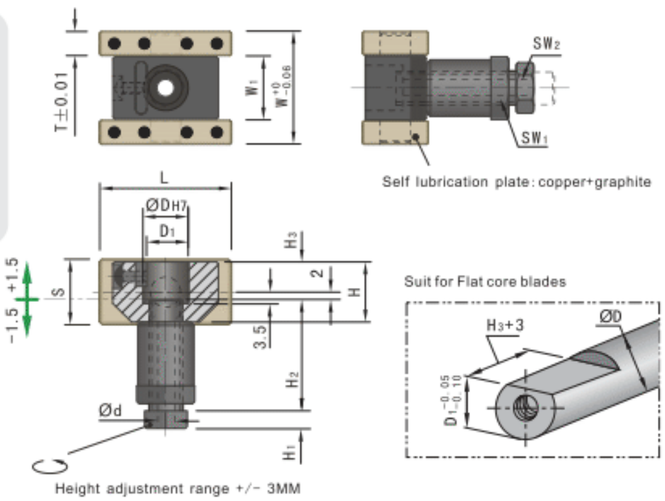


Order SSCZNP-D Material:S45C

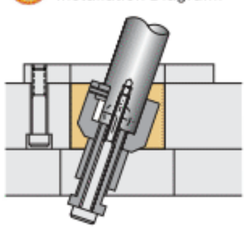
Code	D	D1	d	d1	H	H1	H2	W	W1	S	L	T	@ /P
SSCZNP	12	11	5.5	-	16	10	-	30	17	20	35	6.5	
	16	15	9	16	18	11	3	33	20		40		
	20	18	11	20	22	13	5.5	38	25	24			
	25	22			26	15		45	31	26	45	7	
	30	27.5			30	17	3.5	51	36	30	55	7.5	

SSCZAP





Installation Diagram:



Order SSCZAP-D Material:S45C

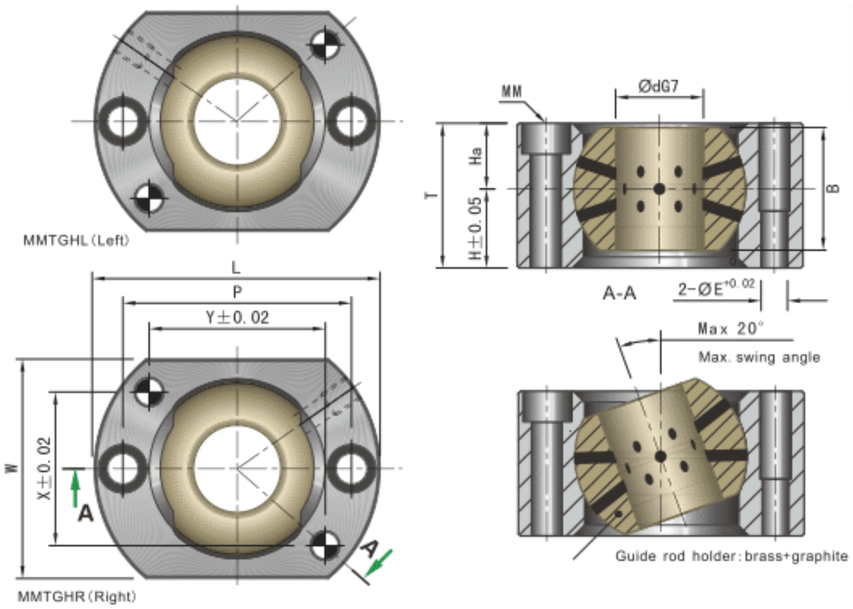
Code	D	D1	d	H	H1	H2	H3	W	W1	S	L	T	SW1	SW2	@ /P
SSCZAP	12	11	5.5	16	6	33	10	30	17	20	35	6.5	17	12	
	16	15	9	18			11	33	20		40		21	16	
	20	18	11	22		36	13	38	25	24			24	19	
	25	22		26		39	15	45	31	26	45	7			
	30	27.5		30		41	17	51	36	30	55	7.5			

JIS

Slide core units

MMTGHL MMTGHR





1. It is recommended to use the combination of Slide core unit similar with DTK series, apply to Large die and mold.
2. The inclined pin has angle of 0°to 20°, easy for installation,and with its Graphites inserts, it can reduce friction when the inclined pin moving.
3. The usage of MMTG & MMTGH, it reduce the swing due to the length of inclined pin. Load comcentrated at guide bearing end, increase of upward resistance.

Order MMTGHL-d Material:S45C

d	W	L	T	H	Ha	B	e	p
25	57	85	42	21	21	33	8	64
30	65	94	48	24	24	37		72
35	72	98	54	27	27	40		78
40	77	106	58	29	29	44		84
50	88	124	66	33	33	48	10	102

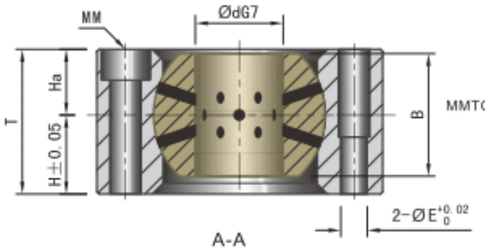
Code	d	X	Y	MM	Dowel pin	Mounting screws	@ /P
MMTGHL MMTGHR	25	42	50	M10	Ø 8×30	M10×45	
	30	48	55			M10×55	
	35	52	60			M10×60	
	40	55	65			M10×65	
	50	65	78	M12	Ø10×40	M12×65	

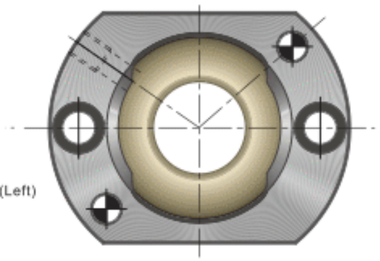
Old version code	New code
MMTG(right)	MMTGL (left)
	MMTGR (right)
MMTGH(right)	MMTGHL(left)
	MMTGHR(right)

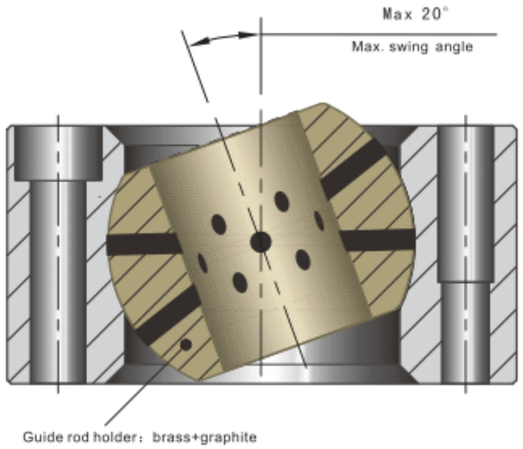
JIS
Slide core units

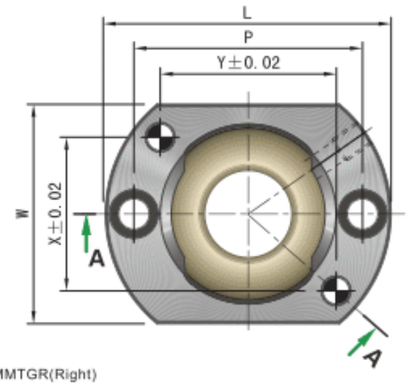
MMTGL
MMTGR











1.New code MMTGL.
2.MMTGR instead of old code MMTG.
3.Usage environment:max 170℃.

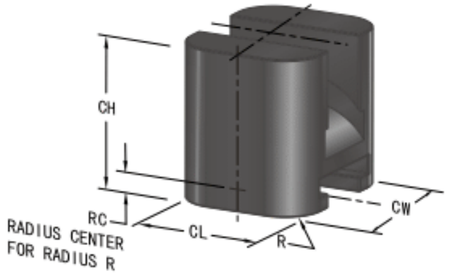
Order MMTGL-d Material:S45C

d	W	L	T	H	Ha	B	e	p
8	28	44	17	9	8	14	5	32
10	30	46	20	11	9	16		34
12	32	50	22	12	10	18	6	36
16	45	58	29	16	13	25		45
20	50	65	33	18	15	28		52
25	57	78	38	21	17	33	8	62
30	65	86	43	24	19	37		70

Code	d	X	Y	MM	Dowel pin	Mounting screws	@ /P
MMTGL MMTGR	8	20	28	M5	Ø5×20	M5×20	
	10	22				M5×25	
	12		30	M6	Ø6×25	M6×25	
	16	30	35			M6×35	
	20	35	40			M6×40	
	25	40	50	M8	Ø8×30	M8×45	
	30	48	55			M8×50	

AISI
Slide core units

UULC



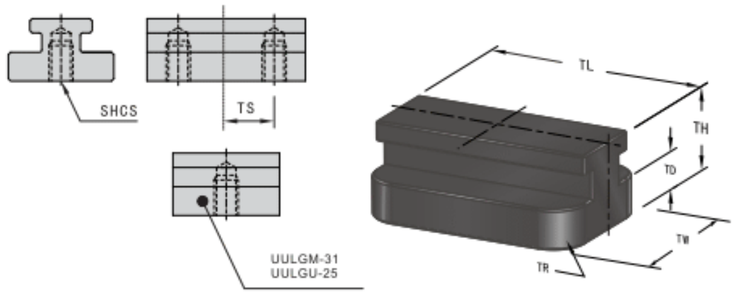


Order UULCM-50 Material:SKD61 Surface:900HV Hardness:40-44HRC

Code(Inch)	CW	CL	CH	RC	R	Series	@ /P
UULCM- 50	0.5	0.437	0.625	0.125	0.25	0.25	
UULCU- 87	0.875	0.75	0.875	0.187	0.406	0.5	
UULCX-175	1.75	1.5	1.656	0.125	0.875	1	

Code(Meteic)	CW	CL	CH	RC	R	Series	@ /P
UULCMM-22	22	18	25	6	10	10	

UULG





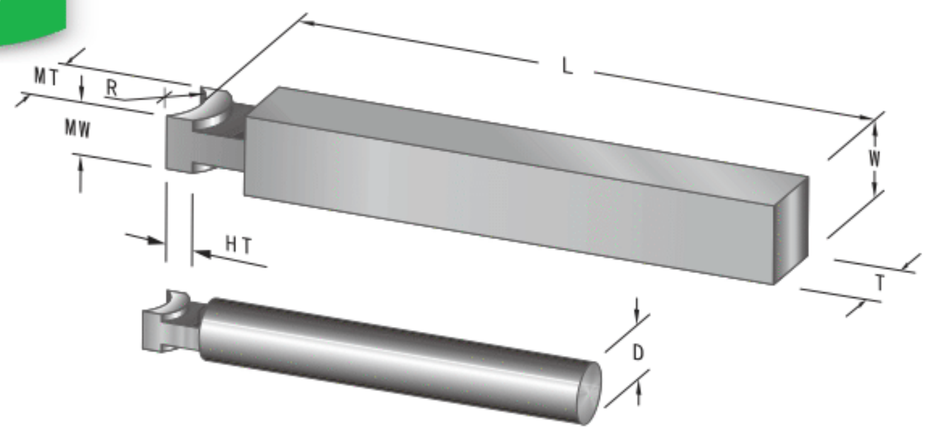
Order UULGM-31 Material:SKD61 Surface:900HV Hardness:40-44HRC

Code(Inch)	TS	TL +0.000 -0.010	TW +0.000 -0.001	TH +0.010 -0.000	TD +0.010 -0.000	TR	Series	SHCS (Included)	Travel Allowed	@ /P
UULGM- 31	-	0.75	0.5	0.5	0.344	0.094	0.25	#10-32×1"	5/16	
UULGM-100	0.5	1.5							1 1/8	
UULGU- 25	-	1	0.875	0.468	0.219	0.188	0.5	1/4-20×3/4	1/ 4	
UULGU- 50	0.375	1.25							1/ 2	
UULGU-100	0.625	1.75							1"	
UULGU-150	0.75	2.25							1 1/2	
UULG - 50	0.625	2	1.75	0.625	0.25	0.313	1	3/8-16×1 1/4	1/ 2	
UULG - 100	0.875	2.5							1"	
UULG - 250	1.375	4							2 1/2	

Code(Meteic)	TS	TL +0.000 -0.025	TW +0.000 -0.025	TH +0.25 -0.00	TD +0.25 -0.00	TR	Series	Shcs (Included)	Travel Allowed	@ /P
UULGMM-10	10	33	22	13	6	5	10	M-5×20	10	
UULGMM-30	15	52							30	

AISI
Flat core blades

UULB



Order UULBM-37×25-L8 Material:SKD61 Hardness:38-42HRC

Code(inch)	T +0.010 -0.000	W +0.010 -0.000	L	HT	R	Series (MW)	MT (Min. Thk.)	@ /P
UULBM-37×25-L8	3/8	1/4	8"	0.156	0.25	0.25	0.25	
UULBM-50×25-L8	1/2						0.312	
UULBM-75×37-L8	3/4	3/8						
UULBU-50×50-L8	1/2	1/2	8"	0.187	0.406	0.5	0.5	
UULBU-50×50-L14			14"					
UULBU-50×100-L8		1"	8"					
UULBU-50×100-L14			14"					
UULBU-100×50-L8	1"	1/2	8"					
UULBU-100×50-L14			14"					
UULBU-150×50-L8	1 1/2		8"					
UULBU-150×50-L14			14"				0.625	
UULBU-75×150-L8	3/4	1 1/2	8"					
UULBU-75×150-L14			14"					
UULBU-150×75-L8	1 1/2	3/4	8"					
UULBU-150×75-L14			14"					
UULB×100×150-L10	1"	1 1/2	10"	0.375	0.875	1	1	
UULB-100×150-L18			18"					
UULB-100×100-L10		1"	10"					
UULB-100×100-L18			18"					
UULB-150×100-L10	1 1/2		10"					
UULB-150×100-L18			18"					

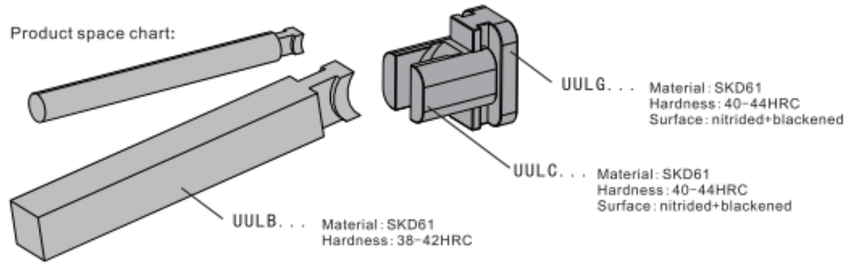
Code(Meteic)	T +0.025 -0.000	W +0.025 -0.000	L	HT	R	Series (MW)	MT (Min. Thk.)	@ /P
UULBMM-10×10-L250	10	10	250	0.5	10	10	10	
UULBMM-15×15-L250	15	15					15	
UULBMM-20×20-L400	20	20	400				20	

Code(inch)	D +0.000 -0.001	L	R	HT	Series (MW)	MT (Min. Thk.)	@ /P
UULBM-43D - L8	Ø7/16	8"	0.25	0.156	0.25	0.312	
UULBU-75D - L8	Ø3/ 4	8"	0.406	0.187	0.5	0.5	
UULBU-75D -L14		14"					
UULBU-75D -L18		18"					
UULBX-125D-L10	Ø1 1/4	10"	0.875	0.375	1	1	
UULBX-125D-L18		18"					

Code(Meteic)	D +0.000 -0.025	L	R	HT	Series (MW)	MT (Min. Thk.)	@ /P
UULBMM-15D-L250	Ø15	250	10	5	10	10	

AISI
Slide core units

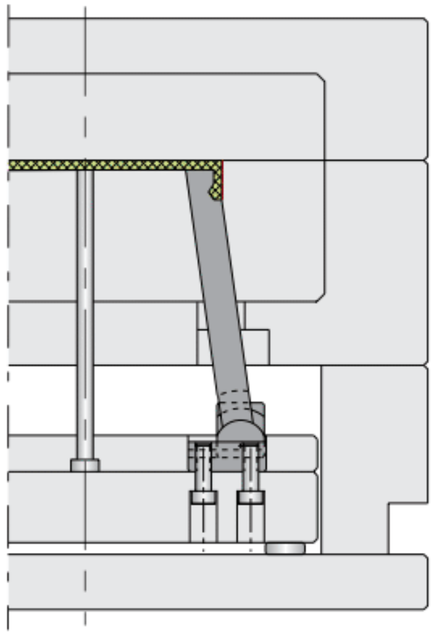
Product space chart:



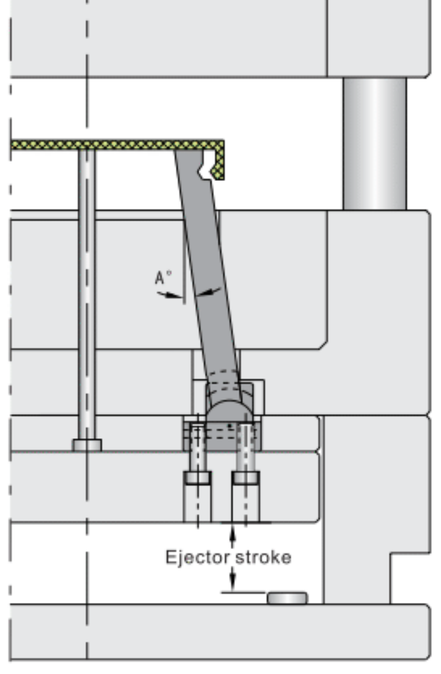


Installation Guidelines:
- Slide device have slide core unit , slide block , angle bar three parts.
- Use head cap screw to fixed slide core unit on ejector pin board.
- Suggest installation usage degree 5°-10° , match space 0.025-0.038mm.
- Accept nonstandard custom made length of angle bar.

Function chart:



Mold closed



Mold opend

AISI
Slide core units

VF-...-SS
VF-...-JS
VF-...-US



Order VF-06-SS

Code	@ /P
VF-06-SS	
VF-08-SS	
VF-10-SS	
VF-13-SS	
VF-16-SS	
VF-20-SS	

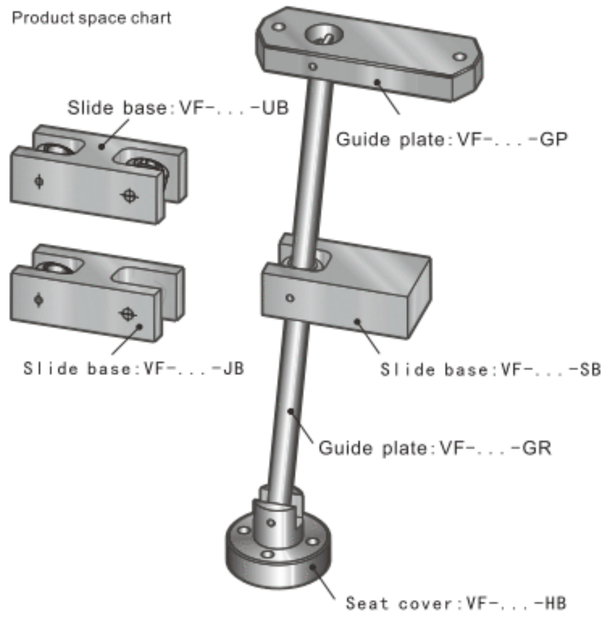
Order VF-06-JS

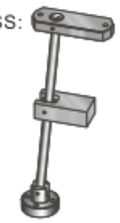
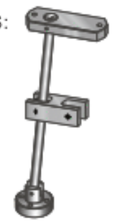
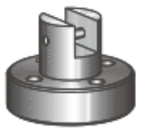
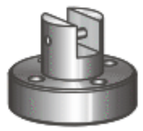
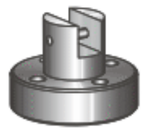
Code	@ /P
VF-06-JS	
VF-08-JS	
VF-10-JS	
VF-13-JS	
VF-16-JS	
VF-20-JS	

Order VF-06-US

Code	@ /P
VF-06-US	
VF-08-US	
VF-10-US	
VF-13-US	
VF-16-US	
VF-20-US	

Product space chart

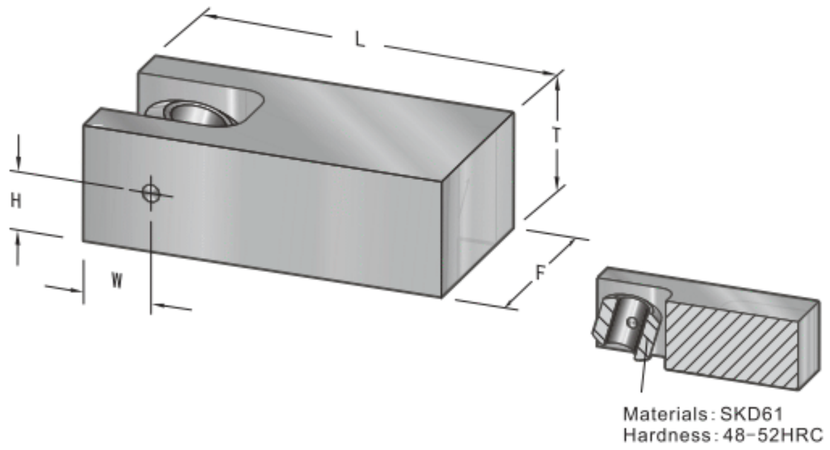


VF-...-SS:	VF-...-JS:	VF-...-US:
		
GP 	GP 	GP 
GR 	GR 	GR 
SB 	JB 	UB 
HB 	HB 	HB 

AISI
Slide core units

VF-...-SB





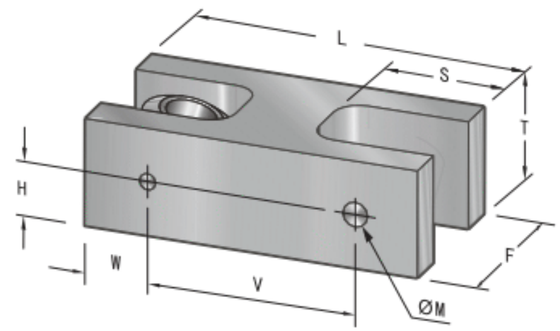
Materials: SKD61
Hardness: 48~52HRC

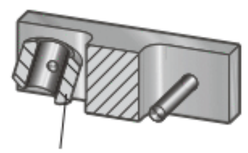
Order VF-06-SB Material:P20 Hardness:28-32HRC

Symbol	VF-06-SB	VF-08-SB	VF-10-SB	VF-13-SB	VF-16-SB	VF-20-SB	@ /P
T	13 0/-0.02	15 0/-0.02	20 0/-0.03	25 0/-0.03	30 0/-0.05	40 0/-0.05	
F	20 0/-0.02	25 0/-0.02	32 0/-0.03	40 0/-0.03	50 0/-0.05	60 0/-0.05	
L	40	50	60	80	100	130	
H	6.5	7.5	10	12.5	15	20	
W	7.5	10	12.5	15	20	25	

VF-...-JB







Materials: SKD61
Hardness: 48~52HRC

Order VF-06-JB Material:P20 Hardness:28-32HRC

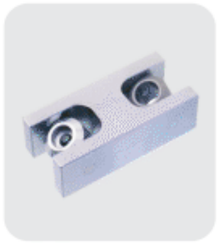
Symbol	VF-06-JB	VF-08-JB	VF-10-JB	VF-13-JB	VF-16-JB	VF-20-JB	@ /P
T	13 0/-0.02	15 0/-0.02	20 0/-0.03	25 0/-0.03	30 0/-0.05	40 0/-0.05	
F	20 0/-0.02	25 0/-0.02	32 0/-0.03	40 0/-0.03	50 0/-0.05	60 0/-0.05	
L	40	50	60	80	100	130	
S	15	20	25	30	40	50	
H	6.5	7.5	10	12.5	15	20	
W	7.5	10	12.5	15	20	25	
V	25	30	35	50	60	80	
M	Ø3	Ø4	Ø5	Ø6	Ø8	Ø10	

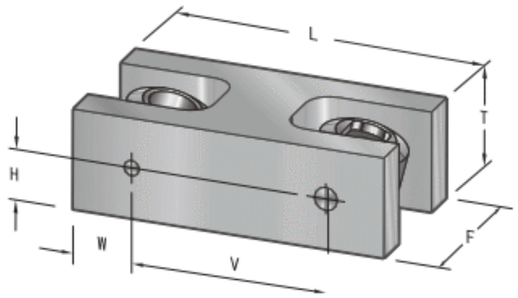
MOLD PARTNER

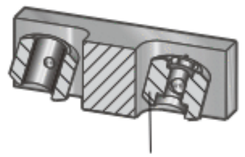
AISI

Slide core units

VF-...-UB







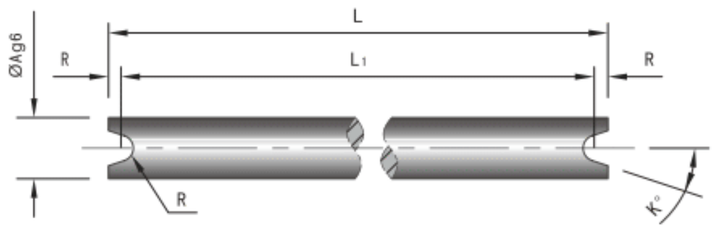
Materials: SKD61
Hardness: 48-52HRC

☎Order VF-06-UB Material:P20 Hardness:28-32HRC

Symbol	VF-06-UB	VF-08-UB	VF-10-UB	VF-13-UB	VF-16-UB	VF-20-UB	@ /P
T	13 0/-0.02	15 0/-0.02	20 0/-0.03	25 0/-0.03	30 0/-0.05	40 0/-0.05	
F	20 0/-0.02	25 0/-0.02	32 0/-0.03	40 0/-0.03	50 0/-0.05	60 0/-0.05	
L	40	50	60	80	100	130	
H	6.5	7.5	10	12.5	15	20	
W	7.5	10	12.5	15	20	25	
V	25	30	35	50	60	80	

VF-...-GR





☎Order VF-06-GR Material:SUJ2 Hardness:58-62HRC

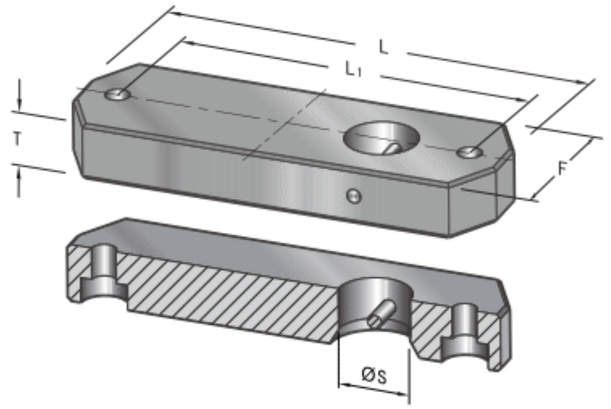
Symbol	VF-06-GR	VF-08-GR	VF-10-GR	VF-13-GR	VF-16-GR	VF-20-GR	@ /P
A^{g6}	Ø6 -0.004/-0.012	Ø8 -0.005/-0.014	Ø10 -0.005/-0.014	Ø13 -0.006/-0.017	Ø16 -0.006/-0.017	Ø20 -0.007/-0.020	
L	150	190	250	310	370	500	
L1	L1	L1	L1	L1	L1	L1	
R	1 +0.02/0	1.5 +0.02/0	2 +0.03/0	2.5 +0.03/0	3 +0.05/0	3.5 +0.05/0	
K°			30° Max				

AISI

Slide core units

VF-...-GP



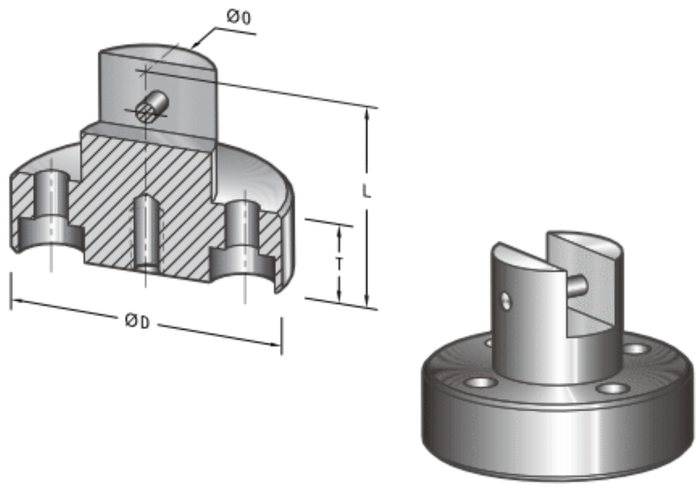


☎Order VF-06-GP Material:P20 Hardness:28-32HRC

Symbol	VF-06-GP	VF-08-GP	VF-10-GP	VF-13-GP	VF-16-GP	VF-20-GP	@ /P
T	8 0/-0.02	10 0/-0.02	12 0/-0.03	15 0/-0.03	20 0/-0.05	25 0/-0.05	
F	20 0/-0.02	25 0/-0.02	32 0/-0.03	40 0/-0.03	50 0/-0.05	60 0/-0.05	
L	60 0/-0.04	70 0/-0.04	90 0/-0.06	120 0/-0.06	150 0/-0.1	180 0/-0.1	
L1	50	60	75	105	130	155	
S	Ø10	Ø13	Ø16	Ø20	Ø25	Ø30	

VF-...-HB





☎Order VF-06-HB Material:P20 Hardness:28-32HRC

Symbol	VF-06-HB	VF-08-HB	VF-10-HB	VF-13-HB	VF-16-HB	VF-20-HB	@ /P
O	Ø13 0/-0.05	Ø16 0/-0.05	Ø20 0/-0.07	Ø25 0/-0.07	Ø32 0/-0.1	Ø40 0/-0.1	
L	20	25	30	35	40	50	
D	Ø27 0/-0.2	Ø34 0/-0.2	Ø42 0/-0.3	Ø51 0/-0.3	Ø65 0/-0.5	Ø80 0/-0.5	
T	8 -0.1/-0.2	10 -0.1/-0.2	12 -0.1/-0.3	15 -0.1/-0.3	18 -0.1/-0.5	22 -0.1/-0.5	

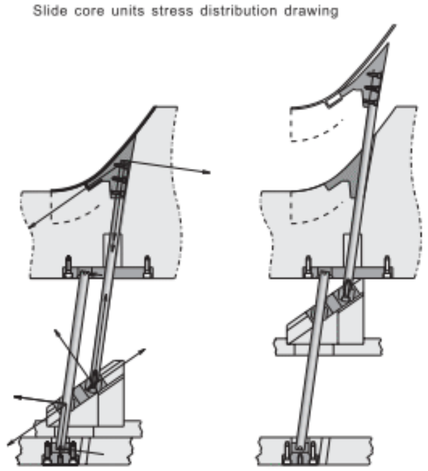
AISI

Slide core units

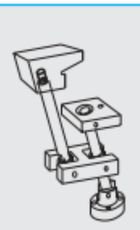
VF-...-SS
VF-...-JS
VF-...-US

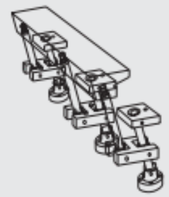


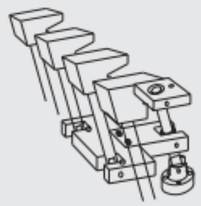
Slide core units stress distribution drawing

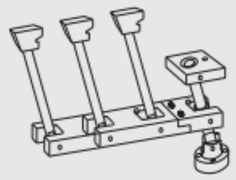


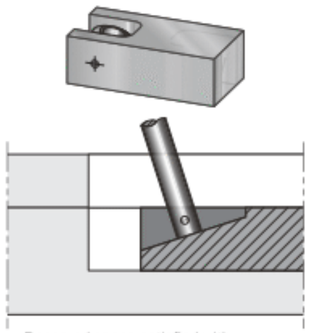
Feature:
1.Degree and ejector stroke will can't limit movement of slide unit, movement reliable and steady.
2.Products design large degree of freedom avoid reinforcing,convex plate, curved surface shape side groove to interfere.
3.Have enough adiabatic expansion space .
4.Easy to processing ,easy assembly and disassembly, no bending moment.
5.extensively use in small type precision mould and super-weight mould. single rank, paratactic, alternate rank. directly rank ect various combination to meet different demand.

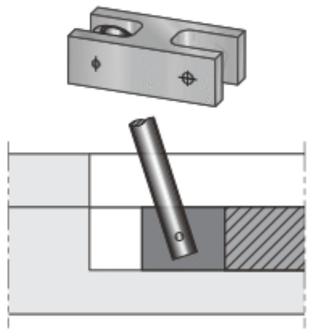

Drawing 1: single

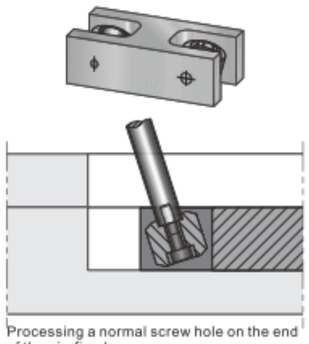

Drawing 2: side by side


Drawing 3: double side by sidegle


Drawing 4: straight line


Reserved space,satisfied with customer's special processing requirements


The simplest dowel pin locating way


Processing a normal screw hole on the end of the pin,fixed with screw, easy to install, suitable for use wide range

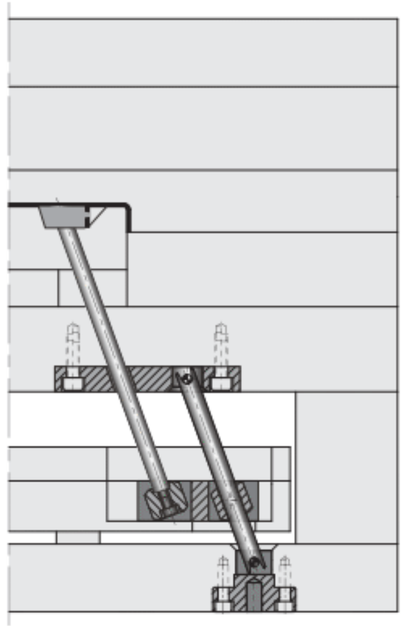
AISI

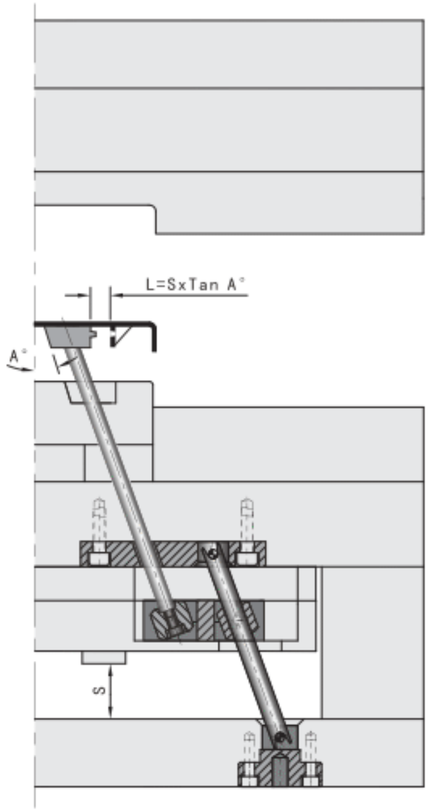
Slide core units

Installation Guidelines:
- VF series slide core unit have socket sleeve, guide rod, slide base ,guide board 4part constitution.
- The usage range of Slide unit from 5°-30°.
- Socket sleeve fixed on movement board by head cap screw.
- Slide stroke avoid interfere ejector pin board.
- Release mould distance L by mean of calculate formula:L=SXTanA°, S is ejector pin board stroke, A is install angle, also can get it from CAD drawing.

A°	
Min.	Max.
5°	30°

Installation Diagram:


Mold closed



Mold opend

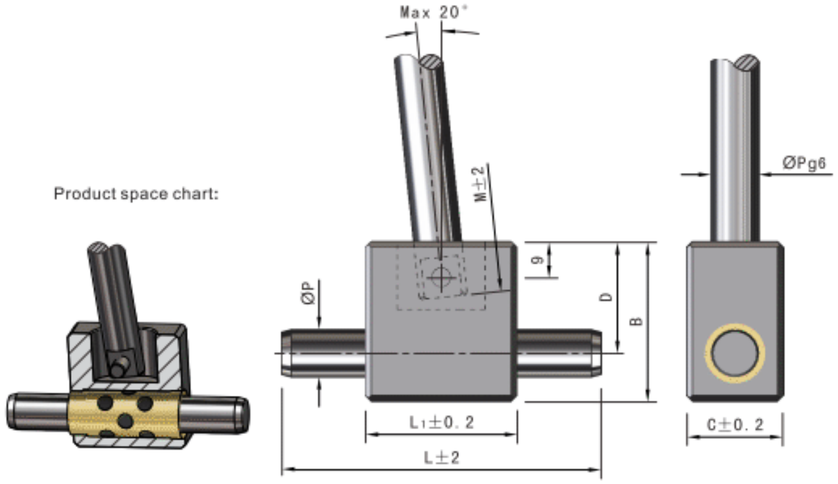
DIN

Slide core units

SSD



Product space chart:

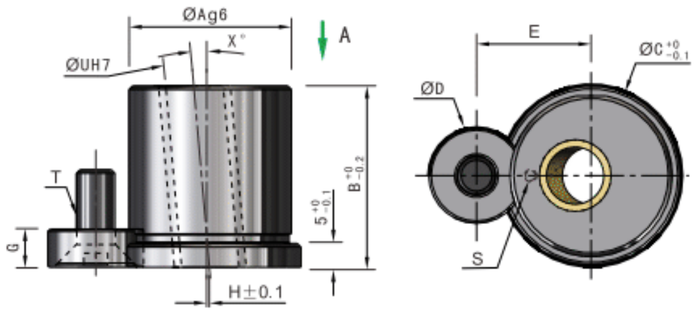


Order SSD-3220GR Material:SUJ2 Hardness:58-62HRC

Code	L1	B	C	D	L	M	P	@ /P
SSD-3220GR	32	37	20	27	80	180	10	
SSD-3824GR	38	38	24	28		210	12	
SSD-4528GR	45	44	28	30	100	250	16	

CCI





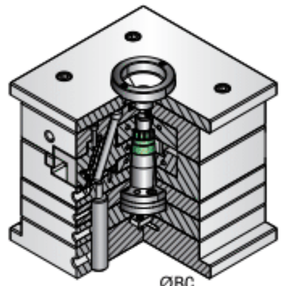
A side

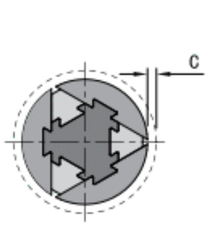
Order CCI-3034GR Material:SUJ2 Hardness:55-62HRC

Code	A	B	C	D	E	G	H	U	X	S	T	@ /P
CCI-3034GR- 5	30	34	34	16	20	6	0	10	5	M6×6	M6×16	
CCI-3438GR- 5	34	38	38	20	24	8		12		M8×6	M8×20	
CCI-4040GR- 5	40	40	44		27			16				
CCI-3034GR-10	30	34	34	16	20	6	7	10	10	M6×6	M6×16	
CCI-3438GR-10	34	38	38	20	24	8	8.5	12		M8×6	M8×20	
CCI-4040GR-10	40	40	44		27			16				
CCI-3034GR-15	30	34	34	16	20	6	7	10	15	M6×6	M6×16	
CCI-3438GR-15	34	38	38	20	24	8	8.5	12		M8×6	M8×20	
CCI-4040GR-15	40	40	44		27			16				
CCI-3034GR-20	30	34	34	16	20	6	7	10	20	M6×6	M6×16	
CCI-3438GR-20	34	38	38	20	24	8	8.5	12		M8×6	M8×20	
CCI-4040GR-20	40	40	44		27			16				

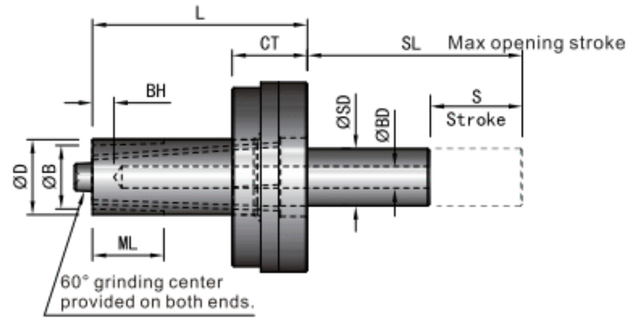
Collapsible core

DDT





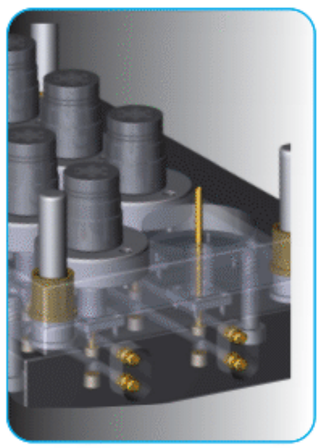




Order DDT-18

D	B +3° Single side	ML	C	CD +0/-0.05	CT ±0.05	L +0.01/-0	SL
21	17	22	1.1	53	21	60	60
33	25	28	1.6	60	22	67	
42	33	43	2.1	76	28	85	
54	42	50	2.4	98	37	104	70

Code	SD +0/-0.02	BD	BH	BC	S	T	@ /P
DDT-18	16	6	6	40	34	M5×25	
DDT-28	20	8	8	47	38		
DDT-38	25	10	10	60	54	M6×35	
DDT-48	30	12	12	78	62	M8×40	



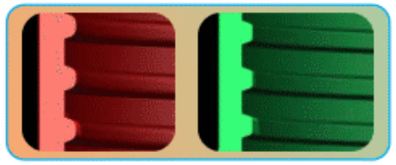
Features:

1. Design of scalability structure by mechanical.
2. Stroke:5%~7% for per side.
3. Instead of expensive pinion and rack.
4. Only needs small space for installation.
5. Shorten the mold manufacturing cycle.
6. Within waterway.
7. Provide a variety of standard types for choice,and also customer made
8. The structure is more simple than rotary unwound thread mechanism.

Collapsible core

DDT





General thread design	Right ☑	Wrong ☒	Right ☑	Wrong ☒
DDT core thread design	Right ☑	Right ☑	Right ☑	Right ☑

DDT-18

Diameter(D)		Collapse(C)		Stroke(S)	
mm.	in.	mm.	in.	mm.	in.
21	0.827	0.5	0.02	19.5	0.768
20	0.787	0.71	0.028	27	1.063
19	0.748	0.92	0.036		
18	0.709	0.98	0.039	34	1.339
17	0.669	1.05	0.041		

DDT-28

Diameter(D)		Collapse(C)		Stroke(S)	
mm.	in.	mm.	in.	mm.	in.
33	1.299	0.98	0.039	34.5	1.358
32	1.26	1.11	0.044		
31	1.22	1.14	0.049		
30	1.181	1.19	0.047		
29	1.141	1.23	0.048	38	1.496
28	1.102	1.28	0.050		
27	1.062	1.33	0.052		
26	1.024	1.39	0.055		
25	0.984	1.45	0.057		

DDT-38

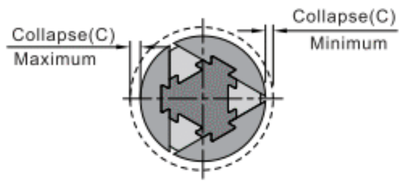
Diameter(D)		Collapse(C)		Stroke(S)	
mm.	in.	mm.	in.	mm.	in.
42	1.654	1.16	0.046	41	1.614
41	1.614	1.37	0.054	48	1.89
40	1.575	1.57	0.062		
39	1.535	1.61	0.063		
38	1.496	1.66	0.065		
37	1.457	1.71	0.067	54	2.126
36	1.417	1.76	0.069		
35	1.378	1.82	0.072		
34	1.339	1.88	0.074		
33	1.299	1.94	0.076		

DDT-48

Diameter(D)		Collapse(C)		Stroke(S)	
mm.	in.	mm.	in.	mm.	in.
54	2.126	1.25	0.049	44.7	1.76
53	2.087	1.45	0.057	51.3	2.02
52	2.047	1.66	0.065	58.1	2.287
51	2.008	1.79	0.07		
50	1.969	1.83	0.072		
49	1.929	1.87	0.074		
48	1.89	1.92	0.076		
47	1.85	1.97	0.078	62	2.441
46	1.811	2.01	0.079		
45	1.772	2.06	0.081		
44	1.732	2.11	0.083		
43	1.693	2.17	0.085		
42	1.654	2.22	0.087		

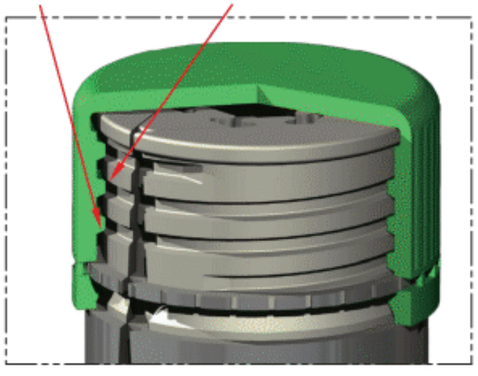
Features:

1. General threads are designed to be unscrewed out of the mold which could not position the threads accurately, DDT threads only where you need them.
2. General threads designed to be stripped snap bead that normally require large radii for release. DDT core snap bead can be flat also.



Calculating required collapse vs undercut depth:

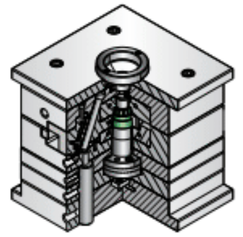
• Undercut + Shrink + Clearance = Total Collapse Req'd

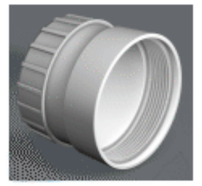


Collapsible core

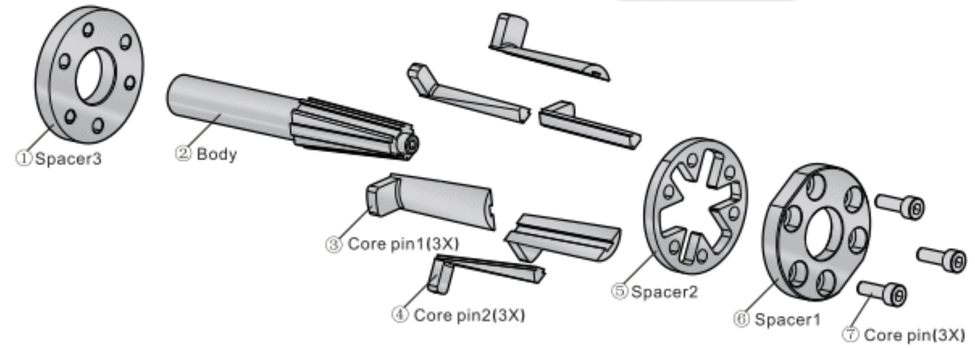
DDT

Product space chart:

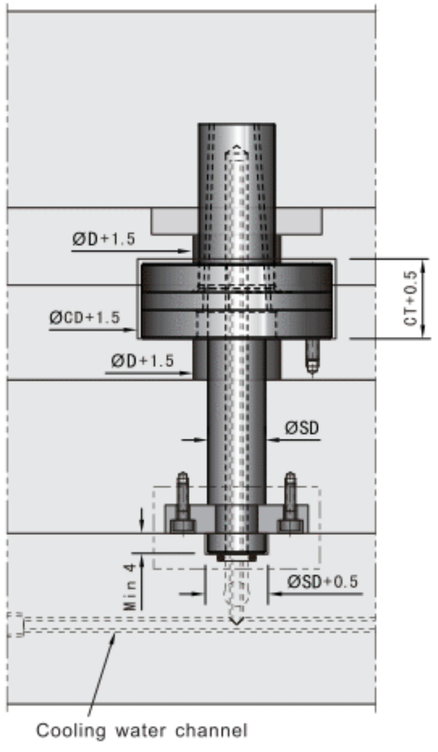


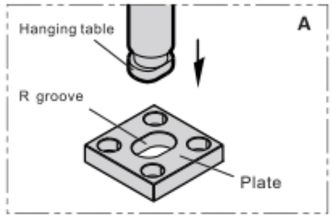




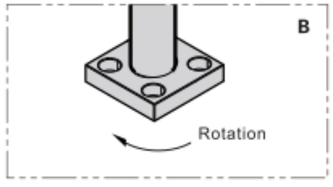


Installation Diagram:

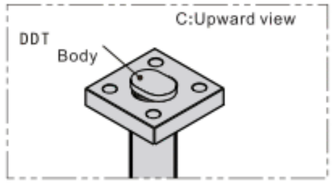




A: The hang of the body will be inserted in R groove of plate.



B: The body will be rotated 90°,and make it lock with plate.



C: The position which the hang lock plate as show on the left.

Body quickly install diagram

MOLD PARTNER

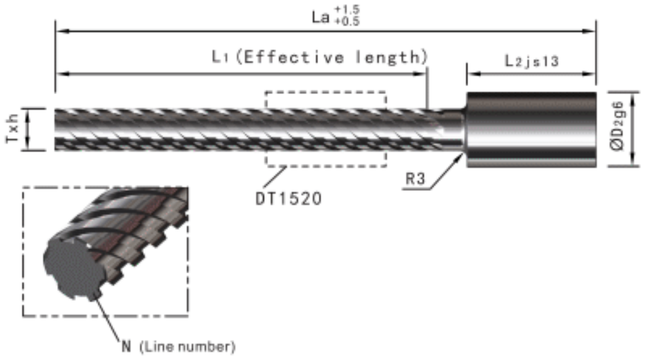
Collapsible core

DDT

DIN

Helical spindle

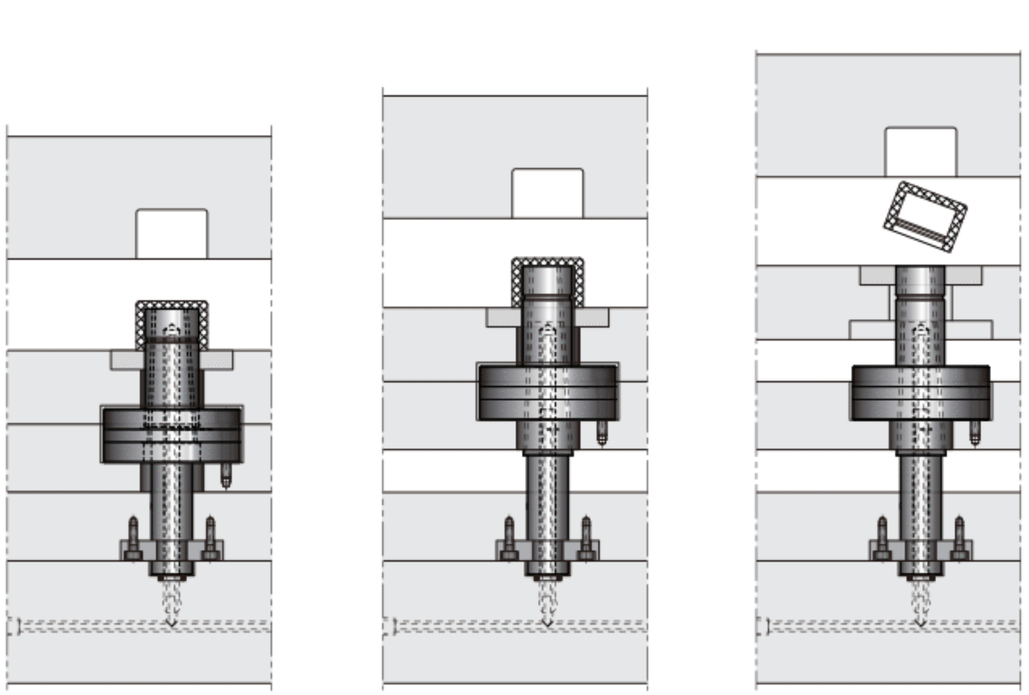
ZZ1500



Installation Guidelines:

- MUST confirm proper sequence with mold builder.
- NOTE: If DDT Core is shutting off on steel to form a feature (ie: hole), the shut off must be separated prior to DDT Core collapse. Also, the DDT Core must be fully expanded before shut off comes into position.
- Confirm press is capable of achieving proper sequence.
- Confirm plates are staging forward without binding while on the bench.Verify DDT center pin is flush to slightly proud of segments and verify stack heights.

Functional chart:



Mold opening

In the process of the ejection

Mold opened

Order ZZ1500-16×50-R-160 Hardness:718H Hardness:Surface treatment nitrided

Code	T×h	旋向	La	L1	L2	D2	N	@ /P
ZZ1500-16× 50-R-160	Tr16× 50	R	240	160	50	28	5	
ZZ1500-16× 50-R-250			330	250				
ZZ1500-16× 63-R-160	Tr16× 63		240	160				
ZZ1500-16× 63-R-250			330	250				
ZZ1500-20× 63-R-250	Tr20× 63		345	250	63	36	6	
ZZ1500-20× 63-R-315			410	315				
ZZ1500-20× 80-R-250	Tr20× 80		345	250			7	
ZZ1500-20× 80-R-315			410	315				
ZZ1500-20×100-R-250	Tr20×100		345	250				
ZZ1500-20×100-R-315			410	315				
ZZ1500-25× 80-R-315	Tr25× 80		430	315	80	45	8	
ZZ1500-25× 80-R-400			515	400				
ZZ1500-25×100-R-315	Tr25×100		430	315			9	
ZZ1500-25×100-R-400			515	400				
ZZ1500-25×125-R-315	Tr25×125		430	315				
ZZ1500-25×125-R-400			515	400				
ZZ1500-25×160-R-315	Tr25×160		430	315			10	
ZZ1500-25×160-R-400			515	400				
ZZ1500-32×100-R-355	Tr32×100		490	355	100	56	9	
ZZ1500-32×100-R-450			585	450				
ZZ1500-32×125-R-355	Tr32×125		490	355			10	
ZZ1500-32×125-R-450			585	450				
ZZ1500-32×160-R-355	Tr32×160		490	355				
ZZ1500-32×160-R-450			585	450				
ZZ1500-32×200-R-355	Tr32×200		490	355			11	
ZZ1500-32×200-R-450			585	450				

Order ZZ1500-16×50-L-160 Hardness:718H Hardness:Surface treatment nitrided

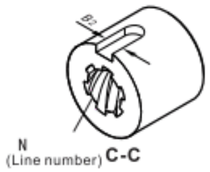
Code	T×h	旋向	La	L1	L2	D2	N	@ /P
ZZ1500-16× 50-L-160	Tr16× 50	L	240	160	50	28	5	
ZZ1500-16× 50-L-250			330	250				
ZZ1500-16× 63-L-160	Tr16× 63		240	160				
ZZ1500-16× 63-L-250			330	250				
ZZ1500-20× 63-L-250	Tr20× 63		345	250	63	36	6	
ZZ1500-20× 63-L-315			410	315				
ZZ1500-20× 80-L-250	Tr20× 80		345	250			7	
ZZ1500-20× 80-L-315			410	315				
ZZ1500-20×100-L-250	Tr20×100		345	250				
ZZ1500-20×100-L-315			410	315				
ZZ1500-25× 80-L-315	Tr25× 80		430	315	80	45	8	
ZZ1500-25× 80-L-400			515	400				
ZZ1500-25×100-L-315	Tr25×100		430	315			9	
ZZ1500-25×100-L-400			515	400				
ZZ1500-25×125-L-315	Tr25×125		430	315				
ZZ1500-25×125-L-400			515	400				
ZZ1500-25×160-L-315	Tr25×160		430	315			10	
ZZ1500-25×160-L-400			515	400				
ZZ1500-32×100-L-355	Tr32×100		490	355	100	56	9	
ZZ1500-32×100-L-450			585	450				
ZZ1500-32×125-L-355	Tr32×125		490	355			10	
ZZ1500-32×125-L-450			585	450				
ZZ1500-32×160-L-355	Tr32×160		490	355				
ZZ1500-32×160-L-450			585	450				
ZZ1500-32×200-L-355	Tr32×200		490	355			11	
ZZ1500-32×200-L-450			585	450				

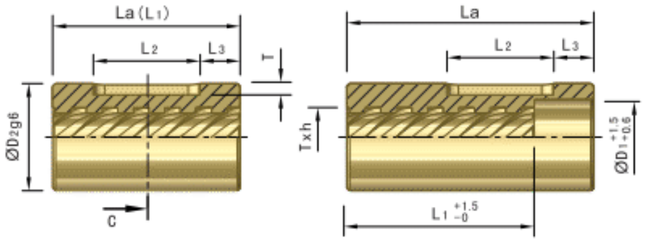
DIN

Helical spindle

ZZ1520







Order ZZ1520-16×50-R-50 Hardness:AL-Bronze

Code	T×h	Rotation	Type	La	L1	L2	L3	B2	D2	T	N	@ /P
ZZ1520-16× 50-R- 50	Tr16× 50	R (Right)	A	50	50	28	11	6	28	2.8	5	
ZZ1520-16× 50-R- 80			B	80		40	15					
ZZ1520-16× 63-R- 50	Tr16× 63		A	50		28	11					
ZZ1520-16× 63-R- 80			B	80		40	15					
ZZ1520-20× 63-R- 63	Tr20× 63		A	63	63	36	13.5	8	36	3.8	6	
ZZ1520-20× 63-R-100			B	100		50	18					
ZZ1520-20× 80-R- 63	Tr20× 80		A	63		36	13.5				7	
ZZ1520-20× 80-R-100			B	100		50	18					
ZZ1520-20×100-R- 63	Tr20×100		A	63		36	13.5					
ZZ1520-20×100-R-100			B	100		50	18					
ZZ1520-25× 80-R- 80	Tr25× 80		A	80	80	50	15	12	45	4.8	8	
ZZ1520-25× 80-R-125			B	125		63	20					
ZZ1520-25×100-R- 80	Tr25×100		A	80		50	15				9	
ZZ1520-25×100-R-125			B	125		63	20					
ZZ1520-25×125-R- 80	Tr25×125		A	80		50	15					
ZZ1520-25×125-R-125			B	125		63	20					
ZZ1520-25×160-R- 80	Tr25×160		A	80		50	15				10	
ZZ1520-25×160-R-125			B	125		63	20					
ZZ1520-32×100-R-100	Tr32×100		A	100	100	63	18.5	14	56	5.5	9	
ZZ1520-32×100-R-160			B	160		80	25					
ZZ1520-32×125-R-100	Tr32×125		A	100		63	18.5				10	
ZZ1520-32×125-R-160			B	160		80	25					
ZZ1520-32×160-R-100	Tr32×160		A	100		63	18.5					
ZZ1520-32×160-R-160			B	160		80	25					
ZZ1520-32×200-R-100	Tr32×200		A	100		63	18.5				11	
ZZ1520-32×200-R-160			B	160		80	25					

Order ZZ1520-16×50-L-50 Hardness:AL-Bronze

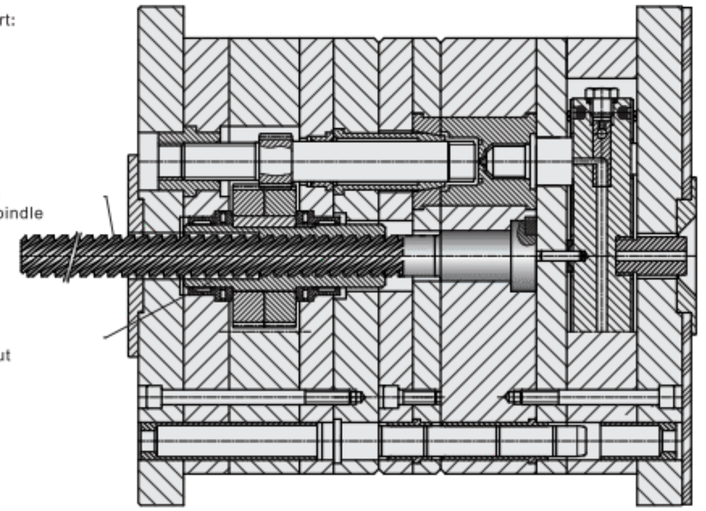
Code	T×h	Rotation	Type	La	L1	L2	L3	B2	D2	T	N	@ /P
ZZ1520-16× 50-L- 50	Tr16× 50	L (Left)	A	50	50	28	11	6	28	2.8	5	
ZZ1520-16× 50-L- 80			B	80		40	15					
ZZ1520-16× 63-L- 50	Tr16× 63		A	50		28	11					
ZZ1520-16× 63-L- 80			B	80		40	15					
ZZ1520-20× 63-L- 63	Tr20× 63		A	63	63	36	13.5	8	36	3.8	6	
ZZ1520-20× 63-L-100			B	100		50	18					
ZZ1520-20× 80-L- 63	Tr20× 80		A	63		36	13.5				7	
ZZ1520-20× 80-L-100			B	100		50	18					
ZZ1520-20×100-L- 63	Tr20×100		A	63		36	13.5					
ZZ1520-20×100-L-100			B	100		50	18					
ZZ1520-25× 80-L- 80	Tr25× 80		A	80	80	50	15	12	45	4.8	8	
ZZ1520-25× 80-L-125			B	125		63	20					
ZZ1520-25×100-L- 80	Tr25×100		A	80		50	15				9	
ZZ1520-25×100-L-125			B	125		63	20					
ZZ1520-25×125-L- 80	Tr25×125		A	80		50	15					
ZZ1520-25×125-L-125			B	125		63	20					
ZZ1520-25×160-L- 80	Tr25×160		A	80		50	15				10	
ZZ1520-25×160-L-125			B	125		63	20					
ZZ1520-32×100-L-100	Tr32×100		A	100	100	63	18.5	14	56	5.5	9	
ZZ1520-32×100-L-160			B	160		80	25					
ZZ1520-32×125-L-100	Tr32×125		A	100		63	18.5				10	
ZZ1520-32×125-L-160			B	160		80	25					
ZZ1520-32×160-L-100	Tr32×160		A	100		63	18.5					
ZZ1520-32×160-L-160			B	160		80	25					
ZZ1520-32×200-L-100	Tr32×200		A	100		63	18.5				11	
ZZ1520-32×200-L-160			B	160		80	25					

DIN

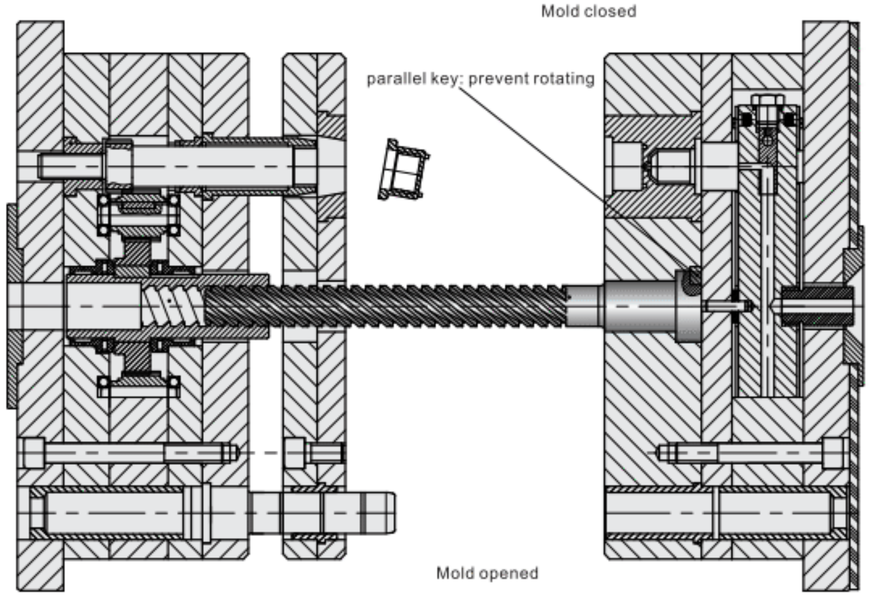
Helical spindle

Installation Guidelines:
- The ZZ1500 helical spindle with two types: Left-Hand thread and Right-Hand thread, kindly choose the corresponding type for helical nuts.
- The helical spindle ZZ5100 must be prevented from rotating by one parallel key which need to be made by customer.
- The material and treatment for helical spindle ZZ1500 are 718H+ surface nitrided. please avoid any scratch for thread matching area while installing.

Functional chart:



Mold closed

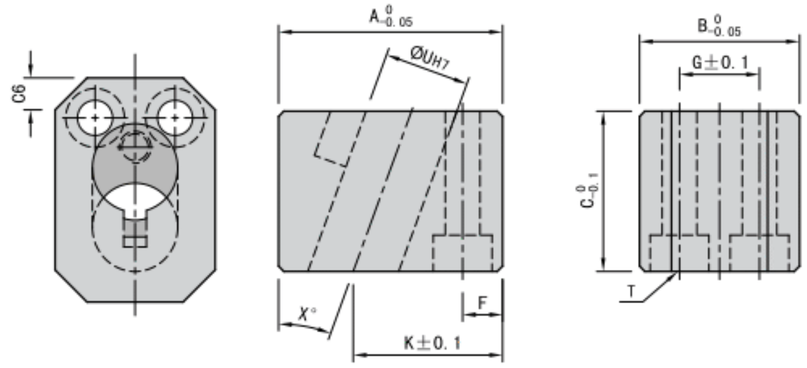


DIN

Angle pin housing

BBG

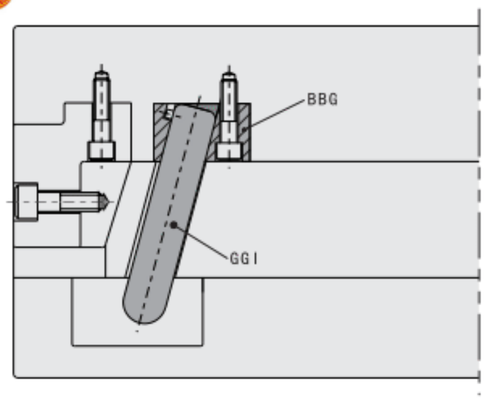


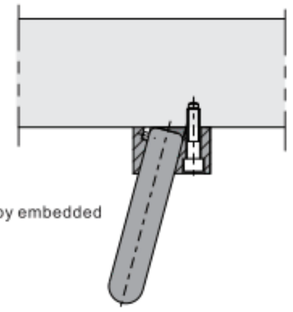


Order BBG-423016-15 Material:1.2510 Hardness:48-52HRC

Code	A	B	C	F	G	K	T	U	X°	@ /P
BBG-423016-15	42	30	30	7.5	15	28	M 6×35	16	15	
BBG-504020-15	50	40	36	9	22	34	M 8×40	20		
BBG-554024-15	55		40			38	M 8×45	24		
BBG-655028-15	65	50	45	12	26	45	M10×50	28		
BBG-423016-20	42	30	30	7.5	15	28	M 6×35	16	20	
BBG-504020-20	50	40	36	9	22	34	M 8×40	20		
BBG-504024-20	55		40			38	M 8×45	24		
BBG-655028-20	65	50	45	12	26	45	M10×50	28		

Installation Diagram:





Note:Must installation by embedded

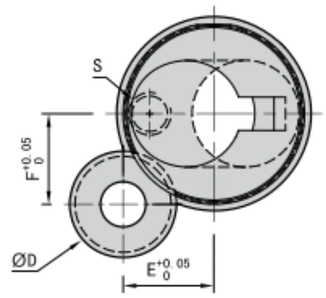
Wrong

DIN

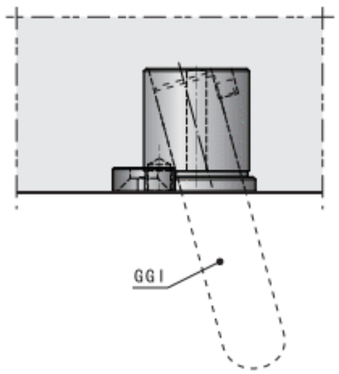
Angle pin housing

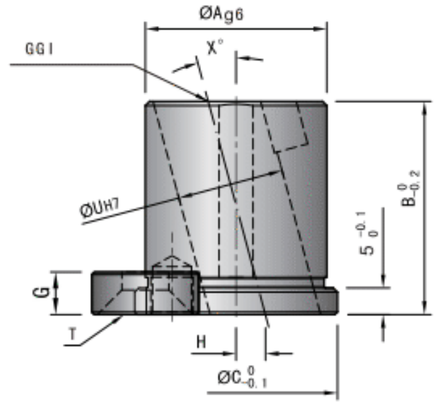
GGR





Cooperate with GGI





Order GGR-182622-10 Material:SUJ2 Hardness:58-62HRC

Code	A	B	C	D	E	F	G	H	S	T	U	X°	@ /P
GGR-182622-10	18	26	22	12	10.8	7.5	6	3.8	M5×5	M5×16	10	10	
GGR-222826-10	22	28	26	16	11	11		4	M6×6	M6×16	12		
GGR-283432-10	28	34	32		13	13		5			16		
GGR-344038-10	34	40	38	20	17	17	8	5.5	M8×6	M8×20	20		
GGR-424546-10	42	45	46		19.5	19.5		6			24		
GGR-465050-10	46	50	50		21	21		7			28		
GGR-182622-15	18	26	22	12	10.8	7.5	6	3.8	M5×5	M5×16	10	15	
GGR-222826-15	22	28	26	16	11	11		4	M6×6	M6×16	12		
GGR-283432-15	28	34	32		13	13		5			16		
GGR-344038-15	34	40	38	20	17	17	8	5.5	M8×6	M8×20	20		
GGR-424546-15	42	45	46		19.5	19.5		6			24		
GGR-465050-15	46	50	50		21	21		7			28		

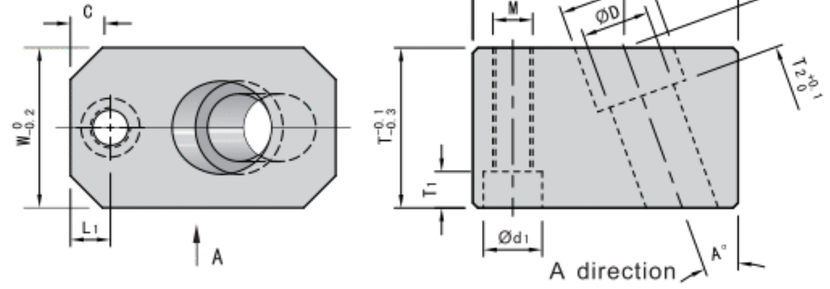
1.Only need machining one installation hole,and apply together with specialized angle pin. Do not need machine angle hole.
2.Two size of 10°and 15°for your choose.
3.Apply together with GGI.
4.Within spacer and mounting screw(T).

JIS

Angle pin housing

AAPRSS



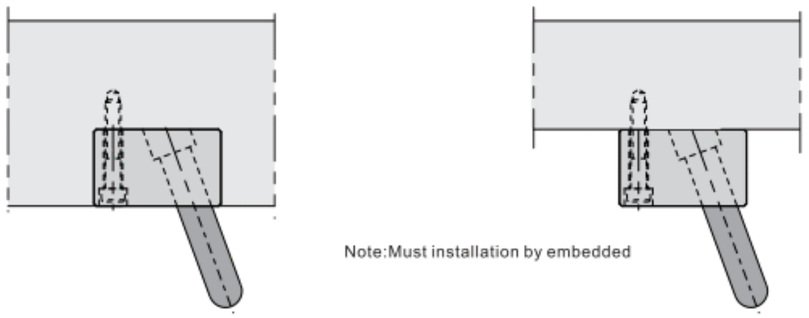


Order AAPRSS-D-T-A° Hardness:S45C A=10~20°

Code	D	DH7		W	L	L1	H	T2
AAPRWS	8	8	+0.015 - 0	16	35	7	12	5
	10	10		18	40		14	10
	13	13	+0.018 - 0	22	50	9	17	
	16	16		25	55	11	20	13
	20	20	+0.021/-0	30	65		24	

Code	D	d1	t1	F	C	M	Mounting screws	T		@ /P
AAPRWS	8	11	7	19	3	8	M 6	20	25	
	10			21				25	30	
	13	14	9	27		10	M 8	30	35	
	16			29	5			35	40	
	20	18	11	35		12	M10	40	45	

Installation Diagram:



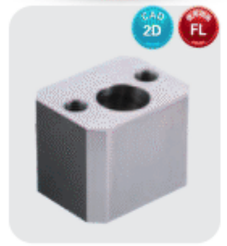
Right ☑ Wrong ☒

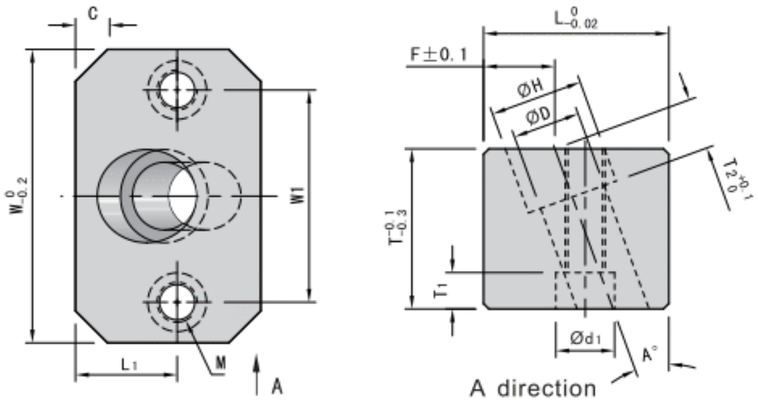
Note:Must installation by embedded

JIS

Angle pin housing

AAPRWS



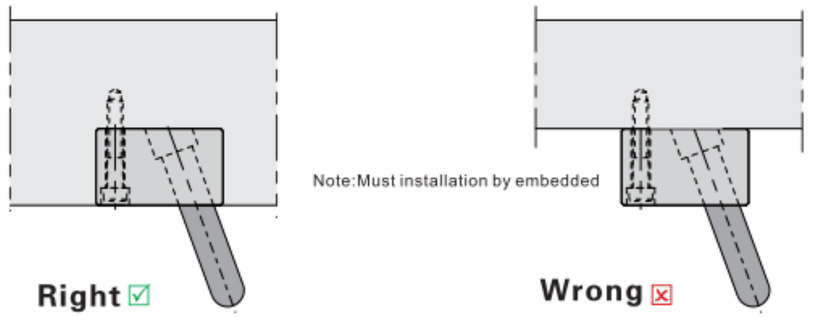


Order AAPRWS-D-T-A° Material:S45C A=10~20°

Code	D	DH7		W	W1	L	L1	H	T2
AAPRWS	8	8	+0.015 - 0	38	24	5	14	12	5
	10	10		40	26	10	16	14	10
	13	13	+0.018 - 0	44	30		18	17	
	16	16		48	34		21	20	
	20	20	+0.021 - 0	58	40	13	25	24	13
	25	25		65	46		30	29	
	30	30		75	54	15	35	36	15

Code	D	d1	t1	F	C	Drawing thread	Mounting screws	T		@ /P
AAPRWS	8	11	7	8	3	8	M 6	20	25	
	10			10				25	30	
	13			12				30	35	
	16			13	5			35	40	
	20	14	9	15		10	M 8	40	45	
	25			18	10			45	50	
	30	18	11	22		12	M10	55	60	

Installation Diagram:



Right ☑ Wrong ☒

Note:Must installation by embedded

Cooling elements Series



TRUST



DIN	DIN	DIN	DIN	DIN
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
ZZ80 P334	ZZ80(45°) P334	ZZ801 P335	ZZ801(45°) P334	ZZ80(90°) P338



DIN	DIN	DIN	DIN	DIN
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
ZZ80(90°) P338	ZZ801(90°) P338	ZZ803 P339	ZZ804 P339	ZZ805 P336



DIN	DIN	DIN	DIN	DIN
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
ZZ8051 P336	ZZ807 P337	ZZ80700 P337	ZZ807(45°) P340	ZZ807(90°) P340



DIN	DIN	DIN	DIN	DIN
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
ZZ80700(45°) P341	ZZ80700(90°) P341	ZZ80HT P342	ZZ80HT(45°) P342	ZZ80HT(90°) P343



DIN	DIN	DIN	DIN	DIN
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
ZZ801HT P343	ZZ801HT(45°) P344	ZZ801HT(90°) P344	ZZ807HT P345	ZZ807HT(45°) P345



DIN	DIN	DIN	DIN	DIN
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
ZZ807HT(90°) P346	ZZ80700HT P349	ZZ808HT P347	ZZ808HT(45°) P348	ZZ808HT(90°) P348



DIN	DIN	DIN	DIN	DIN
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
ZZ808 P348	ZZ802 P349	ZZ80700HT(45°) P349	ZZ80700HT(90°) P349	EE2232 P350



DIN	DIN	DIN	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
EE2222 P350	EE2234 P351	EE2224 P351	SSVK(45°) P352	SSVK P352



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
SSK(45°) P353	SSK-D P353	MMK10 P354	MMK12 P354	MMK15 P354



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
MMK10-...-PL P356	MMK15-...-PL P356	MMK100 P355	MMK120 P355	MMK150 P355



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
MMK100-...-PL P357	MMK150-...-PL P357	SST12 P357	SSK P358	SSK(90°) P358



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
SSVK P359	SSVK(90°) P358	FFSVK P360	FFSK P360	SSTN-PL P360



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
SSK-. . . -PL P361	SSK-. . . -PL(90°)P361	SSK-. . . -PL(45°)P362	SSVK-. . . -PL(45°) P363	SSVK-. . . -PL P363



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
SSVK-. . . -PL(90°) P363	JJS-. . . -M P364	JJS-. . . -MV P528	JJS P364	JJS-. . . -V P364



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
JJS-. . . -204 P365	JJS-. . . -204-V P365	JJS(90°) P365	JJS-. . . -V P366	JJS(45°) P366



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
JJS-. . . -V(45°) P366	JJS-. . . -SV P367	JJS-. . . -SV(90°) P367	JJS-. . . -SV(45°) P367	JJS-. . . -MSV P368



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
JJS-. . . -SV P368	JJSL P369	JJSL(45°) P369	JJSL(90°) P369	JJSL-. . . -V P370



AISI	AISI	AISI	AISI	AISI
Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs	Quick release connector plugs
JJSL-. . . -V(45°) P370	JJSL-. . . -V(90°) P370	JJSL-. . . -SV P371	JJSL-. . . -SV(45°) P371	JJSL-. . . -SV(90°) P371



DIN	DIN	DIN	DIN	DIN
Nipples	Nipples	Nipples	Nipples	Nipples
ZZ81 P372	ZZ81(90°) P372	ZZ811 P373	ZZ90 P373	ZZ811HT P374



DIN	DIN	DIN	DIN	DIN
Nipples	Nipples	Nipples	Nipples	Nipples
ZZ87 P374	ZZ88 P375	ZZ880 P375	ZZ881 P375	ZZ89 P376



DIN	DIN	DIN	DIN	DIN
Nipples	Nipples	Nipples	Nipples	Nipples
ZZ810 P376	ZZ812 P377	ZZ814 P377	ZZ905 P378	ZZ906 P378



DIN	DIN	DIN	AISI	AISI
Nipples	Nipples	Nipples	Nipples	Nipples
ZZ831 P378	ZZ830 P379	ZZ83 P379	SST11 P380	SST13 P381



AISI	AISI	AISI	AISI	AISI
Nipples	Nipples	Nipples	Nipples	Nipples
SST14 P371	SST15 P381	BBEP P382	SSTN P382	BBSS P383



AISI	AISI	AISI	AISI	AISI
Nipples	Nipples	Nipples	Nipples	Nipples
AATN P383	EEJP P384	FFN P384	NN P385	JJP P387



AISI	AISI	AISI	AISI	AISI
Nipples	Nipples	Nipples	Nipples	Nipples
JJPF P388	JJP-SV P388	JJPB P389	PPCS P389	JJTW P390



AISI	AISI	AISI	AISI	AISI
Nipples	Nipples	Nipples	Nipples	Nipples
JJTWS P390	HHX-JTW P391	JJTWF P391	JJEMM P392	JJEMMR P392



AISI	AISI	AISI	AISI	AISI
Nipples	Nipples	Nipples	Nipples	Nipples
JJEMF P393	JJEMFR P393	JJEFS P394	JJEFSR P394	JJELF P394



AISI	AISI	AISI	AISI	DIN
Nipples	Nipples	Straight & spiral brass plug baffles	Straight & spiral brass plug baffles	Straight & spiral brass plug baffles
JJEFL P395	JJEFLR P395	BBB P396	BBBS P397	EE2102 P399



DIN	JIS	JIS	JIS	JIS
Straight & spiral brass plug baffles	Straight & spiral brass plug baffles	Straight & spiral brass plug baffles	Spiral plastic plug baffles	Spiral plastic plug baffles
EE2108 P400	BBFPXR P401	BFAPR P401	WWRCAN P402	WWRCTN P402



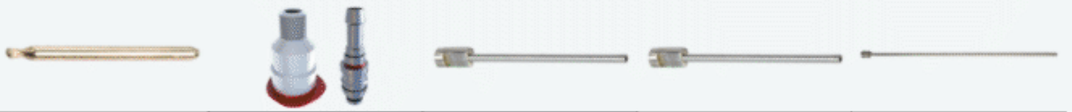
JIS	JIS	DIN	DIN	DIN
Spiral plastic plug baffles	Spiral plastic plug baffles	Pressure plugs	Pressure plugs	Pressure plugs
WWRCBN P402	WWRCCN P402	ZZ94 P404	ZZ940 P405	ZZ941 P405



DIN	AISI	AISI	MOLD PARTNER	MOLD PARTNER
Pressure plugs	Pressure plugs	Pressure plugs	Cooling tubes	Cooling tubes
ZZ942 P405	BBP P406	AAN P406	BBTC P406	BBTCM P406



MOLD PARTNER	MOLD PARTNER	MOLD PARTNER	MOLD PARTNER	MOLD PARTNER
Cooling tubes	Cooling tubes	Cooling tubes	Cooling tubes	Cooling circuit plugs
TPC P406	BBTS P406	BBTSM P406	TPS P406	DTW P407



MOLD PARTNER	DIN	TAIWAN	TAIWAN	TAIWAN
Heat pipes	French nipples	Cooling tubes	Cooling tubes	Cooling tubes
HTK P408	RRPL P410	WWCPFT P420	WWCPF P420	WJA P421



TAIWAN	DIN
Cooling tubes	Mold mounted manifolds
WJB P421	IIM P422

Products Summary

Cooling series summary instruction:

Rely on cooling series to control mold temperature to shorten products molding cycle ,keep physical property steady and enhance products forming size precision,The design of layout is best effective method for cooling circuit in injection mold and die casting mold .

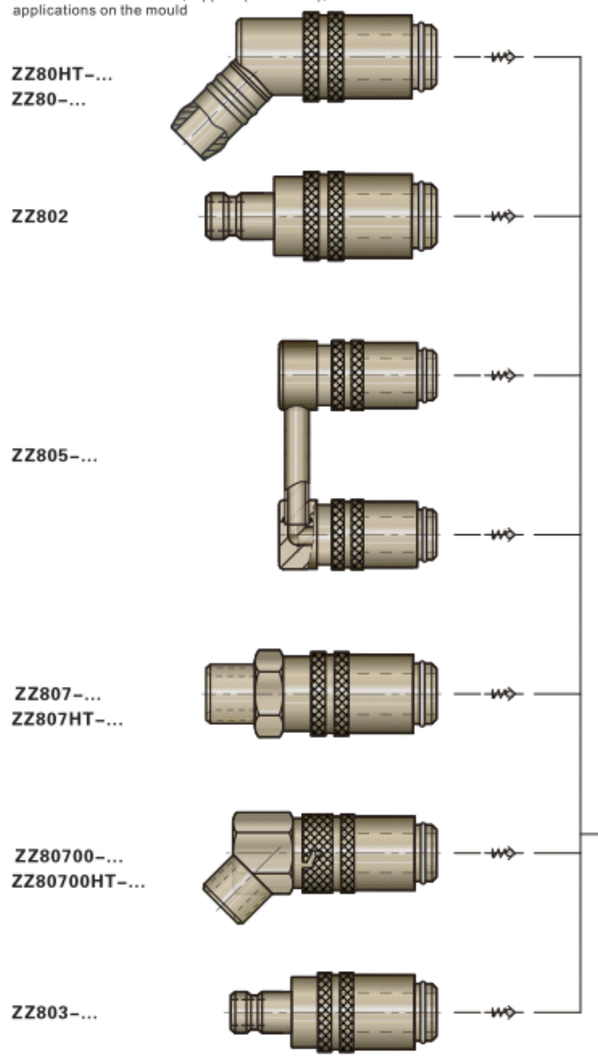
Products feature:

1.thermostability,can be used it up to 200℃， some high temperature products can use it up to 250℃
2.good flowability ,So that get lowest pressure loss.
3.Interchangeability ,Same code can provide a full range of products to match each other .
4.Inner structure can provide two choose one is with valve ,another one without valve to meet different demand .
5.Easy to installed, fast to connection or cut off .
6.Extensive application,can used in air ,water ,oil ,variety of medium .
7.Bear high voltage ,working pressure :Max13bar(1.3Mpa)

Note:

1.When used it ,The temperature Can't pass permit medium temperature .
2.Not permit medium will Can't used it .
3.Work pressure Can't exceed big pressure range .

Quick release connection ,Nipples (with valve), applications on the mould



Standard type	
Medium	Max (℃)
Air	200
Oil	120
Water	100

High temperature type	
Medium	Max (℃)
Air	250
Oil	200
Water	160

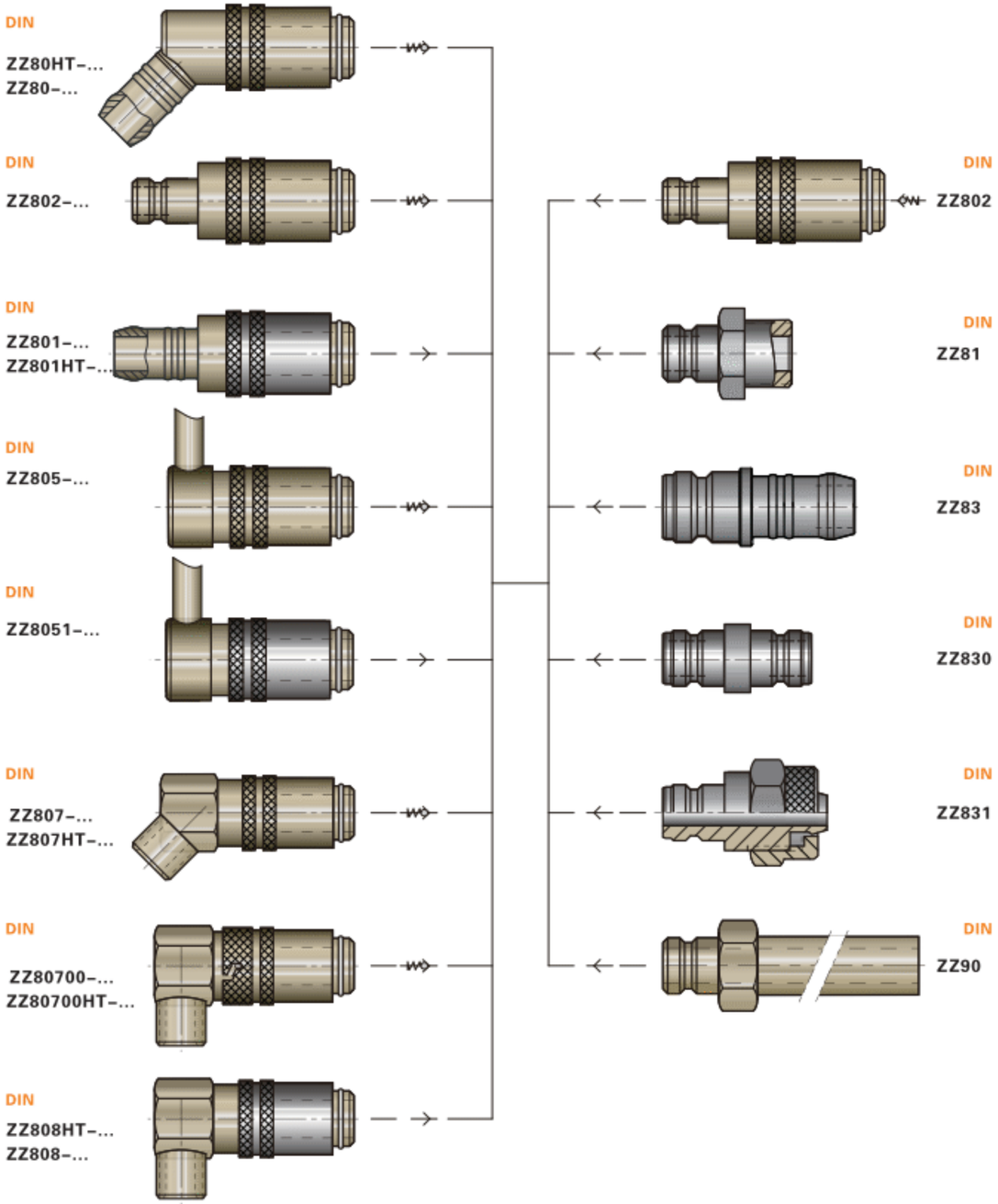
Note:
1.When the code with HT is mean high temperature products,for examples:"ZZ80HT"
2. Valve Nipples only match the quick release connector with valve.

Please coated seal on screw connection position before used it ,so that get better effective.

	with valve
	open flow(without valve)

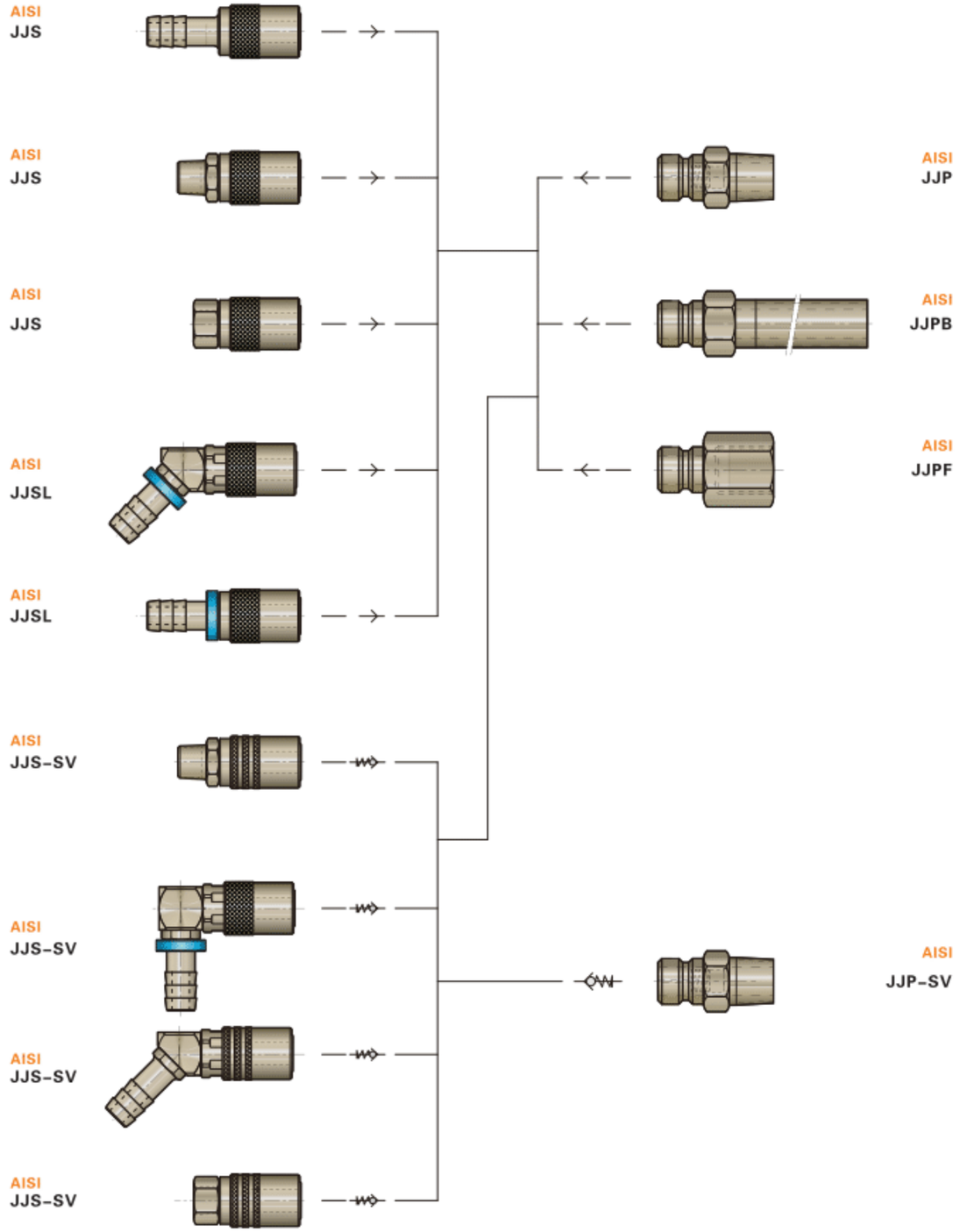
Products Summary

Quick release connection，Nipples adaptation table (with valve):



Products Summary

Quick release connection，Nipples adaptation table (with valve):



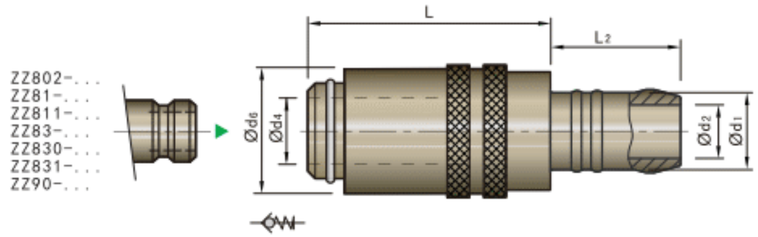
MOLD PARTNER

DIN

Quick release connector plugs

ZZ80





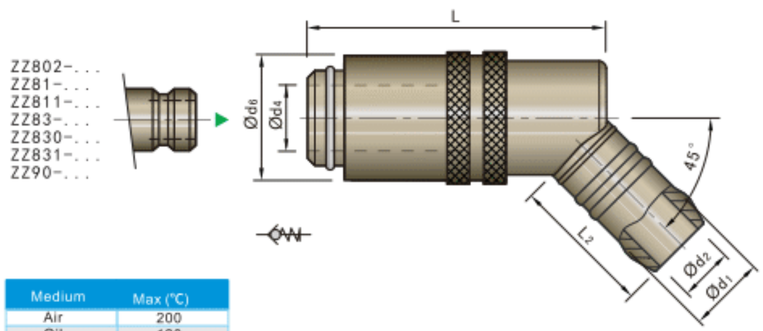
Medium	Max (℃)
Air	200
Oil	120
Water	100

☎Order ZZ80-5 Material: Brass

Code	L	L2	d2	d6	d1/d4	p(bar)	@¥/P
ZZ80- 5	21.5	13.5	3.5	10	5	10	
ZZ80- 9	31	22	6	17	9		
ZZ80-13	37	25	9	22	13	15	
ZZ80-19	58	32	13	31	19	20	

ZZ80-...-45





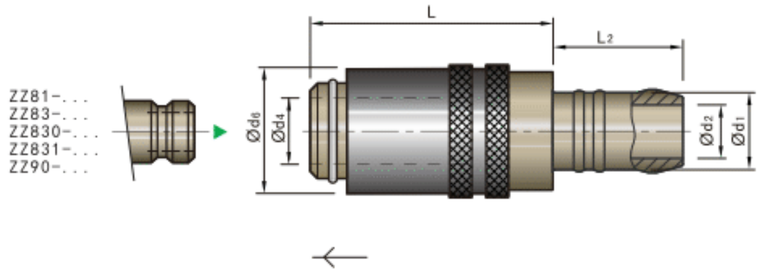
Medium	Max (℃)
Air	200
Oil	120
Water	100

☎Order ZZ80-5-45 Material: Brass

Code	L	L2	d2	d6	d1/d4	p(bar)	@¥/P
ZZ80- 5-45	29.5	13.5	3.5	10	5	10	
ZZ80- 9-45	41	28	6	17	9		
ZZ80-13-45	51		9	22	13	15	
ZZ80-19-45	78	34	13	31	19	20	

ZZ801





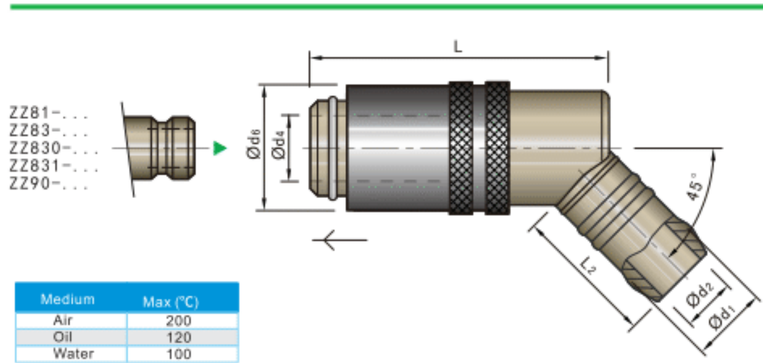
Medium	Max (℃)
Air	200
Oil	120
Water	100

☎Order ZZ801-5 Material: Brass

Code	L	L2	d2	d6	d1/d4	p(bar)	@¥/P
ZZ801- 5	21.5	13.5	3.5	10	5	10	
ZZ801- 9	31	22	6	17	9		
ZZ801-13	37	25	9	22	13	15	
ZZ801-19	58	32	13	31	19	20	

ZZ801-...45





Medium	Max (℃)
Air	200
Oil	120
Water	100

☎ ZZ801-5-45 Material: Brass

Code	L	L2	d2	d6	d1/d4	p(bar)	@¥/P
ZZ801- 5-45	29.5	13.5	3.5	10	5	10	
ZZ801- 9-45	41	28	6	17	9		
ZZ801-13-45	51	-	9	22	13	15	
ZZ801-19-45	78	34	13	31	19	20	

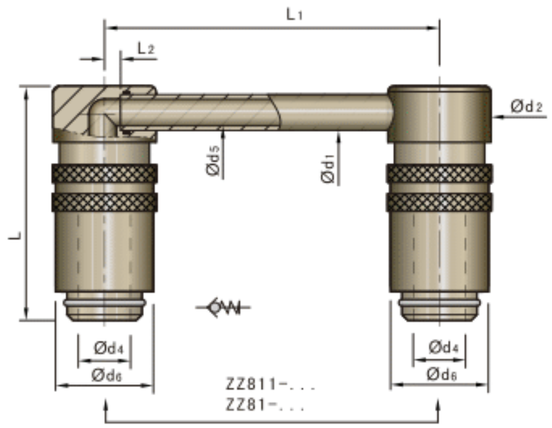
DIN

Quick release connector plugs

ZZ805



Medium	Max (°C)
Air	200
Oil	120
Water	100



Order ZZ805-d4-L1 Material: Brass

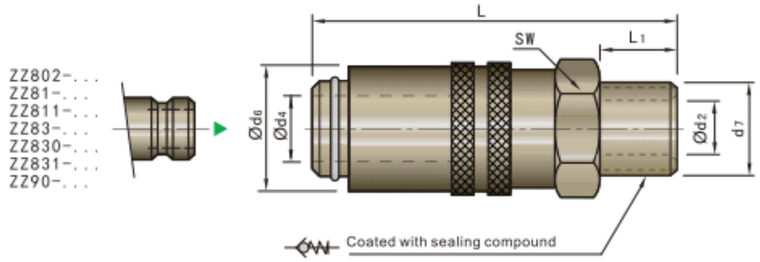
d4	L1	L	L2	d1	d2	d5	d6	p(bar)	@¥/P
9	125 250 500	43	2	8	20	6	17	10	
13	125 250 500	53		10	26	8	22	15	
19		80	3	14	36	12	31	20	

DIN

Quick release connector plugs

ZZ807





Medium	Max (°C)
Air	200
Oil	120
Water	100

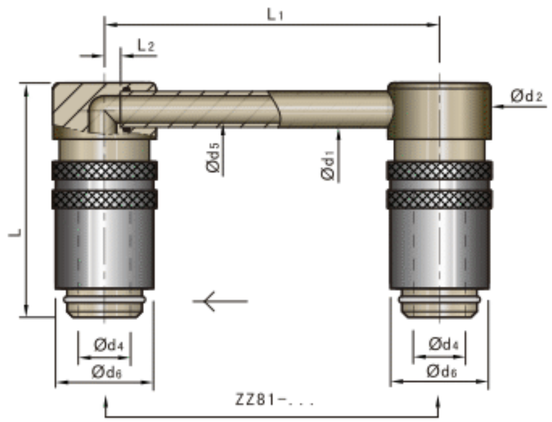
Order ZZ807-9-14×1.5 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ807- 9-14×1.5	9	M14×1.5	6	17	48	9	17	10	
ZZ807-13-16×1.5	13	M16×1.5	9	22	52		22	15	
ZZ807-19-24×1.5	19	M24×1.5	15	31	78	16	30	20	
ZZ807-19-R1/2		G1/2A	13		74	22			

ZZ8051



Medium	Max (°C)
Air	200
Oil	120
Water	100

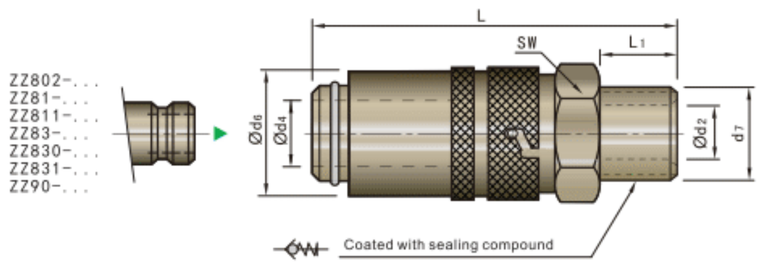


Order ZZ8051-d4-L1 Material: Brass

d4	L1	L	L2	d1	d2	d5	d6	p(bar)	@¥/P
9	125 250 500	43	2	8	20	6	17	10	
13	125 250 500	53		10	26	8	22	15	

ZZ80700





Medium	Max (°C)
Air	200
Oil	120
Water	100

Order ZZ80700-9×14×1.5 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ80700- 9×14×1.5	9	M14×1.5	6	17.25	51	9.5	17	10	
ZZ80700-13×16×1.5	13	M16×1.5	9	22.1	60	9	22	15	

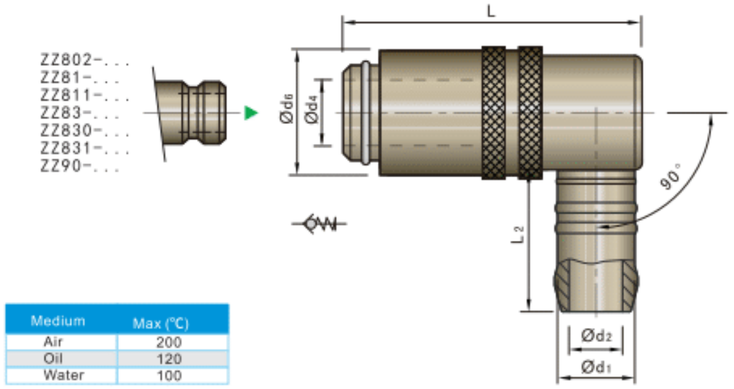
DIN

Quick release connector plugs

ZZ80-...-90



ZZ802-. . .
ZZ81-. . .
ZZ811-. . .
ZZ83-. . .
ZZ830-. . .
ZZ831-. . .
ZZ90-. . .



Medium	Max (°C)
Air	200
Oil	120
Water	100

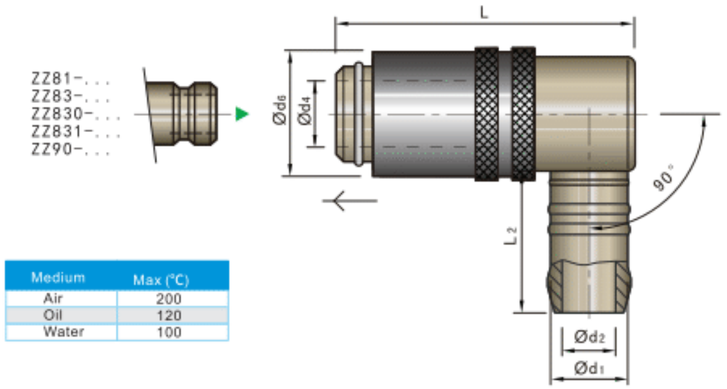
Order ZZ80-5-90 Material: Brass

Code	L	L2	d2	d6	d1/d4	p(bar)	@¥/P
ZZ80- 5-90	29.5	13.5	3.5	10	5	10	
ZZ80- 9-90	41	24	6	17	9		
ZZ80-13-90	51	28	9	22	13	15	
ZZ80-19-90	78	34	13	31	19	20	

ZZ801-...-90



ZZ81-. . .
ZZ83-. . .
ZZ830-. . .
ZZ831-. . .
ZZ90-. . .



Medium	Max (°C)
Air	200
Oil	120
Water	100

Order ZZ801-5-90 Material: Brass

Code	L	L2	d2	d6	d1/d4	p(bar)	@¥/P
ZZ801- 5-90	29.5	13.5	3.5	10	5	10	
ZZ801- 9-90	41	24	6	17	9		
ZZ801-13-90	51	28	9	22	13	15	
ZZ801-19-90	78	34	13	31	19	20	

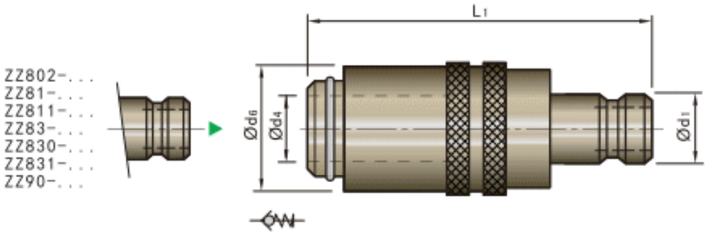
DIN

Quick release connector plugs

ZZ803



ZZ802-. . .
ZZ81-. . .
ZZ811-. . .
ZZ83-. . .
ZZ830-. . .
ZZ831-. . .
ZZ90-. . .



Medium	Max (°C)
Air	200
Oil	120
Water	100

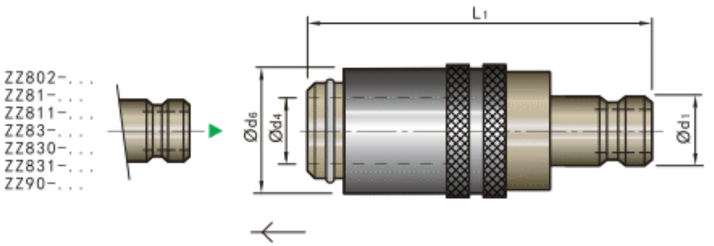
Order ZZ803-d4-d1 Material: Brass

d4	d1	d6	L1	p(bar)	@¥/P
9	9.4	17.25	40.55	10	
9.4	9	17.5	43		
13	13.5	22.1	52.05	15	
13.5	13	23	55.55		

ZZ804



ZZ802-. . .
ZZ81-. . .
ZZ811-. . .
ZZ83-. . .
ZZ830-. . .
ZZ831-. . .
ZZ90-. . .



Medium	Max (°C)
Air	200
Oil	120
Water	100

Order ZZ804-d4-d1 Material: Brass

d4	d1	d6	L1	p(bar)	@¥/P
9	9.4	17.25	40.55	10	
9.4	9	17.5	43		
13	13.5	22.1	52.05	15	
13.5	13	23	55.55		

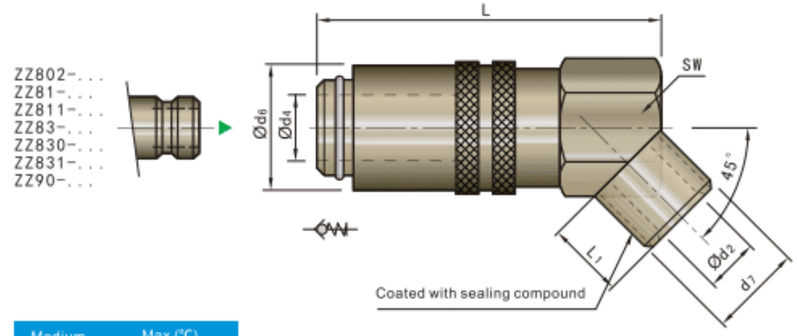
MOLD PARTNER

Quick release connector plugs

DIN

ZZ807-...-45





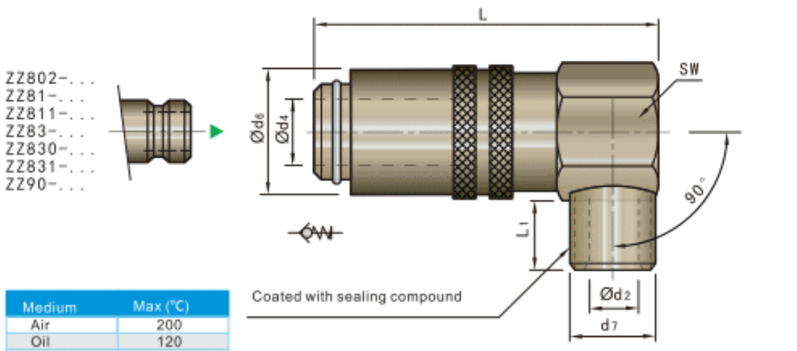
Medium	Max (°C)
Air	200
Oil	120
Water	100

Order ZZ807-9-14×1.5-45 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ807- 9-14×1.5-45	9	M14×1.5	6	17	47	9	17	10	
ZZ807-13-16×1.5-45	13	M16×1.5	9	22	54		22	15	
ZZ807-19-24×1.5-45	19	M24×1.5	13	31	80	18	30	20	

ZZ807-...-90





Medium	Max (°C)
Air	200
Oil	120
Water	100

Order ZZ807-9-14×1.5-90 Material: Brass

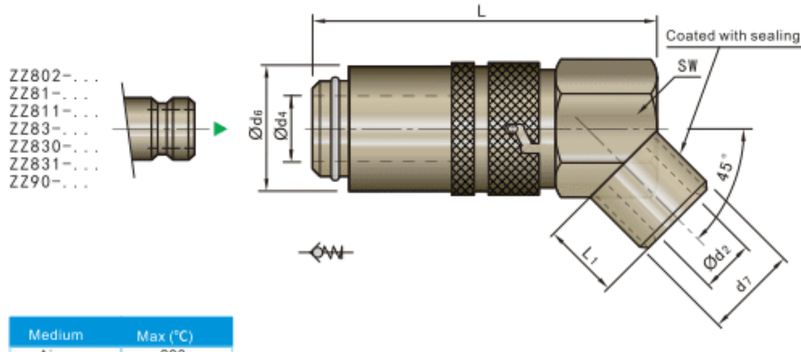
Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ807- 9-14×1.5-90	9	M14×1.5	6	17	47	9	17	10	
ZZ807-13-16×1.5-90	13	M16×1.5	9	22	54		22	15	
ZZ807-19-24×1.5-90	19	M24×1.5	13	31	80	16	30	20	

Quick release connector plugs

DIN

ZZ80700-...-45





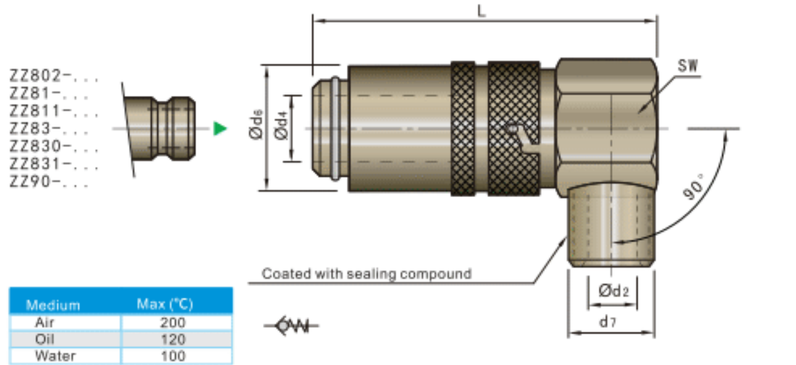
Medium	Max (°C)
Air	200
Oil	120
Water	100

Order ZZ80700-9-14×1.5-45 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ80700- 9-14×1.5-45	9	M14×1.5	6	17.25	50.5	12	17	10	
ZZ80700-13-16×1.5-45	13	M16×1.5	9	22.1	61.5		22	15	

ZZ80700-...-90





Medium	Max (°C)
Air	200
Oil	120
Water	100

Order ZZ80700-9-14×1.5-90 Material: Brass

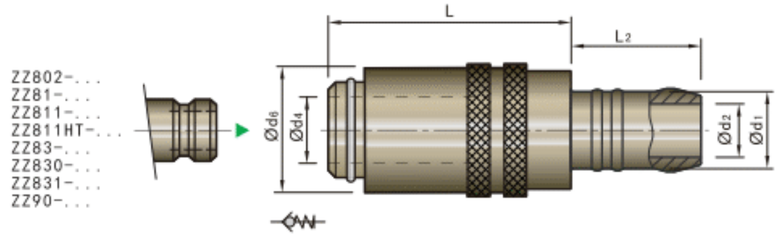
Code	d4	d7	d2	d6	L	SW	p(bar)	@¥/P
ZZ80700- 9-14×1.5-90	9	M14×1.5	6	17.25	50.5	17	10	
ZZ80700-13-16×1.5-90	13	M16×1.5	9	22.1	61.5	22	15	

DIN

Quick release connector plugs

ZZ80HT





Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ80HT-d1/d4 Material: Brass

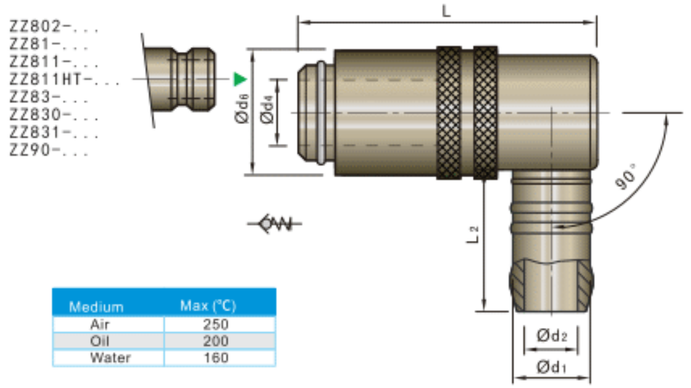
d1/d4	d2	d6	L	L2	p(bar)	@¥/P
9	6	17	31	22	10	
13	9	22	37	25	15	

DIN

Quick release connector plugs

ZZ80HT-...-90





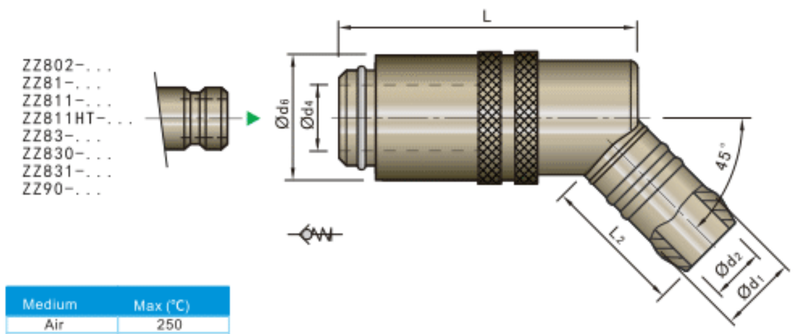
Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ80HT-d1/d4-90 Material: Brass

d1/d4	d2	d6	L	L2	p(bar)	@¥/P
9	6	17	41	24	10	
13	9	22	51	28	15	

ZZ80HT-...-45





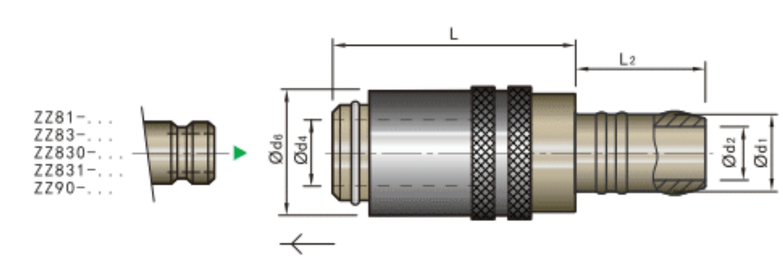
Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ80HT-d1/d4-45 Material: Brass

d1/d4	d2	d6	L	L2	p(bar)	@¥/P
9	6	17	41	28	10	
13	9	22	51		15	

ZZ801HT





Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ801HT-d1/d4 Material: Brass

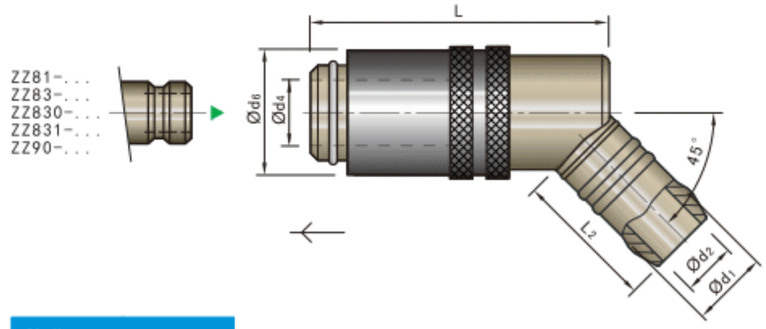
d1/d4	d2	d6	L	L2	p(bar)	@¥/P
9	6	17	31	22	10	
13	9	22	37	25	15	

DIN

Quick release connector plugs

ZZ801HT-...-45





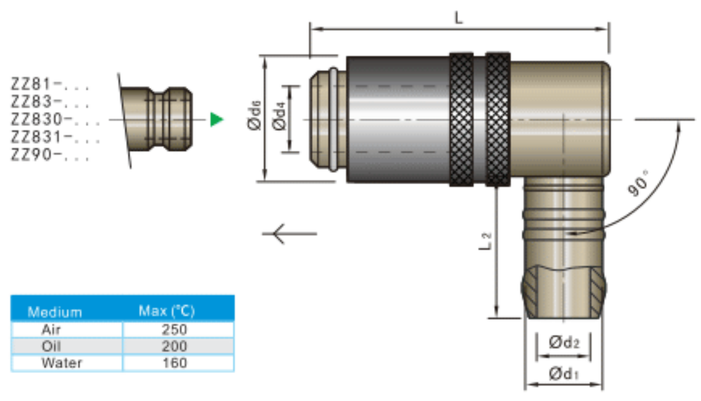
Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ801HT-d1/d4-45 Material: Brass

d1/d4	d2	d6	L	L2	p(bar)	@¥/P
9	6	17	41	28	10	
13	9	22	51		15	

ZZ80HT-...-90





Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ80HT-d1/d4-90 Material: Brass

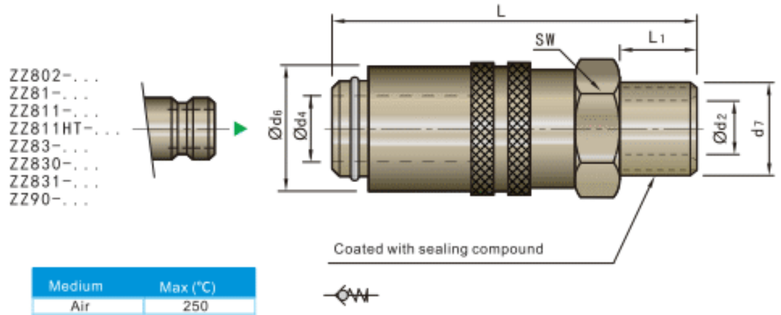
d1/d4	d2	d6	L	L2	p(bar)	@¥/P
9	6	17	41	24	10	
13	9	22	51	28	15	

DIN

Quick release connector plugs

ZZ807HT





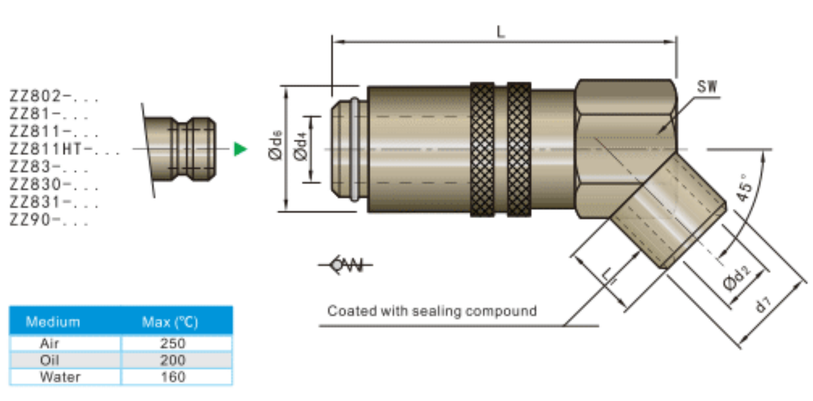
Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ807HT- 9-14×1.5 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ807HT- 9-14×1.5	9	M14×1.5	6	17	48	9	17	10	
ZZ807HT-13-16×1.5	13	M16×1.5	9	22	52		22	15	

ZZ807HT-...-45





Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ807HT-9-14×1.5-45 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ807HT- 9-14×1.5-45	9	M14×1.5	6	17	47	9	17	10	
ZZ807HT-13-16×1.5-45	13	M16×1.5	9	22	54		22	15	

MOLD PARTNER

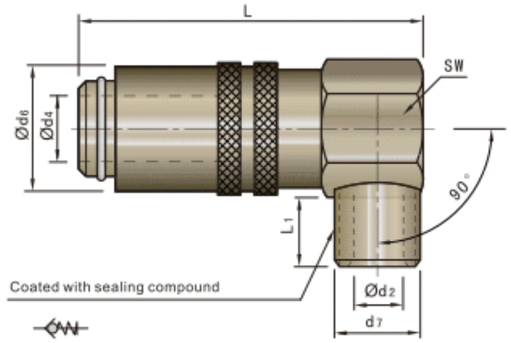
DIN

Quick release connector plugs

ZZ807HT-...-90



ZZ802-...
ZZ81-...
ZZ811-...
ZZ811HT-...
ZZ83-...
ZZ830-...
ZZ831-...
ZZ90-...



Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ807HT-9-14×1.5-90 Material: Brass

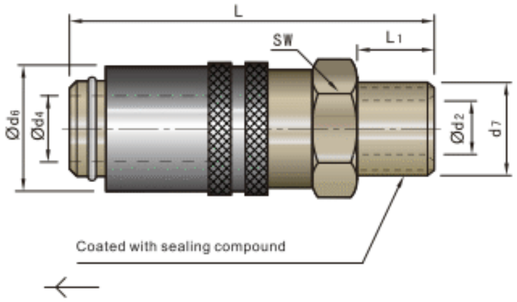
Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ807HT- 9-14×1.5-90	9	M14×1.5	6	17	47	9	17	10	
ZZ807HT-13-16×1.5-90	13	M16×1.5	9	22	54		22	15	

Quick release connector plugs

ZZ808HT



ZZ81-...
ZZ83-...
ZZ830-...
ZZ831-...
ZZ90-...



Medium	Max (°C)
Air	250
Oil	200
Water	160

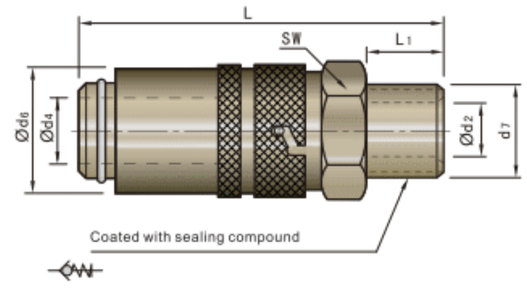
Order ZZ808HT-9-14×1.5 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ808HT- 9-14×1.5	9	M14×1.5	6	17	48	9	17	10	
ZZ808HT-13-16×1.5	13	M16×1.5	9	22	52		22	15	

ZZ80700HT



ZZ802-...
ZZ81-...
ZZ811-...
ZZ811HT-...
ZZ83-...
ZZ830-...
ZZ831-...
ZZ90-...



Medium	Max (°C)
Air	250
Oil	200
Water	160

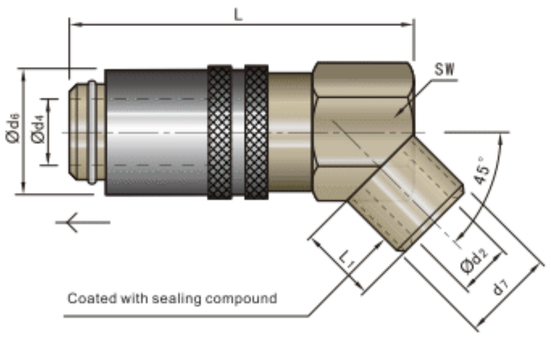
Order ZZ80700HT-d4-d7 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ80700HT- 9-14×1.5	9	M14×1.5	6	17.25	51	9.5	17	10	
ZZ80700HT-13-16×1.5	13	M16×1.5	9	22.1	60	9	22	15	

ZZ808HT-...-45



ZZ81-...
ZZ83-...
ZZ830-...
ZZ831-...
ZZ90-...



Medium	Max (°C)
Air	250
Oil	200
Water	160

Order ZZ808HT-...45-9-14×1.5-45 Material: Brass

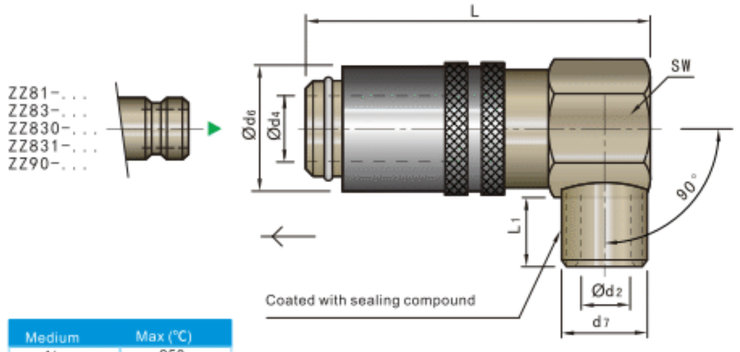
Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ808HT- 9-14×1.5-45	9	M14×1.5	6	17	48	9	17	10	
ZZ808HT-13-16×1.5-45	13	M16×1.5	9	22	52		22	15	

DIN

Quick release connector plugs

ZZ808HT-...-90





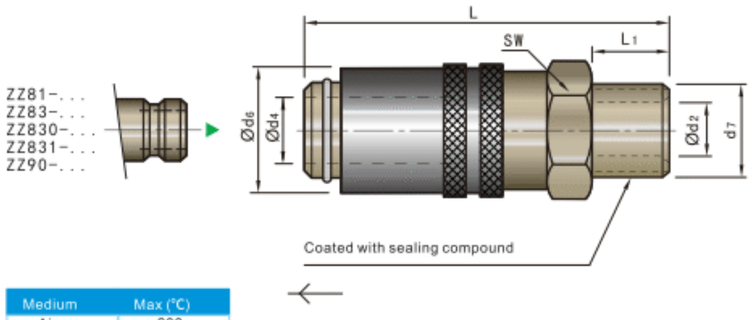
Medium	Max (℃)
Air	250
Oil	200
Water	160

☎Order ZZ808HT-9-14×1.5-90 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ808HT- 9-14×1.5-90	9	M14×1.5	6	17	47	9	17	10	
ZZ808HT-13-16×1.5-90	13	M16×1.5	9	22	52		22	15	

ZZ808





Medium	Max (℃)
Air	200
Oil	120
Water	100

☎Order ZZ808-13-16×1.5 Material: Brass

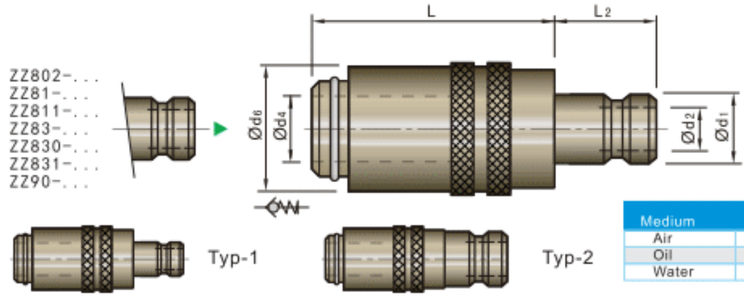
Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ808HT-13-16×1.5	13	M16×1.5	9	22	52	9	22	15	
ZZ808HT-19-24×1.5	19	M24×1.5	15	31	78	16	30	20	

DIN

Quick release connector plugs

ZZ802





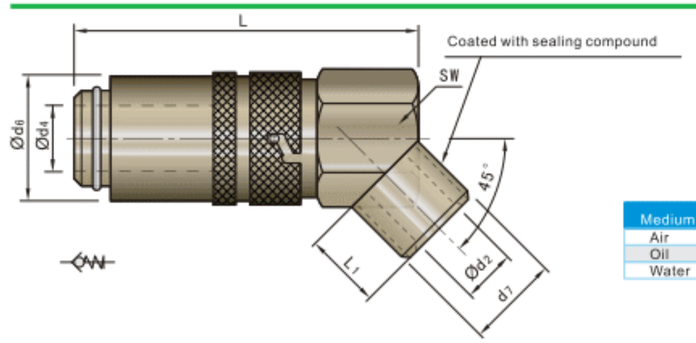
Medium	Max (℃)
Air	200
Oil	120
Water	100

☎Order ZZ802-d4-d1 Material: Brass

d4	d1	d2	d6	L	L2	Typ	p(bar)	@¥/P
5	9	6	10	20.5	15	2	10	
9	13	8	17	30	14			
13	9	6	22	36.5		1		
	19	13			27	2	15	
19	13	9	31	58	14	1		

ZZ80700HT-...-45





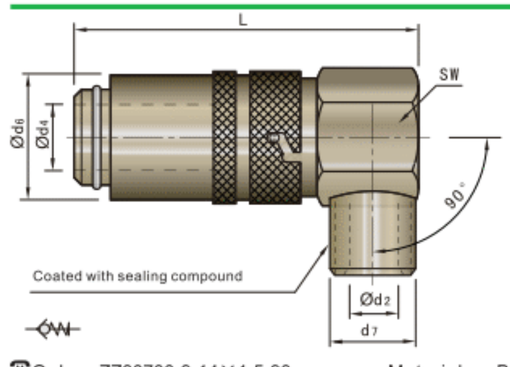
Medium	Max (℃)
Air	250
Oil	200
Water	160

☎Order ZZ80700-9-14×1.5-45 Material: Brass

Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ80700HT- 9-14×1.5-45	9	M14×1.5	6	17.25	50.5	12	17	10	
ZZ80700HT-13-16×1.5-45	13	M16×1.5	9	22.1	61.5		22	15	

ZZ80700HT-...-90





Medium	Max (℃)
Air	250
Oil	200
Water	160

☎Order ZZ80700-9-14×1.5-90 Material: Brass

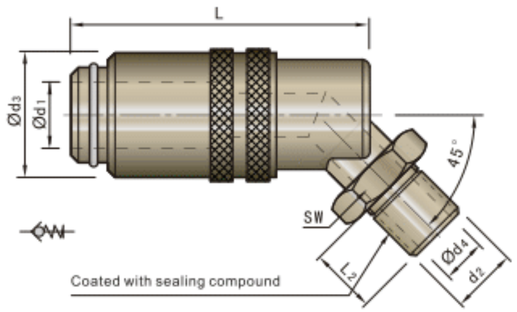
Code	d4	d7	d2	d6	L	L1	SW	p(bar)	@¥/P
ZZ80700HT- 9-14×1.5-90	9	M14×1.5	6	17.25	50.5	9	17	10	
ZZ80700HT-13-16×1.5-90	13	M16×1.5	9	22.1	61.5		22	15	

DIN

Quick release connector plugs

EE2232 (45°)





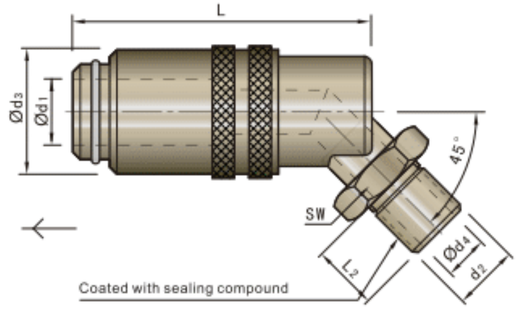
Medium	Max (℃)
Air	200
Oil	120
Water	100

Order EE2232-9-14 Material: Brass

Code	d1	d2	d4	d3	L	L2	SW	p(bar)	@ /P
EE2232- 9-14	9	M14×1.5	6	17	42	9	14	15	
EE2232-13-16	13	M16×1.5	9	24	51	10	17		
EE2232-19-24	19	M24×1.5	13	31	80	18	30		

EE2222 (45°)





Medium	Max (℃)
Air	200
Oil	120
Water	100

Order EE2222-9-14 Material: Brass

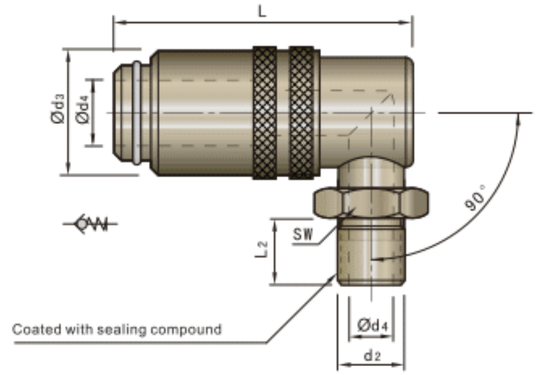
Code	d1	d2	d4	d3	L	L2	SW	p(bar)	@ /P
EE2222- 9-14	9	M14×1.5	6	17	42	9	14	15	
EE2222-13-16	13	M16×1.5	9	22	51	10	17		
EE2222-19-24	19	M24×1.5	13	31	80	18	30		

DIN

Quick release connector plugs

EE2234 (90°)





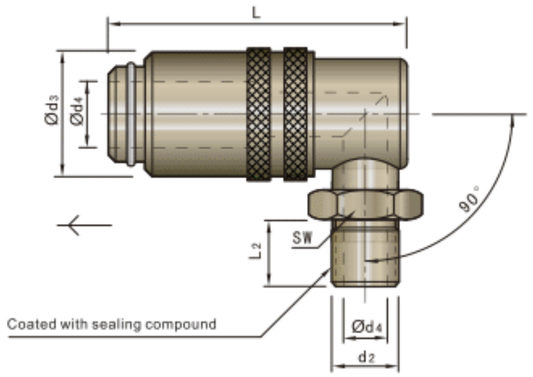
Medium	Max (℃)
Air	200
Oil	120
Water	100

Order EE2234-9-14 Material: Brass

Code	d1	d2	d4	d3	L	L2	SW	p(bar)	@ /P
EE2234- 9-14	9	M14×1.5	6	17	42	9	14	15	
EE2234-13-16	13	M16×1.5	9	22	51	10	17		
EE2234-19-24	19	M24×1.5	13	31	80	18	30		

EE2224 (90°)





Medium	Max (℃)
Air	200
Oil	120
Water	100

Order EE2224-d1-d2 Material: Brass

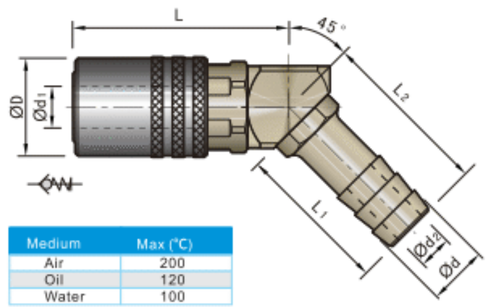
Code	d1	d2	d4	d3	L	L2	SW	p(bar)	@ /P
EE2224- 9-14	9	M14×1.5	6	17	42	9	14	15	
EE2224-13-16	13	M16×1.5	9	22	51	10	17		
EE2224-19-24	19	M24×1.5	13	31	80	18	30		

AISI

Nipples

SSVK(45°)





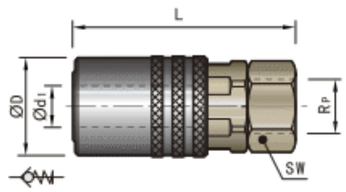
Medium	Max (°C)
Air	200
Oil	120
Water	100

Order SSVK-306 Material: Brass

Code	d1	d2	d	D	L	L1	L2	Series	@ /P
SSVK-306	9.5	5	7.3	17	38	27	34	N 6	
SSVK-309		6	10.5						
SSVK-311	13.6	9	12.2	22.6	52		37	N 9	
SSVK-313			14						
SSVK-319	20	16	20	30	74	46	69	N16	

SSVK





Medium	Max (°C)
Air	200
Oil	120
Water	100

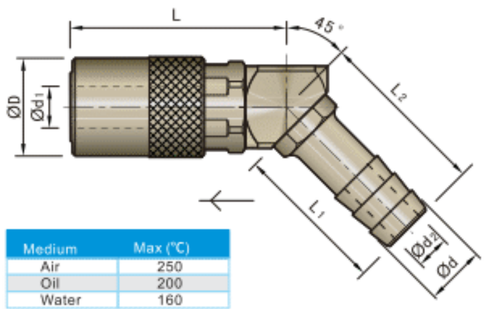
Order SSVK-200 Material: Brass

Code	Rp	d1	L	D	SW	Series	@ /P
SSVK-200	1/8"BSP	9.5	39	17	1/2"	N 6	
SSVK-300	1/4"BSP	13.6	53	22.6	3/8"	N 9	
SSVK-500	1/2"BSP	20	57	30	11/8"	N16	

AISI

Nipples

SSK(45°)



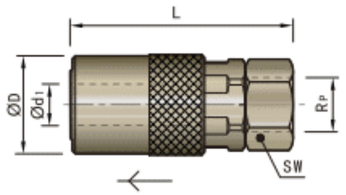
Medium	Max (°C)
Air	250
Oil	200
Water	160



Order SSK-306 Material: Brass

Code	d1	d2	d	D	L	L1	L2	Series	@ /P
SSK-306	9.5	5	7.3	17	38	27	34	N 6	
SSK-309		6	10.5						
SSK-311	13.6	9	12.2	22.6	52		37	N 9	
SSK-313			14						
SSK-319	20	16	20	30	67	46	69	N16	

SSK-D



Medium	Max (°C)
Air	250
Oil	200
Water	160



Order SSK-D-200 Material: Brass

Code	Rp	d1	L	D	SW	Series	@ /P
SSK-D-200	1/8"BSP	9.5	39	17	1/2"	N 6	
SSK-D-300	1/4"BSP	13.6	53	22.6	3/8"	N 9	
SSK-D-500	1/2"BSP	20	59	30	11/8"	N16	

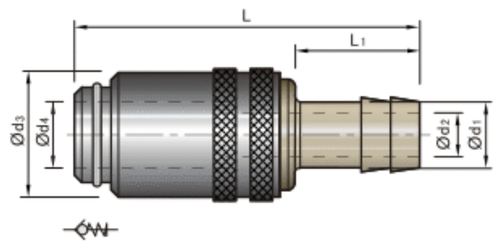
AISI

Quick release connector plugs

MMK 10



Medium	Max (°C)
Air	200
Oil	120
Water	100



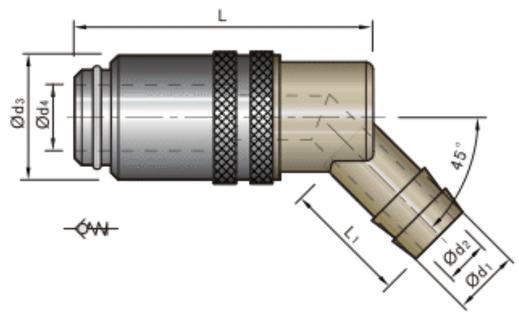
MMK 10-9V Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	T(°C)	@ /P
MMK 10- 9V	9	6	17	9	47	17	15	200	
MMK 10-13V	13	9	22	13	61	25	10		

MMK 12(45°)



Medium	Max (°C)
Air	200
Oil	120
Water	100



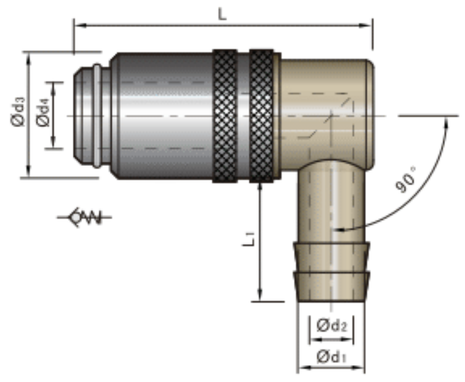
MMK 12-9V Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	T(°C)	@ /P
MMK 12- 9V	9	6	17	9	41	17	15	200	
MMK 12-13V	13	9	22	13	51	25	10		

MMK 15(90°)

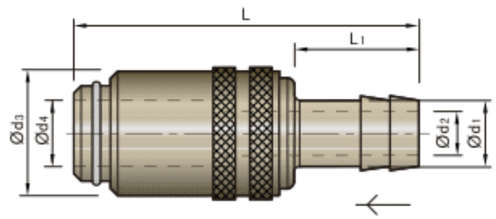


Medium	Max (°C)
Air	200
Oil	120
Water	100



MMK 15-9V Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	T(°C)	@ /P
MMK 15- 9V	9	6	17	9	41	19	15	200	
MMK 15-13V	13	9	22	13	51	28	10		



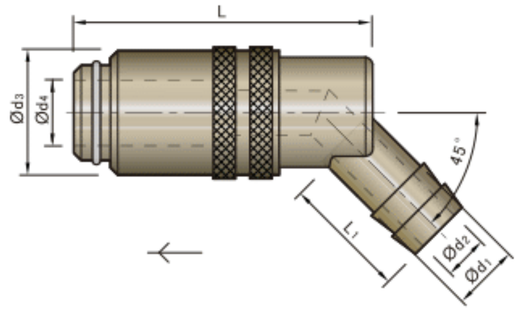
MMK 100



Medium	Max (°C)
Air	200
Oil	120
Water	100

Order MMK-100-9 Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	T(°C)	@ /P
MMK-100- 9	9	6	17	9	47	17	15	200	
MMK-100-13	13	9	22	13	61	25	10		



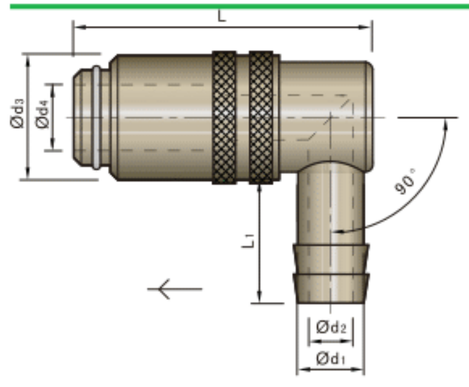
MMK 120(45°)



Medium	Max (°C)
Air	200
Oil	120
Water	100

Order MMK-120-9 Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	T(°C)	@ /P
MMK-120- 9	9	6	17	9	41	17	15	200	
MMK-120-13	13	9	22	13	51	25	10		



MMK 150(90°)



Medium	Max (°C)
Air	200
Oil	120
Water	100

Order MMK-150-9 Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	T(°C)	@ /P
MMK-150- 9	9	6	17	9	41	19	15	200	
MMK-150-13	13	9	22	13	51	28	10		

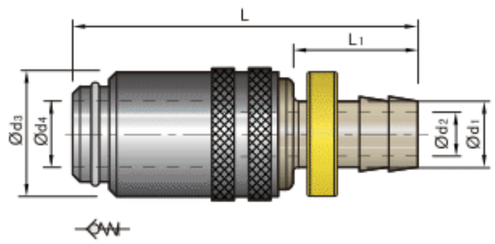
AISI

Quick release connector plugs

MMK 10-...-PL



Medium	Max (°C)
Air	200
Oil	120
Water	100



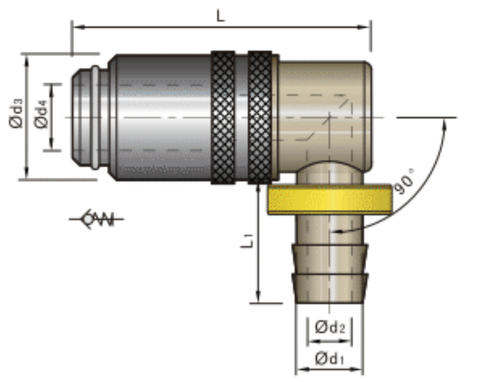
Order MMK 10-9V-PL Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	@¥/S
MMK 10- 9V-PL	10	7.5	17	9	54	24	15	
MMK 10-13V-PL	13	10	23	13	64	28	10	

MMK 15-...-PL



Medium	Max (°C)
Air	200
Oil	120
Water	100



Order MMK 15-9V-PL Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	@¥/S
MMK 15- 9V-PL	10	7.5	17	9	42	24	15	
MMK 15-13V-PL	13	10	23	13	52	28	10	

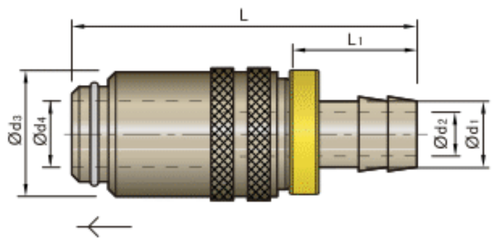
AISI

Quick release connector plugs

MMK 100-...-PL



Medium	Max (°C)
Air	200
Oil	120
Water	100



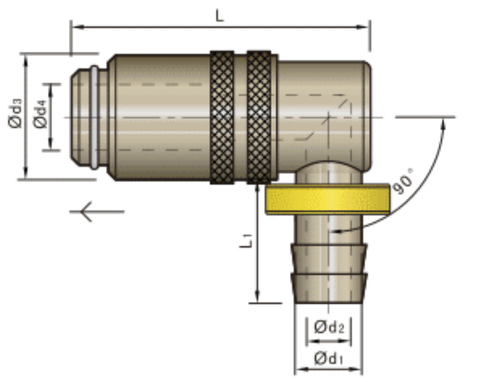
Order MMK-100-9-PL Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	@¥/S
MMK-100- 9-PL	10	7.5	17	9	54	24	15	
MMK-100-13-PL	13	10	23	13	64	28	10	

MMK 150-...-PL



Medium	Max (°C)
Air	200
Oil	120
Water	100



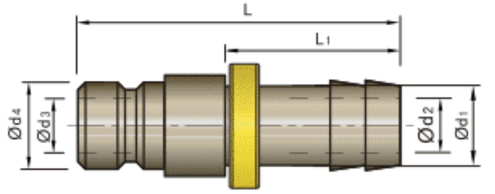
Order MMK-150-9-PL Material: Brass

Code	d1	d2	d3	d4	L	L1	P(bar)	@¥/S
MMK-150- 9-PL	10	7.5	17	9	42	24	15	
MMK-150-13-PL	13	10	23	13	52	28	10	

SST 12



Medium	Max (°C)
Air	200
Oil	120
Water	100



Order SST 12-9-PL Material: Brass

Code	d4	d1	d2	d3	L	L1	@¥/S
SST 12- 9-PL	9	10	7.5	6	44	24	
SST 12-13-PL	13	13	10	9	55	28	

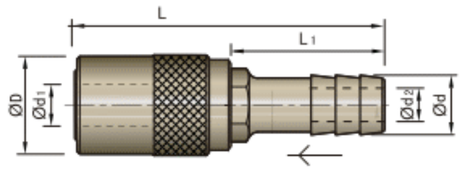
AISI

Quick release connector plugs

SSK



Medium	Max (°C)
Air	200
Oil	120
Water	100



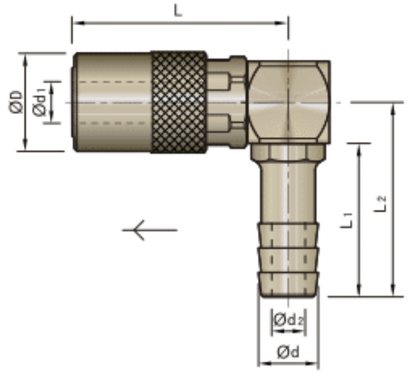
Order SSK-106 Material: Brass

Code	d1	d2	d	D	L1	L	Series	@ /P
SSK-106	9.5	5	7.3	17	25	52	N 6	
SSK-109		6	10.5					
SSK-111	13.6	9	12.2	22.6		62	N 9	
SSK-113			14					
SSK-119	20	16	20	30	32	77	N16	

SSK(90°)



Medium	Max (°C)
Air	200
Oil	120
Water	100



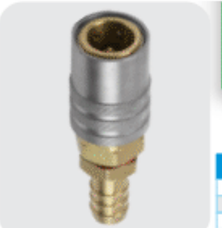
Order SSK-206 Material: Brass

Code	d1	d2	d	D	L	L1	L2	Series	@ /P
SSK-206	9.5	5	7.3	17	38	27	34	N 6	
SSK-209		6	10.5						
SSK-211	13.6	9	12.2	22.6	52		37	N 9	
SSK-213			14						
SSK-219	20	16	20	30	68	46	69	N16	

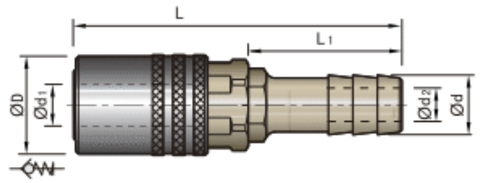
AISI

Quick release connector plugs

SSVK



Medium	Max (°C)
Air	200
Oil	120
Water	100



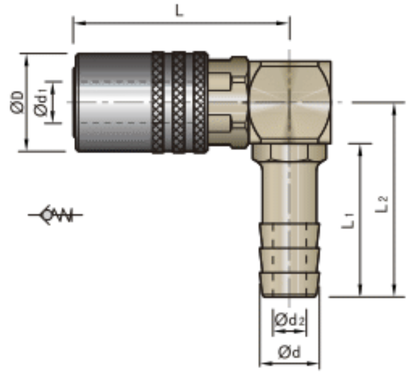
Order SSVK-106 Material: Brass

Code	d1	d2	d	D	L1	L	Series	@ /P
SSVK-106	9.5	5	7.3	17	27	57	N 6	
SSVK-109		6	10.5					
SSVK-111	13.6	9	12.2	22.6		68	N 9	
SSVK-113			14					
SSVK-119	20	16	20	30	46	103	N16	

SSVK(90°)



Medium	Max (°C)
Air	200
Oil	120
Water	100



Order SSVK-206 Material: Brass

Code	d1	d2	d	D	L	L1	L2	Series	@ /P
SSK-206	9.5	5	7.3	17	38	27	34	N 6	
SSK-209		6	10.5						
SSK-211	13.6	9	12.2	22.6	52		37	N 9	
SSK-213			14						
SSK-219	20	16	20	30	74	46	69	N16	

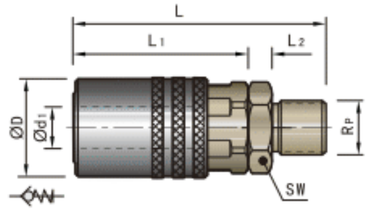
AISI

Quick release connector plugs

FFSVK



Medium	Max (°C)
Air	200
Oil	120
Water	100



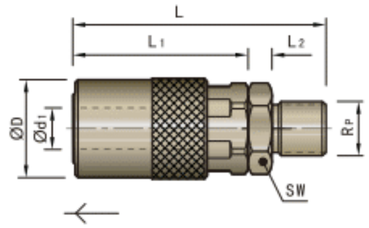
Order FFSVK-106V Material: Brass

Code	Rp	d1	L	D	L1	L2	SW	Series	@ /P
FFSVK-106V	1/4"BSP	9.5	46	17	30.5	8	1/2"	N 6	
FFSVK-111V	3/8"BSP	13.6	60	22.6	41	8.5	3/8"	N 9	
FFSVK-119V	1/2"BSP	17.5	76	30	57	7	11/8"	N16	

FFSK



Medium	Max (°C)
Air	200
Oil	120
Water	100

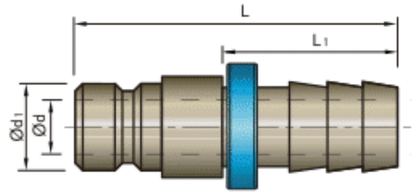


Order FFSK-206V Material: Brass

Code	Rp	d1	L	D	L1	L2	SW	Series	@ /P
FFSK-206V	1/4"BSP	9.5	46	17	30.5	7	1/2"	N 6	
FFSK-211V	3/8"BSP	13.6	60	22.6	41	8	3/8"	N 9	
FFSK-219V	1/2"BSP	17.5	72	30.6	51	8.5	11/8"	N16	

SSTN-...-PL



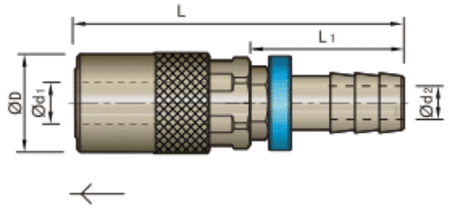


Order SSTN-9-PL Material: Brass

Code	d	d1	fits hose ID	L1	L	Series	@¥/S
SSTN- 9-PL	6	9.4	3/8"	24	37	N 6	
SSTN-13-PL	9	13.5	1/2"	28	48	N 9	
SSTN-19-PL	14	19.9	3/4"	28	63.5	N16	

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Quick release connector plugs



SSK-...-PL

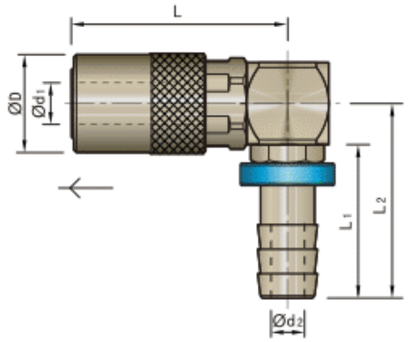


Medium	Max (°C)
Air	200
Oil	120
Water	100

Order SSK-106-PL Material: Brass

Code	d1	d2	fits hose ID	D	L1	L	Series	@¥/S
SSK-106-PL	9.5	5	1/4"	17	25	52	N 6	
SSK-109-PL		6	3/8"					
SSK-111-PL	13.6			22.6		62	N 9	
SSK-113-PL		9	1/2"					
SSK-119-PL	20	14	3/4"	30	32	77	N16	

SSK-...-PL (90°)





Medium	Max (°C)
Air	200
Oil	120
Water	100

Order SSK-206-PL Material: Brass

Code	d1	d2	fits hose ID	D	L	L1	L2	Series	@¥/S
SSK-206-PL	9.5	5	1/4"	17	38	27	34	N 6	
SSK-209-PL		6	3/8"						
SSK-211-PL	13.6			22.6	52		37	N 9	
SSK-213-PL		9	1/2"						
SSK-219--PL	20	14	3/4"	30	68	46	69	N16	

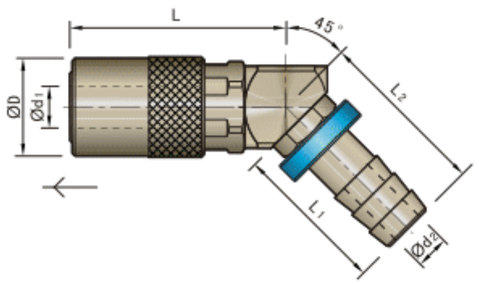
AISI

Quick release connector plugs

SSK-...-PL (45°)



Medium	Max (°C)
Air	200
Oil	120
Water	100



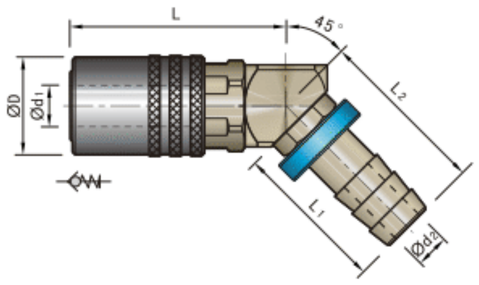
☎Order SSK-306-PL Material: Brass

Code	d1	d2	fits hose ID	D	L	L1	L2	Series	@¥/S
SSK-306-PL	9.5	5	1/4"	17	38	27	34	N 6	
SSK-309-PL		6	3/8"						
SSK-311-PL	13.6			22.6	52		37	N 9	
SSK-313-PL		9	1/2"						
SSK-319--PL	20	14	3/4"	30	68	46	69	N16	

SSVK-...-PL (45°)



Medium	Max (°C)
Air	200
Oil	120
Water	100

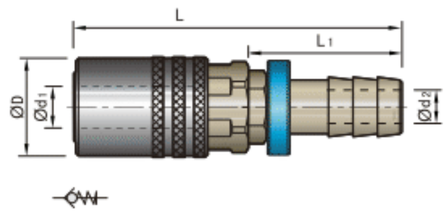


☎Order SSVK-306-PL Material: Brass

Code	d1	d2	fits hose ID	D	L	L1	L2	Series	@¥/S
SSVK-306-PL	9.5	5	1/4"	17	38	27	34	N 6	
SSVK-309-PL		6	3/8"						
SSVK-311-PL	13.6			22.6	52		37	N 9	
SSVK-313-PL		9	1/2"						

AISI

Quick release connector plugs



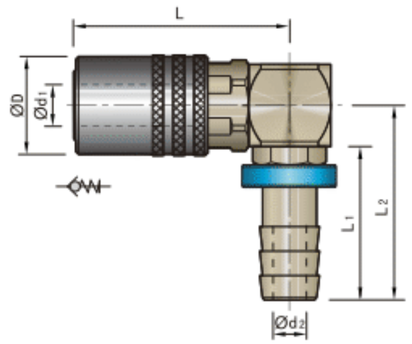


SSVK-...-PL

Medium	Max (°C)
Air	200
Oil	120
Water	100

☎Order SSVK-106-PL Material: Brass

Code	d1	d2	fits hose ID	D	L1	L	Series	@¥/S
SSVK-106-PL	9.5	5	1/4"	17	27	57	N 6	
SSVK-109-PL		6	3/8"	22.6		68	N 9	
SSVK-111-PL	13.6							
SSVK-113-PL		9	1/2"					





SSVK-...-PL (90°)

Medium	Max (°C)
Air	200
Oil	120
Water	100

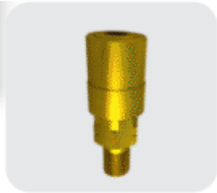
☎Order SSK-206-PL Material: Brass

Code	d1	d2	fits hose ID	D	L	L1	L2	Series	@¥/S
SSK-206-PL	9.5	5	1/4"	17	38	27	34	N 6	
SSK-209-PL		6	3/8"						
SSK-211-PL	13.6			22.6	52		37	N 9	
SSK-213-PL		9	1/2"						

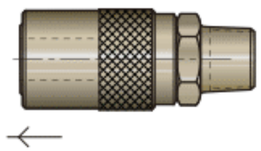
AISI

Quick release connector plugs

JJS-...-M



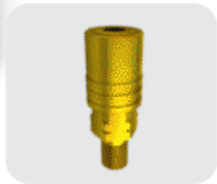
Medium	Max (℃)
Air	200
Oil	120
Water	100



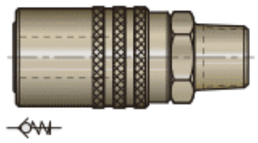
Order JJS-201-M Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-201-M	1/8NPT	1/ 4	JJP(F/B)-250 To 253	
JJS-302-M	1/4NPT	3/ 8	JJP(F/B)-351 To 354	
JJS-504-M	1/2NPT	9/16	JJP(F)-553 To 556	

JJS-...-MV



Medium	Max (℃)
Air	200
Oil	120
Water	100



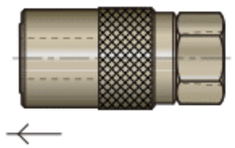
Order JJS-201-MV Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-201-MV	1/8NPT	1/ 4	JJP(F/B)-250 To 253	
JJS-302-MV	1/4NPT	3/ 8	JJP(F/B)-351 To 354	
JJS-504-MV	1/2NPT	9/16	JJP(F)-553 To 556	

JJS



Medium	Max (℃)
Air	200
Oil	120
Water	100



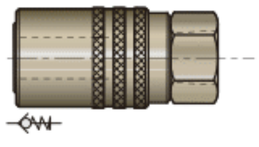
Order JJS-200 Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-200	1/8NPT	1/4	JJP(F/B)-250 To 253	
JJS-300	1/4NPT	3/8	JJP(F/B)-351 To 354	
JJS-500	1/2NPT	5/8	JJP(F)-553 To 556	

JJS-...-V



Medium	Max (℃)
Air	200
Oil	120
Water	100

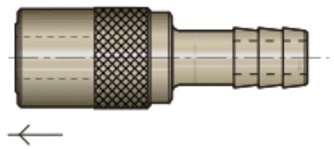


Order JJS-200-V Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-200-V	1/8NPT	1/4	JJP(F/B)-250 To 253	
JJS-300-V	1/4NPT	3/8	JJP(F/B)-351 To 354	
JJS-500-V	1/2NPT	5/8	JJP(F)-553 To 556	

AISI

Quick release connector plugs



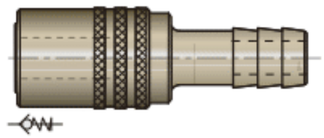
Medium	Max (℃)
Air	200
Oil	120
Water	100



JJS

Order JJS-204 Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-204	1/ 4	3/16	JJP(F/B)-250 To 253	
JJS-205	5/16	1/ 4		
JJS-206	3/ 8			
JJS-306			JJP(F/B)-351 To 354	
JJS-308	1/ 2	3/ 8		
JJS-504			JJP(F)-553 To 556	
JJS-506	3/ 4	5/ 8		



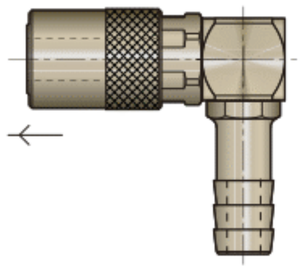
Medium	Max (℃)
Air	200
Oil	120
Water	100



JJS-...-V

Order JJS-204-V Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-204-V	1/ 4	3/16	JJP(F/B)-250 To 253	
JJS-205-V	5/16	1/ 4		
JJS-206-V	3/ 8			
JJS-306-V			JJP(F/B)-351 To 354	
JJS-308-V	1/ 2	3/ 8		
JJS-504-V			JJP(F)-553 To 556	
JJS-506-V	3/ 4	5/ 8		



Medium	Max (℃)
Air	200
Oil	120
Water	100



JJS(90°)

Order JJS-214 Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-214	1/ 4	3/16	JJP(F/B)-250 To 253	
JJS-215	5/16	1/ 4		
JJS-216	3/ 8			
JJS-316			JJP(F/B)-351 To 354	
JJS-318	1/ 2	3/ 8		
JJS-514			JJP(F)-553 To 556	
JJS-516	3/ 4	9/16		

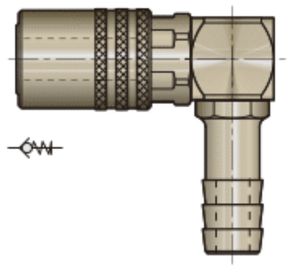
AISI

Quick release connector plugs

JJS-...-V



Medium	Max (℃)
Air	200
Oil	120
Water	100



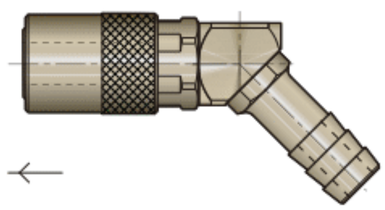
Order JJS-214-V Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-214-V	1/ 4	3/16	JJP(F/B)-250 To 253	
JJS-215-V	5/16	1/ 4		
JJS-216-V	3/ 8		JJP(F/B)-351 To 354	
JJS-316-V				
JJS-318-V	1/ 2	3/ 8	JJP(F)-553 To 556	
JJS-514-V				
JJS-516-V	3/ 4	9/16		

JJS(45°)



Medium	Max (℃)
Air	200
Oil	120
Water	100



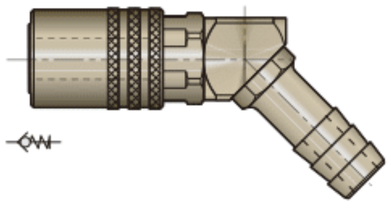
Order JJS-224 Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-224	1/ 4	3/16	JJP(F/B)-250 To 253	
JJS-225	5/16	1/ 4		
JJS-226	3/ 8		JJP(F/B)-351 To 354	
JJS-326				
JJS-328	1/ 2	3/ 8	JJP(F)-553 To 556	
JJS-524				
JJS-526	3/ 4	9/16		

JJS-...-V (45°)



Medium	Max (℃)
Air	200
Oil	120
Water	100

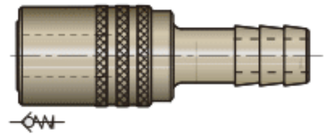


Order JJS-214-V Material: Brass

Code	Fits hose I.D.or pipe threao	Hose stem I.D.or thru hole	Used with sockets	@ /P
JJS-224-V	1/ 4	3/16	JJP(F/B)-250 To 253	
JJS-225-V	5/16	1/ 4		
JJS-226-V	3/ 8		JJP(F/B)-351 To 354	
JJS-326-V				
JJS-328-V	1/ 2	3/ 8	JJP(F)-553 To 556	
JJS-524-V				
JJS-526-V	3/ 4	9/16		

AISI

Quick release connector plugs



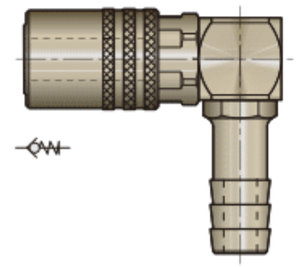
Medium	Max (℃)
Air	200
Oil	120
Water	100



JJS-...-SV

Order JJS-204-SV Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@ ¥ /S
JJS-204-SV	1/ 4	3/16	JJP(F/B)-250 To 253(SV)	
JJS-205-SV	5/16	1/ 4		
JJS-206-SV	3/ 8		JJP(F/B)-351 To 354(SV)	
JJS-306-SV				
JJS-308-SV	1/ 2	3/ 8		



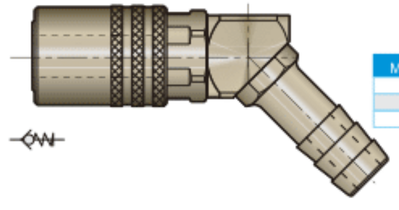
Medium	Max (℃)
Air	200
Oil	120
Water	100



JJS-...-SV (90°)

Order JJS-214-SV Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@ ¥ /S
JJS-214-SV	1/ 4	3/16	JJP(F/B)-250 To 253(SV)	
JJS-215-SV	5/16	1/ 4		
JJS-216-SV	3/ 8		JJP(F/B)-351 To 354(SV)	
JJS-316-SV				
JJS-318-SV	1/ 2	3/ 8		



Medium	Max (℃)
Air	200
Oil	120
Water	100



JJS-...-SV (45°)

Order JJS-214-SV Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@ ¥ /S
JJS-224-SV	1/ 4	3/16	JJP(F/B)-250 To 253(SV)	
JJS-225-SV	5/16	1/ 4		
JJS-226-SV	3/ 8		JJP(F/B)-351 To 354(SV)	
JJS-326-SV				
JJS-328-SV	1/ 2	3/ 8		

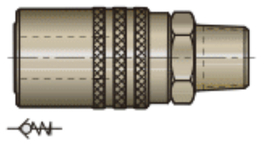
AISI

Quick release connector plugs

JJS-...-MSV



Medium	Max (℃)
Air	200
Oil	120
Water	100



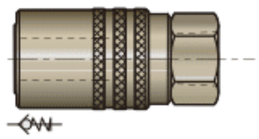
Order JJS-201-MSV Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJS-201-MSV	1/8NPT	1/ 4	JJP(F/B)-250 To 253(SV)	
JJS-302-MSV	1/4NPT	3/ 8	JJP(F/B)-351 To 354(SV)	

JJS-...-SV



Medium	Max (℃)
Air	200
Oil	120
Water	100



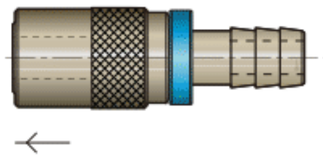
Order JJS-200-SV Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJS-200-SV	1/8NPT	1/4	JJP(F/B)-250 To 253(SV)	
JJS-300-SV	1/4NPT	3/8	JJP(F/B)-351 To 354(SV)	

AISI

Quick release connector plugs

JJSL



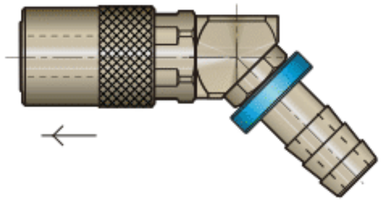
Medium	Max (℃)
Air	200
Oil	120
Water	100



Order JJSL-0204 Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJSL-0204	1/ 4	3/16	JJP(F/B)-250 To 253	
JJSL-0206	3/ 8	1/ 4		
JJSL-0306			JJP(F/B)-351 To 354	
JJSL-0308	1/ 2	3/ 8		
JJSL-0504			JJP(F)-553 To 556	
JJSL-0506	3/ 4	5/ 8		

JJSL(45°)



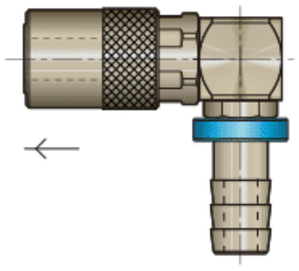
Medium	Max (℃)
Air	200
Oil	120
Water	100



Order JJSL-0224 Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJSL-0224	1/ 4	3/16	JJP(F/B)-250 To 253	
JJSL-0226	3/ 8	1/ 4		
JJSL-0326			JJP(F/B)-351 To 354	
JJSL-0328	1/ 2	3/ 8		
JJSL-0524			JJP(F)-553 To 556	
JJSL-0526	3/ 4	5/ 8		

JJSL(90°)



Medium	Max (℃)
Air	200
Oil	120
Water	100



Order JJSL-0214 Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJSL-0214	1/ 4	3/16	JJP(F/B)-250 To 253	
JJSL-0216	3/ 8	1/ 4		
JJSL-0316			JJP(F/B)-351 To 354	
JJSL-0318	1/ 2	3/ 8		
JJSL-0514			JJP(F)-553 To 556	
JJSL-0516	3/ 4	5/ 8		

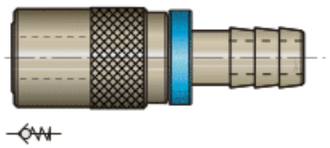
AISI

Quick release connector plugs

JJSL-...-V



Medium	Max (℃)
Air	200
Oil	120
Water	100



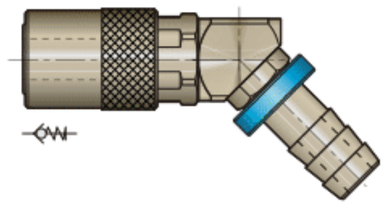
Order JJSL-0204V Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJSL-0204V	1/ 4	3/16	JJP(F/B)-250 To 253	
JJSL-0206V	3/ 8	1/ 4		
JJSL-0306V			JJP(F/B)-351 To 354	
JJSL-0308V	1/ 2	3/ 8		
JJSL-0504V			JJP(F)-553 To 556	
JJSL-0506V	3/ 4	5/ 8		

JJSL-...-V (45°)



Medium	Max (℃)
Air	200
Oil	120
Water	100



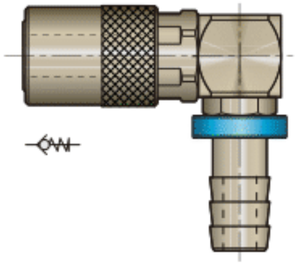
Order JJSL-0224V Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJSL-0224V	1/ 4	3/16	JJP(F/B)-250 To 253	
JJSL-0226V	3/ 8	1/ 4		
JJSL-0326V			JJP(F/B)-351 To 354	
JJSL-0328V	1/ 2	3/ 8		
JJSL-0524V			JJP(F)-553 To 556	
JJSL-0526V	3/ 4	5/ 8		

JJSL-...-V (90°)



Medium	Max (℃)
Air	200
Oil	120
Water	100

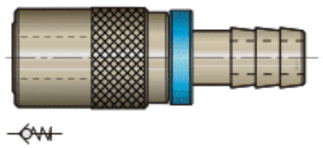


Order JJSL-0214V Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJSL-0214V	1/ 4	3/16	JJP(F/B)-250 To 253	
JJSL-0216V	3/ 8	1/ 4		
JJSL-0316V			JJP(F/B)-351 To 354	
JJSL-0318V	1/ 2	3/ 8		
JJSL-0514V			JJP(F)-553 To 556	
JJSL-0516V	3/ 4	5/ 8		

AISI

Quick release connector plugs



Medium	Max (℃)
Air	200
Oil	120
Water	100

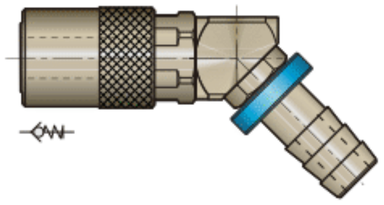
JJSL-...-SV



Order JJSL-0204-SV Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJSL-0204-SV	1/ 4	3/16	JJP(F/B)-250 To 253(SV)	
JJSL-0206-SV	3/ 8	1/ 4		
JJSL-0306-SV			JJP(F/B)-351 To 354(SV)	
JJSL-0308-SV	1/ 2	3/ 8		

JJSL-...-SV (45°)



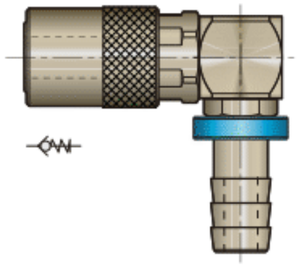
Medium	Max (℃)
Air	200
Oil	120
Water	100



Order JJSL-0224-SV Material: Brass

Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJSL-0224-SV	1/ 4	3/16	JJP(F/B)-250 To 253(SV)	
JJSL-0226-SV	3/ 8	1/ 4		
JJSL-0326-SV			JJP(F/B)-351 To 354(SV)	
JJSL-0328-SV	1/ 2	3/ 8		

JJSL-...-SV (90°)



Medium	Max (℃)
Air	200
Oil	120
Water	100



Order JJSL-0214-SV Material: Brass

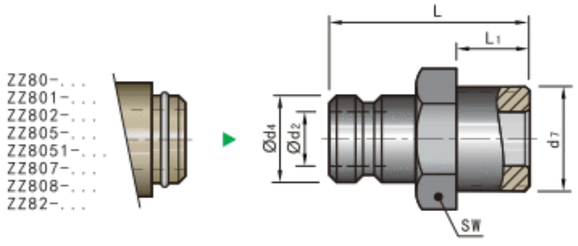
Code	Fits hose I.D.or pipe thread	Hose stem I.D.or thru hole	Used with sockets	@¥/S
JJSL-0214-SV	1/ 4	3/16	JJP(F/B)-250 To 253(SV)	
JJSL-0216-SV	3/ 8	1/ 4		
JJSL-0316-SV			JJP(F/B)-351 To 354(SV)	
JJSL-0318-SV	1/ 2	3/ 8		

DIN

Nipples

ZZ81





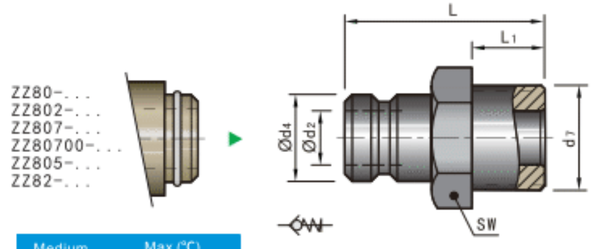
Order ZZ81-5-5×0.5 Material: Brass Surface plating treatment

Code	L	L1	d2	d4	d7	SW	@¥/P
ZZ81- 5- 5×0. 5-90	15.5	5	14.5	2.7	5	M 5×0.5	9	
ZZ81- 5- 8×0.75-90	17.5	7				M 8×0.75		
ZZ81- 9- 8×0.75-90	27	9	23	4.5	9	M 8×0.75	11	
ZZ81- 9-10×1-90				6		M10×1		
ZZ81- 9-R1/8-90						R1/8A		
ZZ81-13-14×1.5-90	34	11	25	9	13	M14×1.5	15	
ZZ81-13-R1/4-90						R1/4A		
ZZ81-19-24×1.5-90	47	16	42	13	19	M24×1.5	24	
ZZ81-19-R1/2-90						R1/2A		

DIN

Nipples

ZZ811





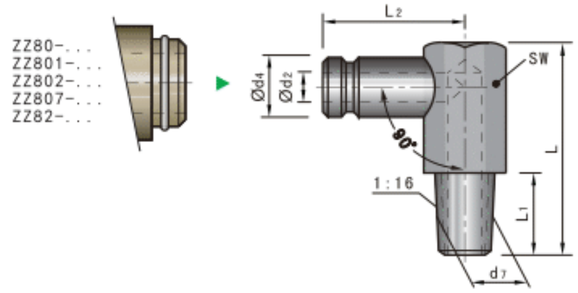
Medium	Max (℃)
Air	200
Oil	120
Water	100

Order ZZ811-5-5×0.5 Material: Brass Surface plating treatment

Code	L	L1	d2	d4	p(bar)	d7	SW	@¥/P
ZZ811- 5- 5×0. 5	28	5	2.7	5	10	M 5×0.5	9	
ZZ811- 5- 8×0.75	30	7				M 8×0.75		
ZZ811- 9-14×1.5	29	12	6	9		M14×1.5	15	
ZZ811- 9-R1/4						G1/4A		
ZZ811-13-16×1.5	30		9	13	15	M16×1.5	17	
ZZ811-13-R3/8						G3/8A		
ZZ811-19-24×1.5	51	16	13	19	20	M24×1.5	27	
ZZ811-19-R3/4						G3/4A		

ZZ81-...-90

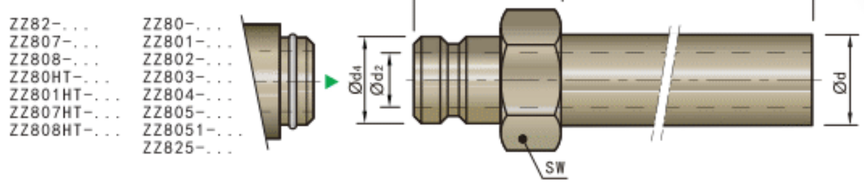


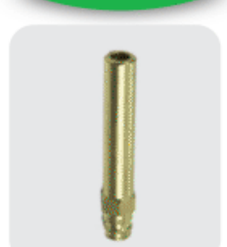


Order ZZ81-5-5×0.5-90° Material: Brass Surface plating treatment

Code	L	L1	L2	d2	d4	d7	SW	@¥/P
ZZ81- 5- 5×0. 5-90	15.5	5	14.5	2.7	5	M 5×0.5	9	
ZZ81- 5- 8×0.75-90	17.5	7				M 8×0.75		
ZZ81- 9- 8×0.75-90	27	9	23	4.5	9	M 8×0.75	11	
ZZ81- 9-10×1-90				6		M10×1		
ZZ81- 9-R1/8-90						R1/8A		
ZZ81-13-14×1.5-90	34	11	25	9	13	M14×1.5	15	
ZZ81-13-R1/4-90						R1/4A		
ZZ81-19-24×1.5-90	47	16	42	13	19	M24×1.5	24	
ZZ81-19-R1/2-90						R1/2A		

ZZ90





Order ZZ90-5-63 Material: Brass

Code	L	L7	d	d2	d4	SW	@¥/P
ZZ90- 5× 63	63	15	5	3	5	7	
ZZ90- 5×100	100						
ZZ90- 9× 63	63	21	8	5	9	9	
ZZ90- 9×100	100						
ZZ90- 9×120	120		10	6	9	11	
ZZ90- 9×240	240						
ZZ90- 9×360	360						
ZZ90-13×150	150	23	14	9	13	15	
ZZ90-13×300	300						
ZZ90-13×450	450						
ZZ90-19×500	500	35	21	13	19	22	
ZZ90-19×800	800						

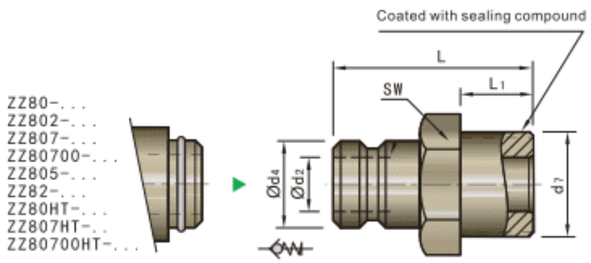
DIN

Nipples

ZZ811HT



ZZ80-...
ZZ802-...
ZZ807-...
ZZ80700-...
ZZ805-...
ZZ82-...
ZZ80HT-...
ZZ807HT-..
ZZ80700HT-...



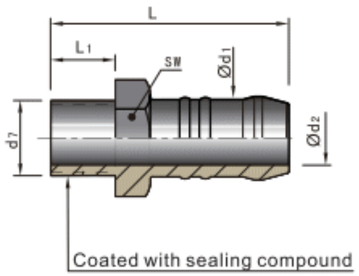
Medium	Max (℃)
Air	250
Oil	200
Water	160

☎Order ZZ811HT-9×14×1.5 Material: Brass

Code	d4	d7	d2	L	L1	SW	p(bar)	@¥/P
ZZ811HT- 9×14×1.5	9	M14×1.5	6	29	12	15	10	
ZZ811HT- 9×R1/4A		G1/4A						
ZZ811HT-13×16×1.5	13	M16×1.5	9	30		17	15	
ZZ811HT-13×R3/8		G3/8A						

ZZ87





☎Order ZZ87-5-5×0.5 Material: Brass

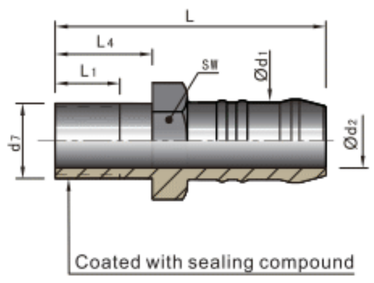
d7	d1	d7	d2	L	L1	SW	@¥/P
ZZ87- 5- 5×0.5	5	M 5×0.5	3.5	21.5	5	7	
ZZ87- 5- 8×0.75		M 8×0.75		23.5	7	9	
ZZ87- 7- 7×1	9	M 7×1	4.5	33.5		11	
ZZ87- 9- 8×0.75		M 8×0.75					
ZZ87- 9- 9×1		M 9×1	5.5				
ZZ87- 9-10×1		M10×1	6				
ZZ87- 9-R1/8		G1/8A					
ZZ87-13-11×1	13	M11×1	9	40	9	15	
ZZ87-13-12×1.5		M12×1.5					
ZZ87-13-14×1.5		M14×1.5				17	
ZZ87-13-16×1.5		M16×1.5				15	
ZZ87-13-R1/4		G1/4A				17	
ZZ87-13-R3/8		G3/8A				27	
ZZ87-19-24×1.5	19	M24×1.5	13	56	16	22	
ZZ87-19-R1/2		G1/2A		50	12	27	
ZZ87-19-R3/4		G3/4A		56	16		

DIN

Nipples

ZZ88



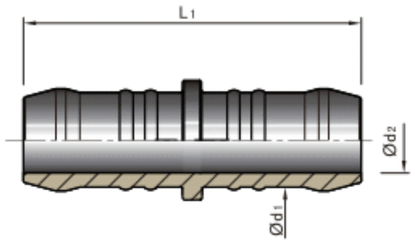


☎Order ZZ88-9-10×1 Material: Brass Surface plating treatment

Code	d1	d7	d2	L	L1	L4	SW	@¥/P
ZZ88- 9-10×1	9	M10×1	6	40.5	7	14	11	
ZZ88- 9-R1/8		G1/8A						
ZZ88-13-12×1.5	13	M12×1.5	8	47	9	16	15	
ZZ88-13-14×1.5		M14×1.5	9					
ZZ88-13-R1/4		G3/8A						
ZZ88-19-24×1.5	19	M24×1.5	13	62	12	22	27	
ZZ88-19-R1/2		G1/2A						

ZZ880



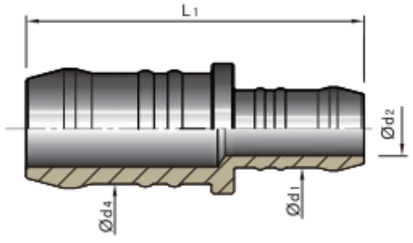


☎Order ZZ880-5×5 Material: Brass Surface plating treatment

Code	d1	d2	L1	@¥/P
ZZ880- 5× 5	5	3.5	29	
ZZ880- 9× 9	9	6	48	
ZZ880-13×13	13	9	54	
ZZ880-13×13	19	13	69	

ZZ881





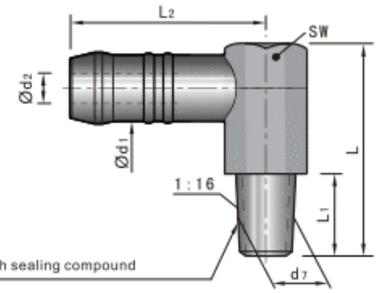
☎Order ZZ881-5×9 Material: Brass Surface plating treatment

Code	d1	d4	d2	L1	@¥/P
ZZ881- 5× 9	5	9	3.5	39	
ZZ881- 9×13	9	13	6	51.5	
ZZ881-13×19	13	19	9	62	

DIN
Nipples

ZZ89





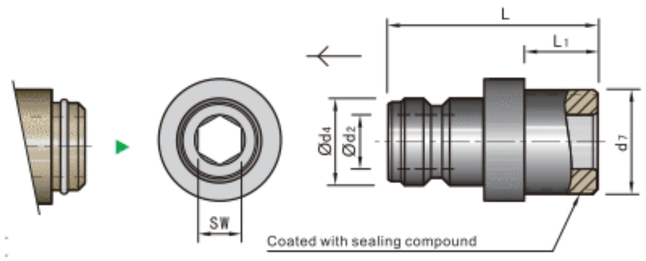
Order ZZ89-9-8×0.75 Material: Brass Surface plating treatment

Code	d1	d7	d2	L	L1	L2	SW	@¥/P
ZZ89- 9- 8×0.75	9	M 8×0.75	6	27	9	28	11	
ZZ89- 9-10×1		M10×1						
ZZ89- 9-R1/8		R1/8						
ZZ89-13-14×1.5	13	M14×1.5	9	34	11	32.5	15	
ZZ89-13-R1/4		R1/4A						
ZZ89-19-24×1.5	19	M24×1.5	13	47	16	44	24	
ZZ89-19-R1/2		R1/2A						

ZZ810



ZZ80-. . .
ZZ801-. . .
ZZ802-. . .
ZZ803-. . .
ZZ804-. . .
Zz825-. . .
ZZ805-. . .
ZZ8051-. . .
ZZ807-. . .
ZZ808-. . .
ZZ82-. . .
ZZ80HT-. . .
ZZ801HT-. . .
ZZ807HT-. . .
ZZ808HT-. . .

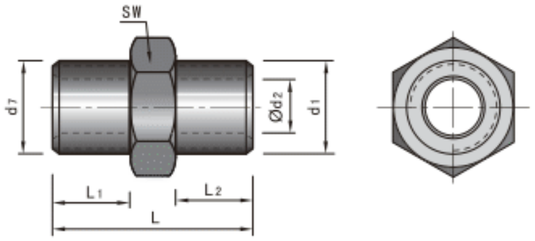


Order ZZ810-5×5×0.5 Material: Brass Surface plating treatment

Code	d4	d7	d2	L	L1	SW	@¥/P
ZZ810- 5× 5×0.5	5	M 5×0.5	2.7	18	5	2.5	
ZZ810- 5× 8×0.75		M 8×0.75		20			
ZZ810- 9× 7×1	9	M 7×1	4.5	24	7	5	
ZZ810- 9× 8×0.75		M 8×0.75					
ZZ810- 9× 9×1		M 9×1					
ZZ810- 9×10×1		M10×1	6				
ZZ810- 9×R1/8		R1/8A					
ZZ810- 9×14×1.5		M14×1.5		26	9		
ZZ810- 9×R1/4		R1/4A					
ZZ810-13×11×1	13	M11×1	8.5			7	
ZZ810-13×14×1.5		M14×1.5	9				
ZZ810-13×R1/4		R1/4A					
ZZ810-13×16×1.5		M16×1.5					
ZZ810-13×R3/8		R3/8A					
ZZ810-19×24×1.5	19	M24×1.5	13	51	16	11	
ZZ810-19×R1/2		R1/2A		47	12		
ZZ810-19×R3/4		R3/4A		51	16		

DIN
Nipples

ZZ812

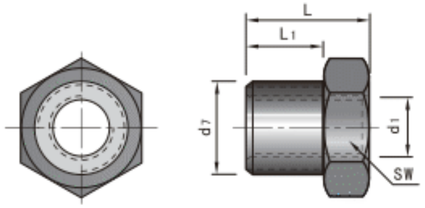




Order ZZ812-14×1.5 Material: Brass Surface plating treatment

Code	d1	d7	d2	L	L1	L2	SW	@¥/P
ZZ812-14×1.5	M14×1.5	M14×1.5	6	23	9	9	17	
ZZ812-14×1.5-R1/4	G1/4A	G1/4A						
ZZ812-R1/4								
ZZ812-R1/2-14×1.5	M14×1.5	G1/2A	9	30	12		22	
ZZ812-16×1.5	M16×1.5	M16×1.5					19	
ZZ812-16×1.5-R3/8	G3/8A	G3/8A						
ZZ812-R3/8								
ZZ812-R1/2-16×1.5	M16×1.5	G1/2A					22	
ZZ812-24×1.5	M24×1.5	M24×1.5	13	40	16	16	27	
ZZ812-24×1.5-R1/2	G1/2A			36		12		
ZZ812-R1/2		G1/2A		30	12		22	
ZZ812-R3/4	G3/4A	G3/4A		40	16	16	27	
ZZ812-R3/4-24×1.5	M24×1.5							

ZZ814





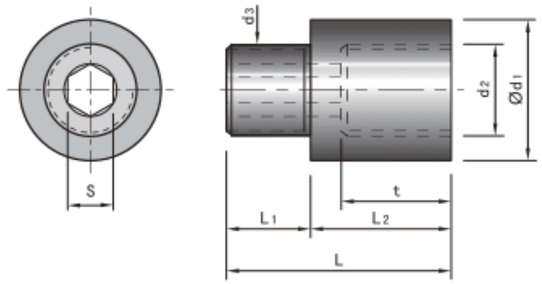
Order ZZ814-14×1.5-10×1 Material: Brass Surface plating treatment

Code	d1	d7	L	L1	SW	@¥/P
ZZ814-14×1.5-10×1	M10×1	M14×1.5	11	7	17	
ZZ814-18×1.5-14×1.5	M14×1.5	M18×1.5	14	9	22	
ZZ814-R1/4-R1/8	G1/8	G1/4A	11	7	17	
ZZ814-R3/8-R1/4	G1/4	G3/8A	13	9	19	
ZZ814-R1/2-R3/8	G3/8	G1/2A	18	12	24	
ZZ814-24×1.5-16×1.5	M16×1.5	M24×1.5	24	16	27	
ZZ814-R3/4-R1/2	G1/2	G3/4A				

DIN
Nipples

ZZ905



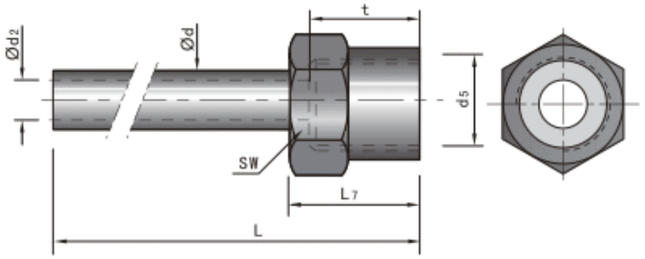


Order ZZ905-14×1.5-10×1 Material: Brass Surface plating treatment

Code	d2	d3	d1	L	L1	L2	t	s	@¥/P
ZZ905-14×1.5-10×1	M14×1.5	M10×1	17	22	7	15	12	6	
ZZ905-R1/4-R1/8	G1/4	G1/8A							
ZZ905-16×1.5-14×1.5	M16×1.5	M14×1.5	22	24	9			8	
ZZ905-R3/8-R1/4	G3/8	G1/4A							

ZZ906



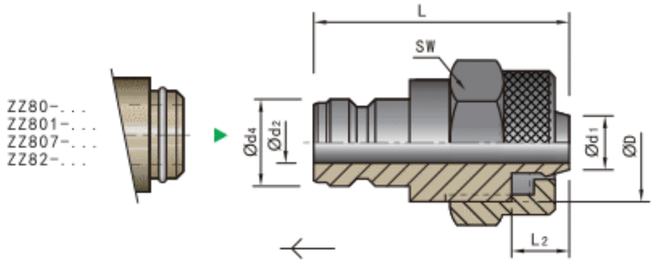


Order ZZ906-9×120-14×1.5 Material: Brass Surface plating treatment

Code	Typ	L	d5	d	d2	L7	t	SW	@¥/P
ZZ906- 9×120-14×1.5	9	120	M14×1.5	10	6	15.5	12	17	
ZZ906- 9×240-14×1.5		240							
ZZ906-13×150-16×1.5	13	150	M16×1.5	14	9			22	
ZZ906-13×300-16×1.5		300							
ZZ906-19×500-24×1.5	19	500	M24×1.5	21	13	21	16	30	
ZZ906-19×800-24×1.5		800							

ZZ831





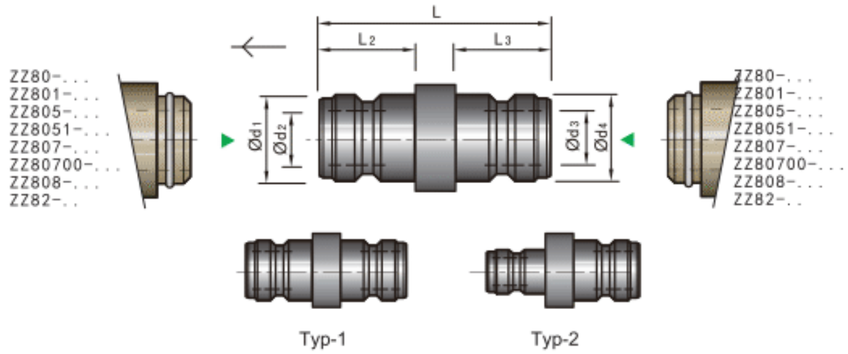
Order ZZ831-d4-d1 Material: Brass Surface plating treatment

d4	d1	d2	L	L2	D	SW	@¥/P
9	6	5	32	6	M12×1	14	

DIN
Nipples

ZZ830



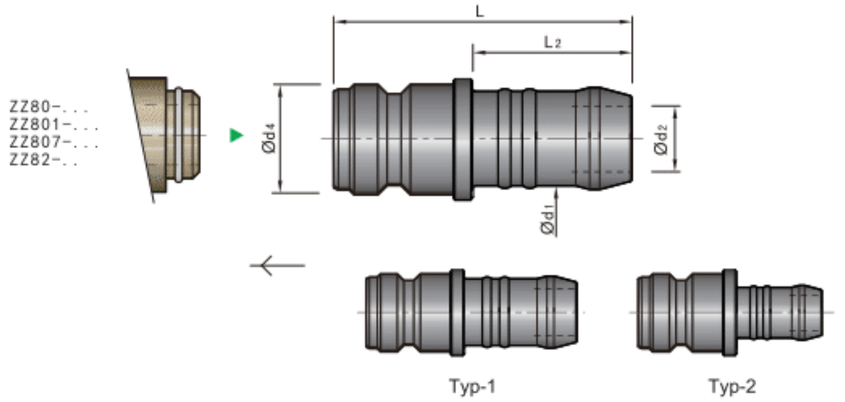


Order ZZ830-d1-d4 Material: Brass

d1	d4	d2	d3	L	L2	L3	P(bar)	Typ	@¥/P
5	5	2.7	2.7	22	10	10	10	1	
	9		6	26.5		14		2	
9		6		30.5	14			1	
	13		9	31				2	
13		9		46			15	1	
	19		13	59	27	27		2	
19		13					20	1	

ZZ83





Order ZZ83-d4-d1 Material: Brass

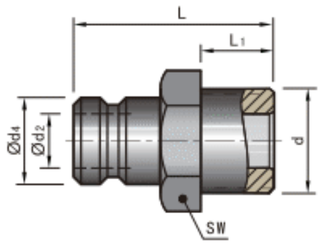
d4	d1	d2	L	L2	Typ	@¥/P
5	5	3.5	25	13.5	1	
9	9	6	43.5	22.5		
13	13	9	42	25		
19	19	13	61	32		
9	5	3.5	29.5	13.5	2	
13	9	6	39.5	22.5		
19	13	9	54	25		

AISI

Nipples

SST11



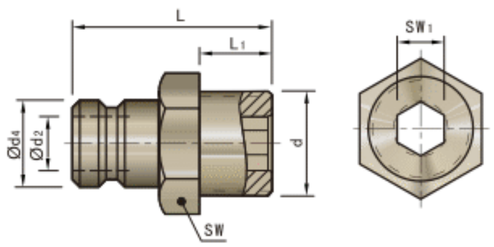


Order SST11-9-M8×0.75 Material: Brass

Code	d	d2	d4	L	L1	P(bar)	T(℃)	SW	@ /P
SST 11- 9-M 8×0.75	M 8×0.75	4.5	9	24	7	15	200	11	
SST 11- 9-M10×1	M10×1	6							
SST 11- 9-R1/8"	1/8"BSP								
SST 11- 9-M14×1.5	M14×1.5			26	9			15	
SST 11- 9-R1/4"	1/4"BSP								
SST 11-13-M14×1.5	M14×1.5	9	13			10			
SST 11-13-R1/4"	1/4"BSP								
SST 11-13-M16×1.5	M16×1.5							17	
SST 11-13-R3/8"	3/8"BSP								

SST11



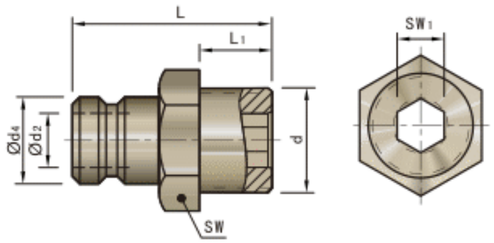


Order SST11-9-R1/8"H Material: Brass

Code	d	d2	d4	L	L1	P(bar)	T(℃)	SW	SW1	@ /P
SST 11-9-R1/8"H	1/8"BSP	6	9	24	7	15	200	11	5	
SST 11-9-M10×1H	M10×1									
SST 11-9-R1/4"H	1/4"BSP			26	9			15		
SST 11-9-M14×1.5H	M14×1.5									

SST11





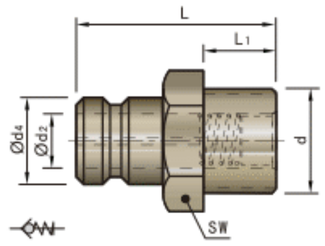
Order SST11-13-R1/4"H Material: Brass

Code	d	d2	d4	L	L1	P(bar)	T(℃)	SW	SW1	@ /P
SST 11-13-R1/4"H	1/4"BSP	9.3	13	26	9	15	200	15	8	
SST 11-13-M14×1.5H	M14×1.5							17		
SST 11-13-M16×1.5H	M16×1.5									
SST 11-13-R3/8"H	3/8"BSP									

AISI

Nipples

SST13



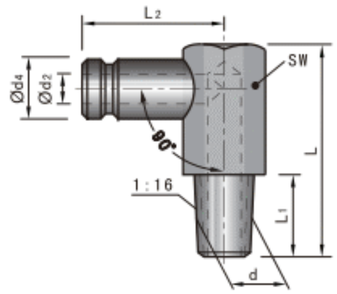
Medium	Max (℃)
Air	200
Oil	120
Water	100



Order SST13-9-M14×1.5 Material: Brass

Code	d	d2	d4	L	L1	P(bar)	T(℃)	SW	@ /P
SST-13- 9-M14×1.5	M14×1.5	6	9	29	12	15	200	15	
SST-13- 9-R1/4"	1/4"BSP								
SST-13-13-M16×1.5	M16×1.5	9	13	30		10		17	
SST-13-13-R3/8"	3/8"BSP								

SST14

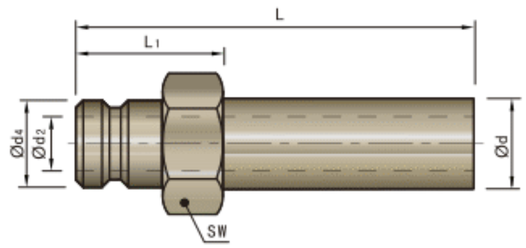




Order SST14-9-M8×0.75 Material: Brass

Code	d	d2	d4	L	L1	L2	SW	@ /P
SST-14- 9-M 8×0.75	M 8×0.75	4.5	9	27	9	23	11	
SST-14- 9-M10×1	M10×1	6						
SST-14- 9-R1/8"	1/8"BSPT							
SST-14-13-M14×1.5	M14×1.5	9	13	34		25	15	
SST-14-13-R1/4"	1/4"BSPT							

SST15





Order SST15-9-120 Material: Brass

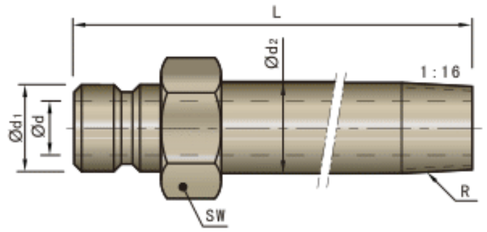
Code	d	d2	d4	L	L1	SW	@ /P
SST-15- 9×120	10	6	9	120	21	11	
SST-15- 9×240				240			
SST-15- 9×360				360			
SST-15-13×150	14	9	13	150	23	15	
SST-15-13×300				300			
SST-15-13×450				450			

AISI

Nipples

BBEP



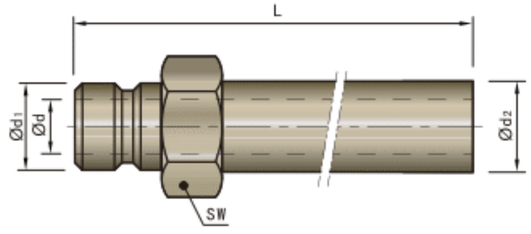


Order BBEP-1810 Material: Brass

Code	R	L	SW	d	d1	d2	Series	@ /P
BBEP-1810	1/8"BSPT	100	11	6	9.4	10	N6	
BBEP-1415	1/4"BSPT	150	15	9	13.5	14	N9	

BBEP

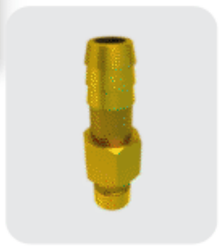


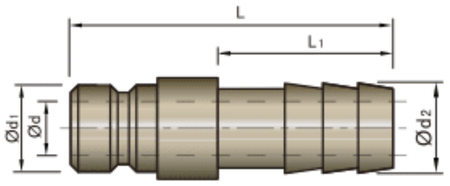


Order BBEP-1815 Material: Brass

Code	L	SW	d	d1	d2	Series	@ /P
BBEP-1815	150	11	6	9.4	10	N6	
BBEP-1825	250						
BBEP-1425		15	9	13.5	14	N9	

SSTN





Order SSTN-9 Material: Brass

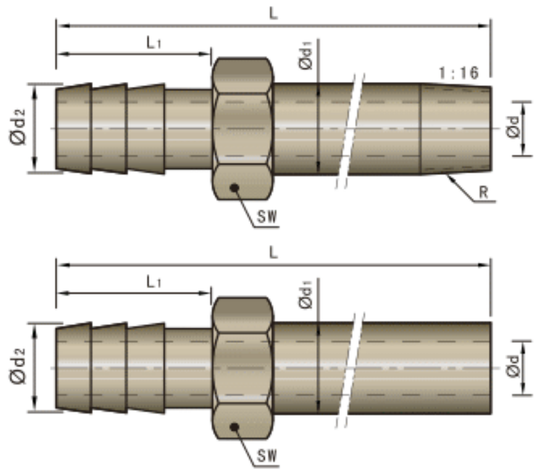
Code	d	d1	d2	L1	L	Series	@ /P
SSTN- 9	6	9.4	10	17	39	N 6	
SSTN-13	9	13.5	14	21	41	N 9	
SSTN-19	15.5	19.9	20	46	91	N16	

AISI

Nipples

BBSS



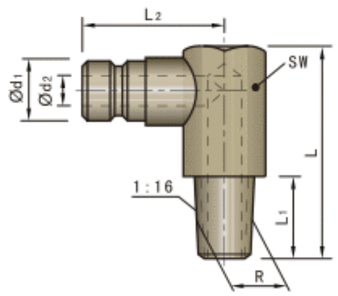


Order BBSS-1810 Material: Brass

Code	R	L	L1	d	d1	d2	SW	@ /P
BBSS-1810	1/8"BSPT	100	17	6	10	10	11	
BBSS-1815	-	150						
BBSS-1825	-	250						
BBSS-1415	1/4"BSPT	150	25	9	14	14	15	
BBSS-1425	-	250						

AATN





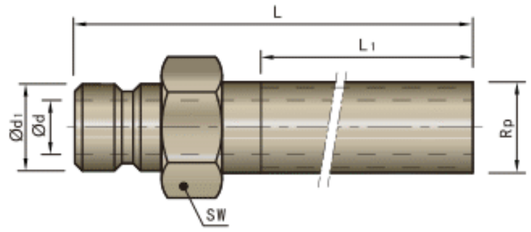
Order AATN-9 Material: Brass

Code	R	d1	d2	L	L1	L2	SW	Series	@ /P
AATN- 9	1/8"BSPT	9.4	6	27	9	23	11	N6	
AATN-13	1/4"BSPT	13.5	9	34		24.5	15	N9	

AISI
Nipples

EEJP



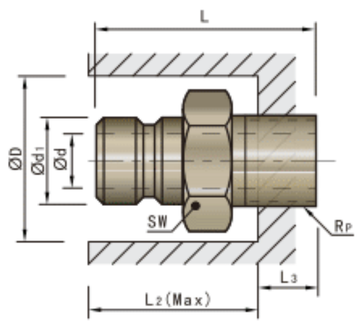


Order EEJP-2514 Material: Brass

Code	Rp	d1	d	L	L1	SW	Series	@ /P
EEJP-2514	1/8"BSP	9.4	6.3	100	61	12	N6	
EEJP-2516				150				
EEJP-2518				200				
EEJP-2524	1/4"BSP			100		15		
EEJP-2526				150				
EEJP-2528				200				
EEJP-2534	3/8"BSP			100		18		
EEJP-2536				150				
EEJP-2538				200				
EEJP-3514	1/8"BSP	13.5	9.5	100		15	N9	
EEJP-3516				150				
EEJP-3518				200				
EEJP-3524	1/4"BSP			100				
EEJP-3526				150				
EEJP-3528				200				
EEJP-3534	3/8"BSP			100		18		
EEJP-3536				150				
EEJP-3538				200				

FFN





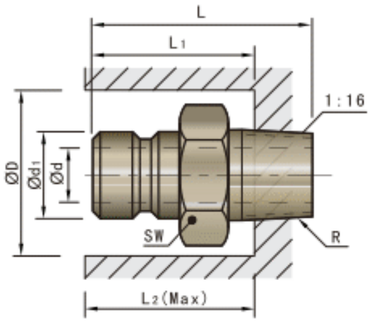
Order FFN-9-14A Material: Brass

Code	Rp	D	L2	d1	d	L	L3	SW	Series	@ /P
FFN- 9-14A	1/4"BSP	30	23.5	13.5	9	34	11.5	16	N 9	
FFN- 9-38A	3/8"BSP							19		
FFN-16-38A		32	29.5	19.9	15	40		22	N16	
FFN-16-38AL						53	24.5			
FFN-16-12A	1/2"BSP					45	16.5			
FFN-16-12AL						54	25.5			

AISI
Nipples

NN



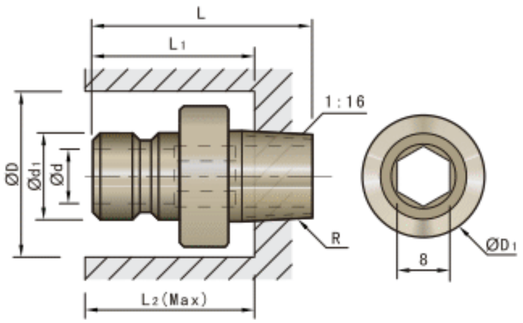


Order NN-6-1/8"A Material: Brass

Code	R	d1	d	L	D	L1	L2	SW	Series	@ /P
NN- 6-1/8"A	1/8"BSPT	9.4	6	24	22	17	18	13	N 6	
NN- 6-MA	M10×1			23						
NN- 6-1/4"A	1/4"BSPT			29	26	19	20	16		
NN- 6-3/8"A	3/8"BSPT			30	30	21	22	19		
NN- 9-1/8"A	1/8"BSPT	13.5	9	34	26	25	26	14	N 9	
NN- 9-1/4"A	1/4"BSPT							16		
NN- 9-3/8"A	3/8"BSPT				30	26	28	19		
NN- 9-MA	M10×1			29.5	26	25	26	16		
NN- 9-1/2"A	1/2"BSPT			39	37	26	28	24		
NN-16-1/2"A		19.9	16	44	32	37	38	22	N16	
NN-16-3/4"A	3/4"BSPT			45	38	38	40	29		

NN





Order NN-9-3/8AH Material: Brass

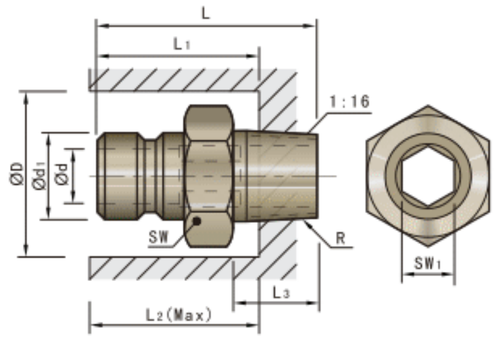
Code	R	d1	d	L	D1	D	L2	L1	Series	@ /P
NN-9-3/8AH	3/8"BSPT	13.5	9	34	21	30	28	26	N9	

AISI

Nipples

NN



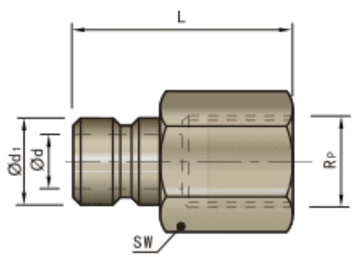


Order NN-9-1/8AHN Material: Brass

Code	R	d	d1	L	L3	D	L2	L1	SW	SW1	Series	@ /P
NN-6-1/8AHN	1/8"BSPT	6	9.4	23	9	22	16	14	11	5	N6	
NN-6-M10×1AHN	M10×1											
NN-6-1/4AHN	1/4"BSPT			28	14	26			16			
NN-6-M14×1.5AHN	M14×1.5											
NN-9-1/4AHN	1/4"BSPT	9.3	13.5	34			22	20		8	N9	
NN-9-M14×1.5AHN	M14×1.5											
NN-9-M16×1.5AHN	M16×1.5			35		30	23	21	19			
NN-9-3/8AHN	3/8"BSPT											

NN





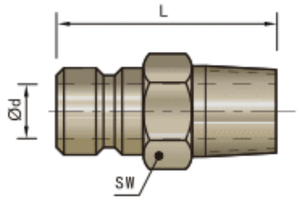
Order NN-6-1/8"I Material: Brass

Code	Rp	d1	d	L	SW	Series	@ /P
NN-6-1/8"I	1/8"BSP	9.4	6	28	13	N6	
NN-6-1/4"I	1/4"BSP			32	16		
NN-6-3/8"I	3/8"BSP			34	19		
NN-9-1/4"I	1/4"BSP	13.5	9	37	16	N9	
NN-9-3/8"I	3/8"BSP			39	19		
NN-9-1/2"I	1/2"BSP			46	24		

AISI

Nipples

JJP





Order JJP-250 Material: Brass

Code	L	R	d	SW	Used with sockets	@ /P
JJP-250	59/64	1/16NPT	3/16	7/16	JJS-204-(V/SV) To JJS-226-(V/SV)	
JJP-251		1/ 8NPT	1/ 4			
JJP-252	1 5/32	1/ 4NPT		9/16		
JJP-253	1 3/16	3/ 8NPT		11/16		
JJP-351		1/ 8NPT		9/16	JJS-306-(V/SV) To JJS-328-(V/SV)	
JJP-352	1 25/64	1/ 4NPT	3/ 8			
JJP-353		3/ 8NPT		11/16		
JJP-354	1 37/64	1/ 2NPT		7/ 8	JJS-504-(V) To JJS-526-(V)	
JJP-553	1 9/16	3/ 8NPT	7/16			
JJP-554	1 3/ 4	1/ 2NPT	5/ 8			
JJP-556		3/ 4NPT		1 1/ 8		

Installation Diagram:

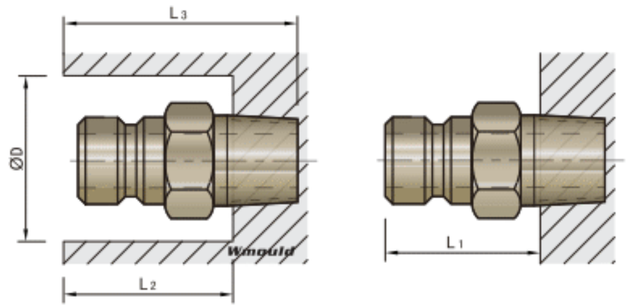


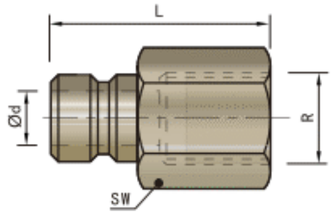
Figure 1 Figure 2

Code	D	L2	L3	L1
JJP-250	11/16	11/16	1"	5/ 8
JJP-251				
JJP-252-(SV)	27/32	15/16	1 3/16	7/ 8
JJP-253-(SV)			1 1/ 4	29/32
JJP-351	1.000			7/ 8
JJP-352-(SV)		1 3/32	1 7/16	1 1/32
JJP-353-(SV)		1 1/ 8		1 1/16
JJP-354-(SV)	1 3/16	1 1/ 4	1 9/16	1 3/16
JJP-553	1 1/ 4	1 3/16	1 5/ 8	1 1/ 8
JJP-554		1 1/ 2	1 13/16	1 7/16
JJP-556	1 1/ 2	1 9/16	1 7/ 8	1 1/ 2

AISI
Nipples

JJPF





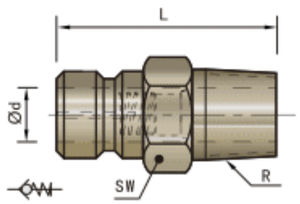
Order JJPF-0250 Material: Brass

Code	L	R	d	SW	Used with sockets	@ /P
JJPF-0250	1"	1/16NPT	1/ 4	1/ 2	JJS-204-(V/SV) To JJS-226-(V/SV)	
JJPF-0251		1/ 8NPT		5/ 8		
JJPF-0252	1 9/32	1/ 4NPT		3/ 4		
JJPF-0253	1 13/32	3/ 8NPT				
JJPF-0351	1 9/32	1/ 8NPT	11/32	5/ 8	JJS-306-(V/SV) To JJS-328-(V/SV)	
JJPF-0352	1 31/64	1/ 4NPT	3/ 8	3/ 4		
JJPF-0353	1 37/64	3/ 8NPT				
JJPF-0354	1 49/64	1/ 2NPT		15/16	JJS-504-(V) To JJS-526-(V)	
JJPF-0553	1 11/16	3/ 8NPT	9/16			
JJPF-0554	1 49/64	1/ 2NPT	5/ 8	1 1/ 8		
JJPF-0556		3/ 4NPT				

JJP-...-SV



Medium	Max (°C)
Air	200
Oil	120
Water	100

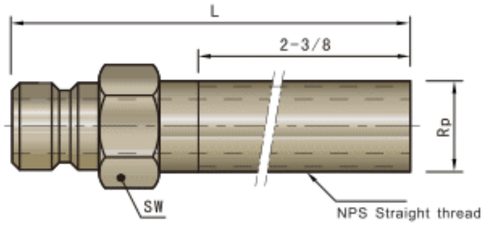


Order JJP-252-SV Material: Brass

Code	L	R	d	SW	Used with sockets	@ /P
JJP-252-SV	1 5/32	1/4NPT	1/4	9/16	JJS-204-SV To JJS-226-SV	
JJP-253-SV	1 3/16	3/8NPT		11/16		
JJP-352-SV	1 25/64	1/4NPT	3/8	9/16	JJS-306-SV To JJS-328-SV	
JJP-353-SV	1 25/64	3/8NPT		11/16		
JJP-354-SV	1 37/64	1/2NPT		7/ 8		

AISI
Nipples

JJPB

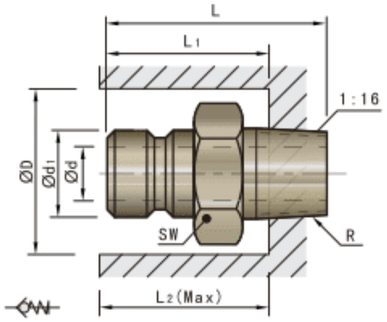




Order JJPB-2514 Material: Brass

Code	Rp	L	SW	Used with sockets	@ /P
JJPB-2514	1/8	4"	7/16	JJS-204-(V/SV) To JJS-226-(V/SV)	
JJPB-2516		6"			
JJPB-2518		8"			
JJPB-2524	1/4	4"	9/16		
JJPB-2526		6"			
JJPB-2528		8"			
JJPB-2534	3/8	4"	11/16		
JJPB-2536		6"			
JJPB-2538		8"			
JJPB-3514	1/8	4"	9/16	JJS-306-(V/SV) To JJS-328-(V/SV)	
JJPB-3516		6"			
JJPB-3518		8"			
JJPB-3524	1/4	4"			
JJPB-3526		6"			
JJPB-3528		8"			
JJPB-3534	3/8	4"	11/16		
JJPB-3536		6"			
JJPB-3538		8"			

PPCS



Medium	Max (°C)
Air	200
Oil	120
Water	100



Order PPCS-6-14A Material: Brass

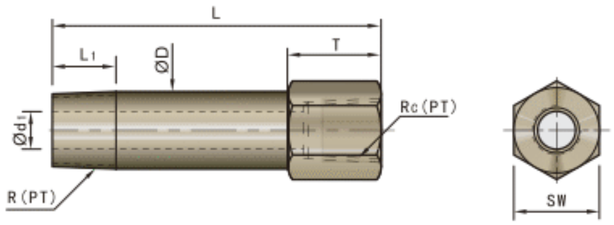
Code	R	d1	d	L	D	L1	L2	SW	Series	@ /P
PPCS- 6-14A	1/4"BSPT	9.4	6	29	28	18	20	16	N 6	
PPCS- 6-38A	3/8"BSPT			29.5	30			19		
PPCS- 9-14A	1/4"BSPT	13.5	9	34	28	25	27	16	N 9	
PPCS- 9-38A	3/8"BSPT				30	26	28	19		
PPCS- 9-12A	1/2"BSPT			37	35			24		
PPCS-16-12A		19.9	15	44.4		32	34	7/8"	N16	
PPCS-16-34A	3/4"BSPT				42	30	32	11/8"		

AISI

Nipples

JJTW





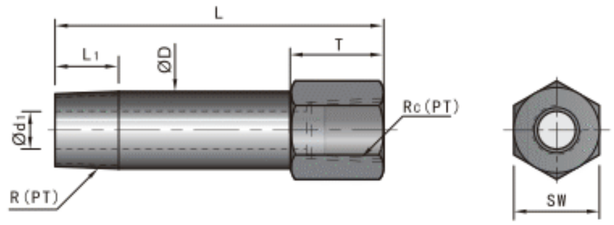
Order JJTW-No.-L Material: Brass

No.	B	T	D	d1	L1	Rc(PT)	R(PT)
1	14	13	10.5	6	10	1/8	1/8
2	17	16	13.8	8		1/4	1/4
3	21	17	17.3	10	12	3/8	3/8

No.	@ /P														
	L30	L35	L40	L45	L50	L70	L90	L110	L130	L150	L170	L190	L210	L230	L250
1															
2															
3															

JJTWS





Order JJTWS-No.-L Material: Stainless steel

No.	B	T	D	d1	L1	Rc(PT)	R(PT)
1	14	13	10.5	6	10	1/8	1/8
2	17	16	13.8	8		1/4	1/4
3	21	17	17.3	10	12	3/8	3/8

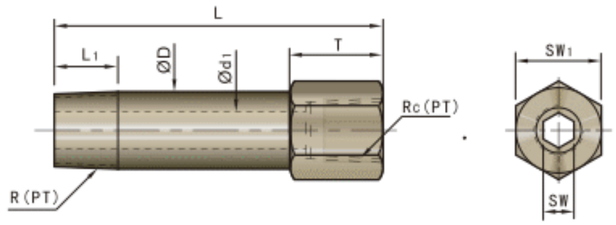
No.	@ /P														
	L30	L35	L40	L45	L50	L70	L90	L110	L130	L150	L170	L190	L210	L230	L250
1															
2															
3															

AISI

Nipples

HHX-JTW





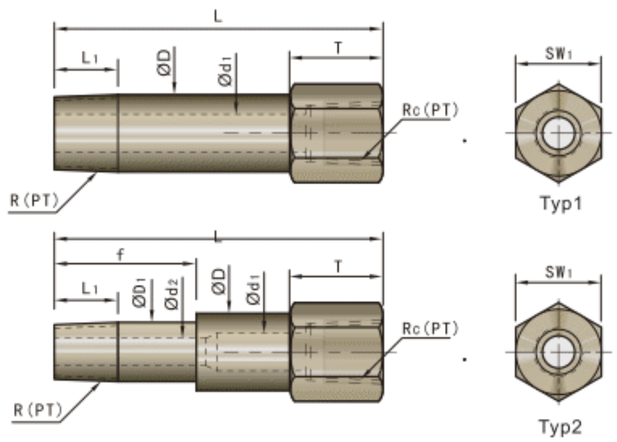
Order HHX-JTW-No.-L Material: Brass

No.	SW	SW1	T	D	d1	L1	Rc(PT)	R(PT)
1	6	14	13	10	6	9	1/8	1/8
2	8	17	16	13	8	11	1/4	1/4
3	10	21	17	17	10	13	3/8	3/8

No.	@ /P										
	L50	L60	L70	L80	L90	L100	L110	L120	L130	L140	L150
1											
2											
3		-	-	-	-		-	-	-	-	

JJTWF





Order JJTWF-No.-L Material: Brass

No.	SW	T	D	D1	d1	d2	f	L1	Rc(PT)	R(PT)	Typ
12	17	16	13.8	-	6	-	-	10	1/8	1/4	1
23	21	17	17.3		8			12	1/4	3/8	
21	17	16	13.8	11		6	15	10	1/4	1/8	2
32	21	17	17.3	14	10	8			3/8	1/4	

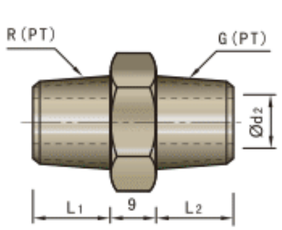
No.	@ /P										
	L50	L60	L70	L80	L90	L100	L110	L120	L130	L140	L150
12											
23											
21											
32											

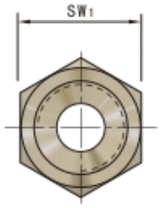
AISI

Nipples

JJEMM





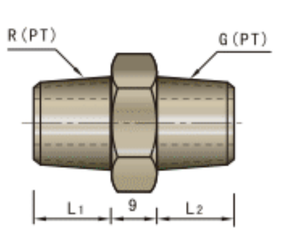


Order JJEMM-No. Material: Brass

No.	L1	L2	d2	R(PT)	G(PT)	SW1	@ /P
11	10	10	6	1/8	1/8	14	
12					1/4	17	
13		12			3/8	21	
22		10	8	1/4	1/4	17	
23		12			3/8	21	
33	12		10	3/8			

JJEMMR







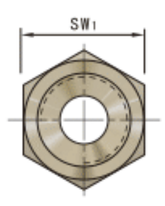
Order JJEMMR-No. Material: Brass

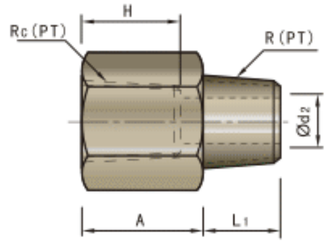
No.	L1	L2	R(PT)	G(PT)	SW	SW1	@ /P
11	10	10	1/8	1/8	6	14	
12				1/4		17	
13		12		3/8		21	
22		10	1/4	1/4	8	17	
23		12		3/8		21	
33	12		3/8		10		

AISI

Nipples

JJEMF



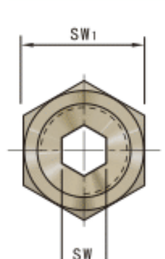


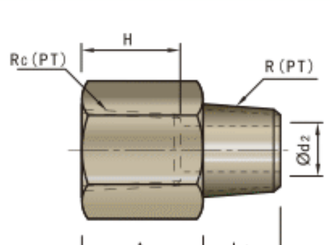


Order JJEMF-No. Material: Brass

No.	A	L1	d2	H	Rc(PT)	R(PT)	SW1	@ /P
11	14	10	6	10	1/8	1/8	17	
12						1/4		
21					1/4	1/8		
22	16	12	8			1/4		
23				12		3/8		
31		10	6		3/8	1/8	21	
32		12	8			1/4		
33			10			3/8		

JJEMFR







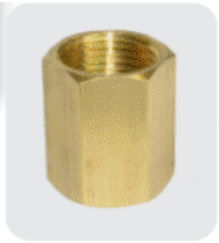
Order JJEMFR-No. Material: Brass

No.	A	L1	H	Rc(PT)	R(PT)	SW	SW1	@ /P
11	14	10	10	1/8	1/8	6	17	
12					1/4			
21				1/4	1/8			
22	16	12			1/4	8		
23			12		3/8			
31		10		3/8	1/8	6	21	
32		12			1/4	8		
33					3/8	10		

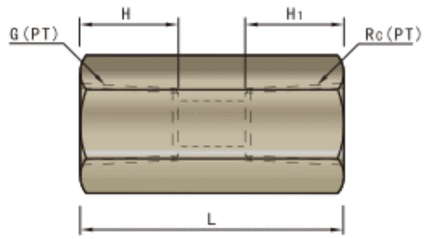
AISI

Nipples

JJEFS



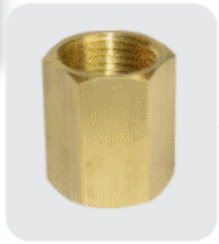




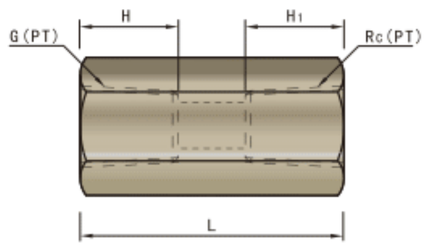
Order JJEFS-No. Material: Brass

No.	H	H1	d2	L	Rc(PT)	G(PT)	SW1	@ /P
11	10	10	6	30	1/8	1/8	17	
12					1/4			
22			8			1/4	19	
23		12			3/8			
33	12		10			3/8	22	

JJEFSR





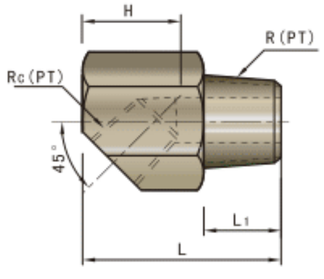


Order JJEFSR-No. Material: Brass

No.	H	H1	L	Rc(PT)	G(PT)	SW	SW1	@ /P
11	10	10	30	1/8	1/8	6	17	
12				1/4				
22					1/4	8	19	
23		12		3/8				
33	12				3/8	10	22	

JJELF







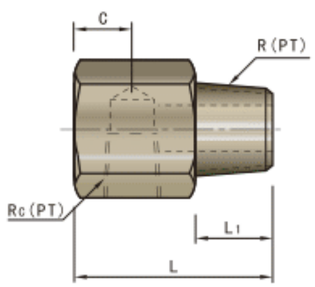
Order JJELF-No. Material: Brass

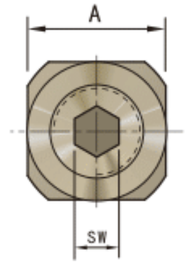
No.	L	L1	R(PT)	Rc(PT)	SW	SW1	@ /P
11	30	10	1/8	1/8	6	19	
12	32	12	1/4		8		

AISI

Nipples

JJEFL



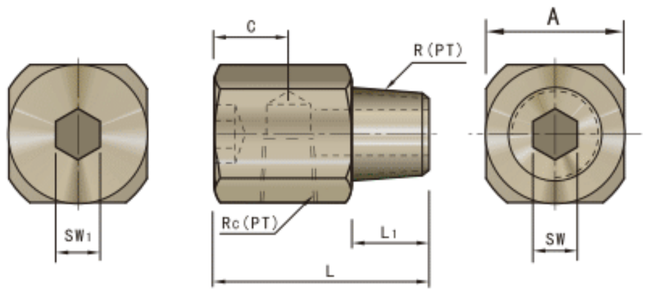




Order JJEFL-No. Material: Brass

No.	L	L1	A	C	Rc(PT)	R(PT)	SW	@ /P
11	35	9	14	12	1/8	1/8	6	
12	37	11				1/4		
21	41	9	17.5	11	1/4	1/8		
22	43	11				1/4		
23	45	13	22	13	3/8	3/8	8	
31	48	11				1/4	6	
32	50	13				3/8	8	

JJEFLR





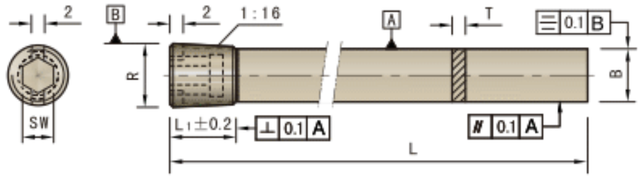
Order JJEFLR-No. Material: Brass

No.	L	L1	A	C	Rc(PT)	R(PT)	SW	SW1	@ /P
11	35	9	14	12	1/8	1/8	6	6	
22	47.3	11	17.5	15.3	1/4	1/4			
33	56	13	22	18	3/8	3/8	8	8	

Straight brass plug baffles

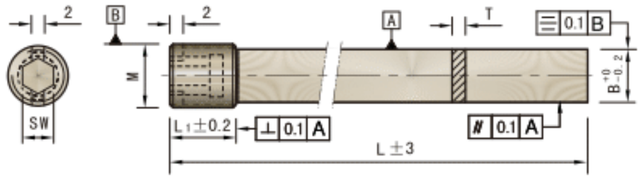
BBB





Order BBB-100-1/8 Material: Brass

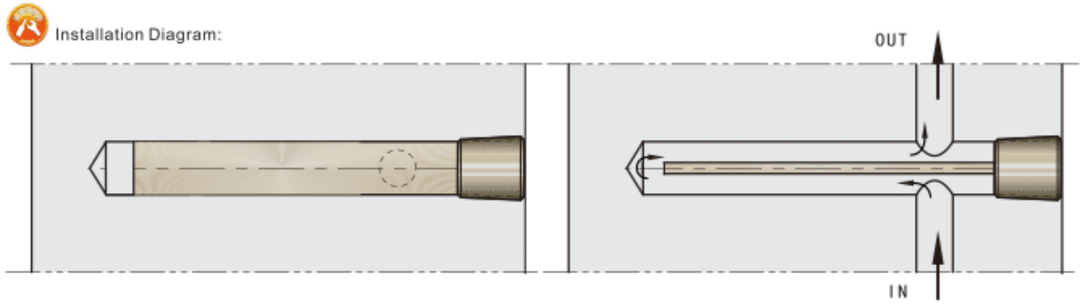
Code	R	B	L	L1	T	d	SW	@ /P
BBB-100-1/8	1/8"BSPT	8.2	104	8	1.6	8.5	5	
BBB-200-1/8			204					
BBB-125-1/4	1/4"BSPT	11.2	131	10	2.4	11.5	6	
BBB-250-1/4			258					
BBB-150-3/8	3/8"BSPT	14.7	156			15	8	
BBB-300-3/8			309					
BBB-200-1/2	1/2"BSPT	18.2	207			18.5	10	
BBB-400-1/2			410					
BBB-300-3/4	3/4"BSPT	23.2	309	12	3.2	23.5	12	
BBB-500-3/4			512					



Order BBB-100-M8×0.75 Material: Brass

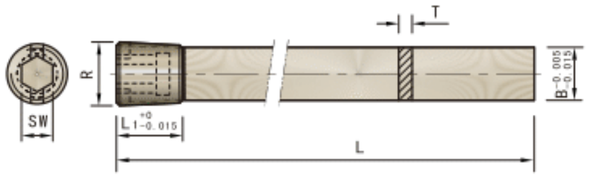
Code	B	L	L1	T	d	SW	M	@ /P
BBB-100-M 8×0.75	5.8	104	8	1.6	6	4	M 8×0.75	
BBB-200-M 8×0.75		204						
BBB-100-M10×1	7.8	104			8	5	M10×1	
BBB-200-M10×1		204						
BBB-125-M12×1.5	9.8	129		2	10	6	M12×1.5	
BBB-250-M12×1.5		254						
BBB-150-M16×1.5	13.8	154	10	2.4	14	8	M16×1.5	
BBB-300-M16×1.5		304						
BBB-150-M20×1.5	17.8	154			18	10	M20×1.5	
BBB-200-M20×1.5		304						
BBB-300-M20×1.5		204						
BBB-400-M20×1.5		404						
BBB-150-M24×2	19.8	154	12	2.5	20	12	M24×2	
BBB-300-M24×2		304						

Installation Diagram:



Straight & Spiral brass plug baffles

BBB

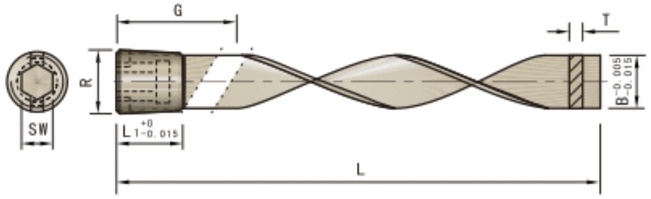




Order BBB-05-4 Material: Brass

Code	R	B	L	L1	T	Drill size	SW	@ /P
BBB- 05- 4	1/16NPT	0.245	4"	0.250	0.50	1/ 4	5/32	
BBB- 05- 8			8"					
BBB- 10- 4	1/ 8NPT	0.307	4"		1/16	5/16	3/16	
BBB- 10- 8			8"					
BBB- 20- 5	1/ 4NPT	0.432	5"	0.406	3/32	7/16	1/ 4	
BBB- 20-10			10"					
BBB- 40- 6	3/ 8NPT	0.557	6"			9/16	5/16	
BBB- 40-12			12"					
BBB- 60- 8	1/ 2NPT	0.682	8"	0.531		11/16	3/ 8	
BBB- 60-16			16"					
BBB-100-12	3/ 4NPT	0.932	12"			15/16	9/16	
BBB-100-20			20"					
BBB-140-16	1NPT	1.120	16"	0.656	1/ 8	1 1/ 8	5/ 8	
BBB-140-24			24"					

BBBS

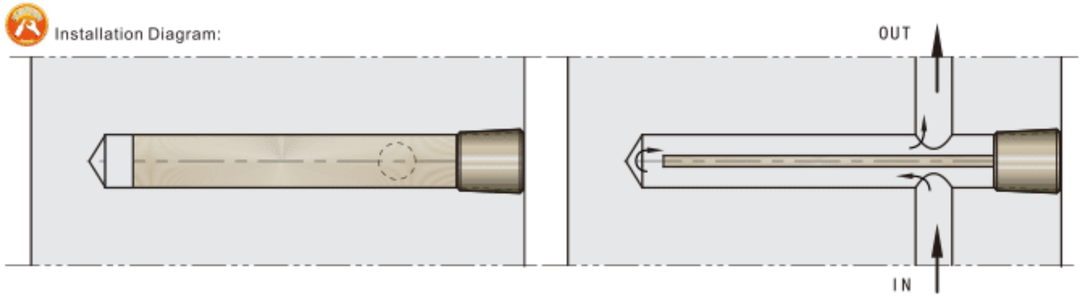




Order BBBS-0504 Material: Brass

Code	R	B	L	L1	G	T	Drill size	SW	@ /P
BBBS- 0504	1/16NPT	0.245	4"	0.250	2"	0.50	1/ 4	5/32	
BBBS- 0508			8"		4"				
BBBS- 1004	1/ 8NPT	0.307	4"		2"	1/16	5/16	3/16	
BBBS- 1008			8"		4"				
BBBS- 2005	1/ 4NPT	0.432	5"	0.406	2"	3/32	7/16	1/ 4	
BBBS- 2010			10"		4"				
BBBS- 4006	3/ 8NPT	0.557	6"		2"		9/16	5/16	
BBBS- 4012			12"		4"				
BBBS- 6008	1/ 2NPT	0.682	8"	0.531	3"		11/16	3/ 8	
BBBS- 6016			16"		5"				
BBBS-10012	3/ 4NPT	0.932	11 7/8		4"	1/ 8	15/16	9/16	
BBBS-10020			19 7/8		6"				
BBBS-14016	1NPT	1.120	15 7/8	0.656	5"		1 1/ 8	5/ 8	
BBBS-14024			23 7/8		8"				

Installation Diagram:

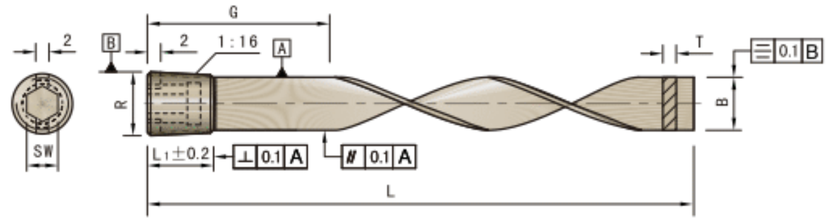


AISI

Spiral brass plug baffles

BBBS

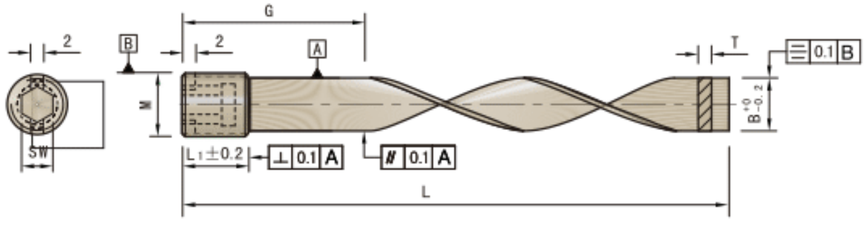




Order BBBS-100-1/16 Material: Brass

Code	R	G	B	L	L1	T	安装孔 DH13	Rotations	SW	@ /P
BBBS-100-1/16	1/16"BSPT	51	6.2	102	8	1.6	Ø6.5	360°	4	
BBBS-200-1/16		102		202				540°		
BBBS-100-1/ 8	1/ 8"BSPT	51	8.2	102			Ø8.5	360°	5	
BBBS-200-1/ 8		102		202				540°		
BBBS-125-1/ 4	1/ 4"BSPT	51	11.2	127	10	2.4	Ø11.5	360°	6	
BBBS-250-1/ 4		102		252				540°		
BBBS-150-3/ 8	3/ 8"BSPT	51	14.7	152			Ø15	360°	8	
BBBS-300-3/ 8		102		302				540°		
BBBS-200-1/ 2	1/ 2"BSPT	76	18.2	203			Ø18.5	360°	10	
BBBS-400-1/ 2		127		402				540°		
BBBS-300-3/ 4	3/ 4"BSPT	102	23.2	302	12	3.2	Ø23.5	360°	12	
BBBS-500-3/ 4		153		502				540°		
BBBS-400-1	1"BSPT	127	28.2	402			Ø28.5	360°	17	
BBBS-600-1		203		602				540°		





Order BBBS-100-M8×0.75 Material: Brass

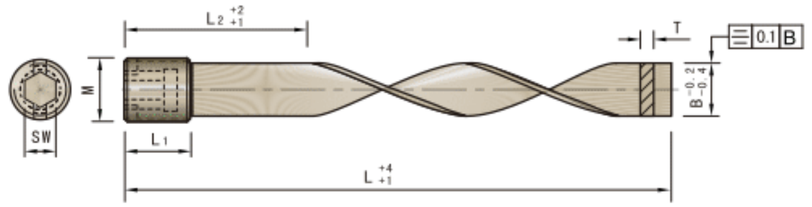
Code	G	B	L	L1	T	安装孔 DH13	Rotations	SW	M	@ /P
BBBS-100-M 8×0.75	50	5.8	102	8	1.6	6	360°	4	M 8×0.75	
BBBS-200-M 8×0.75	100		202				540°			
BBBS-300-M 8×0.75	150		302				720°			
BBBS-100-M10×1	50	7.8	102			8	360°	5	M10×1	
BBBS-200-M10×1	100		202				540°			
BBBS-300-M10×1	150		302				720°			
BBBS-125-M12×1.5	50	9.8	127		2.0	10	360°	6	M12×1.5	
BBBS-250-M12×1.5	100		252				540°			
BBBS-150-M16×1.5	50	13.8	152	10	2.4	14	360°	8	M16×1.5	
BBBS-300-M16×1.5	100		302				540°			
BBBS-150-M20×1.5	50	17.8	152			18	360°	10	M20×1.5	
BBBS-300-M20×1.5	100		302				540°			
BBBS-150-M24×2	50	19.8	152	12	2.5	20	180°	12	M24×2	
BBBS-300-M24×2	100		302				540°			

DIN

Spiral brass plug baffles

EE2102

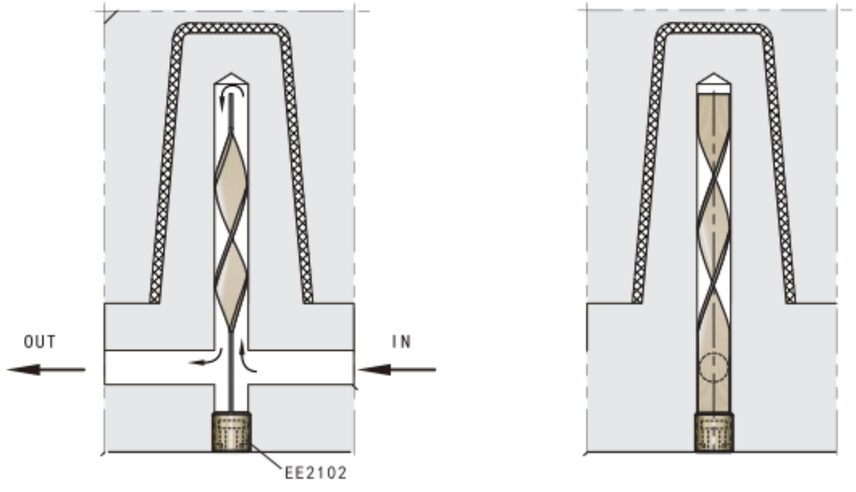




Order EE2102-8-100 Material: Brass

Code	B	T	L	L1	L2	M	SW	@ /P
EE2102- 8-100	6	1.6	100	8	50	M 8×0.75	4	
EE2102- 8-200			200		100			
EE2102-10-100	8		100		50	M10×1	5	
EE2102-10-200			200		100			
EE2102-12-125	10	2.4	125		50	M12×1.5	6	
EE2102-12-250			250		100			
EE2102-14-150	12		150	10	50	M14×1.5		
EE2102-14-300			300		100			
EE2102-16-150	14		150		50	M16×1.5	8	
EE2102-16-300			300		100			
EE2102-18-180	16		180		50	M18×1.5		
EE2102-18-300			300		100			
EE2102-20-150	18		150		50	M20×1.5	10	
EE2102-20-300			300		100			
EE2102-24-150	20	3.2	150	12	50	M24×2	12	
EE2102-24-300			300		100			
EE2102-1/8-100	8.5	1.6	100	8	50	G1/8"	5	
EE2102-1/8-200			200		100			
EE2102-1/4-125	11.5	2.4	125	10	50	G1/4"	7	
EE2102-1/4-250			250		100			
EE2102-3/8-150	15		150		50	G3/8"	8	
EE2102-3/8-300			300		100			
EE2102-1/2-200	18.5		200		75	G1/2"	10	
EE2102-1/2-400			400		125			
EE2102-3/4-300	23.5	3.2	300	12	100	G3/4"	12	
EE2102-3/4-500			500		150			

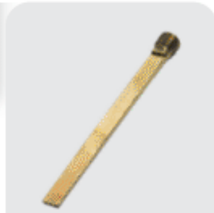
Installation Diagram:

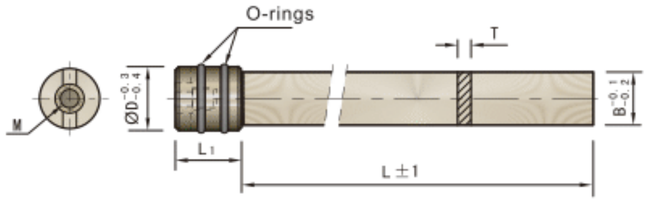


DIN

Straight brass plug baffles

EE2108

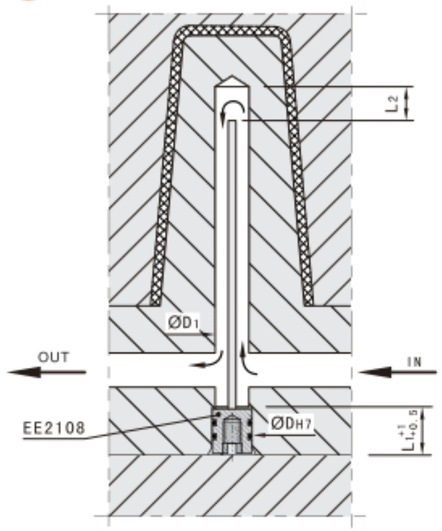




Order EE2108-B-L Material: Brass

B	L	L1	L2	D	D1	T	M	@ /P
6	140	13	6	8	6	2	M 3	
8	180		8	10	8		M 5	
10			10	12	10		M 6	
12	220		12	14	12			
15	250	16	15	16	15		M 8	
16			16	18	16			
18	300	20	18	20	18		M10	
20			20	22	20		M12	
25	390	22	25	26	25		M16	

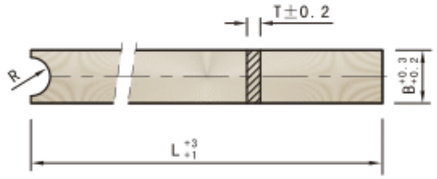
Installation Diagram:



JIS

Straight plug baffles

BBFPXR

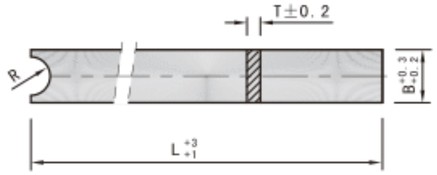




Order BBFPXR-B-L Material: Brass

B	R	T	@ /P L50	L70	L90	L110	L130	L150	L170	L200
10	4	2								
12										
16	5									
18										
20		3								
22	8									
24										
25										
28	11									
30										
35										

BBFAPR



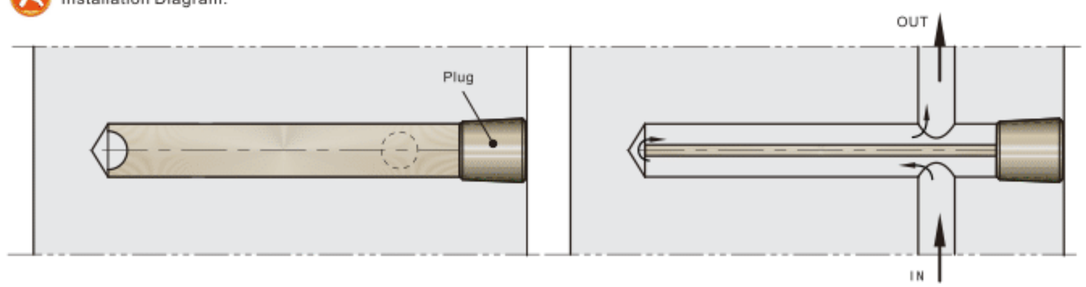


Order BBFAPR-B-L Material: Aluminum

B	R	T	@ /P L50	L70	L90	L110	L130	L150	L170	L200
10	4	2								
12										
16	5									
18										
20		3								
22	8									
24										
25										
28	11									
30										
35										

Suggest straight and spiral brass plug baffles press into cooling series holes to prevent it from revolve .

Installation Diagram:



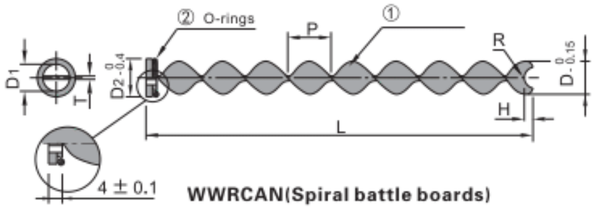
Spiral plastic plug baffles

JIS

WWRCAN
WWRCTN
WWRCBN
WWRCCN



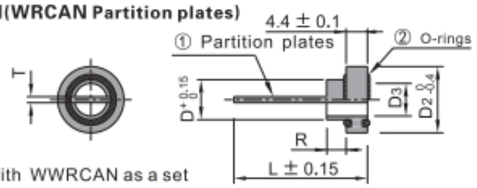
Code	Components	Material	Q'ty
①		PA6"(Nylon) +30% Glass fiber	1
②	O-rings	Fluoric rubber	1



WWRCAN(Spiral battle boards)

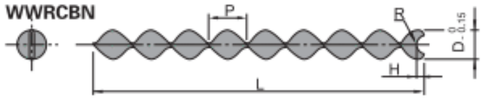
Code	Components	Material	Q'ty
①	Partition plates	PA6"(Nylon) +30% Glass fiber	1
②	O-rings	Fluoric rubber	2

WWRCTN(WRCAN Partition plates)



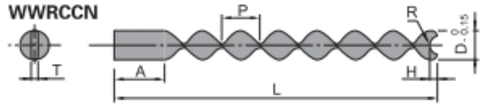
▲Use it with WWRCAN as a set

WWRCBN



Material:PA6+30%GF(PA6"(Nylon)+30% Glass fiber)

WWRCCN



Material:PA6+30%GF(PA6"(Nylon)+30% Glass fiber)

Order WWRCAN-D

Code	D	D1	D2	T	R	H	P	A	@ /P L
WWRCAN (Baffle boards)	8	8	15	1.5	2	2	20	4.2	L100 L200 L300
	10	10	18	1.8	2.5	2.5			
	12	11	22	2	3	3	25		
	16	15	25	3	4	4			
	20	18	30		5	5			

Order WWRCTN-D

Code	D	D2	D3	T	R	B	@ /P L
WWRCTN (Partition plates)	8	15	6	1.2	4.1	4.5	L25 L30 L35 L40
	10	18	8	1.5			
	12	22	10	1.6	6.0		
	16	25	13	2			
	20	30	17				

Order WWRCBN-D

Code	D	R	H	P	@ /P L
WWRCBN	8	2	2	20	L 96 L196 L296
	10	2.5	2.5		
	12	3	3	25	
	16	4	4		
	20	5	5		

Order WWRCCN-D

Code	D	T	R	H	P	@ /P L
WWRCCN	8	1.5	2	2	20	L100 L200
	10	1.8	2.5	2.5		
	12	2	3	3	25	
	16	3	4	4		
	20		5	5		L100 L200 L300
	25	3.5	6	6		L100 L200 L300 L400

Features:

1.Cooling water is spiral flowing, increase touch area of mold cavity ,so cooling effective is heighten than normal separate plate.
2.Material is made of plastic with solder glass ,not rust ,cooling water holes not block.
3.Apply to normal separate plate cooling , when cooling holes upper and lower deviation,separate plate is difficulty to insert .spiral water sleeve have elasticity ,Even cooling holes have deviation ,no problem to installing.
4. The front shape and length of spiral water sleeve can cut to adjust according to request.
5.When take apart spiral water sleeve .Water scale in cooling series can be removed

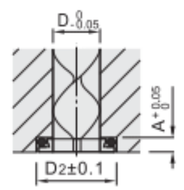


Figure 1(WWRCAN/WWRCTN)
Seprarate type

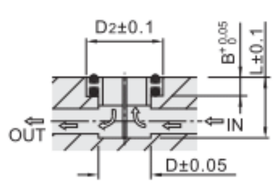


Figure 2(WWRCBN)
Straight type

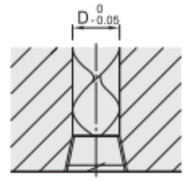


Figure 3(WWRCCN)
Straight type

Installation Guidelines:

- Separated parts and cooling holes shall be right angle to installation.
- When install WWRCAN spiral brass plug baffles, Separate parts shall be same direction with separate parts of WWRCTN.
- No right angle to install WWRCBN spiral brass plug baffles and cooling holes, It will be reduce cooling effect.
- Even install according to installed holes size to installed. sometimes easy to leak water, The reason as below
  A.Installtion plate become deformed
  B.The distance between fixed position of installation plate and spiral brass plug baffles have a little far.
- O ring precision not same.

When encounter this situation, please adopt to add fixed point quantity, Use O ring to seal on external side of installed position,
Let installed holes processing depth lower than recommended values, By means of further processing to adjustment them.

Installation Diagram:

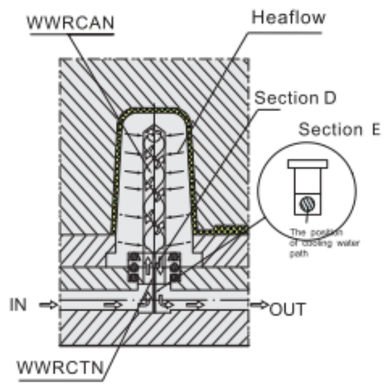


Figure 1(WWRCAN/WWRCTN)
Seprarate type

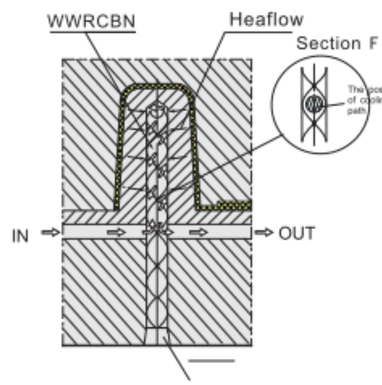


Figure 2(WWRCBN)
Straight type

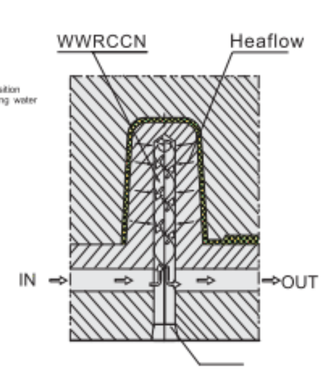


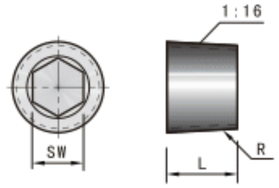
Figure 3(WWRCCN)
Straight type

DIN

Pressure plugs

ZZ94



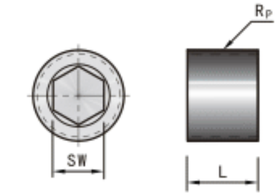


Order ZZ94-R1/8 Material: Brass Surface plating treatment

Code	R	L	SW	@ /P
ZZ94- 5×0.5	M 5×0.5	5	3	
ZZ94- 7×1	M 7×1	8	4	
ZZ94- 8×0.75	M 8×0.75		5	
ZZ94- 9×1	M 9×1			
ZZ94-10×1	M10×1		6	
ZZ94-11×1	M11×1			
ZZ94-12×1.5	M12×1.5			
ZZ94-14×1.5	M14×1.5	10	7	
ZZ94-R1/8	R1/8A	8	5	
ZZ94-R1/4	R1/4A	10	7	
ZZ94-R3/8	R3/8A		8	
ZZ94-R1/2	R1/2A		10	

ZZ940





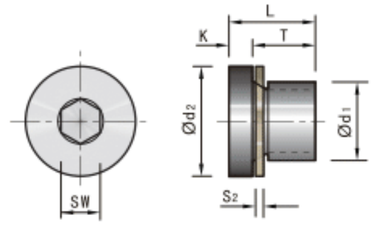
Order ZZ940-R1/8 Material: Brass Surface plating treatment

Code	RP	L	SW	@ /P
ZZ940- 7×1	M 7×1	8	3	
ZZ940- 8×0.75	M 8×0.75		4	
ZZ940- 9×1	M 9×1		5	
ZZ940-10×1	M10×1			
ZZ940-11×1	M11×1		6	
ZZ940-12×1.5	M12×1.5			
ZZ940-14×1.5	M14×1.5	10	7	
ZZ940-R1/8	G1/8A	5	8	
ZZ940-R1/4	G1/4A	7	10	
ZZ940-R3/8	G3/8A	8		
ZZ940-R1/2	G1/2A	10		

DIN

Pressure plugs

ZZ941

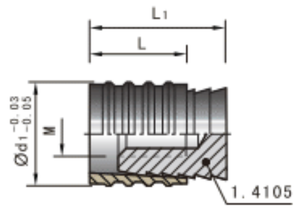




Order ZZ941-10×1 Material: Brass Surface plating treatment

Code	K	S2	T	L	d2	d1	SW	@ /P
ZZ941-10×1	3	1	8	11	14	M10×1	5	
ZZ941-12×1.5		1.5	12	15	17	M12×1.5	6	
ZZ941-14×1.5					19	M14×1.5	8	
ZZ941-R1/8		1	8	11	14	G1/8A	5	
ZZ941-R1/4		1.5	12	15	18	G1/4A	6	
ZZ941-R3/8					22	G3/8A	8	
ZZ941-R1/2	4		14	18	26	G1/2A	10	

ZZ942

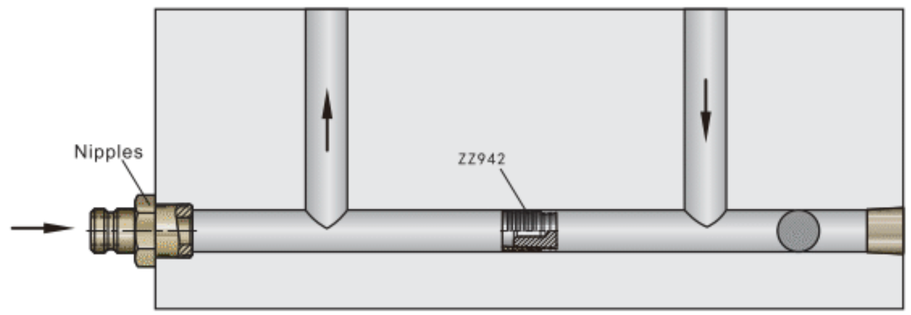




Order ZZ942-6 Material: Brass Surface plating treatment

Code	L1	L	M	d1	@ /P
ZZ942- 6	11.5	8	M3	6	
ZZ942- 8			M4	8	
ZZ942-10	14	10	M6	10	
ZZ942-12				12	
ZZ942-15	16	12	M8	15	
ZZ942-16				16	

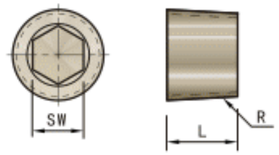
Installation Diagram:



Pressure plugs

BBP

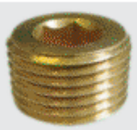


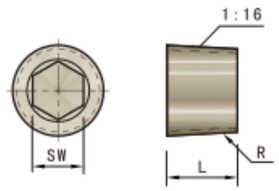


Order BBP-10 Material: Brass

Code	R	L	SW	@ /P
BBP- 10	1/8NPT	0.250	3/16	
BBP- 20	1/4NPT	0.406	1/ 4	
BBP- 40	3/8NPT		5/16	
BBP- 60	1/2NPT	0.531	3/ 8	
BBP-100	3/4NPT		9/16	
BBP-140	1NPT	0.656	5/ 8	

AAN



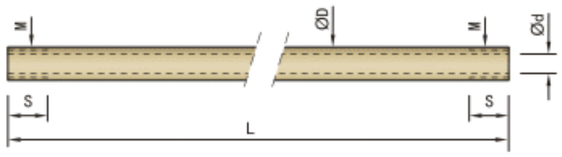


Order AAN-10 Material: Brass

Code	R	L	SW	@ /P
AAN- 8	1/8"BSPT	8	5	
AAN- 4	1/4"BSPT	10	7	
AAN- 3	3/8"BSPT		8	
AAN-10	M10×1	8	5	
AAN- 2	1/2"BSPT	10	10	

BBTC BBTCM

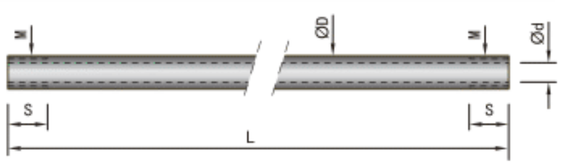




Order BBTC-D-L Material: Brass Note:No thread in the both ends for TPC

d	D	S	M			@¥/S				
			BBTC	BBTCM	TPC	L100	L200	L300	L400	L500
1.5	3	6	No. 5-44	M 3×0.35	/					
3	5		No.10-32	M 5×0.5	/					
4	6	8	1/ 4-28	M 6×0.75	/					
6	8	10	5/16-24	M 8×0.75	/					
8	12	12	7/16-20	M12×1.0	/					

BBTS BBTSM

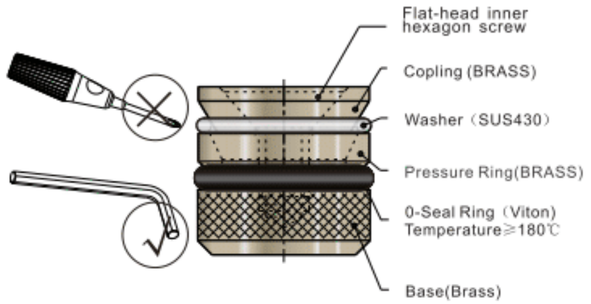


Order BBTS-D-L Material:Stainless steel Note:No thread in the both ends for TPC

d	D	S	M			@¥/S				
			BBTS	BBTSM	TPS	L100	L200	L300	L400	L500
1.5	3	6	No. 5-44	-	/					
3	5		No.10-32	M 5×0.5	/					
4	6	8	1/ 4-28	M 6×0.75	/					
6	8	10	5/16-24	M 8×0.75	/					
8	12	12	7/16-20	M12×1.0	/					

Cooling circuit plugs

DTW





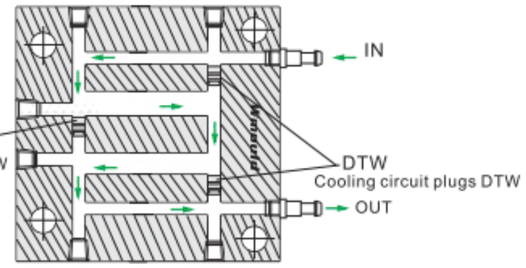
Features:
1. This plug function used in plastic mould, any water channel cooling, heating system, Rely on requisite flow direction to match.
2. Easy to installation, Any position of cooling holes can install them.

Order DTW-06

Code	Outer Dia(□)+0-0.1	Length (mm)	Hex socket size(mm)	Hex socket type	Torque force(kgf/cm)	@ /P
DTW-06	6	11	2	M2.5	12-13	
DTW-08	8		2.5	M3	21-22	
DTW-09	9					
DTW-10	10		3	M4	34-35	
DTW-12	12					

Installation Guidelines:
- Water channel holes diameter tolerance according to +0.1mm to processing, for example: Out diameter Ø6 cooling circuit plugs, mould drill shall be 6.1mm
- Screw off this screw, After use hex wrench stand up to screw, stuffing in holes, then use hex wrench to tighten, make O ring seal dilatancy to block up cooling holes.
- Cooling circuit plugs in water, If cant better fixed, Please screw off this screw, then use air gun pull away to fixed position again.

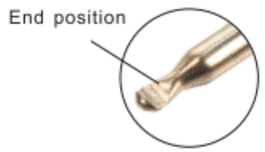
Installation Diagram:

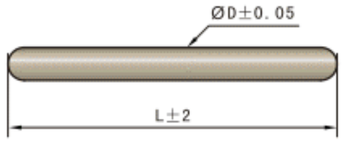


Heat pipes

HTK







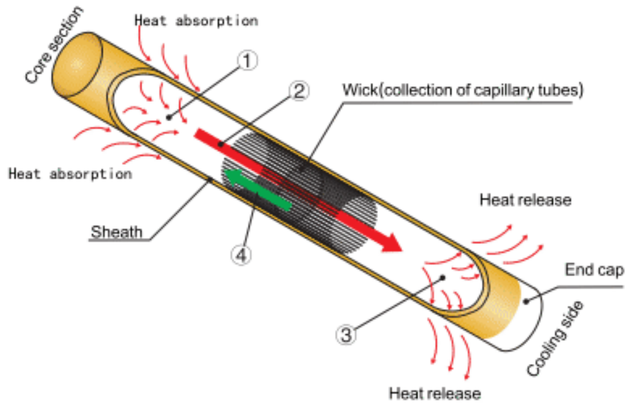
Order HTK-D-L

Code	D	L40-300
HTK	2	
	3	
	4	
	5	
	6	
	8	

Features:

1. Good cooling effective, HTK heat pipes not used in metal heat conductivity, but by mean of refrigerant sheat transfer media to use it.Heat conductivity is 200 times than brass pipes, also with better thermal response.
2. Stable cooling effective, It is different from previous method, HTK few time get rusty, incrustant ect, thereby decrease water flow make heat pipes reduce effective.
3. Reduce the cooling water circuits, simplification of the cooling water circuit, and reduce the volume of mold.
4. Fasting installation, no screw for fixing.

For Example:



Cross section:

※ Wick is a collection of capillary tubes.

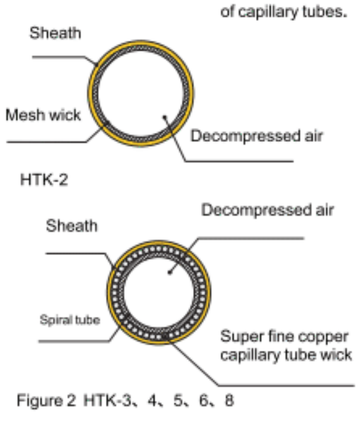
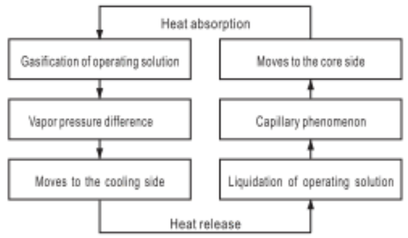


Figure 2 HTK-3、4、5、6、8

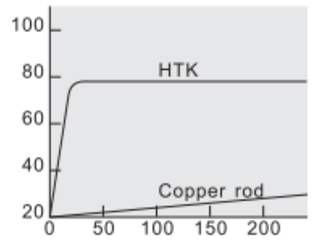
Exploded View of the HTK Heat Transaction Pipe:

①The operating solution absorbs the core side heat and gasifies;
②Vapor pressure difference causes the gasified operating solution to move to the cooling side;
③Moved to the cooling side, the gasified solution releases heat and liquidates;
④The wick's capillarity causes the operating solution to return to the core side.

Operating cycle of the HTK heat transaction pipe



Thermal response property

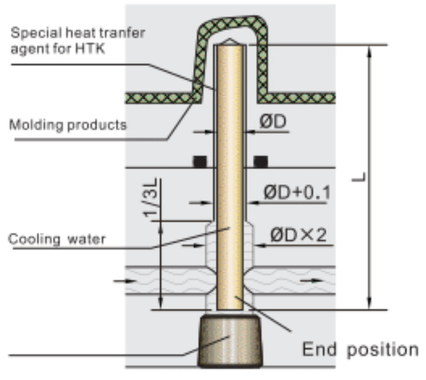


(Testing conditions)
- Heating medium:Hot water (80˚C)
- Cooling medium:Air (room temperature)
- Heating/cooling section size:1:1
- Measured location:Cooling section
- Pipe size:Ø4 L105

Order HTK-D-L

Code	D	@ /P													
		L35	L40	L45	L50	L55	L60	L65	L75	L85	L105	L125	L145	L165	L205	L225
HTK	2															
	3															
	4															
	6															
	8															

Installation instructions:



Installation Guidelines:

- Installed holes shall be bigger 0.1mm than heat pipe .
- Please use special heat transfer agent fill to the full space when install heat pipe.
- Insert heat pipe , end position shall be on side of heat pipe.
- Usage temperature :30°C-200°C
- Please refer to installation instructions to processing installed holes.

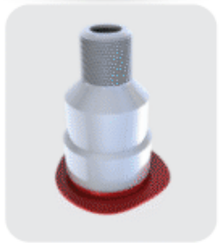
Notes:

1. Installed holes shall be bigger 0.1mm than heat pipe.Use under a temperature of 200˚C or lower. (Burst temperature 250˚C) It is designed to withstand an internal pressure up to 20kgf/cm²(For example, the internal pressure rises to 16kgf/cm² at 200˚C).
2. If the cooling section area is insufficient, proper cooling effects may not be obtained. Provide a water cooling jacket referring to mounting method, and secure the cooling section area.
3. Do not cut or disassemble.
4. Bending or squashing the heat transaction pipe hampers its cooling function.
5. Do not use oil for cooling

DIN

Nipples

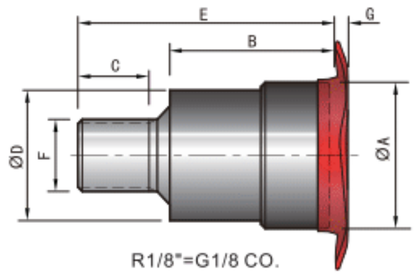
RRPL



Medium	Max(bar)	Max(°C)
Water	10	90

1.Straight through type external thread will coated teflon jack

Products code add B，It is mean with blue ring
Products code add R,It is mean with red ring

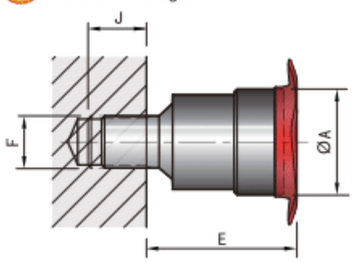


R1/8"=G1/8 CO.

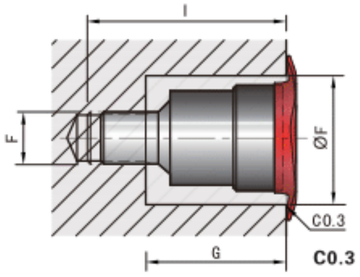
Order RRPL 06.1150

Code	Thread F	ØA	B	C	ØD	E	G	Allen key	Part-NO. without colour ring	@ /P
RRPL 06	R1/8	17	18.5	7.5	14	28.5	1.5	6	RRPL 06.1150	
	NPT1/8			7					RRPL 06.1250	
	R1/4		15.5	11					RRPL 06.1151	
	NPT1/4		-		-	29.5			RRPL 06.1251	
RRPL 08	R1/8	21	22	8	17.5	32			RRPL 08.1150	
	NPT1/8			7				1/ 4"	RRPL 08.1250	
	R1/4		21	10		33		8	RRPL 08.1151	
	NPT1/4							5/16"	RRPL 08.1251	
	R3/8		11	11	-	24		8	RRPL 08.1152	
	NPT3/8							5/16"	RRPL 08.1252	
RRPL 12	R3/8	32	28		25	41	2	10	RRPL 12.1152	
	NPT3/8							3/ 8"	RRPL 12.1252	
	R1/2			14		44		14	RRPL 12.1153	
	NPT1/2							9/16"	RRPL 12.1253	
	R3/4		13	16.5	-	32		1.4	RRPL 12.1154	
	NPT3/4			14				9/16"	RRPL 12.1254	

Installation Diagram:



Micro convex type)



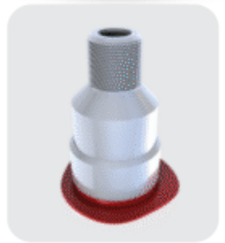
All－buried type)

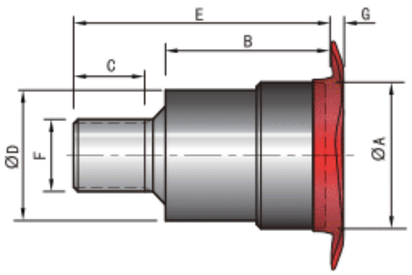
Code	Thread F	ØA	E	J min.	ØF min.	G	I	Allen key	Recommended tightening torque(Nm)
RRPL 06	G1/8	17	20	10	18.5	20.5	29.5	6	15
	NPT1/8		22			22.5	31.5	1/ 4"	
	G1/4		18	13		18.5	30.5	6	30
	NPT1/4		20	13.5		20.5	33	1/ 4"	
RRPL 08	G1/8	21	23	10	22.5	24		6	15
	NPT1/8		25.5			25.5	35	1/ 4"	
	G1/4		22	12		23	34	8	30
	NPT1/4		24			23.5	35.5	5/16"	
	G3/8		12	13		13	25	8	
	NPT3/8		14			14	27	5/16"	
RRPL 12	G3/8	32	29		33.5	30	42	10	50
	NPT3/8		33			33	46	3/ 8"	
	G1/2		30	15		31	45	14	
	NPT1/2		35			34.5	51	9/16"	
	G3/4		15	18		20	36	14	
	NPT3/4		17.5			17.5	36.5	9/16"	

DIN

Nipples

RRPL





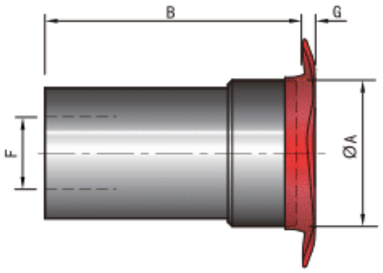
Medium	Max(bar)	Max(°C)
Water	10	90

2.Straight through type external thread jack

Products code add B，It is mean with blue ring
Products code add R,It is mean with red ring

Order RRPL 06.1410

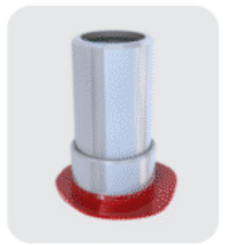
Code	Thread F	ØA	B	C	ØD	E	G	Allen key	Part-NO. without colour ring	@ /P
RRPL 06	M10×1	17	18.5	8	14	28.5	1.5	6	RRPL 06.1410	
RRPL 08	M10×1.5	21	22			32			RRPL 08.1410	
	M14×1.5		21		17.5			8	RRPL 08.1411	
									RRPL 08.1414	



Medium	Max(bar)	Max(°C)
Water	10	90

3.Straight through type internal thread jack

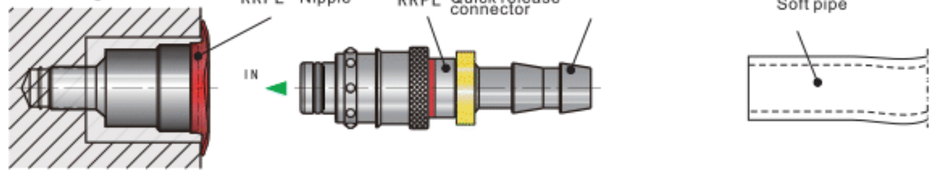
Products code add B，It is mean with blue ring
Products code add R,It is mean with red ring



Order RRPL 08.1100

Code	Thread F	ØA	B	G	Allen key	Part-NO. without colour ring	@ /P
RRPL 08	G1/8	21	22	1.5	6	RRPL 08.1100	
	NPT1/8				1/ 4"	RRPL 08.1200	
	G1/4		39		8	RRPL 08.1101	
	NPT1/4				5/16"	RRPL 08.1201	
RRPL 12	G3/8	32			12	RRPL 12.1102	
	G1/2		50			RRPL 12.1103	

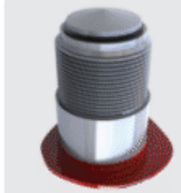
Installation Diagram:



DIN

Nipples

RRPL

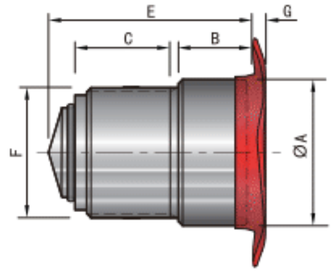


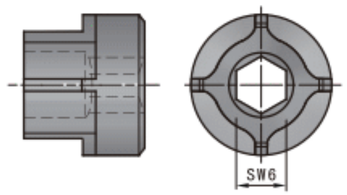


Medium	Max(bar)	Max(°C)
Water	10	90

4.Straight through type external thread jack

Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring





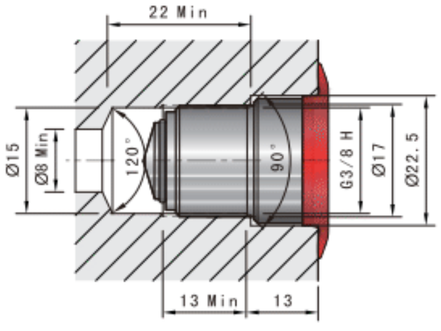
SRPL 08-ON
SRPL 08-ON Jack installed tool

☎Order RRPL 08.9000

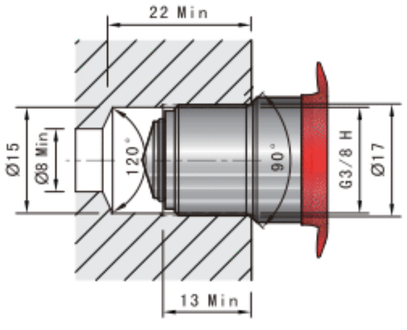
☎Order RRPL 08.1152-ON-JV

Code	Thread F	ØA	B	C	E	G	Part-NO. without colour ring	@ /P
RRPL 08	R3/8	21	11	16	29	1.5	RRPL 08.1152-ON-JV	

Installation Diagram:



(All-buried type)

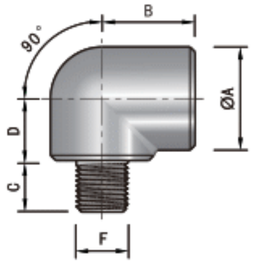


(Micro convex type)

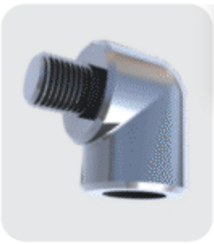
DIN

Nipples

RRPL

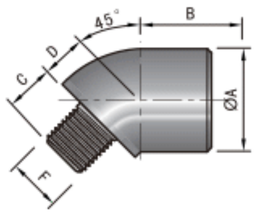


Medium	Max(bar)	Max(°C)
Water	10	90



☎Order RRPL 08.1150-RE

Code	Thread F	ØA	B	C	ØD	H/flat	Part-NO.	@ /P
RRPL 08	R1/8	22	22	10	13	19	RRPL 08.1150-RE	
	R1/4			12			RRPL 08.1151-RE	
	NPT1/4			14			RRPL 08.1251-RE	
	R3/8			13			RRPL 08.1152-RE	

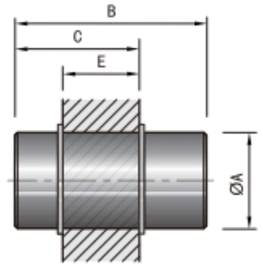


Medium	Max(bar)	Max(°C)
Water	10	90

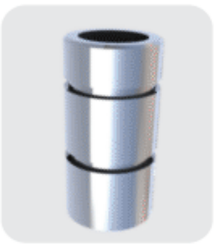


☎Order RRPL 08.1150-RO

Code	Thread F	ØA	B	C	ØD	H/flat	Part-NO.	@ /P
RRPL 08	R1/8	22	18.5	10	6.5	19	RRPL 08.1150-RO	
	R1/4			12	4.5		RRPL 08.1151-RO	
	R3/8						RRPL 08.1152-RO	



Medium	Max(bar)	Max(°C)
Water	10	90



☎Order RRPL 08.2000

Code	ØA	B	C	E	Part-NO.	@ /P
RRPL 08	22	35	23	10 max.	RRPL 08.2000	

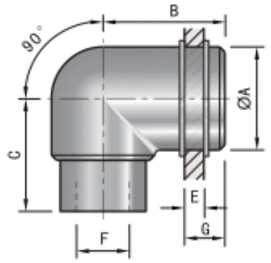
DIN

Nipples

RRPL

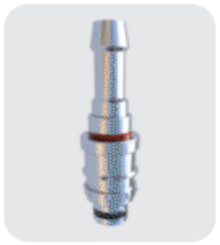


Medium	Max(bar)	Max(°C)
Water	10	90



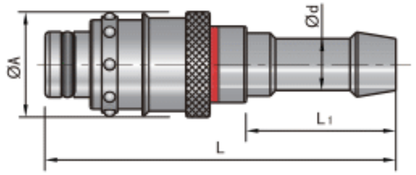
Order RRPL 08.2101-RE

Code	Thread F	A	B	C	E	G	Part-NO.	@ /P
RRPL 08	G1/4	22	22	21	6.5 max.	10	RRPL 08.2101-RE	



Medium	Max(bar)	Max(°C)
Water	10	90

Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring



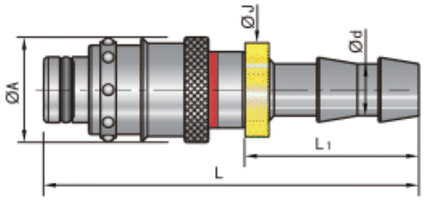
Order RRPL 06.6808

Code	d	A	L	L1	Part-NO. with a black ring	@ /P
RRPL 06	Ø 8	17	55	23	RRPL 06.6808	
RRPL 08	Ø 6	20	66	28	RRPL 08.6806	
	Ø 8				RRPL 08.6808	
	Ø10				RRPL 08.6810	
	Ø12.5				RRPL 08.6812	
RRPL 12	Ø13	28	78	33	RRPL 12.6813	
	Ø16				RRPL 12.6816	



Medium	Max(bar)	Max(°C)
Water	10	90

Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring



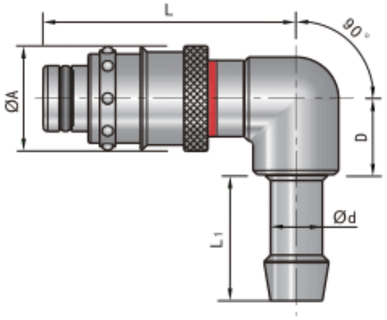
Order RRPL 08.6808-CN

Code	d	A	L	L1	J	Part-NO. with a black ring	@ /P
RRPL 08	3/8"	20	62	24.5	19.5	RRPL 06.6808-CN	
	1/2"		69	29	23.5	RRPL 08.6806-CN	
RRPL 12		28	74			RRPL 08.6808-CN	
	5/8"		81.5	36.5	27	RRPL 08.6810-CN	

DIN

Nipples

RRPL



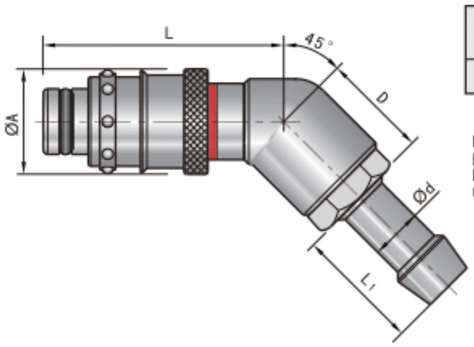
Medium	Max(bar)	Max(°C)
Water	10	90

Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring



Order RRPL 08.6806-RE

Code	d	A	L	L1	D	Part-NO. with a black ring	@ /P
RRPL 08	Ø 6	20	49	28	23.5	RRPL 08.6806-RE	
	Ø 8			23		RRPL 08.6808-RE	
	Ø10				10	RRPL 08.6810-RE	
	Ø12.5			28		RRPL 08.6812-RE	
RRPL 12	Ø13	28	76	33	27	RRPL 12.6813-RE	
	Ø16					RRPL 12.6816-RE	



Medium	Max(bar)	Max(°C)
Water	10	90

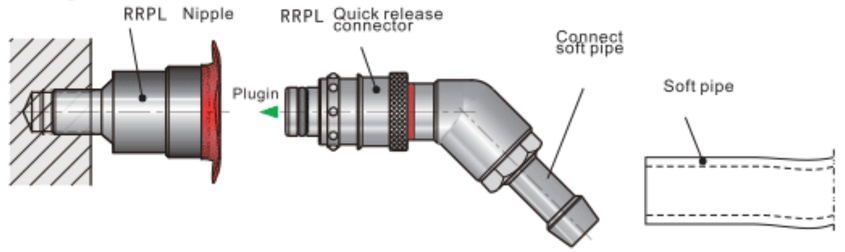
Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring



Order RRPL 08.6806-RO

Code	d	A	L	L1	D	Part-NO. with a black ring	@ /P
RRPL 08	Ø 6	20	43	28	21	RRPL 08.6806-RO	
	Ø 8			23		RRPL 08.6808-RO	
	Ø10					RRPL 08.6810-RO	
	Ø12.5			28		RRPL 08.6812-RO	
RRPL 12	Ø13	28	72	33	24	RRPL 12.6813-RO	
	Ø16					RRPL 12.6816-RO	

Installation Diagram:

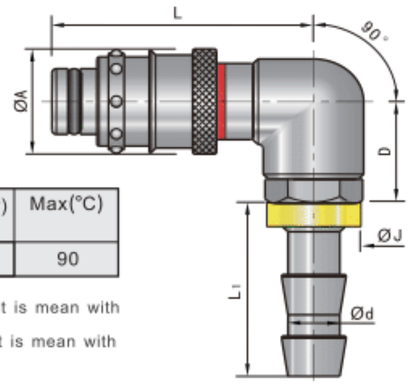


DIN

Nipples

RRPL





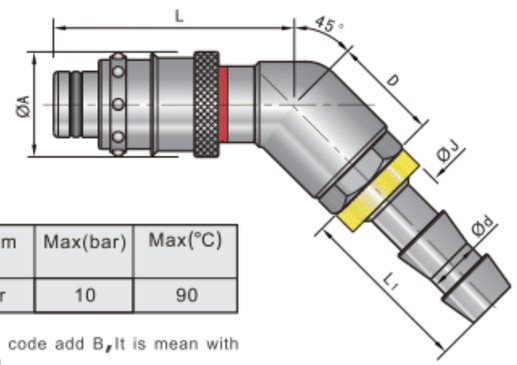
Medium	Max(bar)	Max(°C)
Water	10	90

Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring

Order RRPL 08.6810-CN-RE

Code	d	ØA	L	L1	D	J	Part-NO. with a black ring	@ /P
RRPL 08	3/8"	20	48.5	24.5	23.5	19.5	RRPL 08.6810-CN-RE	
	1/2"			29	25.5	23.5	RRPL 08.6813-CN-RE	
RRPL 12		28	75.5		30.5		RRPL 12.6813-CN-RE	
	5/8"			36.5	30	27	RRPL 12.6816-CN-RE	





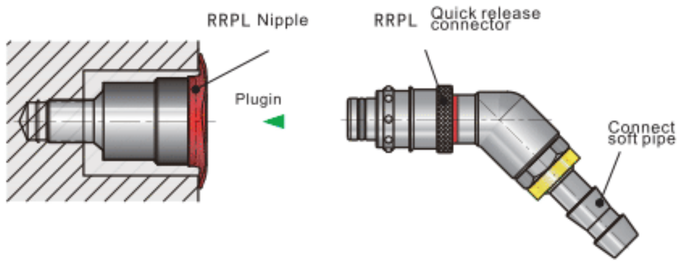
Medium	Max(bar)	Max(°C)
Water	10	90

Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring

Order RRPL 08.6810-CN-RO

Code	d	ØA	L	L1	D	J	Part-NO. with a black ring	@ /P
RRPL 08	3/8"	20	43	24.5	21	19.5	RRPL 08.6810-CN-RO	
	1/2"			29	23	23.5	RRPL 08.6813-CN-RO	
RRPL 12		28	72		27.5		RRPL 12.6813-CN-RO	
	5/8"			36.5	27	27	RRPL 12.6816-CN-RO	

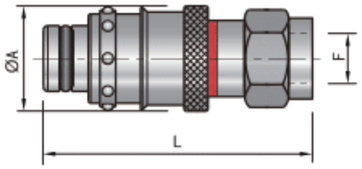
Installation Diagram:



DIN

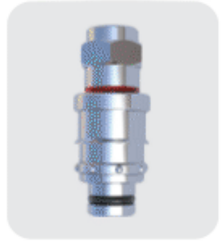
Nipples

RRPL



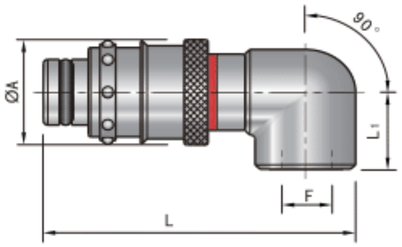
Medium	Max(bar)	Max(°C)
Water	10	90

Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring



Order RRPL 08.6101

Code	Thread F	ØA	L	Part-NO. with a black ring	@ /P
RRPL 08	G1/4	20	48.5	RRPL 08.6101	
	NPT1/4			RRPL 08.6201	
RRPL 12	G1/2	28	61	RRPL 12.6103	
	NPT1/2		63	RRPL 12.6203	



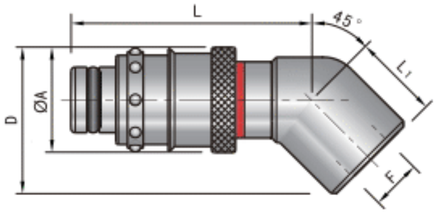
Medium	Max(bar)	Max(°C)
Water	10	90

Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring



Order RRPL 08.6101-RE

Code	Thread F	ØA	L	L1	E	Part-NO. with a black ring	@ /P
RRPL 08	G1/4	20	48.5	16.5	31	RRPL 08.6101-RE	
	NPT1/4		60.5	15	38.9	RRPL 08.6201-RE	
RRPL 12	G3/8	28	75.5	20	52.9	RRPL 12.6102-RE	
	NPT3/8					RRPL 12.6202-RE	



Medium	Max(bar)	Max(°C)
Water	10	90

Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring



Order RRPL 08.6101-RO

Code	Thread F	ØA	L	L1	D	Part-NO. with a black ring	@ /P
RRPL 08	G1/4	20	43	14	27.5	RRPL 08.6101-RO	
	NPT1/4		57.5	14.5	28.5	RRPL 08.6201-RO	
RRPL 12	G3/8	28	72	17	33	RRPL 12.6102-RO	
	NPT3/8					RRPL 12.6202-RO	

DIN

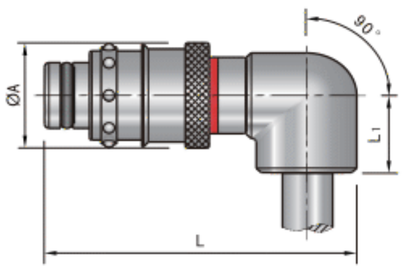
Nipples

RRPL



Medium	Water
Max(bar)	10
Max(°C)	90

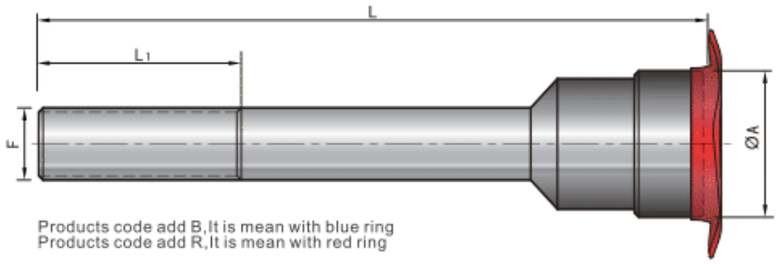
Products code add B,
It is mean with blue ring
Products code add R,
It is mean with red ring



Order RRPL 08.6000-RE

Code	ØA	L	L1	Part-NO. with a black ring	@ /P
90° plug RRPL 08	20	59	17	RRPL 08.6000-RE	
Tube		Tube,supply length=1m		RR113 910 00	

Medium	Water
Max(bar)	10
Max(°C)	90



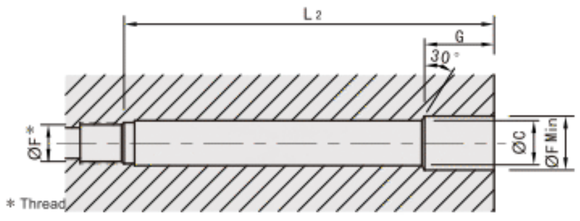
Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring

Order RRPL 08.1010-50-RF

Thread	L min./max.	L1 Threaded	L2	G	H / flats	Tightening torque N m
G1/8	34/ 50	26	L-5.5	23	6	10
	50/100	60				
	100/150					
G1/4	38.5/50	26.5	L-7.5		8	30
	55/100	60				
	105/150					
	155/200					

Code	Øa	ØC	ØF min.	Part-NO. without collar	@ /P
RRPL 08	21	11	22.5	RRPL 08.1010- 50-RF	
				RRPL 08.1010-100-RF	
				RRPL 08.1010-150-RF	
		14		RRPL 08.1011- 50-RF	
				RRPL 08.1011-100-RF	
				RRPL 08.1011-150-RF	
				RRPL 08.1011-200-RF	

Installation Diagram:

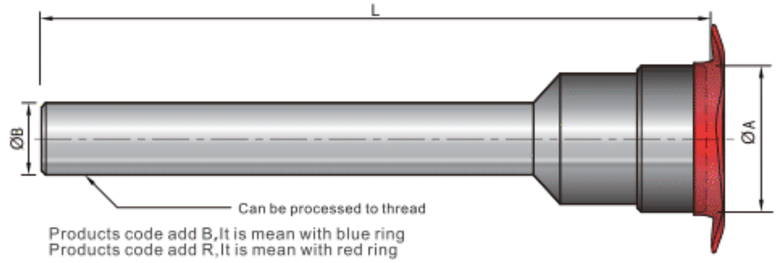


DIN

Nipples

RRPL

Medium	Water
Max(bar)	10
Max(°C)	90



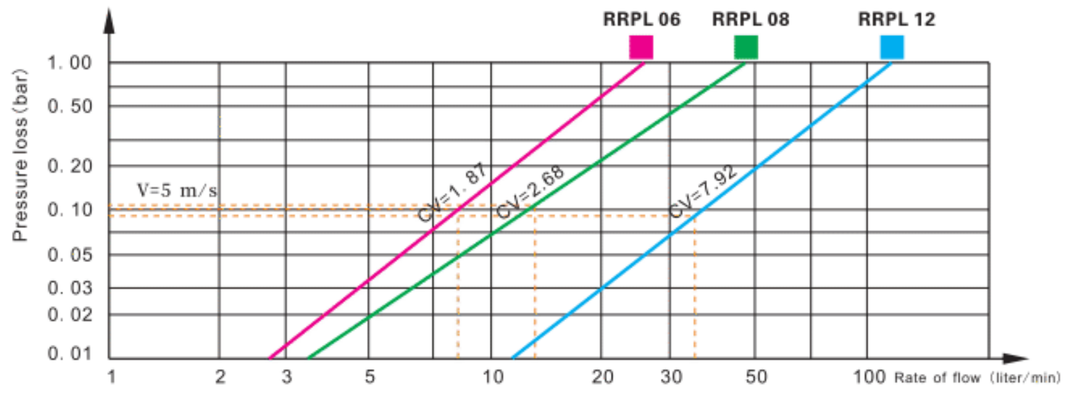
Products code add B,It is mean with blue ring
Products code add R,It is mean with red ring

Order RRPL 06.1010-100-R

ØA	ØB	ØC	ØF min.	G	H / flats	Tightening torque N m
17			18.5	20		
21	10.2	11	22.5	23	6	10
	13.5	14			8	30
32	17.2	18	33.5	43	11	
	21.3	22		45		50

Code	Thread to be cut	L min./max.	L2	Part-NO. without collar	@ /P
RRPL 06	R1/8 or NPT1/8	33/100	L- 5.5	RRPL 06.1010-100-R	
RRPL 08		100/150		RRPL 08.1010-100-R	
		150/200		RRPL 08.1010-150-R	
		200/250		RRPL 08.1010-200-R	
	R1/4 or NPT1/4	34/100	L- 7.5	RRPL 08.1010-250-R	
		100/150		RRPL 08.1011-100-R	
		150/200		RRPL 08.1011-150-R	
		200/250		RRPL 08.1011-200-R	
RRPL 12	R3/8 or NPT3/8	56/150	L- 8.5	RRPL 08.1011-250-R	
		150/200		RRPL 12.1002-150-R	
		200/250		RRPL 12.1002-200-R	
	R1/2 or NPT1/2	59/150	L-11.5	RRPL 12.1002-250-R	
		150/200		RRPL 12.1003-150-R	
		200/250		RRPL 12.1003-200-R	
				RRPL 12.1003-250-R	

Rate of flow,pressure loss drawing:

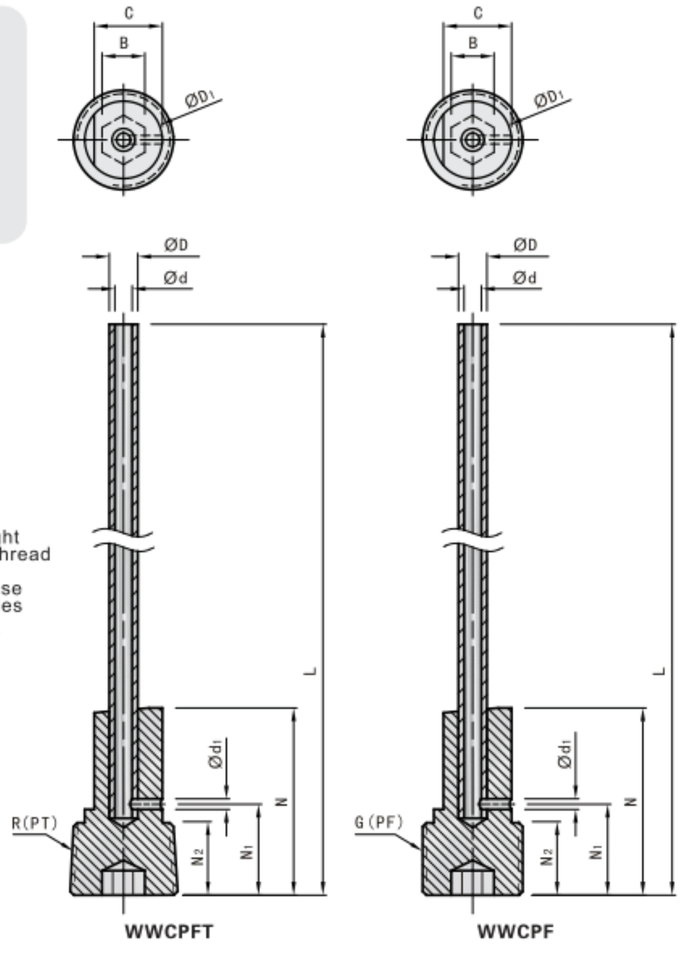


JIS

Cooling tubes

WWCPFT
WWCPF



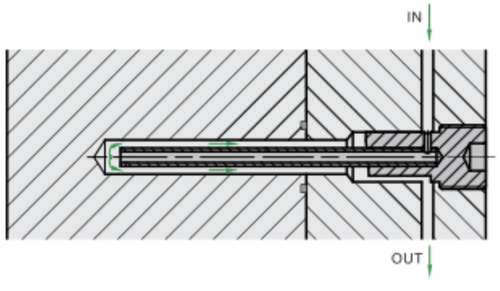


1.WWCPF thread position adopt Inch straight thread G（PF）.The position of WWCPFT thread parts adopt taper thread R.
2.PT and PF same thread distance,but please notes installed screw holes PF thread holes installed PT thread will be water leakage, conversely PF thread cant screwing in PT screw holes.

Order WWCPFT-D-L Material: Stainless steel

Code	D	L	B	N	N1	N2	C	D1	d1	d	R(PT) WWCPFT	G(PF) WWCPF	@ /P
WWCPF	2	100	4	20	13	10	6.7	8	1.6	1.5	1/8	1/8	
		200											
WWCPFT	3	100-200							2.5	2.5			
		300											
	4	200	5	23	15	12	8.5	10	3.6	3	1/4	1/4	
		300											

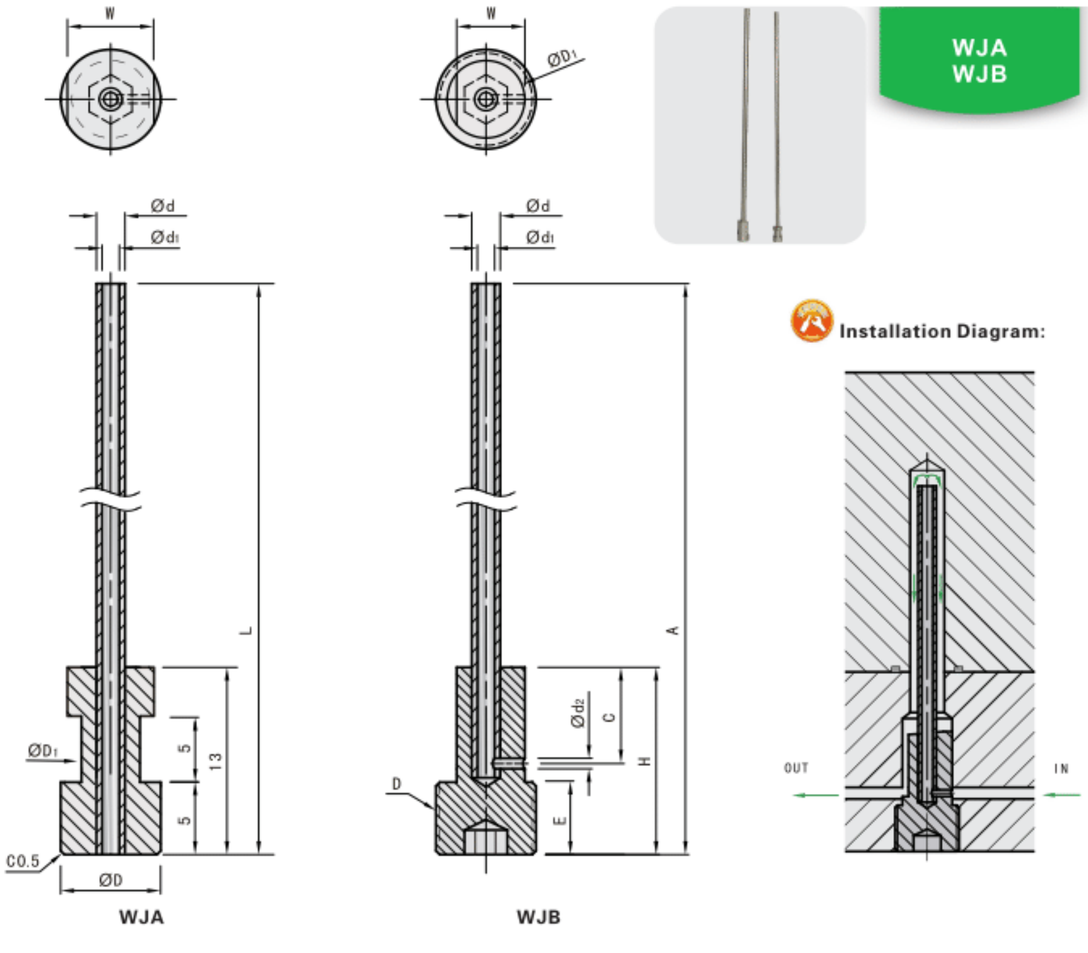
Installation Diagram:



TAIWAN

Cooling tubes

WJA
WJB



Installation Diagram:

Order WJA-d-L Material: Stainless steel

Code	Ød	Ød1	L	ØD	ØD1	W	ØB	@ /P
WJA	2	1.5	200	8	8	6	5	
	3	2.5				8	6	
	4	3	300	10			8	

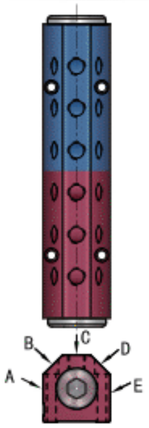
Order WJB-d-A Material: Stainless steel

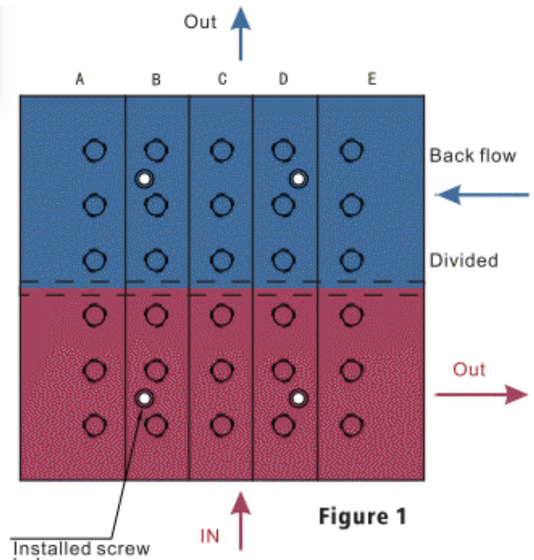
Code	Ød	Ød1	Ød2	ØD	ØD1	A	C	E	H	W	ØB	@ /P
WJB	2.5	1.5	2	PF1/8	8	200	6	10	20	6.7	5	
	3	2.5	2.6								6	
	4	3	3.6	PF1/4	10	300	7	12	22	8.5	8	

DIN

Mold mounted manifolds

IIM





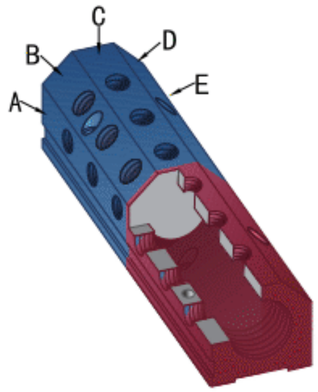
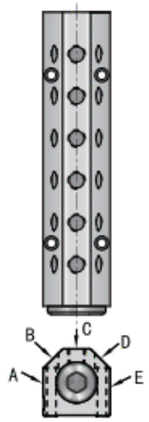
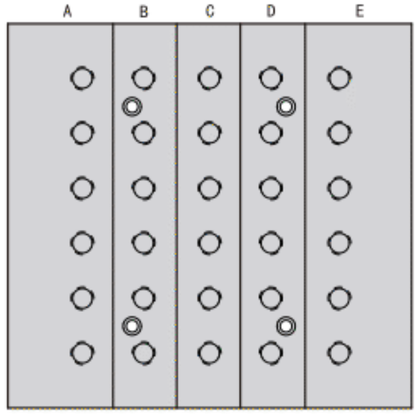


Figure 1





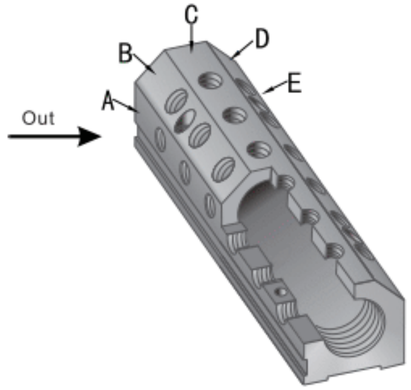


Figure 2

1.This Inline manifold, reduce chance of hookup errors, simplification of the cooling water circuit design, fast mounting.
2.Available for various hookup threads, wide application ,custom threads are available.
3.Hoses and manifolds are color coded (red for hot out and blue for cold in for easy identification.

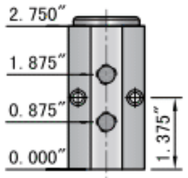
DIN

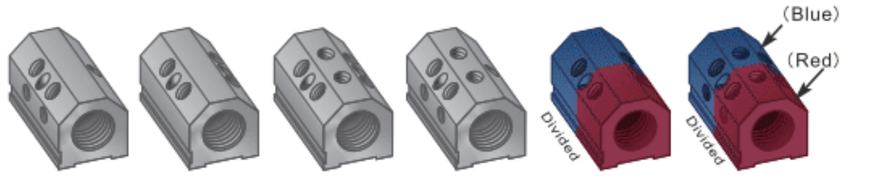
Mold mounted manifolds

IIM



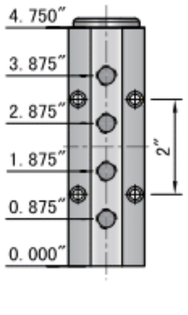
Order IIM3-8-BD-8-8-1/4-P-R/B Material: : AL

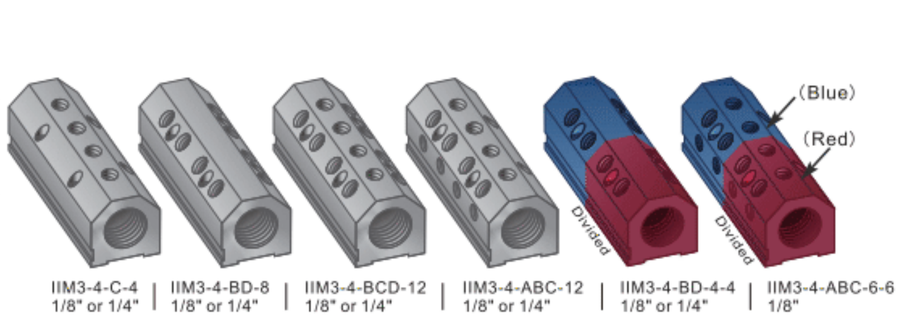




IIM3-2-AB-4	IIM3-2-BD-4	IIM3-2-BCD-6	IIM3-2-ABC-6	IIM3-2-BD-2-2	IIM3-2-ABCDE-5-5
1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"	1/8"

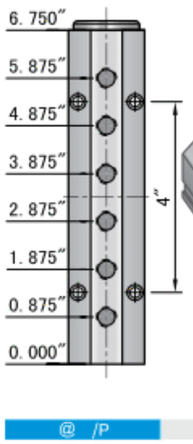
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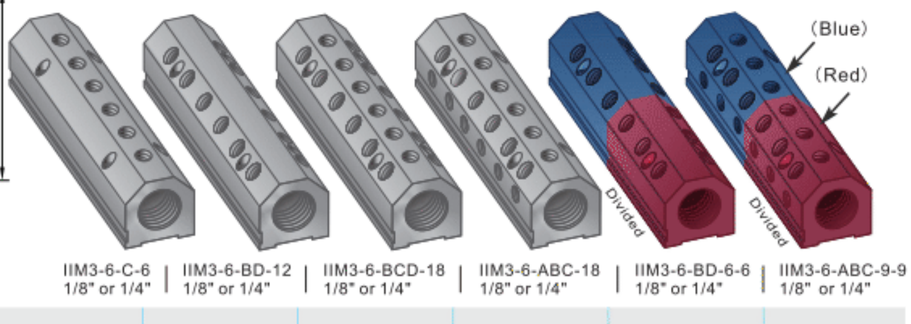




IIM3-4-C-4	IIM3-4-BD-8	IIM3-4-BCD-12	IIM3-4-ABC-12	IIM3-4-BD-4-4	IIM3-4-ABC-6-6
1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"	1/8"

@ /P





IIM3-6-C-6	IIM3-6-BD-12	IIM3-6-BCD-18	IIM3-6-ABC-18	IIM3-6-BD-6-6	IIM3-6-ABC-9-9
1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"	1/8" or 1/4"

@ /P

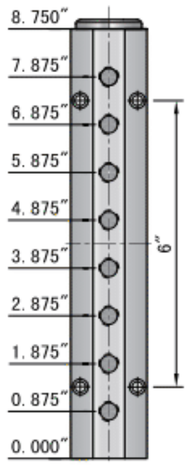
DIN

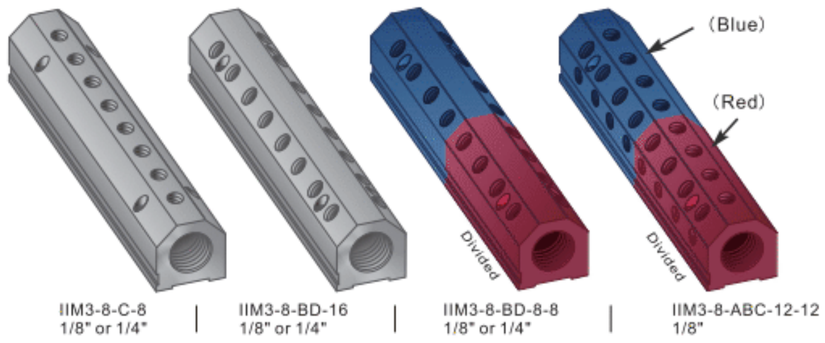
Mold mounted manifolds

IIM



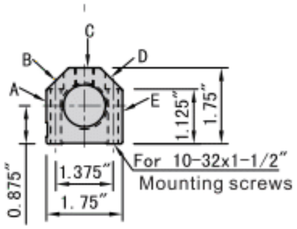
Order IIM3-8-BD-8-8-1/4-P-R/B Material::AL





IIM3-8-C-8 1/8" or 1/4" | IIM3-8-BD-16 1/8" or 1/4" | IIM3-8-BD-8-8 1/8" or 1/4" | IIM3-8-ABC-12-12 1/8"

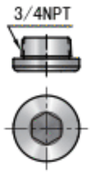
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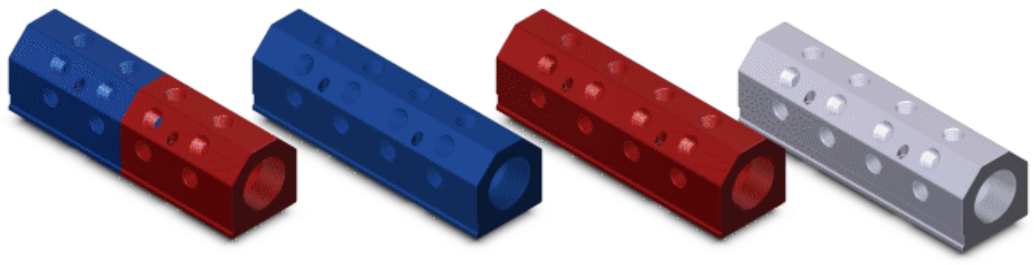
Part Number Code:

IIM3-6-B-6-1/4-N-Red

- Red-Blue
- Thread Type: N=NPT No marking; P=BSPP Mark BSPP; T=BSPT Mark BSPT
- 1/4"Out"
- 6Holes
- B Row on side"B"
- 6=6.750" Overall length
- (3)=3/4"NPT Ports
- Manifold



• No need color ,will not use color code ,defaulted natural colour.



Red and blue anodic oxidation | Blue anodic oxidation | Red anodic oxidation | Natural colour anodic oxidation

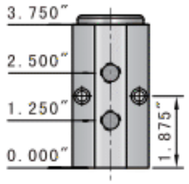
DIN

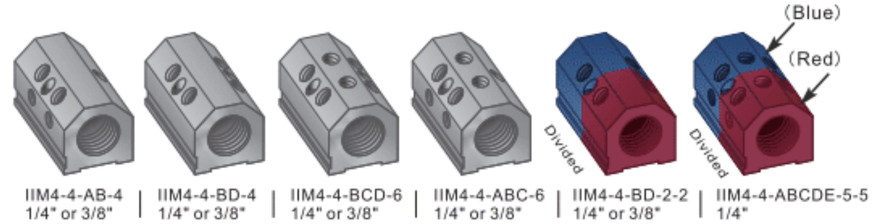
Mold mounted manifolds

IIM



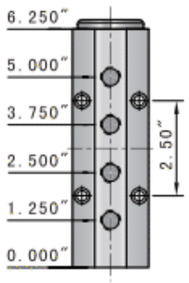
Order IIM4-11-BD-8-8-3/8-T-R/B Material::AL

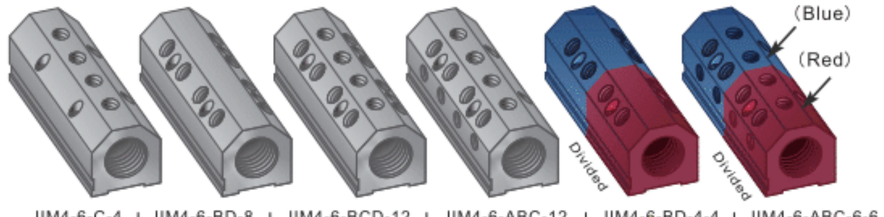




IIM4-4-AB-4 1/4" or 3/8" | IIM4-4-BD-4 1/4" or 3/8" | IIM4-4-BCD-6 1/4" or 3/8" | IIM4-4-ABC-6 1/4" or 3/8" | IIM4-4-BD-2-2 1/4" or 3/8" | IIM4-4-ABCDE-5-5 1/4"

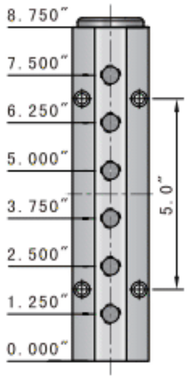
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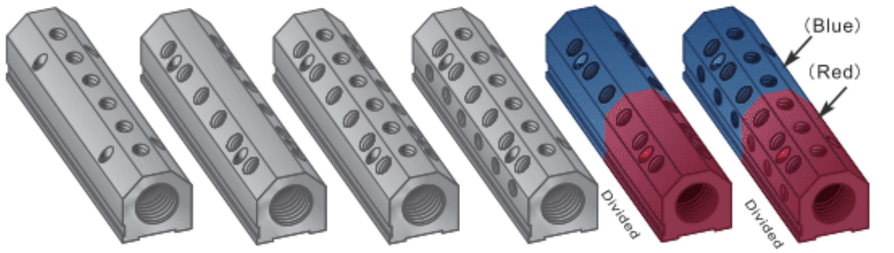




IIM4-6-C-4 1/4" or 3/8" | IIM4-6-BD-8 1/4" or 3/8" | IIM4-6-BCD-12 1/4" or 3/8" | IIM4-6-ABC-12 1/4" or 3/8" | IIM4-6-BD-4-4 1/4" or 3/8" | IIM4-6-ABC-6-6 1/4" or 3/8"

@ /P





IIM4-9-C-6 1/4" or 3/8" | IIM4-9-BD-12 1/4" or 3/8" | IIM4-9-BCD-18 1/4" or 3/8" | IIM4-9-ABC-18 1/4" or 3/8" | IIM4-9-BD-6-6 1/4" or 3/8" | IIM4-9-ABC-9-9 1/4" or 3/8"

@ /P

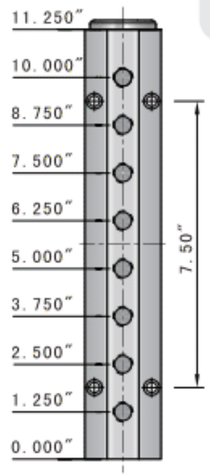
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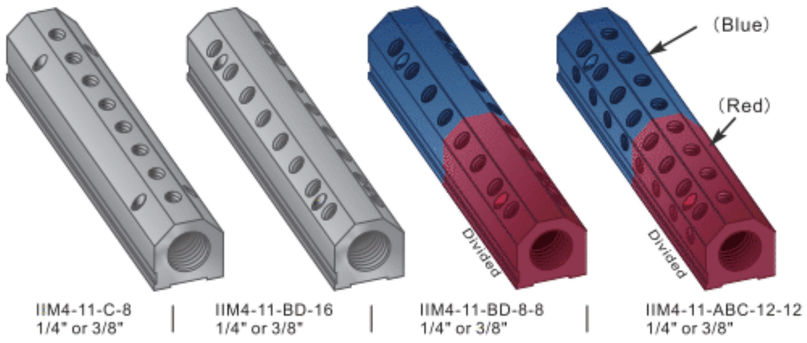
Mold mounted manifolds

IIM



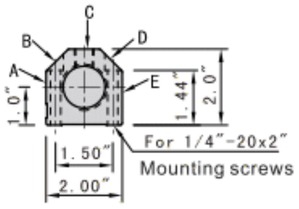
Order IIM4-11-BD-8-8-3/8-T-R/B Material::AL





IIM4-11-C-8 1/4" or 3/8" | IIM4-11-BD-16 1/4" or 3/8" | IIM4-11-BD-8-8 1/4" or 3/8" | IIM4-11-ABC-12-12 1/4" or 3/8"

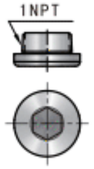
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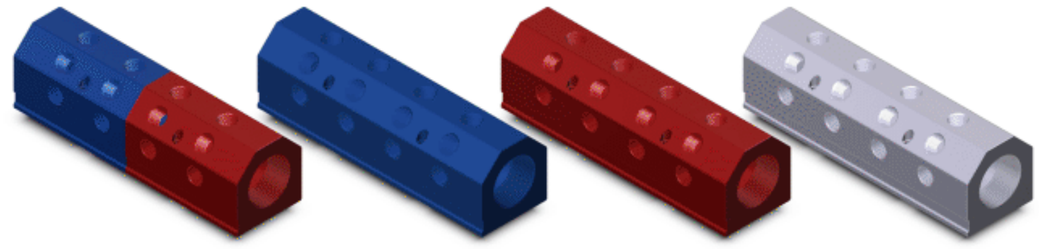
Part Number Code:

IIM4-9-B-6-3/8-N-Red

- Manifold
- (4)=1"NPT Ports
- 6=8.75" Overall length
- B Row on side"B"
- 6Holes
- 3/8"Out"
- Thread Type: N=NPT No marking; P=BSPP Mark BSPP; T=BSPT Mark BSPT
- Blue-Red



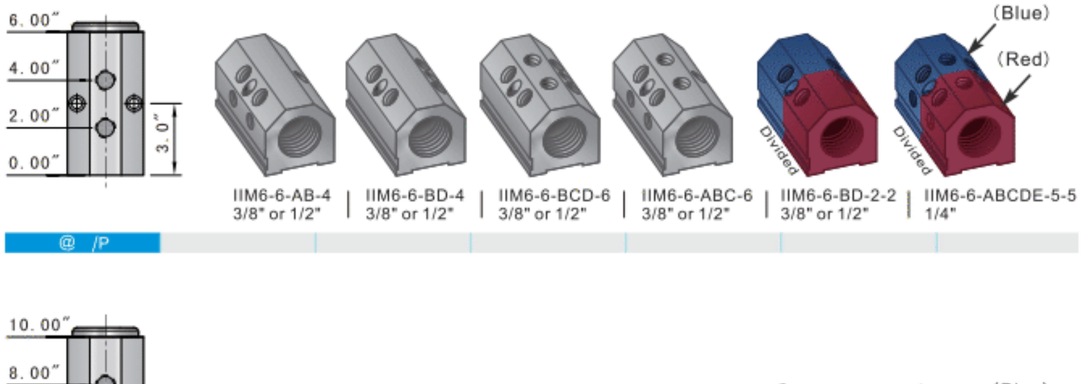
• No need color ,will not use color code ,defaulted natural colour.



Red and blue anodic oxidation | Blue anodic oxidation | Red anodic oxidation | Natural colour anodic oxidation

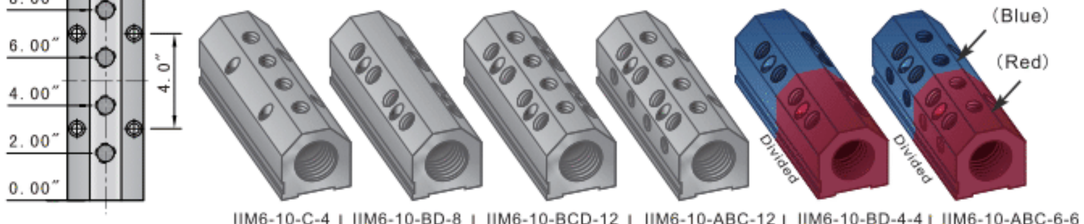


Order IIM6-18-BD-8-8-1/2-T-R/B Material::AL



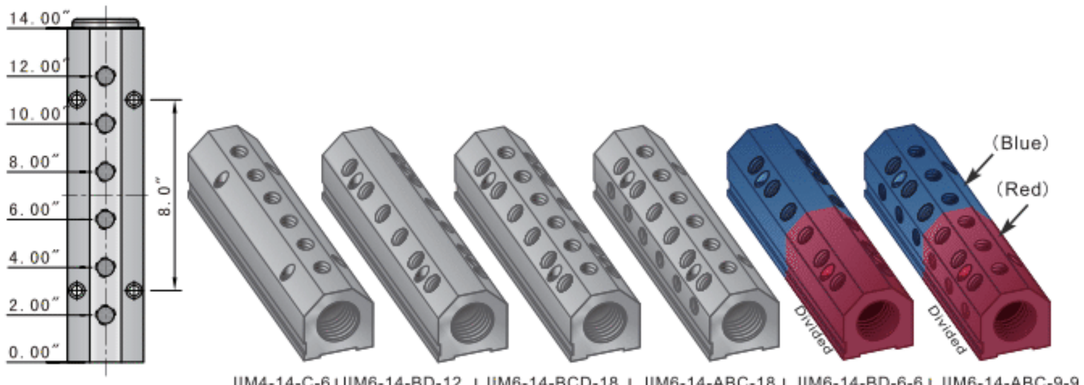
IIM6-6-AB-4 3/8" or 1/2" | IIM6-6-BD-4 3/8" or 1/2" | IIM6-6-BCD-6 3/8" or 1/2" | IIM6-6-ABC-6 3/8" or 1/2" | IIM6-6-BD-2-2 3/8" or 1/2" | IIM6-6-ABCDE-5-5 1/4"

@ /P



IIM6-10-C-4 3/8" or 1/2" | IIM6-10-BD-8 3/8" or 1/2" | IIM6-10-BCD-12 3/8" or 1/2" | IIM6-10-ABC-12 3/8" or 1/2" | IIM6-10-BD-4-4 3/8" or 1/2" | IIM6-10-ABC-6-6 3/8" or 1/2"

@ /P



IIM4-14-C-6 3/8" or 1/2" | IIM6-14-BD-12 3/8" or 1/2" | IIM6-14-BCD-18 3/8" or 1/2" | IIM6-14-ABC-18 3/8" or 1/2" | IIM6-14-BD-6-6 3/8" or 1/2" | IIM6-14-ABC-9-9 3/8" or 1/2"

@ /P

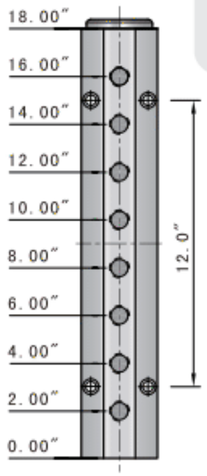
DIN

Mold mounted manifolds

IIM



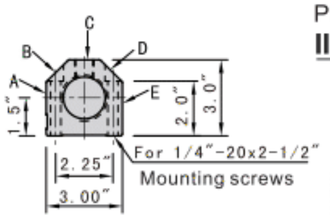
Order IIM4-11-BD-8-8-3/8-T-R/B Material::AL





IIM6-18-C-8 3/8" or 1/2" | IIM6-18-BD-16 3/8" or 1/2" | IIM6-18-BD-8-8 3/8" or 1/2" | IIM6-18-ABC-12-12 1/4" or 3/8"

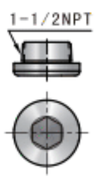
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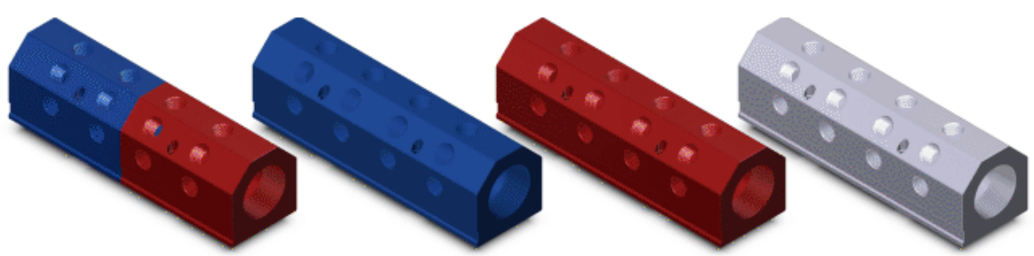
Part Number Code:

IIM6-14-B-6-1/2-N-Red

- Manifold
- (6)=1-1/2"NPT Ports
- 14=14" Overall length
- B Row on side"B"
- 6Holes
- 1/2"Out"
- Thread Type: N=NPT No marking; P=BSPP Mark BSPP; T=BSPT Mark BSPT
- Red-Blue



• No need color ,will not use color code ,defaulted natural colour.



Red and blue anodic oxidation | Blue anodic oxidation | Red anodic oxidation | Natural colour anodic oxidation

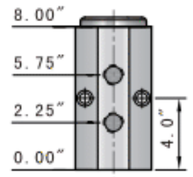
DIN

Mold mounted manifolds

IIM



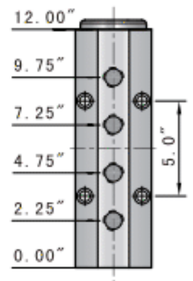
Order IIM8-22-BD-8-8-1/2-T-R/B Material::AL

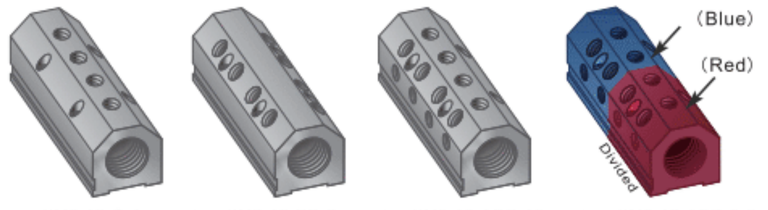




IIM6-6-AB-4 1/2"、3/4" or 1" | IIM8-8-ACE-6 1/2" or 3/4"

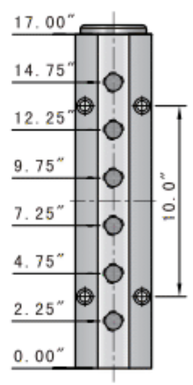
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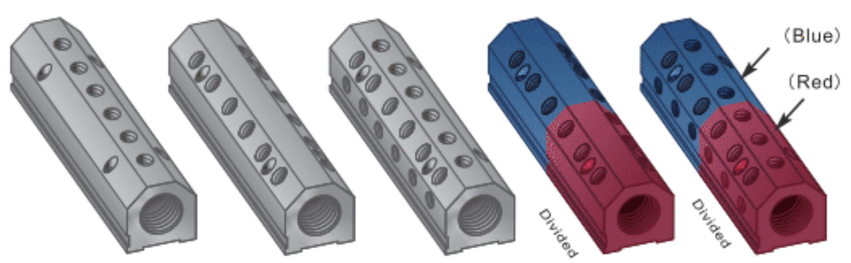




IIM8-12-C-4 1/2"、3/4" or 1" | IIM8-12-BD-8 1/2"、3/4" or 1" | IIM8-12-ABC-12 1/2" or 3/4" | IIM8-12-ABC-6-6 1/2" or 3/4"

@ /P





IIM8-17-C-6 1/2"、3/4" or 1" | IIM8-17-BD-12 1/2"、3/4" or 1" | IIM8-17-ABC-18 1/2" or 3/4" | IIM8-17-BD-6-6 1/2"、3/4" or 1" | IIM8-17-ABC-9-9 1/2" or 3/4"

@ /P

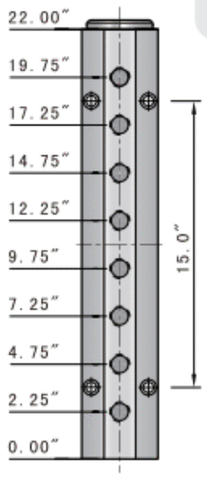
Cooling elements series

DIN

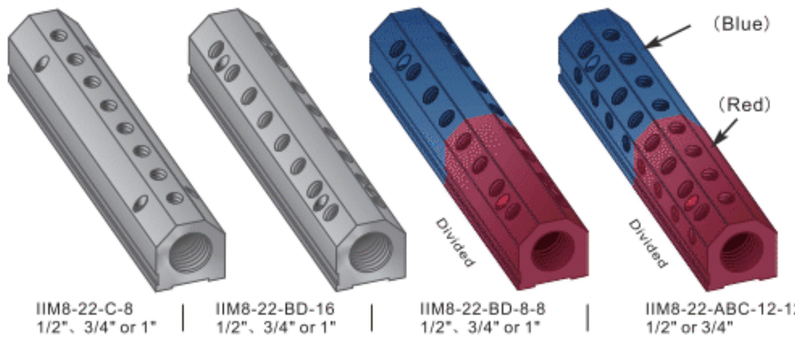
Mold mounted manifolds

IIM



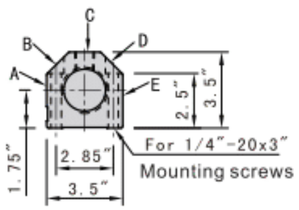


Order IIM4-11-BD-8-8-3/8-T-R/B Material: : AL



IIM8-22-C-8	IIM8-22-BD-16	IIM8-22-BD-8-8	IIM8-22-ABC-12-12
1/2"、3/4" or 1"	1/2"、3/4" or 1"	1/2"、3/4" or 1"	1/2" or 3/4"

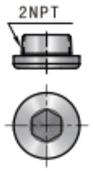
@ /P



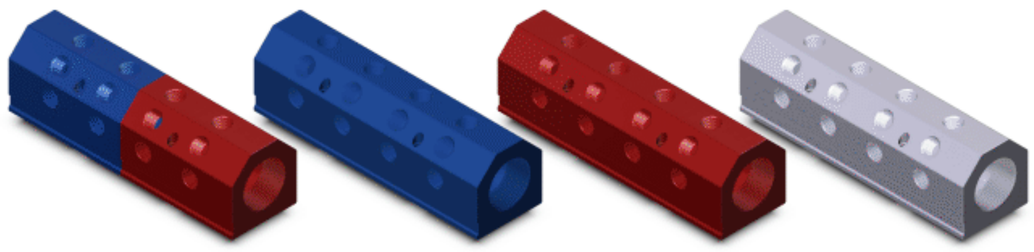
Part Number Code:

IIM8–17–C–6–1/2–N–Red

- Red-Blue
- Thread Type: N=NPT No marking; P=BSPP Mark BSPP; T=BSPT Mark BSPT
- 1/2"Out"
- 6Holes
- C Row on side"B"
- 17=17" Overall length
- (8)=2"NPT Ports
- Manifold

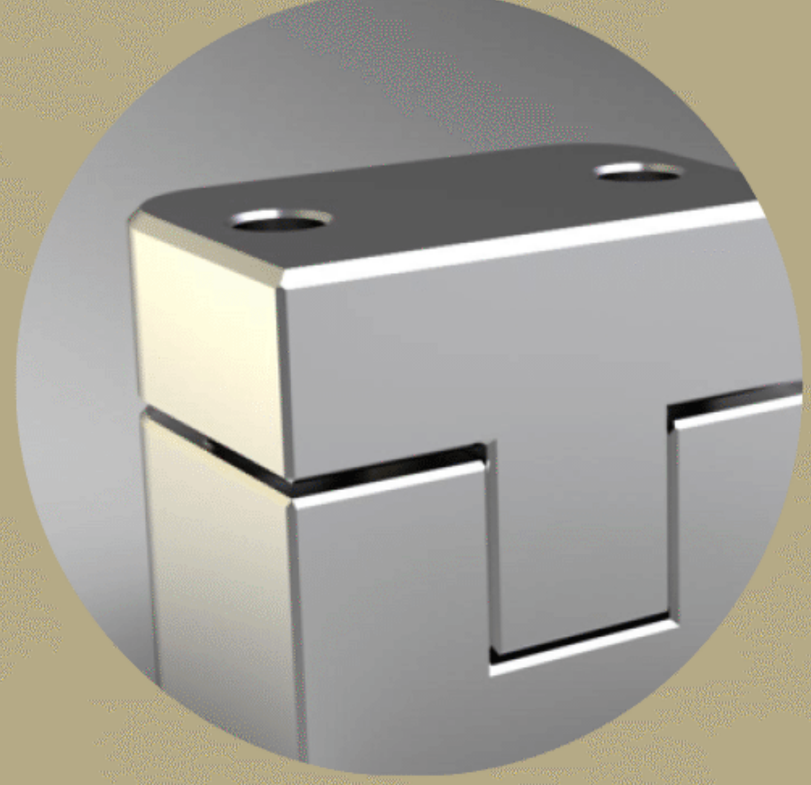


· No need color ,will not use color code ,defaulted natural colour.



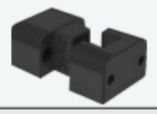
Red and blue anodic oxidation | Blue anodic oxidation | Red anodic oxidation | Natural colour anodic oxidation

Locating Parts Series





DIN		DIN		DIN		DIN		DIN	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
EE1304	P435	EE1306	P435	EE1308	P436	EE1320	P437	ZZ085-. . . -1	P438



DIN		DIN		DIN		DIN		DIN	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
ZZ085-. . . -2	P438	ZZ18	P441	ZZ19	P440	ZZ07	P439	ZZ17	P439



DIN		DIN		DIN		DIN		DIN	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
ZZ50	P442	ZZ51	P444	ZZ071-. . . -1	P446	ZZ072-. . . -2	P446	ZZ071-. . . -2	P447



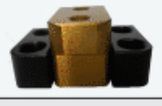
DIN		DIN		DIN		DIN		DIN	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
ZZ072-. . . -1	P447	ZZ060	P448	ZZ08	P448	ZZ080	P449	ZZ48	P450



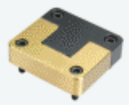
DIN		AISI		AISI		AISI		AISI	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
ZZ46-S	P450	MMTR	P451	FFTR	P451	RRSI	P451	TTL-P	P451



AISI		AISI		AISI		AISI		AISI	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
FFW45	P452	PPLM	P452	PPLF	P452	GGL	P453	GGLM	P453



AISI		AISI		AISI		AISI		AISI	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
PPLL	P454	PPLF	P455	PPXM	P455	SSSI	P456	SSL	P456



AISI		AISI		AISI		AISI		AISI	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
SSLM	P456	TTL	P457	TTLM	P457	XXSI	P458	SSLX	P459



AISI		AISI		AISI		AISI		JIS	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
SSLS	P459	SSLMS	P459	BBGT	P460	BBGS	P460	TTSSB	P461



JIS		JIS		JIS		TAIWAN		TAIWAN	
Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks		Square Interlocks	
VVTTSB	P462	TTBS	P463	TTBSF	P464	TTL-L	P465	PL	P465



TAIWAN		TAIWAN		JIS		JIS		JIS	
Square Interlocks		Square Interlocks		Round locating units		Round locating units		Round locating units	
KY	P466	LK	P466	TTPNF	P467	TTPNFC	P468	TTPN	P469



JIS		JIS		JIS		TAIWAN		AISI	
Round locating units		Round locating units		Round locating units		Round locating units		Round locating units	
TTPNV	P469	TTPNC	P470	TTPV	P470	TTP-T	P471	MMTM	P472



AISI		AISI		AISI		AISI		AISI	
Round locating units		Shoulder Plates		Round locating units		Round locating units		Heel block	
FFTM	472	AAGS	P472	MMT	P473	FFT	P473	SSP	P473

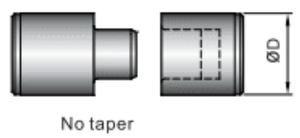
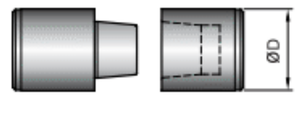
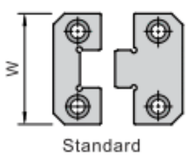
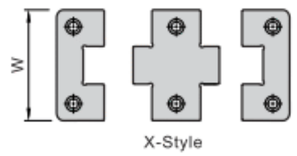


DIN		DIN		DIN	
Round locating units		Round locating units		Round locating units	
ZZ05	P474	ZZ051	P474	ZZ06	P475

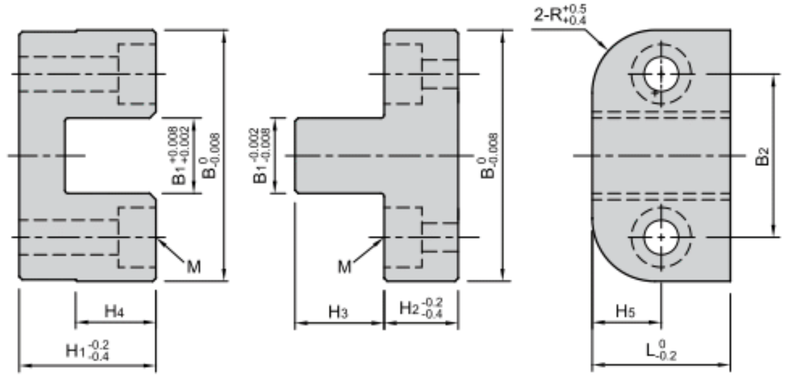
MOLD PARTNER

DIN

Products Summary

Type			Standard	Code	Page	Standard	Code	Page
Round	Taper	Metric	JIS	TTPN	P469	JIS	TTPV	P470
				TTPNV	P469	TAIWAN	TTP	P471
				TTPNC	P470	DIN	ZZ05	P474
			DIN	ZZ06	P475		ZZ051	P474
		American system	AISI	MMT/FFT/AAGS	P473			
				MMT/FFT/SSP	P473			
	No taper	Metric	JIS	TTPNF	P467	JIS	TTPNFC	P468
Square	Standard	Metric	DIN	EE1304	P435	DIN	EE1306	P435
				EE1308	P436		ZZ085-. . . -1	P440
				EE1320	P437		ZZ085-. . . -2	P440
				ZZ50	P442		ZZ18/ZZ19	P441/438
				ZZ51	P444		ZZ07/ZZ17	P438
				ZZ071-. . . -1	P446		ZZ48	P450
				ZZ071-. . . -2	P447		ZZ46	P450
				ZZ072-. . . -1	P446		ZZ060	P448
				ZZ072-. . . -2	P447		ZZ08	P448
			TAIWAN	LK	P466		ZZ080	P449
			AISI	RRSI	P451	AISI	SSSI	P456
				FFW45	P452		SSLM	P456
				GGLM	P453		SSLMS	P459
			JIS	TTSSB	P461		TTLM	P457
				VVTTSB	P462	JIS	TTBSF	P464
				TTBS	P463	TAIWAN	TTL-L	P465
			TAIWAN	PL	P465		KY	P466
		American system	AISI	MMTR/FFTR	P451	AISI	GGL	P453
				TTL-P	P451		PPLL	P454
				PPLM/PPLF	P452		SSL	P456
				TTL	P457		SSLS	P459
				BBGT	P460		BBGS	P460
	X-Style	Metric		XXSI	P458			
		American system		PPLF/PPXM	P455		SSLX	P459
Digram	 No taper  Taper						 Standard  X-Style	

Square Interlocks

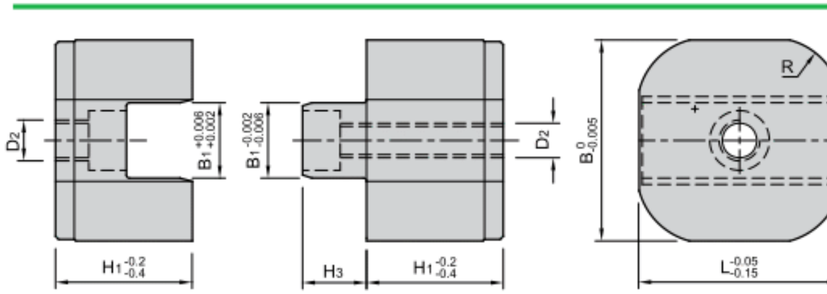


EE1304

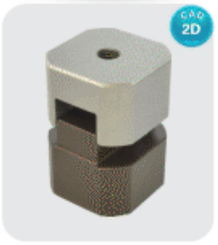


Order EE1304-34

Code	B	B1	B2	H1	H2	H3	H4	H5	L	R	M	@ /P
EE1304-34	34	10	22	18	10	12	11	9	18	8	M4	
EE1304-40	40	12	26	22	12	14	13	11	22	10	M5	
EE1304-50	50	18	34	30	15	18	17	15	30		M6	
EE1304-64	64	22	42	40	18	24	23	20	40		M8	
EE1304-72	72	26	48	46	20	28	27	26	52			



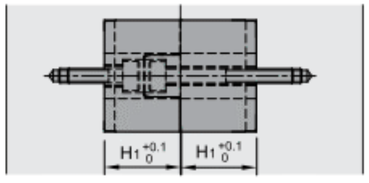
EE1306

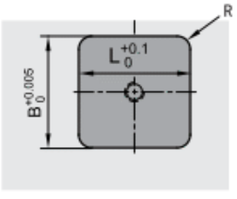


Order EE1306-16

Code	B	B1	D2	H1	H3	L	R max.	M
EE1306-16	16	8	M4	12	6	16	3.25	M3
EE1306-20	20	10	M5	14	7	20	4.5	M4
EE1306-25	25	12	M6	16	8	25	5.4	M5

The dimensional tolerance of installation open frame is recommended:





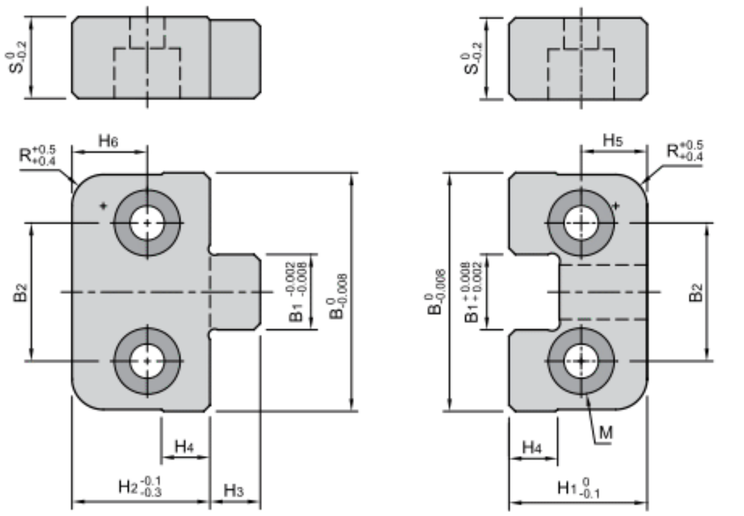
MOLD PARTNER

DIN

Square Interlocks

EE1308

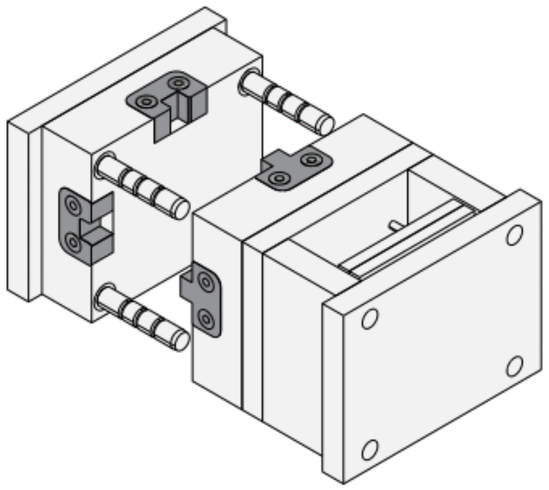




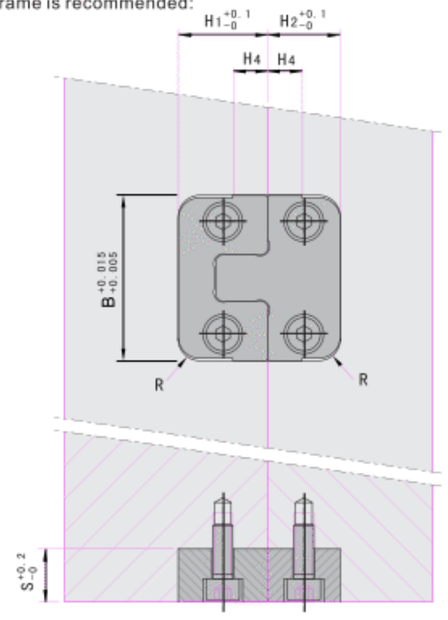
Order EE1308-40

Code	B	B1	B2	H1	H2	H3	H4	H5	H6	S	R	M	@ /P
EE1308-40	40	10	26	17	14	11	6	8.5	7	10	4	M 5	
EE1308-46	46	12	30	22	17	12	7	11	8.5	12	5	M 6	
EE1308-50	50	14	34	27	22	16	10	13.5	11	16	6	M 6	
EE1308-60	60	18	40	36	27	20	14	18	13.5	20	8	M 8	
EE1308-76	76	24	50	40	36	25	18	20	18	25	10	M10	

Installation Diagram:



The dimensional tolerance of installation open frame is recommended:

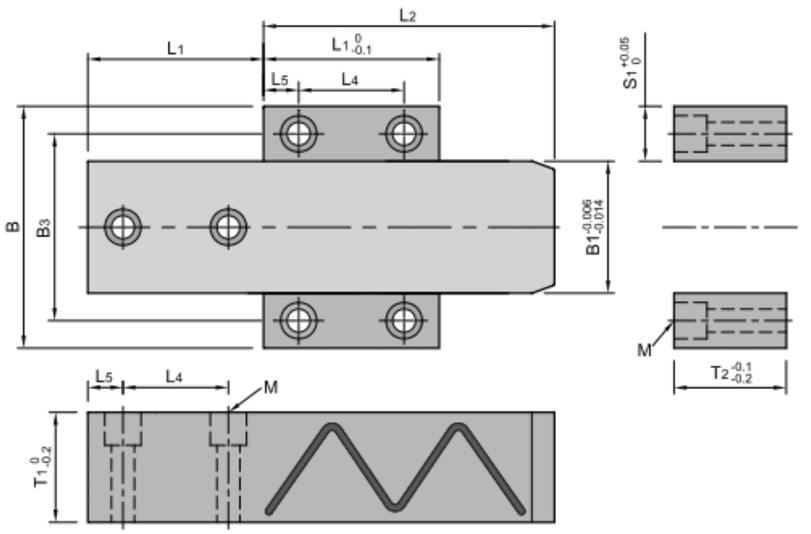


DIN

Square Interlocks

EE1320

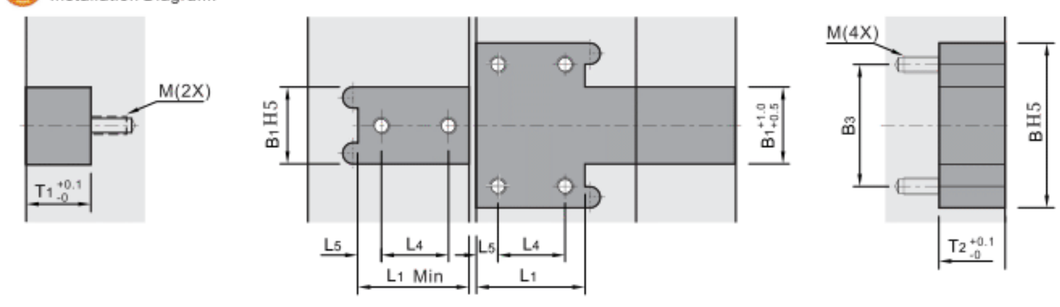




Order EE1320-16-10-44

Code	B1	S1	L2	B	B3	L1	L4	L5	T1	T2	M	@ /P
EE1320-16-10- 44	16	10	44	36	26	26	14	6	14	14.2	M 4	
EE1320-16-10- 54			54									
EE1320-16-10- 64			64									
EE1320-25-12- 54	25	12	54	49	37	34	18	8	22	22.3	M 5	
EE1320-25-12- 74			74									
EE1320-25-12- 94			94									
EE1320-34-16- 54	34	16	54	66	50	44	28		30	30.5	M 6	
EE1320-34-16- 94			94									
EE1320-34-16-134			134									
EE1320-34-16-174			174									
EE1320-46-20- 74	46	20	74	86	66	62	38	12	38	38.8	M 8	
EE1320-46-20-114			114									
EE1320-46-20-154			154									
EE1320-46-20-194			194									
EE1320-60-25- 94	60	25	94	110	85	80	48	16	50	51.2	M10	
EE1320-60-25-134			134									
EE1320-60-25-174			174									
EE1320-60-25-214			214									
EE1320-60-25-254			254									
EE1320-80-32-114	80	32	114	144	112	98	58	20	70	71.6	M12	
EE1320-80-32-154			154									
EE1320-80-32-194			194									
EE1320-80-32-234			234									
EE1320-80-23-274			274									
EE1320-80-32-314			314									

Installation Diagram:

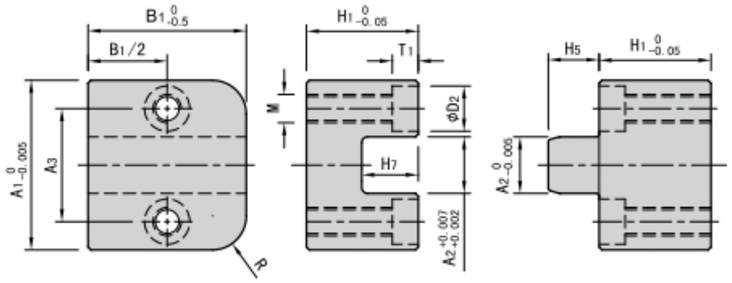


DIN

Square Interlocks

ZZ085-...-1

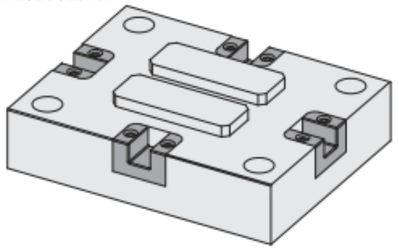


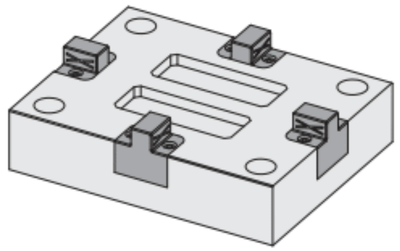


ZZ085-30-28-1

Code	A1	B1	Typ	A2	A3	H7	H5	H1	R	T1	D2	M
ZZ085-30-28-1	30	28	1	10	20	10	9	19.8	6	4.6	8	M5
ZZ085-50-33-1	50	33		20	35	17.5	16.5	29.8	8	6.8	11	M8
ZZ085-75-38-1	75	38		30	52	25	24	39.8	10	9	15	M10

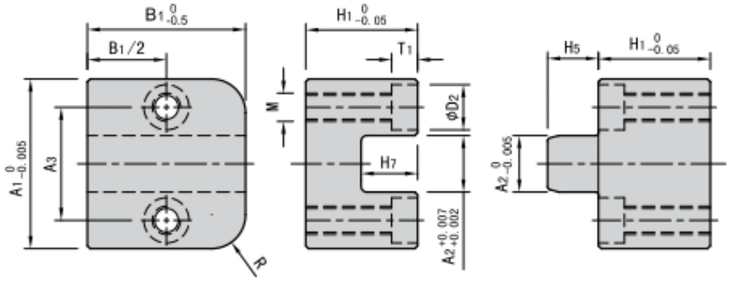
Installation instructions:





ZZ085-...-2





ZZ085-30-28-2

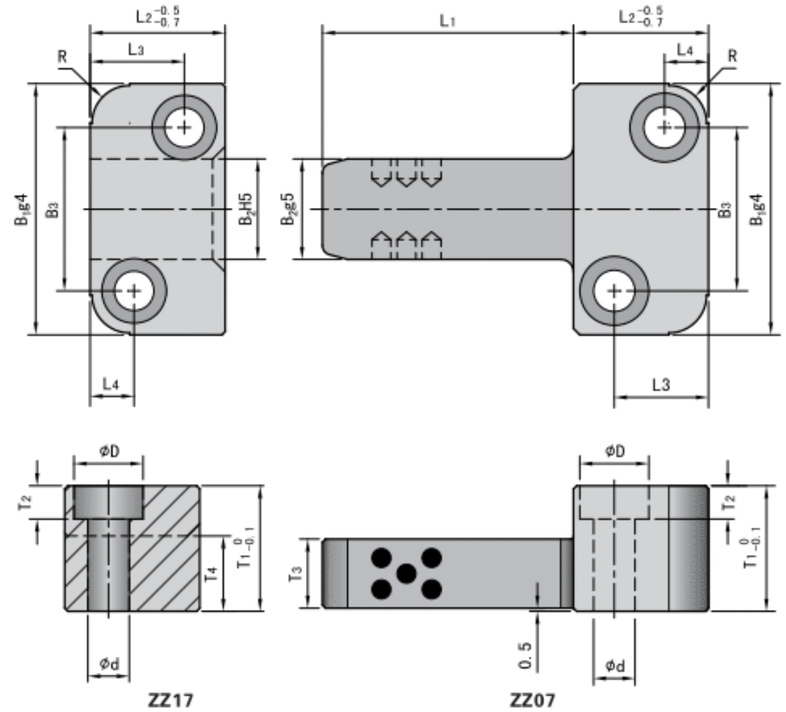
Code	A1	B1	Typ	A2	A3	H7	H5	H1	R	T1	D2	M
ZZ085-30-28-2	30	28	2	10	20	10	9	19.8	6	4.6	8	M5
ZZ085-50-33-2	50	33		20	35	17.5	16.5	29.8	8	6.8	11	M8
ZZ085-75-38-2	75	38		30	52	25	24	39.8	10	9	15	M10

DIN

Square Interlocks

ZZ07
ZZ17





Order ZZ07/17-22-16-20

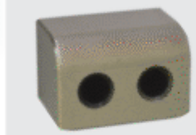
T4	R	T3	T2	T1	D	d	L4
12	6	11	6.9	20	11	6.6	7
14		13		22			
15	8	14		25			9
20		19	9	32	15	9	11
23	10	22	11	36	18	11	15
25		24	13	40	20	14	18

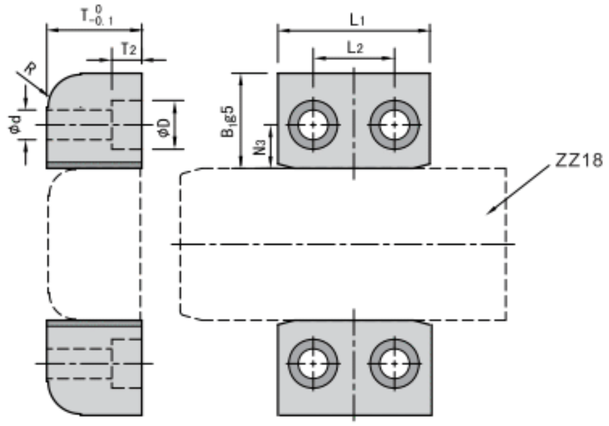
Code	L3	B3	B1	L2	B2	L1	@ /P
ZZ07/17-22-16- 20	15	26	40	22	16	20	
ZZ07/17-22-16- 40						40	
ZZ07/17-27-20- 25	19	31	45	27	20	25	
ZZ07/17-27-20- 50						50	
ZZ07/17-36-25- 32	27	35	50	36	25	32	
ZZ07/17-36-25- 63						63	
ZZ07/17-46-32- 40	35	45	63	46	32	40	
ZZ07/17-46-32- 80						80	
ZZ07/17-56-40- 50	40	60	85	56	40	50	
ZZ07/17-56-40-100						100	
ZZ07/17-66-50- 56	48	74	100	66	50	56	
ZZ07/17-66-50-112						112	

DIN

Square Interlocks

ZZ19

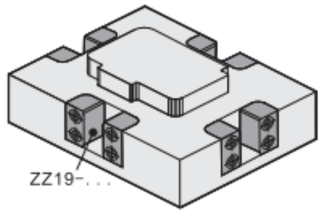


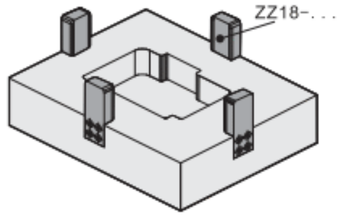


ZZ19-18-18-27

Code	R	T2	D	d	N3	L2	B1	T	L1	@ /P
ZZ19-18-18-27	6	5.7	10	5.5	8	12	18	18	27	
ZZ19-20-22-36		6.8	11	6.6	10	16	20	22	36	
ZZ19-25-30-46	8	9	15	9	11	24	25	30	46	
ZZ19-32-32-56	10	11	18	11	16	30	32	32	56	
Zz19-35-35-56	12						35	35		
ZZ19-40-50-76	15	13	20	13.5	17	40	40	50	76	
ZZ19-45-65-86					20	50	45	65	86	

Installation Diagram:



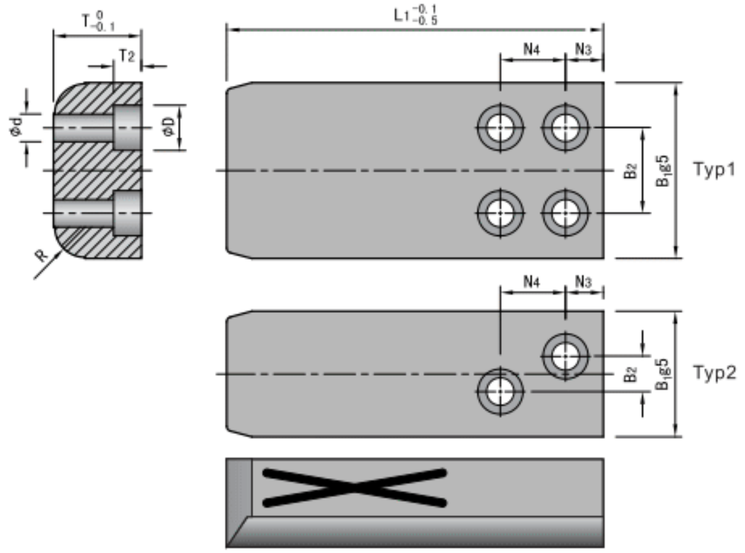


DIN

Square Interlocks

ZZ18

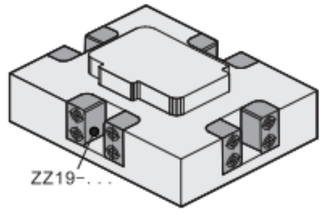


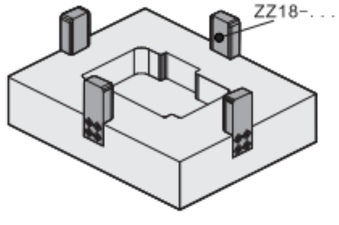


Order ZZ18-20-18-50

Code	B1	T	L1	D	d	B2	N4	N3	R	T2	Typ	@ /P
ZZ18- 20-18- 50	20	18	50	10	5.5	7	9	8	6	5.7	1	
ZZ18- 20-18- 75			75									
ZZ18- 20-18- 90			90									
ZZ18- 32-22- 70	32	22	70	11	6.6	14	18	9		6.8	2	
ZZ18- 32-22- 90			90									
ZZ18- 32-22-112			112									
ZZ18- 32-22-125			125									
ZZ18- 32-22-150			150									
ZZ18- 50-30- 90	50	30	90	15	9	24	21	12	8	9		
ZZ18- 50-30-125			125									
ZZ18- 50-30-150			150									
ZZ18- 50-30-175			175									
ZZ18- 50-30-200			200									
ZZ18- 63-32-112	63	32	112	18	11	30	26	15	10	11		
ZZ18- 63-32-150			150									
ZZ18- 63-32-175			175									
ZZ18- 63-32-200			200									
ZZ18- 63-32-250			250									
ZZ18- 80-35-112	80	35	112			44			12			
ZZ18- 80-35-150			150									
ZZ18- 80-35-175			175									
ZZ18- 80-35-200			200									
ZZ18- 80-35-250			250									
ZZ18-100-50-175	100	50	175	20	13.5	55	32	18	15	13		
ZZ18-100-50-200			200									
ZZ18-100-50-250			250									
ZZ18-120-65-200	120	65	200			75	35	20				
ZZ18-120-65-250			250									
ZZ18-120-65-300			300									

Installation Diagram:





MOLD PARTNER

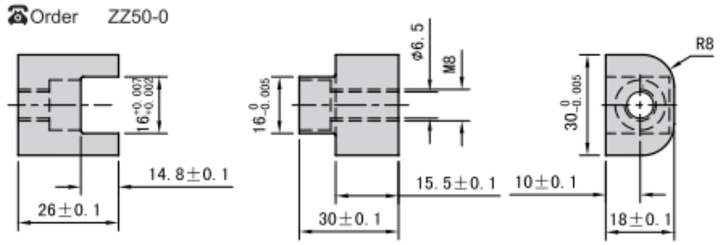
DIN

Square Interlocks

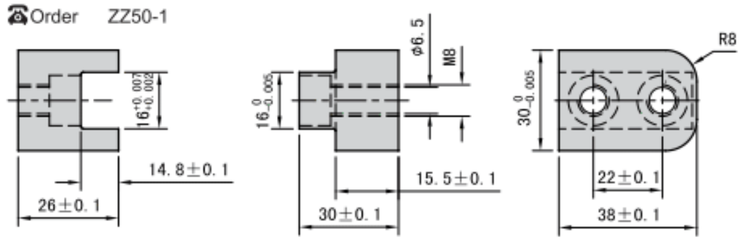
ZZ50



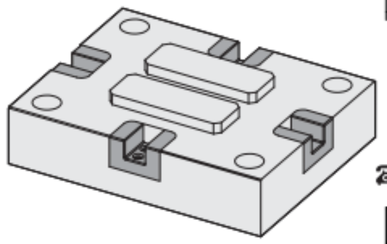
Order ZZ50-0



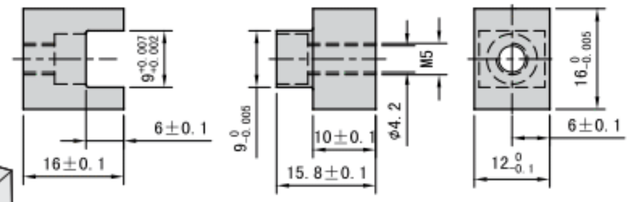
Order ZZ50-1

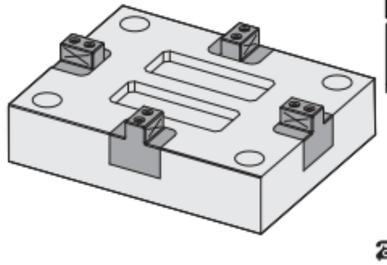


Installation Diagram:

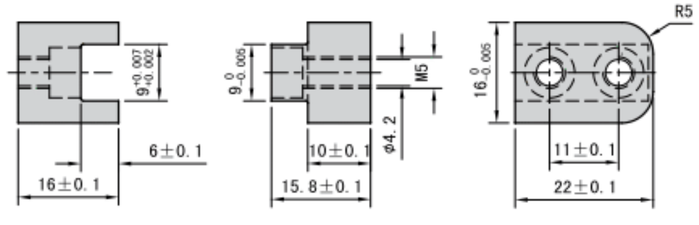


Order ZZ50-02





Order ZZ50-05



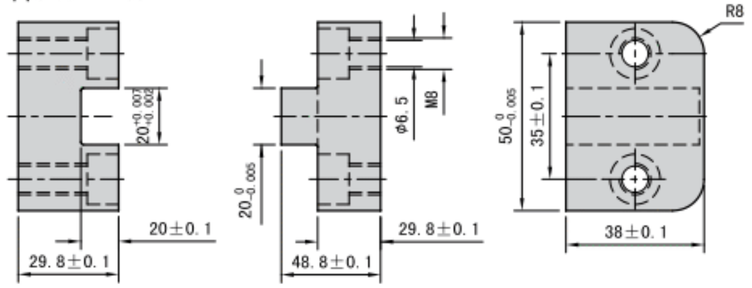
DIN

Square Interlocks

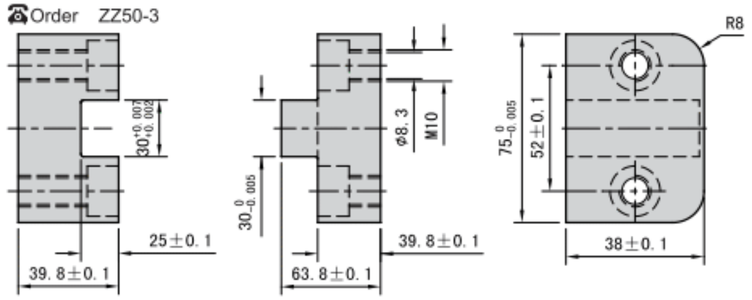
ZZ50



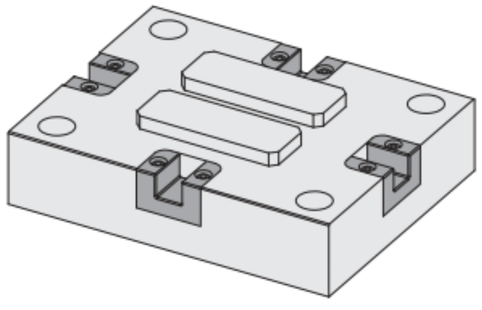
Order ZZ50-2

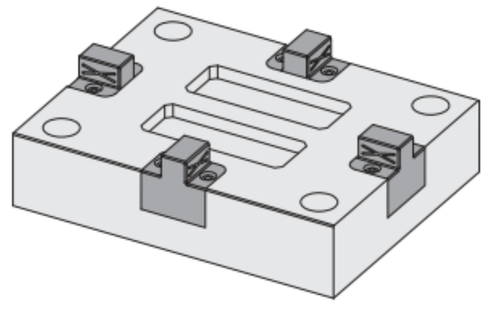


Order ZZ50-3



Installation Diagram:





MOLD PARTNER

DIN

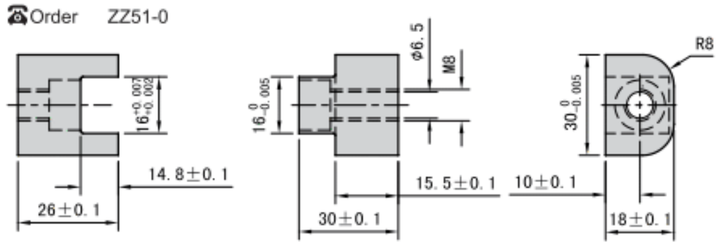
Square Interlocks

ZZ51

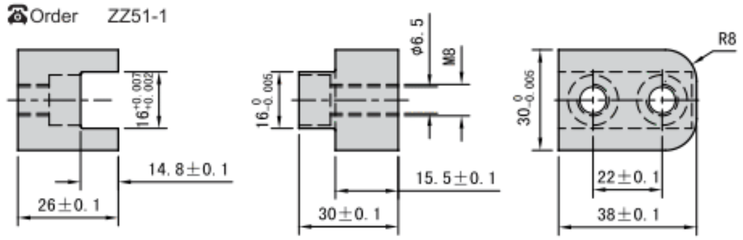




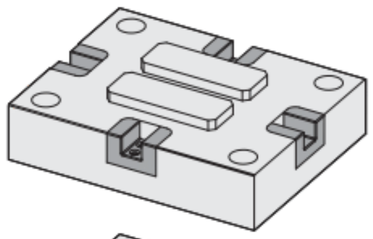
Order ZZ51-0



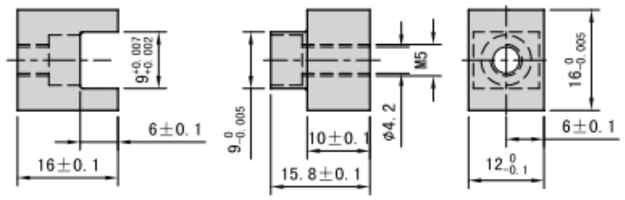
Order ZZ51-1

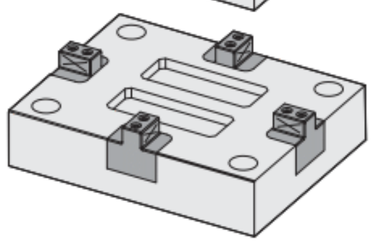


Installation Diagram:

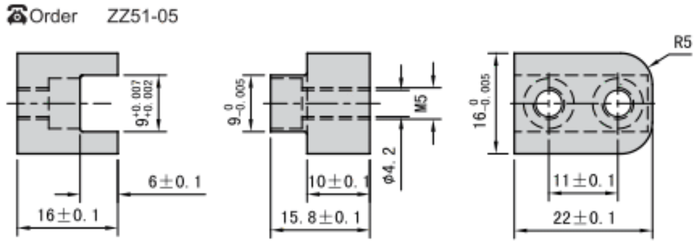


Order ZZ51-02

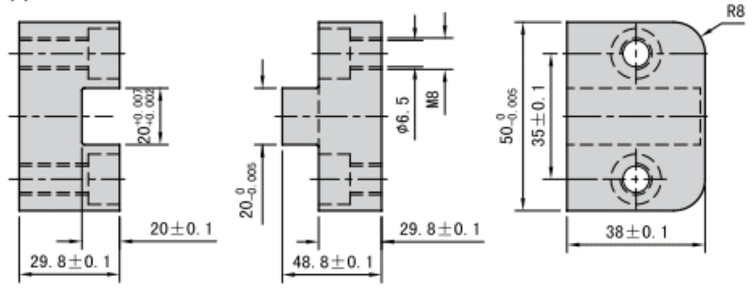




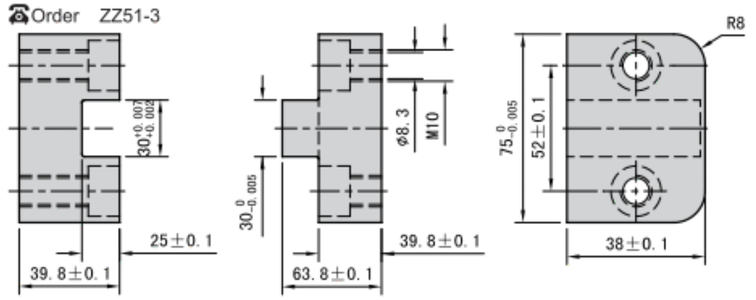
Order ZZ51-05



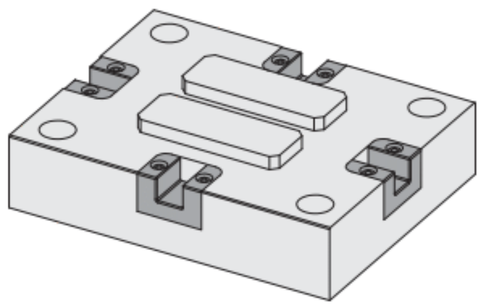
Order ZZ51-2

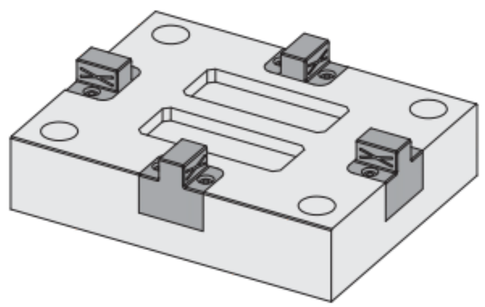


Order ZZ51-3



Installation Diagram:

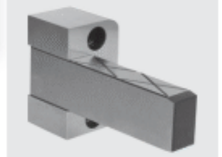


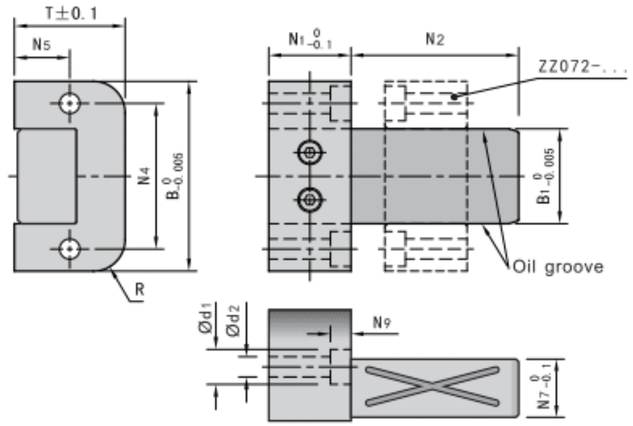


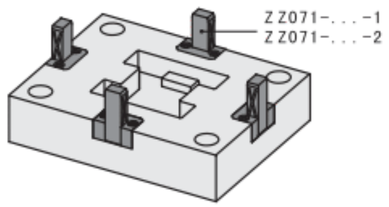
MOLD PARTNER

Square Interlocks

ZZ071-...-1





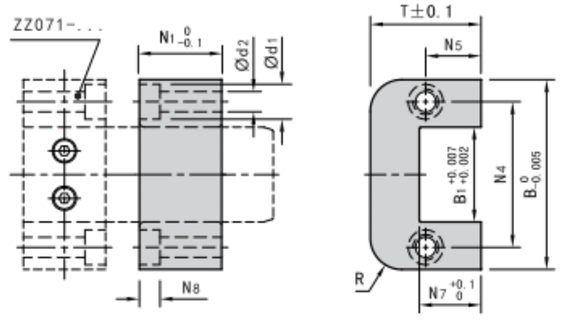


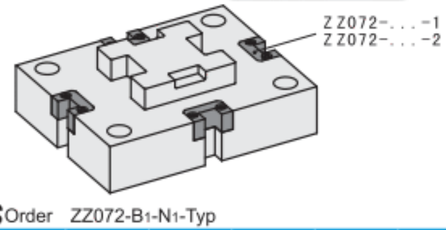
Order ZZ071-B1-N1-N2-Typ

B1	N1	N2	Typ	B	N4	N5	N7	N9	d1	d2	T	R	@ /P
20	22	22	1	47	34	13.5	13.5	6.8	11	6.6	27	6	
25	27	40		52	39	15	14.5				30	8	
32	36	63		67	49	20	19.5	9	15	9	40		
40	46	40 80		88	63	27	22.5	11	18	11	50	10	
50	56	50 100		100	75	27.5	24.5	13	20	14	55		
		56 112											

ZZ072-...-2





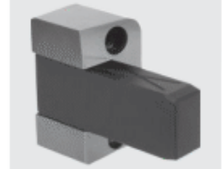


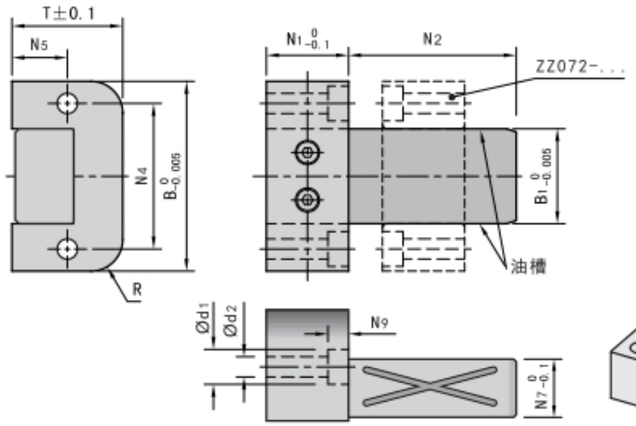
Order ZZ072-B1-N1-Typ

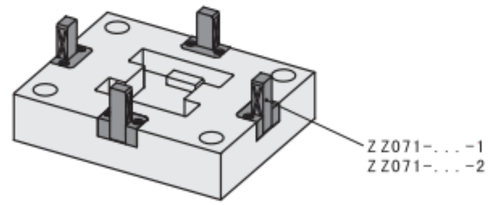
B1	N1	Typ	B	N4	N5	N7	N9	d1	d2	T	R	@ /P
20	22	2	47	34	13.5	13.5	6.8	11	6.6	27	6	
25	27		52	39	15	14.5				30	8	
32	36		67	49	20	19.5	9	15	9	40		
40	46		88	63	27	22.5	11	18	11	50	10	
50	56		100	75	27.5	24.5	13	20	14	55		

Square Interlocks

ZZ071-...-2





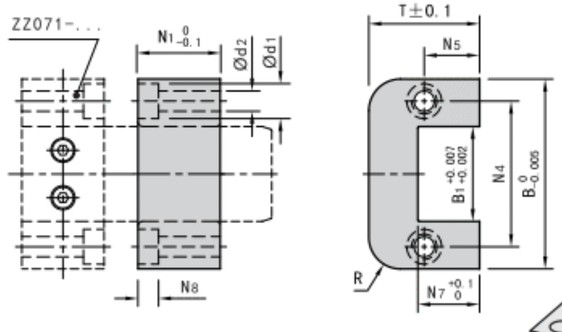


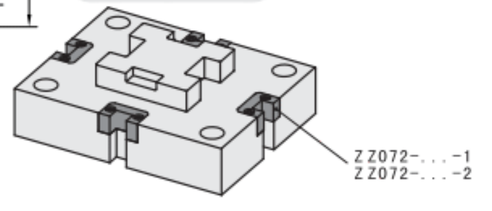
Order ZZ071-B1-N1-N2-Typ

B1	N1	N2	Typ	B	N4	N5	N7	N9	d1	d2	T	R	@ /P
20	22	22	2	47	34	13.5	13.5	6.8	11	6.6	27	6	
25	27	40		52	39	15	14.5				30	8	
32	36	63		67	49	20	19.5	9	15	9	40		
40	46	40 80		88	63	27	22.5	11	18	11	50	10	
50	56	50 100		100	75	27.5	24.5	13	20	14	55		
		56 112											

ZZ072-...-1







Order ZZ072-B1-N1-Typ

B1	N1	Typ	B	N4	N5	N7	N9	d1	d2	T	R	@ /P
20	22	1	47	34	13.5	13.5	6.8	11	6.6	27	6	
25	27		52	39	15	14.5				30	8	
32	36		67	49	20	19.5	9	15	9	40		
40	46		88	63	27	22.5	11	18	11	50	10	
50	56		100	75	27.5	24.5	13	20	14	55		

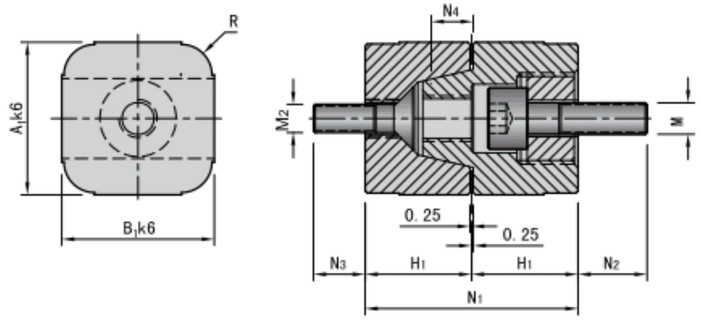
MOLD PARTNER

DIN

Square Interlocks

ZZ060



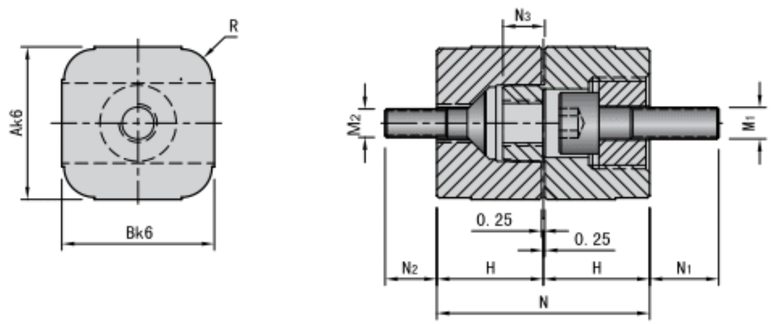


Order ZZ060-20×20

Code	R	H1	N1	N2	N3	N4	A1	B1	M	M2	@ /P
ZZ060-20×20	4	14	28	12	4	5.5	20	20	M 5	M4	
ZZ060-25×25	5	16	32	13	8	7.5	25	25	M 6	M5	
ZZ060-32×32	6	18	36	15	12	9.5	32	32	M 8	M6	
ZZ060-40×40		22.5	45	17	10	11.5	40	40	M10	M8	

ZZ08

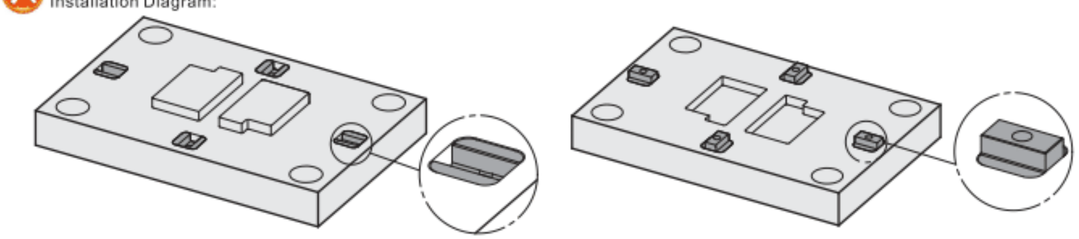




Order ZZ08-20×20

Code	R	N1	N2	N3	N	H	A	B	M1	M2	@ /P
ZZ08-20×20	4	12	4	3.5	28	14	20	20	M 5	M4	
ZZ08-25×25	5	13	8	5.5	32	16	25	25	M 6	M5	
ZZ08-32×32	6	15	12	7.5	36	18	32	32	M 8	M6	
ZZ08-40×40		17	10	9.5	45	22.5	40	40	M10	M8	

Installation Diagram:

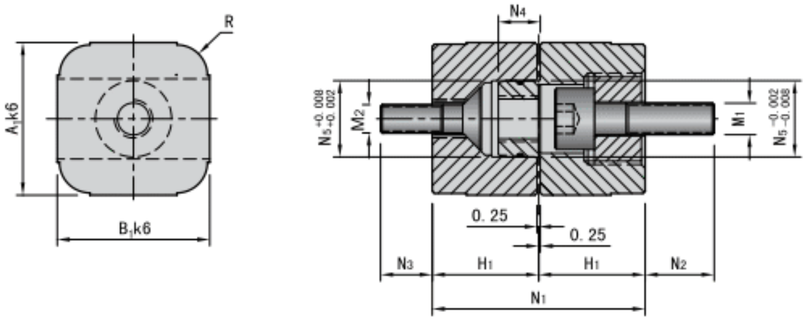


DIN

Square Interlocks

ZZ080

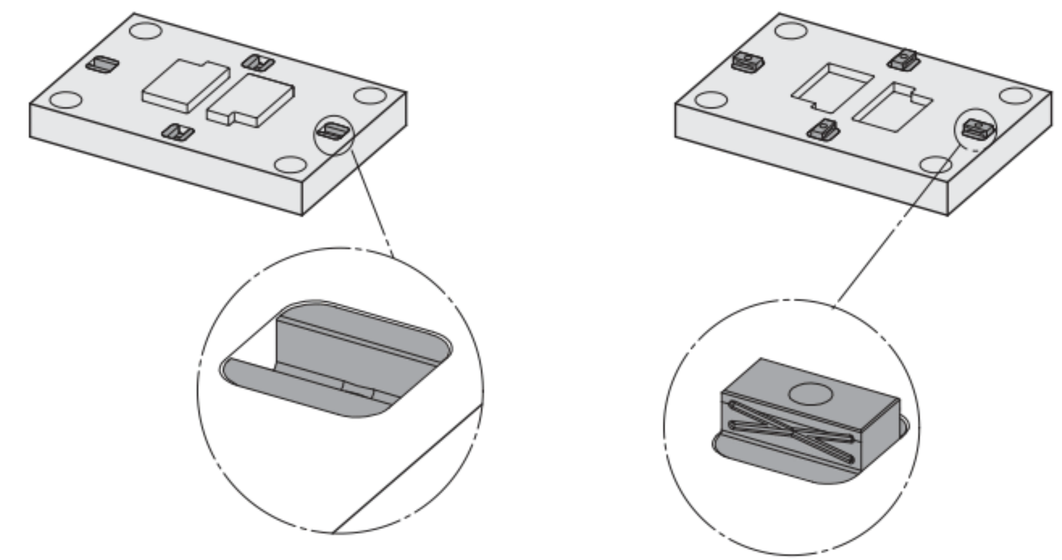




Order ZZ080-20×20

Code	R	H1	N1	N2	N3	N4	A1	B1	M1	M2	@ /P
ZZ080-20×20	4	14	28	12	4	5.5	20	20	M 5	M4	
ZZ080-25×25	5	16	32	13	8	7.5	25	25	M 6	M5	
ZZ080-32×32	6	18	36	15	12	9.5	32	32	M 8	M6	
ZZ080-40×40		22.5	45	17	10	11.5	40	40	M10	M8	

Installation Diagram:

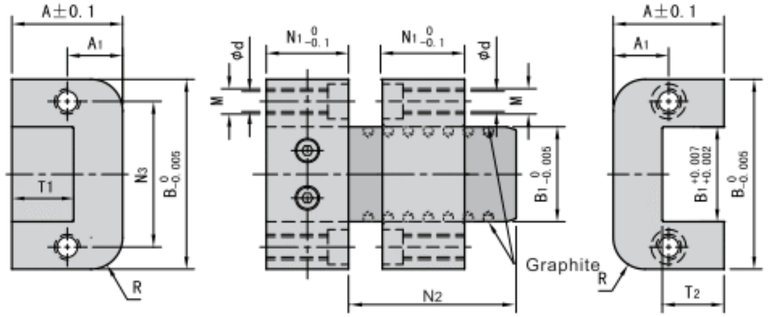


DIN

Square Interlocks

ZZ48-S



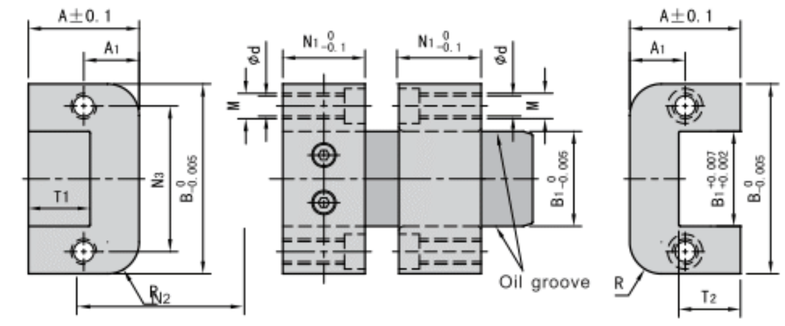


Order ZZ48-S-B1-N1-N2

B1	N1	N2	N3	A	B	d	A1	T1	T2	R	M	@ /P
16	20	20	30	22	45	6.8	11	11.5	12	8	M 8	
		40										
30	26	40	46	35	60		17.5	19.5	20	10		
		63										
48	36	32	74	46	100	10.3	23	25.5	26	12.5	M12	
		50										
		63										
		80										
77	56	50	114	60	150	14	30	35.5	36	16	M16	
		71										
		100										

ZZ46-S





Order ZZ46-S-B1-N1-N2

B1	N1	N2	N3	A	B	d	A1	T1	T2	R	M	@ /P
16	20	20	30	22	45	6.8	11	11.5	12	8	M 8	
		40										
30	26	40	46	35	60		17.5	19.5	20	10		
		63										
48	36	32	74	46	100	10.3	23	25.5	26	12.5	M12	
		50										
		63										
		80										
77	56	50	114	60	150	14	30	35.5	36	16	M16	
		71										
		100										

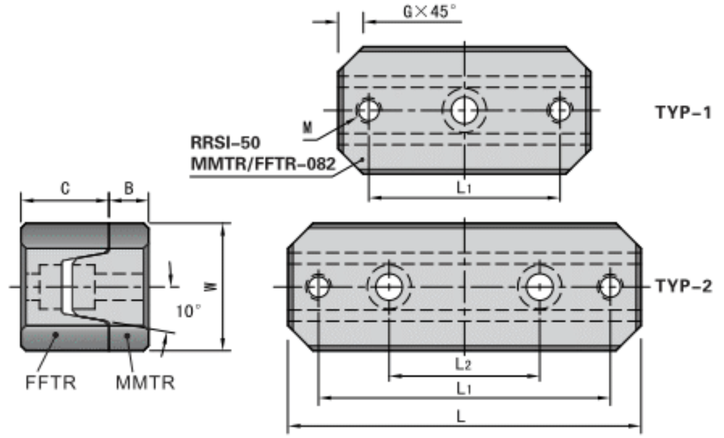
MOLD PARTNER

AISI

Square Interlocks

MMTR FFTR RRSI





Order MMTR/FFTR-082

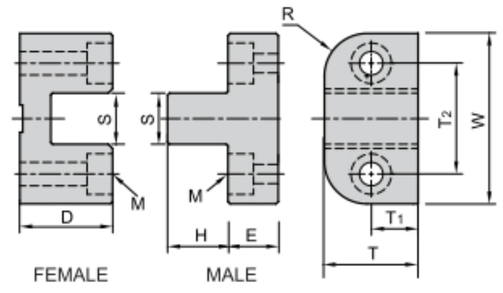
Code	Typ	G	L2±.005	L±.010	W +.000 -.001	MMTR B±.005	FFTR C±.005	M	L1	Mounting screws	@ /P
MMTR/FFTR-082	1		-	1.980	0.999	0.312	0.69	1/ 4-20	1.50	NO.10-24	
MMTR/FFTR-104	2	0.2	2.500	3.980	1.249	0.375	0.87		3.38	1/ 4-20	
MMTR/FFTR-126			4.000	5.980	1.499	0.500	1.00	5/16-18	5.25	5/16-18	

Order RRSI-50

Code	L 0 -0.1	L1	L2	W 0 -0.01	B 0 -0.01	C 0 -0.01	G	M	@ /P
RRSI- 50	50	36	-	25	8	17.5	5	M5	
RRSI-100	100	88	60	30	10	22		M6	
RRSI-150	150	132	100	40	13	25		M8	

TTL-P





Order TTL-P-100

Code	W +.0000 -.0004	T +.000 -.002	H +.000 -.010	S .0002 TOTAL	D +.000 -.002	R +.010 -.000 RADIUS	E +.000 -.002
TTL-P-100	1.0000	0.500	0.275	0.187	0.500	0.187	0.375
TTL-P-125	1.2500	0.625	0.375	0.250	0.625	0.250	0.500
TTL-P-150	1.5000	0.875	0.500	0.250	0.875	0.250	0.750
TTL-P-200	2.0000	1.000	0.625	0.375	1.125	0.375	0.750
TTL-P-300	3.0000	1.125	0.750	1.500	1.500	1.500	0.750

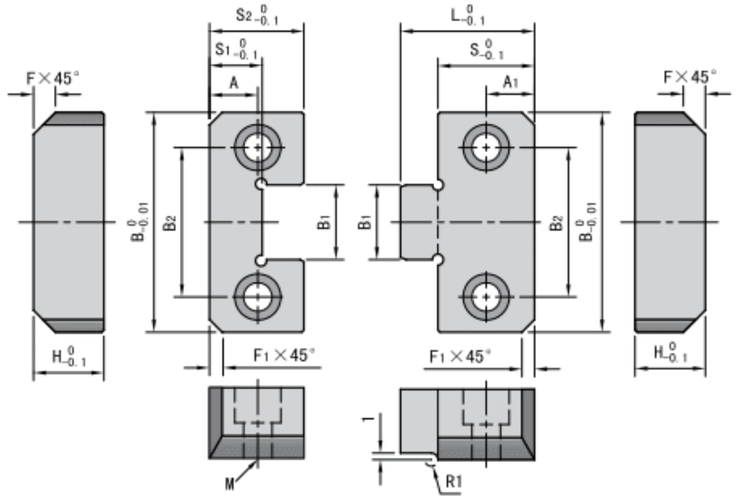
Code	OVERALL HEIGHT	T1	T2	M MALE(2)	M FEMALE(2)	@ /P
TTL-P-100	0.875	0.250	0.688	6-32×1/2	6-32×5/8	
TTL-P-125	1.125	0.312	0.875			
TTL-P-150	1.625	0.437	1.000	8-32×3/4	8-32×3/4	
TTL-P-200	1.875	0.7500	1.375	10-32×3/4	10-32× 1	
TTL-P-300	2.250	1.1250	2.250	1/4-20×3/4	1/4-20×1-1/2	

AISI

Square Interlocks

FFW45



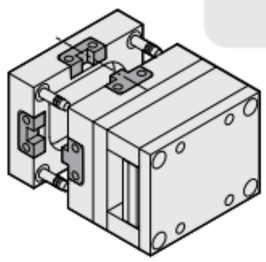


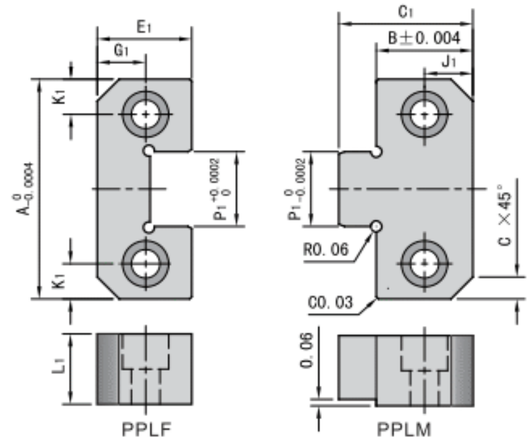
Order FFW45-40

Code	B	S	S1	S2	N	A	H	A1	B1	B2	F	F1	L	M
FFW45- 40	40	17	12	27	12	6	10	8.5	14	22	6.5×45°	2.5×45°	31	M 5
FFW45- 50	50		17	36	15	8.5	12.5		20	32		3 ×45°	35	M 6
FFW45- 75	75	22	22	46	20	11	20	11	31.5	45	11 ×45°		45	M10
FFW45-100	100	27	27	56	25	13.5	25	13.5	40	62	13 ×45°	5 ×45°	55	M12
FFW45-125	125	36	36	66		18	31.5	18	50	87			65	

PPLM PPLF







Order PPLM/PPLF-0001

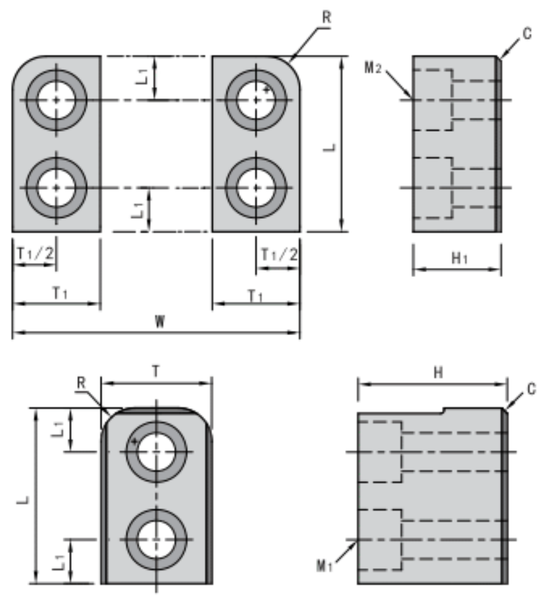
Code	A	B	C1	P1	E1	Mounting screws	J1	K1	L1	C	@ /P
PPLF-0001	1.5000	0.870	1.18	0.5000	0.870	1/4-20×3/4	0.437	0.281	0.620	0.19	
PPLM-0001											
PPLM-0002	2.0000			0.6800				0.375			
PPLF-0002											
PPLF-0003	3.0000	1.360	1.910	1.0000	1.370	3/8-16×1	0.688	0.688	0.745		
PPLM-0003											
PPLM-0004	4.0000	1.870	2.640	1.3750	1.870		0.875	0.875	0.625	0.50	
PPLF-0004											
PPLF-0005	5.0000			1.7500		1/2-13×1 1/4			1.120		
PPLM-0005								0.750			

AISI

Square Interlocks

GGL GGLM





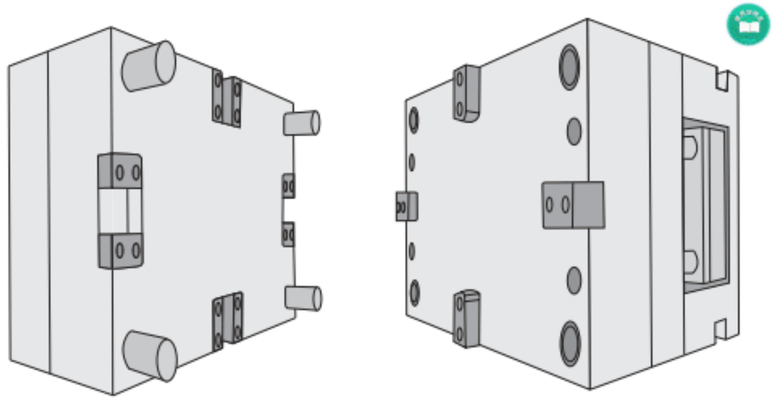
Order GGL-100-150

Code	L +.000 -.010	C +.0000 -.0003	H1 +.000 -.005	T +.0000 -.0003	H +.00 -.01	S ±.01	R Pocket Radius	C Chamfer	M1	M2	@ /P
GGL-100-150	1.000	0.500	0.500	0.500	0.85	0.25	0.187	0.03	#10-32×1"	#10-32×5/8"	
GGL-100-250	1.500	0.750	0.750	0.750	1.35	0.31	0.250	0.06	#1/4-20×1-1/2"	#1/4-20×7/8"	
GGL-100-350	2.000	1.000	1.000	1.000	1.73	0.44	0.375	0.06	#3/8-16×2"	#3/8-16×1-1/4"	
GGL-100-450	2.500	1.250	1.250	1.250	2.11	0.56	0.500	0.09	#1/2-13×2-1/4"	#1/2-13×1-1/2"	

Order GGLM25-45

Code	L +.00 -.25	W	L1 +.00 -.01	H1 +.00 -.12	T +.00 -.01	H +.0 -.2	L1±.2	R Pocket Radius	C Chamfer	M1	M2	@ /P
GGLM-25-45	25	45	15	15	15	24	7	4	1	M:M4×25	F:M4×14	
GGLM-40-65	40	65	20	20	25	34	10	9	1.5	M:M5×35	F:M5×22	
GGLM-50-90	50	90	25	25	40	44				M:M6×45	F:M6×30	

Installation Diagram:



Installation Guidelines:

- Provides positive alignment for molds with interlocking cavities and core,Present the core of wear and damage in.
- Recommended 4sets per mold,mount on centerline on all four sides mold closed.

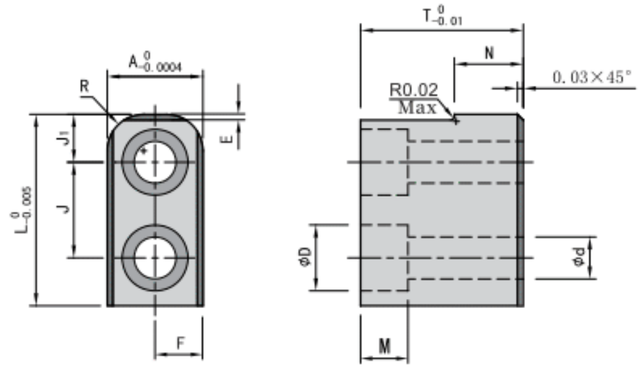
MOLD PARTNER

AISI

Square Interlocks

PPLL

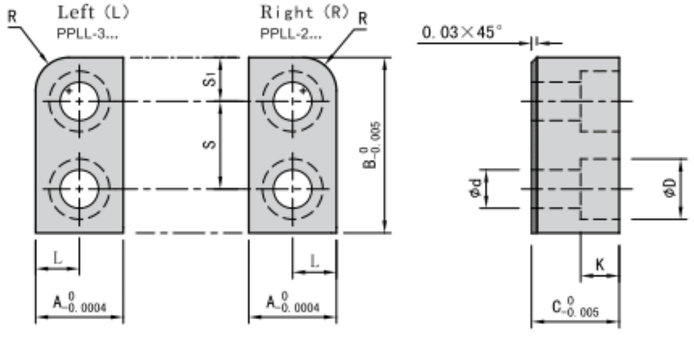




Order PPLL-1001

Code	A	L	T	E	F	R	J1	J	d	D	M	N	@ /P
PPLL-1001	0.4998	1.000	0.85	0.030	0.250	0.19	0.250	0.500	0.219	0.344	0.22	0.36	
PPLL-1002	0.9998	1.500	1.35	0.060	0.500	0.25	0.312	0.875	0.281	0.406	0.28	0.61	
PPLL-1003	1.4998	2.000	1.72	0.060	0.750	0.38	0.438	1.125	0.406	0.594	0.41	0.73	
PPLL-1004	1.9998	2.500	2.10	0.060	1.000	0.50	0.562	1.375	0.531	0.781	0.53	0.86	

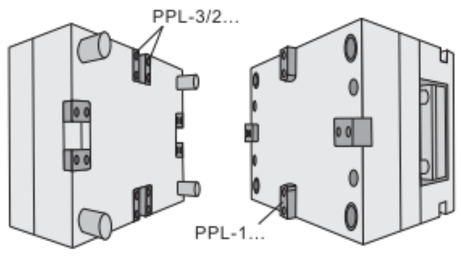




Order PPLL-3001/2001

Code		A	B	C	R	S1	S	d	D	K	L	@ /P
PPLL-3001	PPLL-2001	0.5000	1.000	0.500	0.19	0.250	0.500	0.219	0.344	0.22	0.250	
PPLL-3002	PPLL-2002	0.7500	1.500	0.750	0.25	0.312	0.875	0.281	0.406	0.28	0.375	
PPLL-3003	PPLL-2003	1.0000	2.000	1.000	0.38	0.438	1.125	0.406	0.594	0.41	0.500	
PPLL-3004	PPLL-2004	1.2500	2.500	1.250	0.50	0.562	1.375	0.531	0.781	0.53	0.625	

Installation Diagram:



Installation Guidelines:

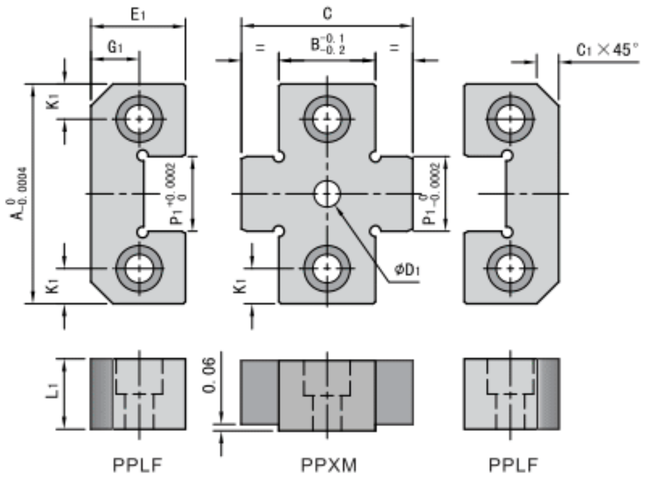
- Provides positive alignment for molds with interlocking cavities and core,Present the core of wear and damage in.
- Recommended 4sets per mold,mount on centerline on all four sides mold closed.

AISI

Square Interlocks

PPLF PPXM

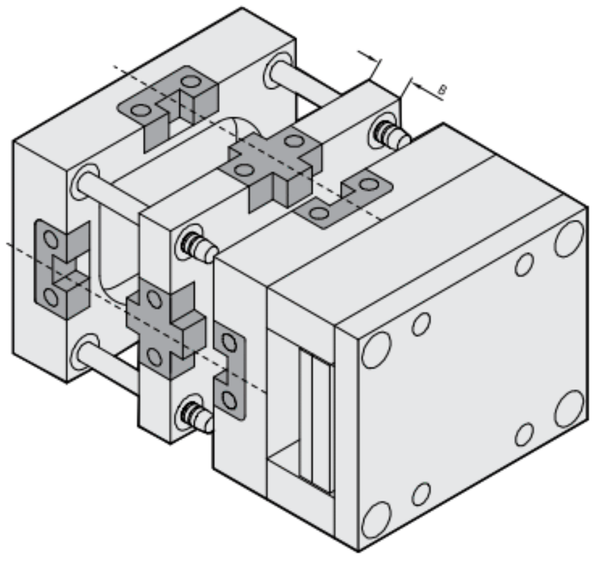


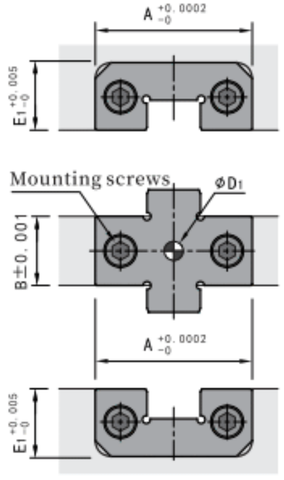


Order PPLF-0001/PPXM-1001

Code		B	A	C	P	E1	Mounting screws	G1	K1	L1	C1	ØD1	@ /P
PPLF-0001 (2 REQ'D)	PPXM1001	0.875	1.5000	1.470	0.5000	0.870	1/4-20×3/4	0.281	0.281	0.620	0.19	0.2500	
	PPXM2001	1.375		1.970									
PPLF-0002 (2 REQ'D)	PPXM1002	0.875	2.0000	1.470	0.6800			0.375	0.375				
	PPXM2002	1.375		1.970									
PPLF-0003 (2 REQ'D)	PPXM1003	0.875	3.0000	1.950	1.0000	1.370	3/8-16× 1	0.688		0.745		0.3750	
	PPXM2003	1.375		2.450									
PPLF-0004 (2 REQ'D)	PPXM2004		4.0000	2.890	1.3750	1.870		0.875	0.625		0.50		
	PPXM3004	1.875		3.390									
PPLF-0005 (2 REQ'D)	PPXM3005	1.375	5.0000	2.890	1.7500		1/2-13×1 1/4		0.750	1.120		0.5000	
	PPXM2005	1.875		3.390									

Installation Diagram:



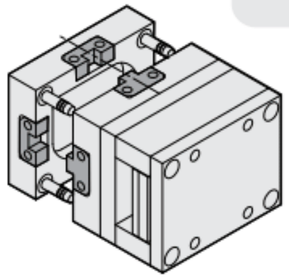


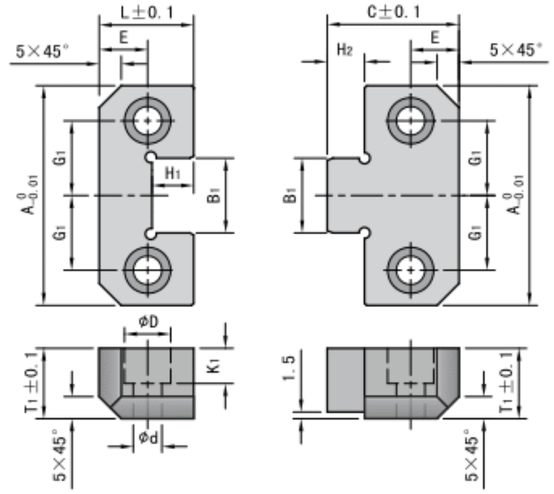
AISI

Square Interlocks

SSSI



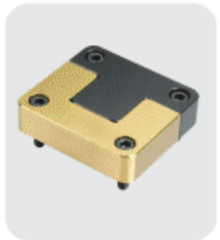


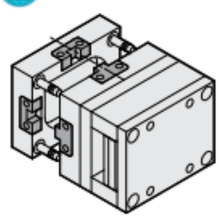


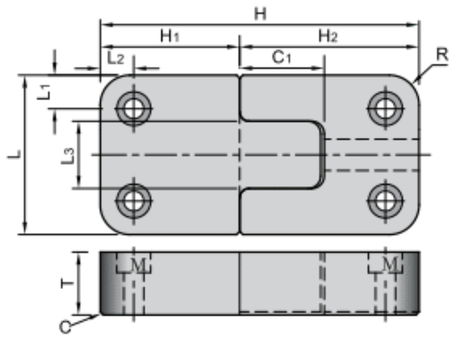
Order SSSI-50

Code	A	G1	E	L	T1	B1	C	d	D	H2	H1	K1	@ /P
SSSI- 50	50	17	11	21.5	16	17	30	6.5	10.5	8.5	9.5	8	
SSSI- 75	75	25	18	36	19	25	50	10.5	16.5	14	15	12	
SSSI-100	100	35	22	45		35	65			20	21		
SSSI-125	125	42			25	45							

SSL SSLM







Order SSL-37-100

Code	T+.000 -.002	L+.0000 -.0004	H2+.000 -.002	H1+.000 -.002	C1	L3+.0001 -.0002	H+.000 -.004	R Pocket Radius	L1/L2 ±.01	C Chamfer	Mounting screws	@ /P
SSL- 37-100	0.375	1.000	1.125	0.875	0.62	0.500	2.000	0.187	0.250	0.015	#10-32×1/2"	
SSL- 50-125	0.490	1.250	0.875		0.68	0.563	1.750			0.03	# 8-32×5/8"	
SSL- 50-150	0.500	1.500			0.56						# 8-32×5/8"	
SSL- 50-200		2.000	1.375		0.86	0.750	2.250		0.312		#10-32×5/8"	
SSL- 75-300	0.750	3.000	1.875		1.18	1.250	2.750	0.250	0.375		1/4-20×3/4"	
SSL-100-400	1.000	4.000	2.375	1.375	1.43	1.500	3.750	0.500	0.500		3/8-16×1"	
SSL-125-500	1.250	5.000	2.875		1.75	2.000	4.250		0.625		1/2-13×1-1/4"	
SSL-150-600	1.500	6.000			1.87	2.500					1/2-13×1-1/2"	

Order SSLM-16-50

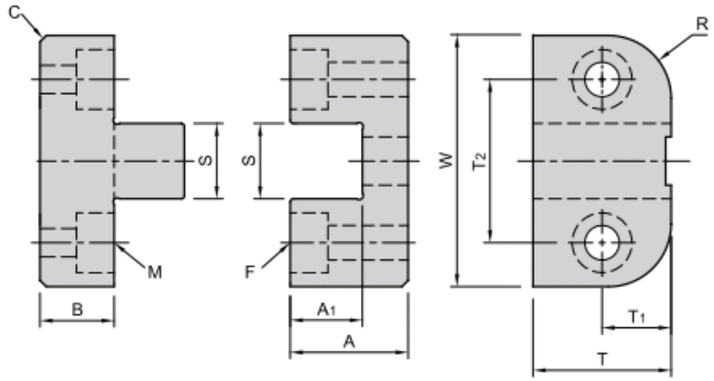
Code	T+.00 -.05	L+.00 -.01	H2+.00 -.05	H+.00 -.05	C1	L2+.002 -.005	H+.00 -.01	C	R Pocket Radius	L1±.25	L2±.25	C	@ /P
SSLM-16- 50	16	50	21.5	21.5	13	17	43	6.5	5	8	11	0.8	
SSLM-19- 75	19	75	36	36	22.5	25	72	10.5		12.5	18		
SSLM-19-100		100	45	45	30	35	90			15	22		
SSLM-25-125	25	125			28.7					20.5			

AISI

Square Interlocks

TTL TTLM





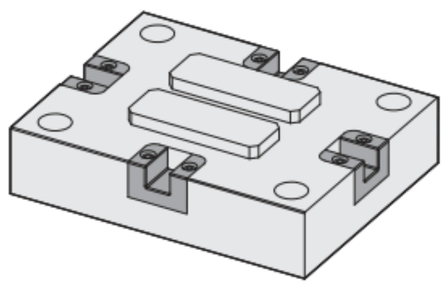
Order TTL-62-125

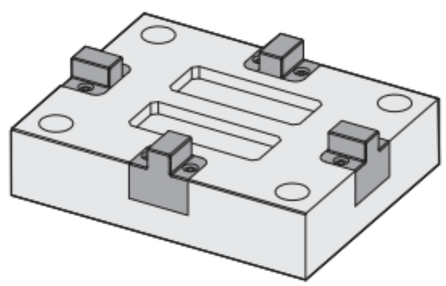
Code	T+0 -0.002	W+0 -0.0004	A+0 -0.002	B+0.000 -0.002	A1	S0.0001 0.0002 Clearance Per Side	T1±.01	T2±.01	R Pocket Radius	C Chamfer	Mounting screws	@ /P
TTL- 62-125	0.625	1.250	0.625	0.500	0.41	0.438	0.312	0.875	0.250	0.03	M:# 6-32×5/8" F:# 6-32×3/4"	
TTL- 75-125	0.750				0.38		0.375				M:# 8-32×5/8" F:# 8-32×3/4"	
TTL- 87-150	0.875	1.500	0.875	0.750	0.57	0.500	0.437	1.000			M:# 8-32×7/8" F:# 8-32×1"	
TTL-100-150	1.000			0.375			0.500				M:#10-32×1/2" F:#10-32×1"	
TTL-100-200		2.000	1.125	0.750	0.75	0.750		1.375	0.375	0.04	M:#10-32×1" F:#10-32×1-1/8"	
TTL-112-200	1.125		0.875	0.625	0.50		0.563				M:#1/4-20×3/4" F:1/4-20×1"	
TTL-112-300		3.000	1.500	0.750	0.87	1.125		2.250	0.500		M:#1/4-20×7/8" F:1/4-20×1-5/8"	
TTL-150-250	1.500	2.500	1.375	0.625	0.85	1.000	0.750	1.750	0.375		M:#1/4-20×3/4" F:1/4-20×3/4"	
TTL-175-300	1.750	3.000	1.250	0.875	0.75	1.125	0.875	2.250	0.500	0.06	M:#5/16-18× 1" F:5/16-18×1-1/4"	
TTL-200-350	2.000	3.500	1.750	0.750	1.07	1.500	1.000	2.500			M:#3/8-16×7/8" F:3/8-16×2"	

Order TTLM-26-35

Code	W+.00 -.01	T+.00 -.05	A+.00 -.05	B+.00 -.05	A1	S0.002 0.005 Clearance Per Side	T1±.25	T2±.25	R Pocket Radius	C Chamfer	Mounting screws	@ /P
TTLM-26- 35	35	26	25	15	17	11	13	23	8	1	M:M 5×16 F:M 5×25	
TTLM-30- 45	45	30				15	15	30			M:M 6×18 F:M 6×25	
TTLM-36- 55	55	36	30	20	21.5	20	18	37.5		1.5	M:M 8×22 F:M 8×35	
TTLM-36- 75	75		35		26	30		52			M:M10×25 F:M10×35	
TTLM-45-100	100	45	60		42	40	22.5	70			M:M10×25 F:M10×65	

Installation Diagram:





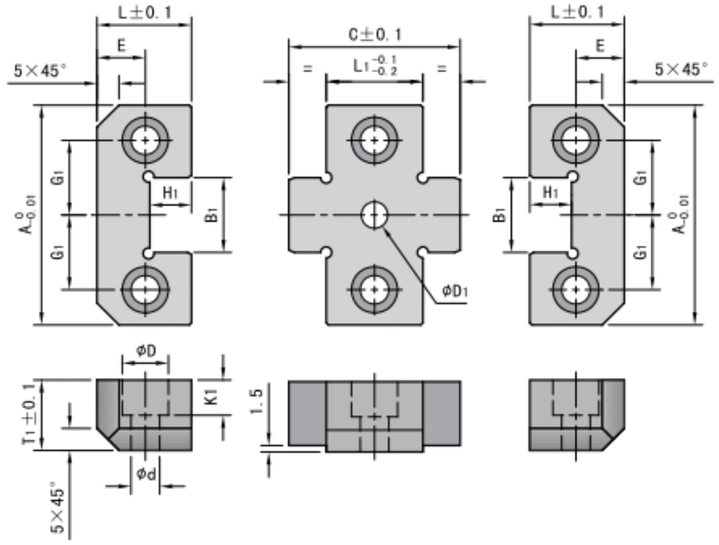
MOLD PARTNER

AISI

Square Interlocks

XXSI

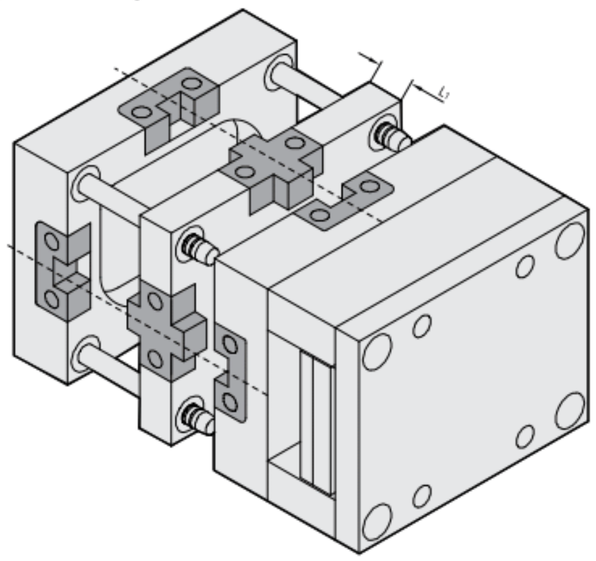


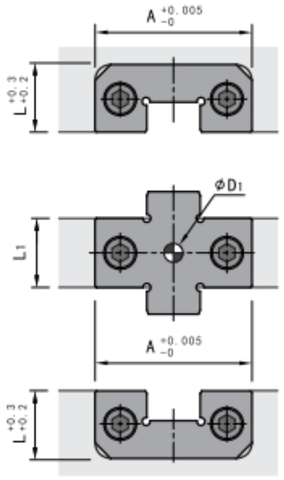


Order XXSI-5026

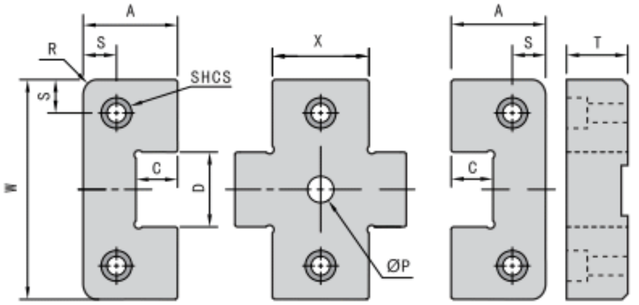
Code	A	L1	B1	C	D	d	E	G1	H1	K1	L	T1	ØD1	@ /P
XXSI- 5026	50	26	17	43	10.5	6.5	11	17	9.5	8	21.5	16	6	
XXSI- 5036		36		53										
XXSI- 7526	75	26	25	51	16.5	10.5	18	25	15	12	36	19	10	
XXSI- 7536		36		61										
XXSI-10036	100		35	71			22	35	21		45			
XXSI-10046		46		81										
XXSI-12536	125	36	45	71				42				25	12	
XXSI-12546		46		81										

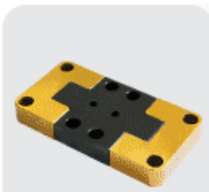
Installation Diagram:

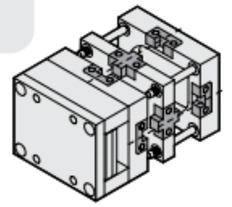




SSLX



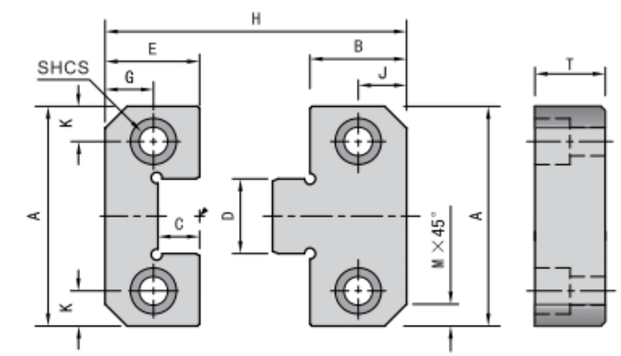




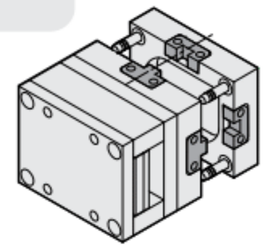
Order SSLX-50-87

Code	T +0 -0.002	W +0 -0.0004	X +0 -0.005	A +0 -0.002	C±0.01	D 0.0001 0.0002	R	S±0.01	P +0.001 -0	SHCS	@ /P
SSLX- 50- 87	0.500	2.000	0.875	1.375	0.65	0.75	0.187	0.312	0.250	#10-32×5/8"	
SSLX- 75-137	0.750	3.000	1.375	1.875	1.12	1.250	0.250	0.375	0.313	1/4-20×3/4"	
SSLX- 75-187			1.875								
SSLX-100-137	1.000	4.000	1.375	2.375			0.500	0.500	0.375	3/8-16×1	

SSLS SSLMS







Order SSLS-62-150

Code	T +0 -0.002	A +0 -0.0004	E +0 -0.0008	B +0 -0.0008	C	D 0.0001 0.0002	H +0 -0.002	M	J±0.01	G±0.01	K±0.01	SHCS	@ /P
SSLS- 62-150	0.620	1.500	0.870	0.870	0.33	0.500	1.74	0.19	0.437	0.281	0.281	1/4-20×3/4"	
SSLS- 62-200		2.000				0.680				0.375	0.375		
SSLS- 75-300	0.745	3.000	1.370	1.360	0.57	1.000	2.73	0.38	0.688	0.688		3/8-16×1"	
SSLS- 75-400		4.000	1.870	1.870	0.79	1.375	3.74	0.50	0.875	0.875	0.625		
SSLS-112-500	1.120	5.000				1.750					0.750	1/2-13×1-1/4"	

Order SSLMS-13-38

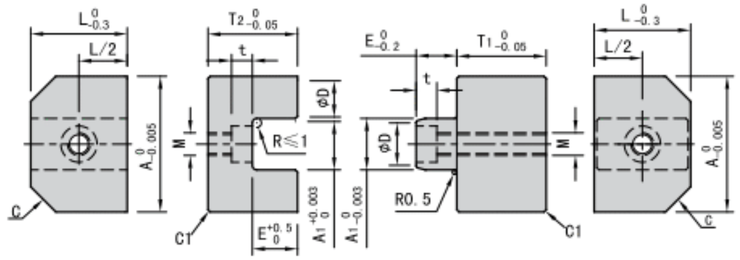
Code	T +0 -0.05	A +0 -0.01	E +0 -0.02	B +0 -0.02	C	D 0.002 0.005	H +0 -0.04	M	J/G±0.2	K±0.2	SHCS	@ /P
SSLMS-13- 38	13	38	22	22	8.5	12	44	5	7	8	M 5-0.8×15	
SSLMS-16- 50	16	50	21.5	21.5	9.5	17	43		11	8	M 6-1.0×18	
SSLMS-19- 75	19	75	36	36	15	25	72	8	18	12.5	M10-1.5×20	
SSLMS-19-100		100				35				15		
SSLMS-25-125	25	125	45	45	21	45	90	10	22	20.5	M10-1.5×25	

JIS
Square Interlocks

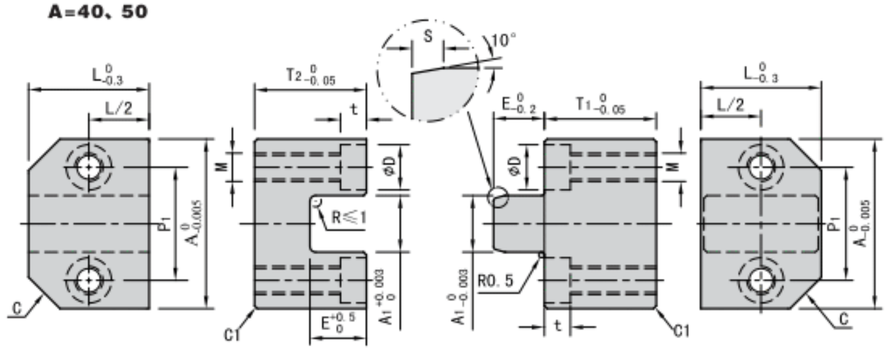
VVTTSB



A=20、25、30



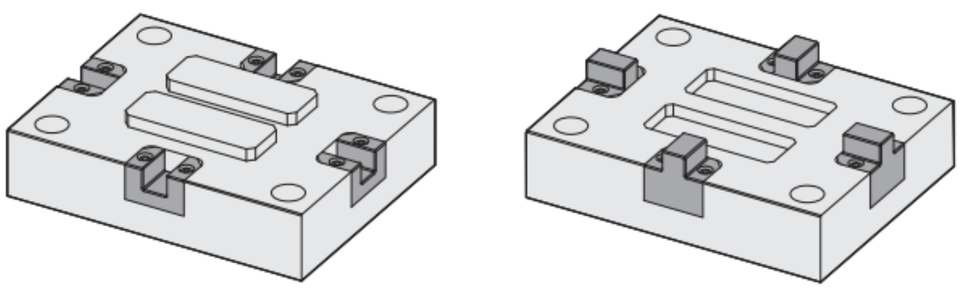
A=40、50



Order VVTTSB-A-E

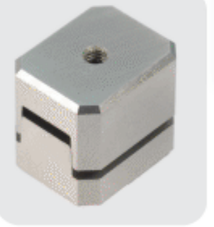
A	E	C	D	A1	L	t	T	T1	T2	S	P1	M	@ /P
20	6	4	-	10	12	3.5	23	8	14	0.5	-	M4	
25	8			12	15	4.5	28	10	17	1		M5	
30		6					32	12	19		28		
40	10		28	15	20		43	17	25	2			
50	15		35	20	25	5.5	46		28		35	M6	

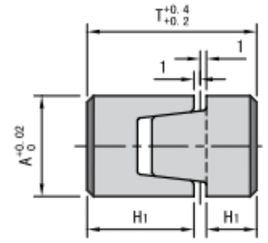
Installation Diagram:

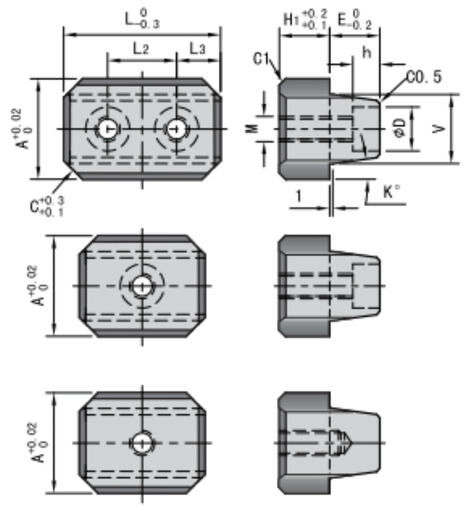


JIS
Square Interlocks

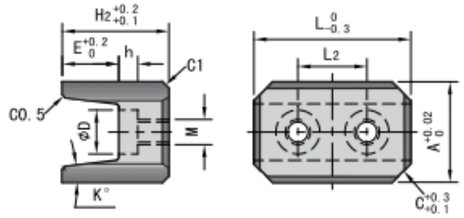
TTBS



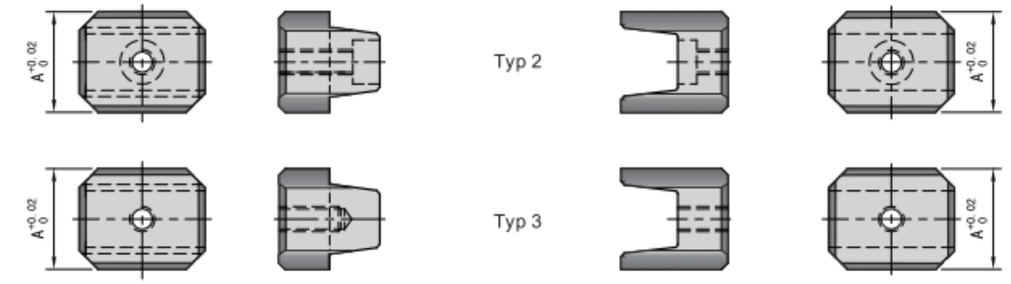




Typ 1



Typ 2



Typ 3

Note: When L≥60 , The tolerance is -0.2/-0.5

Order TTBS-A-L-K

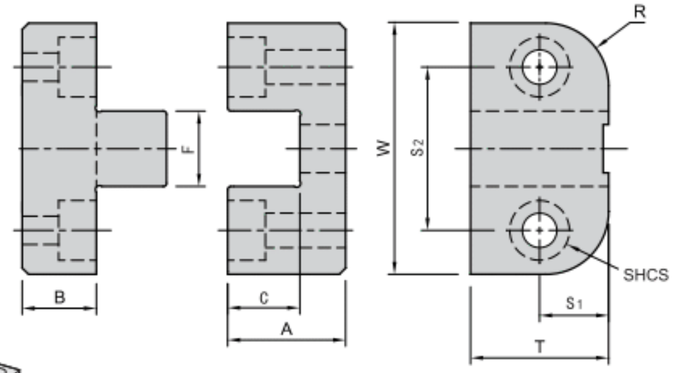
L	Typ	K°	C	V	E	H	H1	H2	L3	L2	D	h	A	Mounting screws	M	@ /P
15			2	7	5						-	-	12	M3	M 3	
20	3															
25				9					-	-			16	M4		
20	2				7	23	7	14							M 4	
	1															
25	2			12							6.5	3.5	20	M3		
30	1	1							7.5	15						
40	2								10	20						
20	1								-	-						
25		3		15							8	5	25	M4	M 5	
30					8	28	9	17	7.5	15						
40									10	20						
25									-	-						
30		5	3	17		32	10	20	7.5	15	9	6	30	M5	M 6	
									10	20						
40									7.5	15						
				20	10	35	11	22		20			35	M6		
30	1								10	30						
40										20						
50				25	15	45	14	29		30	11	7	45	M6	M 8	
75									17.5	40						
100		3							20	60						
60									15	30						
90		5		35	20	60	19	39	20	50	14	9	65	M8	M10	
120									30	60						

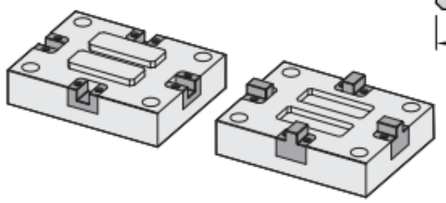
AISI

Square Interlocks

BBGT





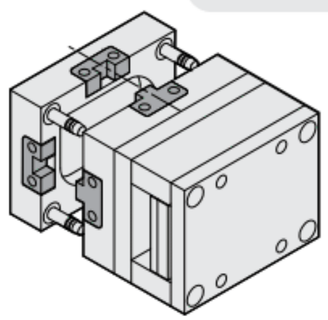


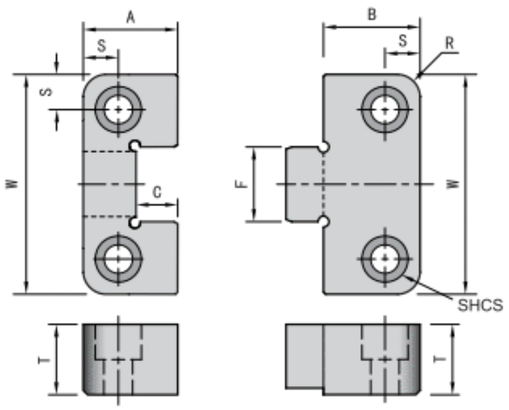
Order BBGT-1250

Code	$W^{+0}_{-0.0004}$	$A^{+0}_{-0.002}$	$B^{+0}_{-0.002}$	C±0.01	$F^{0.0001}_{0.0002}$	$T^{+0}_{-0.002}$	R	S1±0.01	S2±0.01	SHCS SIZES		@ /P
BBGT-1250	1.250	0.625	0.500	0.41	0.438	0.625	0.250	0.312	0.875	M:# 6-32×5/8"	F:# 6-32×3/4"	
BBGT-1500	1.500	0.875		0.53	0.500	0.875		0.437	1.000	M:# 8-32×7/8"	F:# 8-32×1"	
BBGT-2000	2.000	1.125	0.750	0.66	0.750	1.000	0.375	0.500	1.375	M:#10-32×1"	F:#10-32×1-1/4"	
BBGT-3000	3.000	1.500		0.78	1.125	1.125		0.562		M:#1/4-20×1"	F:#1/4-20×1-3/4"	
BBGT-3000S		1.250	0.875	0.75		1.750	0.500	0.875	2.250	M:#5/16-18×1-1/8"	F:#5/16-18×1-5/8"	
BBGT-3500	3.500	1.750	0.750	1.00	1.500	2.000		1.000		M:#3/8-16×1"	F:#3/8-16×2"	

BBGS







Order BBGS-1500

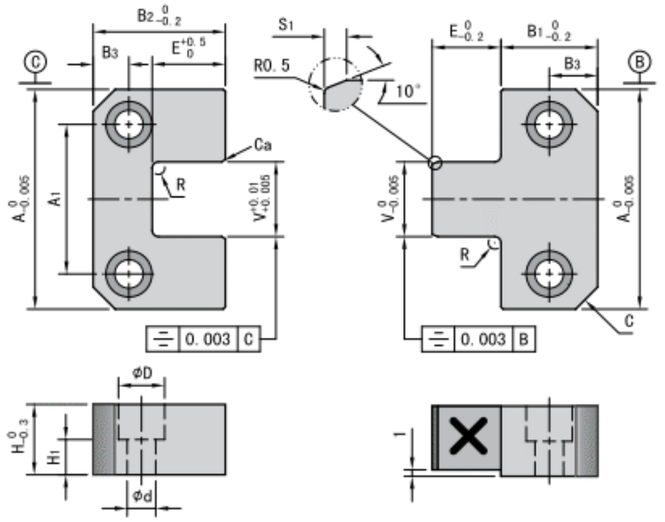
Code	$W^{+0}_{-0.0004}$	$A^{+0}_{-0.002}$	$B^{+0}_{-0.002}$	C	$F^{0.0001}_{0.0002}$	$T^{+0}_{-0.002}$	R	S±0.01	SHCS SIZES	@ /P
BBGS-1500	1.500	0.875	0.875	0.56	0.563	0.500	0.187	0.250	# 8-32×5/8"	
BBGS-2000	2.000	1.375		0.66	0.750			0.312	#10-32×5/8"	
BBGS-3000	3.000	1.875		1.13	1.250	0.750	0.250	0.375	1/4-20×3/4"	
BBGS-4000	4.000	2.375	1.375	1.25	1.500	1.000	0.500	0.500	3/8-16×1"	
BBGS-5000	5.000	2.875		1.63	2.000	1.250		0.625	1/2-13×1-1/4"	

JIS

Square Interlocks

TTSSB

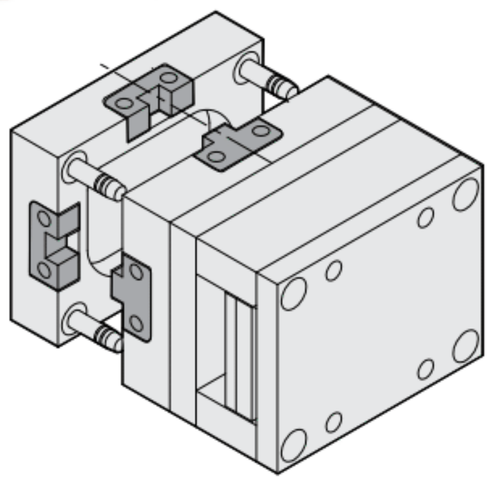


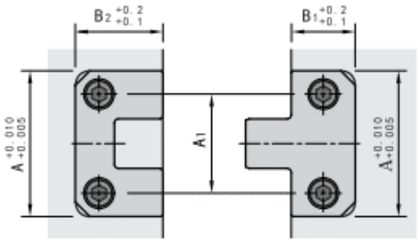


Order TTSSB-A-E

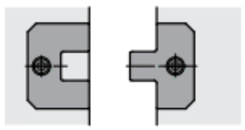
C	E	A	V	B1	B2	S1	R	Ca	A1	B3	D	d	H	H1	Mounting screws	@ /P
1	6	16	7	11	17	1	1	0.5	-	5	8	4.5	8	3	M 4	
		20	8													
	8	25	10		19											
5	20	30	12	14	22	2	2	1	16	6	9.5	5.5	10	4	M 5	
					34											
	10	40	15	18	28	1	1	0.5	22	7	11	6.6	13	6	M 6	
	25				43											
	20	60	25	30	50	2	2	1	36	12	14	8.6	20	11	M 8	
	35				65											
	30	80	30	40	70				52	14	18	11	25	14	M10	
	45				85											

Installation Diagram:





Note: When A=16,1 mounting bolt hole,Reference the below drawings!



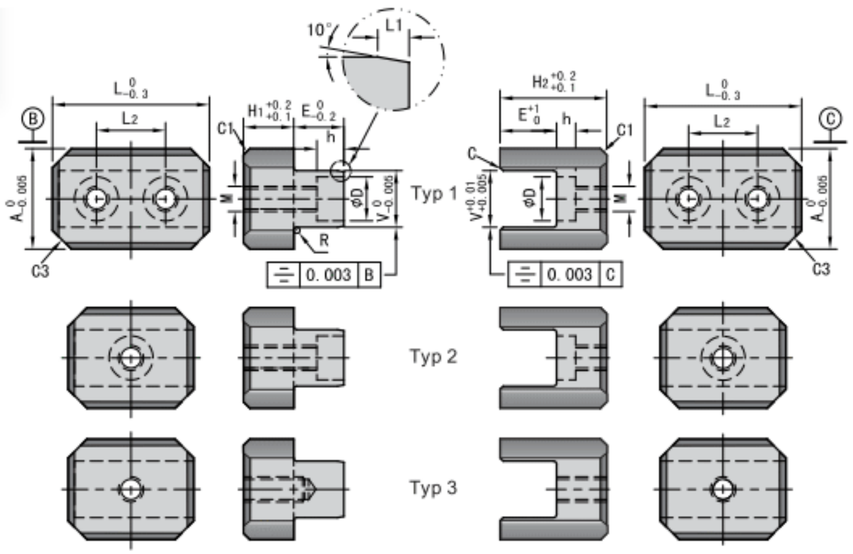
MOLD PARTNER

JIS

Square Interlocks

TTBSF

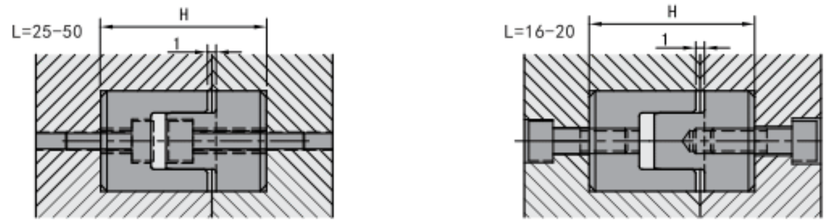




Order TTBSF-A-L-E

L	Typ	E	V	H	H1	H2	L1	R	C	L2	D	h	A	M	Mounting screws	@ /P
16	3	8	9	26	8	17	1	0.5	0.5	-	-	-	16	M4	M4bolt	
		12		30		21										
20		8		26		17										
		12		30		21										
25	2	8	12	26		17					6.5	3.5	20		M3bolt	
		12		30		21										
30	1	8		26		17				15						
		12		30		21										
25	2	10	15	32	10	26	2	1	1	-	8	5	25	M5	M4bolt	
		15		37												
30	1	10		32		21	1	0.5	0.5	15						
		15		37		26	2	1	1							
		12	17	36	12	23	1	0.5	0.5		9.5	6	30	M6	M5bolt	
		20		44		31	2	1	1							
40		12		36		23	1	0.5	0.5	20						
		20		44		31	2	1	1							
		15	20	41		28					11	7	35	M8	M6bolt	
50		25		51		38				30						
		15		41		28										
		25		51		38										

Installation Diagram:

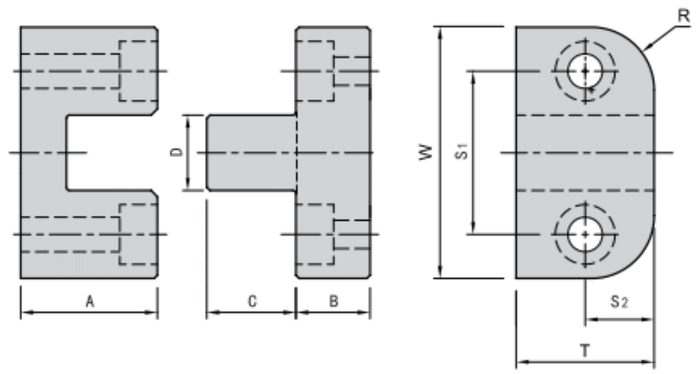


When a convex side and concave side knock against each other,
It cause damage,Please open about 1mm and use it. As shown in the figure above!

TAIWAN

Square Interlocks

TTL-L

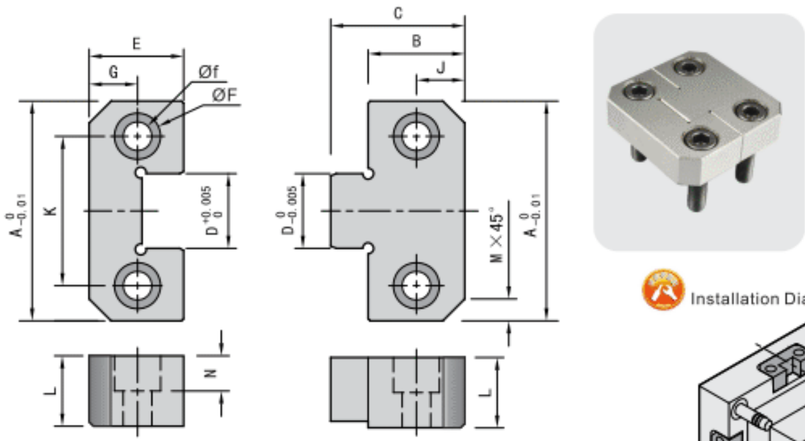




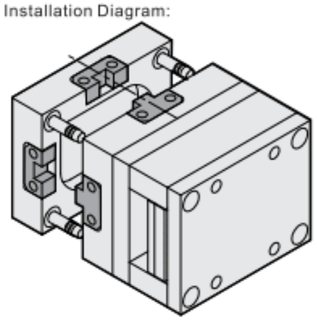
Order TTL-L-035

Code	W -0.01	T	A	B	C	D 0.01	R	S1	S2	Male screws	Female screws	@ /P
TTL-L-035	35	20	20	15	10	13	6	24	10	M4×16	M4×20	
TTL-L-050	50	25	30	20	15	18	8	34	12.5	M5×20	M5×30	
TTL-L-075	75	30	40		20	28	10	52	15	M6×20	M6×40	

PL



Installation Diagram:



Order PL-38

Code	A	B	C	D	F	f	K	J	G	M	L	N	E	@ /P
PL- 38	38	22	30	12	10	6.5	22	7	7	5	13	8	22	
PL- 50	50	21.5		17	11		34	11	11		16		21.5	
PL- 75	75	36	50	25	17	11	50	18	18	8	19	12	36	
PL-100	100	45	65	35			70	22	22	10			45	
PL-125	125			45			84				25			

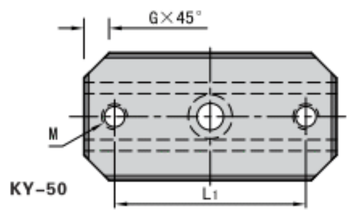
MOLD PARTNER

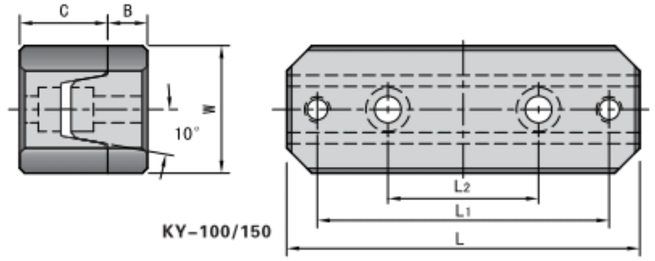
TAIWAN

Square Interlocks

KY



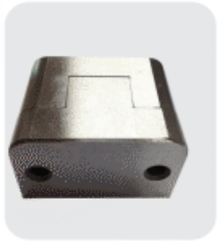


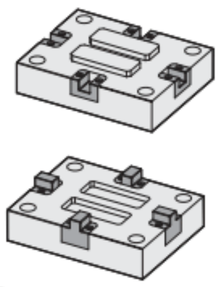


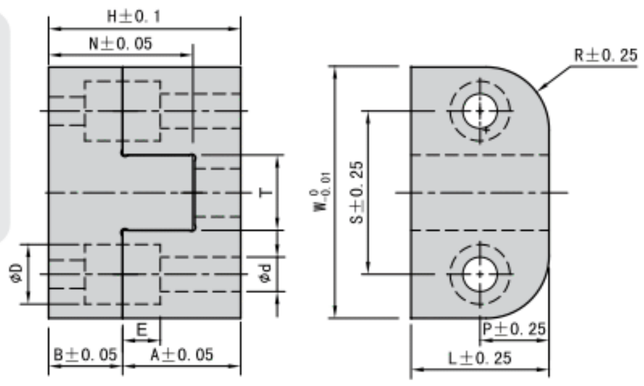
Order KY-50

Code	L	L1	L2	W	B	C	G	M	@ /P
KY- 50	50	36	-	25	8	17.5	5	M5	
KY-100	100	88	60	30	10	22		M6	
KY-150	150	132	100	40	13	25		M8	

LK







Order LK-15

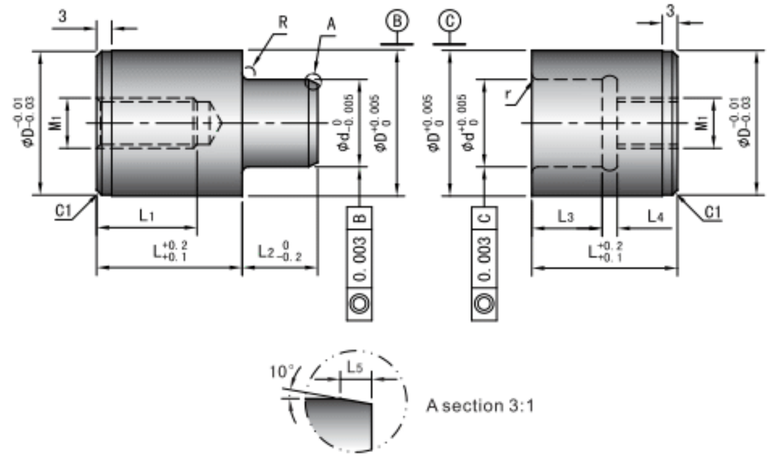
Code	W	L	A	B	N	T	S	R	P	D	d	E	H	Mounting screws	@ /P
LK-15	38.1	24.5	22.17	9.47	22.1	12.7	25.4	7	12.7	10.5	6	7	31.64	M5	
LK-25	63.5	38.1	34.87	15.82	34.8	25.4	44.45	8.5	19.5	12	7.2	8	50.69	M6	
LK-35	88.9	50.8	44.4	19	44.2	36.58	63.5	9.5	25.4	15.5	10.5	11	63.4	M8	

JIS

Square Interlocks

TTPNF

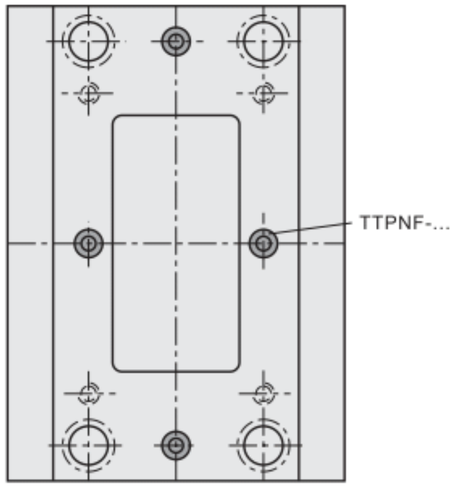




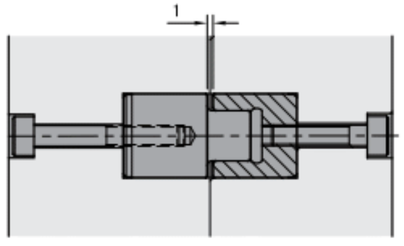
Order TTPNF-D-L2

D	L2	L	L1	L3	L4	L5	d	r	R	M1	@ /P
10	7	14.5	10	5	2.5	1	5	0.5	0.8	M 4	
	13	19.5			8.5						
13	7	14.5		11	2.5		7				
	13	24.5			5.5						
	16										
16	7	14.5		5	2.5		10			M 5	
	13	24.5		11	5.5						
	16										
20	8	14.5	12	6	2.5		13			M 6	
	11	19.5		9							
	16	29		14	6.5	2		1	1.5		
	20	29.5									
25	11	19.5	16	9	2.5	1	16	0.5	0.8	M 8	
	13	24.5		11							
	20	34		18	7.5	2		1	1.5		
30	25	39	20	23	2.5		20			M10	

Installation Diagram:



How to mount:



When a convex side and concave side knock against each other,It cause damage,Please open about 1mm and use it. As shown in the figure above!

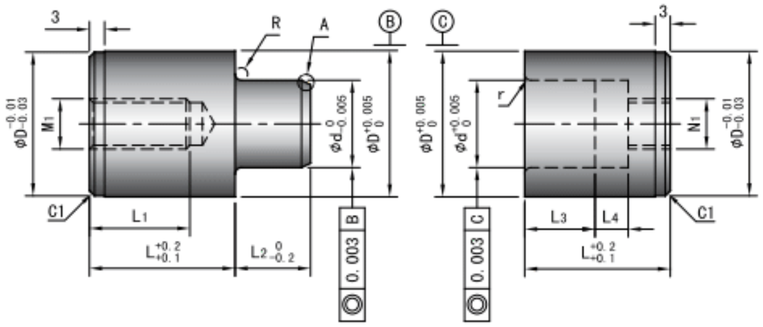
MOLD PARTNER

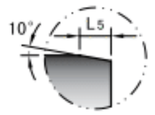
JIS

Square Interlocks

TTPNFC





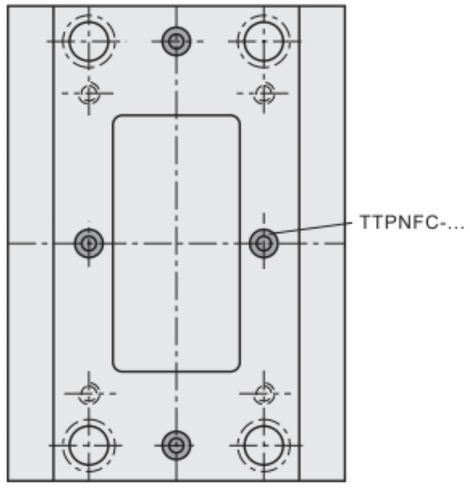


A section:3:1

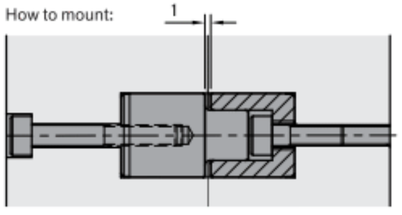
TTPNFC-D-L2

D	L2	L	L1	L3	L4	L5	M1	d	r	R	N1	@ /P
13	7	14.5	10	6	5	1	4	7	0.5	0.8	M 5	
16								10				
20	10	19.5		9	6		5	13			M 6	
25	12	24.5	12	11	8		6	16			M 8	
30	18	34	18	17	11	2	8	20	1	1.5	M10	

Installation Diagram:

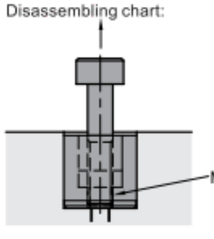


How to mount:



When a convex side and concave side knock against each other,It cause damage,Please open about 1mm and use it. As shown in the figure above!

Disassembling chart:



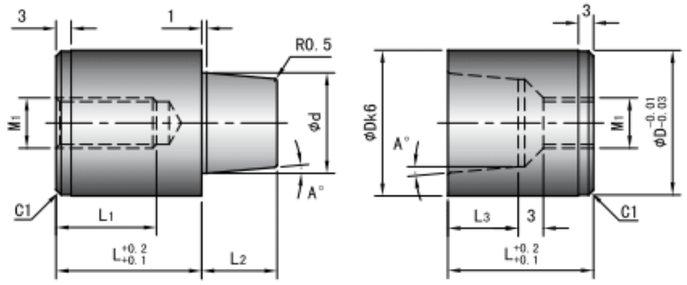
As shown in the figure above, The bushing can be easily removed by screwing a bolt into its(N1) and extracting it.

JIS

Square Interlocks

TTPN
TTPNV





D	L	d	L1	L2	L3	M1
8	13	5	7.5	6	5	M 3
10	14	7	10			M 4
13						
16		10				M 5
20	19	13	12	9	8	M 6
25	24	16	16	12	11	M 8
30	29	20	20	15	14	M10
32						
35	34	24	24	18	17	M12
42	39	30		24	23	

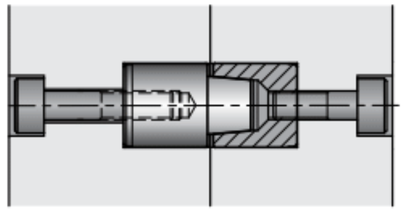
Order TTPN-D-A°

Code	D	A°	Dk6			@ /P
TTPN	13	1	13	+0.012 +0.001	Standard	
	16		16			
	20	3	20	+0.015 +0.002		
	25	5	25			
	30	10	30			
	32		32			
	35		35	+0.018 +0.002		
	42		42			

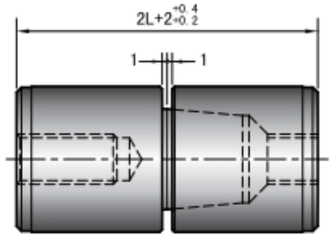
Order TTPNV-D-A°

Code	D	A°	Dk6			@ /P
TTPNV	13	1	13	+0.012 +0.001	Component concentricity 0.01mm or less	
	16		16			
	20	3	20	+0.015 +0.002		
	25	5	25			
	30		30			
	32		32	+0.018 +0.002		
	35		35			

Installation Diagram:



Dimensions when combined:



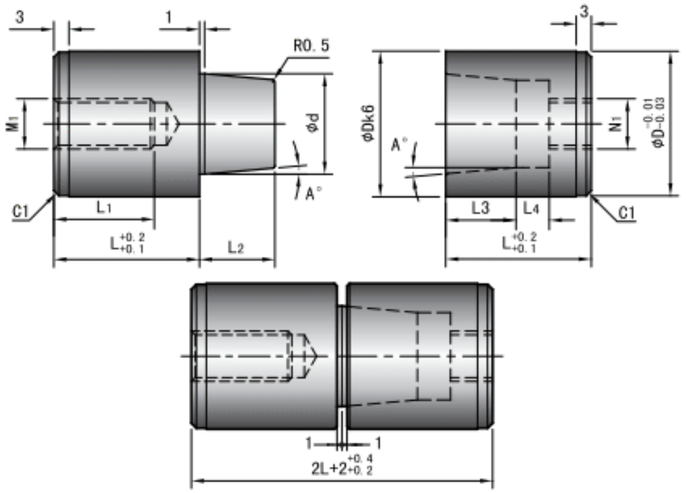
MOLD PARTNER

JIS

Square Interlocks

TTPNC
TTPV





D	L	d	L1	L2	L3	L4	M1	N1
13	14	7	6	6	5	3.3	M 3	M 4
16		10	10			5.3	M 5	M 6
20	19	13	12	7	7	7	M 6	M 8
25	24	16	16	10	10	9	M 8	M10
30	29	20	20	13	13	11	M10	M12
32								
35	34	24	24	16	16	13	M12	M14
42	39	30		21	21			

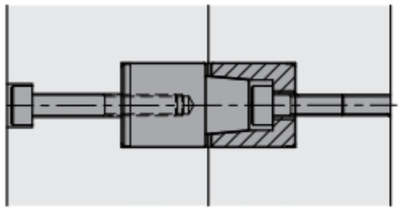
Order TTPNC-D-A°

Code	D	A°	Dk6			@ /P
TTPNC	13	1	13	+0.012 +0.001	Standard	
	16		16			
	20	3	20	+0.015 +0.002		
	25	5	25			
	30	10	30			
	32		32	+0.018 +0.002		
	35		35			
	42		42			

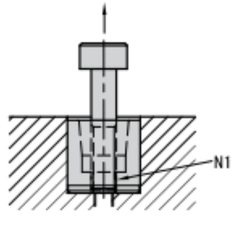
Order TTPV-D-A°

Code	D	A°	Dk6			@ /P
TTPV	13	1	13	+0.012 +0.001	0.01mm以內	
	16		16			
	20	3	20	+0.015 +0.002		
	25	5	25			
	30		30			
	32		32	+0.018 +0.002		
	35		35			

Installation Diagram:



Disassembling chart:

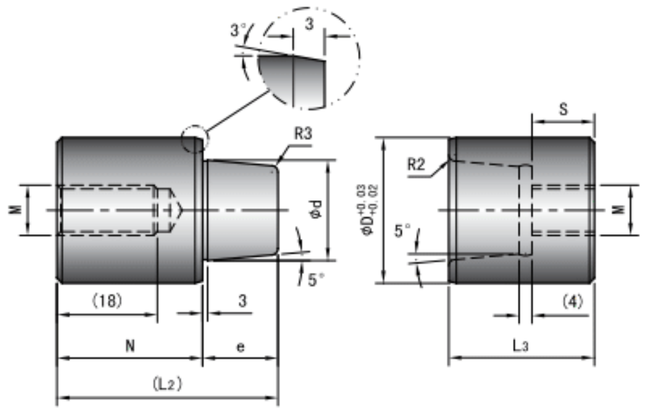


* As shown in the figure above, The bushing can be easily removed by screwing a bolt into its(N1) and extracting it.

TAIWAN

Square Interlocks

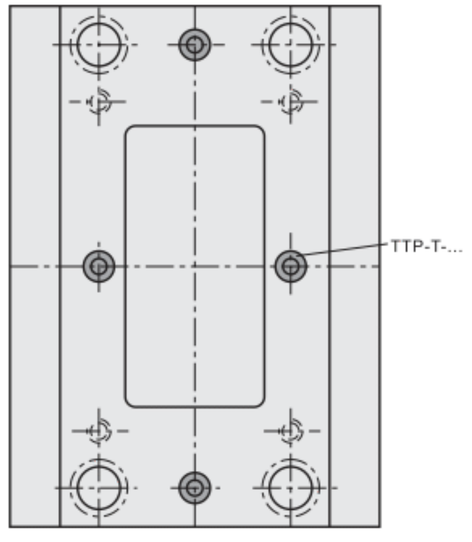
TTP-T



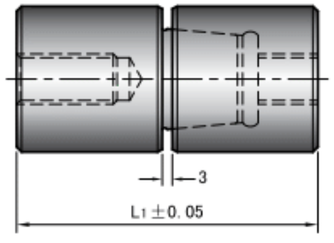
Order TTP-T-d

Φd	ØD	L1	L2	L3	N	e	S	M	@ /P
14	20 +0.03 +0.02	43±0.05	30	25	15	15	5	8	
16	25 +0.03 +0.02	52±0.05	41		24	17	6	10	
20	30 +0.03 +0.02	62±0.05	49	30	29	20	8		
25	35 +0.03 +0.02	72±0.05	59	35	34	25			

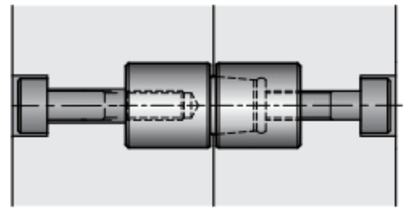
Installation Diagram:



Dimensions when combined:



How to mount:



MOLD PARTNER

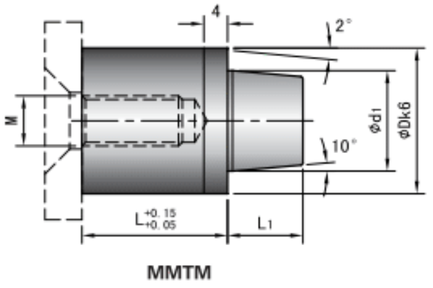
AISI

Square Interlocks

MMTM FFTM

CAD 2D





Order MMTM-D-L

Code	D	L	d1	L1	M	@ /P
MMTM-12-15	12	15	7	7	M5	
MMTM-20-21	20	21	13	11	M6	
MMTM-20-31		31				
MMTM-25-21	25	21	16	12		
MMTM-25-31		31				
MMTM-25-41		41				
MMTM-32-30	32	30	20	15	M8	
MMTM-32-50		50				
MMTM-42-30	42	30	30	17		
MMTM-42-50		50				

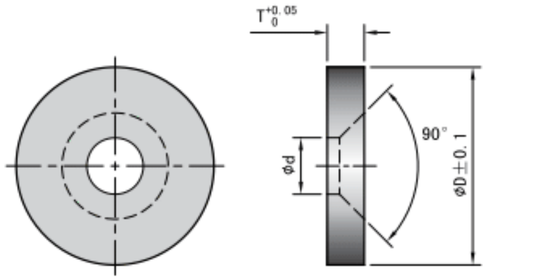
Order FFTM-D-L

Code	D	L	d1	L2	M	@ /P
FFTM-12-15	12	15	7	12	M5	
FFTM-20-21	20	21	13	20	M6	
FFTM-20-31		31				
FFTM-25-21	25	21	16	25		
FFTM-25-31		31				
FFTM-25-41		41				
FFTM-32-30	32	30	20	32	M8	
FFTM-32-50		50				
FFTM-42-30	42	30	30	42		
FFTM-42-50		50				

AAGS

CAD 2D





Order AAGS12

Code	Ød	ØD	T +0.05 0	FOR	@ /P
AAGS12	5.5	16	5	FFT12 MMT12	
AAGS20	6.6	25		FFT20 MMT20	
AAGS25		30		FFT25 MMT25	
AAGS32	9	37	6	FFT32 MMT32	
AAGS42		47		FFT42 MMT42	

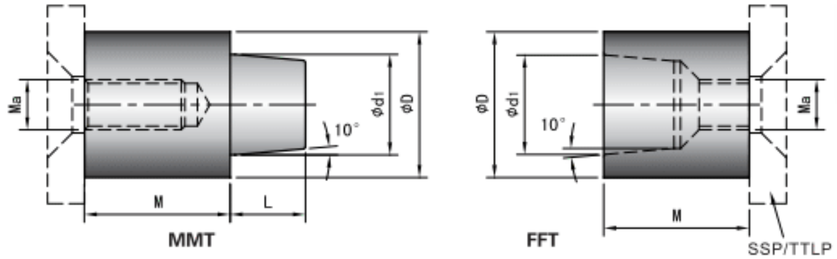
AISI

Square Interlocks

MMT FFT

CAD 2D





Order MMT-0411

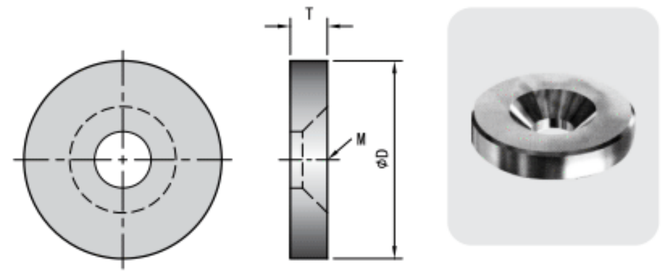
Code	D +.0000 -.0005	d1 +.000 -.001	Ma	M +.000 -.005	@ /P
MMT-0411	1 /2	5/16	#10-24	11/16	
MMT-0414				7/ 8	
MMT-0419				1 3/16	
MMT-0422				1 3/ 8	
MMT-0611	3 /4	1/ 2	1/ 4-20	11/16	
MMT-0614				7/ 8	
MMT-0619				1 3/16	
MMT-0622				1 3/ 8	
MMT-0811	1"	5/ 8		11/16	
MMT-0814				7/ 8	
MMT-0819				1 3/16	
MMT-0822				1 3/ 8	
MMT-1218	1 1/2	1"	5/16-18	1 1/ 8	
MMT-1222				1 3/ 8	
MMT-1226				1 5/ 8	
MMT-1618	2"	1 1/2		1 1/ 8	
MMT-1622				1 3/ 8	
MMT-1626				1 5/ 8	

FFT-0411

Code	D +.0000 -.0005	d1 +.000 -.001	Ma	M +.000 -.005	@ /P
FFT-0411	1 /2	5/16	#10-24	11/16	
FFT-0414				7/ 8	
FFT-0419				1 3/16	
FFT-0422				1 3/ 8	
FFT-0611	3 /4	1/ 2	1/ 4-20	11/16	
FFT-0614				7/ 8	
FFT-0619				1 3/16	
FFT-0622				1 3/ 8	
FFT-0811	1"	5/ 8		11/16	
FFT-0814				7/ 8	
FFT-0819				1 3/16	
FFT-0822				1 3/ 8	
FFT-1218	1 1/2	1"	5/16-18	1 1/ 8	
FFT-1222				1 3/ 8	
FFT-1226				1 5/ 8	
FFT-1618	2"	1 1/2		1 1/ 8	
FFT-1622				1 3/ 8	
FFT-1626				1 5/ 8	

SSP

CAD 2D



Order SSP-04

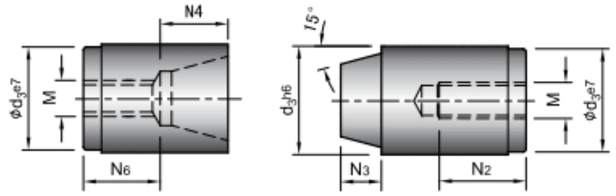
Code	MALE OR FEMALE O.D.	ØD	T	M	@ /P
SSP-04	1 /2	11/16	11/16	#10-24	
SSP-06	3 /4	1"		1/ 4-20	
SSP-08	1"	1 3/16			
SSP-12	1 1/2	1 11/16	1/ 4	5/16-18	
SSP-16	2"	2 3/16			

MOLD PARTNER

Square Interlocks

ZZ05



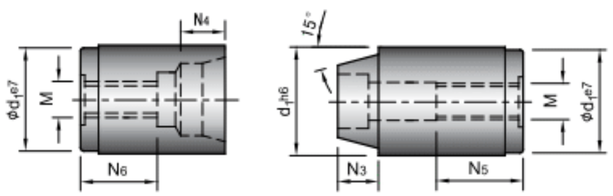


Order ZZ05-12

Code	N4	N3	N2	S1	d3	M	@ /P
ZZ05-12	8	5	10	17	12	M 4	
ZZ05-14		7	11		14	M 5	
ZZ05-16					16		
ZZ05-20	13	10	15	27	20	M 8	
ZZ05-25		11			25		
ZZ05-26		10			26		
ZZ05-30	20	14	18	36	30	M10	
ZZ05-32					32		
ZZ05-42	25	18		46	42		

ZZ051

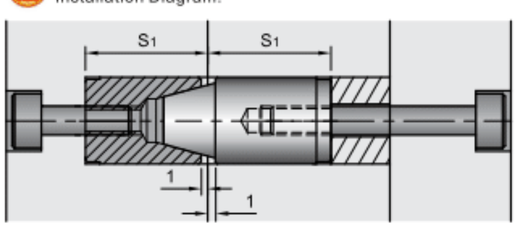




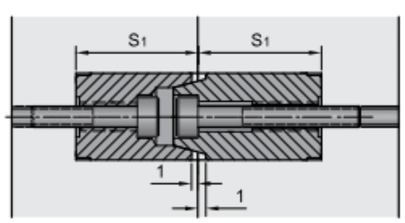
Order ZZ051-12

Code	N8	N7	N6	N5	N4	N3	S1	d1	M	Mounting screws	Mounting screws	@ /P
ZZ051-12	7.5	8	8.5	9.6	5	4.5	17	12	M 4	M3×16	M3×25	
ZZ051-14	8	7.5	6	12.4	7	6		14	M 5	M4×14	M4×25	
ZZ051-16			5.8					16				
ZZ051-20	9.5	12	10.6	19.7	10	9	27	20	M 8	M6×20	M6×40	
ZZ051-25	11	11	9.2		11	10		25				
ZZ051-26								26				
ZZ051-30	13	15	12.2	25	16	14	36	30	M10	M8×25	M8×55	
ZZ051-32								32				
ZZ051-42		16	16	27	20	18	46	42		M8×30		

Installation Diagram:



ZZ05

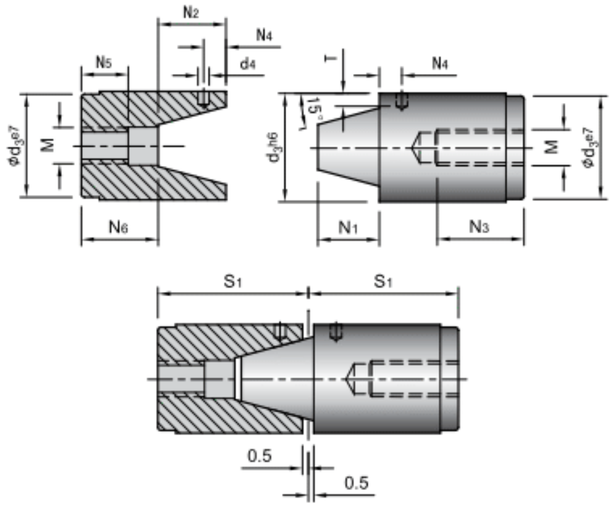


ZZ051

Square Interlocks

ZZ06

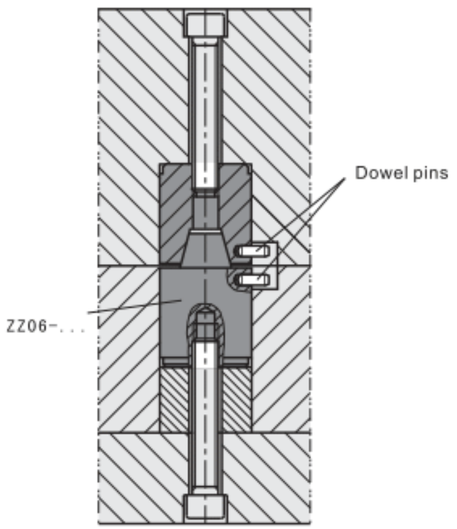


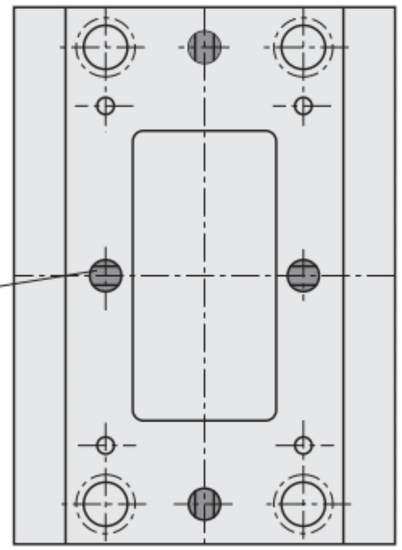


Order ZZ06-30

Code	T	d4	N5	N4	N3	N2	N1	S1	d3	M	@ /P
ZZ06-30	5	4	16.5	4.5	20	11.5	10.5	36	30	M10	
ZZ06-42	7	5	18.5	5.5		14.5	14.5	46	42		
ZZ06-54	8	6	20.5	7.5	25	18.5	17.5	56	54	M12	
ZZ06-80	11	8	25.5		30	28.5	27.5	76	80	M16	

Installation Diagram:





Springs Series



ACHIEVEMENT

MOLD PARTNER has received
ISO9001:2008 certifications



JIS	
Springs	
DSWR	P480



JIS	
Springs	
DSWS	P484



JIS	
Springs	
DSWF	P488



JIS	
Springs	
DSWL	P495



JIS	
Springs	
DSWM	P498

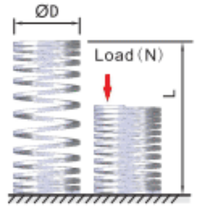


JIS	
Springs	
DSWH	P503

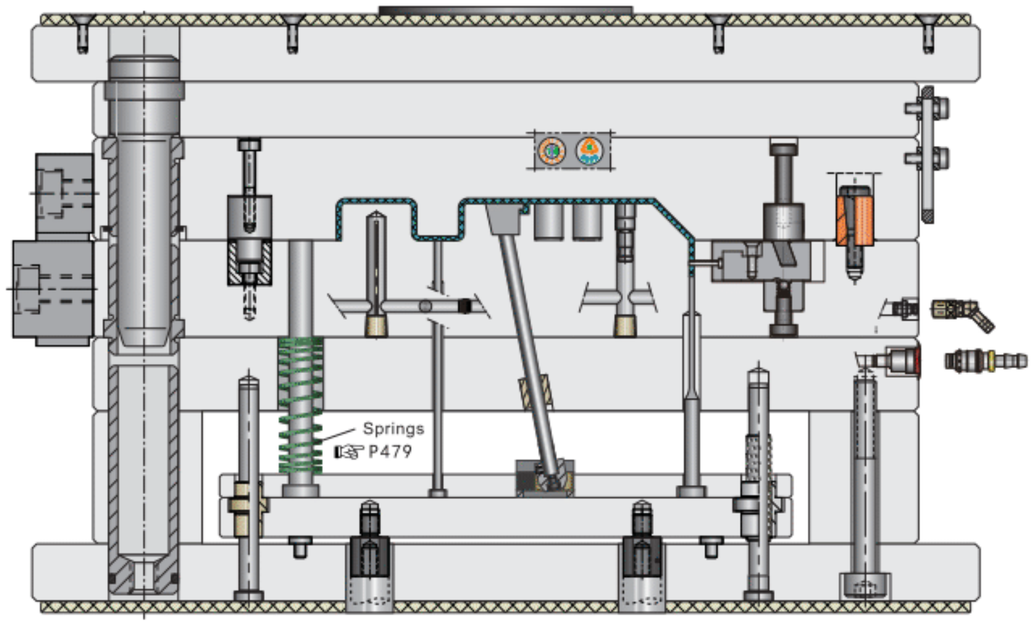


JIS	
Springs	
DSWB	P508

Products Summary



		JIS	JIS	JIS	JIS	JIS	JIS	JIS
Type		High deflection coil springs	Middle deflection coil springs	Light load coil springs	Light load coil springs	Middle load coil springs	High load coil springs	Extra heavy load coil springs
Color		White	Orange	Yellow	Blue	Red	Green	Brown
Code		DSWR	DSWS	DSWF	DSWL	DSWM	DSWH	DSWB
Page		P479	P484	P488	P495	P498	P503	P508
Outer diameter	Min	10. 5	10. 5	6	6	6	6	6
	Max	50	52	70	70	70	70	70
Free length L	Min	15	20	15	15	10	10	10
	Max	400	300	500	350	350	350	350
Lifespan: 1000000	Max compression ratio	50%	40%	40%	32%	25. 6%	19. 2%	16%
	Load N Min	78. 5	86. 3	47. 1	62. 8	78. 5	109. 8	141. 2
	Load N Max	1323. 9	1569. 1	3138. 1	4785. 6	6668. 5	10199	14122
Lifespan: 1000000	Max compression ratio	55%	45%	50%	40%	32%	24%	20%
	Load N Min	86. 3	97. 1	58. 8	78. 5	98. 1	137. 3	176. 5
	Load N Max	1456. 3	1765. 2	3922. 6	5982	8335. 6	12749	17652

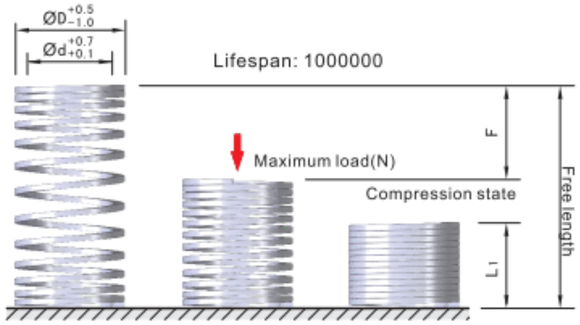


JIS

High deflection coil springs

DSWR





Maximum load calculate method:
Maximum load=compression×spring constant
N=F mm×N/mm (kgf=N×0.101972)
If .... L≤50, Tolerance L±0.5
If .... L≥55, Tolerance L±1.5%×L

Order DSWR-D-L

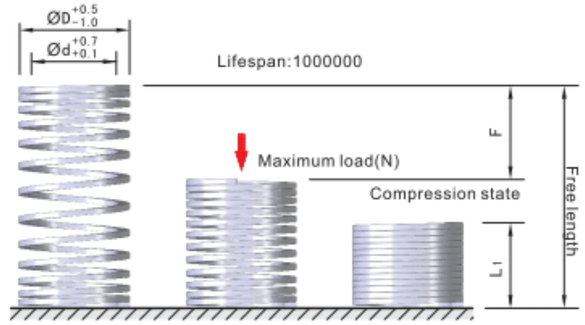
D	L	d	Spring Constant N/mm	Solid height(mm)	F=L×50% F mm	F=L×50% Load N	@¥/P
10.5	15	6	10.46	6	7.5	78.5	
	20		7.84	8	10		
	25		6.27	10	12.5		
	30		5.19	12	15		
	35		4.5	14	17.5		
	40		3.92	16	20		
	45		3.53	18	22.5		
	50		3.14	20	25		
	55		2.84	22	27.5		
	60		2.65	24	30		
	65		2.45	26	32.5		
	70		2.25	28	35		
	75		2.06	30	37.5		
	80		1.96	32	40		
12.5	15	7	11.77	6	7.5	88.3	
	20		8.82	8	10		
	25		7.06	10	12.5		
	30		5.88	12	15		
	35		5.04	14	17.5		
	40		4.41	16	20		
	45		3.92	18	22.5		
	50		3.53	20	25		
	55		3.2	22	27.5		
	60		2.94	24	30		
	65		2.71	26	32.5		
	70		2.52	28	35		
	75		2.35	30	37.5		
	80		2.21	32	40		
	90		1.96	36	45		
	100		1.77	40	50		
14.5	15	8.5	17	6	7.5	127.5	
	20		12.7	8	10		
	25		10.19	10	12.5		
	30		8.53	12	15		
	35		7.25	14	17.5		
	40		6.37	16	20		
	45		5.68	18	22.5		
	50		5.09	20	25		
	55		4.6	22	27.5		
	60		4.21	24	30		

JIS

High deflection coil springs

DSWR





Order DSWR-D-L

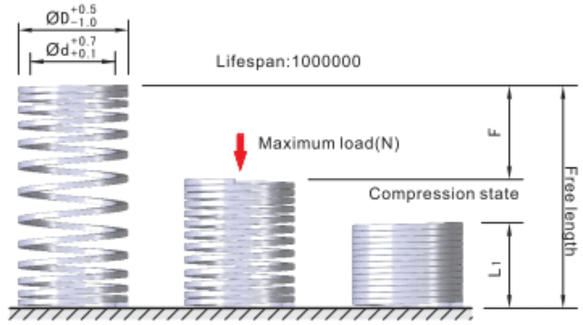
D	L	d	Spring Constant N/mm	Solid height(mm)	F=L×50% F mm	F=L×50% Load N	@¥/P
14.5	65	8.5	3.92	26	32.5	127.5	
	70		3.62	28	35		
	75		3.43	30	37.5		
	80		3.23	32	40		
	90		2.84	36	45		
	100		2.54	40	50		
	125		2.05	50	62.5		
	150		1.7	60	75		
17	20	10.5	19.61	8	10	196.1	
	25		15.69	10	12.5		
	30		13.04	12	15		
	35		11.17	14	17.5		
	40		9.8	16	20		
	45		8.72	18	22.5		
	50		7.84	20	25		
	55		7.15	22	27.5		
	60		6.57	24	30		
	65		6.08	26	32.5		
	70		5.58	28	35		
	75		5.19	30	37.5		
	80		4.9	32	40		
	90		4.31	36	45		
	100		3.92	40	50		
	125		3.13	50	62.5		
	150		2.64	60	75		
	175		2.24	70	87.5		
21	25	13.5	23.54	10	12.5	294.2	
	30		19.61	12	15		
	35		16.76	14	17.5		
	40		14.7	16	20		
	45		13.04	18	22.5		
	50		11.76	20	25		
	55		10.68	22	27.5		
	60		9.8	24	30		
	65		9.02	26	32.5		
	70		8.43	28	35		
	75		7.84	30	37.5		
	80		7.35	32	40		
	90		6.57	36	45		
	100		5.88	40	50		
	110		5.39	44	55		
	120		4.9	48	60		
	125		4.7	50	62.5		
	130		4.51	52	65		
	140		4.21	56	70		
	150		3.92	60	75		
	175		3.36	70	87.5		
	200		2.94	80	100		
26	30	16.5	26.18	12	15	392.3	
	35		22.45	14	17.5		
	40		19.61	16	20		
	45		17.45	18	22.5		
	50		15.69	20	25		
	55		14.21	22	27.5		
	60		13.04	24	30		
	65		12.06	26	32.5		
	70		11.17	28	35		
	75		10.49	30	37.5		
	80		9.8	32	40		
	90		8.72	36	45		

JIS

High deflection coil springs

DSWR





Order DSWR-D-L

D	L	d	Spring Constant N/mm	Solid height(mm)	F=L×50% F mm	F=L×50% Load N	@¥/P
26	100	16.5	7.84	40	50	392.3	
	110		7.15	44	55		
	120		6.57	48	60		
	125		6.27	50	62.5		
	130		6.08	52	65		
	140		5.58	56	70		
	150		5.19	60	75		
	175		4.51	70	87.5		
	200		3.92	80	100		
	225		3.49	90	112.5		
	250		3.14	100	125		
31	35	21	28.02	14	17.5	490.3	
	40		24.51	16	20		
	45		21.77	18	22.5		
	50		19.61	20	25		
	55		17.83	22	27.5		
	60		16.37	24	30		
	65		15.09	26	32.5		
	70		14.02	28	35		
	75		13.08	30	37.5		
	80		12.25	32	40		
	90		10.88	36	45		
	100		9.8	40	50		
	110		8.92	44	55		
	120		8.13	48	60		
	125		7.84	50	62.5		
	130		7.55	52	65		
	140		6.96	56	70		
	150		6.57	60	75		
	160		6.17	64	80		
	170		5.78	68	85		
	175		5.58	70	87.5		
	180		5.49	72	90		
	190		5.19	76	95		
	200		4.9	80	100		
	250		3.92	100	125		
	300		3.23	120	150		
37	40	26	29.41	16	20	588.4	
	45		26.18	18	22.5		
	50		23.53	20	25		
	55		21.4	22	27.5		
	60		19.61	24	30		
	65		18.1	26	32.5		
	70		16.76	28	35		
	75		15.69	30	37.5		
	80		14.7	32	40		
	90		13.04	36	45		
	100		11.76	40	50		
	110		10.68	44	55		
	120		9.8	48	60		
	125		9.41	50	62.5		
	130		9.02	52	65		
	140		8.43	56	70		
	150		7.84	60	75		
	160		7.35	64	80		
	170		6.96	68	85		
	175		6.76	70	87.5		
	180		6.57	72	90		
	190		6.17	76	95		
	200		5.88	80	100		

JIS

High deflection coil springs

DSWR



Order DSWR-D-L

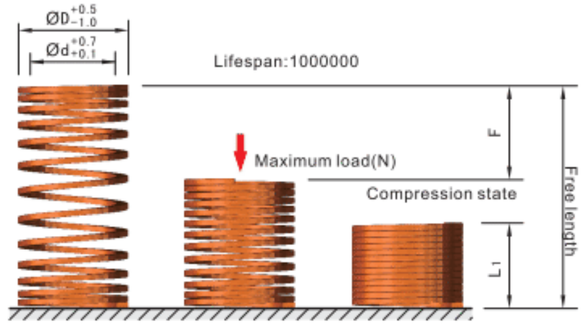
D	L	d	Spring Constant N/mm	Solid height(mm)	F=L×50% F mm	F=L×50% Load N	@¥/P
37	250	26	4.7	100	125	588.4	
	300		3.92	120	150		
43	50	31	33.34	20	25	833.6	
	60		27.79	24	30		
	70		23.82	28	35		
	80		20.84	32	40		
	90		18.52	36	45		
	100		16.67	40	50		
	110		15.16	44	55		
	120		13.89	48	60		
	130		12.82	52	65		
	140		11.91	56	70		
	150		11.11	60	75		
	160		10.42	64	80		
	170		9.81	68	85		
	180		9.26	72	90		
	190		8.77	76	95		
	200		8.34	80	100		
	225		7.41	90	112.5		
	250		6.67	100	125		
	275		6.06	110	137.5		
	300		5.56	120	150		
46	50	33	43.14	20	25	1078.7	
	60		35.99	24	30		
	70		30.79	28	35		
	80		26.96	32	40		
	90		23.92	36	45		
	100		21.57	40	50		
	110		19.61	44	55		
	120		17.94	48	60		
	125		17.25	50	62.5		
	130		15.57	52	65		
	140		15.39	56	70		
	150		14.41	60	75		
	175		12.35	70	87.5		
	200		10.78	80	100		
	225		9.61	90	112.5		
	250		8.62	100	125		
	275		7.84	110	137.5		
	300		7.15	120	150		
50	50	36	52.96	20	25	1323.9	
	60		44.13	24	30		
	70		37.83	28	35		
	80		33.1	32	40		
	90		29.42	36	45		
	100		26.48	40	50		
	110		24.07	44	55		
	120		22.06	48	60		
	130		20.37	52	65		
	140		18.91	56	70		
	150		17.65	60	75		
	175		15.13	70	87.5		
	200		13.24	80	100		
	225		11.77	90	112.5		
	250		10.59	100	125		
	275		9.63	110	137.5		
	300		8.83	120	150		
	350		7.57	140	175		
	400		6.62	160	200		

JIS

Middle deflection coil springs

DSWS





Maximum load calculate method:
Maximum load=compression×spring constant
N=F mm×N/mm (kgf=N×0.101972)
Maximum load Deviation:+20% to -10%

☎Order DSWS-D-L

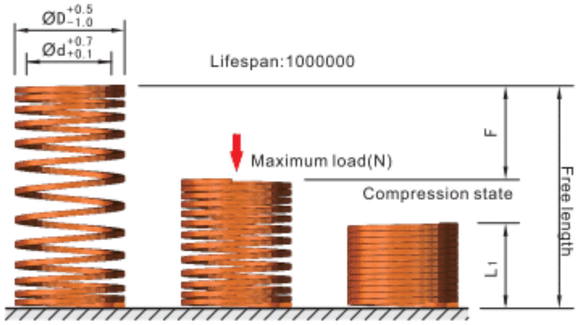
D	L	d	Spring Constant N/mm	Solid height(mm)	F=L×50% F mm	F=L×50% Load N	@¥/P
10.5	20	5.5	10.9	10	8	86.3	
	25		8.72	12.5	10		
	30		7.26	15	12		
	35		6.23	17.5	14		
	40		5.45	20	16		
	45		4.84	22.5	18		
	50		4.36	25	20		
	55		3.96	27.5	22		
	60		3.63	30	24		
	65		3.35	32.5	26		
	70		3.11	35	28		
	75		2.91	37.5	30		
	80		2.72	40	32		
12.5	20	6.5	15.25	10	8	121.6	
	25		12.2	12.5	10		
	30		10.17	15	12		
	35		8.72	17.5	14		
	40		7.63	20	16		
	45		6.78	22.5	18		
	50		6.1	25	20		
	55		5.55	27.5	22		
	60		5.08	30	24		
	65		4.69	32.5	26		
	70		4.36	35	28		
	75		4.07	37.5	30		
	80		3.81	40	32		
14.5	20	8.5	24.51	10	8	196.1	
	25		19.61	12.5	10		
	30		16.37	15	12		
	35		14.02	17.5	14		
	40		12.25	20	16		
	45		10.88	22.5	18		
	50		9.8	25	20		
	55		8.92	27.5	22		
	60		8.13	30	24		
	65		7.55	32.5	26		
	70		6.96	35	28		
	75		6.57	37.5	30		
	80		6.17	40	32		
	90		5.49	45	36		

JIS

Middle deflection coil springs

DSWS





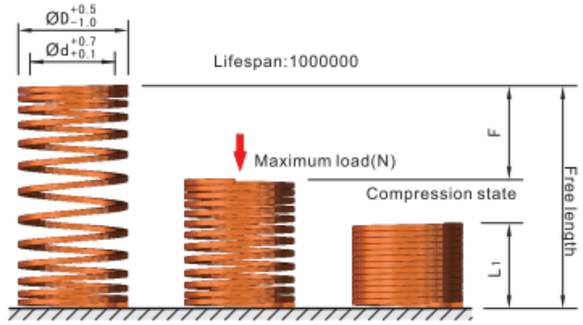
☎Order DSWS-D-L

D	L	d	Spring Constant N/mm	Solid height(mm)	F=L×50% F mm	F=L×50% Load N	@¥/P
14.5	100	8.5	4.9	50	40	196.1	
	125		3.92	62.5	50		
	150		3.27	75	60		
17	25	10.5	29.41	12.5	10	294.2	
	30		24.51	15	12		
	35		20.98	17.5	14		
	40		18.43	20	16		
	45		16.37	22.5	18		
	50		14.7	25	20		
	55		13.33	27.5	22		
	60		12.25	30	24		
	65		11.27	32.5	26		
	70		10.49	35	28		
	75		9.8	37.5	30		
	80		9.21	40	32		
	90		8.13	45	36		
	100		7.35	50	40		
	125		5.88	62.5	50		
	150		4.9	75	60		
21	30	13.5	35.1	15	12	421.7	
	35		30.1	17.5	14		
	40		26.37	20	16		
	45		23.43	22.5	18		
	50		21.08	25	20		
	55		19.12	27.5	22		
	60		17.55	30	24		
	65		16.18	32.5	26		
	70		15.1	35	28		
	75		14.02	37.5	30		
	80		13.14	40	32		
	90		11.66	45	36		
	100		10.59	50	40		
	110		9.61	55	44		
	120		8.82	60	48		
	125		8.43	62.5	50		
	130		8.13	65	52		
	140		7.55	70	56		
	150		7.06	75	60		
	175		6.02	87.5	70		
	200		5.27	100	80		
26	30	16.5	47.36	15	12	568.8	
	35		40.59	17.5	14		
	40		35.59	20	16		
	45		31.57	22.5	18		
	50		28.43	25	20		
	55		25.88	27.5	22		
	60		23.63	30	24		
	65		21.86	32.5	26		
	70		20.29	35	28		
	75		18.92	37.5	30		
	80		17.75	40	32		
	90		15.78	45	36		
	100		14.21	50	40		
	110		12.94	55	44		
	120		11.86	60	48		
	125		11.37	62.5	50		
	130		10.98	65	52		
	140		10.19	70	56		
	150		9.51	75	60		
	175		8.13	87.5	70		

Middle deflection coil springs

DSWS





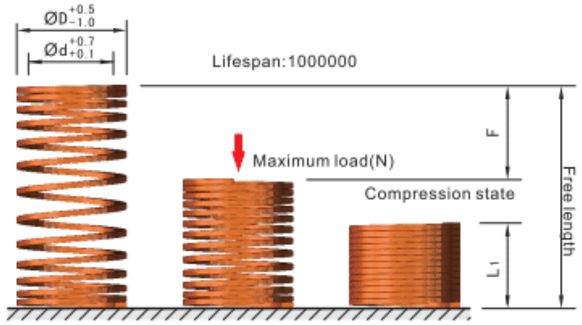
Order DSWS-D-L

D	L	d	Spring Constant N/mm	Solid height(mm)	F=L×50% F mm	F=L×50% Load N	@¥/P
26	200	16.5	7.15	100	80	568.8	
	225		6.32	112.5	90		
	250		5.69	125	100		
31	40	21	49.03	20	16	784.5	
	45		43.54	22.5	18		
	50		39.22	25	20		
	55		35.66	27.5	22		
	60		32.65	30	24		
	65		30.17	32.5	26		
	70		28.04	35	28		
	75		26.15	37.5	30		
	80		24.51	40	32		
	90		21.77	45	36		
	100		19.61	50	40		
	110		17.84	55	44		
	120		16.37	60	48		
	125		15.69	62.5	50		
	130		15.1	65	52		
	140		14.02	70	56		
	150		13.04	75	60		
	160		12.25	80	64		
	170		11.57	85	68		
	175		11.17	87.5	70		
	180		10.88	90	72		
	190		10.29	95	76		
	200		9.8	100	80		
	250		7.84	125	100		
	300		6.57	150	120		
37	40	26	52.07	20	16	833.6	
	45		46.28	22.5	18		
	50		41.67	25	20		
	55		37.89	27.5	22		
	60		34.71	30	24		
	65		32.06	32.5	26		
	70		29.81	35	28		
	75		27.79	37.5	30		
	80		26.08	40	32		
	90		23.14	45	36		
	100		20.88	50	40		
	110		18.92	55	44		
	120		17.35	60	48		
	125		16.67	62.5	50		
	130		15.98	65	52		
	140		14.9	70	56		
	150		13.92	75	60		
	160		13.04	80	64		
	170		12.25	85	68		
	175		11.86	87.5	70		
	180		11.57	90	72		
	190		10.98	95	76		
	200		10.39	100	80		
	250		8.33	125	100		
	300		6.96	150	120		
44.5	50	31	50.01	25	20	1000.3	
	60		41.68	30	24		
	70		35.72	35	28		
	80		31.26	40	32		
	90		27.79	45	36		
	100		25.01	50	40		
	110		22.73	55	44		

Middle deflection coil springs

DSWS





Order DSWS-D-L

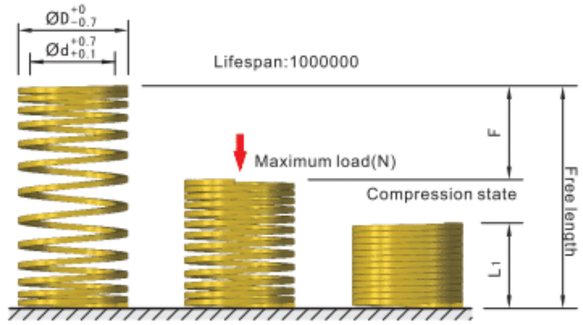
D	L	d	Spring Constant N/mm	Solid height(mm)	F=L×50% F mm	F=L×50% Load N	@¥/P
44.5	120	31	20.84	60	48	1000.3	
	130		19.24	65	52		
	140		17.86	70	56		
	150		16.67	75	60		
	160		15.63	80	64		
	170		14.71	85	68		
	180		13.89	90	72		
	190		13.16	95	76		
	200		12.5	100	80		
	225		11.11	112.5	90		
	250		10	125	100		
	275		9.09	137.5	110		
	300		8.34	150	120		
46	50	33	63.74	25	20	1274.9	
	60		53.15	30	24		
	70		45.5	35	28		
	80		39.81	40	32		
	90		35.4	45	36		
	100		31.87	50	40		
	110		28.92	55	44		
	120		26.57	60	48		
	125		25.49	62.5	50		
	130		24.51	65	52		
	140		22.75	70	56		
	150		21.28	75	60		
	175		18.24	87.5	70		
	200		15.98	100	80		
	225		14.12	112.5	90		
	250		12.74	125	100		
	275		11.57	137.5	110		
	300		10.59	150	120		
52	60	37	65.38	30	24	1569.1	
	70		56.04	35	28		
	80		49.03	40	32		
	90		43.58	45	36		
	100		39.23	50	40		
	110		35.66	55	44		
	120		32.69	60	48		
	130		30.17	65	52		
	140		28.02	70	56		
	150		26.15	75	60		
	175		22.42	87.5	70		
	200		19.61	100	80		
	225		17.43	112.5	90		
	250		15.69	125	100		
	275		14.26	137.5	110		
	300		13.08	150	120		

JIS

Light Load Coil Springs

DSWF





Maximum load calculate method:

Maximum load=compression×spring constant

N=F mm×N/mm (kgf=N×0.101972)

Maximum load Deviation:±10%

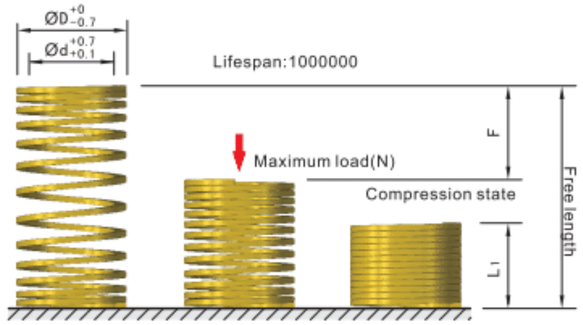
If D=70, Tolerance D: $^{+0}_{-1}$

If D≤50, Tolerance L±0.5

If D≥55, Tolerance L±1%×L

☎Order DSWF-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
6	15	3	7.85	7.1	6	47.1	6.8	53	7.5	58.5	
	20		5.88	9.5	8		9		10		
	25		4.71	11.9	10		11.3		12.5		
	30		3.92	14.2	12		13.5		15		
	35		3.33	16.6	14		15.8		17.5		
	40		2.94	19	16		18		20		
8	15	4	10.8	6.8	6	58.8	6.8	68.6	7.5	78.5	
	20		7.8	9	8		9		10		
	25		6.28	11.3	10		11.2		12.5		
	30		5.2	13.5	12		13.5		15		
	35		4.51	15.8	14		15.7		17.5		
	40		3.92	18	16		18		20		
	45		3.53	20.3	18		20.2		22.5		
	50		3.14	22.5	20		22.5		25		
	55		2.84	24.8	22		24.7		27.5		
	60		2.26	27	24		27		30		
	65			30.8	26		29.3		32.5		
	70		2.1	33.2	28		31.5		35		
	75		1.96	35.6	30		33.8		37.5		
	80		1.84	37.9	32		36		40		
10	15	5	13.1	6.8	6	78.5	6.8	88.3	7.5	98.1	
	20		9.8	9	8		9		10		
	25		7.8	11.3	10		11.2		12.5		
	30		6.9	13.5	12		13.5		15		
	35		5.9	15.8	14		15.7		17.5		
	40		4.9	18	16		18		20		
	45			20.3	18		20.2		22.5		
	50		3.9	22.5	20		22.5		25		
	55			24.8	22		24.7		27.5		
	60			27	24		27		30		
	65			29.3	26		29.3		32.5		
	70		2.9	31.5	28		31.5		35		
	75			33.8	30		33.7		37.5		
	80			36	32		36		40		
	90		2.2	40.5	36		40.5		40.5		
12	20	6	13.7	9	8	107.9	9	127.5	10	137.3	
	25		10.8	11.3	10		11.2		12.5		
	30		8.8	13.5	12		13.5		15		
	35		7.8	15.8	14		15.7		17.5		
	40		6.9	18	16		18		20		





JIS

Light Load Coil Springs

DSWF

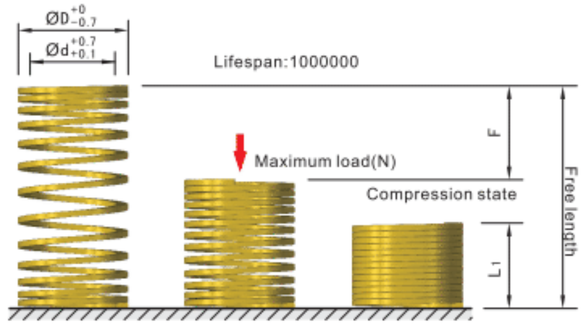
☎Order DSWF-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
12	45	6	5.9	20.3	18	107.9	20.2	127.5	22.5	137.3	
	50			22.5	20		22.5		25		
	55		4.9	24.8	22		24.7		27.5		
	60			27	24		27		30		
	65			29.3	26		29.2		32.5		
	70		3.9	31.5	28		31.5		35		
	75			33.8	30		33.7		37.5		
	80		2.9	36	32		36		40		
	90		3.1	40.5	36		40.5		45		
14	25	7	13.7	11.3	10	137.3	11.2	156.9	12.5	176.5	
	30		11.8	13.5	12		13.5		15		
	35		9.8	15.8	14		15.7		17.5		
	40		8.8	18	16		18		20		
	45		7.8	20.3	18		20.2		22.5		
	50		6.9	22.5	20		22.5		25		
	55			24.8	22		24.7		27.5		
	60		5.9	27	24		27		30		
	65			29.3	26		29.2		32.5		
	70		4.9	31.5	28		31.5		35		
	75			33.8	30		33.7		37.5		
	80		3.9	36	32		36		40		
	90			40.5	36		40.5		45		
	100		3.5	45	40		45		50		
16	25	8	16.7	11.3	10	166.7	11.2	186.3	12.5	205.9	
	30		13.7	13.5	12		13.5		15		
	35		11.8	15.8	14		15.7		17.5		
	40		10.8	18	16		18		20		
	45		8.8	20.3	18		20.2		22.5		
	50		7.8	22.5	20		22.5		25		
	55			24.8	22		24.7		27.5		
	60		6.9	27	24		27		30		
	65			29.3	26		29.2		32.5		
	70		5.9	31.5	28		31.5		35		
	75			33.8	30		33.7		37.5		
	80		4.9	36	32		36		40		
	90			40.5	36		40.5		45		
	100		3.9	45	40		45		50		
	125		3.3	56.3	50		56.3		62.5		
18	25	9	20.6	11.3	10	205.9	11.2	225.6	12.5	255	
	30		16.7	13.5	12		13.5		15		
	35		14.7	15.8	14		15.7		17.5		
	40		12.7	18	16		18		20		
	45		11.8	20.3	18		20.2		22.5		
	50		9.8	22.5	20		22.5		25		
	55		8.8	24.8	22		24.7		27.5		
	60			27	24		27		30		
	65		7.8	29.3	26		29.2		32.5		
	70			31.5	28		31.5		35		
	75		6.9	33.8	30		33.7		37.5		
	80			36	32		36		40		
	90		5.9	40.5	36		40.5		45		
	100		4.9	45	40		45		50		
	125		3.9	56.3	50		56.3		62.5		
20	25	11	25.5	11.3	10	255	11.2	284.4	12.5	313.8	
	30		21.6	13.5	12		13.5		15		
	35		18.6	15.8	14		15.7		17.5		
	40		15.7	18	16		18		20		
	45		13.7	20.3	18		20.2		22.5		
	50		12.7	22.5	20		22.5		25		

Light Load Coil Springs

DSWF





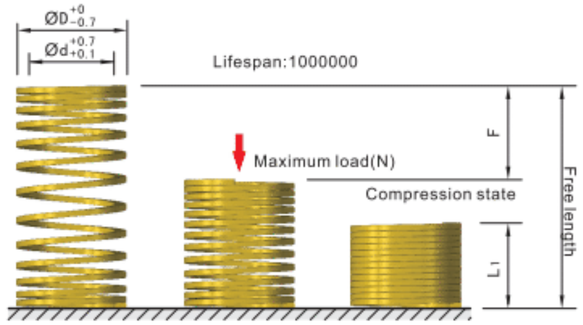
Order DSWF-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40%		F=L×45%		F=L×50%		@¥/P
						Load N	F mm	Load N	F mm	Load N	
20	55	11	11.8	24.8	22	255	24.7	284.4	27.5	313.8	
	60		10.8	27	24		27		30		
	65		9.8	29.3	26		29.2		32.5		
	70		8.8	31.5	28		31.5		35		
	75			33.8	30		33.7		37.5		
	80		7.8	36	32		36		40		
	90		6.9	40.5	36		40.5		45		
	100		5.9	45	40		45		50		
	125		4.9	56.3	50		56.2		62.5		
	150		3.9	67.5	60		67.5		75		
22	25		31.4	11.3	10	313.8	11.2	353	12.5	392.3	
	30		26.5	13.5	12		13.5		15		
	35		22.6	15.8	14		15.7		17.5		
	40		19.6	18	16		18		20		
	45		17.7	20.3	18		20.2		22.5		
	50		15.7	22.5	20		22.5		25		
	55		14.7	24.8	22		24.7		27.5		
	60		12.7	27	24		27		30		
	65		11.8	29.3	26		29.2		32.5		
	70		10.8	31.5	28		31.5		35		
	75			33.8	30		33.7		37.5		
	80		9.8	36	32		36		40		
	90		8.8	40.5	36		40.5		45		
	100		7.8	45	40		45		50		
	125		5.9	56.3	50		56.2		62.5		
	150		4.9	67.5	60		67.5		75		
25	25	13.5	39.2	11.3	10	392.3	11.2	441.3	12.5	490.3	
	30		32.4	13.5	12		13.5		15		
	35		28.4	15.8	14		15.7		17.5		
	40		24.5	18	16		18		20		
	45		21.6	20.3	18		20.2		22.5		
	50		19.6	22.5	20		22.5		25		
	55		17.7	24.8	22		24.7		27.5		
	60		16.7	27	24		27		30		
	65		14.7	29.3	26		29.2		32.5		
	70		13.7	31.5	28		31.5		35		
	75		12.7	33.8	30		33.7		37.5		
	80		11.8	36	32		36		40		
	90		10.8	40.5	36		40.5		45		
	100		9.8	45	40		45		50		
	125		8.8	56.3	50		56.2		62.5		
	150		7.8	67.5	60		67.5		75		
	175		5.9	78.8	70		78.7		87.5		
	200		4.9	90	80		90		100		
27	25		47.1	11.3	10	470.7	11.2	529.6	12.5	588.4	
	30		39.2	13.5	12		13.5		15		
	35		33.3	15.8	14		15.7		17.5		
	40		29.4	18	16		18		20		
	45		26.5	20.3	18		20.2		22.5		
	50		23.5	22.5	20		22.5		25		
	55		21.6	24.8	22		24.7		27.5		
	60		19.6	27	24		27		30		
	65		17.7	29.3	26		29.2		32.5		
	70		16.7	31.5	28		31.5		35		
	75		15.7	33.8	30		33.7		37.5		
	80		14.7	36	32		36		40		
	90		12.7	40.5	36		40.5		45		
	100		11.8	45	40		45		50		
	125		9.8	56.3	50		56.2		62.5		

Light Load Coil Springs

DSWF





Order DSWF-D-L

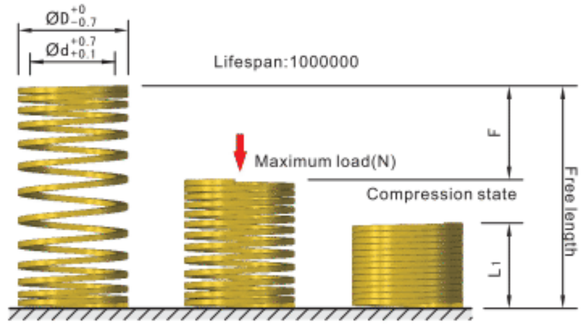
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40%		F=L×45%		F=L×50%		@¥/P
					F mm	Load N	F mm	Load N	F mm	Load N	
27	150	13.5	7.8	67.5	60	470.7	67.5	529.6	75	588.4	
	175		6.9	78.8	70		78.7		87.5		
	200		5.9	90	80		90		100		
30	25	16	56.9	11.3	10	568.8	11.2	637.4	12.5	706.1	
	30		47.1	13.5	12		13.5		15		
	35		40.2	15.8	14		15.7		17.5		
	40		35.3	18	16		18		20		
	45		31.4	20.3	18		20.2		22.5		
	50		28.4	22.5	20		22.5		25		
	55		25.5	24.8	22		24.7		27.5		
	60		23.5	27	24		27		30		
	65		21.6	29.3	26		29.2		32.5		
	70		20.6	31.5	28		31.5		35		
	75		18.6	33.8	30		33.7		37.5		
	80		17.7	36	32		36		40		
	90		15.7	40.5	36		40.5		45		
	100		13.7	45	40		45		50		
	125		11.8	56.3	50		56.2		62.5		
	150		9.8	67.5	60		67.5		75		
	175		7.8	78.8	70		78.7		87.5		
	200		6.9	90	80		90		100		
35	40	19	48.1	18	16	764.9	18	863	20	961.1	
	45		42.2	20.3	18		20.2		22.5		
	50		38.2	22.5	20		22.5		25		
	55		34.3	24.8	22		24.7		27.5		
	60		32.3	27	24		27		30		
	65		29.4	29.3	26		29.2		32.5		
	70		27.5	31.5	28		31.5		35		
	75		25.5	33.8	30		33.7		37.5		
	80		24.5	36	32		36		40		
	90		21.6	40.5	36		40.5		45		
	100		19.6	45	40		45		50		
	125		14.7	56.3	50		56.2		62.5		
	150		12.7	67.5	60		67.5		75		
	175		10.8	78.8	70		78.7		87.5		
	200		9.8	90	80		90		100		
40	40	22	62.8	18	16	1000.3	18	1127.8	20	1255.3	
	45		55.6	21.3	18		20.2		22.5		
	50		50	22.5	20		22.5		25		
	55		45.5	26.1	22		24.8		27.5		
	60		42.2	27	24		27		30		
	65		38.5	30.8	26		29.3		32.5		
	70		36.3	31.5	28		31.5		35		
	75		33.3	35.6	30		33.8		37.5		
	80		31.4	36	32		36		40		
	90		27.5	40.5	36		40.5		45		
	100		25.5	45	40		45		50		
	125		19.6	56.3	50		56.2		62.5		
	150		16.7	67.5	60		67.5		75		
	175		14.7	78.8	70		78.7		87.5		
	200		12.4	90	80		90		100		
	225		11.2	101	90		101.3		112.5		
	250		9.8	112.5	100		112.5		125		
	275		9.1	124	110		123.8		137.5		
	300		8.3	142.2	120		135		150		
50	50	27.5	78.5	22.5	20	1569.1	22.5	1765.2	25	1961.3	
	55		71.3	24.8	22		24.8		27.5		
	60		65.7	27	24		27		30		
	65		60.3	29.3	26		29.3		32.5		

Light Load Coil Springs

JIS

DSWF





Order DSWF-D-L

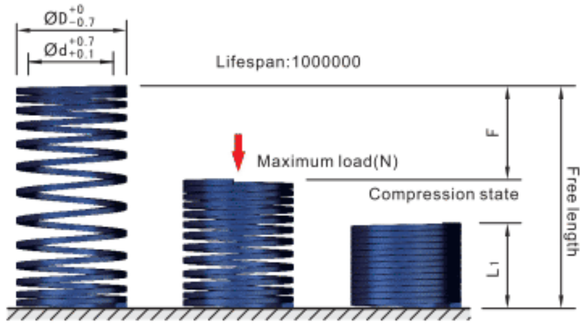
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40%		F=L×45%		F=L×50%		@¥/P
						Load N	F mm	Load N	F mm	Load N	
50	70	27.5	11.8	31.5	28	1569.1	31.5	1765.2	35	1961.3	
	75		10.8	33.8	30		33.8		37.5		
	80		9.8	36	32		36		40		
	90		8.8	40.5	36		40.5		45		
	100			45	40		45		50		
	125		7.8	56.3	50		56.2		62.5		
	150		6.9	67.5	60		67.5		75		
	175		5.9	78.8	70		78.7		87.5		
	200		4.9	90	80		90		100		
	225		3.9	101	90		101.3		112.5		
	250		31.4	112.5	100		112.5		125		
	275		26.5	124	110		123.8		137.5		
	300		22.6	135	120		135		150		
	350		19.6	165.9	140		157.5		175		
	400		17.7	189.6	160		180		200		
	450		15.7	213.3	180		202.5		225		
	500		14.7	237	200		225		250		
60	60	33	12.7	27	24	2255.5	27	2539.9	30	2824.3	
	70		11.8	31.5	28		31.5		35		
	80		10.8	36	32		36		40		
	90			40.5	36		40		45		
	100		9.8	45	40		45		50		
	125		8.8	56.3	50		56.2		62.5		
	150		7.8	67.5	60		67.5		75		
	175		5.9	78.8	70		78.7		87.5		
	200		4.9	90	80		90		100		
	250		39.2	112.5	100		112.5		125		
	300		32.4	135	120		135		150		
	350		28.4	165.9	140		157.5		175		
	400		24.5	189.6	160		180		200		
	450		21.6	213.3	180		202.5		225		
	500		19.6	237	200		225		250		
70	70	38.5	17.7	33.2	28	3138.1	31.5	3530.4	35	3922.6	
	80		16.7	37.9	32		36		40		
	90		14.7	42.7	36		40		45		
	100		13.7	47.4	40		45		50		
	125		12.7	59.3	50		56.2		62.5		
	150		11.8	71.1	60		67.5		75		
	175		10.8	83	70		78.7		87.5		
	200		9.8	94.8	80		90		100		
	250		8.8	118.5	100		112.5		125		
	300		7.8	142.2	120		135		150		
	350		5.9	165.9	140		157.5		175		

Light Load Coil Springs

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Maximum load calculate method:

Maximum load=compression×spring constant

N=F mm×N/mm (kgf=N×0.101972)

Maximum load Deviation:±10%

If D=70, Tolerance D: $^{+0}_{-1}$

If D≤50, Tolerance L±0.5

If D≥55, Tolerance L±1%×L

Order DSWL-D-L

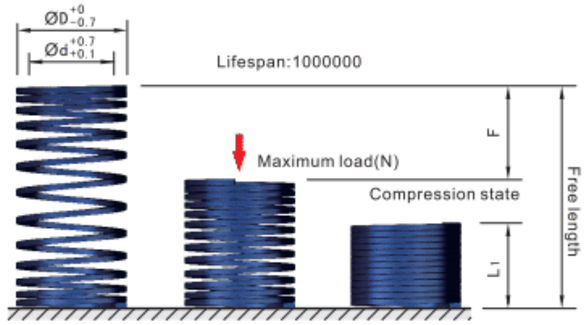
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40%		F=L×45%		F=L×50%		@¥/P
					F mm	Load N	F mm	Load N	F mm	Load N	
6	15	3	13.04	8.6	4.8	62.8	5.4	70.6	6	78.5	
	20		9.81	11.5	6.4		7.2		8		
	25		7.85	14.4	8		9		10		
	30		6.57	17.2	9.6		10.8		12		
	35		5.59	20.1	11.2		12.6		14		
	40		4.9	23	12.8		14.4		16		
8	15	4	16.7	8.1	4.8	78.5	5.4	88.3	6	98.1	
	20		12.7	10.8	6.4		7.2		8		
	25		9.8	13.5	8		9		10		
	30		7.8	16.2	9.6		10.8		12		
	35		6.9	18.9	11.2		12.6		14		
	40		5.9	21.6	12.8		14.4		16		
	45		4.9	24.3	14.4		16.2		18		
	50			27	16		18		20		
	55		3.9	29.7	17.6		19.8		22		
	60			32.4	19.2		21.6		24		
	65		3.77	37.3	20.8		23.4		26		
	70		3.5	40.2	22.4		25.2		28		
	75		3.3	43.1	24		27		30		
	80		3.1	45.9	25.6		28.8		32		
10	15	5	22.9	8.1	4.8	107.9	5.4	127.5	6	137.3	
	20		17.7	10.8	6.4		7.2		8		
	25		13.7	13.5	8		9		10		
	30		11.8	16.2	9.6		10.8		12		
	35		9.8	18.9	11.2		12.6		14		
	40		8.8	21.6	12.8		14.4		16		
	45		7.8	24.3	14.4		16.2		18		
	50		6.8	27	16		18		20		
	55		5.9	29.7	17.6		19.8		22		
	60			32.4	19.2		21.6		24		
	65			35.1	20.8		23.4		26		
	70		4.9	37.8	22.4		25.2		28		
	75			40.5	24		27		30		
	80		3.9	43.2	25.6		28.8		32		
	90		3.8	48.6	28.8		32.4		36		
12	20	6	25.5	6.4	6.4	166.7	7.2	186.3	8	205.9	
	25		20.6	8	8		9		10		
	30		17.7	9.6	9.6		10.8		12		
	35		14.7	11.2	11.2		12.6		14		
	40		12.7	12.8	12.8		14.4		16		

Light Load Coil Springs

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Order DSWL-D-L

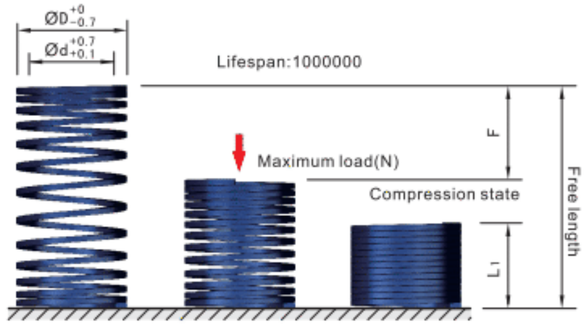
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
12	45	6	11.8	24.3	14.4	166.7	16.2	186.3	18	205.9	
	50		10.8	27	16		18		20		
	55		9.8	29.7	17.6		19.8		22		
	60		8.8	32.4	19.2		21.6		24		
	65		7.8	35.1	20.8		23.4		26		
	70			37.8	22.4		25.2		28		
	75		6.8	40.5	24		27		30		
	80			43.2	25.6		28.8		32		
	90		5.7	48.6	28.8		32.4		36		
14	25	7	27.5	13.5	8	215.7	9	245.2	10	274.6	
	30		22.6	16.2	9.6		10.8		12		
	35		19.6	18.9	11.2		12.6		14		
	40		17.7	21.6	12.8		14.4		16		
	45		15.7	24.3	14.4		16.2		18		
	50		13.7	27	16		18		20		
	55		12.7	29.7	17.6		19.8		22		
	60		11.8	32.4	19.2		21.6		24		
	65		10.8	35.1	20.8		23.4		26		
	70		9.8	37.8	22.4		25.2		28		
	75		8.8	40.5	24		27		30		
	80			43.2	25.6		28.8		32		
	90		7.8	48.6	28.8		32.4		36		
	100		6.9	54	32		36		40		
16	25	8	34.3	13.5	8	274.6	9	313.8	10	343.2	
	30		28.4	16.2	9.6		10.8		12		
	35		24.5	18.9	11.2		12.6		14		
	40		21.6	21.6	12.8		14.4		16		
	45		18.6	24.3	14.4		16.2		18		
	50		17.7	27	16		18		20		
	55		15.7	29.7	17.6		19.8		22		
	60		14.7	32.4	19.2		21.6		24		
	65		12.7	35.1	20.8		23.4		26		
	70			37.8	22.4		25.2		28		
	75		11.8	40.5	24		27		30		
	80		10.8	43.2	25.6		28.8		32		
	90		9.8	48.6	28.8		32.4		36		
	100		8.8	54	32		36		40		
	125		6.9	67.5	40		32.4		50		
18	25	9	42.2	13.5	8	333.4	9	382.5	10	421.7	
	30		35.3	16.2	9.6		10.8		12		
	35		30.4	18.9	11.2		12.6		14		
	40		26.5	21.6	12.8		14.4		16		
	45		23.5	24.3	14.4		16.2		18		
	50		21.6	27	16		18		20		
	55		19.6	29.7	17.6		19.8		22		
	60		17.7	32.4	19.2		21.6		24		
	65		16.7	35.1	20.8		23.4		26		
	70		14.7	37.8	22.4		25.2		28		
	75		13.7	40.5	24		27		30		
	80		12.7	43.2	25.6		28.8		32		
	90		11.8	48.6	28.8		32.4		36		
	100		9.8	54	32		36		40		
	125		8.4	67.5	40		45		50		
20	25	10	53	13.5	8	421.7	9	407.7	10	529.6	
	30		44.1	16.2	9.6		10.8		12		
	35		37.3	18.9	11.2		12.6		14		
	40		33.3	21.6	12.8		14.4		16		
	45		29.4	24.3	14.4		16.2		18		
	50		26.5	27	16		18		20		

Light Load Coil Springs

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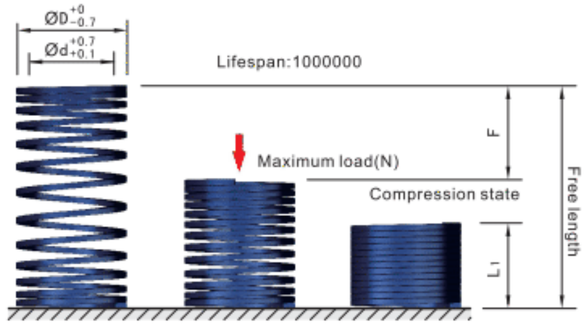
Order DSWL-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
20	55	10	23.5	29.7	17.6	421.7	19.8	470.7	22	529.6	
	60		21.6	32.4	19.2		21.6		24		
	65		20.6	35.1	20.8		23.4		26		
	70		18.6	37.8	22.4		25.2		28		
	75		17.7	40.5	24		27		30		
	80		16.7	43.2	25.6		28.8		32		
	90		14.7	48.6	28.8		32.4		36		
	100		12.7	54	32		36		40		
	125		10.8	67.5	40		45		50		
	150		8.8	81	48		54		60		
22	25	11	66.7	13.5	8	529.6	9	588.4	10	657	
	30		54.9	16.2	9.6		10.8		12		
	35		47.1	18.9	11.2		12.6		14		
	40		41.2	21.6	12.8		14.4		16		
	45		37.3	24.3	14.4		16.2		18		
	50		33.3	27	16		18		20		
	55		30.4	29.7	17.6		19.8		22		
	60		27.5	32.4	19.2		21.6		24		
	65		25.5	35.1	20.8		23.4		26		
	70		23.5	37.8	22.4		25.2		28		
	75		21.6	40.5	24		27		30		
	80		20.6	43.2	25.6		28.8		32		
	90		18.6	48.6	28.8		32.4		36		
	100		16.7	54	32		36		40		
	125		12.7	67.5	40		45		50		
	150		10.8	81	48		54		60		
25	25	12.5	82.4	13.5	8	657	9	735.5	10	823.8	
	30		68.6	16.2	9.6		10.8		12		
	35		58.8	18.9	11.2		12.6		14		
	40		51	21.6	12.8		14.4		16		
	45		46.1	24.3	14.4		16.2		18		
	50		41.2	27	16		18		20		
	55		37.3	29.7	17.6		19.8		22		
	60		34.3	32.4	19.2		21.6		24		
	65		31.4	35.1	20.8		23.4		26		
	70		29.4	37.8	22.4		25.2		28		
	75		27.5	40.5	24		27		30		
	80		25.5	43.2	25.6		28.8		32		
	90		22.6	48.6	28.8		32.4		36		
	100		20.6	54	32		36		40		
	125		16.7	67.5	40		45		50		
	150		13.7	81	48		54		60		
	175		11.8	94.5	56		63		70		
	200		10.3	108	64		72		80		
27	25	13.5	98.1	13.5	8	784.5	9	882.6	10	980.7	
	30		81.4	16.2	9.6		10.8		12		
	35		69.6	18.9	11.2		12.6		14		
	40		61.8	21.6	12.8		14.4		16		
	45		54.9	24.3	14.4		16.2		18		
	50		49	27	16		18		20		
	55		44.1	29.7	17.6		19.8		22		
	60		41.2	32.4	19.2		21.6		24		
	65		37.3	35.1	20.8		23.4		26		
	70		35.3	37.8	22.4		25.2		28		
	75		32.4	40.5	24		27		30		
	80		30.4	43.2	25.6		28.8		32		
	90		27.5	48.6	28.8		32.4		36		
	100		24.5	54	32		36		40		
	125		19.6	67.5	40		45		50		

Light Load Coil Springs

DSWL





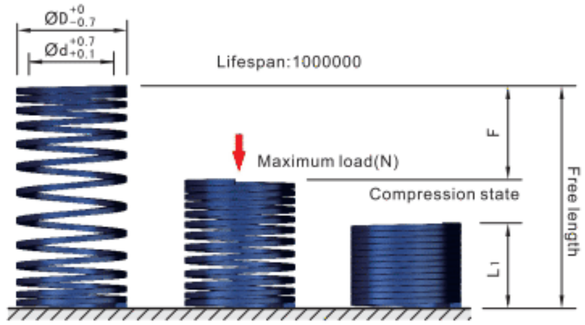
Order DSWL-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
27	150	13.5	16.7	81	48	784.5	54	882.6	22	980.7	
	175		13.7	94.5	56		63		24		
	200		12.3	108	64		72		26		
30	25	15	118.7	13.5	8	951.2	9	1068.9	28	1186.6	
	30		99	16.2	9.6		10.8		30		
	35		85.3	18.9	11.2		12.6		32		
	40		74.5	21.6	12.8		14.4		36		
	45		65.7	24.3	14.4		16.2		40		
	50		59.8	27	16		18		50		
	55		53.9	29.7	17.6		19.8		60		
	60		49	32.4	19.2		21.6		10		
	65		46.1	35.1	20.8		23.4		12		
	70		42.2	37.8	22.4		25.2		14		
	75		39.2	40.5	24		27		16		
	80		37.3	43.2	25.6		28.8		18		
	90		33.3	48.6	28.8		32.4		20		
	100		29.4	54	32		36		22		
	125		23.5	67.5	40		45		24		
	150		19.6	81	48		54		26		
	175		16.7	94.5	56		63		28		
	200		14.7	108	64		72		30		
35	40	17.5	101	21.6	12.8	1294.5	14.4	1461.2	32	1618.1	
	45		90.2	24.3	14.4		16.2		36		
	50		81.4	27	16		18		40		
	55		73.5	29.7	17.6		19.8		50		
	60		67.7	32.4	19.2		21.6		60		
	65		61.8	35.1	20.8		23.4		10		
	70		57.9	37.8	22.4		25.2		12		
	75		53.9	40.5	24		27		14		
	80		51	43.2	25.6		28.8		16		
	90		45.1	48.6	28.8		32.4		18		
	100		40.2	54	32		36		20		
	125		32.4	67.5	40		45		22		
	150		27.5	81	48		54		24		
	175		23.5	94.5	56		63		26		
	200		20.6	108	64		72		28		
40	40	20	132.4	21.6	12.8	1696.6	14.4	1902.5	30	2118.2	
	45		117.8	24.3	14.4		16.2		32		
	50		105.9	27	16		18		36		
	55		96.4	29.7	17.6		19.8		40		
	60		88.3	32.4	19.2		21.6		50		
	65		81.6	35.1	20.8		23.4		60		
	70		75.5	37.8	22.4		25.2		70		
	75		70.7	40.5	24		27		80		
	80		66.7	43.2	25.6		28.8		10		
	90		58.8	48.6	28.8		32.4		12		
	100		53	54	32		36		14		
	125		42.2	67.5	40		45		16		
	150		35.3	81	48		54		18		
	175		30.4	94.5	56		63		20		
	200		26.5	108	64		72		22		
	225		23.5	122	72		81		24		
	250		21.6	135	80		90		26		
	275		19.3	149	88		99		28		
	300		17.7	172.2	96		108		30		
50	50	25	165.7	27	16	2647.8	18	2981.2	32	3314.6	
	55		150.7	29.7	17.6		19.8		36		
	60		138.3	32.4	19.2		21.6		40		
	65		127.5	35.1	20.8		23.4		50		

Light Load Coil Springs

DSWL





Order DSWL-D-L

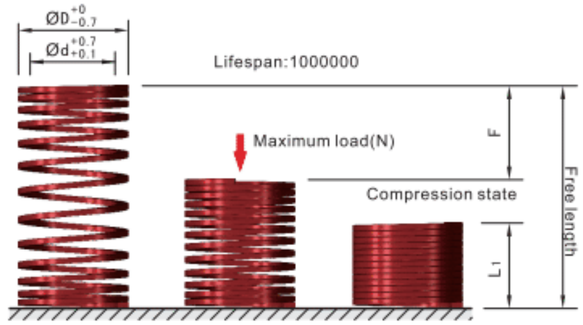
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
50	70	25	118.7	37.8	22.4	2647.8	25.2	2981.2	28	3314.6	
	75		110.5	40.5	24		27		30		
	80		104	43.2	25.6		28.8		32		
	90		92.2	48.6	28.8		32.4		36		
	100		83.4	54	32		36		40		
	125		66.7	67.5	40		45		50		
	150		54.9	81	48		54		60		
	175		47.1	94.5	56		63		70		
	200		41.2	108	64		72		80		
	225		26.8	122	72		81		90		
	250		33.3	135	80		90		100		
	275		30.1	149	88		99		110		
	300		27.5	162	96		108		120		
	350		23.6	200.9	112		126		140		
60	60	30	199.1	32.4	19.2	3814.8	21.6	4285.5	24	4766	
	70		170.6	37.8	22.4		25.2		28		
	80		149.1	43.2	25.6		28.8		32		
	90		132.4	48.6	28.8		32.4		36		
	100		119.6	54	32		36		40		
	125		95.1	67.5	40		45		50		
	150		79.4	81	48		54		60		
	175		67.7	94.5	56		63		70		
	200		59.8	108	64		72		80		
	250		48.1	135	80		90		100		
	300		40.2	162	96		108		120		
	350		34.1	200.9	112		126		140		
70	70	38.5	213.7	40.2	22.4	4785.6	25.2	5383.8	28	5982	
	80		186.9	45.9	25.6		28.8		32		
	90		166.2	51.7	28.8		32.4		36		
	100		149.6	57.4	32		36		40		
	125		119.6	71.8	40		45		50		
	150		99.7	86.1	48		54		60		
	175		85.5	100.5	56		63		70		
	200		74.8	114.8	64		72		80		
	250		59.8	143.5	80		90		100		
	300		49.9	172.2	96		108		120		
	350		42.7	200.9	112		126		140		

JIS

Middle Load Coil springs

DSWM





Maximum load calculate method:

Maximum load=compression×spring constant

N=F mm×N/mm (kgf=N×0.101972)

Maximum load Deviation:±10%

If D=70, Tolerance D: -1 +0

If D≤50, Tolerance L±0.5

If D≥55, Tolerance L±1%×L

Order DSWM-D-L

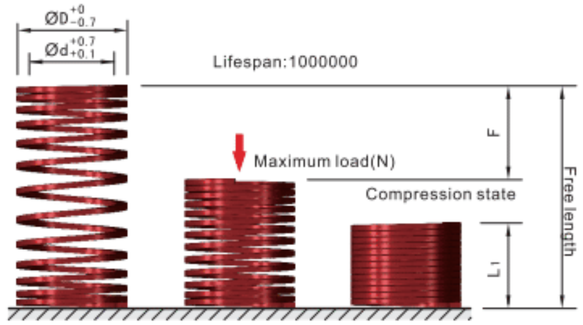
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
6	15	3	20.4	9.8	3.8	78.5	4.3	88.3	4.8	98.1	
	20		15.3	13.1	5.1		5.8		6.4		
	25		12.26	16.4	6.4		7.2		8		
	30		10.2	19.6	7.7		8.6		9.6		
	35		8.73	22.9	9		10.1		11.2		
	40		7.65	26.2	10.2		11.5		12.8		
	45		6.77	29.4	11.5		13		14.4		
	50		6.18	32.7	12.8		14.4		16		
	55		5.59	36	14.1		15.8		17.6		
	60		5.1	39.2	15.4		17.3		19.2		
8	10	4	42.9	6.6	2.6	107.9	2.9	127.5	3.2	137.3	
	15		28.4	9.4	3.8		4.3		4.8		
	20		20.6	12.5	5.1		5.8		6.4		
	25		17.7	15.7	6.4		7.2		8		
	30		14.7	18.8	7.7		8.6		9.6		
	35		12.7	21.9	9		10.1		11.2		
	40		10.8	25	10.2		11.5		12.8		
	45		8.8	28.2	11.5		13		14.4		
	50		7.8	31.3	12.8		14.4		16		
	55			34.4	14.1		15.8		17.6		
	60		6.9	37.6	15.4		17.3		19.2		
	65		6.5	42.5	16.6		18.7		20.8		
	70		6	45.8	17.9		20.2		22.4		
	75		5.6	49.1	19.2		21.6		24		
	80		5.3	52.3	20.5		23		25.6		
10	10	5	61.3	6.6	2.6	156.9	2.9	176.5	3.2	196.1	
	15		40.9	9.8	3.8		4.3		4.8		
	20		30.4	12.5	5.1		5.8		6.4		
	25		24.5	15.7	6.4		7.2		8		
	30		20.6	18.8	7.7		8.6		9.6		
	35		17.7	21.9	9		10.1		11.2		
	40		15.7	25	10.2		11.5		12.8		
	45		13.7	28.2	11.5		13		14.4		
	50		12.7	31.3	12.8		14.4		16		
	55		10.8	34.4	14.1		15.8		17.6		
	60		9.8	37.6	15.4		17.3		19.2		
	65			40.7	16.6		18.7		20.8		
	70		8.8	43.8	17.9		20.2		22.4		
	75		7.8	47	19.2		21.6		24		
	80			50.1	20.5		23		25.6		
	90		6.8	56.3	23		25.9		28.8		

JIS

Middle Load Coil springs

DSWM





Order DSWM-D-L

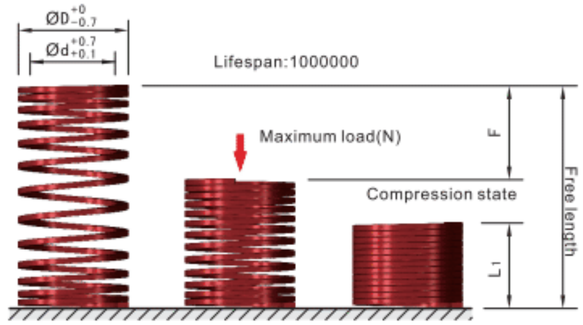
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
12	15	6	59.3	9.8	3.8	225.6	4.3	255	4.8	284.4	
	20		44.1	12.5	5.1		5.8		6.4		
	25		35.3	15.7	6.4		7.2		8		
	30		29.4	18.8	7.7		8.6		9.6		
	35		25.5	21.9	9		10.1		11.2		
	40		22.6	25	10.2		11.5		12.8		
	45		19.6	28.2	11.5		13		14.4		
	50		17.7	31.3	12.8		14.4		16		
	55		15.7	34.4	14.1		15.8		17.6		
	60		14.7	37.6	15.4		17.3		19.2		
	65		13.7	40.7	16.6		18.7		20.8		
	70		12.7	43.8	17.9		20.2		22.4		
	75		11.8	47	19.2		21.6		24		
	80		10.8	50.1	20.5		23		25.6		
	90		9.9	56.3	23		25.9		28.8		
14	20	7	59.8	13.1	5.1	304	5.8	343.2	6.4	382.5	
	25		48.1	15.7	6.4		7.2		8		
	30		40.2	18.8	7.7		8.6		9.6		
	35		34.3	21.9	9		10.1		11.2		
	40		29.4	25	10.2		11.5		12.8		
	45		26.5	28.2	11.5		13		14.4		
	50		23.5	31.3	12.8		14.4		16		
	55		21.6	34.4	14.1		15.8		17.6		
	60		19.6	37.6	15.4		17.3		19.2		
	65		18.6	40.7	16.6		18.7		20.8		
	70		16.7	43.8	17.9		20.2		22.4		
	75		15.7	47	19.2		21.6		24		
	80		14.7	50.1	20.5		23		25.6		
	90		12.7	56.3	23		25.9		28.8		
	100		12	62.6	25.6		28.8		32		
16	20	8	78.2	13.1	5.1	402.1	5.8	451.1	6.4	500.1	
	25		62.8	15.7	6.4		7.2		8		
	30		52	18.8	7.7		8.6		9.6		
	35		45.1	21.9	9		10.1		11.2		
	40		39.2	25	10.2		11.5		12.8		
	45		34.3	28.2	11.5		13		14.4		
	50		31.4	31.3	12.8		14.4		16		
	55		28.4	34.4	14.1		15.8		17.6		
	60		26.5	37.6	15.4		17.3		19.2		
	65		24.5	40.7	16.6		18.7		20.8		
	70		22.6	43.8	17.9		20.2		22.4		
	75		20.6	47	19.2		21.6		24		
	80		19.6	50.1	20.5		23		25.6		
	90		17.7	56.3	23		25.9		28.8		
	100		15.7	62.6	25.6		28.8		32		
18	20	9	99.6	13.1	5.1	509.9	5.8	568.8	6.4	637.4	
	25		74.9	15.7	6.4		7.2		8		
	30		66.7	18.8	7.7		8.6		9.6		
	35		56.9	21.9	9		10.1		11.2		
	40		50	25	10.2		11.5		12.8		
	45		44.1	28.2	11.5		13		14.4		
	50		40.2	31.3	12.8		14.4		16		
	55		36.3	34.4	14.1		15.8		17.6		
	60		33.3	37.6	15.4		17.3		19.2		
	65		30.4	40.7	16.6		18.7		20.8		
	70		28.4	43.8	17.9		20.2		22.4		
	75		26.5	47	19.2		21.6		24		
	80		24.5	50.1	20.5		23		25.6		
	90		22.6	56.3	23		25.9		28.8		
	100		19.6	62.6	25.6		28.8		32		

JIS

Middle Load Coil springs

DSWM





Order DSWM-D-L

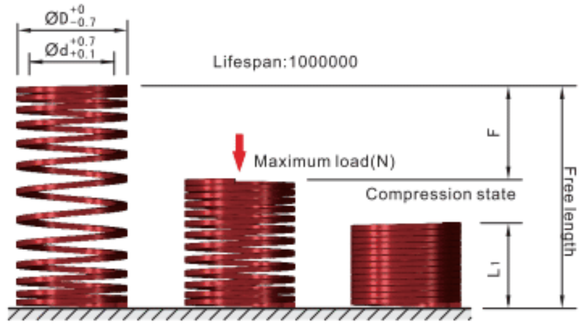
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
20	20	10	122.6	13.1	5.1	627.6	5.8	706.1	6.4	784.5	
	25		98.1	15.7	6.4		7.2		8		
	30		81.4	18.8	7.7		8.6		9.6		
	35		69.6	21.9	9		10.1		11.2		
	40		61.8	25	10.2		11.5		12.8		
	45		54.9	28.2	11.5		13		14.4		
	50		49	31.3	12.8		14.4		16		
	55		44.1	34.4	14.1		15.8		17.6		
	60		41.2	37.6	15.4		17.3		19.2		
	65		37.3	40.7	16.6		18.7		20.8		
	70		35.3	43.8	17.9		20.2		22.4		
	75		32.4	47	19.2		21.6		24		
	80		30.4	50.1	20.5		23		25.6		
	90		27.5	56.3	23		25.9		28.8		
	100		24.5	62.6	25.6		28.8		32		
	125		19.6	78.3	32		36		40		
	150		16.7	93.9	38.4		43.2		48		
22	25	11	118.7	15.7	6.4	755.1	7.2	853.2	8	951.2	
	30		99	18.8	7.7		8.6		9.6		
	35		85.3	21.9	9		10.1		11.2		
	40		74.5	25	10.2		11.5		12.8		
	45		65.7	28.2	11.5		13		14.4		
	50		59.8	31.3	12.8		14.4		16		
	55		53.9	34.4	14.1		15.8		17.6		
	60		50	37.6	15.4		17.3		19.2		
	65		46.1	40.7	16.6		18.7		20.8		
	70		42.2	43.8	17.9		20.2		22.4		
	75		39.2	47	19.2		21.6		24		
	80		37.3	50.1	20.5		23		25.6		
	90		33.3	56.3	23		25.9		28.8		
	100		29.4	62.6	25.6		28.8		32		
	125		23.5	78.3	32		36		40		
	150		19.6	93.9	38.4		43.2		48		
25	25	12.5	153	15.7	6.4	980.7	7.2	1098.3	8	1225.8	
	30		127.5	18.8	7.7		8.6		9.6		
	35		109.8	21.9	9		10.1		11.2		
	40		96.1	25	10.2		11.5		12.8		
	45		85.3	28.2	11.5		13		14.4		
	50		76.5	31.3	12.8		14.4		16		
	55		69.6	34.4	14.1		15.8		17.6		
	60		63.7	37.6	15.4		17.3		19.2		
	65		58.8	40.7	16.6		18.7		20.8		
	70		54.9	43.8	17.9		20.2		22.4		
	75		51	47	19.2		21.6		24		
	80		48.1	50.1	20.5		23		25.6		
	90		42.2	56.3	23		25.9		28.8		
	100		38.2	62.6	25.6		28.8		32		
	125		30.4	78.3	32		36		40		
	150		25.5	93.9	38.4		43.2		48		
	175		19.6	109.6	44.8		50.4		56		
27	25	13.5	179.5	15.7	6.4	1147.4	7.2	1284.7	8	1431.8	
	30		149.1	18.8	7.7		8.6		9.6		
	35		127.5	21.9	9		10.1		11.2		
	40		111.8	25	10.2		11.5		12.8		
	45		99	28.2	11.5		13		14.4		
	50		89.2	31.3	12.8		14.4		16		
	55		81.4	34.4	14.1		15.8		17.6		
	60		74.5	37.6	15.4		17.3		19.2		
	65		68.6	40.7	16.6		18.7		20.8		

JIS

Middle Load Coil springs

DSWM





Order DSWM-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
27	70	13.5	63.7	43.8	17.9	1147.4	20.2	1284.7	22.4	1431.8	
	75		59.8	47	19.2		21.6		24		
	80		55.9	50.1	20.5		23		25.6		
	90		50	56.3	23		25.9		28.8		
	100		45.1	62.6	25.6		28.8		32		
	125		36.3	78.3	32		36		40		
	150		29.4	93.9	38.4		43.2		48		
	175		25.5	109.6	44.8		50.4		56		
30	25	15	200.6	15.7	6.4	1412.2	7.2	1578.9	8	1765.2	
	30		184.4	18.8	7.7		8.6		9.6		
	35		157.9	21.9	9		10.1		11.2		
	40		138.3	25	10.2		11.5		12.8		
	45		122.6	28.2	11.5		13		14.4		
	50		110.8	31.3	12.8		14.4		16		
	55		100	34.4	14.1		15.8		17.6		
	60		92.2	37.6	15.4		17.3		19.2		
	65		85.3	40.7	16.6		18.7		20.8		
	70		78.5	43.8	17.9		20.2		22.4		
	75		73.5	47	19.2		21.6		24		
	80		68.6	50.1	20.5		23		25.6		
	90		61.8	56.3	23		25.9		28.8		
	100		54.9	62.6	25.6		28.8		32		
	125		44.1	78.3	32		36		40		
	150		37.3	93.9	38.4		43.2		48		
	175		31.4	109.6	44.8		50.4		56		
	200		27.5	125.2	51.2		57.6		64		
35	40	17.5	187.3	25	10.2	1912.3	11.5	2157.5	12.8	2402.6	
	45		166.7	28.2	11.5		13		14.4		
	50		150	31.3	12.8		14.4		16		
	55		136.3	34.4	14.1		15.8		17.6		
	60		125.5	37.6	15.4		17.3		19.2		
	65		115.7	40.7	16.6		18.7		20.8		
	70		106.9	43.8	17.9		20.2		22.4		
	75		100	47	19.2		21.6		24		
	80		94.1	50.1	20.5		23		25.6		
	90		83.4	56.3	23		25.9		28.8		
	100		75.5	62.6	25.6		28.8		32		
	125		59.8	78.3	32		36		40		
	150		50	93.9	38.4		43.2		48		
	175		43.1	109.6	44.8		50.4		56		
	200		37.3	125.5	51.2		57.6		64		
40	40	20	246.1	25	10.2	2510.5	11.5	2824.3	12.8	3138.1	
	45		218.3	28.2	11.5		13		14.4		
	50		196.1	31.3	12.8		14.4		16		
	55		178	34.4	14.1		15.8		17.6		
	60		162.8	37.6	15.4		17.3		19.2		
	65		151.2	40.7	16.6		18.7		20.8		
	70		140.2	43.8	17.9		20.2		22.4		
	75		130.8	47	19.2		21.6		24		
	80		122.6	50.1	20.5		23		25.6		
	90		108.9	56.3	23		25.9		28.8		
	100		98.1	62.6	25.6		28.8		32		
	125		78.5	78.3	32		36		40		
	150		65.7	93.9	38.4		43.2		48		
	175		55.9	109.6	44.8		50.4		56		
	200		49	125.5	51.2		57.6		64		
	225		43.6	141	57.6		64.8		72		
	250		39.2	156.5	64		72		80		
	275		35.7	172	70.4		79.2		88		
	300		32.7	196.2	76.8		86.4		96		

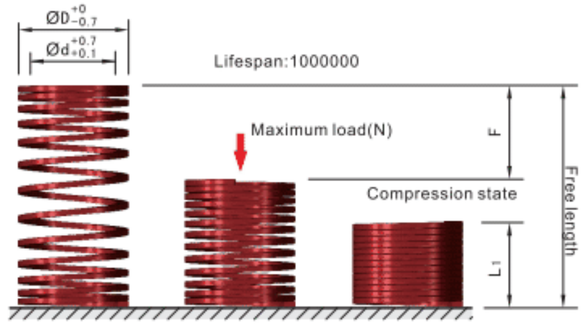
MOLD PARTNER

Middle Load Coil springs

JIS

DSWM





Order DSWM-D-L

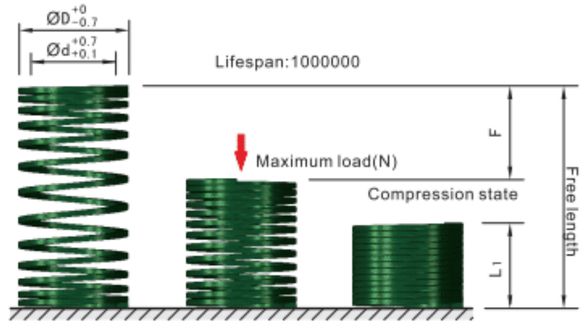
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
50	50	25	306.9	31.3	12.8	3922.7	14.4	4413	16	4903.3	
	55		278.6	34.4	14.1		15.8		17.6		
	60		255	37.6	15.4		17.3		19.2		
	65		235.7	40.7	16.6		18.7		20.8		
	70		218.7	43.8	17.9		20.2		22.4		
	75		204.3	47	19.2		21.6		24		
	80		191.2	50.1	20.5		23		25.6		
	90		170.6	56.3	23		25.9		28.8		
	100		153	62.6	25.6		28.8		32		
	125		122.6	78.3	32		36		40		
	150		102	93.9	38.4		43.2		48		
	175		87.3	109.6	44.8		50.4		56		
	200		76.5	125.2	51.2		57.6		64		
	225		68.1	141	57.6		64.8		72		
	250		60.8	156.5	64		72		80		
	275		55.7	172	70.4		79.2		88		
	300		51	187.8	76.8		86.4		96		
	350		43.8	228.9	89.6		100.8		112		
60	60	30	365.8	37.6	15.4	5638.8	17.3	6354.7	19.2	7060.8	
	70		314.8	43.8	17.9		20.2		22.4		
	80		275.6	50.1	20.5		23		25.6		
	90		245.2	56.3	23		25.9		28.8		
	100		220.6	62.6	25.6		28.8		32		
	125		176.5	78.3	32		36		40		
	150		147	93.9	38.4		43.2		48		
	175		126.5	109.6	44.8		50.4		56		
	200		110.8	125.2	51.2		57.6		64		
	250		88.3	156.5	64		72		80		
	300		73.5	187.8	76.8		86.4		96		
	350		62.9	228.9	89.6		100.8		112		
70	70	38.5	372.2	45.8	17.9	6668.5	20.2	7502.1	22.4	8335.6	
	80		325.6	52.3	20.5		23		25.6		
	90		289.9	58.9	23		25.9		28.8		
	100		260.5	65.4	25.6		28.8		32		
	125		208.4	81.8	32		36		40		
	150		173.7	98.1	38.4		43.2		48		
	175		148.9	114.5	44.8		50.4		56		
	200		130.2	130.8	51.2		57.6		64		
	250		104.2	163.5	64		72		80		
	300		86.8	196.2	76.8		86.4		96		
	350		74.4	228.9	89.6		100.8		112		

High Load Coil springs

JIS

DSWH





Maximum load calculate method:

Maximum load=compression×spring constant

N=F mm×N/mm (kgf=N×0.101972)

Maximum load Deviation:±10%

If D=70, Tolerance D: $^{+0}_{-1}$

If D≤50, Tolerance L±0.5

If D≥55, Tolerance L±1%×L

Order DSWH-D-L

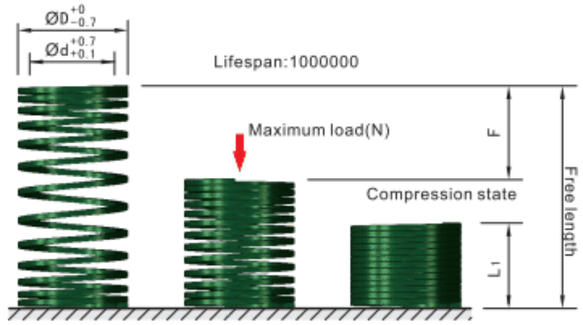
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
10	10	5	122.6	7.4	1.9	235.4	2.2	264.8	2.4	294.2	
	15		81.4	11	2.9		3.2		3.6		
	20		61.8	14.4	3.8		4.3		4.8		
	25		49	18	4.8		5.4		6		
	30		41.2	21.6	5.8		6.5		7.2		
	35		35.3	25.2	6.7		7.5		8.4		
	40		30.4	28.8	7.7		8.6		9.6		
	45		27.5	32.4	8.6		9.7		10.8		
	50		24.5	36	9.6		10.8		12		
	55		22.6	39.6	10.6		11.8		13.2		
	60		20.6	43.2	11.5		13		14.4		
	65		18.6	46.8	12.5		14		15.6		
	70		17.7	50.4	13.4		15.1		16.8		
	75		16.7	54	14.4		16.2		18		
	80		15.7	57.6	15.4		17.3		19.2		
	90		13.6	64.8	17.3		19.4		21.6		
12	15	6	117.1	11	2.9	333.4	3.2	372.7	3.6	421.7	
	20		88.3	14.4	3.8		4.3		4.8		
	25		70.6	18	4.8		5.4		6		
	30		58.8	21.6	5.8		6.5		7.2		
	35		50	25.2	6.7		7.5		8.4		
	40		44.1	28.8	7.7		8.6		9.6		
	45		39.2	32.4	8.6		9.7		10.8		
	50		35.3	36	9.6		10.8		12		
	55		32.4	39.6	10.6		11.8		13.2		
	60		29.4	43.2	11.5		13		14.4		
	65		26.5	46.8	12.5		14		15.6		
	70		24.5	50.4	13.4		15.1		16.8		
	75		23.5	54	14.4		16.2		18		
	80		21.6	57.6	15.4		17.3		19.2		
	90		19.5	64.8	17.3		19.4		21.6		
14	20	7	120.5	14.7	3.8	460.9	4.3	519.8	4.8	578.6	
	25		96.1	18	4.8		5.4		6		
	30		80.4	21.6	5.8		6.5		7.2		
	35		68.6	25.2	6.7		7.5		8.4		
	40		59.8	28.8	7.7		8.6		9.6		
	45		53.9	32.4	8.6		9.7		10.8		
	50		48.1	36	9.6		10.8		12		
	55		44.1	39.6	10.6		11.8		13.2		
	60		40.2	43.2	11.5		13		14.4		

JIS

High Load Coil springs

DSWH





Order DSWH-D-L

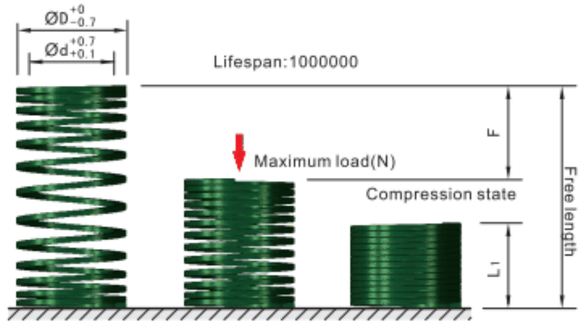
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
14	65	7	37.3	46.8	12.5	460.9	14	519.8	15.6	578.6	
	70		34.3	50.4	13.4		15.1		16.8		
	75		32.4	54	14.4		16.2		18		
	80		30.4	57.6	15.4		17.3		19.2		
	90		26.5	64.8	17.3		19.4		21.6		
	100		24.1	72	19.2		21.6		24		
16	20	8	157.3	14.7	3.8	608	4.3	676.7	4.8	755.1	
	25		125.5	18	4.8		5.4		6		
	30		104.9	21.6	5.8		6.5		7.2		
	35		90.2	25.2	6.7		7.5		8.4		
	40		78.5	28.8	7.7		8.6		9.6		
	45		69.6	32.4	8.6		9.7		10.8		
	50		62.8	36	9.6		10.8		12		
	55		56.9	39.6	10.6		11.8		13.2		
	60		52	43.2	11.5		13		14.4		
	65		48.1	46.8	12.5		14		15.6		
	70		45.1	50.4	13.4		15.1		16.8		
	75		42.2	54	14.4		16.2		18		
	80		39.2	57.6	15.4		17.3		19.2		
	90		35.3	64.8	17.3		19.4		21.6		
	100		31.4	72	19.2		21.6		24		
18	20	9	198.2	14.7	3.8	764.9	4.3	853.2	4.8	951.2	
	25		158.9	18	4.8		5.4		6		
	30		132.4	21.6	5.8		6.5		7.2		
	35		112.8	25.2	6.7		7.5		8.4		
	40		99	28.8	7.7		8.6		9.6		
	45		88.3	32.4	8.6		9.7		10.8		
	50		79.4	36	9.6		10.8		12		
	55		71.6	39.6	10.6		11.8		13.2		
	60		65.7	43.2	11.5		13		14.4		
	65		60.8	46.8	12.5		14		15.6		
	70		56.9	50.4	13.4		15.1		16.8		
	75		53	54	14.4		16.2		18		
	80		50	57.6	15.4		17.3		19.2		
	90		44.2	64.8	17.3		19.4		21.6		
	100		39.2	72	19.2		21.6		24		
20	20	10	245.2	14.7	3.8	941.4	4.3	1059.1	4.8	1176.8	
	25		196.1	18	4.8		5.4		6		
	30		163.8	21.6	5.8		6.5		7.2		
	35		140.2	25.2	6.7		7.5		8.4		
	40		122.6	28.8	7.7		8.6		9.6		
	45		108.9	32.4	8.6		9.7		10.8		
	50		98.1	36	9.6		10.8		12		
	55		89.2	39.6	10.6		11.8		13.2		
	60		81.4	43.2	11.5		13		14.4		
	65		75.5	46.8	12.5		14		15.6		
	70		69.6	50.4	13.4		15.1		16.8		
	75		65.7	54	14.4		16.2		18		
	80		61.8	57.6	15.4		17.3		19.2		
	90		54.9	64.8	17.3		19.4		21.6		
	100		49	72	19.2		21.6		24		
	125		39.2	90	24		27		30		
	150		32.4	108	28.8		32.4		36		
22	25	11	237.2	18	4.8	1137.6	5.4	1274.9	6	1422	
	30		197.1	21.6	5.8		6.5		7.2		
	35		169.7	25.2	6.7		7.5		8.4		
	40		148	28.8	7.7		8.6		9.6		
	45		131.4	32.4	8.6		9.7		10.8		
	50		118.7	36	9.6		10.8		12		

JIS

High Load Coil springs

DSWH





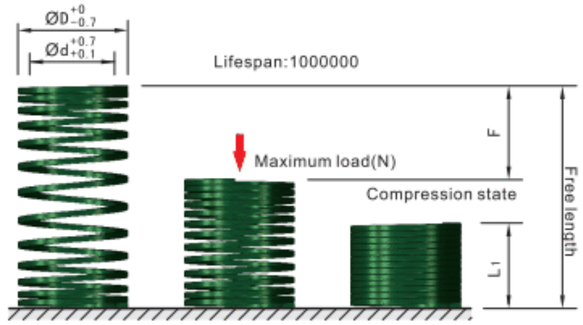
Order DSWH-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
22	55	11	107.9	39.6	10.6	1137.6	11.9	1274.9	13.2	1422	
	60		99	43.2	11.5		13		14.4		
	65		91.2	46.8	12.5		14		15.6		
	70		84.3	50.4	13.4		15.1		16.8		
	75		79.4	54	14.4		16.2		18		
	80		74.5	57.6	15.4		17.3		19.2		
	90		65.7	64.8	17.3		19.4		21.6		
	100		58.9	72	19.2		21.6		24		
	125		47.1	90	24		27		30		
	150		39.2	108	28.8		32.4		36		
25	25	12.5	306	18	4.8	1471	5.4	1657.3	6	1833.8	
	30		255	21.6	5.8		6.5		7.2		
	35		218.7	25.2	6.7		7.5		8.4		
	40		191.2	28.8	7.7		8.6		9.6		
	45		169.7	32.4	8.6		9.7		10.8		
	50		153	36	9.6		10.8		12		
	55		139.3	39.6	10.6		11.9		13.2		
	60		127.5	43.2	11.5		13		14.4		
	65		117.7	46.8	12.5		14		15.6		
	70		108.9	50.4	13.4		15.1		16.8		
	75		102	54	14.4		16.2		18		
	80		95.1	57.6	15.4		17.3		19.2		
	90		85.3	64.8	17.3		19.4		21.6		
	100		76.5	72	19.2		21.6		24		
	125		60.8	90	24		27		30		
	150		51	108	28.8		32.4		36		
	175		44.1	126	33.6		37.8		42		
27	25	13.5	357.9	18	4.8	1716.2	5.4	1931.9	6	2147.7	
	30		298.1	21.6	5.8		6.5		7.2		
	35		255.9	25.2	6.7		7.5		8.4		
	40		223.6	28.8	7.7		8.6		9.6		
	45		199.1	32.4	8.6		9.7		10.8		
	50		179.5	36	9.6		10.8		12		
	55		162.8	39.6	10.6		11.9		13.2		
	60		149.1	43.2	11.5		13		14.4		
	65		137.3	46.8	12.5		14		15.6		
	70		127.5	50.4	13.4		15.1		16.8		
	75		119.6	54	14.4		16.2		18		
	80		111.8	57.6	15.4		17.3		19.2		
	90		99	64.8	17.3		19.4		21.6		
	100		89.2	72	19.2		21.6		24		
	125		71.6	90	24		27		30		
	150		59.8	108	28.8		32.4		36		
	175		51	126	33.6		37.8		42		
30	25	15	441.3	18	4.8	2118.2	5.4	2383	6	2647.8	
	30		367.7	21.6	5.8		6.5		7.2		
	35		314.8	25.2	6.7		7.5		8.4		
	40		257.6	28.8	7.7		8.6		9.6		
	45		245.2	32.4	8.6		9.7		10.8		
	50		220.6	36	9.6		10.8		12		
	55		201	39.6	10.6		11.9		13.2		
	60		184.4	43.2	11.5		13		14.4		
	65		169.7	46.8	12.5		14		15.6		
	70		157.9	50.4	13.4		15.1		16.8		
	75		147.1	54	14.4		16.2		18		
	80		138.3	57.6	15.4		17.3		19.2		
	90		122.6	64.8	17.3		19.4		21.6		
	100		110.8	72	19.2		21.6		24		
	125		88.3	90	24		27		30		

High Load Coil springs

DSWH





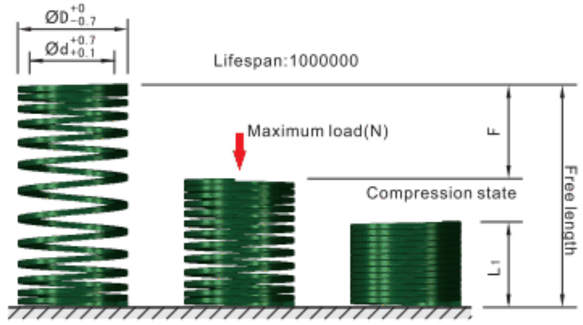
Order DSWH-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
30	150	15	73.5	108	28.8	2118.2	32.4	2383	36	2647.8	
	175		62.8	126	33.6		37.8		42		
	200		54.9	144	38.4		43.2		48		
35	40	17.5	374.6	28.8	7.7	2873.3	8.6	3236.2	9.6	3599	
	45		333.4	32.4	8.6		9.7		10.8		
	50		300.1	36	9.6		10.8		12		
	55		272.6	39.6	10.6		11.9		13.2		
	60		250.1	43.2	11.5		13		14.4		
	65		230.5	46.8	12.5		14		15.6		
	70		213.8	50.4	13.4		15.1		16.8		
	75		200.1	54	14.4		16.2		18		
	80		187.3	57.6	15.4		17.3		19.2		
	90		166.7	64.8	17.3		19.4		21.6		
	100		150	72	19.2		21.6		24		
	125		119.6	90	24		27		30		
	150		100	108	28.8		32.4		36		
	175		85.3	126	33.6		37.8		42		
	200		74.5	144	38.4		43.2		48		
40	40	20	490.3	28.8	7.7	3765.8	8.6	3765.8	9.6	4707.2	
	45		437.8	32.4	8.6		9.7		10.8		
	50		392.3	36	9.6		10.8		12		
	55		355.3	39.6	10.6		11.9		13.2		
	60		326.6	43.2	11.5		13		14.4		
	65		301.3	46.8	12.5		14		15.6		
	70		280.5	50.4	13.4		15.1		16.8		
	75		261.5	54	14.4		16.2		18		
	80		245.2	57.6	15.4		17.3		19.2		
	90		217.7	64.8	17.3		19.4		21.6		
	100		196.1	72	19.2		21.6		24		
	125		156.9	90	24		27		30		
	150		130.4	108	28.8		32.4		36		
	175		111.8	126	33.6		37.8		42		
	200		98.1	144	38.4		43.2		48		
	225		87.2	162	43.2		48.6		54		
	250		78.5	180	48		54		60		
	275		71.3	198	52.8		59.4		66		
	300		65.4	220.2	57.6		64.8		72		
50	50	25	612.9	36	9.6	5884	10.8	5884	12	7355	
	55		557.2	39.6	10.6		11.9		13.2		
	60		510.9	43.2	11.5		13		14.4		
	65		471.5	46.8	12.5		14		15.6		
	70		437.4	50.4	13.4		15.1		16.8		
	75		408.6	54	14.4		16.2		18		
	80		383.4	57.6	15.4		17.3		19.2		
	90		340.3	64.8	17.3		19.4		21.6		
	100		306.9	72	19.2		21.6		24		
	125		245.2	90	24		27		30		
	150		204	108	28.8		32.4		36		
	175		175.5	126	33.6		37.8		42		
	200		153	144	38.4		43.2		48		
	225		136.2	162	43.2		48.6		54		
	250		122.6	180	48		54		60		
	275		111.4	198	52.8		59.4		66		
	300		102	216	57.6		64.8		72		
	350		87.6	256.9	67.2		75.6		84		
60	60	30	735.5	43.2	11.5	8472.9	13	9541.9	14.4	10591.2	
	70		630.6	50.4	13.4		15.1		16.8		
	80		552.1	57.6	15.4		17.3		19.2		
	90		490.3	64.8	17.3		19.4		21.6		

High Load Coil springs

DSWH





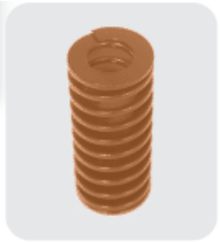
Order DSWH-D-L

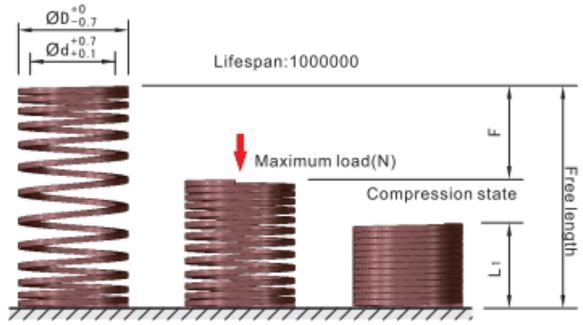
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
60	100	30	441.3	72	19.2	8472.9	21.6	9541.9	24	10591.2	
	125		353	90	24		27		30		
	150		294.2	108	28.8		32.4		36		
	175		252	126	33.6		37.8		42		
	200		220.6	144	38.4		43.2		48		
	250		176.5	180	48		54		60		
	300		147.1	216	57.6		64.8		72		
	350		126.1	256.9	67.2		75.6		84		
70	70	38.5	747.2	51.4	13.4	10199	15.1	11473	16.8	12749	
	80		653.8	58.7	15.4		17.3		19.2		
	90		581.1	66.1	17.3		19.4		21.6		
	100		531.2	72	19.2		21.6		24		
	125		425	90	24		27		30		
	150		354.1	108	28.8		32.4		36		
	175		303.5	126	33.6		37.8		42		
	200		265.6	144	38.4		43.2		48		
	250		212.5	180	48		54		60		
	300		177.1	216	57.6		64.8		72		
	350		151.8	252	57.6		75.6		84		

JIS

Extra heavy load coil springs

DSWB





Maximum load calculate method:

Maximum load=compression×spring constant

N=F mm×N/mm (kgf=N×0.101972)

Maximum load Deviation:±10%

If D=70, Tolerance D:$^{+0}_{-1}$

If D≤50, Tolerance L±0.5

If D≥55, Tolerance L±1%×L

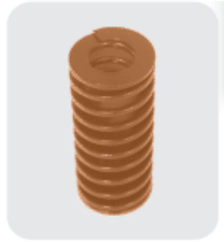
Order DSWB-D-L

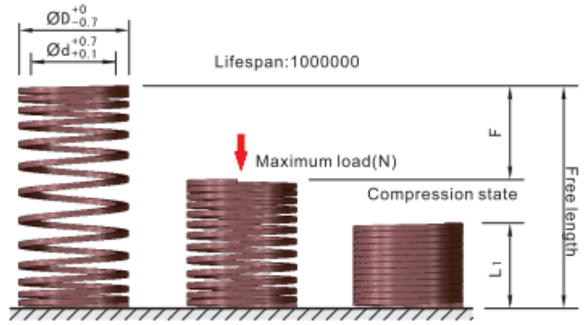
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
6	15	3	58.84	11.6	2.4	141.2	2.7	158.9	3	176.5	
	20		44.13	15.5	3.2		3.6		4		
	25		35.3	19.4	4		4.5		5		
	30		29.42	23.2	4.8		5.4		6		
	35		25.2	27.1	5.6		6.3		7		
	40		22.06	31	6.4		7.2		8		
	45		19.61	34.8	7.2		8.1		9		
	50		17.65	38.7	8		9		10		
	55		16.08	42.6	8.8		9.9		11		
	60		14.71	46.4	9.6		10.8		12		
8	10	4	161.8	7.7	1.6	255	1.8	294.2	2	323.6	
	15		105.9	11.4	2.4		2.7		3		
	20		79.4	15.2	3.2		3.6		4		
	25		63.7	19	4		4.5		5		
	30		53	22.8	4.8		5.4		6		
	35		45.1	26.6	5.6		6.3		7		
	40		40.2	30.4	6.4		7.2		8		
	45		35.3	34.2	7.2		8.1		9		
	50		32.4	38	8		9		10		
	55		29.4	41.8	8.8		9.9		11		
	60		26.5	45.6	9.6		10.8		12		
	65		24.5	50.3	10.4		11.7		13		
	70		22.8	54.2	11.2		12.6		14		
	75		21.2	58.1	12		13.5		15		
	80		19.9	61.9	12.8		14.4		16		
10	10	5	220.6	7.7	1.6	353	1.8	402.1	2	441.3	
	15		147.1	11.6	2.4		2.7		3		
	20		110.8	15.2	3.2		3.6		4		
	25		88.3	19	4		4.5		5		
	30		73.6	22.8	4.8		5.4		6		
	35		62.8	26.6	5.6		6.3		7		
	40		54.9	30.4	6.4		7.2		8		
	45		49	34.2	7.2		8.1		9		
	50		44.1	38	8		9		10		
	55		40.2	41.8	8.8		9.9		11		
	60		37.3	45.6	9.6		10.8		12		
	65		34.3	49.4	10.4		11.7		13		
	70		31.4	53.2	11.2		12.6		14		
	75		29.4	57	12		13.5		15		
	80		27.5	60.8	12.8		14.4		16		

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Extra heavy load coil springs

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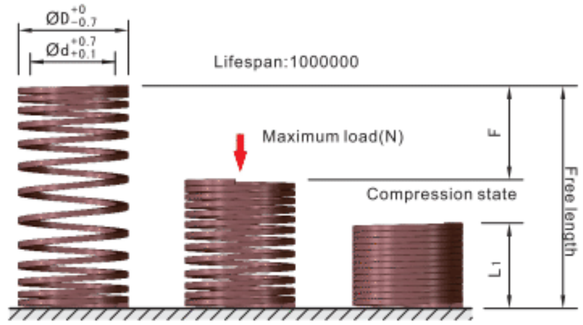
Order DSWB-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
10	90	5	24.5	68.4	14.4	353	16.2	402.1	18	441.3	
12	15	6	189.3	11.6	2.4	451.1	2.7	509.9	3	568.8	
	20		142.2	15.2	3.2		3.6		4		
	25		113.8	19	4		4.5		5		
	30		95.1	22.8	4.8		5.4		6		
	35		81.4	26.6	5.6		6.3		7		
	40		71.6	30.4	6.4		7.2		8		
	45		62.8	34.2	7.2		8.1		9		
	50		56.9	38	8		9		10		
	55		52	41.8	8.8		9.9		11		
	60		47.1	45.6	9.6		10.8		12		
	65		43.1	49.4	10.4		11.7		13		
	70		40.2	53.2	11.2		12.6		14		
	75		38.2	57	12		13.5		15		
	80		35.3	60.8	12.8		14.4		16		
	90		31.6	68.4	14.4		16.2		18		
14	20	7	183.9	15.5	3.2	588.4	3.6	666.9	4	735.5	
	25		142.2	19	4		4.5		5		
	30		122.6	22.8	4.8		5.4		6		
	35		104.9	26.6	5.6		6.3		7		
	40		92.2	30.4	6.4		7.2		8		
	45		81.4	34.2	7.2		8.1		9		
	50		73.5	38	8		9		10		
	55		66.7	41.8	8.8		9.9		11		
	60		61.8	45.6	9.6		10.8		12		
	65		56.9	49.4	10.4		11.7		13		
	70		53	53.2	11.2		12.6		14		
	75		49	57	12		13.5		15		
	80		46.1	60.8	12.8		14.4		16		
	90		41.2	68.4	14.4		16.2		18		
	100		36.8	76	16		18		20		
16	20	8	245.2	15.5	3.2	784.5	3.6	882.6	4	980.7	
	25		196.1	19	4		4.5		5		
	30		163.7	22.8	4.8		5.4		6		
	35		140.2	26.6	5.6		6.3		7		
	40		122.6	30.4	6.4		7.2		8		
	45		108.9	34.2	7.2		8.1		9		
	50		98.1	38	8		9		10		
	55		89.2	41.8	8.8		9.9		11		
	60		81.4	45.6	9.6		10.8		12		
	65		75.5	49.4	10.4		11.7		13		
	70		69.6	53.2	11.2		12.6		14		
	75		65.7	57	12		13.5		15		
	80		61.8	60.8	12.8		14.4		16		
	90		54.9	68.4	14.4		16.2		18		
	100		49	76	16		18		20		
18	20	9	306.5	15.5	3.2	980.7	3.6	1108.2	4	1225.8	
	25		245.2	19	4		4.5		5		
	30		204	22.8	4.8		5.4		6		
	35		175.5	26.6	5.6		6.3		7		
	40		153	30.4	6.4		7.2		8		
	45		136.3	34.2	7.2		8.1		9		
	50		122.6	38	8		9		10		
	55		111.8	41.8	8.8		9.9		11		
	60		102	45.6	9.6		10.8		12		
	65		94.1	49.4	10.4		11.7		13		
	70		87.3	53.2	11.2		12.6		14		
	75		81.4	57	12		13.5		15		
	80		76.5	60.8	12.8		14.4		16		

Extra heavy load coil springs

DSWB



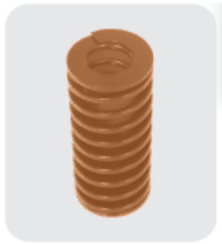


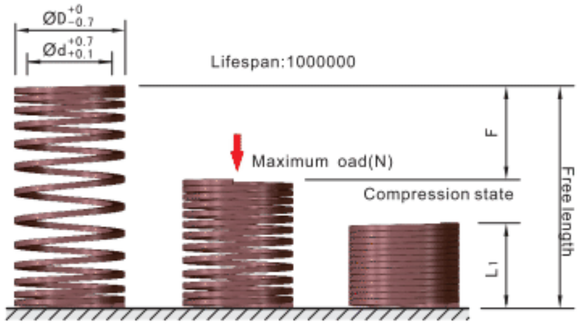
Order DSWB-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
18	90	9	67.7	68.4	14.4	980.7	16.2	1108.2	18	1225.8	
	100		61.8	11.6	16		18		20		
20	20	10	392.3	15.5	3.2	1255.3	3.6	1412.2	4	1569.1	
	25		313.8	19	4		4.5		5		
	30		261.8	22.8	4.8		5.4		6		
	35		224.6	26.6	5.6		6.3		7		
	40		196.1	30.4	6.4		7.2		8		
	45		174.6	34.2	7.2		8.1		9		
	50		156.9	38	8		9		10		
	55		142.2	41.8	8.8		9.9		11		
	60		130.4	45.6	9.6		10.8		12		
	65		120.6	49.4	10.4		11.7		13		
	70		111.8	53.2	11.2		12.6		14		
	75		104.9	57	12		13.5		15		
	80		98.1	60.8	12.8		14.4		16		
	90		87.3	68.4	14.4		16.2		18		
	100		78.5	76	16		18		20		
	125		62.8	95	20		22.5		25		
	150		52	114	24		27		30		
22	25	11	382.5	19	4	1529.8	4.5	1726	5	1912.3	
	30		318.7	22.8	4.8		5.4		6		
	35		273.6	26.6	5.6		6.3		7		
	40		239.3	30.4	6.4		7.2		8		
	45		212.8	34.2	7.2		8.1		9		
	50		191.2	38	8		9		10		
	55		173.6	41.8	8.8		9.9		11		
	60		159.8	45.6	9.6		10.8		12		
	65		147.1	49.4	10.4		11.7		13		
	70		136.3	53.2	11.2		12.6		14		
	75		127.5	57	12		13.5		15		
	80		119.6	60.8	12.8		14.4		16		
	90		105.9	68.4	14.4		16.2		18		
	100		96.1	76	16		18		20		
	125		76.5	95	20		22.5		25		
	150		63.7	114	24		27		30		
25	25	12.5	480.6	19	4	1922.1	4.5	2167.3	5	2402.6	
	30		400.1	22.8	4.8		5.4		6		
	35		343.2	26.6	5.6		6.3		7		
	40		300.1	30.4	6.4		7.2		8		
	45		266.7	34.2	7.2		8.1		9		
	50		240.3	38	8		9		10		
	55		218.7	41.8	8.8		9.9		11		
	60		200.1	45.6	9.6		10.8		12		
	65		184.4	49.4	10.4		11.7		13		
	70		171.6	53.2	11.2		12.6		14		
	75		159.8	57	12		13.5		15		
	80		150	60.8	12.8		14.4		16		
	90		133.4	68.4	14.4		16.2		18		
	100		120.6	76	16		18		20		
	125		96.1	95	20		22.5		25		
	150		80.4	114	24		27		30		
	175		68.6	133	28		31.5		35		
27	25	13.5	568.8	19	4	2275.1	4.5	2559.5	5	2843.9	
	30		473.7	22.8	4.8		5.4		6		
	35		406	26.6	5.6		6.3		7		
	40		356	30.4	6.4		7.2		8		
	45		315.8	34.2	7.2		8.1		9		
	50		284.4	38	8		9		10		
	55		258.9	41.8	8.8		9.9		11		

Extra heavy load coil springs

DSWB





Order DSWB-D-L

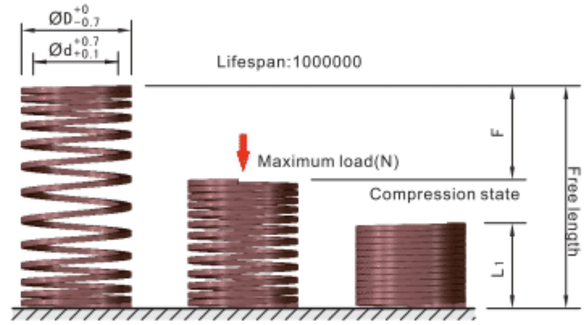
D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
27	60	13.5	237.3	45.6	9.6	2275.1	10.8	2559.5	12	2843.9	
	65		218.7	49.4	10.4		11.7		13		
	70		203	53.2	11.2		12.6		14		
	75		189.3	57	12		13.5		15		
	80		177.5	60.8	12.8		14.4		16		
	90		157.9	68.4	14.4		16.2		18		
	100		142.2	76	16		18		20		
	125		113.8	95	20		22.5		25		
	150		95.1	114	24		27		30		
	175		81.4	133	28		31.5		35		
30	25	15	706.1	19	4	2824.3	4.5	3177.4	5	3530.4	
	30		588.4	22.8	4.8		5.4		6		
	35		504.1	26.6	5.6		6.3		7		
	40		441.3	30.4	6.4		7.2		8		
	45		392.3	34.2	7.2		8.1		9		
	50		353	38	8		9		10		
	55		320.7	41.8	8.8		9.9		11		
	60		294.2	45.6	9.6		10.8		12		
	65		271.6	49.4	10.4		11.7		13		
	70		252	53.2	11.2		12.6		14		
	75		235.4	57	12		13.5		15		
	80		220.6	60.8	12.8		14.4		16		
	90		196.1	68.4	14.4		16.2		18		
	100		176.5	76	16		18		20		
	125		141.2	95	20		22.5		25		
	150		117.7	114	24		27		30		
	175		101	133	28		31.5		35		
	200		88.3	152	32		36		40		
35	40	17.5	601.1	30.4	6.4	3844.2	7.2	4324.7	8	4805.3	
	45		533.5	34.2	7.2		8.1		9		
	50		480.5	38	8		9		10		
	55		436.4	41.8	8.8		9.9		11		
	60		400.1	45.6	9.6		10.8		12		
	65		369.7	49.4	10.4		11.7		13		
	70		343.2	53.2	11.2		12.6		14		
	75		320.7	57	12		13.5		15		
	80		300.1	60.8	12.8		14.4		16		
	90		266.7	68.4	14.4		16.2		18		
	100		240.3	76	16		18		20		
	125		192.2	95	20		22.5		25		
	150		159.8	114	24		27		30		
	175		137.3	133	28		31.5		35		
	200		120.6	152	32		36		40		
40	40	20	784.5	30.4	6.4	5021	7.2	5648.6	8	6276.3	
	45		697.4	34.2	7.2		8.1		9		
	50		627.6	38	8		9		10		
	55		570.6	41.8	8.8		9.9		11		
	60		522.7	45.6	9.6		10.8		12		
	65		482.3	49.4	10.4		11.7		13		
	70		448.2	53.2	11.2		12.6		14		
	75		418.4	57	12		13.5		15		
	80		392.3	60.8	12.8		14.4		16		
	90		349.1	68.4	14.4		16.2		18		
	100		313.8	76	16		18		20		
	125		251.1	95	20		22.5		25		
	150		208.9	114	24		27		30		
	175		179.5	133	28		31.5		35		
	200		156.9	152	32		36		40		
	225		139.5	171	36		40.5		45		

JIS

Extra heavy load coil springs

DSWB





Order DSWB-D-L

D	L	d	Spring Constant N/mm	Solid height (mm)	F=L×40% F mm	F=L×40% Load N	F=L×45% F mm	F=L×45% Load N	F=L×50% F mm	F=L×50% Load N	@¥/P
40	250	20	125.5	190	40	5021	45	5648.6	50	6276.3	
	275		115.9	209	44		49.5		55		
	300		104.6	232.2	48		54		60		
50	50	25	980.7	38	8	7845.3	9	8826	10	9806.7	
	55		891.5	41.8	8.8		9.9		11		
	60		816.9	45.6	9.6		10.8		12		
	65		754.4	49.4	10.4		11.7		13		
	70		700.2	53.2	11.2		12.6		14		
	75		653.8	57	12		13.5		15		
	80		612.9	60.8	12.8		14.4		16		
	90		545.2	68.4	14.4		16.2		18		
	100		490.3	76	16		18		20		
	125		392.3	95	20		22.5		25		
	150		326.6	114	24		27		30		
	175		280.4	133	28		31.5		35		
	200		245.2	152	32		36		40		
	225		217.9	171	36		40.5		45		
	250		196.1	190	40		45		50		
	275		178.3	209	44		49.5		55		
	300		163.8	228	48		54		60		
	350		140.1	270.9	56		63		70		
60	60	30	1176.8	45.6	9.6	11297.3	10.8	12709.4	12	14121.6	
	70		1009.1	53.2	11.2		12.6		14		
	80		882.6	60.8	12.8		14.4		16		
	90		784.5	68.4	14.4		16.2		18		
	100		706.1	76	16		18		20		
	125		564.9	95	20		22.5		25		
	150		470.7	114	24		27		30		
	175		403.1	133	28		31.5		35		
	200		353	152	32		36		40		
	250		282.4	190	40		45		50		
	300		235.4	228	48		54		60		
	350		201.7	270.9	56		63		70		
70	70	38.5	1218.9	54.2	11.2	14122	12.6	15887	14	17652	
	80		1066.5	61.9	12.8		14.4		16		
	90		948	69.7	14.4		16.2		18		
	100		882.6	76	16		18		20		
	125		706.1	95	20		22.5		25		
	150		588.4	114	24		27		30		
	175		504.3	133	28		31.5		35		
	200		441.3	152	32		36		40		
	250		353	190	40		45		50		
	300		294.2	228	48		54		60		
	350		252.2	266	56		63		70		

Guide Pins & Guide Bush Series





DIN		DIN		DIN		DIN		DIN	
Guide pins		Guide pins		Guide pins		Guide pins		Guide pins	
ZZ03	P520	ZZ04	P524	ZZ00	P527	ZZ012	P531	ZZ01	P532



DIN		DIN		DIN		DIN		DIN	
Guide pins		Guide pins		Guide pins		Guide pins		Guide pins	
ZZ013	P532	ZZ011	P533	ZZ144	P534	ZZ02	P535	EE1060	P536



DIN		DIN		JIS		JIS		JIS	
Guide pins		Guide pins		Guide pins		Guide pins		Guide pins	
EE1035	P537	EE1040	P537	SSPP	P538	SSPPZ	P784	SSPP-OC	P539



JIS		JIS		JIS		JIS		JIS	
Guide pins		Guide pins		Guide pins		Guide pins		Guide pins	
SSPPZ-OC	P538	GGPSL	P540	GGPOL	P540	GGPHL	P541	EEGH	P542



JIS		JIS		JIS		TAIWAN		TAIWAN	
Guide pins		Guide pins		Guide pins		Guide pins		Return pins	
GGPHLSP	P543	GGPSOT	P543	GGPBL	P546	GGP	P547	EP	P544



TAIWAN		TAIWAN		DIN		DIN		DIN	
Angle guide pins		Angle guide pins		Angle guide pins		Angle guide pins		Angle guide pins	
AMP	P544	AAP	P544	GGI	P545	ZZ016	P545	ZZ010	P548



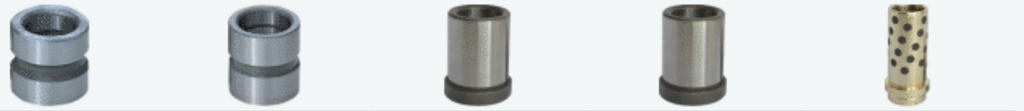
JIS		JIS		JIS		JIS		JIS	
Angle guide pins		Angle guide pins		Angle guide pins		Angle guide pins		Angle guide pins	
DAP	P550	DAPS	P550	AAPZS	P551	AAPU	P551	AAPHX	P551



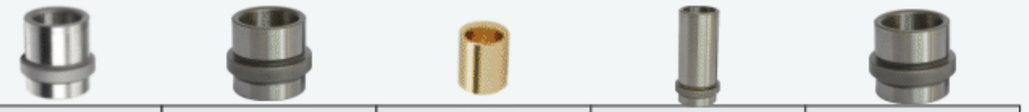
JIS		JIS		JIS		JIS		JIS	
Angle guide pins		Angle guide pins		Angle guide pins		Angle guide pins		Angle guide pins	
AAPUS	P552	AAPHXS	P552	AAPX	P552	AAPXS	P552	AAPM	P553



JIS		AISI		AISI		JIS		JIS	
Angle guide pins		Guide pins		Guide bush		Guide bush		Guide bush	
AAPMS	P553	GLL	P554	GGBE	P554	GBB	P555	EEGBH	P555



JIS		JIS		JIS		JIS		JIS	
Guide bush		Guide bush		Guide bush		Guide bush		Guide bush	
GGBS	P556	GGBSE	P556	GGBHE	P557	GGBH	P557	EEGBZS	P558



DIN		DIN		DIN		DIN		DIN	
Guide bush		Guide bush		Guide bush		Guide bush		Guide bush	
ZZ10	P559	ZZ4079	P560	ZZ4085	P560	ZZ75	P561	ZZ78	P562



DIN		DIN		DIN		DIN		DIN	
Guide bush		Guide bush		Guide bush		Guide bush		Guide bush	
EE1140	P562	ZZ4486	P563	ZZ81-S	P564	WW30	P565	ZZ76	P566



DIN		DIN		DIN		DIN		DIN	
Guide bush		Guide bush		Guide bush		Guide bush		Guide bush	
ZZ11	P567	EE1110	P568	ZZ11W	P569	ZZ10W	P570	ZZ13W	P571



DIN		DIN		DIN		DIN	
Guide bush		Guide bush		Guide bush		Steel ball guide bush	
ZZ14W	P571	ZZ1000W	P572	ZZ1100W	P573	ZZ12	P574



Products Summary

Picture	Type				Standard	Code	Page
Oil groove type	Guide pin	Shoulder type	Oil groove type	/	DIN	ZZ011	P533
				/	TAIWAN	GGP	P547
Screw oil groove type			Screw oil groove type	/	JIS	GGPHLSP	P543
			/	/	/	/	/
Oil groove type			Oil groove type	/	DIN	ZZ03	P520
Screw oil groove type			Screw oil groove type	/	JIS	GGPBL	P546
			/	/	/	/	/
			/	/	/	/	/
Without oil groove type			Without oil groove type	/	DIN	ZZ04	P524
Oil groove type			Oil groove type	/		ZZ00	P527
			/	/	/	/	/
			/	/	/	/	/
Without close -fitting type			Without oil groove type	Without oil groove type	DIN	EE1035	P537
Without close -fitting type				Without close -fitting type		ZZ012	P531
				Without close -fitting type		ZZ01	P532
				Without oil groove type	JIS	GGPHL	P541
				Imperial system	AISI	GLL	P554
Without oil groove type			Without oil groove type	Close-fitting tolerance K6	JIS	SSPP	P538
				Close-fitting tolerance M5		SSPPZ	P538
Oil groove type			Oil groove type	Close-fitting tolerance K6		SSPP-OC	P538
				Close-fitting tolerance M5		SSPPZ-OC	P539
Without close-fitting type		Without shoulder type	Without oil groove type	Without close -fitting type	DIN	EE1040	P537
				Without close -fitting type		ZZ013	P532
With close-fitting bit				Close-fitting tolerance M5	JIS	GGPSL	P540
Step type				Without close -fitting type		EEGH	P542
				Step type		GGPSOT	P543
Oil groove type			Oil groove type	Close-fitting tolerance M5		GGPOL	P540
			/	/	/	/	/
With spanner slot			Without oil groove type	Through-hole type	DIN	EE1060	P536
				With spanner slot		ZZ144	P534
Through-hole type				With spanner slot		ZZ02	P535
			/	/	/	/	/
Standard type	Angular pin/angle pin	Shoulder type	Standard type	With close-fitting bit	TAIWAN	AAP	P544
			Pitch type	Without close -fitting type	DIN	ZZ016	P545
Standard type+step			Pitch type	With close-fitting bit	JIS	DAP	P550
			Pitch type	Step type		DAPS	P550
Taper type			Pitch type	Step type		AAPZS	P551
		Without shoulder type	Internal thread fixed type	Without wrench bit	TAIWAN	AMP	P544
Taper type+step			Internal thread fixed type	Hexagon socket wrench bit	DIN	ZZ010	P548
Internal thread fixed type			Internal thread fixed type	With spanner slot	JIS	AAPU	P551
Spanner slot			Internal thread fixed type	Hexagon socket wrench bit		AAPHX	P551
External thread fixed type			Internal thread fixed+setp	With spanner slot		AAPUS	P552
			Internal thread fixed+setp	Hexagon socket wrench bit		AAPHXS	P552
Bolt fixed type			Bolt fixed type	Without wrench bit		AAPX	P552
			Bolt fixed type	Without wrench bit		AAPXS	P552
			Internal thread fixed type	With spanner slot		AAPM	P553
			Internal thread fixed+setp	With spanner slot		AAPMS	P553

Email: sales@moldpartner.eu

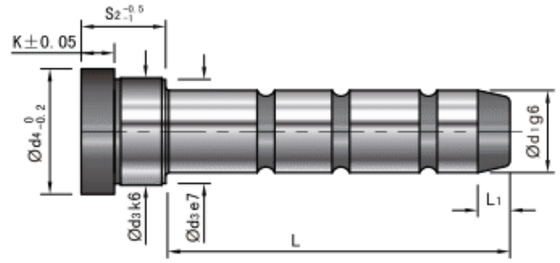
MOLD PARTNER

Products Summary

Picture	Type				Standard	Code	Page
Without oil groove type Oil groove type	Steel	Shoulder Bushings	Middele shoulder type	Oil groove type	JIS	EEGBH	P555
				Without oil groove type	DIN	ZZ10	P559
				Screw oil groove type		ZZ75	P561
				Screw oil groove type		ZZ78	P562
				Without oil groove type		EE1140	P562
Without oil groove type With snap ring Oil groove type			Shoulder type	Oil groove type	JIS	GGBHE	P557
				Oil groove type		GGBH	P554
				Oil groove+ annular groove	DIN	ZZ76	P566
				Without oil groove type		ZZ11	P567
				With snap ring		EE1110	P568
Without oil groove type Oil groove type		Straight Bushings	/	Without oil groove type	JIS	GBB	P555
				Oil groove type		GGBS	P556
				Oil groove type		GGBSE	P556
				Without oil groove type	DIN	ZZ4486	P563
Without graphite type	Brass	Shoulder type	Middele shoulder type	Imperial system	AISI	GGBE	P554
				Without graphite type	DIN	ZZ4079	P560
				Self-lubricating type		ZZ10W	P570
				Self-lubricating type		ZZ13W	P571
				Self-lubricating type		ZZ14W	P571
				Self-lubricating type		ZZ1000W	P572
				Self-lubricating type	JIS	EEGBZS	P558
			Shoulder type	Self-lubricating+ annular groove	DIN	ZZ11W	P569
				Self-lubricating+ annular groove		ZZ1100W	P573
		/	/		DIN	ZZ12	P574

Guide pins

ZZ03





Order ZZ03-S2-d1-L Material:SUJ2 Hardness:58-62HRC

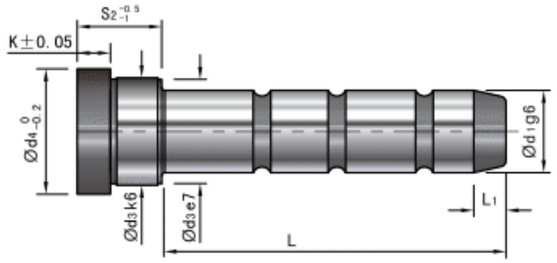
S2	d1		L	L1	d3	d4	K	@¥/P
9	9	10	20	4	14	16	3	
			35					
			50					
12			25					
			45					
			65					
17			20					
			30					
22			25					
			35					
			55					
27			30					
			50					
36			25					
			45					
46			30					
			45					
56			35					
			60					
66			45					
17	14	15	35	7	20	25	6	
			55					
			75					
			95					
22			20					
			35					
			40					
			45					
			50					
			55					
			65					
			70					
			90					
			110					
27			20					
			35					
			40					
			45					
			55					
			65					
			85					
			105					
36			20					
			35					
			40					
			45					
			55					
			65					
			75					
			95					
46			20					
			35					
			45					
			65					
			85					
			105					
56			20					
			35					
			55					
			75					
			95					

DIN

Guide pins

ZZ03





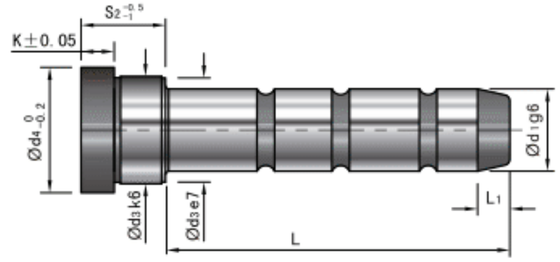
Order ZZ03-S2-d1-L Material:SUJ2 Hardness:58-62HRC

S2	d1		L	L1	d3	d4	K	@¥/P
66	14	15	55	7	20	25	6	
			65					
			95					
76			55					
			95					
86			55					
			95					
96			55					
			95					
116			75					
17	18	20	35		26	31		
			55					
			75					
			95					
22			20					
			35					
			40					
			45					
			50					
			55					
			60					
			65					
			70					
			80					
			85					
			115					
27			20					
			35					
			40					
			45					
			50					
			55					
			60					
			65					
			70					
			80					
			85					
			105					
			125					
36			20					
			35					
			40					
			45					
			50					
			55					
			60					
			65					
			70					
			75					
			80					
			95					
			115					
			135					
46			20					
			45					
			65					
			85					
			105					
			135					
			165					

DIN

Guide pins

ZZ03





Order ZZ03-S2-d1-L Material:SUJ2 Hardness:58-62HRC

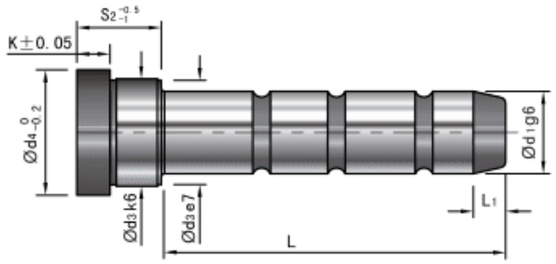
S2	d1		L	L1	d3	d4	K	@¥/P
56	18	20	20	7	26	31	6	
			35					
			55					
			75					
			95					
66			55					
			75					
			95					
76			55					
			75					
			95					
86			55					
			75					
			95					
96			55					
			95					
116			115					
136			135					
17	22	24	35		30	35		
			55					
			75					
22			35					
			55					
			75					
			105					
			130					
27			25					
			45					
			50					
			60					
			65					
			70					
			80					
			85					
			105					
			125					
			165					
36			25					
			45					
			50					
			55					
			60					
			70					
			75					
			80					
			95					
			115					
			135					
			165					
46			25					
			45					
			50					
			60					
			65					
			70					
			80					
			85					
			105					
			125					
			165					

DIN

Guide pins

ZZ03





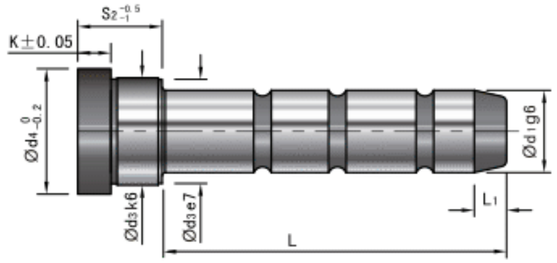
Order ZZ03-S2-d1-L Material:SUJ2 Hardness:58-62HRC

S2	d1		L	L1	d3	d4	K	@¥/P
56	22	24	25	7	30	35	6	
			45					
			55					
			75					
			95					
			115					
			165					
66			55					
			75					
			95					
76			25					
			45					
			55					
			75					
			95					
			115					
86			55					
			75					
			95					
96			55					
			75					
			95					
116			75					
			115					
			155					
136			135					
156			155					
22	30	32	35		42	47		
			75					
			130					
27			45					
			65					
			105					
			165					
36			55					
			75					
			95					
			115					
			155					
46			45					
			65					
			85					
			105					
			125					
			165					
56			55					
			75					
			95					
			115					
			135					
			175					
66			55					
			75					
			95					
			115					
			135					
			175					
76			55					
			75					
			95					
			115					
			155					

DIN

Guide pins

ZZ03





Order ZZ03-S2-d1-L Material:SUJ2 Hardness:58-62HRC

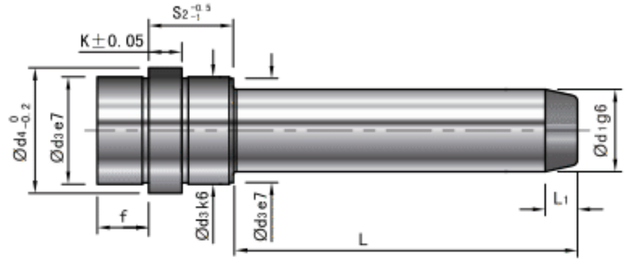
S2	d1		L	L1	d3	d4	K	@¥/P
86	30	32	55	7	42	47	6	
			75					
			95					
			115					
			155					
96			55					
			75					
			95					
			115					
			155					
116			75					
			115					
			155					
136			95					
			115					
			155					
156			115					
			155					
176			135					
			175					
196			155					
			195					
36	40	42	75	7	54	60	10	
			135					
46			95					
			165					
56			75					
			115					
			155					
			195					
66			75					
			135					
76			75					
			115					
			175					
86			75					
			135					
96			75					
			115					
			155					
116			95					
			135					
			195					
136			95					
			135					
			215					
156			115					
			155					
			215					
176			135					
			155					
			175					
196			155					
			195					
			235					
96	50	-	115	10	66	72		
116			135					
136								
156			155					
196			175					
96	60		115		80	86	20	
116			135					
136								
156			155					
196			175					
246			195					

DIN

Guide pins

ZZ04





Order ZZ04-S2-d1-L Material:SUJ2 Hardness:58-62HRC

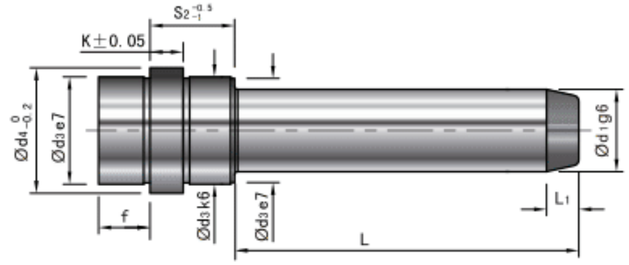
S2	d1		L	L1	d3	d4	f	K	@¥/P
22	9	10	25	4	14	16	3	3	
27			35						
36			30						
			50						
			25						
			45						
22	14	15	30	7	20	25	9	6	
			50						
			70						
			90						
27			30						
			45						
			65						
			85						
36			35						
			55						
			75						
			95						
46			35						
			45						
			65						
			85						
56			35						
			55						
			75						
66			55						
			65						
76			55						
27	18	20	35		26	31			
			45						
			65						
			85						
			105						
36			35						
			55						
			75						
			95						
			115						
			135						
46			35						
			45						
			65						
			85						
			135						
56			35						
			55						
			75						
66			55						
			75						
76			55						
86			95						
27	22	24	35		30	35			
			45						
			65						
			85						
			105						
			125						
			165						
			205						

DIN

Guide pins

ZZ04





Order ZZ04-S2-d1-L Material:SUJ2 Hardness:58-62HRC

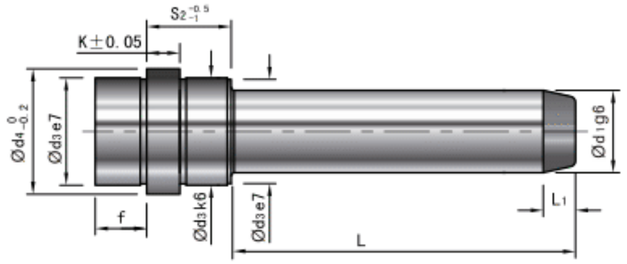
S2	d1		L	L1	d3	d4	f	K	@¥/P
36	22	24	35	7	30	35	9	6	
			55						
			75						
			95						
			115						
			135						
			165						
			205						
46			35						
			45						
			65						
			85						
			105						
			135						
			165						
56			35						
			55						
			75						
			95						
			115						
			165						
			205						
66			35						
			55						
			75						
			95						
			155						
76			55						
			75						
			95						
			115						
			145						
86			55						
			75						
			95						
			135						
96			55						
			75						
			95						
			125						
116			75						
			115						
156			155						
36	30	32	55		42	47			
			75						
			155						
			245						
46			65						
			85						
			105						
			125						
			165						
			245						
56			55						
			75						
			95						
			135						
			175						
			245						

DIN

Guide pins

ZZ04





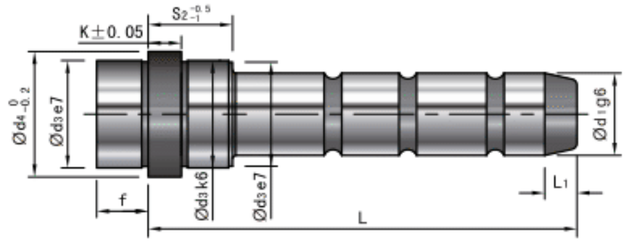
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S2	d1		L	L1	d3	d4	f	K	@¥/P
66	30	32	55	7	42	47	9	6	
			75						
			95						
			115						
			155						
			175						
			295						
76			55						
			75						
			95						
			115						
			155						
			225						
86			75						
			95						
			115						
			155						
			225						
96			75						
			95						
			115						
			155						
			205						
116			75						
			115						
			155						
136			95						
			115						
			155						
156			115						
196			155						
76	40	42	115		54	60	12	10	
96			155						
116			135						
			195						
136			95						
			135						
196			155						
			195						

DIN

Guide pins

ZZ00





Order ZZ00-S2-d1-L Material:SUJ2 Hardness:58-62HRC

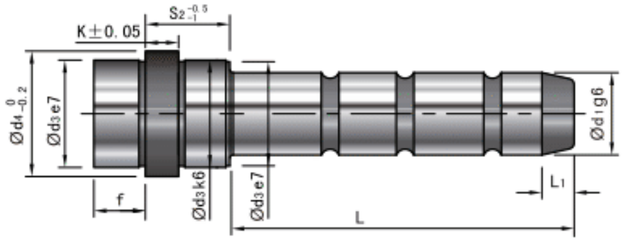
S2	d1	L	L1	f	K	d3	d4	@¥/P
12	9-10	25	4	3	3	14	16	
		45						
		65						
17		20						
		30						
		50						
		70						
22		25						
		35						
		55						
		75						
		95						
27		20						
		30						
		50						
		70						
		90						
36		25						
		45						
		65						
		85						
46		30						
		45						
		70						
56		35						
		60						
66	14-15	45	7	9	6	20	25	
17		35						
		55						
		75						
		95						
22		30						
		50						
		70						
		90						
		110						
		125						
		150						
27		30						
		45						
		65						
		85						
		105						
		125						
		145						
		165						
36		35						
		55						
		75						
		95						
		125						
		155						
46		35						
		45						
		65						
		85						
		105						
		125						
		145						
56		35						
		55						
		75						
		95						
		135						

DIN

Guide pins

ZZ00





Order ZZ00-S2-d1-L Material:SUJ2 Hardness:58-62HRC

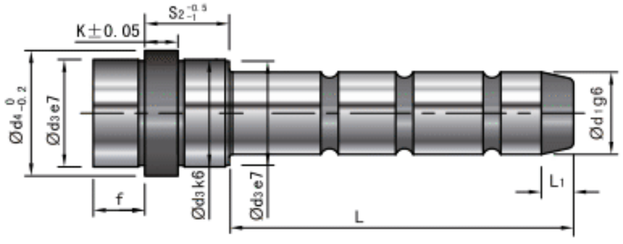
S2	d1	L	L1	f	K	d3	d4	@¥/P
66	14-15	55				20	25	
		65						
		95						
		125						
76		55						
		95						
86		55						
		95						
96		55						
		95						
116		75						
17	18-20	35	7	9	6	26	31	
		55						
		75						
		120						
22		35						
		45						
		65						
		85						
		115						
27		35						
		45						
		65						
		85						
		105						
		125						
		165						
		225						
		245						
36		35						
		55						
		75						
		95						
		115						
		135						
		165						
		225						
		255						
46		35						
		45						
		65						
		85						
		105						
		135						
		165						
		245						
56		35						
		55						
		75						
		95						
		155						
66		35						
		55						
		75						
		95						
		145						
76		55						
		75						
		95						
		135						
86		55						
		75						
		95						
		125						

DIN

Guide pins

ZZ00





Order ZZ00-S2-d1-L Material:SUJ2 Hardness:58-62HRC

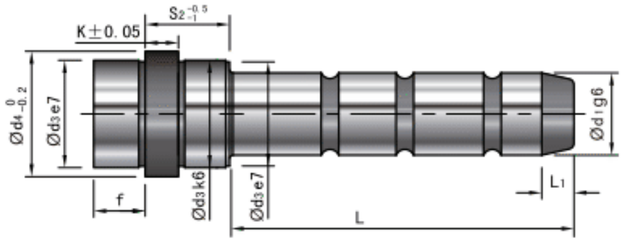
S2	d1	L	L1	f	K	d3	d4	@¥/P
96	22-24	55	7	9	6	30	35	
		95						
116		75						
		115						
136		135						
17		35						
		55						
		75						
22		35						
		55						
		75						
		105						
		130						
27		35						
		45						
		65						
		85						
		105						
		125						
		165						
		205						
		245						
		285						
36		35						
		55						
		75						
		95						
		115						
		135						
		165						
		205						
		245						
		285						
46		35						
		45						
		65						
		85						
		105						
		125						
		165						
		205						
56		35						
		55						
		75						
		95						
		115						
		165						
		205						
66		35						
		55						
		75						
		95						
		155						
76		55						
		75						
		95						
		115						
		145						
86		55						
		75						
		95						
		135						
96		55						
		75						

DIN

Guide pins

ZZ00





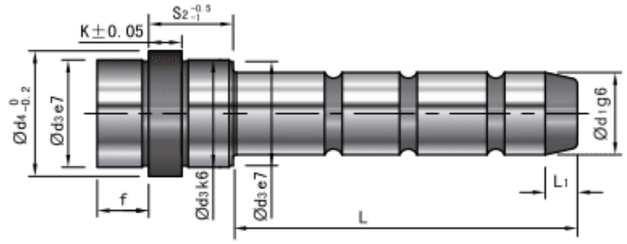
Order ZZ00-S2-d1-L Material:SUJ2 Hardness:58-62HRC

S2	d1	L	L1	f	K	d3	d4	@¥/P
96	22-24	95	7	9	6	30	35	
		125						
116		75						
		115						
		155						
136		95						
		135						
156		155						
27	30-32	45				42	47	
		65						
		105						
		165						
		185						
		245						
		285						
36		55						
		75						
		95						
		115						
		155						
		245						
		285						
46		45						
		65						
		85						
		105						
		125						
		165						
		245						
		285						
56		55						
		75						
		95						
		135						
		175						
		245						
		295						
66		55						
		75						
		95						
		115						
		135						
		175						
		245						
		295						
76		55				42	47	
		75						
		95						
		115						
		155						
		225						
86		55						
		75						
		95						
		115						
		155						
		225						
96		55						
		75						
		95						
		115						
		155						
		205						
		75						

DIN

Guide pins

ZZ00

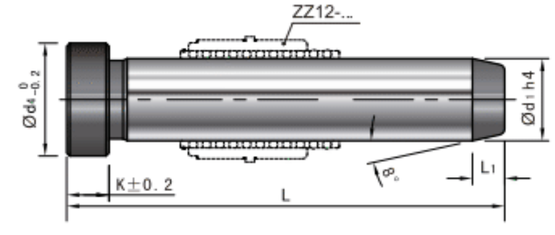


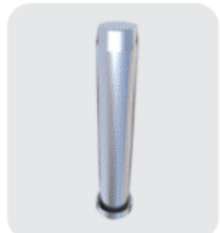


Order ZZ00-S2-d1-L Material:SUJ2 Hardness:58-62HRC

S2	d1	L	L1	f	K	d3	d4	@¥/P
116	30-32	115	7	9	6	42	47	
		155						
136		95						
		115						
		155						
156		115						
		155						
196		195						
46	40-42	95				54	60	
		165						
		75						
56		115						
		155						
		195						
66		75						
		135						
76		75						
		115						
		175						
86		75						
		135						
96		75						
		115						
		155						
116		95						
		135						
		195						
136		95						
		135						
		215						
156		115						
		155						
		215						
196		155						
		195						
		235						
246		165						
		245						

ZZ012





Order ZZ012-d1-L Material:SUJ2 Hardness:58-62HRC

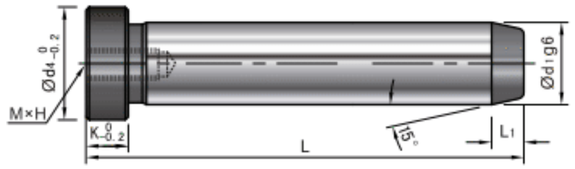
d1	L1	d4	K	@¥/P						
				L40	L50	L60	L80	L100	L120	L140
12	4	16	4							
18	6	22	7							
30		36								

DIN

Guide pins

ZZ01

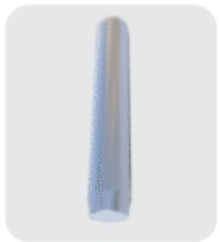


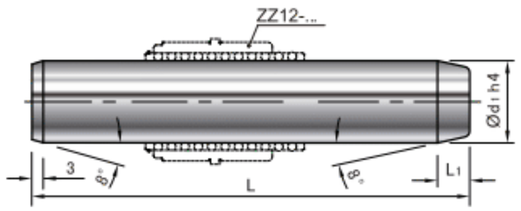


Order ZZ01-d1-L Material:SUJ2 Hardness:58-62HRC

d1	d4	M	H	K	L1
8	10	M4	8	3	4
9	12	M5	10		
10		M6		6	7
12	16		12		
14	18	M8	16	8	
15					
16	20				
18	22	M10	20		
20	24				
22	26	M12	24		
24	28			15	
30	36	M16	32		
32					
40	48				10
50	58				

ZZ013





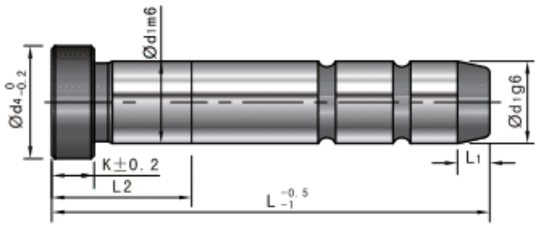
Order ZZ013-d1-L Material:SUJ2 Hardness:58-62HRC

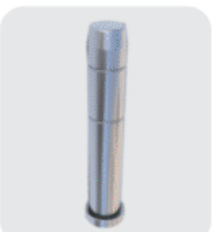
d1	L1	@¥/P			
		L100	L125	L160	L240
4	12				
7	18				
	30				

DIN

Guide pins

ZZ011





Order ZZ011-d1-L Material:SUJ2 Hardness:58-62HRC

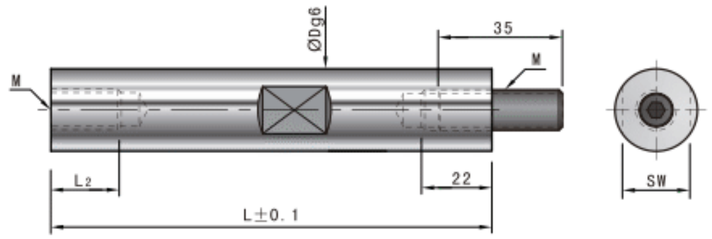
d1	L	L1	L2	K	d4	@¥/P
10	40	4	17	3	12	
	60		22			
	80		27			
	100					
12	60		17	6	16	
	80		22			
	100		27			
	120		36			
14	60		17	8	18	
	80		22			
	100		27			
	120		36			
	140		46			
	160					
16	60		22		20	
	80		27			
	100					
	120		36			
	140		46			
	160					
18	80		27		22	
	100					
	120		36			
	140		46			
	160					
	180		56			
	200					
20	80	7	27		24	
	100					
	120		36			
	140		46			
	180		56			
	200					
22	100		36	15	26	
	120		46			
	140					
	180		56			
	220		76			
24	120		46		28	
	160		56			
	200		76			
30	160		56		36	
	240		76			
32	200		56			
40	300	10	96		48	
50	240		76		58	
60	360	12	116	20	68	

DIN

Guide pins

ZZ144





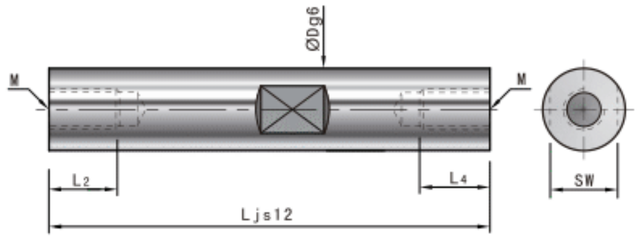
Order ZZ144-D-L Material:SUJ2 Hardness:≥58HRC

D	L	L1	SW	M	@¥/P
10	50 60 70 80 100 120 140	20	9	M 6	
14	60 70 80 100 120 140 160 180	16	12	M 8	
16	80 100 125 140 160 180 200	35	13	M10	
18	100 125 140 160 180 200 220 240	20	14	M10	
19	100 125 140 160 180 200 220	40	17	M12	
24	120 140 160 180 200 240	25	19	M12	
25	125 140 160 180 200 220 250	55	22	M16	
32	160 200 250 315	55	27	M16	

DIN

Guide pins

ZZ02

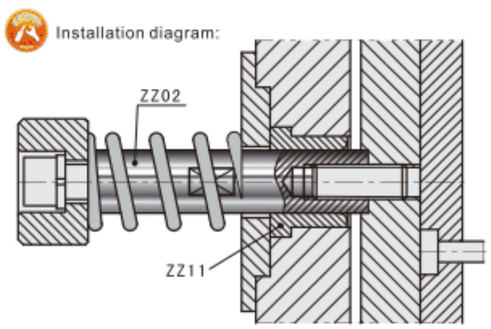


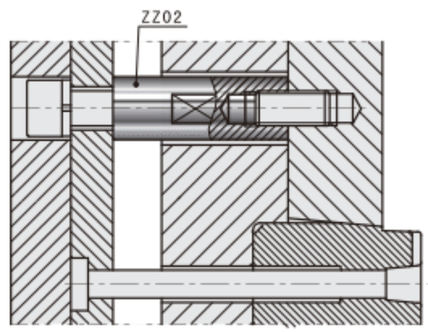


Order ZZ02-D-L Material:SUJ2 Hardness:≥58HRC

D	L	L2	L4	SW	M	@¥/P
10	60 70 80 100 120 140	16	9	9	M 6	
14	60 70 80 100 120 140 160 180	16	11	12	M 8	
18	100 120 140 160 180 200 220 240	20	12	14	M10	
20	100 120 140 160 180 200 220 240	25	14	16	M12	
24	120 140 160 180 200 240	25	14	19	M12	
30	180 220 260 300	30	16	24	M16	

Installation diagram:



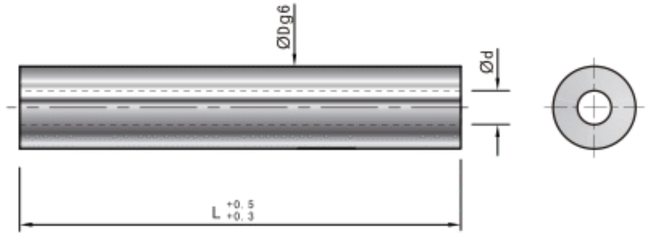


DIN

Guide pins

EE1060





Order EE1060-D-L Material:SUJ2 Hardness:58-62HRC

D	d	@¥/P						
		L20	L30	L40	L60	L80	L100	L120
10	6.2							
14	8.5	-	-					
18	10.5	-	-					
24	13	-	-	-				
30	17	-	-	-	-			

D	d	@¥/P						
		L140	L160	L180	L200	L220	L240	L280
10	6.2		-	-	-	-	-	-
14	8.5				-	-	-	-
18	10.5						-	-
24	13							-
30	17							

Installation diagram:

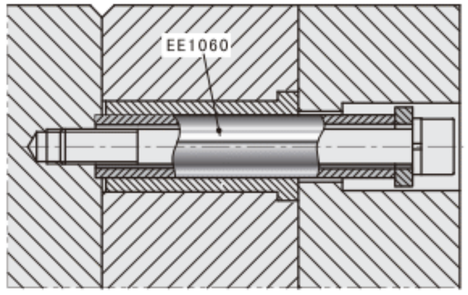


Diagram1

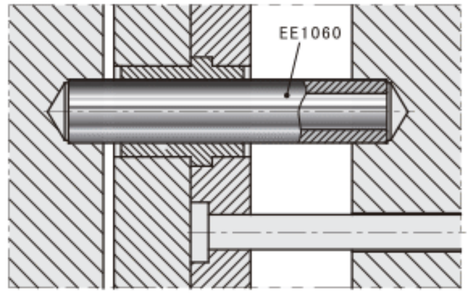
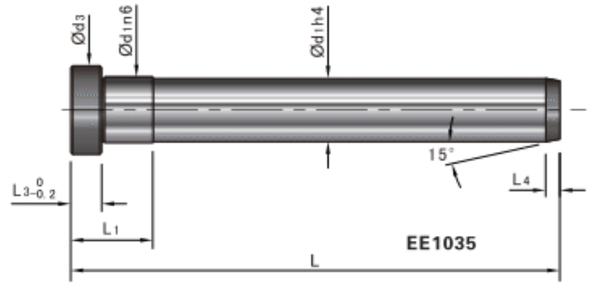


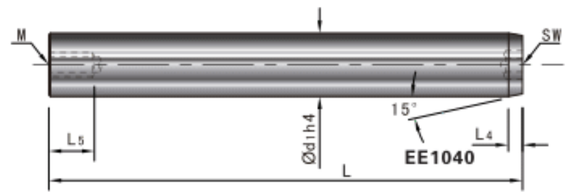
Diagram2

DIN

Guide pins

EE1035
EE1040







Order EE1035/1040-d1-L Material:SUJ2 Hardness:58-62HRC

d1	L	L4	Code	L1	L3	d3	@¥/P	Code	SW	L5	M	@¥/P
12	80 100 120 140 160	4	EE1035	17	4	15		EE1035	5	17	M 8	
18	80 100 120 140 160 180	5		22	6	21			6	20	M10	
24	100 120 140 160 180 200	6		27		27			8	25	M12	
30	140 160 180 200 250	7		36		35				30	M16	

Installation diagram:

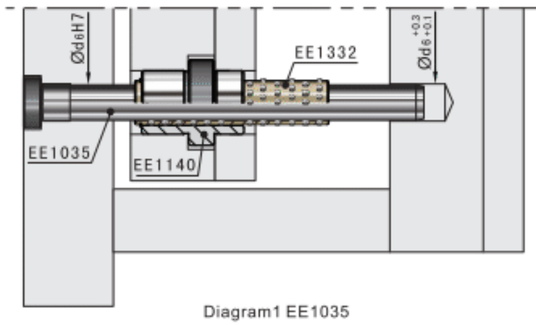


Diagram1 EE1035

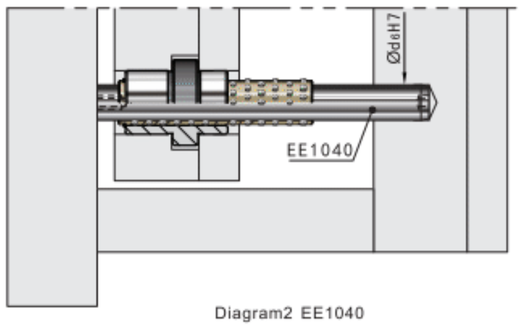


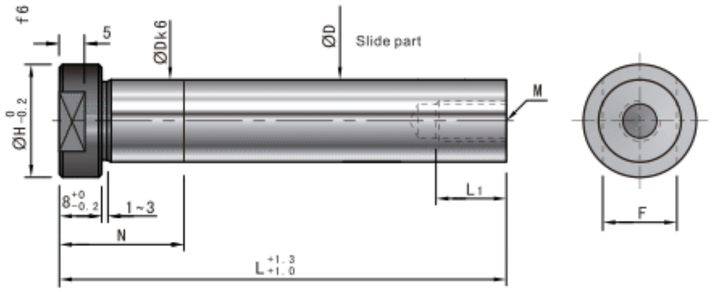
Diagram2 EE1040

JIS

Guide pins

SSPP





The cooperating gab between precision support pin and precision class guide pin is verysmall, suggest to be used below 80 degrees centigrade (for reference)

☎Order SSPP-D-L-N Material:SUJ2 Hardness:⩾58HRC

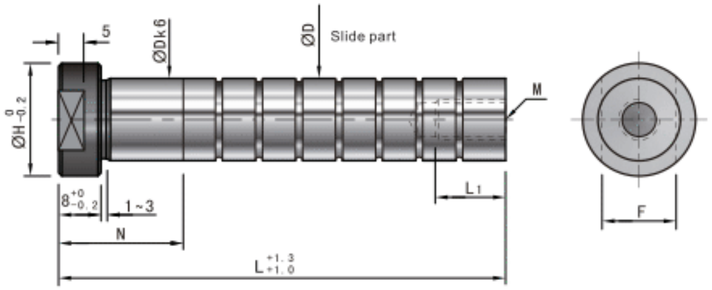
Slide part	Df6	Press-inpart	Dk6	Designated unit N	F	H	M(Coarse thread)	
							M×Pitch	L1
13	-0.016 -0.027	13	+0.012 +0.001	8-60	12	16	M 6×1	12
16		16			14	19	M10×1.5	20
20	-0.020 -0.033	20	+0.015 +0.002		19	23	M12×1.75	24
25		25			22	28	M16×2	32
30		30			29	35		
35	-0.025 -0.041	35	+0.018 +0.002		32	40		
40		40			36	45		

JIS

Guide pins

SSPP-OC





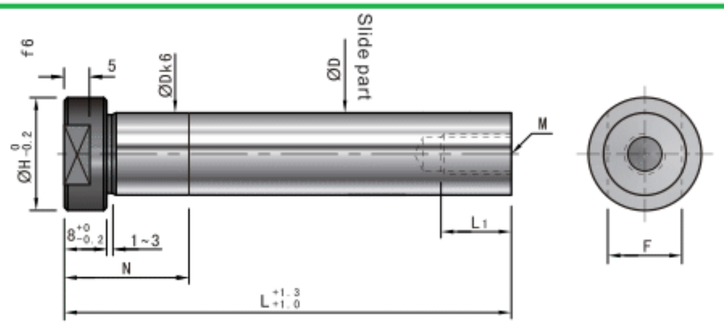
The cooperating gab between precision support pin and precision class guide pin is verysmall, suggest to be used below 80 degrees centigrade (for reference)

☎Order SSPP-OC-D-L-N Material:SUJ2 Hardness:⩾58HRC

Slide part	Df6	Press-inpart	Dk6	Designated unit N	F	H	M(Coarse thread)	
							M×Pitch	L1
13	-0.016 -0.027	13	+0.012 +0.001	8-30	12	16	M 6×1	12
16		16			14	19	M10×1.5	20
20	-0.020 -0.033	20	+0.015 +0.002		19	23	M12×1.75	24
25		25		8-40	22	28	M16×2	32
30		30		8-50	29	35		
35	-0.025 -0.041	35	+0.018 +0.002		32	40		
40		40		8-60	36	45		

SSPPZ





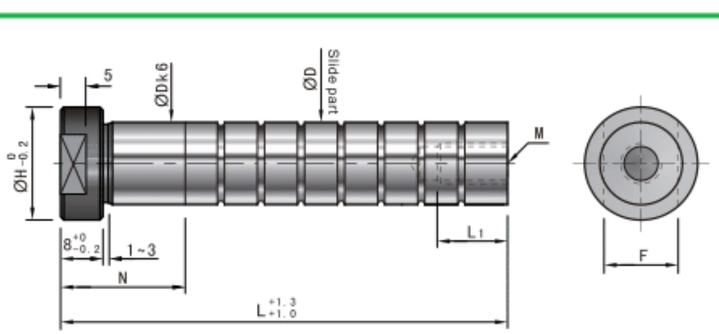
The cooperating gab between precision support pin and precision class guide pin is verysmall, suggest to be used below 80 degrees centigrade (for reference)

☎Order SSPPZ-d-L-N Material:SUJ2 Hardness:⩾58HRC

Slide part	Df6	Press-inpart	Dk6	Designated unit N	F	H	M(Coarse thread)	
							M×Pitch	L1
13	-0.020 -0.025	13	+0.015 +0.007	8-60	12	16	M 6×1	12
16		16			14	19	M10×1.5	20
20	-0.025 -0.030	20	+0.017 +0.008		19	23	M12×1.75	24
25		25			22	28	M16×2	32
30		30			29	35		
35	-0.030/-0.035	35	+0.020 +0.009		32	40		
40	-0.030/-0.040	40			36	45		

SSPPZ-OC





The cooperating gab between precision support pin and precision class guide pin is verysmall, suggest to be used below 80 degrees centigrade (for reference)

☎Order SSPPZ-D-L-N Material:SUJ2 Hardness:⩾58HRC

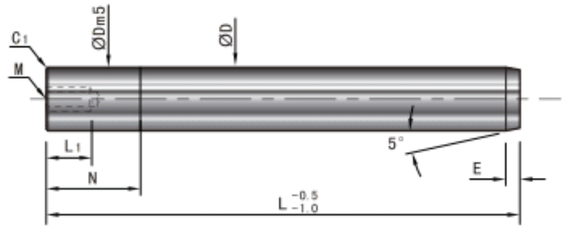
Slide part	Df6	Press-inpart	Dk6	Designated unit N	F	H	M(Coarse thread)	
							M×Pitch	L1
13	-0.020 -0.025	13	+0.015 +0.007	8-30	12	16	M 6×1	12
16		16			14	19	M10×1.5	20
20	-0.025 -0.030	20	+0.017 +0.008		19	23	M12×1.75	24
25		25		8-40	22	28	M16×2	32
30		30		8-50	29	35		
35	-0.030/-0.035	35	+0.020 +0.009		32	40		
40	-0.030/-0.040	40		8-60	36	45		

JIS

Guide pins

GGPSL





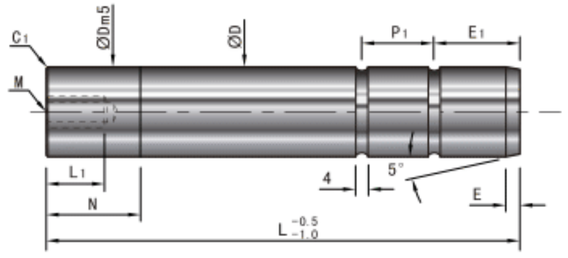
The cooperating gab between precision support pin and precision class guide pin is verysmall, suggest to be used below 80 degrees centigrade (for reference)

☎Order GGPSL-D-L-N Material:SUJ2 Hardness:58-62HRC

Slide part D		Press-inpart Tolerance		N(Designated unit1mm)	L1	E	M
8	-0.015 -0.020	8	+0.012 +0.006	0- 40	10	3	
10		10				4	M 5×0.8
12	-0.020 -0.025	12	+0.015 +0.007	0-100	12	5	M 6×1
13		13					
16		16					M 8×1.25
20	-0.025 -0.030	20	+0.017 +0.008		16		
25		25		0-120	24		M12×1.75
30		30					
35	-0.030/-0.035	35	+0.020 +0.009	0-140	32	8	M16×2
40	-0.030 -0.040	40		0-200			
50		50					
60	-0.030/-0.050	60	+0.024/+0.011		40		M20×2.5

GGPOL





The cooperating gab between precision support pin and precision class guide pin is verysmall, suggest to be used below 80 degrees centigrade (for reference)

☎Order GGPOL-D-L-N Material:SUJ2 Hardness:58-62HRC

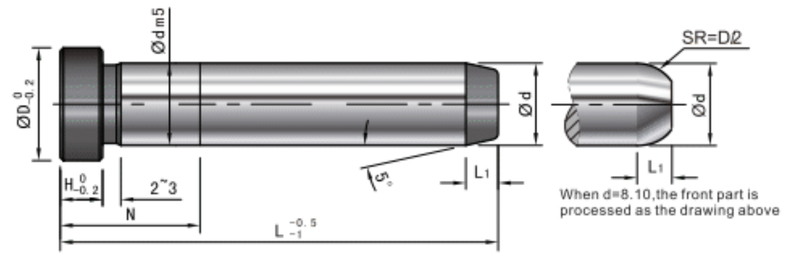
Slide part D		Press-in part Dm5		N(Designated unit1mm)	L1	E	E1	P1	Number of oil groove	M
35	-0.030 -0.035	35	+0.020 +0.009	0- 60	32	8	14	12	2	M16×2
				0- 80			15	13		
40	-0.030 -0.040	40		0- 60			16	14		
				0- 80			26	24		
50		50					28	26		
				0-100			30	28		
							28	26		
							30	28		
							32	30		
							34	32		
60	-0.030 -0.050	60	+0.024 +0.011	0-120	40		30	28		M20×2.5
							32	30		

JIS

Guide pins

GGPHL





The cooperating gab between precision support pin and precision class guide pin is verysmall, suggest to be used below 80 degrees centigrade (for reference)

☎Order GGPHL-d-L-N Material:SUJ2 Hardness:58-62HRC

d		d		H	D	L1
8	-0.015 -0.020	8	+0.012 +0.006	5	11	3
10		10			13	4
12	-0.020 -0.025	12	+0.015 +0.007		17	5
13		13			18	
16		16		8	21	
20	-0.025 -0.030	20	+0.017 +0.008		25	
25		25			30	
30		30			35	
35	-0.030 / -0.035	35	+0.020 +0.009		40	
40	-0.030 -0.040	40		10	45	8
50		50		12	55	
60	-0.030 / -0.050	60	+0.024 / +0.011	15	65	

D	L5mm	N1mm	@¥/P
8	30- 40	5- 60	
	45- 50		
	55- 80		
10	30- 40		
	45- 50		
	55- 80		
12	30- 40	5- 80	
	45- 80		
	85-120		
	125-160		
	165-200		
13	30- 40		
	45- 80		
	85-120		
	125-160		
	165-200		
16	30- 40	6- 80	
	45- 80		
	85-120		
	125-160		
	165-200		
	205-250		
20	30- 50	6-100	
	55- 90		
	95-150		
	155-200		
	205-260		
	265-300		
25	40- 60	8-120	
	65-110		
	115-160		
	165-200		
	205-260		
	265-300		
	305-350		

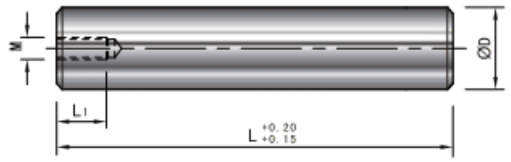
D	L5mm	N1mm	@¥/P
30	50- 60	8-130	
	65-100		
	105-160		
	165-200		
	205-260		
	265-300		
	305-350		
	365-400		
35	60-100		
	105-160		
	165-200		
	205-260		
	265-330		
	335-400		
	405-450		
40	80-140	10-200	
	145-100		
	195-240		
	245-300		
	305-360		
	365-450		
	455-500		
50	100-150	12-200	
	155-190		
	185-240		
	245-300		
	305-360		
	365-400		
	405-460		
	465-500		
60	200-250	15-200	
	255-300		
	305-350		
	355-400		
	405-450		
	455-500		

JIS

Guide pins

EEGH





Order EEGH-D-L Material:SUJ2 Hardness:58-62HRC

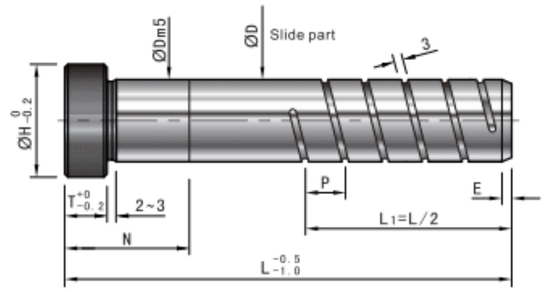
D		L 5mm	L1	M Pitch	@¥/P
6	-0.010 -0.015	8	30- 70 75- 80	M 4×0.7	
8	-0.015 -0.020	10	30- 70 75-100	M 5×0.8	
10			30- 70 75-100		
12	-0.020 -0.025	12	40- 70 75-100	M 6×1.0	
13			40- 70 75-100		
16			105-125 130-150 40- 70 75-100		
20	-0.025 -0.030	16	105-125 130-150 40- 70 75- 90 95-110 115-130 135-150 155-175	M 8×1.25	
25			50- 70 75- 90 95-110 115-130 135-150 155-170 175-200 205-225 230-250		
30		20	50- 70 75- 90 95-110 115-130 135-150 155-170 175-200 205-225 230-250 255-275 280-300	M10×1.5	

D		L 5mm	L1	M Pitch	@¥/P
35	-0.025 -0.030	20	50- 70 75- 90 95-110 115-130 135-150 155-170 175-200 205-225 230-250 255-275 280-300	M10×1.5	
40			50- 70 75- 90 95-110 115-130 135-150 155-170 175-200 205-225 230-250 255-275 280-300 305-325		
50			330-350 50- 70 75- 90 95-110 115-130 135-150 155-170 175-200 205-225 230-250 255-275 280-300 305-325 330-350		

JIS

Guide pins

GGPHLSP





The cooperating gab between precision support pin and precision class guide pin is verysmall, suggest to be used below 80 degrees centigrade (for reference)

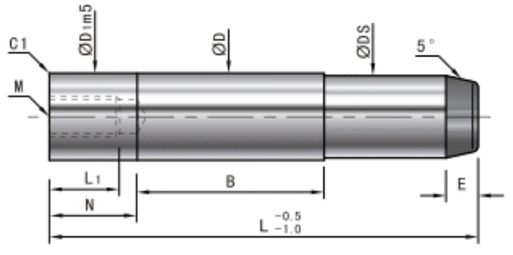
Features of spiral oil groove: compared to annular groove, spiral oil groove can prevent sintering phenomenon more effectively, because when guide pillar works in accord with guide bush the lubrating oil flows through the spiral groove and it makes the guide pillar surface be average lubrated.

Order GGPHLSP-D-L-N Material:SUJ2 Hardness:58-62HRC

Slide part D		Press-in part Dm5		N(Designated unit1mm)	T	H	E	L	P
20	-0.025 -0.030	20	+0.017 +0.008	8≤N<L/2	8	25	5	60- 70	10
25		25				30		80-120	15
30		30				35		130-180	20
40	-0.030 -0.040	40	+0.020 +0.009	10≤N<L/2	10	45	8	190-300	25
50		50		12≤N<L/2	12	55		310-360	30

When D=20-30,P=23

GGPSOT





Order GGPSOT-D-L-N-B-DS Material:SUJ2 Hardness:58-62HRC

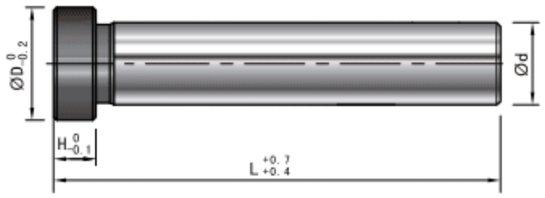
D		D1		N(Designated unit1mm)	B	DS 0 -0.01	E	L1	M
16	-0.020/-0.025	16	+0.015/+0.007	0-100	5- 50	15.8-16	5	12	M 6×1
20	-0.025 -0.030	20	+0.017 +0.008		5- 80	19.8-20		16	M 8×1.25
25		25			5-130	24.8-25		24	M12×1.75
30		30				29.8-30			

TAIWAN

Guide pins/Return pins

EP



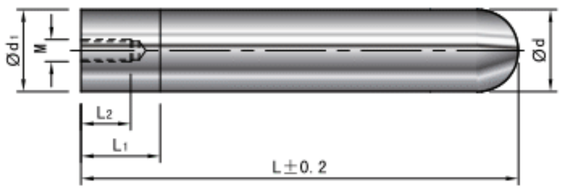


Order EP-d-L Material:SUJ2 Hardness:58-62HRC

d		D	H
Size	Tolerance		
8	-0.013 -0.022	12	4
10		15	
12	-0.016 -0.027	17	6
15		20	
20	-0.020 -0.033	25	8
25		30	
30		35	
35	-0.025 -0.041	40	10
40		45	

AMP



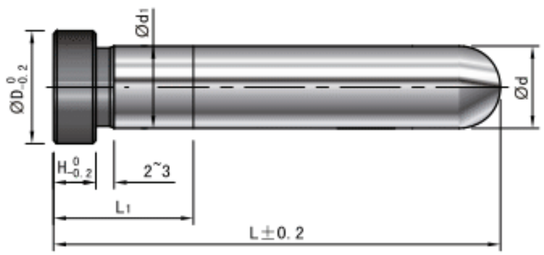


Order AMP-d-L Material:SUJ2 Hardness:58-62HRC

d		d1		L1	M	L2
Size	Tolerance	Size	Tolerance			
10	-0.013 / -0.022	10	+0.015 / +0.006	19	6	15
13	-0.016 -0.027	13	+0.018 +0.006	24	8	20
16		16		29	10	25
20	-0.020 -0.033	20	+0.021 +0.008	39	12	30
25		25		49		

AAP





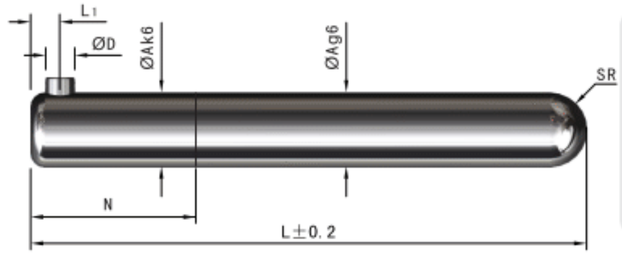
Order AAP-d-L

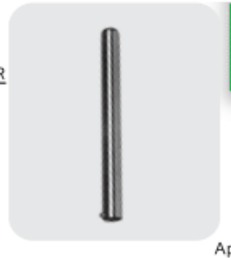
d		d1		L1	D	H
Size	Tolerance	Size	Tolerance			
10	-0.013 / -0.022	10	+0.015 / +0.006	19	13	8
13	-0.016 -0.027	13	+0.018 +0.006	24	17	10
16		16		29	20	12
20	-0.020 -0.033	20	+0.021 +0.008	39	25	15
25		25		49	30	

DIN

Guide pins

GGI



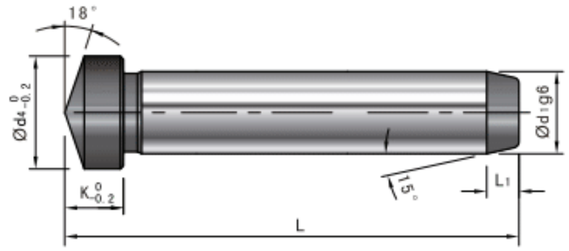


Apply to GGR BBG series

Order GGI-D-L-N-A Material:SUJ2 Hardness:58-62HRC

D	L			N	A	R	L1	@¥/P
4	75	90	105	=25	10	5	4	
	95	110	130	≈30	12	6		
	115	135	160	≈35	16	8		
6	140	165	190	=40	20	10	6	
	170	195	220	≈45	24	12		
	200	225	250	≈50	28	14		

ZZ016





Order ZZ016-d1-L Material:SUJ2 Hardness:58-62HRC

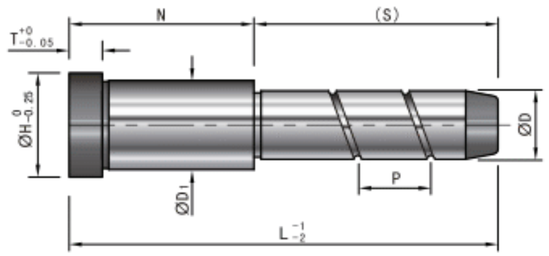
d1	L	d4	L1	K	@¥/P
10	40	12	4	3	
	60				
	80				
	100				
	120				
12	60	16	7	6	
	80				
	100				
	120				
	140				
	160				
14	60	18		8	
	80				
	100				
	120				
	140				
	160				
16	100	20			
	120				
	140				
	160				
	180				
	200				
18	100	22			
	120				
	140				
	160				
	180				
	200				
	240				
20	100	24			
	120				
	140				
	160				
	180				
	200				
	240				

JIS

Guide pins

GGPBL





Order GGPBL-D-L-N Material:SUJ2 Hardness:≥58HRC

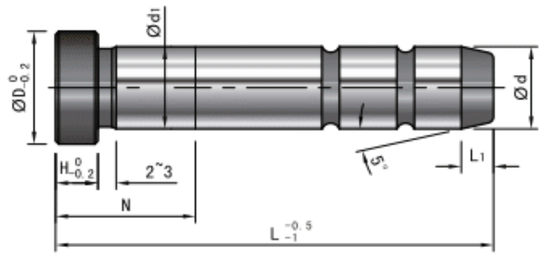
D		D1		H	T
16	-0.015 -0.020	25	+0.020 +0.015	30	6
20		30		35	8
25	-0.020 -0.025	35	+0.025 +0.020	40	
30		42		47	10

D	L	N		S	P
16	50	24 29		~ 31	13
	60	24 29 34 39		~ 41	15
	70			~ 51	17
	80	24 29 34 39 44 49		~ 61	18
	90	29 34 39 44 49		~ 71	19
	100	29 34 39 44 49 54 59		~ 81	20
20	50	24 29		~ 91	21
	60	24 29 34 39		~101	22
	70			~111	23
	80			~121	24
	90	24 29 34 39 44 49 54 59		~131	25
	100			~141	26
	110			~151	27
	120			~161	28
	130			~171	30
	140			~181	33
	150	29 34 39 44 49 54 59		~201	34
	160				
	170				
	180				
25	60	24 29 34 39			
	70				
	80				
	90				
	100	24 29 34 39 44 49			
	110				
	120				
	130				
	140				
	150	29 34 39 44 49 54 59			
	160				
	170				
	180				
	190	29 34 39 44 49 54 59 69			
	200				
30	80				
	90				
	100	24 29 34 39 44 49 59			
	110				
	120				
	130	24 29 34 39 44 49 59 64			
	140	69 74 79 84 89			
	150				
	160				
	170				
	180				
	190	24 29 34 39 44 49 59 64			
	210	69 74 79 84 89 94 99			
	200				
	220				
	230				

TAIWAN

Guide pins

GGP





Order GGP-d-L Material:SUJ2 Hardness:58-62HRC

d		d1		D	H
Size	Tolerance	Size	Tolerance		
12	-0.016 -0.027	12	+0.018 +0.007	17	5
16		16		20	6
20	-0.020 -0.033	20	+0.021 +0.008	25	8
25		25		30	
30		30		35	
35	-0.025 -0.040	35	+0.025 +0.009	40	
40		40		45	10
50		50		55	12
60	-0.030 / -0.049	60	+0.030 / +0.011	66	15

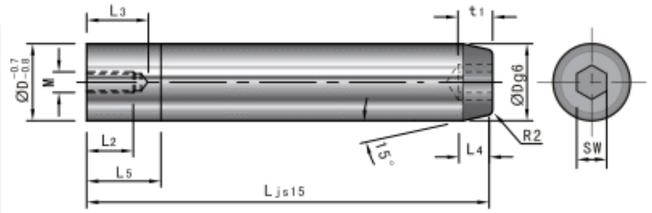
L \ d	d12	d16	d20	d25	d30	d35	d40	d50	d60
50	19	19	19	19	-	-	-	59	-
60					19	34	34		
70				24	24				
80						39			
90					29		39		
100	24	24	24			49		59	79
110				29	39		49	-	-
120								59	79
130			34	34				-	-
140		29			49	59	59	59	79
150			39	49				69	
160								-	-
170								69	
180								79	99
190									
200									
210									
220									
230									
240									
250									
260									
270									
280									
290									
300									
320	-	-	-	-	-	-	-	-	-
330									
340									
350									
360									
370									
380									
390									
400									
410									
420									
430									
440									
450									
460									
470									
480									
490									
500									
510									
520									

DIN

Guide pins

ZZ010





Order ZZ010-D-L Material:SUJ2 Hardness:58-62HRC

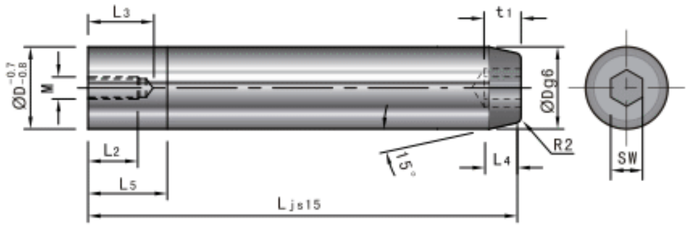
D	L	L2	L3	L4	L5	t1	SW	M	@¥/P
10	60	10	15	4	5	5	5	M 6	
	80								
	100								
12	60								
	80								
	100								
	120								
14	50								
	60								
	67								
	70								
	75								
	80								
	90								
	100								
15	50					6	6	M 8	
	60								
	70								
	80								
	90								
16	80	12	18	7	5.5				
	90								
	100								
	118								
	120								
	132								
	140								
	160								
18	60	15	22		6	8	8	M10	
	70								
	80								
	90								
	100								
	125								
	140								
	150								
	170								
20	60				7				
	70								
	80								
	90								
	100								
	120								
	140								
	150								
	160								
	170								
	180								
	190								
	210								
22	70								
	80								
	90								
	100								
	120								

DIN

Guide pins

ZZ010





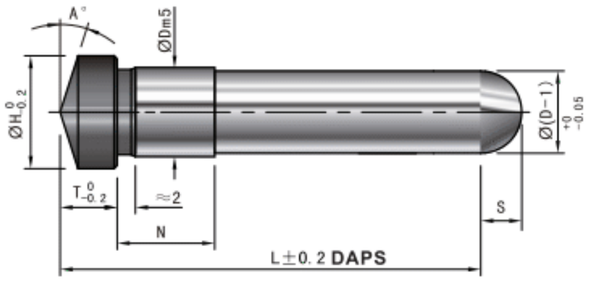
Order ZZ010-D-L Material:SUJ2 Hardness:58-62HRC

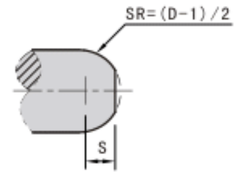
D	L	L2	L3	L4	L5	t1	SW	M	@¥/P
24	70	18	25	7	7	10	10	M16	
	80								
	90								
	100								
	120								
	140								
	160								
	180								
	200								
	220								
30	80								
	90								
	100								
	120								
	140								
32	80								
	90								
	100								
	120								
	140								

JIS
Guide pins

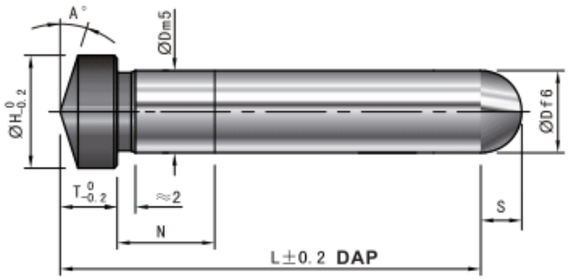
DAP DAPS

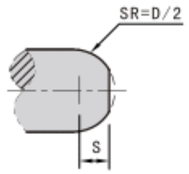






When D ⩾25,the ball surface looks as the drawing above





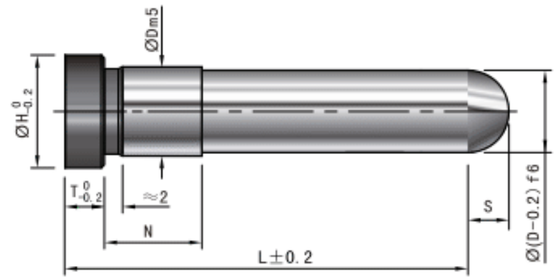
When D ⩾25,the ball surface looks as the drawing above

Order DAP/DAPS-D-L-N-A Material:SUJ2 Hardness:58-62HRC

D	N(Designated 0.1mm)	A(Designated 1mm)	m5	f6(AP)	H	T	S DAP	@¥/P	S DAPS	@¥/P
4	2⩽N ⩽L-T-1 or N=0 (Without press-in part)	0-30	+0.009 +0.004	-0.010 -0.018	7	5	2		1.5	
5					8		2.5		2	
6					9		3		2.5	
8			+0.012 +0.006	-0.013 -0.022	11		4		3.5	
10					13	10	5		4.5	
12			+0.015 +0.007	-0.016 -0.027	15		6		5.5	
13					16		6.5		6	
15					18	13	7.5		7	
16					19		8		7.5	
20			+0.017 +0.008	-0.020 -0.033	23		10		9.5	
25					28				10	
30					35	15				
35			+0.020 +0.009	-0.025 -0.041	40					
40					45					
50					55	20				

JIS
Guide pins

AAPZS





Order AAPZS-D-L-N Material:SUJ2 Hardness:58-62HRC

D	N(Designated 0.1mm)	m5	f6	H	T	S	@¥/P
8	2⩽N ⩽L-T-1 or N=0 (Without press-in part)	+0.012 +0.006	-0.013 -0.022	11	5	3.9	
10				13		4.9	
12		+0.015 +0.007	-0.016 -0.027	15	10	5.9	
13				16		6.4	
15				18		7.4	
16				19	13	7.9	
20		+0.017/+0.008	-0.020/-0.033	23		9.9	

AAPU AAPHX

When D ⩾25,the ball surface looks as the drawing above



Order AAPU-D-L-N Material:SUJ2 Hardness:58-62HRC

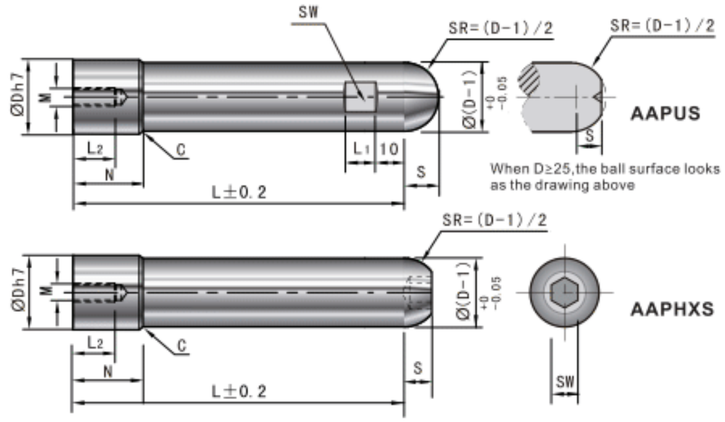
D	N(Designated 0.1mm)	h7	f6	M	L1 AAPU	L2	S AAPU	S AAPHX	SW AAPU	BAAPHX (Hexagon Hole)
10	L>N⩾0	0/-0.015	-0.013/-0.022	6	8	15	5	3.5	7	5 (EDM)
13		0 -0.018	-0.016 -0.027	8	10	20	6.5	5	10	
16				10		25	8	7	13	
20		0 -0.021	-0.120 -0.033	12	12	30	10	6	17	6(Screw) M12-L15
25								10	22	
30				16	18	40			27	8(Screw) M16-L20
35		0 -0.025	-0.025 -0.041						32	
40				20			15	15	36	

JIS

Guide pins

AAPUS AAPHXS



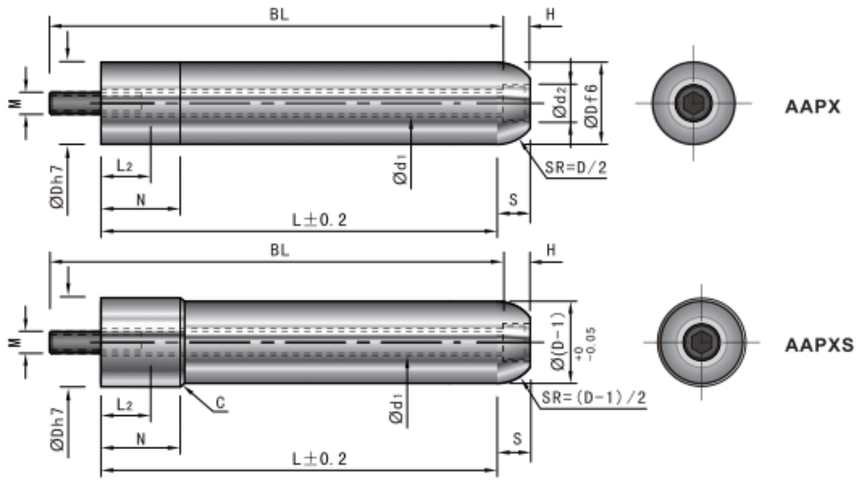


Order AAPHXS-D-L-N Material:SUJ2 Hardness:58-62HRC

D	N(Designated unit 0.1mm)	h7	f6	M	L1 AAPUS	L2	S AAPUS	S AAPHXS	SW AAPUS	BAAPHX (Hexagon Hole)
10	L>N≥0	0/-0.015	-0.013/-0.022	6	8	15	4.5	3	7	5 (EDM)
13		0 -0.018	-0.016 -0.027	8	10	20	6	4	10	
16				10		25	7.5	6	13	
20		0 -0.021	-0.120 -0.033	12	12	30	10		17	6(Screw) M12-L15
25								10	22	
30				16	18	40			27	8(Screw) M16-L20
35		0 -0.025	-0.025 -0.041						32	
40				20			15	15	36	

AAPX AAPXS





Order AAPXS-D-L-N-BL Material:SUJ2 Hardness:58-62HRC

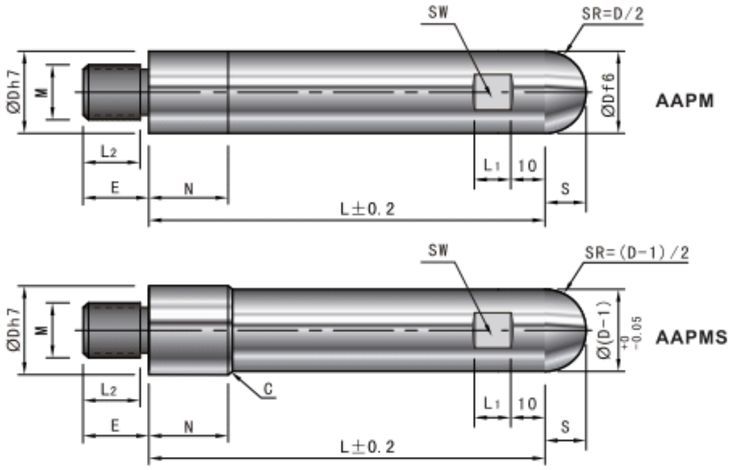
D	N(Designated unit 0.1mm)	h7	f6	BL(Designated unit 5mm)	BL(Designated unit 10mm)	d1	d2	M	H	S
13	L>N≥0	0 -0.018	-0.016 -0.027	60-95	100-210	5.5	9.5	5	5.5	4
16						7	11	6	6.5	5
20		0 -0.021	-0.020 -0.033		100-270	9	14	8	9	6
25						11	17	10	11	8
30						14	19	12	13	10
32										
35		0 -0.025	-0.025 -0.041		100-320	18	25	16	17	
40										14

JIS

Guide pins

AAPM AAPMS





Order AAPMS-D-L-N Material:SUJ2 Hardness:58-62HRC

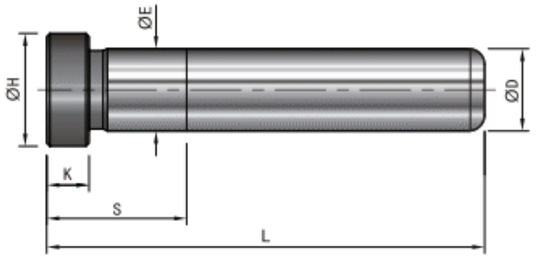
D	N(Designated unit 0.1mm)	h7	f6	M	E	L1	L2	SW	S AAPM	S AAPMS
8	L>N≥0	0 -0.015	-0.013 -0.022	6	12	8	10	7	4	3.5
10					17		15		5	4.5
13		0 -0.018	-0.016 -0.027	8	22	10	20	10	6.5	6
16				12	27		25	13	8	7.5
20		0/-0.021	-0.020/-0.033	16	32	12	30	17	10	9.5

AISI

Guide pins Guide bush

GLL



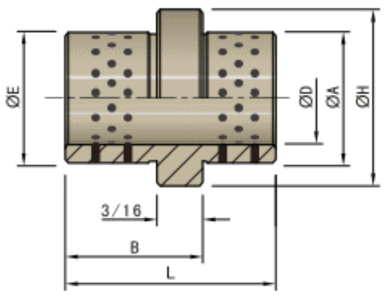


Order GLL-5004 Material:SUJ2 Hardness:58-62HRC

Tolerance dimension	ØD +0.000 -0.0005	ØH (Max.)	K	ØE +0.0005 -0.000	L +0.00 -0.06	ØD=3/4I.D. 0.749		ØD=7/8I.D. 0.874		ØD=1" I.D. 0.999		ØD=1 1/4I.D. 1.249		ØD=1 1/2I.D. 1.499	
						Code	S	Code	S	Code	S	Code	S	Code	S
3/4	0.749	0.99	3/16	0.751	3 3/4	GLL-5004		GLL-5103		GLL-5202		GLL-5302	7/8	GLL-5402	
7/8	0.874	1.115	1/ 4	0.876	4 1/4	PFGLL-5005		PFGLL-5104		PFGLL-5203		PFGLL-5303		PFGLL-5403	
1"	0.999	1.24		1.001	4 3/4	PFGLL-5006	7/8	PFGLL-5105	7/8	PFGLL-5204	7/8	PFGLL-5304		PFGLL-5404	1 3/8
1 1/4	1.249	1.49	5/16	1.251	5 1/4	PFGLL-5007		PFGLL-5106		PFGLL-5205		PFGLL-5305	1 3/8	PFGLL-5405	
1 1/2	1.499	1.74		1.501	5 3/4	PFGLL-5008		PFGLL-5107		PFGLL-5206		PFGLL-5306		PFGLL-5406	
-	-	-	-	-	6 1/4	-	-	-	-	-	-	PFGLL-5307		PFGLL-5407	

GGBE

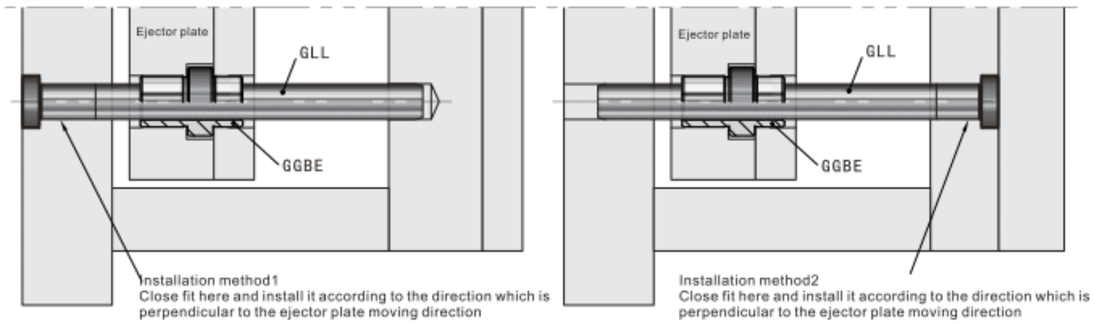




Order GGBE-0750 Material:brass+graphite

Code	Tolerance dimension	ØD +0.0005 -0.000	ØE +0.0005 -0.000	ØA +0.000 -0.001	ØH +0.000 -0.030	L +0.00 -0.06	B	@¥/P
GGBE-0750	3/4	0.751	1.1255	1.124	1.302	1.5	1	
GGBE-0875	7/8	0.876	1.2505	1.249	1.427			
GGBE-1000	1"	1.001	1.3755	1.374	1.552			
GGBE-1250	1 1/4	1.251	1.6255	1.624	1.802	1.75	1.12	
GGBE-1500	1 1/2	1.501	2.0005	1.999	2.177			
GGBE-2000	2"	2.001	2.5005	2.499	2.687	2.25	1.62	

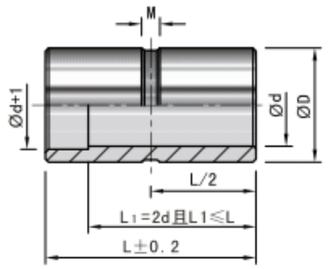
Installation diagram:



JIS

Guide bush

GBB

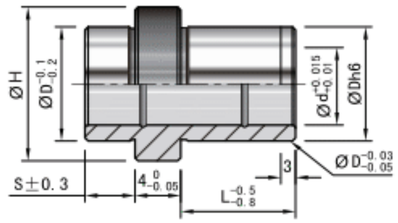




Order GBB-d-L Material:SUJ2 Hardness:58-62HRC

d		D		L1	
Size	Tolerance	Size	Tolerance		
10	+0.009 / 0	14	+0.018 +0.007	10	
12	+0.017 +0.006	18		13	
16		25	+0.021 +0.008	16	
20	+0.020 +0.007	30		20	
25		35		25	
30		42	+0.025 +0.009		
35	+0.025 +0.009	48			
40		55		20	
50		70	+0.030 +0.011		
60	+0.030 / +0.010	80			

EEGBH





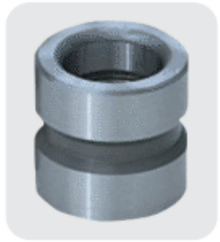
EEGBH-d-L Material:SUJ2 Hardness:58-62HRC

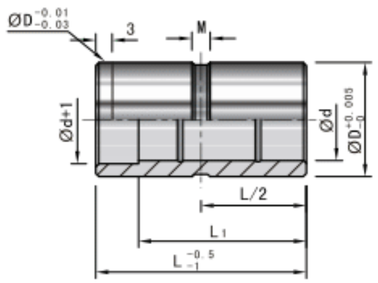
d	L	S	H	Dh6		@¥/P
8	10-13	8	19	16	0 -0.011	
	15					
10	10-13		21	18		
12	15-20	10	23	20	0 -0.013	
13	10-13 10 13 15		25	22		
16	20-25 10 13 15		28	25		
20	20-25 10 13 15		33	30		
25	20-30 13 15-30		38	35		
30	20-30	15	43	40	0 -0.016	
32	15-30		45	42		
35	20-30	20	48	45		
40			55	52		
50	25-30		65	62	0 -0.019	

JIS

Guide bush

GGBS



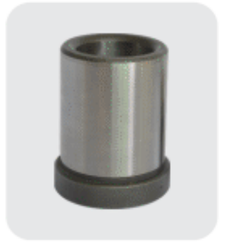


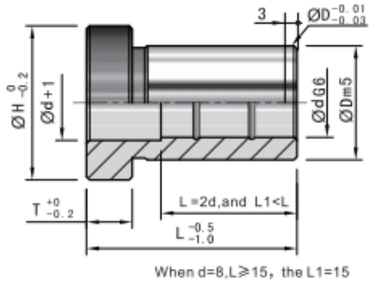
Order GGBS-d-L Material:SUJ2 Hardness:58-62HRC

d		D	M	L1@¥/P										
				L10	L15	L20	L25	L30	L35	L40	L50	L60	L70	L80
8	0 -0.005	12	When L=10, t=4					-	-	-	-	-	-	-
10		14									-	-	-	-
12	-0.005 -0.010	18									-	-	-	-
13		20									-	-	-	-
16		25										-	-	-
20	-0.010 -0.015	30												-
25		35	8											-
30		42												

Guide bush head type

GGBHE





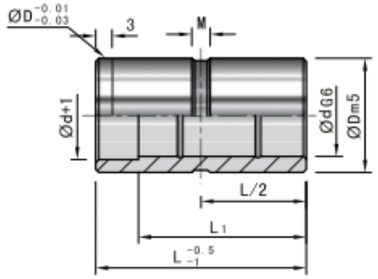
When d=8,L≥15，the L1=15

Order GGBHE-d-L Material:SUJ2 Hardness:58-62HRC

dG6		T	Dm5		H	@¥/P					
						L15	L20	L25	L30	L35	L40
8	+0.014 +0.005	5	12	+0.015 +0.007	14				-	-	-
10			14		16						
12	+0.017 +0.006		18		22						
13			20	+0.017 +0.008	25						
16		6	25		30						
20	+0.020 +0.007	8	30		35	-					
25			35	+0.020 +0.009	40	-					
30			42		47	-	-				
35	+0.025 +0.009		48		54	-	-	-			
40		10	55		60	-	-	-			
50		12	70	+0.024 +0.011	75	-	-	-	-	-	
60	+0.029/+0.010		80		86	-	-	-	-	-	-

GGBSE

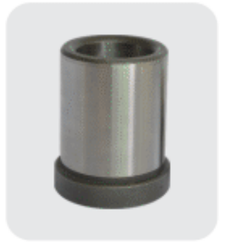


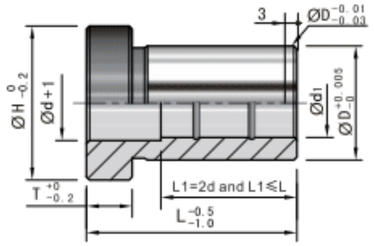


Order GGBSE-d-L Material:SUJ2 Hardness:58-62HRC

dG6		M	Dm5		@¥/P						
					L10	L15	L20	L25	L30	L35	L40
8	+0.014 +0.005	6 (L=10时 t=4)	12	+0.015 +0.007					-	-	-
10			14								
12	+0.017 +0.006		18								
13			20	+0.017 +0.008							
16			25								
20	+0.020 +0.007		30								
25		8 (L=15时 t=6)	35	+0.020 +0.009	-						
30			42		-	-					
35	+0.025 +0.009		48		-	-	-				
40			55	+0.024 +0.011	-	-	-				
50			70		-	-	-	-			
60	+0.029/+0.010		80		-	-	-	-	-	-	-

GGBH





Order GGBH-d-L Material:SUJ2 Hardness:58-62HRC

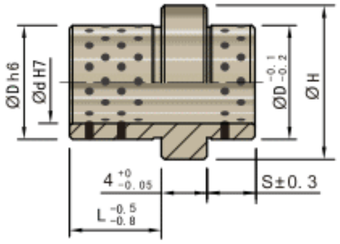
d		T	D	H
8	0 -0.005	5	12	14
10			14	16
12	-0.005 -0.010		18	22
13			20	25
16		6	25	30
20	-0.010 -0.015	8	30	35
25			35	40
30			42	47

JIS

Self-lubricating guide bush

EEGBZS





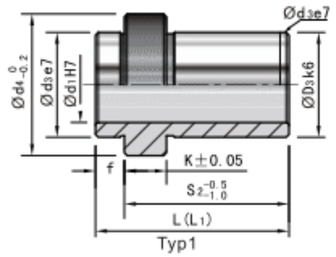
Order EEGBZS-d-L Material:Brass+Graphite

d	L	S	H	Dh6		@¥/P
13	10 13-15	10	25	22	0 -0.013	
16	13-15		28	25		
	20					
20	13-15		33	30		
	20					
25	15		38	35	0 -0.016	
	20-25					
30	15-25	15	43	40		
35	20-25	20	48	45		
40	20-30		55	52	0 -0.019	
50	25-30		65	62		

DIN

Guide bush

ZZ10





Order ZZ10-S2-d1 Material:SUJ2 Hardness:58-62HRC

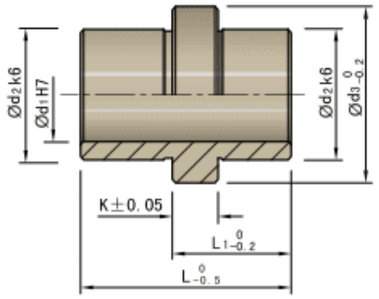
d1	S2	Typ	L	L1	f	K	d3	d4	@¥/P
9-10	12	1	15	15	3	3	14	16	
	17		20	20					
	22		25	25					
	27		30	30					
	36		39	39					
	46	2	46	49					
	56			59					
	66			69					
14-15	17	1	26	26			20	25	
	22		31	31					
	27		36	36					
	36		45	45					
	46		55	55					
	56	2	56	65					
	66			75					
	76			85					
	86			95					
	96			105					
	116			125					
18-20	17	1	26	26	9	6	26	31	
	22		31	31					
	27		36	36					
	36		45	45					
	46		55	55					
	56		65	65					
	66		75	75					
	76	2	76	85					
	86			95					
	96			105					
	116			125					
	136			145					
22-24	17	1	26	26			30	35	
	22		31	31					
	27		36	36					
	36		45	45					
	46		55	55					
	56		65	65					
	66		75	75					
	76		85	85					
	86		95	95					
	96		105	105					
	116	2	96	125					
	136			145					
	156			185					
30-32	27	1	36	36			42	47	
	36		45	45					
	46		55	55					
	56		65	65					
	66		75	75					
	76		85	85					
	86		95	95					
	96		105	105					
	116		125	125					
	136	2	116	145					
	156			165					
	196			205					
40-42	46	1	58	58	12	10	54	60	
	56		68	68					
	66		78	78					
	76		88	88					
	86		98	98					
	96		108	108					
	116		128	128					
	136	2	136	148					
	156			168					
	196			208					
	246			258					

DIN

Guide bush

ZZ4079



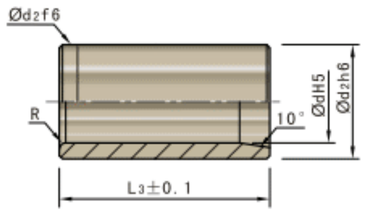


Order ZZ4079-d1-L Material:Brass

d1	L	L1	d2	d3	K	@¥/P
10	14	7	14	17	3	
	20	12				
16	28	16	22	26	6	
	39	27				
20	28	16	28	32		
	39	27				
25	30	18	32	36		
	39	27				
32	47	22	40	45	8	
		27				

ZZ4085





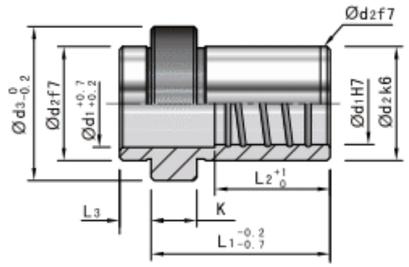
Order ZZ4085-d-L3 Material:brass

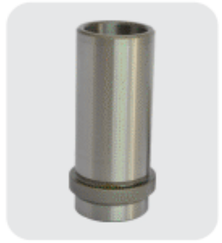
d	L3	d2	R	@¥/P
10	14	14	1	
12	20	17	1.5	
16	25	22	2	
	32			

DIN

Guide bush

ZZ75





Order ZZ75-d1-L1 Material:SUJ2 Hardness:58-62HRC

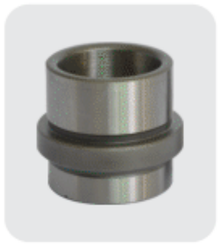
d1	L1	L2	L3	d2	d3	K	@¥/P
9/10	16	L1	5	14	17	4	
	21						
	26						
	36						
	46						
	56	50					
11/12	16	L1		18	22		
	21						
	26						
	36						
	46						
	56	51					
	66						
15/16	16	L1	6	24	28	6	
	21						
	26						
	36						
	46						
	56						
	66						
	76						
	86						
	96	96					
19/20	16	L1	8	28	32		
	21						
	26						
	36						
	46						
	56						
	66						
	76						
	86						
	96	96					
25/26	21	L1		34	38	8	
	26						
	36						

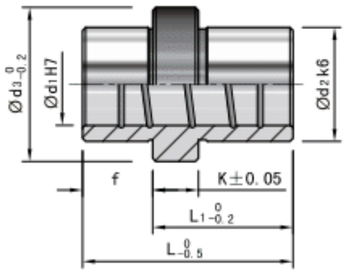
d1	L1	L2	L3	d2	d3	K	@¥/P
25/26	46	L1	8	34	38	8	
	56						
	66						
	76						
	86						
	96						
	116	106					
30/32	36	L1		42	46		
	46						
	56						
	66						
	76						
	86						
	96						
	116						
	136	120					
	156	150					
	176						
38/40	46	L1	10	50	54	10	
	56						
	66						
	76						
	96						
	116						
	136	130					
	156	150					
	176						
48/50	56	L1		63	70	10	
	66						
	76						
	96						
	116						
	136						
	156	150					
	176						

DIN

Guide bush

ZZ78

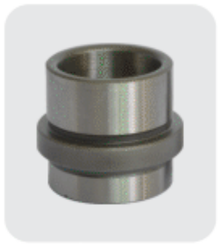


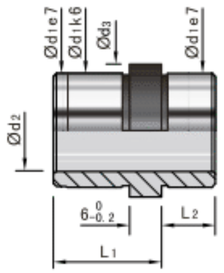


Order ZZ78-d1-L Material:SUJ2 Hardness:58-62HRC

d1	L	L1	d2	d3	K	@¥/P
16	28	18	24	28	6	
	39					
20	28		28	32		
	39					
25	49	25	34	36	8	

EE1140





Order EE1140-d2 Material:SUJ2 Hardness:58-62HRC

d2	L1	L2	d1	d3	@¥/P
17	17	9	22	25	
24	22	12	30	33	
30	27	17	38	41	
38	32	22	46	49	

Installation diagram

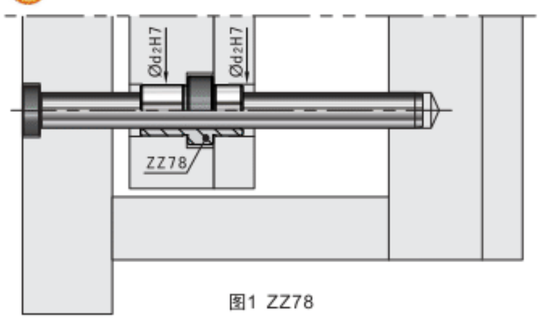


图1 ZZ78

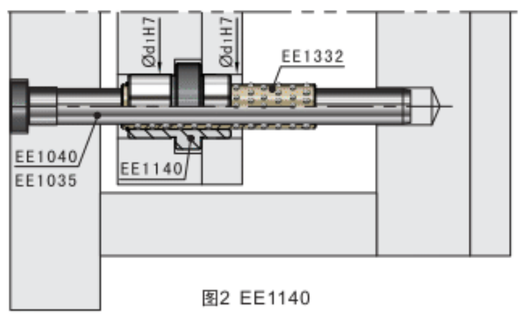
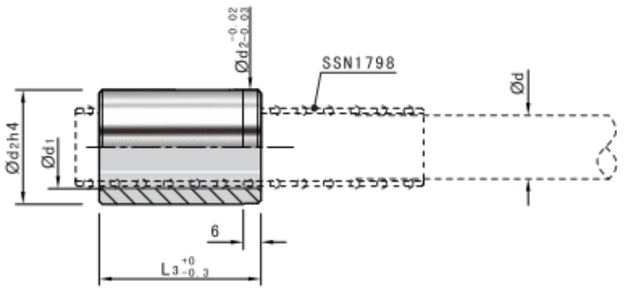


图2 EE1140

DIN

Guide bush

ZZ4486





Order ZZ4486-d-L3 Material:SUJ2 Hardness:58-62HRC

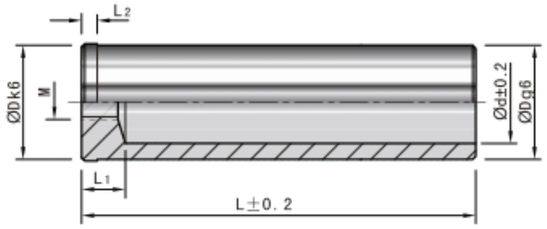
d	L3	d1	d2	@¥/P
10/12	23	15/17	22	
	30			
	37			
15/16	23	21/22	28	
	30			
	37			
	47			
	60			
19/20	23	25/26	32	
	30			
	37			
	47			
	60			
	77			
24/25	23	30/31	40	
	30			
	37			
	47			
	60			
	77			
30/32	30	38/40	48	
	37			
	47			
	60			
	77			
	95			
38/40	30	46/48	58	
	37			
	47			
	60			
	77			
	95			
	120			
48/50	37	56/58	70	
	47			
	60			
	77			
	95			
	120			
60/63	60	70/73	85	
	77			
	95			
	120			

DIN

Guide bush

ZZ81-S

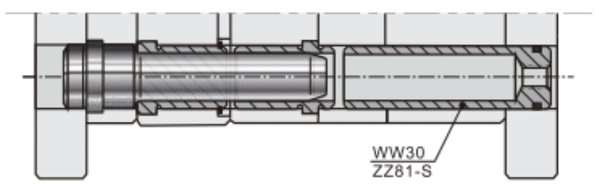




Order ZZ81-S-D-L Material:SUJ2 Hardness:58-62HRC

D	L	L1	L2	d	M	@¥/P
18	40 50 60 70 80 90 100	10	2	13	M 8	
24	45 55 65 75 85 95 105 115 125 135	12	2.5	17	M10	
28	40 60 80 100 120 140	14		21	M12	
34	60 80 100 120 140 160 200	15		27		
42	60 90 110 130 150 200		4.5	34	M16	
50	60 90 110 130 150 200	17		44		
63	60 90 110 130 150 200	20		52		

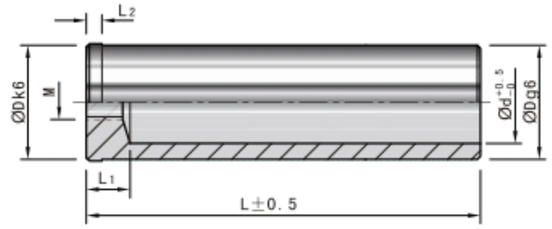
Installation diagram

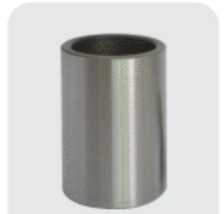


DIN

Guide bush

WW30

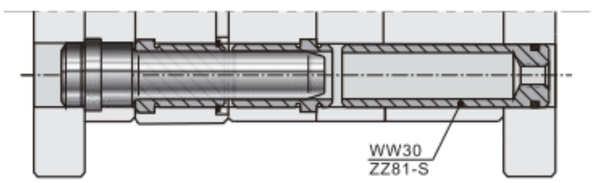




Order WW30-D-L Material:SUJ2 Hardness:58-62HRC

D	L	L1	L2	d	M	@¥/P
14	20 30 40 50 60 70 80 100	8	2	11	M 8	
20	30 40 60 80 100 120 140 160	13		16	M12	
26	30 40 60 80 100 120 140 160 180			21		
30	40 60 80 100 120 140 160 180 200 240		2.5	25		
42	40 60 80 100 120 140 160 180 200 220 260 300			33		
54	60 80 120 160 200 240 280		4.5	43		

Installation diagram

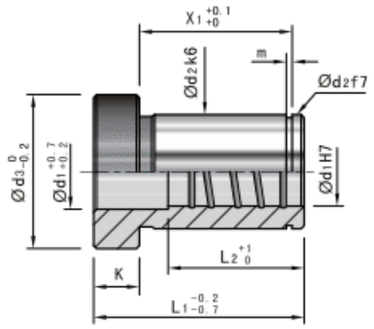


DIN

Guide bush

ZZ76





Order ZZ76-d1-L1 Material:SUJ2 Hardness:58-62HRC

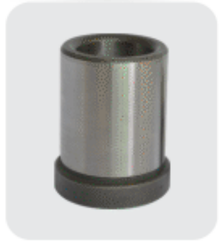
d1	L1	L2	d2	d3	K	X1	m	@¥/P
9-10	16	L1	14	17	4	9.2	1.1	
	21					14.2		
	26					19.2		
	36					29.2		
	46					39.2		
	56	50				49.2		
11/12	16	L1	18	22		8.6	1.3	
	21					13.6		
	26					18.6		
	36					28.6		
	46					38.6		
	56	51				48.6		
	66					58.6		
15/16	16	L1	24	28	6	6.4	1.3	
	21					11.4		
	26					16.4		
	36					26.4		
	46					36.4		
	56					46.4		
	66					56.4		
	76					66.4		
	86					76.4		
	96					86.4		
19/20	16	L1	28	32		6	1.6	
	21					11		
	26					16		
	36					26		
	46					36		
	56					46		
	66					56		
	76					66		
	86					76		
	96					86		
25/26	21	L1	34	38	8	8.5	1.6	
	26					13.5		
	36					23.5		
	46					33.5		
	56					43.5		
	66					53.5		
	76					63.5		
	86					73.5		
	96					83.5		
	116	106				103.5		

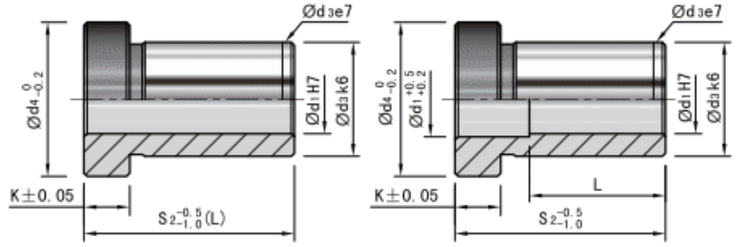
d1	L1	L2	d2	d3	K	X1	m	@¥/P
30/32	36	L1	42	46	8	22.3	1.85	
	46					32.3		
	56					42.3		
	66					52.3		
	76					62.3		
	86					72.3		
	96					82.3		
	116					102.3		
	136	120				122.3		
	156	150				142.3		
	176					162.3		
38/40	46	L1	50	54	8	31.6	1.85	
	56					41.6		
	66					51.6		
	76					61.6		
	96					81.6		
	116					101.6		
	136	130				121.6		
	156	150				141.6		
	176					161.6		
48/50	56	L1	63	70	10	39.6	21.5	
	66					49.6		
	76					59.6		
	86					69.6		
	96					79.6		
	116					99.6		
	136					119.6		
	156	150				139.6		
	176					159.6		
63	96	L1	80	88	12.5	76.3	2.65	
	116					96.3		
	136					116.3		
	156					136.3		
	176	150				156.3		
	196					176.3		

DIN

Guide bush head type

ZZ11





Order ZZ11-S2-d1 Material:SUJ2 Hardness:58-62HRC

d1	S2	L	Typ	K	d3	d4	@¥/P
9-10	9	9	1	3	14	16	
	12	12					
	17	17					
	22	22					
	27	27					
10-11	36	36	2				
	46	46					
	56						
	66						
12	17	17	1		18	23	
	22	22					
	27	27					
	36	36					
	46	46					
	56	56					
14-15	12	12	2		20	25	
	17	17					
	22	22					
	27	27					
	36	36					
11-15	46	46					
	56	56					
	66						
	76						
14-15	86						
	96						
16	17	17	1	6	22	27	
	22	22					
	27	27					
	36	36					
	46	46					
	56	56					
18-20	17	17	2		26	31	
	22	22					
	27	27					
	36	36					
	46	46					
	56	56					
	66	66					
	76						
	86						
	96	76					
	116						
22-24	17	17	1		30	35	
	22	22					
	27	27					

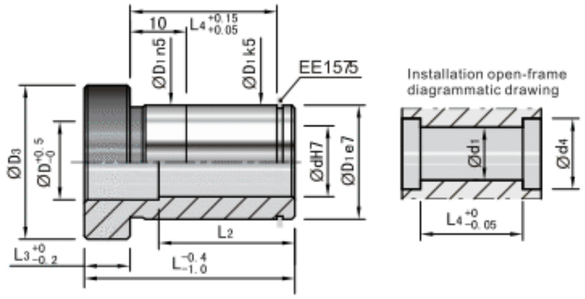
d1	S2	L	Typ	K	d3	d4	@¥/P
22-24	36	36	1	6	30	35	
	46	46					
	56	56					
	66	66					
	76	76					
	86	86					
	96	96					
30-32	116	96	2	6	42	47	
	136	96					
	27	27	1				
	36	36					
	46	46					
	56	56					
	66	66					
	76	76					
	86	86					
	96	96					
	116	116	2				
	136	116					
	156						
40-42	46	46	1	10	54	60	
	56	56					
	66	66					
	76	76					
	86	86					
	96	96					
	116	116					
	136	136					
	156		2				
	196	136					
	246						
50	76	76	1		66	72	
	96	96					
	116	116					
	136	136					
	156	136	2				
	196	136					
	246						
60	96	96	1	20	80	86	
	116	116					
	136						
	156	136	2				
	196	136					
	246						

DIN

Guide bush

EE1110





Order EE1110-d-L Material:SUJ2 Hardness:58-62HRC

D1	D4
14	22
18	26.8
20	29
22	30.8
26	35.5

D1	D4
30	40.5
42	55.7
54	69.2
66	81.4

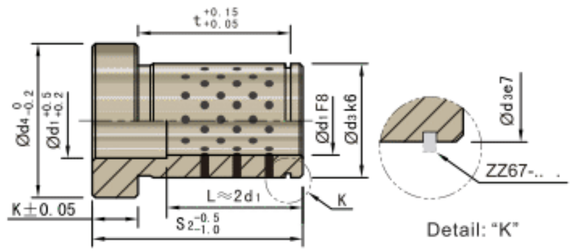
d		L	L2	L3	L4	D1	D3	@¥/P
9	10	12	-	3	5.5	14	16	
		17			10.5			
		22			15.5			
		27			20.5			
		36			29.5			
		46	22		39.5			
		56			49.5			
12	-	12	-	6	-	18	23	
		17			7			
		22			12			
		27			17			
		36			26			
		46	36		36			
		56			46			
14	15	12	-		-	20	25	
		17			7			
		22			12			
		27			17			
		36			26			
		46			36			
		56	46		46			
		66			56			
		76			66			
		86			76			
		96			86			
16	-	17	-		7	22	27	
		22			12			
		27			17			
		36			26			
		46			36			
		56	46		46			
		66			56			
		76			66			
		86			76			
		96			86			
18	20	17	-		7	26	31	
		22			12			
		27			17			
		36			26			
		46			36			
		56			46			
		66	56		56			
		76			66			
		86			76			
		96			86			
		116			106			
22	24	22	-		11	30	35	
		27			16			
		36			25			
		46			35			

d		L	L2	L3	L4	D1	D3	@¥/P
22	24	56	-	6	45	30	35	
		66			55			
		76			65			
		86	76		75			
		96			85			
		116			105			
		136			125			
		156			145			
30	32	27	-		14	42	47	
		36			23			
		46			33			
		56			43			
		66	-		53			
		76			63			
		86			73			
		96			83			
		116	96		103			
		136			123			
		156			143			
		176			163			
40	42	36	-	10	18	54	59	
		46			28			
		56			38			
		66			48			
		76			58			
		86			68			
		96			78			
		116			98			
		136	116		118			
		156			138			
		176			158			
		196			178			
		216			198			
		236			218			
		246			228			
		256			238			
50	52	56	-		38	66	71	
		66			48			
		76			58			
		86			68			
		96			78			
		116			98			
		136	116		118			
		156			138			
		176			158			
		196			178			
		216			198			
		236			218			
		246			228			
		256			238			

DIN

Self-lubricating guide bush

ZZ11W





Order ZZ11W-S2-d1 Material:brass+graphite

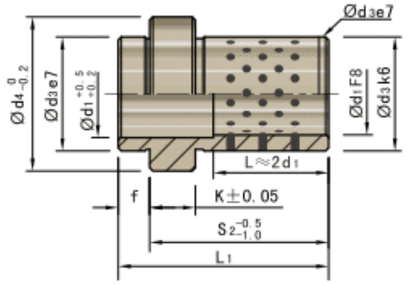
d1	S2	t	K	d3	d4	@¥/P
9-10	12	6.6	3	14	16	
	17	11.6				
	22	16.6				
	27	21.6				
	36	30.6				
	46	40.6				
	56	50.6				
12	17	8.3	6	18	23	
	22	13.3				
	27	18.3				
	36	27.3				
	46	37.3				
	56	47.3				
14-15	17	8.3		20	25	
	22	13.3				
	27	18.3				
	36	27.3				
	46	37.3				
	56	47.3				
16	22	13.3		22	27	
	27	18.3				
	36	27.3				
	46	37.3				
	56	47.3				
18-20	17	8.3		26	31	
	22	13.3				
	27	18.3				
	36	27.3				
	46	37.3				
	56	47.3				
	66	57.3				
	76	67.3				
22-24	22	12.6		30	35	
	27	17.6				
	36	26.6				
	46	36.6				
	56	46.6				
	66	56.6				
	76	66.6				
	86	76.6				
	96	86.6				
30-32	27	15.9		42	47	
	36	24.9				
	46	34.9				
	56	44.9				
	66	54.9				
	76	64.9				
	86	74.9				
	96	84.9				
	116	104.9				
40-42	46	30.2	10	54	60	
	56	40.2				
	66	50.2				
	76	60.2				
	86	70.2				
	96	80.2				
	116	100.2				
	136	120.2				

DIN

Self-lubricating guide bush

ZZ10W





Order ZZ10W-S2-d1 Material:brass+graphite

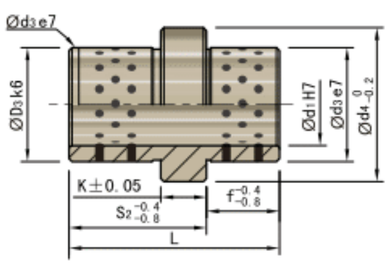
d1	S2	L1	f	K	d3	d4	@¥/P
9-10	12	17	5	3	14	16	
	17	22					
	22	27					
	27	32					
	36	41					
	46	51					
	56	61					
	66	71					
14-15	17	23	6		20	25	
	22	28					
	27	33					
	36	42					
	46	52					
	56	62					
	66	72					
	76	82					
	86	92					
18-20	17	25			26	31	
	22	30					
	27	35					
	36	44					
	46	54					
	56	64					
	66	74					
	76	84					
	86	94					
	96	104					
	116	124					
22-24	22	30	8	6	30	35	
	27	35					
	36	44					
	46	54					
	56	64					
	66	74					
	76	84					
	86	94					
	96	104					
	116	124					
	136	144					
	156	164					
30-32	27	35			42	47	
	36	44					
	46	54					
	56	64					
	66	74					
	76	84					
	86	94					
	96	104					
	116	124					
	136	144					
40-42	46	56	10	10	54	60	
	56	66					
	66	76					
	76	86					
	86	96					
	96	106					
	116	126					
	136	146					
	156	166					
	196	206					

DIN

Self-lubricating guide bush

ZZ13W

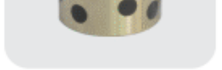


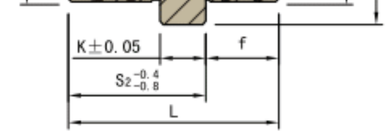


Order ZZ13W-S2-d1 Material:brass+graphite

d1	S2	L	f	K	d3	d4	@¥/P
14-15	17	26	9	6	20	25	
18-20	22	39	17		26	31	
22-24	27	49	22		30	35	
30-32	36	63	27		42	47	

ZZ14W





Order ZZ14W-S2-d1-f Material:brass+graphite

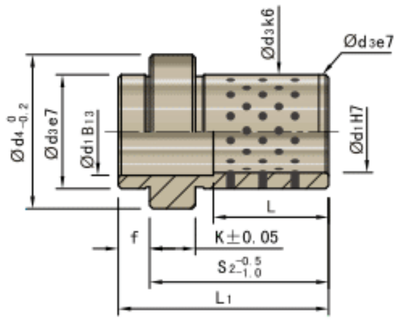
d1	S2	f	L	K	d3	d4	@¥/P
24	17	9	26	6	30	35	
		12	29				
36		9	26		44	49	
	22	17	39				
48		22	49		58	63	
	27						

DIN

Self-lubricating guide bush

ZZ1000W





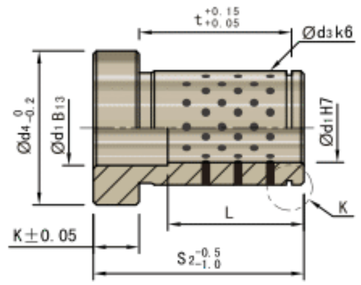
Order ZZ1000W-S2-d1 Material:brass+graphite

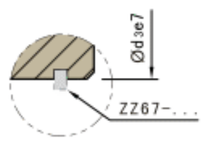
S2	d1	L	d3	d4	K	L1	f	@¥/P	d1	@¥/P
12	9	-	14	16	3	17	5		10	
17						22				
22		20				27				
27						32				
36						41				
46						51				
56						61				
66						71				
17	14	-	20	25	6	23	6		15	
22						28				
27		28				33				
36						42				
46		30				52				
56						62				
66						72				
76						82				
86						92				
17	18	-	26	31	6	25	8		20	
22						30				
27		30				35				
36						44				
46		40				54				
56						64				
66						74				
76						84				
86						94				
96						104				
116						124				
22	22	-	30	35	6	30	8		24	
27						35				
36		36				44				
46						54				
56		49				64				
66						74				
76						84				
86						94				
96						104				
116						124				
136						144				
156						164				
27	30	-	42	47	6	35	8		32	
36						44				
46		54				54				
56						64				
66						74				
76		64				84				
86						94				
96						104				
116						124				
136						144				
46	40	-	54	60	10	56	10		42	
56						66				
66		76				76				
76						86				
86						96				
96						106				
116		80				126				
136						146				
156						166				
196						206				

DIN

Self-lubricating guide bush

ZZ1100W





Detail: "K"



Order ZZ1100W-S2-d1 Material:brass+graphite

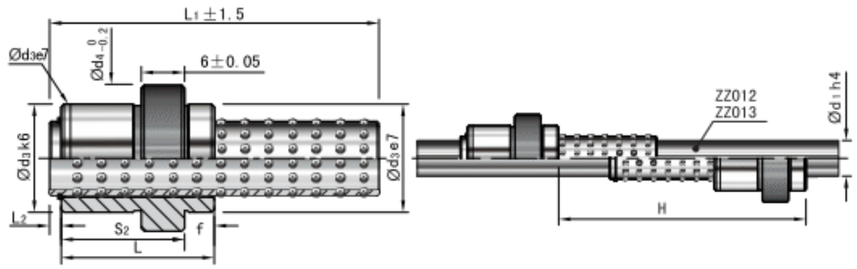
S2	d1	L	d3	d4	K	t	ZZ67/...	@¥/P	d1	@¥/P
12	9	-	14	16	3	6.6	ZZ67-14-1		10	
17						11.6				
22						16.6				
27		20				21.6				
36						30.6				
46						40.6				
56						50.6				
17	12	-	18	23	3	8.3	ZZ67-18-1.2		10	
22						13.3				
27						18.3				
36		24				27.3				
46						37.3				
56						47.3				
17	14	-	20	25	3	8.3	ZZ67-20-1.2		15	
22						13.3				
27		28				18.3				
36						27.3				
46		30				37.3				
56						47.3				
22	16	-	22	27	3	13.3	ZZ67-22-1.2		15	
27						18.3				
36		28				27.3				
46		30				37.3				
56						47.3				
17	18	-	26	31	6	8.3	ZZ67-26-1.2		20	
22						13.3				
27						18.3				
36						27.3				
46		40				37.3				
56						47.3				
66						57.3				
76						67.3				
22	22	-	30	35	6	12.6	ZZ67-30-1.5		24	
27						17.6				
36						26.6				
46		36				36.6				
56						46.6				
66						56.6				
76		48				66.6				
86						76.6				
96						86.6				
27	30	-	42	47	6	15.85	ZZ67-42-1.75		32	
36						24.85				
46						34.85				
56						44.85				
66		54				54.85				
76						64.85				
86		64				74.85				
96						84.85				
116						104.85				
46	40	-	54	60	10	30.15	ZZ67-54-2		42	
56						40.15				
66						50.15				
76		76				60.15				
86						70.15				
96						80.15				
116		80				100.15				
136						120.15				

DIN

Steel ball guide bush

ZZ12





☎Order ZZ12-d1-L1 Material:SUJ2 Hardness:58-62HRC

d1	L1	L	L2	d3	d4	S2	f	Hmax	@¥/P
12	40	24	2.1	22	26	18	6	50	
	56							82	
18	45	34	3	30	35	23	11	44	
	56							66	
	71							96	
30	56	54	4.8	46	52	33	21	32	
	75							70	
	95							110	

Guide strips & wear plate Series





DIN	
Guide strips	
ZZ4240	P579



DIN	
Guide strips	
ZZ4248	P580



DIN	
Guide strips	
ZZ4244	P580



DIN	
Guide strips	
ZZ4242	P582



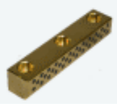
MOLD PARTNER	
Guide strips	
DT1481	P583



MOLD PARTNER	
Guide strips	
DT1482	P584



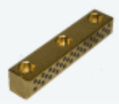
MOLD PARTNER	
Guide strips	
DT1483	P585



MOLD PARTNER	
Guide strips	
DT1484	P586



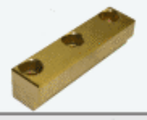
MOLD PARTNER	
Guide strips	
DT1485	P587



MOLD PARTNER	
Guide strips	
DT1486	P588



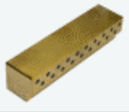
MOLD PARTNER	
Guide strips	
DT1471	P589



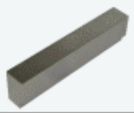
MOLD PARTNER	
Guide strips	
DT1472	P590



MOLD PARTNER	
Guide strips	
DT1473	P591



MOLD PARTNER	
Guide strips	
DT1474	P592



MOLD PARTNER	
Guide strips	
DT1475	P593



MOLD PARTNER	
Guide strips	
DT1461	P594



MOLD PARTNER	
Guide strips	
DT1462	P595



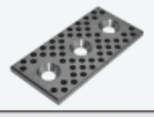
MOLD PARTNER	
Guide strips	
DT1463	P596



MOLD PARTNER	
Guide strips	
DT1464	P597



MOLD PARTNER	
Wear plates	
DT1451	P598



MOLD PARTNER	
Wear plates	
DT1452	P599



DIN	
Guide rail	
SSN4185	P600



DIN	
Guide rail	
SSN4186	P600



JIS	
Guide rail	
CCBG	P601



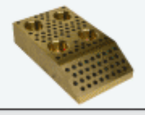
JIS	
Guide rail	
CCBP	P601



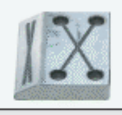
JIS	
Inclined wedge active block	
CCKF	P602



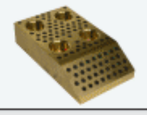
JIS	
Reset block	
CCKB	P602



JIS	
Inclined wedge active block	
CCS30W	P603



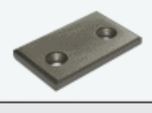
JIS	
Inclined wedge active block	
CCS30F	P603



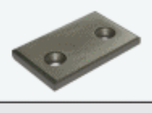
JIS	
Inclined wedge active block	
CCS15W	P604



JIS	
Inclined wedge active block	
CCS15F	P604



JIS	
Wear plates	
SSAS	P605



JIS	
Wear plates	
SSASM	P605



JIS	
Guide strips	
GGT5S	P606



JIS	
Guide strips	
GGT8S	P606



JIS	
Guide strips	
GGT5SM	P607



JIS	
Guide strips	
GGT8SM	P607



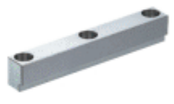
JIS	
Guide strips	
GGRS	P608



JIS	
Guide strips	
GGRSM	P609



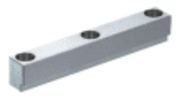
JIS	
Guide strips	
GGR5SC	P610



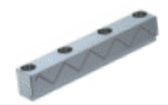
JIS	
Guide strips	
GGR5S	P610



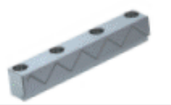
JIS	
Guide strips	
GGR8S	P610



JIS	
Guide strips	
GGR15S	P610



JIS	
Guide strips	
GGR5SCM	P611



JIS	
Guide strips	
GGR5SM	P611



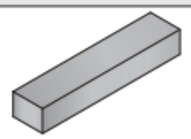
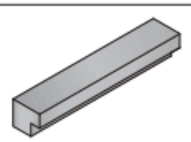
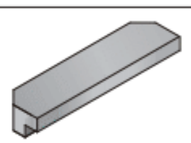
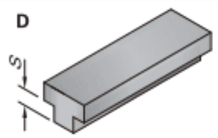
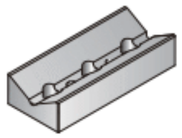
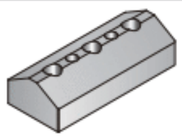
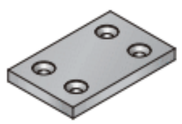
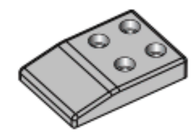
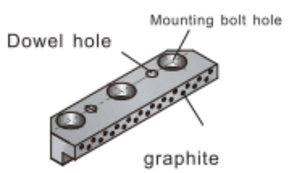
JIS	
Guide strips	
CCGSM	P612



JIS	
Guide strips	
CCGS	P612

MOLD PARTNER

Products Summary

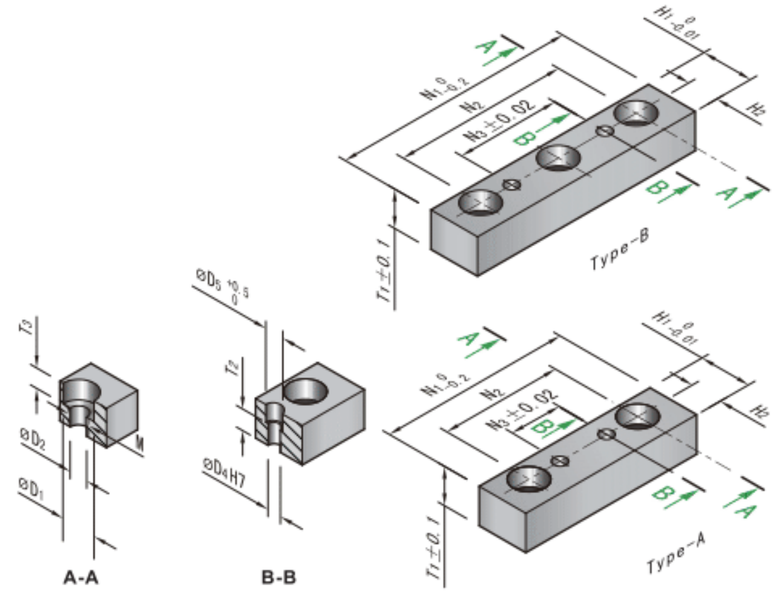
	Shape	Material	Type		Standard	Coce	Page
A 	A	SKD11	With mounting bolt hole +Dowel hole	Without graphite	DIN	ZZ4240	P579
				Without graphite		ZZ4248	P580
		Brass	With mounting bolt hole	With graphite	MOLD PARTNER	DT1481	P583
		Oil steel				DT1482	P584
		Oil steel	With mounting bolt hole	With graphite		DT1483	P585
		Brass				DT1484	P586
		P20	With mounting bolt hole	Without graphite		DT1485	P587
		Brass		With graphite		DT1486	P588
		Oil steel	With mounting bolt hole	Without oil groove	JIS	CCGS	P612
				Without oil groove		CCGSM	P612
			With mounting bolt hole	With oil groove		GGRS	P608
				With oil groove		GGRSM	P609
B 	B	SKD11	With mounting bolt hole +Dowel hole	Without graphite	DIN	ZZ4242	P582
			With mounting bolt hole	Without graphite		ZZ4244	P580
		Brass	With mounting bolt hole	With graphite	MOLD PARTNER	DT1471	P589
				With graphite		DT1472	P590
			Without mounting bolt hole	With graphite		DT1474	P592
		P20	With mounting bolt hole	Without graphite		DT1473	P591
			Without mounting bolt hole	Without graphite		DT1475	P593
		Oil steel	With mounting bolt hole	Without oil groove	JIS	GGR5SC	P610
				Without oil groove		GGR5S	P610
				With graphite		GGR5SCM	P611
						GGR5SM	P611
C 	C	Oil steel	With mounting bolt hole +Dowel hole	With graphite	MOLD PARTNER	DT1461	P594
			With mounting bolt hole	With graphite		DT1463	P596
		Brass	With mounting bolt hole +Dowel hole	With graphite		DT1462	P595
			With mounting bolt hole	With graphite		DT1464	P597
D 	D	Oil steel	S=8	Without oil groove	JIS	GGT5S	P606
				With graphite		GGT5SM	P607
			S=11	Without oil groove		GGT8S	P606
				With graphite		GGT8SM	P607
E 	E	SKD11	/	Without graphite	DIN	SSN4185	P600
		Brass	/	With graphite	JIS	CCBG	P601
F 	F	Brass	/		DIN	SSN4186	P601
		S45C	/	Without graphite	JIS	CCBP	P601
G 	G	Brass	/	Without graphite	MOLD PARTNER	DT1451	P598
		Oil steel	/	With graphite		DT1452	P599
			/	With graphite	JIS	SSASM	P605
			/	Without oil groove		SSAS	P605
H 	H	Brass	/	With graphite		CCS30W	P603
			/	With graphite		CCS15W	P604
		S45C	/	With graphite		CCS30F	P603
			/	With graphite		CCS15F	P604
							

DIN

Guide strips

ZZ4240





Order ZZ4240-H1-T1-N1 Material:SKD11 Hardness:58±2HRC

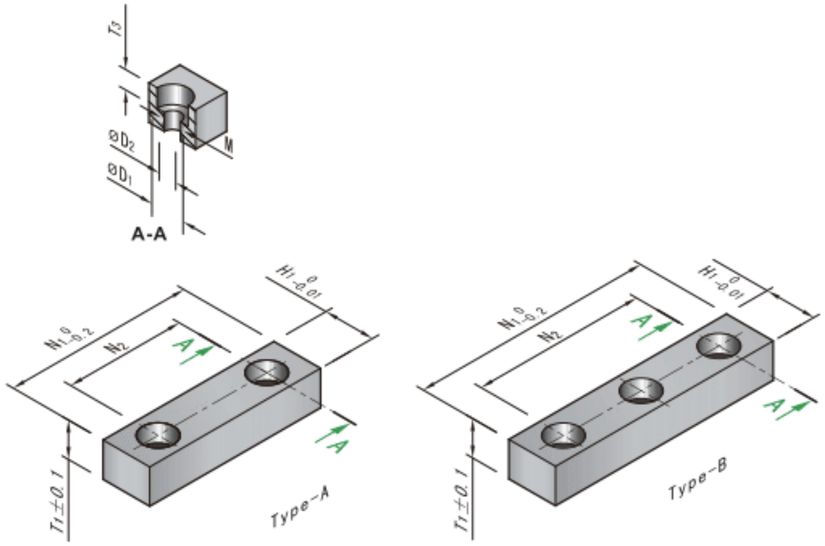
H1	T1	N1	Type	H2	T2	T3	N2	N3	D1	D2	D4	D5	M	@¥/P
15	11	50	A	9	-	5.7	30	10	10	5.3	4	-	M 6	
		60					40	20						
		70	B				50	30						
		75					60	40						
		80												
		90					70	50						
18	22	80	A	11	12	6.8	56	32	11	6.4	6	7	M 8	
		100	B				76	52						
		120					96	72						
		140					116	92						
		160					136	112						
24	36	100	A	15		9	68	36	15	8.5	8	9	M10	
		120					88	56						
		140	B				108	76						
		160					128	96						
		180					148	116						
30	50	120	A	18	18	11	80	40	18	10.5	10	11	M12	
		140					100	60						
		160	B				120	80						
		180					140	100						
		200					160	120						
36	63	140	A	22		13	92	44	20	12.5	12	13	M14	
		160					112	64						
		180	B				132	84						
		200					152	104						
		220					172	124						

DIN

Guide strips

ZZ4248





Order ZZ4248-H1-T1-N1 Material:SKD11 Hardness:58±2HRC

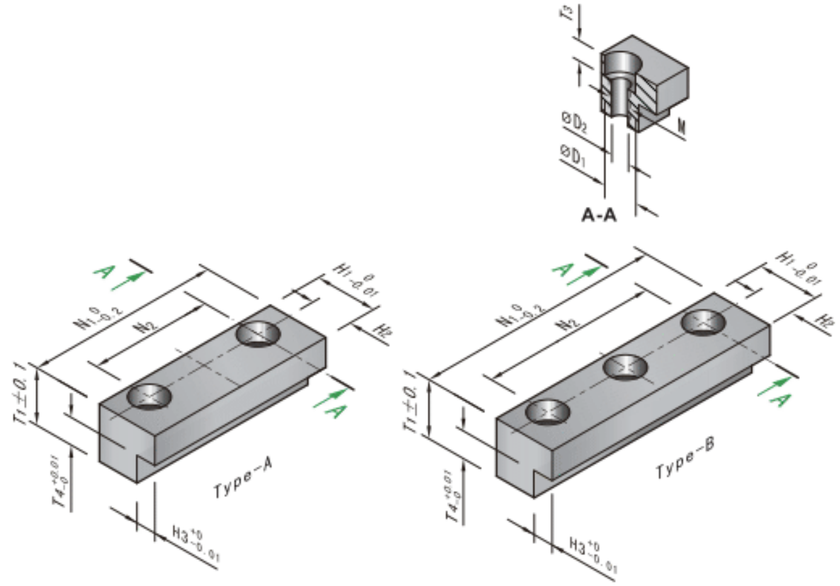
H1	T1	N1	N2	Type	T3	D1	D2	M	@¥/P
12	11	50	30	A	5.7	10	5.3	M6	
		60	40	B					
		70	50						
		75	60						
		80							
		90	70						
	16	100	80						
		120	100						
		140	120						
		160	140						
		180	160						
18		100	76	A	6.8	11	6.4	M8	
		120	96	B					
		140	116						
		160	136						
		180	156						
24	21	140	116						
		160	136						
		180	156						
		200	176						
		220	196						

DIN

Guide strips

ZZ4244





Order ZZ4244-H1-T1-N1 Material:SKD11 Hardness:58±2HRC

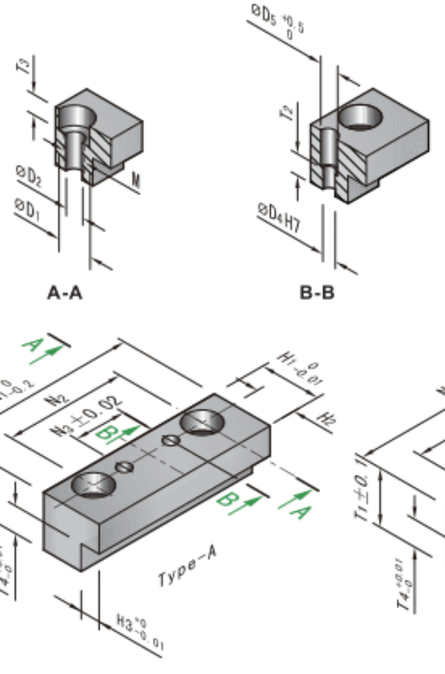
H1	T1	N1	Type	H2	H3	T3	T4	N2	D1	D2	M	@¥/P
15	21	50	A	9	3	5.7	10	30	10	5.3	M 6	
		60						40				
		70	B					50				
		75						60				
		80										
		90						70				
18	35	80	A	11	4	6.8	13	56	11	6.4	M 8	
		100						76				
		120	B					96				
		140						116				
		160						136				
24	51	100	A	15	6	9	51	68	15	8.5	M10	
		120						88				
		140	B					108				
		160						128				
		180						148				
30	65	120	A	18		11	65	80	18	10.5	M12	
		140						100				
		160	B					120				
		180						140				
		200						160				

DIN

Guide strips



ZZ4242

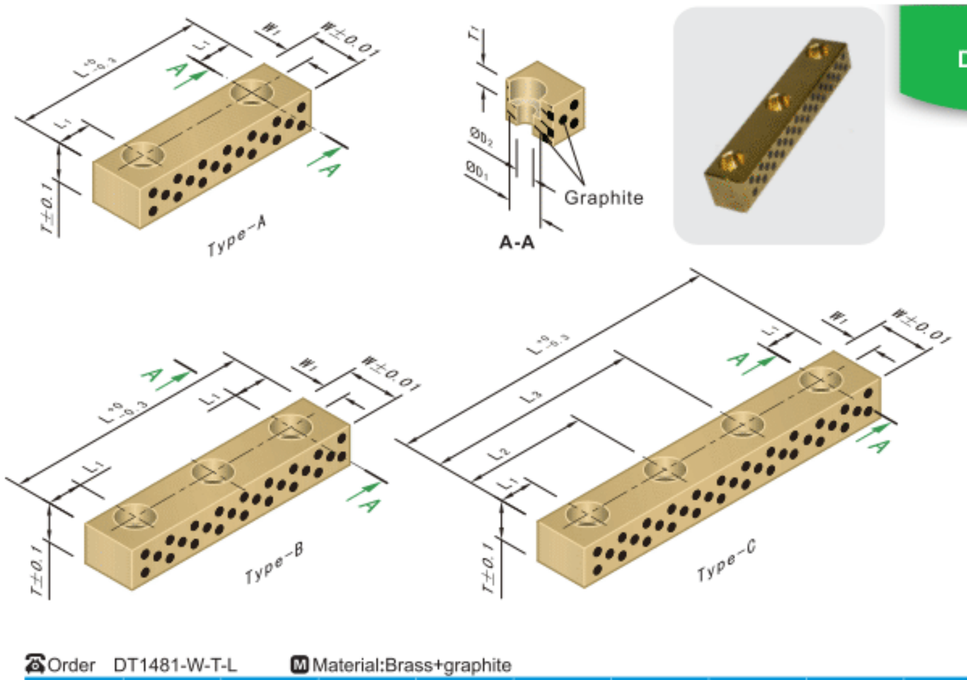


Order ZZ4242-H1-T1-N1 Material:SKD11 Hardness:58±2HRC

H1	T1	N1	Type	H2	H3	T2	T3	T4	N2	N3	D1	D2	D4	D5	M	@¥/P
15	16	50	A	9	3	-	5.7	5	30	10	10	5.3	4	-	M 6	
		60							40	20						
		70	B						50	30						
		75							60	40						
		80														
		90							70	50						
18	30	80	A	11	4	12	6.8	8	56	32	11	6.4	6	7	M 8	
		100							76	52						
		120	B						96	72						
		140							116	92						
		160							136	112						
24	46	100	A	15	6		9	10	68	36	15	8.5	8	9	M10	
		120							88	56						
		140	B						108	76						
		160							128	96						
		180							148	116						

Oil-free plain guide strips

DT1481



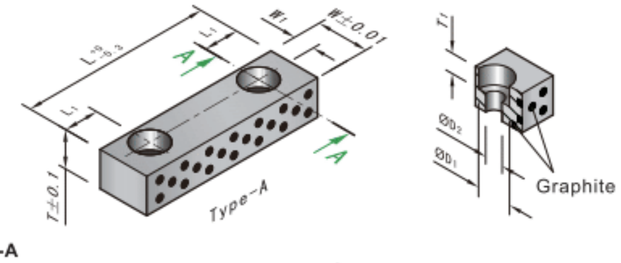
Order DT1481-W-T-L Material:Brass+graphite

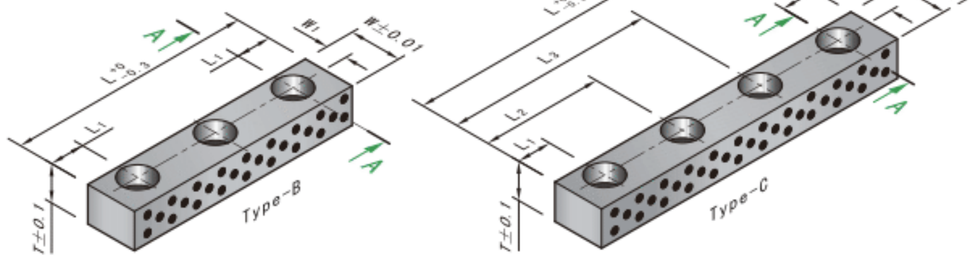
W	T	D1	D2	T1	W1	Type	L1	L2	L3	@¥/P L
12.5	10	8	4.5	5	5	A	7.5	-	-	40
	15					B				50- 70
	20					C		30	50	80-100
								32.5	57.5	
								35	65	
15	10	9.5	5.5	6	6	A		-	-	40- 60
	15					B				70-120
	20					C		40	90	
	25							45	95	130-150
								53	97	
20	15	11	6.5	7	9	A	10	-	-	40- 90
	20					B				100-150
	25	14	9	9		C		55	105	
	30							60	120	160-200
								70	130	
25	20 25 30	14			10	A		-	-	40- 90
	20					B				100-150
	25					C		55	105	
	30							60	120	160-200
	35							70	130	
30	30	17	11.5	11	11	B	12	-	-	120-160
	35					C		60	120	180-200
								70	130	

Oil-free plain guide strips

DT1482





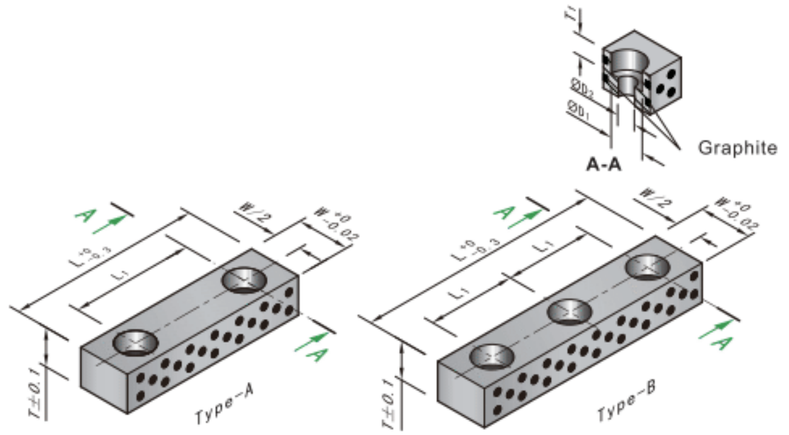


Order DT1482-W-T-L Material:Oil steel+graphite Hardness:53-58HRC

W	T	D1	D2	T1	W1	Type	L1	L2	L3	@¥/P L
15	10 15 20 25	9.5	5.5	6	6	A	7.5	-	-	40- 60
						B				70-120
						C		40 45 53	90 95 97	130-150
20	15 20 25 30	11	6.5	7	9	A	10	-	-	40- 90
						B				100-150
		14	9	9		C		55 60 70	105 120 130	160-200
25	20 25 30	14	9	9	10	A		-	-	40- 90
						B				100-150
	20 25 30 35					C		55 60 70	105 120 130	160-200
30	30 35	17	11.5	11	11	B	12	-	-	120-160
						C		60 70	120 130	180-200

Oil-free plain guide strips

DT1483



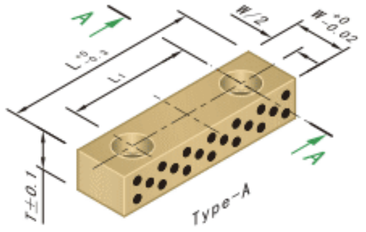
Order DT1483-W-T-L Material:Oil steel+graphite Hardness:53-58HRC

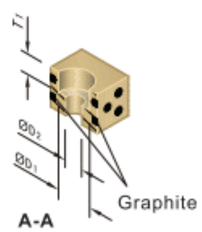
W	T	L	Type	L1	T1	D1	D2	@¥/P
12	16	40	A	24	5	8	4.5	
		50		34				
		63		47				
16		50		34	6	9.5	5.5	
		63		47				
		80	B	32				
	20	50	A	34				
		63		47				
		80	B	32				
20	16	63	A	43	7	11	6.5	
		80		60				
		100	B	40				
	20	63	A	43				
		80		60				
		100	B	40				
	25	63	A	43				
		80		60				
		100	B	40				
25	16	80	A	56	9	14	9	
		100		76				
		125	B	50.5				
	20	80	A	56				
		100		76				
		125	B	50.5				
	25	80	A	56				
		100		76				
		125	B	50.5				
	32	80	A	76				
		100		50.5				
		125	B	68				
32	20	100	A	76				
		125	B	50.5				
		160		68				
	25	100	A	76				
		125	B	50.5				
		160		68				
	32	100	A	76				
		125	B	50.5				
		160		68				
	40	100		76				
		125		50.5				
		160		68				
40	25	125	B	46.5	11	17	11	
		160		64				
		200		84				
	32	125		46.5				
		160		64				
		200		84				
	40	125		46.5				
		160		64				
		200		84				
	50	125		46.5				
		160		64				
		200		84				

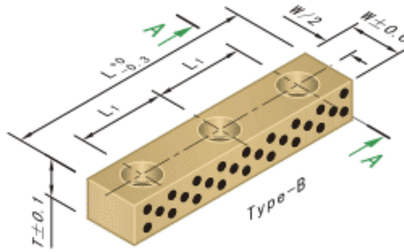
Oil-free plain guide strips

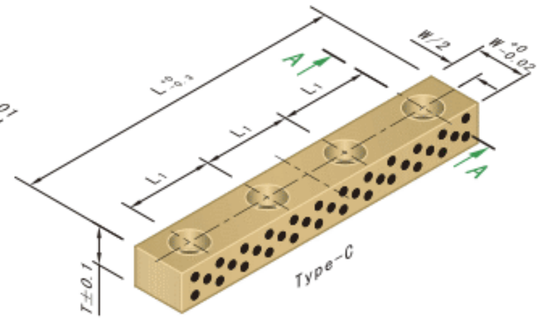
DT1484









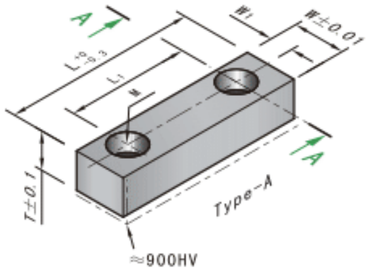


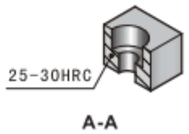
Order DT1484-W-T-L Material:Brass+graphite

W	T	L	Type	L1	T1	D1	D2	@¥/P
12	16	40	A	24	5	8	4.5	
		50		34				
		63		47				
16		50		34	6	9.5	5.5	
		63		47				
		80	B	32				
	20	50	A	34				
		63		47				
		80	B	32				
20	16	63	A	43	7	11	6.5	
		80		60				
		100	B	40				
	20	63	A	43				
		80		60				
		100	B	40				
	25	63	A	56				
		80		76				
		100	B	50.5				
25	16	80	A	56	9	14	9	
		100		76				
		125	B	50.5				
	20	80	A	56				
		100		76				
		125	B	50.5				
	25	80	A	56				
		100		76				
		125	B	50.5				
	32	80	A	76				
		100		50.5				
		125	B	68				
32	20	100	A	76				
		125	B	50.5				
		160		68				
	25	100	A	76				
		125	B	50.5				
		160		68				
	32	100	A	76				
		125	B	50.5				
		160		68				

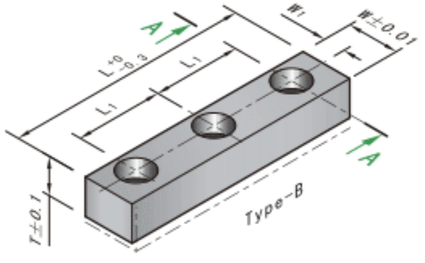
Guide strips

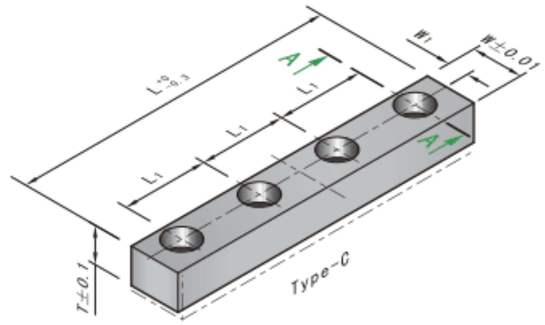
DT1485











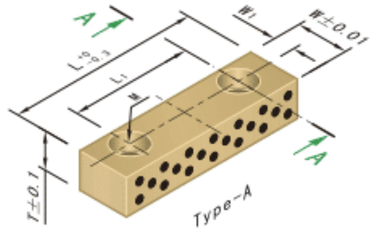
Order DT1485-W-T-L Material:P20 Hardness:≈900HV

W	T	L	Type	L1	W1	M	@¥/P
16	6	40	A	24	6	M 5	
		50		34			
		63		47			
		80	B	32			
	8	50	A	34			
		63		47			
		80	B	32			
		100		42			
20	12	63	A	43	9	M 6	
		80		60			
		100	B	40			
		125		52.5			
	16	80	A	60			
		100		40			
		125	B	52.5			
		160		70			
25	22	100	A	76	11	M 8	
		125	B	50.5			
		160		68			
		200	C	58			
	30	125	B	50.5			
		160		68			
		200	C	58			
		250		74			
32	38	160	B	64	14	M10	
		200		84			
		250	C	72			
		315		93			

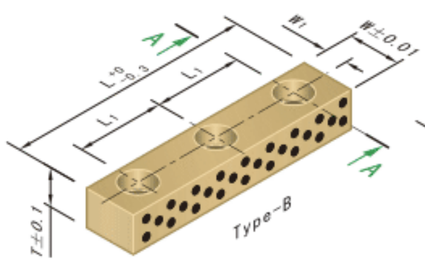
Oil-free plain guide strips

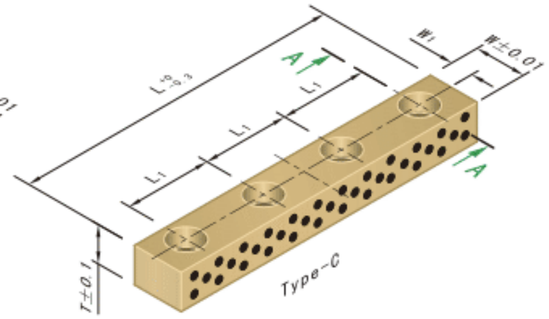
DT1486







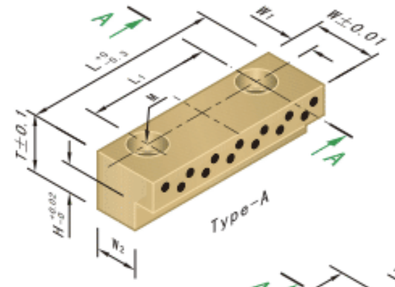


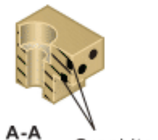


Order DT1486-W-T-L Material:Brass+graphite

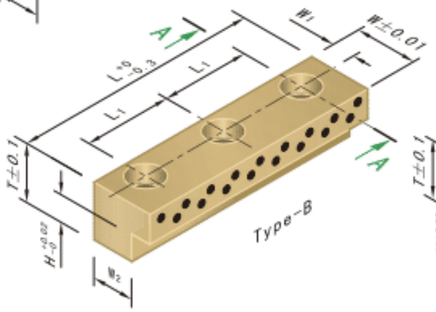
W	T	L	Type	L1	W1	M	@¥/P
16	6	40	A	24	6	M 5	
		50		34			
		63		47			
		80	B	32			
	8	50	A	34			
		63		47			
		80	B	32			
		100		42			
20	12	63	A	43	9	M 6	
		80		60			
		100	B	40			
		125		52.5			
	16	80	A	60			
		100		40			
		125	B	52.5			
		160		70			
25	22	100	A	76	11	M 8	
		125	B	50.5			
		160		68			
		200	C	58			
	30	125	B	50.5			
		160		68			
		200	C	58			
		250		74			
32	38	160	B	64	14	M10	
		200		84			
		250	C	72			
		315		93			

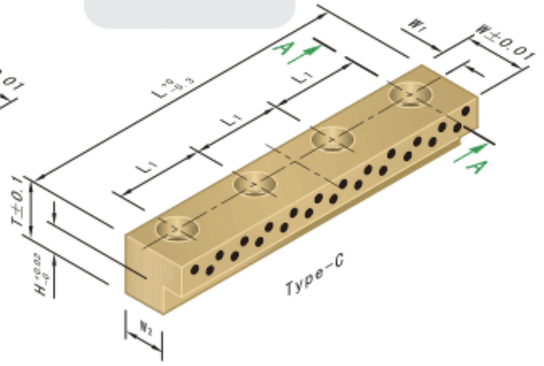
DT1471











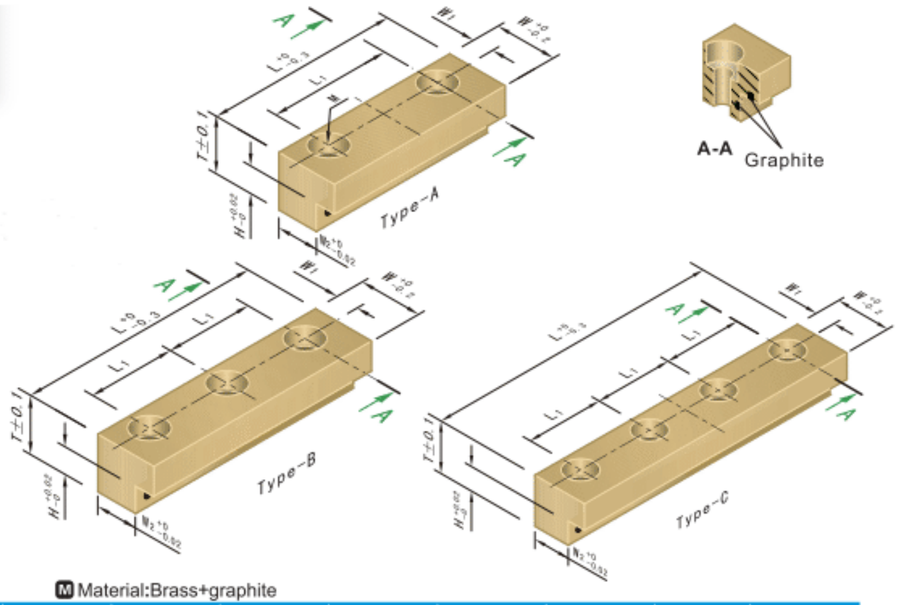
DT1471-T-H-L Material:Brass+graphite

T	H	L	Type	L1	W	W1	W2	M	@¥/P
12	6	40	A	24	16	6	12	M 5	
		50		34					
		63		47					
		80	B	32					
16	8	50	A	34			11		
		63		47					
		80	B	32					
		100		42					
20	11	63	A	43	20	9	15	M 6	
		80		60					
		100	B	40					
		125		52.5					
25	8	80	A	60					
		100		40					
		125	B	52.5					
		160		70					
	13	80	A	60					
		100		40					
		125	B	52.5					
		160		70					
32	10	100	A	76	25	11	19	M 8	
		125	B	50.5					
		160		68					
		200	C	58					
	16	100	A	76					
		125	B	50.5					
		160		68					
		200	C	58					
40	10	125	B	50.5					
		160		68					
		200	C	58					
		250		74					
	16	125	B	50.5					
		160		68					
		200	C	58					
		250		74					
50	12	160	B	64	32	14	24	M10	
		200		84					
		250	C	72					
		315		93					
	20	160	B	64					
		200		84					
		250	C	72					
		315		93					

Oil-free plain guide strips

DT1472



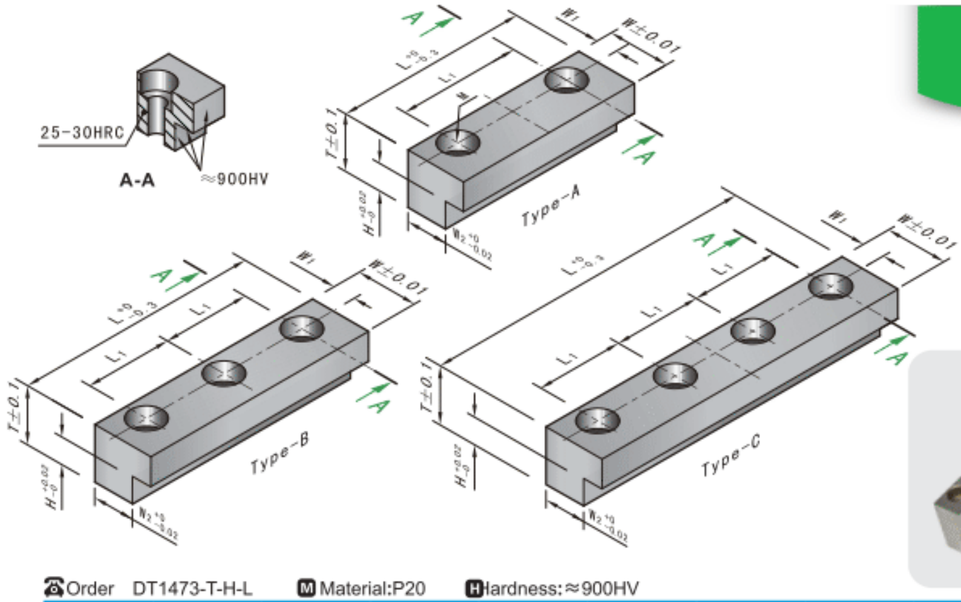


Order DT1472-T-H-L Material:Brass+graphite

T	H	L	Type	L1	W	W1	W2	M	@¥/P
12	6	40	A	24	16	6	12	M 5	
		50		34					
		63		47					
		80	B	32					
16	8	50	A	34			11		
		63		47					
		80	B	32					
		100		42					
20	8	63	A	43	20	9	15	M 6	
		80		60					
		100	B	40					
		125		52.5					
	11	63	A	43					
		80		60					
		100	B	40					
		125		52.5					
25	8	80	A	60					
		100	B	40					
		125		52.5					
		160		70					
	13	80	A	60					
		100	B	40					
		125		52.5					
		160		70					
32	10	100	A	76	25	11	19	M 8	
		125	B	50.5					
		160		68					
		200	C	58					
	16	100	A	76					
		125	B	50.5					
		160		68					
		200	C	58					
40	10	125	B	50.5					
		160		68					
		200	C	58					
		250		74					
	16	125	B	50.5					
		160		68					
		200	C	58					
		250		74					
50	12	160	B	64	32	14	24	M10	
		200		84					
		250	C	72					
		315		93					
	20	160	B	64					
		200		84					
		250	C	72					
		315		93					

Guide strips

DT1473



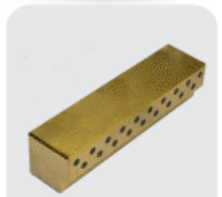


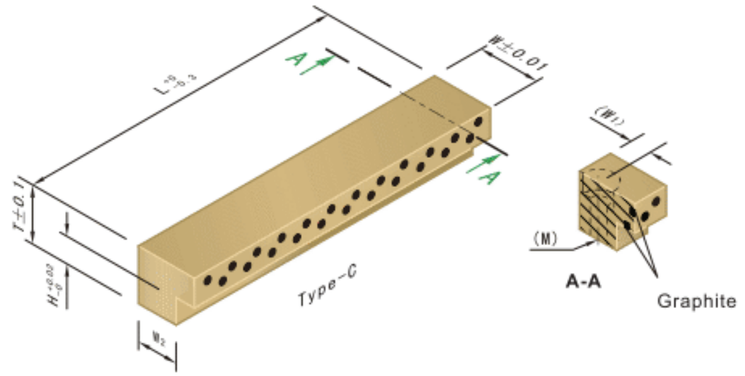
Order DT1473-T-H-L Material:P20 Hardness:≈900HV

T	H	L	Type	L1	W	W1	W2	M	@¥/P
12	6	40	A	24	16	6	12	M 5	
		50		34					
		63		47					
		80	B	32					
16	8	50	A	34			11		
		63		47					
		80	B	32					
		100		42					
20	8	63	A	43	20	9	15	M 6	
		80		60					
		100	B	40					
		125		52.5					
	11	63	A	43					
		80		60					
		100	B	40					
		125		52.5					
25	8	80	A	60					
		100	B	40					
		125		52.5					
		160		70					
	13	80	A	60					
		100	B	40					
		125		52.5					
		160		70					
32	10	100	A	76	25	11	19	M 8	
		125	B	50.5					
		160		68					
		200	C	58					
	16	100	A	76					
		125	B	50.5					
		160		68					
		200	C	58					
40	10	125	B	50.5					
		160		68					
		200	C	58					
		250		74					
	16	125	B	50.5					
		160		68					
		200	C	58					
		250		74					
50	12	160	B	64	32	14	24	M10	
		200		84					
		250	C	72					
		315		93					
	20	160	B	64					
		200		84					
		250	C	72					
		315		93					

Oil-free plain guide strips

DT1474



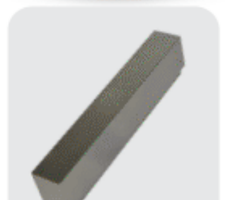


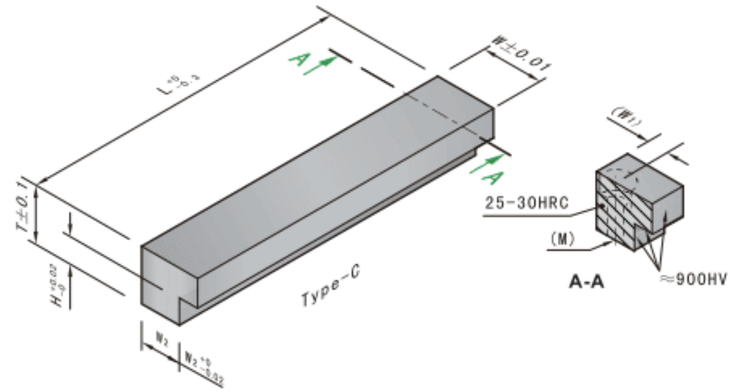
Order DT1474-T-H-L Material:Brass+graphite

T	H	L	W	W1	W2	M	@¥/P
12	6	40	16	6	12	M 5	
		50					
		63					
		80					
16	8	50			11		
		63					
		80					
		100					
20		63	20	9	15	M 6	
		80					
		100					
		125					
	11	63					
		80					
		100					
		125					
25	8	80					
		100					
		125					
		160					
	13	80					
		100					
		125					
		160					
32	10	100	25	11	19	M 8	
		125					
		160					
		200					
	16	100					
		125					
		160					
		200					
40	10	125					
		160					
		200					
		250					
	16	125					
		160					
		200					
		250					
50	12	160	32	14	24	M10	
		200					
		250					
		315					
	20	160					
		200					
		250					
		315					

Guide strips

DT1475





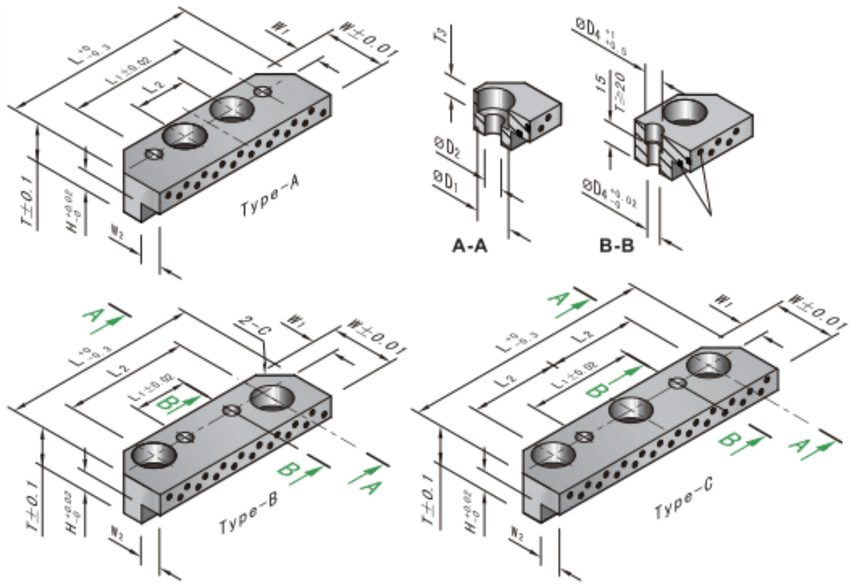
Order DT1475-T-H-L Material:P20 Hardness:≈900HV

T	H	L	W	W1	W2	M	@¥/P
12	6	40	16	6	12	M 5	
		50					
		63					
		80					
16	8	50			11		
		63					
		80					
		100					
20		63	20	9	15	M 6	
		80					
		100					
		125					
	11	63					
		80					
		100					
		125					
25	8	80					
		100					
		125					
		160					
	13	80					
		100					
		125					
		160					
32	10	100	25	11	19	M 8	
		125					
		160					
		200					
	16	100					
		125					
		160					
		200					
40	10	125					
		160					
		200					
		250					
	16	125					
		160					
		200					
		250					
50	12	160	32	14	24	M10	
		200					
		250					
		315					
	20	160					
		200					
		250					
		315					

Oil-free plain guide strips

DT1461





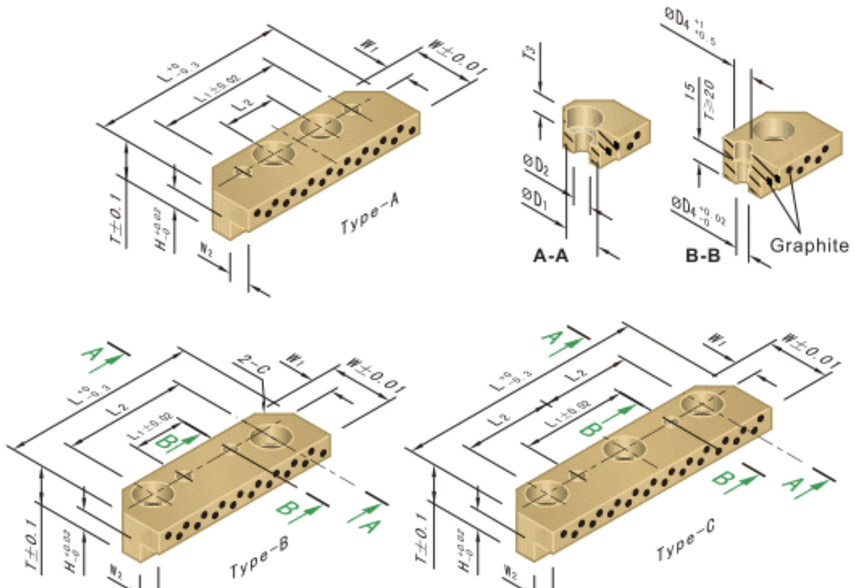
Order DT1461-W-L Material:Oil steel+graphite Hardness:53-58HRC

W	L	Type	H	W1	W2	L1	L2
15	60	A	8	6	4.5	40	20
	80	B				35	55
	100					55	75
20	60	A		9	5.5	40	20
	80	B				20	50
	100					40	70
	120	C				60	45
25	80	A	10		7.5	20	
	100	B				40	65
	120	C				60	42.5
	140					80	52.5
30	120		15	11	11	40	40
	140					60	50
	160					80	60
	180					100	70

D1	D2	D4	C	T	T3	@¥/P
9.5	5.5	6	9	15	6	
11	6.5		11	20	7	
14	9	8	13	25	9	
18	11		16	30	11	

DT1462





Order DT1462-W-L Material:Brass+graphite

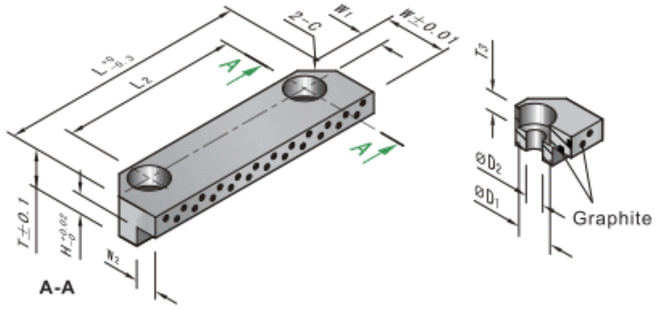
W	L	Type	H	W1	W2	L1	L2
15	60	A	8	6	4.5	40	20
	80	B				35	55
	100					55	75
20	60	A		9	5.5	40	20
	80	B				20	50
	100					40	70
	120	C				60	45
25	80	A	10		7.5	20	
	100	B				40	65
	120	C				60	42.5
	140					80	52.5
30	120		15	11	11	40	40
	140					60	50
	160					80	60
	180					100	70

D1	D2	D4	C	T	T3	@¥/P
9.5	5.5	6	9	15	6	
11	6.5		11	20	7	
14	9	8	13	25	9	
18	11		16	30	11	

Oil-free plain guide strips

DT1463





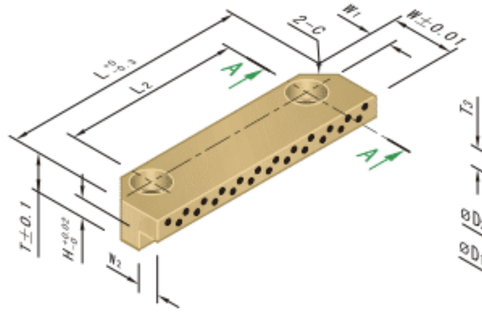
Order DT1463-W-L Material:Oil steel+graphite Hardness:53-58HRC

W	L	H	W1	W2	L2
15	60	8	6	4.5	20
	80				55
	100				75
20	60		9	5.5	20
	80				50
	100				70
	120				45
25	80	10		7.5	65
	100				42.5
	120				52.5
	140				40
30	120	15	11	11	50
	140				60
	160				70
	180				

D1	D2	C	T	T3	@¥/P
9.5	5.5	9	15	6	
11	6.5	11	20	7	
14	9	13	25	9	
18	11	16	30	11	

Oil-free plain guide strips

DT1464





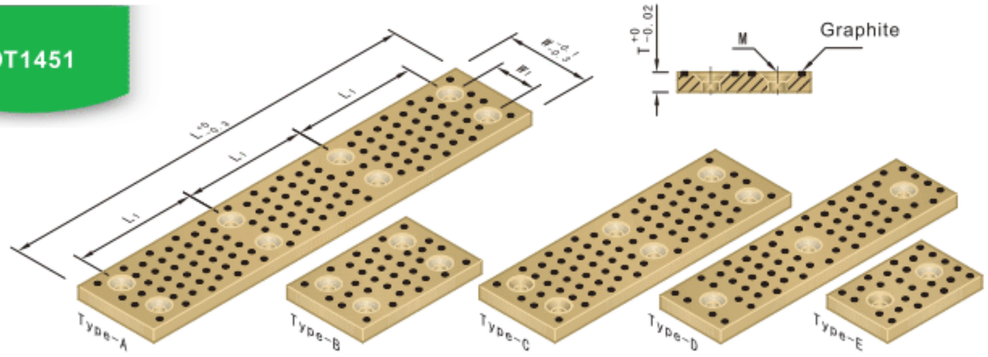
Order DT1464-W-L Material:Brass+graphite

W	L	H	W1	W2	L2
15	60	8	6	4.5	20
	80				55
	100				75
20	60		9	5.5	20
	80				50
	100				70
	120				45
25	80	10		7.5	65
	100				42.5
	120				52.5
	140				40
30	120	15	11	11	50
	140				60
	160				70
	180				

D1	D2	C	T	T3	@¥/P
9.5	5.5	9	15	6	
11	6.5	11	20	7	
14	9	13	25	9	
18	11	16	30	11	

Oil-free plain guide strips

DT1451

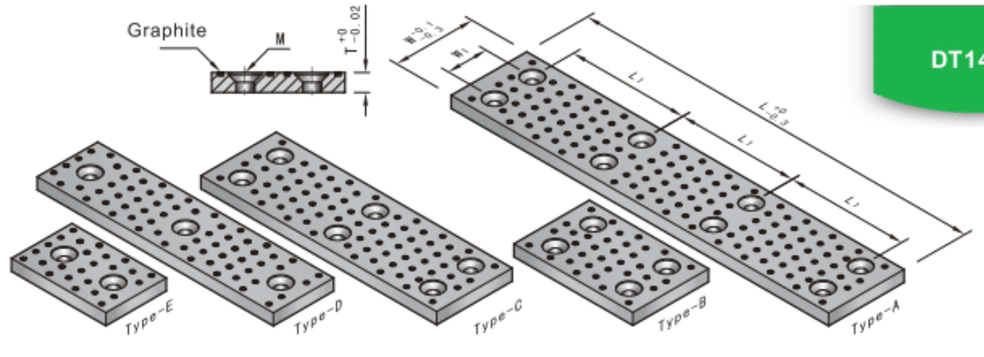


Order DT1451-W-T-L Material:Brass+graphite

W	T	L	Type	L1	W1	M	@¥/P
12	5	32	E	16	-	M4	
		40		24			
		50		34			
		63		47			
		80	D	32			
16		32	E	16			
		40		24			
		50		34			
		63		47			
		80	D	32			
		100		42			
20		40	E	20			
		50		30			
		63		43			
		80		60			
		100	D	40			
25	6	40	E	20		M5	
		50		26			
		63		39			
		80		56			
		100		76			
		125	D	50.5			
32		50	E	26			
		63		39			
		80		56			
		100		76			
		125	D	50.5			
		160		68			
40		63	B	39	20		
		80		56			
		100		76			
		125	C	50.5			
		160		68			
		200	A	58			
50	8	80	B	56	24	M6	
		100		76			
		125	C	50.5			
		160		68			
		200	A	58			
		250		74			
63		100	B	76	35		
		125	C	50.5			
		160		68			
		200	A	58			
		250		72			
		315		93			
80		125	C	50.5	50		
		160		68			
		200	A	58			
		250		72			
		315		93			

Wear plates

DT1452



Order DT1452-W-T-L Material:Oil steel+graphite Hardness:53-58HRC

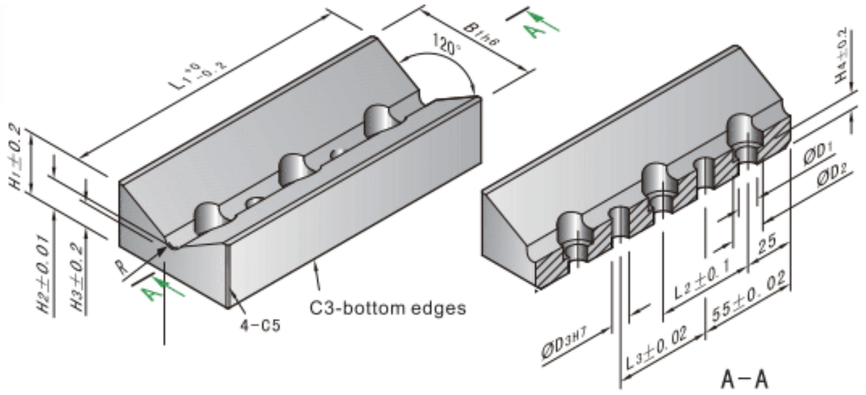
W	T	L	Type	L1	W1	M	@¥/P
12	5	32	E	16	-	M4	
		40		24			
		50		34			
		63		47			
		80	D	32			
16		32	E	16			
		40		24			
		50		34			
		63		47			
		80	D	32			
		100		42			
20		40	E	20			
		50		30			
		63		43			
		80		60			
		100	D	40			
25	6	40	E	20		M5	
		50		26			
		63		39			
		80		56			
		100		76			
		125	D	50.5			
32		50	E	26			
		63		39			
		80		56			
		100		76			
		125	D	50.5			
		160		68			
40		63	B	39	20		
		80		56			
		100		76			
		125	C	50.5			
		160		68			
		200	A	58			
50	8	80	B	56	24	M6	
		100		76			
		125	C	50.5			
		160		68			
		200	A	58			
		250		74			
63		100	B	76	35		
		125	C	50.5			
		160		68			
		200	A	58			
		250		72			
		315		93			
80		125	C	50.5	50		
		160		68			
		200	A	58			
		250		72			
		315		93			

JIS

Guide strips

SSN4185



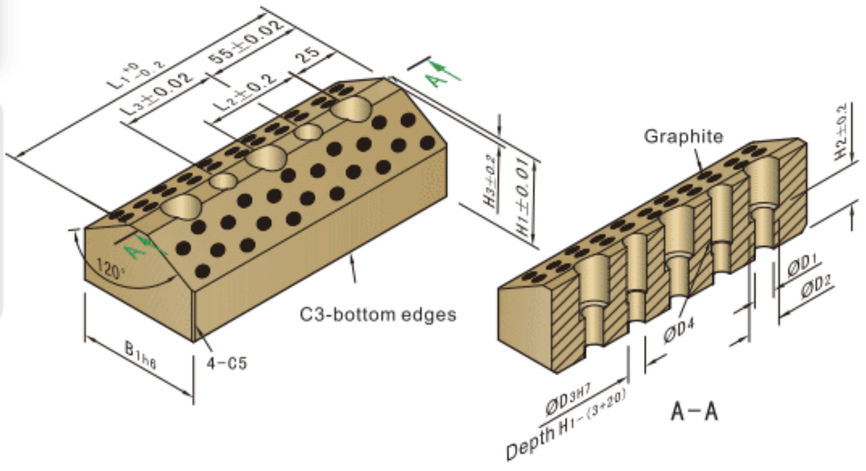


Order SSN4185 Material:SKD11 Hardness:58-62HRC

B1	H1	H2	H3	H4	D	D1	D2	D3	L1	L2	L3	Hole count	@¥/P
65	35	18	17	8	5	13.5	20	12	150	100	45	2	
									200	150	95		
									250	100	145	3	
									300	125	195		
125	60	33	32	15		17.5	26	16	150	100	45	2	
									200	150	95		
									250		145	3	
									300	125	195		

SSN4186





Order SSN4186 Material:Brass+graphite

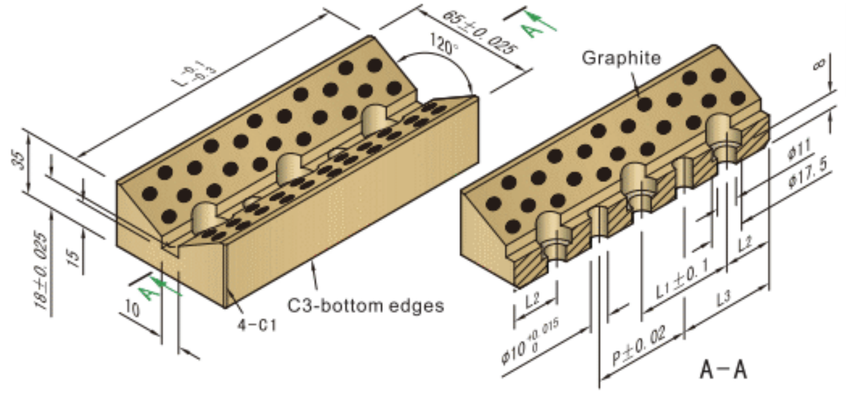
B1	H1	H2	H3	D1	D2	D3	D4	L1	L2	L3	Hole count	@¥/P
65	47	20	3	13.5	20	12	14	150	100	45	2	
								200	150	95		
								250	100	145	3	
								300	125	195		
125	57	15	5	17.5	26	16	18	150	100	45	2	
								200	150	95		
								250		145	3	
								300	125	195		

JIS

Guide strips

CCBG

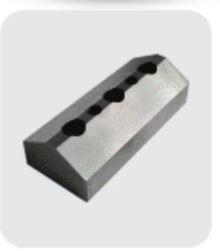


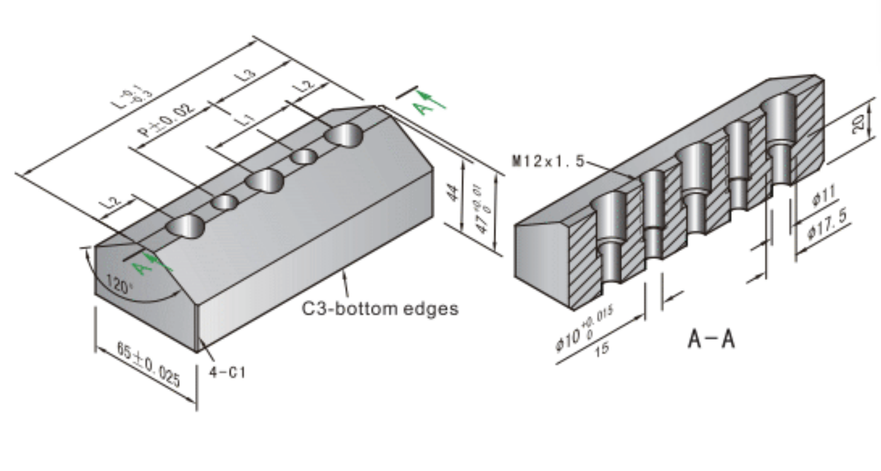


Order CCBG-L Material:Brass+graphite

P	L	L1	L2	L3	Hole count	@¥/P
20	100	60	20	40	2	
50	150	50	25	50	3	
100	200				4	
150	250				5	
200	300				6	

CCBP





Order CCBP-L Material:S45C Hardness:40-45HRC

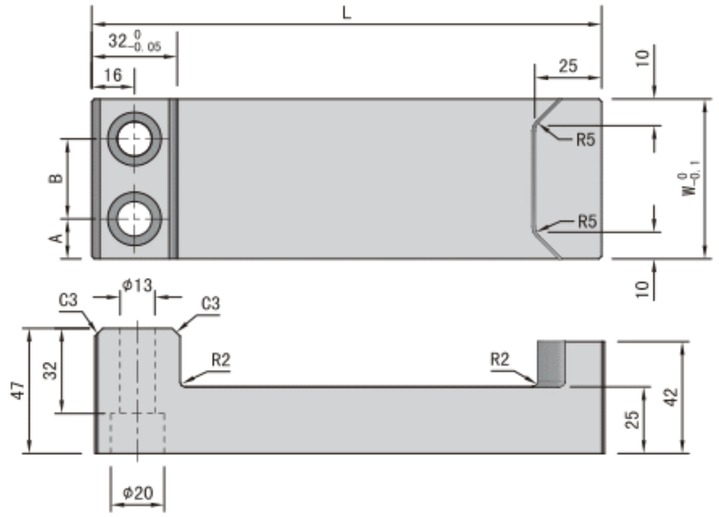
P	L	L1	L2	L3	Hole count	@¥/P
20	100	60	20	40	2	
50	150	50	25	50	3	
100	200				4	
150	250				5	
200	300				6	

JIS

Inclined wedge active block/Reset block

CCKF



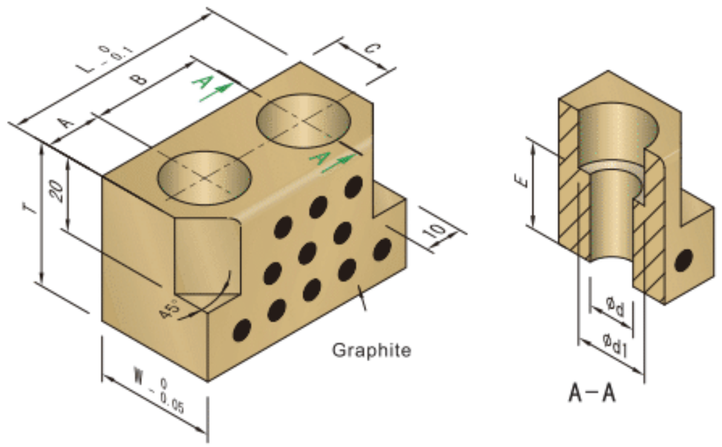


Order CCKF-W-L Material:S45C Hardness:40-45HRC

W	L	A	B	@¥/P
60	171 191	15	30	
80	171 191	20	40	

CCKB





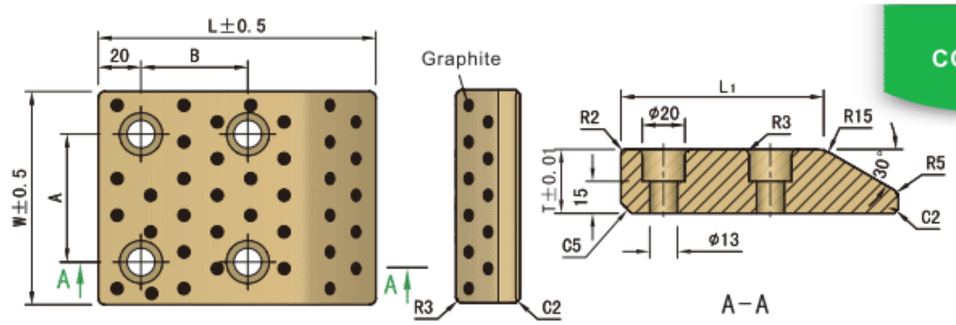
Order CCKB-W-L Material:Brass+graphite

W	L	A	B	C	E	T	d	d1	@¥/P
25	60	15	30	11	18	30	11	17.5	
32	80	20	40	16	23	38	13	20	

JIS

Inclined wedge active block

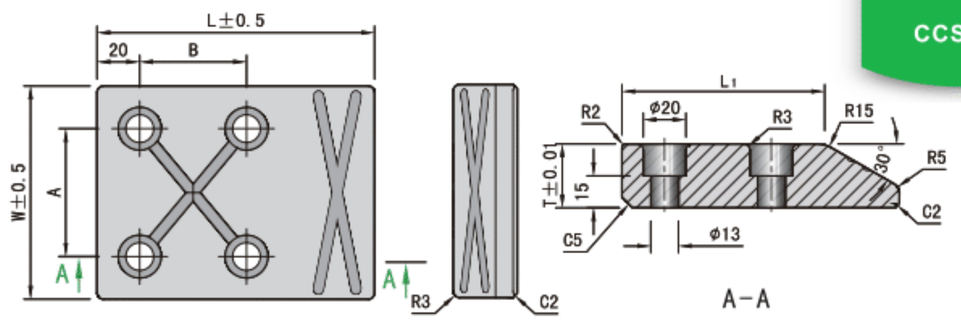
CCS30W



Order CCS30W-W-L Material:Brass+graphite

W	L	L1	T	a	b	@¥/P
75	130	95	30	40	50	
	150	90	45		45	
	170		60			
	200	120			75	
100	130	95	30	60	50	
	150	90	45		45	
	170		60			
	200	120			75	
125	130	95	30	85	50	
	150	90	45		45	
	170		60			
	200	120			75	
150	130	95	30	110	50	
	150	90	45		45	
	170		60			
	200	120			75	

CCS30F



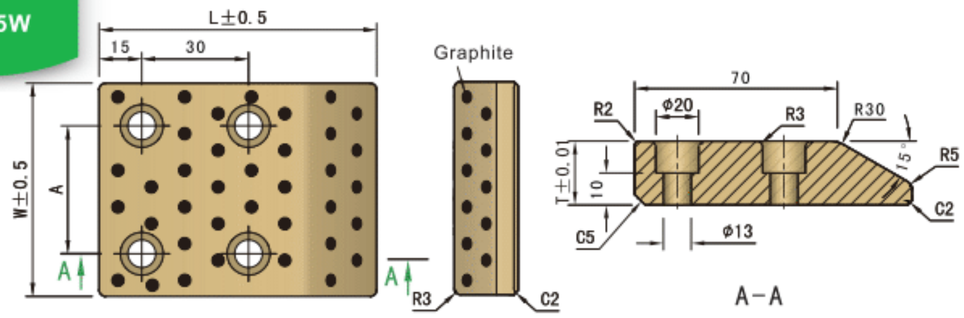
Order CCS30F-W-L Material:S45C Hardness:40-45HRC

W	L	L1	T	a	b	@¥/P
75	130	95	30	40	50	
	150	90	45		45	
	170		60			
	200	120			75	
100	130	95	30	60	50	
	150	90	45		45	
	170		60			
	200	120			75	
125	130	95	30	85	50	
	150	90	45		45	
	170		60			
	200	120			75	
150	130	95	30	110	50	
	150	90	45		45	
	170		60			
	200	120			75	

JIS

Inclined wedge active block

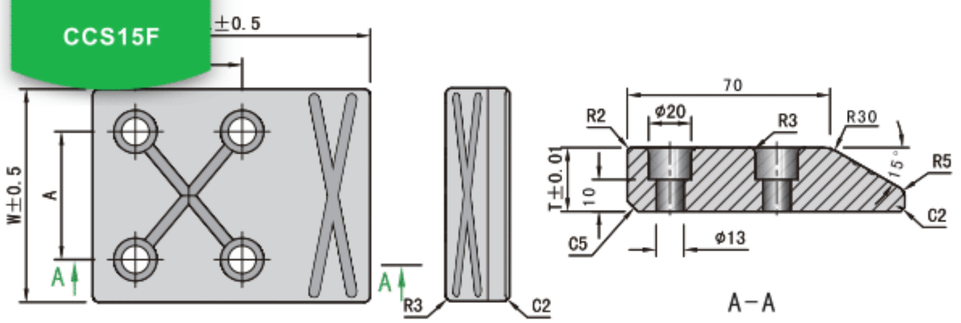
CCS15W



Order CCS15W-W-L Material:Brass+graphite

W	L	a	T	@¥/P
50	110	-	25	
	130		30	
	150		35	
75	110	40	25	
	130		30	
	150		35	
100	110	60	25	
	130		30	
	150		35	

CCS15F



Order CCS15F-W-L Material:S45C Hardness:40-45HRC

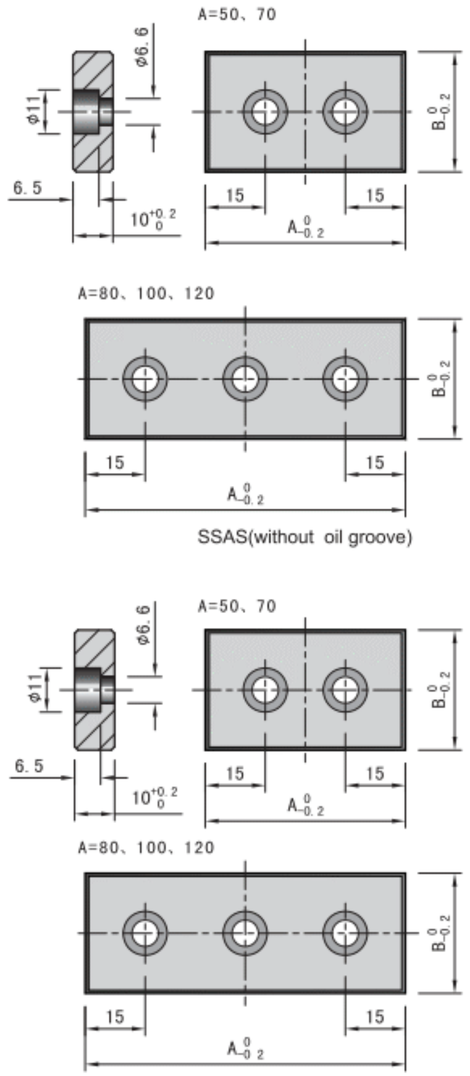
W	L	a	T	@¥/P
50	110	-	25	
	130		30	
	150		35	
75	110	40	25	
	130		30	
	150		35	
100	110	60	25	
	130		30	
	150		35	

JIS

Wear plates

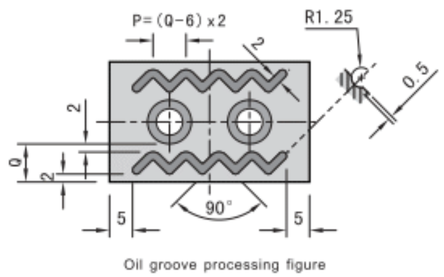
SSAS
SSASM





Order SSAS-A-B Material:Oil steel Hardness:52-56HRC

A	B	@¥/P
50	30	
	40	
70	30	
	40	
	50	
80	30	
	40	
	50	
	60	
100	40	
	50	
	60	
120	40	
	50	
	60	



Oil groove processing figure

Order SSASM-A-B Material:Oil steel Hardness:52-56HRC

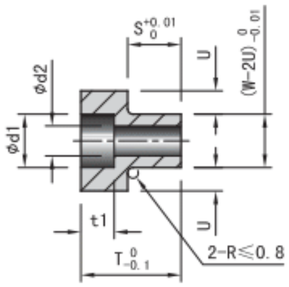
A	B	Q	P	@¥/P
50	30	9.5	7	
	40	14.5	17	
70	30	9.5	7	
	40	14.5	17	
	50	19.5	27	
80	30	9.5	7	
	40	14.5	17	
	50	19.5	27	
	60	24.5	37	
100	40	14.5	17	
	50	19.5	27	
	60	24.5	37	
120	40	14.5	17	
	50	19.5	27	
	60	24.5	37	

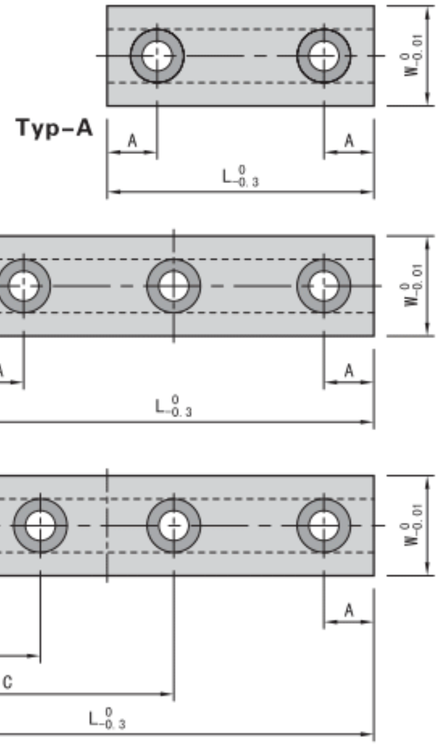
JIS

Guide strips

GGT5S
GGT8S







Order GGT5S-W-L Material:Oil steel Hardness:52-56HRC

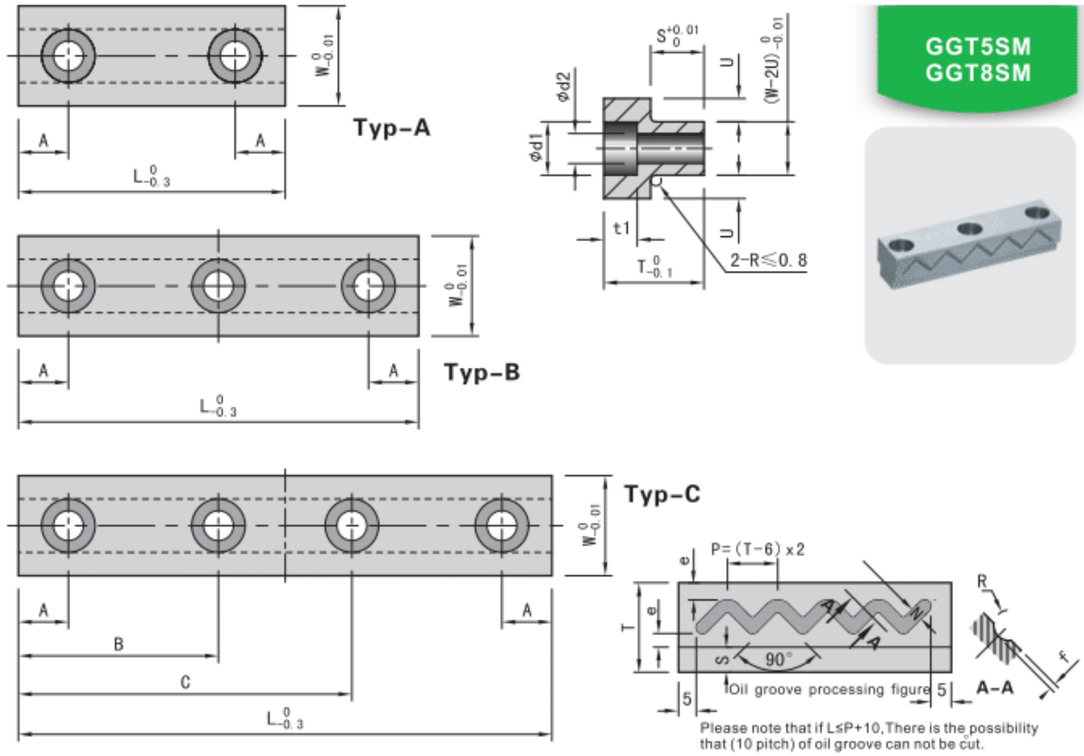
Code	S Heel height	U Heel width
GGT5S	8	3.5
GGT8S	11	4.5

W	T	d1	d2	t1	A	B	C	Typ	@¥/P L
15	15	8	4.5	5	7.5	-	-	A	40
						30	50	B	50- 70
						32.5	57.5	C	80-100
						35	65		
18	20	9.5	5.5	6		-	-	A	40
						30	50	B	50- 70
						32.5	57.5	C	80-100
						35	65		
22	20	11	6.5	7		-	-	A	40- 60
26	25	14	9	9		40	90	B	70-120
						45	95	C	130-150
						53	97		
32	25	17	11.5	11	10	-	-	A	50- 90
38	30					55	105	B	100-150
						60	120	C	160-200
						70	130		

JIS

Guide strips

GGT5SM
GGT8SM



Please note that if L≤P+10, There is the possibility that (10 pitch) of oil groove can not be cut.

Order GGT5SM-W-T-L Material:Oil steel Hardness:52-56HRC

Oil groove pitch								
T-S	9	10	12	15	18	20	22	25
P	6	8		18	24	28	32	38

Code	S Heel height	U Heel width
GGT5SM	8	3.5
GGT8SM	11	4.5

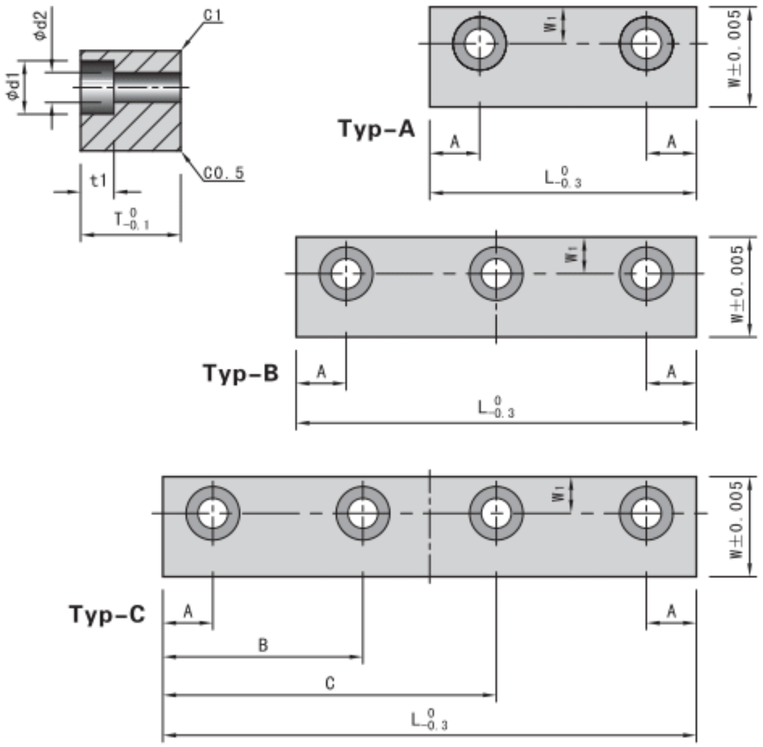
W	T	d1	d2	t1	A	B	C	Typ	@¥/P L
15	15	8	4.5	5	7.5	-	-	A	40
						30	50	B	50- 70
						32.5	57.5	C	80-100
						35	65		
18	20	9.5	5.5	6		-	-	A	40
						30	50	B	50- 70
						32.5	57.5	C	80-100
						35	65		
22	20	11	6.5	7		-	-	A	40- 60
26	25	14	9	9		40	90	B	70-120
						45	95	C	130-150
						53	97		
32	25	17	11.5	11	10	-	-	A	50- 90
38	30					55	105	B	100-150
						60	120	C	160-200
						70	130		

JIS

Guide strips

GGRS





Order GGRS-W-T-L Material:Oil steel Hardness:52-56HRC

W	T	d1	d2	t1	W1	A	B	C	Typ	@¥/P L
10	10 15	8	4.5	5	4.5	7.5	-	-	A	35- 40
							30	50	B	50- 70
							32.5	57.5	C	80-100
							35	65		
12.5	10 10 15 20				5		-	-	A	35- 40
							30	50	B	50- 70
							32.5	57.5	C	80-100
							35	65		
15	10 15 20 25	9.5	5.5	6	6		-	-	A	40- 60
							40	90	B	70-120
							45	95	C	130-150
							53	97		
20	15 20 25 30	11 14	6.5 9	7 9	9	10	-	-	A	40- 90
							55	105	B	100-150
							60	120	C	160-200
							70	130		
25	20 25 30	14	9	9	10		-	-	A	40- 90
							55	105	B	100-150
							60	120	C	160-200
							70	130		

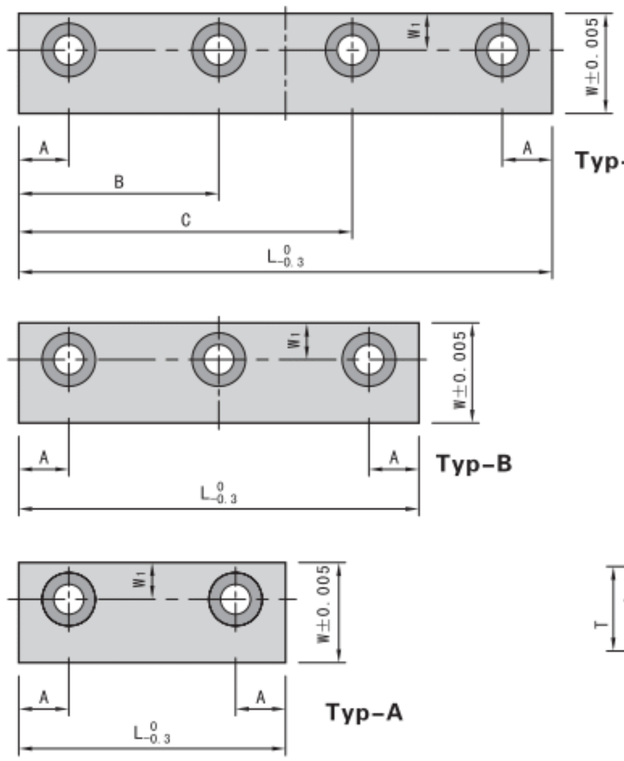
Note:When W=20、T=15、20,then d1=11 d2=6.5 t1=7 When W=20、T=25、30,Then d1=14 d2=9 t1=9

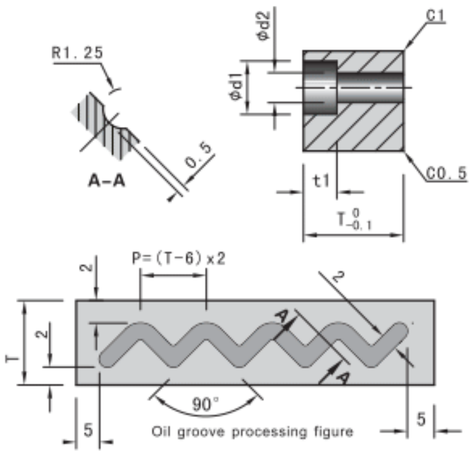
JIS

Guide strips

GGRSM







Please note that if L≤P+10,There is the possibility that (10 pitch) of oil groove can not be cut.

Order GGRSM-W-T-L Material:Oil steel Hardness:52-56HRC

W	T	d1	d2	t1	W1	A	B	C	Typ	@¥/P L
10	10 15	8	4.5	5	4.5	7.5	-	-	A	35- 40
							30	50	B	50- 70
							32.5	57.5	C	80-100
							35	65		
12.5	10 10 15 20				5		-	-	A	35- 40
							30	50	B	50- 70
							32.5	57.5	C	80-100
							35	65		
15	10 15 20 25	9.5	5.5	6	6		-	-	A	40- 60
							40	90	B	70-120
							45	95	C	130-150
							53	97		
20	15 20 25 30	11 14	6.5 9	7 9	9	10	-	-	A	40- 90
							55	105	B	100-150
							60	120	C	160-200
							70	130		
25	20 25 30	14	9	9	10		-	-	A	40- 90
							55	105	B	100-150
							60	120	C	160-200
							70	130		
	35						-	-	B	120-150
							55	105		
							60	120	C	160-200
							70	130		
30	30 35	17	11.5	11	11	12	-	-	B	120-150
							60	120	C	160-200
							70	130		

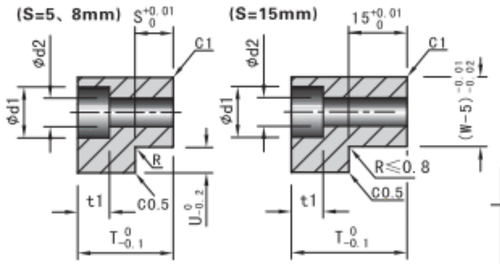
Note:When W=20、T=15、20,then d1=11 d2=6.5 t1=7 When W=20、T=25、30,Then d1=14 d2=9 t1=9

JIS

Guide strips

GGR5SC
GGR5S
GGR8S
GGR15S





Code	S Heel height	U Heel width
GGR5SC	5	2.5
GGR5S	5	3.5
GGR8S	8	4.5
GGR15S	15	-

Order GGR5SC-W-T-L Material:Oil steel Hardness:52-56HRC

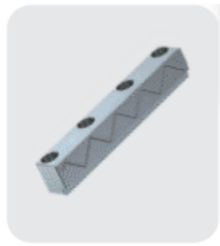
Code	W	T	d1	d2	t1	W1	A	B	C	Typ	@¥/P L
GGR5SC	10	12.5(*1) 15	8	4.5	5	4.5	7.5	-	-	A	35- 40
										B	50- 70
								30	50	C	80-100
								32.5	57.5		
								35	65		
GGR5S GGR8S	12.5	12.5 15				5		-	-	A	35- 40
		12.5(*2) 15 20								B	50- 70
								30	50	C	80-100
								32.5	57.5		
								35	65		
	15	12.5(*2) 15 20 25	9.5	5.5	6	6		-	-	A	40- 60
										B	70-120
								40	90	C	130-150
								45	95		
								53	97		
	20	15(*2) 20 25 30	11 14	6.5 9	7 9	9	10	-	-	A	40- 90
										B	100-150
								55	105	C	160-200
								60	120		
								70	130		
	25	20 25 30	14	9	9	10		-	-	A	40- 90
										B	110-150
								55	105	C	160-200
								60	120		
								70	130		
GGR15S	20	30				9	10	-	-	A	80- 90
										B	100-160
							20	60	120	C	180-200
								70	130		
	25	29 34				10	10	-	-	A	60- 90
										B	100-160
							20	60	120	C	170-200
								70	130		
	35	34 39	17	11.5	11	12	10	-	-	A	60-100
										B	110-160
							20	60	120	C	170-200
								70	130		

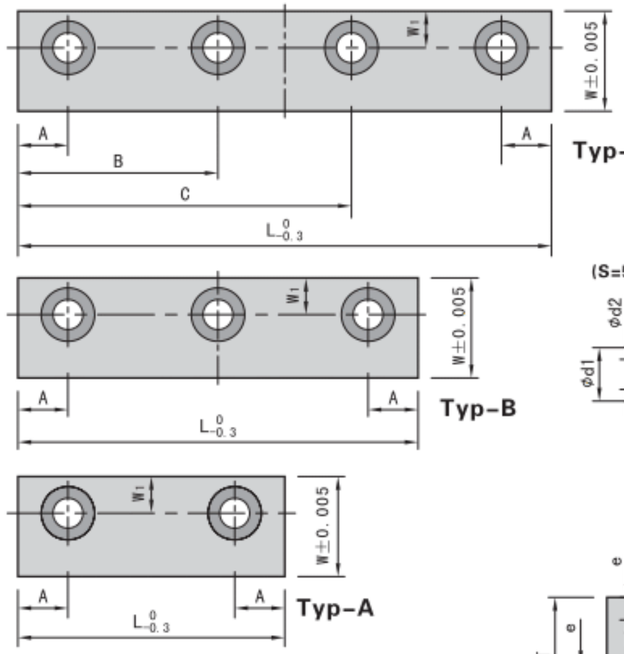
*1 only applicable to GGR5SC , *2 only applicable to GGR5S ansd GGR5SM
Note: When w=20 、T=15, 20, Then d1=11 d2=6. 5 t1=7
When w=20、T=25, 20 , Then d1=14 d2=9 t1=9

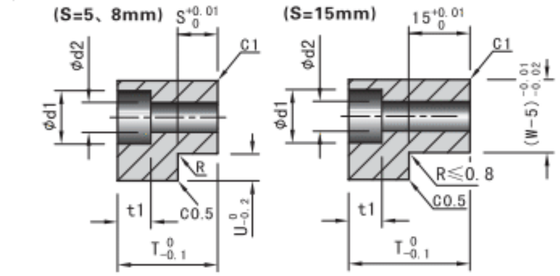
JIS

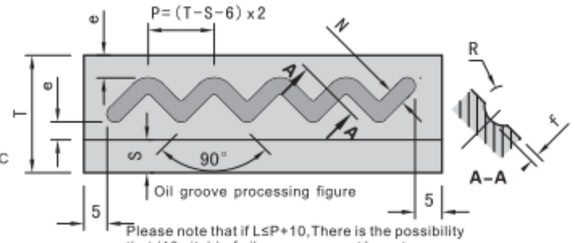
Guide strips

GGR5SCM
GGR5SM
GGR8SM
GGR15SM









Please note that if L≤P+10,There is the possibility that (10 pitch) of oil groove can not be cut.

Order GGR5SCM-W-T-L Material:Oil steel Hardness:52-56HRC

Oil groove pitch									
T-S	7	7.5	10	12	14 15	17	19 20	22	24 25
P	2	3	8		18	22	28	32	38

Code	W	T	d1	d2	t1	W1	A	B	C	Typ	@¥/P L
GGR5SCM Heel height 5mm	10	12.5(*1) 15	8	4.5	5	4.5	7.5	-	-	A	35- 40
										B	50- 70
								30	50	C	80-100
								32.5	57.5		
								35	65		
GGR5SM Heel height 5mm	12.5	12.5 15				5		-	-	A	35- 40
		12.5(*2) 15 20								B	50- 70
								30	50	C	80-100
								32.5	57.5		
								35	65		
	15	12.5(*2) 15 20 25	9.5	5.5	6	6		-	-	A	40- 60
										B	70-120
								40	90	C	130-150
								45	95		
								53	97		
GGR8SM Heel height 8mm	20	15(*2) 20 25 30	11 14	6.5 9	7 9	9	10	-	-	A	40- 90
										B	100-150
								55	105	C	160-200
								60	120		
								70	130		
	25	20 25 30	14	9	9	10		-	-	A	40- 90
										B	110-150
								55	105	C	160-200
								60	120		
								70	130		
GGR15SM Heel height 15mm	25	29 34				10	10	-	-	A	60- 90
										B	100-160
							20	60	120	C	170-200
								70	130		
	35	34 39	17	11.5	11	12	10	-	-	A	60-100
										B	110-160
							20	60	120	C	170-200
								70	130		

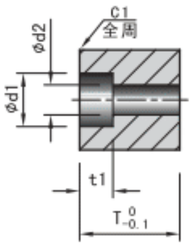
*1 only applicable to GGR5SC , *2 only applicable to GGR5S ansd GGR5SM
Note: When w=20 、T=15, 20, Then d1=11 d2=6. 5 t1=7
When w=20、T=25, 20 , Then d1=14 d2=9 t1=9

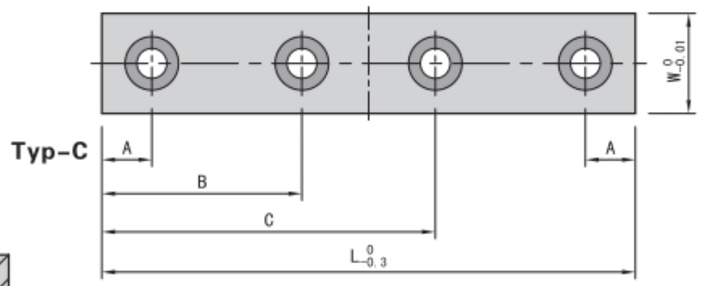
JIS

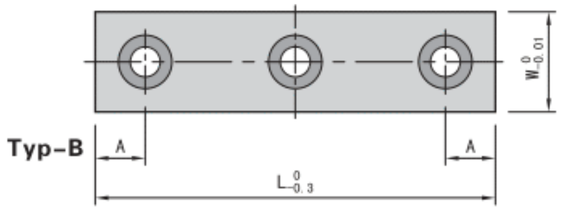
Guide strips

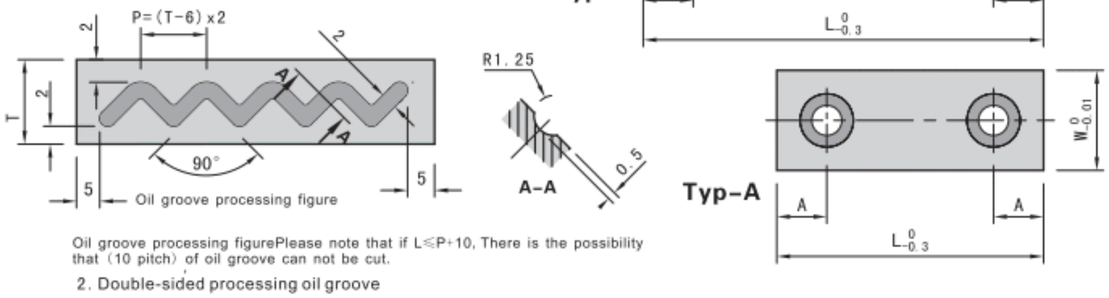
CCGSM
CCGS











Oil groove processing figurePlease note that if L≤P+10, There is the possibility that (10 pitch) of oil groove can not be cut.

2. Double-sided processing oil groove

Order CCGSM-W-T-L Material:Oil steel Hardness:52-56HRC

Oil groove pitch			
T	10	15	20
P	8	18	28

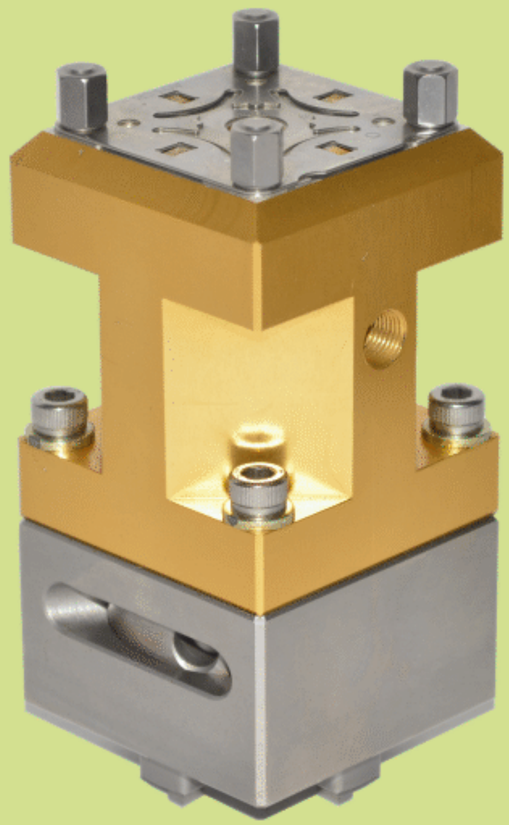
Code	
CCGSM	with oil groove
CCGS	without oil groove

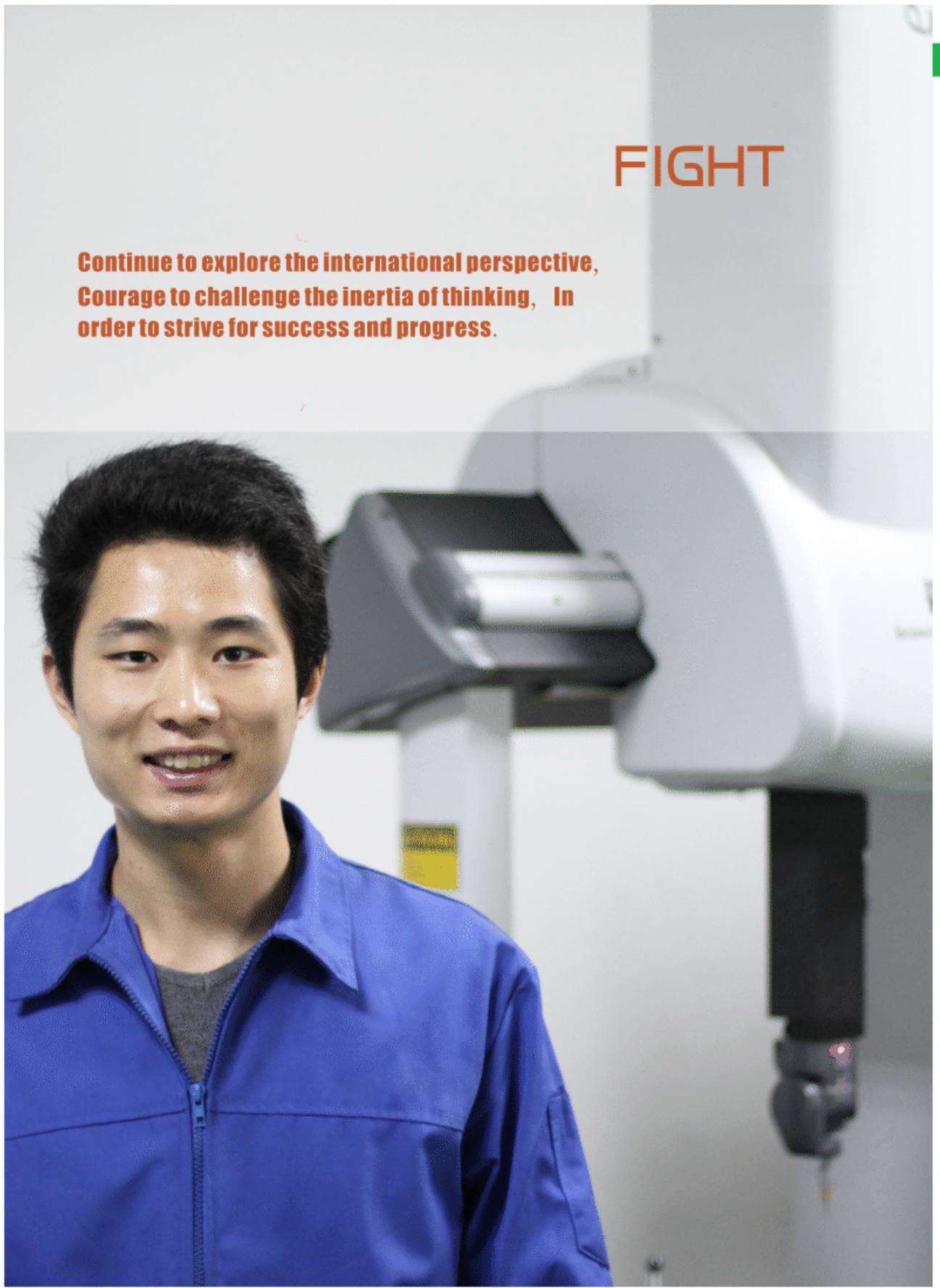
W	T	d1	d2	t1	A	B	C	Typ	L
12	10	8	4.5	5	7.5	-	-	A	40
								B	50 60 70
						30	50	C	80
						32.5	57.5		90
						35	65		100
15	15	9.5	5.5	6		-	-	A	40 50 60
								B	70 80 90 100
20		11	6.5	7	10			A	50 60 70 80 90
	20							B	100 110 120 130 140 150

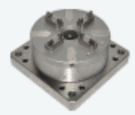
Order CCGS-W-T-L Material:Oil steel Hardness:52-56HRC

W	T	d1	d2	t1	A	B	C	Typ	L
12	10	8	4.5	5	7.5	-	-	A	40
								B	50 60 70
						30	50	C	80
						32.5	57.5		90
						35	65		100
15	15	9.5	5.5	6		-	-	A	40 50 60
								B	70 80 90 100
20		11	6.5	7	10			A	50 60 70 80 90
	20							B	100 110 120 130 140 150

Chuck Series







Chuck	Chuck	Chuck	Chuck	Chuck
AS-QK01-C1 P616	AS-QK01-C2 P616	AS-QK01-C3 P617	AS-QK01-C4 P617	AS-QK01-C6 P618



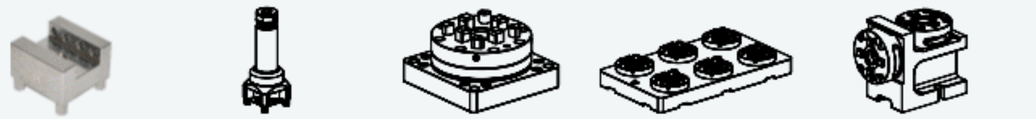
Chuck	Chuck	Chuck	Chuck	Chuck
AS-QK01-E110 P619	AS-QK02-T2 P619	AS-SK04-H4-C P619	AS-SK04-14 P620	AS-SK04-15 P620



Chuck	Chuck	Chuck	Chuck	Chuck
AS-SK04-J150 P621	AS-Q01 P621	AS-Q04 P622	AS-F01 P622	AS-F02 P622



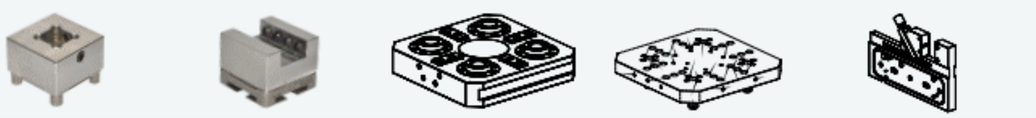
Chuck	Chuck	Chuck	Chuck	Chuck
AS-F10 P623	AS-F11 P623	AS-JP50 P624	AS-JP90G P624	AS-JD21 P624



Chuck	Chuck	Chuck	Chuck	Chuck
AS-JU21 P625	AS-J-SK25-15 P625	AS3-QK100 P626	AS3-QK100-C6 P626	AS3-SK80-T2 P627



Chuck	Chuck	Chuck	Chuck	Chuck
AS3-Q01 P627	AS3-Q04 P628	AS3-F-LG1 P628	AS3-F-LG2 P628	AS3-JP54 P629



Chuck	Chuck	Chuck	Chuck	Chuck
AS3-JD21 P628	AS-JU31 P630	AS-U-MK P630	AS-U-TL P631	AS-W10 P631

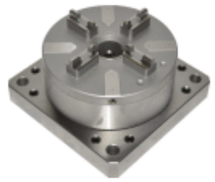
Email: sales@moldpartner.eu

MOLD PARTNER

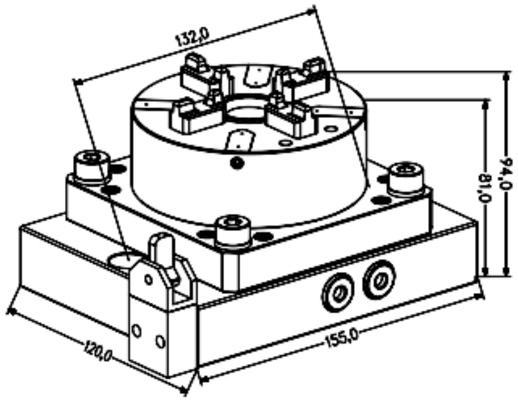
Chuck

AS-QK01-C1

Single benchmarks pneumatic.chuck



Description: A single benchmarks ;
Can be install directly;
Base with fine-tuning
the installation;
8000N locking force;
Automatic jet cleaning;
For CNC machining;



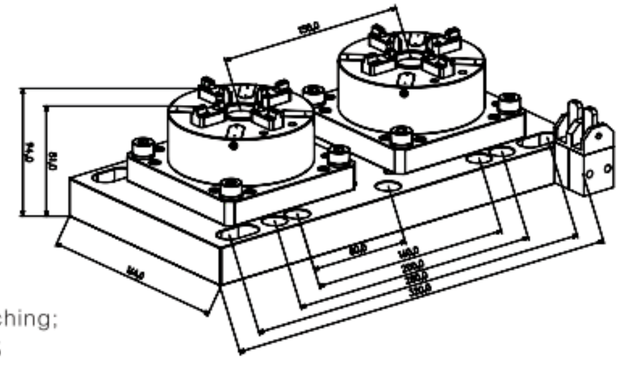
Size : 150X100X93
Material: Powder made of steel quenching;
Apply: Standard pressure 6Pa ± 0.5

AS-QK01-C2

Two benchmarks pneumatic chuck



Description: Two benchmarks center;
Base with fine-tuning
the installation130mm;
Center spacing
8000N locking force;
Automatic jet cleaning;
For CNC machining;



Size : 260X160X93
Material: Powder made of steel quenching;
Apply: Standard pressure 6Pa ± 0.5

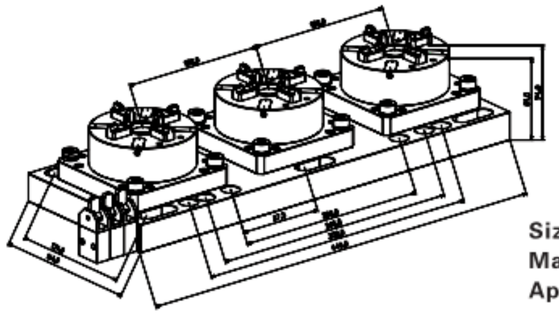
Chuck

AS-QK01-C3

Three benchmarks pneumatic chuck 100



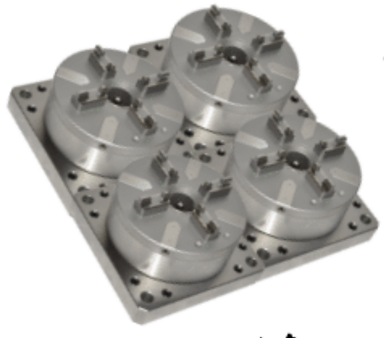
Description: Tetrad benchmarks center;
Base with fine-tuning
the installation130mm;
Center spacing
8000N locking force;
Automatic jet cleaning;
For CNC machining;



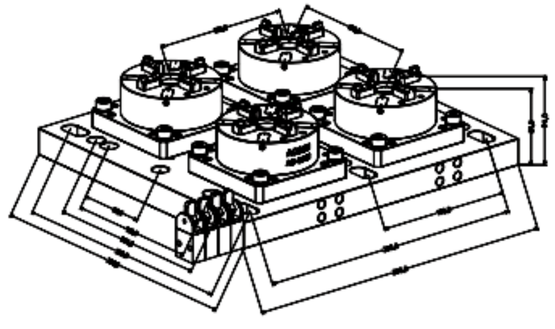
Size : 380X160X93
Material: Powder made of steel quenching;
Apply: Standard pressure 6Pa ± 0.5

AS-QK01-C4

Tetrad benchmarks pneumatic chuck



Description: Tetrad benchmarks center;
Base with fine-tuning
The installation;
Center spacing 130mm;
8000N locking force;
Automatic jet cleaning;
For CNC machining;

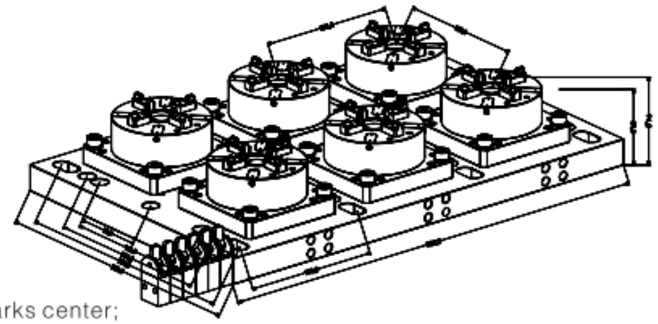


Size : 290X250X93
Material: Powder made of steel quenching;
Apply: Standard pressure 6Pa ± 0.5

Chuck

AS-QK01-C6

Six benchmarks pneumatic chuck



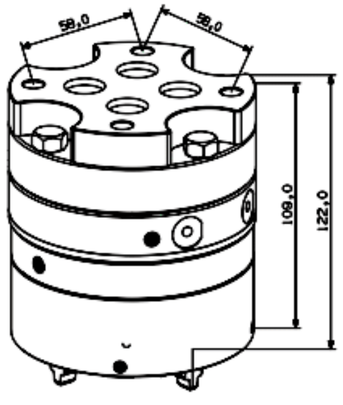


Description: Six benchmarks center;
Base with fine-tuning
the installation130mm;
Center spacing
8000N locking force;
Automatic jet cleaning;
For CNC machining;

Size : 380X290X93
Material: Powder made of steel quenching;
Apply: Standard pressure 6Pa±0.5

AS-QK01-E110

EDM pneumatic chuck



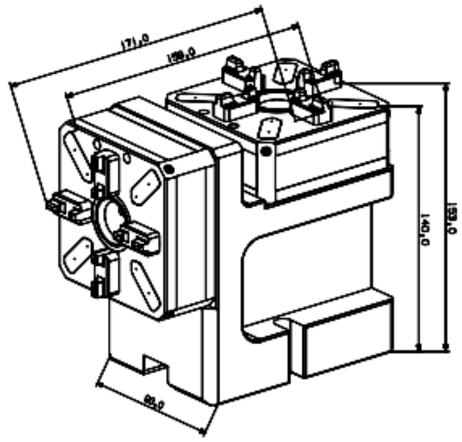
Description: Base with insulating
fine-tuning;
EDM using;

Size : Φ102X110
Material: Powder made of steel quenching;
Apply: Standard pressure 6Pa±0.5

Chuck

AS-QK02-T2

P tooth 100 pneumatic chuck

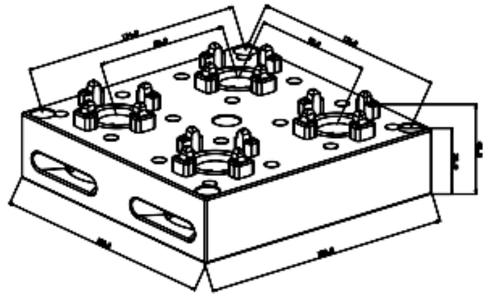


Description: Forward and lateral to the
Installation of a chuck;
Fixed benchmarks ;
For processing of polyhedron;

Size : 190X90X150
Material: Powder made of steel quenching;
Apply: Standard pressure 6Pa±0.5

AS-SK04-H4-C

With backpiane 4 in 1 chuck



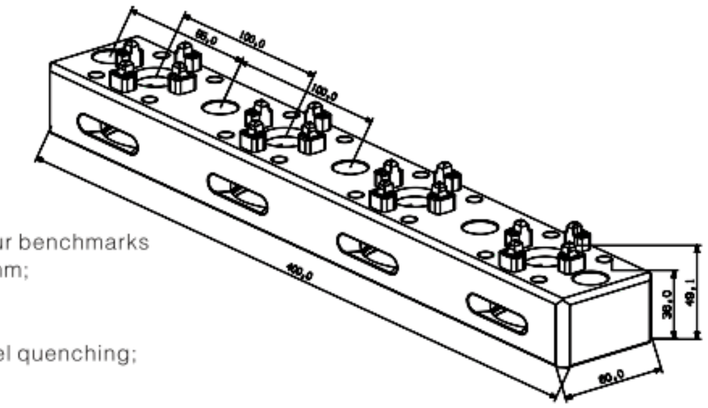
Description: Single fastener ;
Parallel arrange tetrad benchmarks;
Center spacing 80mm;
Installation the backplane;

Size : 200X150X85
Material: Powder made of steel quenching;

Chuck

AS-SK04-14

Bar 4 in 1 Small chuck

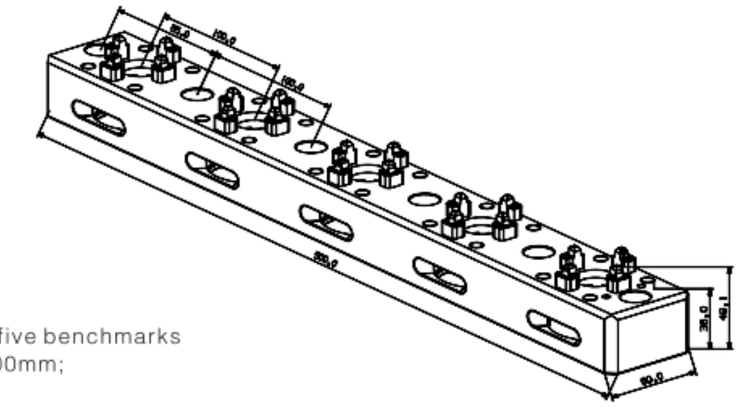


Description: Single fastener ;
Linear arrange of four benchmarks
center spacing100mm;

Size : 400X60X49
Material: Powder made of steel quenching;

AS-SK04-15

Bar 5 in 1 Small chuck



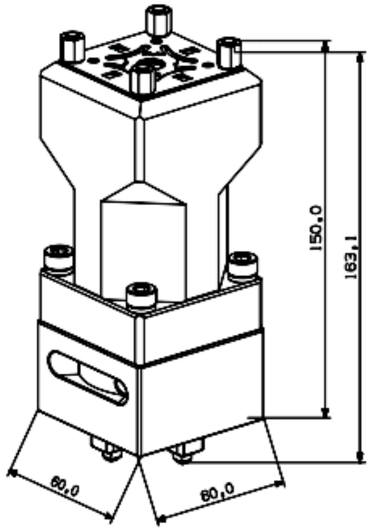
Description: Single fastener ;
linear arrange of five benchmarks
center spacing100mm;

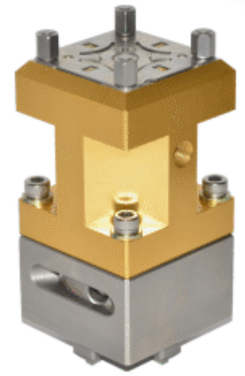
Size : 500X60X49
Material: Powder made of steel quenching;

Chuck

AS-SK04-J150

Elongated quick chuck



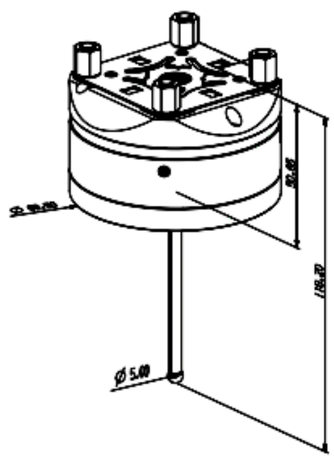


Description: Single fastener ;
Quick locking;
Vertical extended 100mm;
Keep center invariant;

Size : 60X60X113
Material: Powder made of steel quenching;

AS-Q01

In min utensil





Description: For EDM crawl center;
Φ5 ball;

Size : Φ70X125
Material: Powder made of steel quenching;

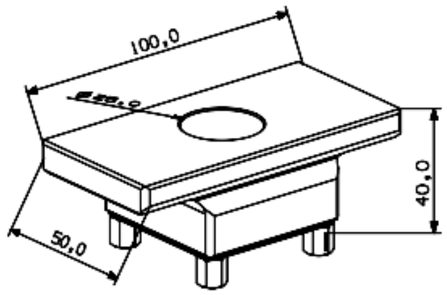
Chuck

AS-Q04

Calibration block long

Description: When installation more benchmarks;
Usually also used as gauging chuck;

Size : 100X50X40
Material: Powder made of steel quenching;



AS-F01

Manipulator lever



Material: SUS 420
Size : Φ20X45
Apply: For fixture between chuck and join;
Apply manipulator;

AS-F02

Manual drawbars



Material: SUS 420
Size : Φ20X45
Apply: For fixture between chuck and join;
Does not apply to manipulator;

Chuck

AS-F10

Support arm



Material: Stainless steel;
Size : 118X118X120
Apply: Traditional methods use of;
Used to modify the model without clamp electrode;

AS-F11

Touch stick

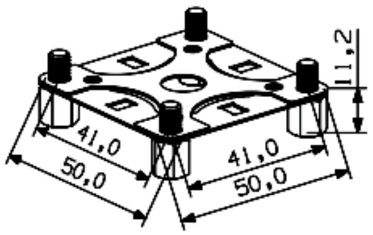


Material: Stainless steel;
Size : Φ118X30
Apply: Apply to EDM machine;
Installed directly on the support arm;

Chuck

AS-JP50

Centering plate 50



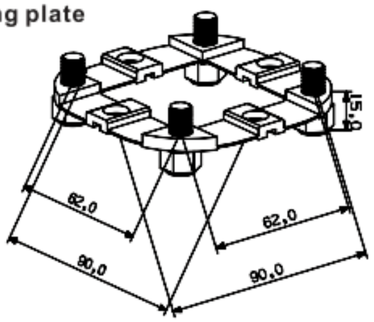


Material: Stainless steel;

Size : 50X50X11.2

AS-JP90G

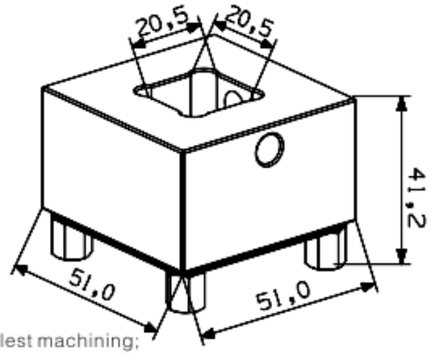
G type centering plate

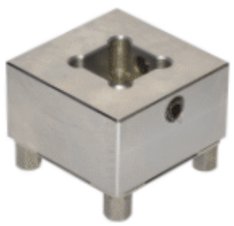


Material: Stainless steel;

Size : 90X90X11.2

AS-JD21





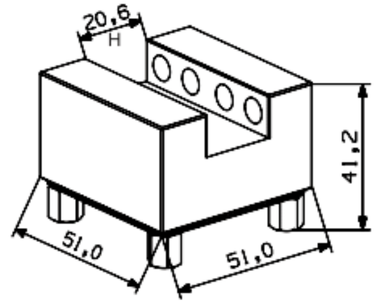
Material: copper□brass
steel□S136H,HRC35±2
aluminium□6tie aluminium
anode treatment

Size : 51X51X40; 21X21X12

Apply: Electrode machining;
Too available stay smallest smallest machining;

Chuck

AS-JU21



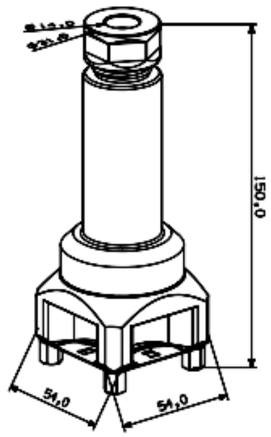


Material: copper□brass
steel□S136H,HRC35±2
aluminium□6tie aluminium
anode treatment

Size : 51X51X40; 51X21X12

Apply: Electrode machining;
Too available stay smallest smallest machining;

AS-J-SK25-15



SKS20 clamping cylinders-longer

Material: Powder made of steel quenching;

Size : 54X54X100

Apply: For a variety of shapes nozzle;
Circular electrode process;
Distribution cable 4.6.8.10.12tsui;

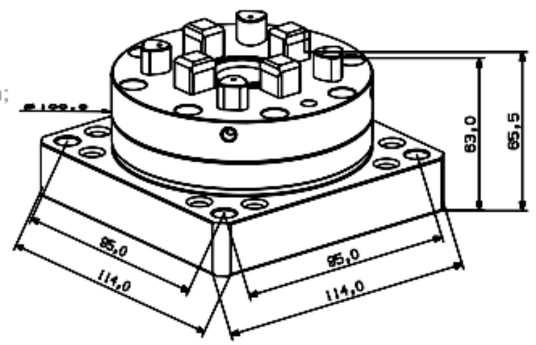
Chuck

AS3-QK100

Pneumatic chuck 100

Description: Base with fine-tuning the installation;
Fixture screws M8;
8000N locking;
Automatic jet function;
For CNC machining;

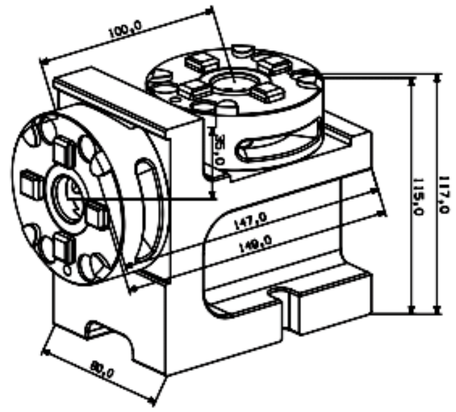
Size : 114X114X66
Material: Powder made of steel quenching;
Apply: Standard pressure 6Pa ± 0.5



Chuck

AS3-SK80-T2

Quick Chuck Stereo



Description: two lateral vertical installation;
generally used for processing of three-dimensional electrode;

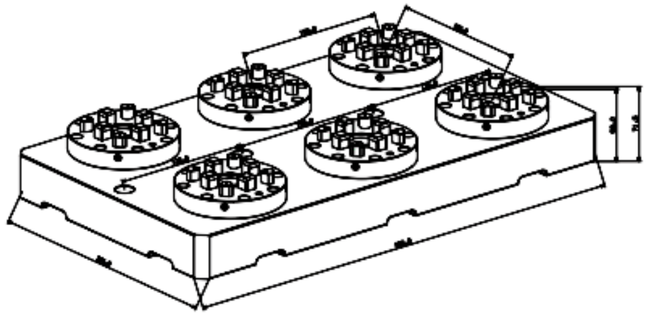
Size : 149X80X117
Material: Powder made of steel quenching;

AS3-QK100-C6

Six benchmarks pneumatic chuck

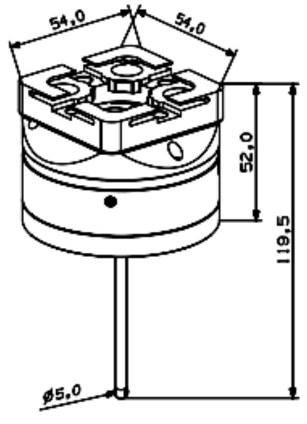
Description: Six benchmarks center;
Base with fine-tuning the installation;
Center spacing 130mm;
8000N locking;
Automatic jet cleaning;
For CNC machining;

Size : 460X264X72
Material: Powder made of steel quenching;
Apply: Standard pressure 6Pa ± 0.5



AS3-Q01

In Min utensil



Description: For EDM crawl center;
ϕ5 ball;

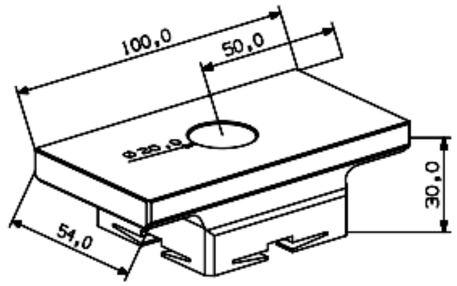
Size : 54X54X120
Material: Powder made of steel quenching;

AS3-Q04

Calibration block long

Description: When installation more benchmarks;
Usually also used as gauging chuck;

Size : 100X54X30
Material: Powder made of steel quenching;



AS3-F-LG1

Manipulator drawbars

Material: SUS 420
Size : Φ20X45
Apply: For fixture between chuck and join;
apply manipulator;



AS3-F-LG2

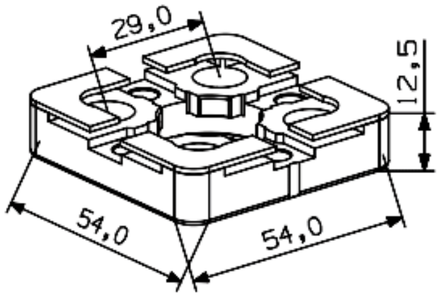
Manual drawbars

Material: SUS 420
Size : Φ20X45
Apply: For fixture between chuck and join;
Does not apply to manipulator;



AS3-JP54

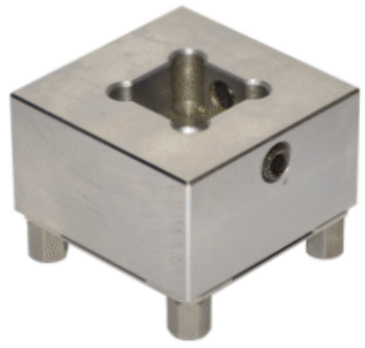
Position films 54



Material: Stainless steel;
Size : 54X54X112.5

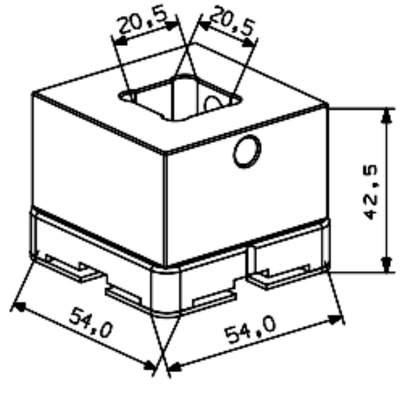


AS3-JD21



Material: copper□brass
steel□S136H,HRC35±2
aluminium□6tie aluminium
anode treatment

Size : 54X54X43；21X21X12
Apply: Electrode machining;
Too available stay smallest
Smallest machining;

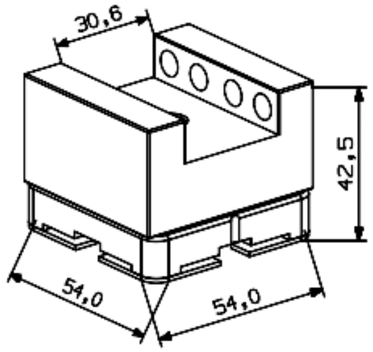


Chuck

AS-JU31

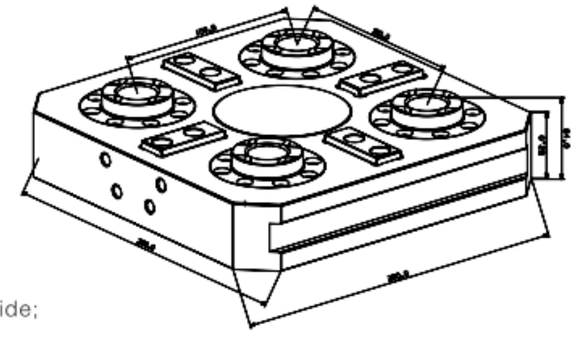


Material: copper□brass
steel□S136H,HRC35±2
aluminium□6tie aluminium
anode treatment
Size : 54X54X43；54X31X12
Apply: Electrode machining;
Too available stay smallest
Smallest machining;



AS-U-MK

Four in one combination of base



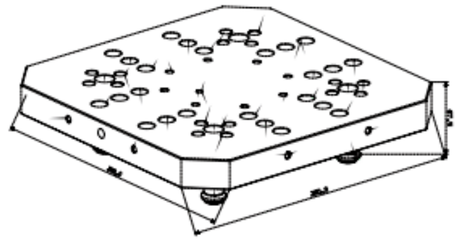
Material: Powder made of steel quenching;

Size : 320X300X65
Connections: Through the base and on the side;
Apply: Chuck high machining forces
during chip removal;
On milling, grinding and drilling
Centers and in production lines.;

Chuck

AS-U-TL

Pallet aluminium

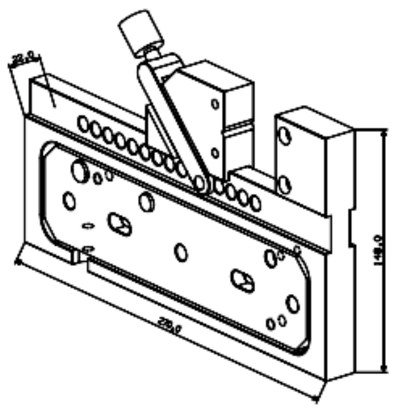


Material: 6 series aluminum anodized alminum
brushed chrome;

Size : 320X320X40
Apply: Basis for gauges and workpieces;
Aluminum with 50mm pattern boreholes,
Centering segments and chucking spigots fitted;
Please note: The AS-U-LT version is not suited for use in EDM machines;

AS-W10

Three to Vise fine -tuning

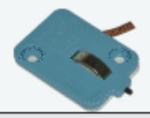


Description: Used alone;
For fast workpieces;

Size : 60X60X150
Material: Powder made of steel quenching;

Mold accessories Series





AISI	TAIWAN	DIN	MOLD PARTNER	MOLD PARTNER
Limit switch	Screw driver	Tool safety devices	Tool safety devices	Tool safety devices
TSW2220 P634	MSD P635	ZZ73 P635	ZZ73A P636	ZZ73B P637



JIS	JIS	AISI	AISI	MOLD PARTNER
Tool safety devices	Tool safety devices	Mold counter	Mold counter	Heat-resistant mould counter
OOPS P638	DDPS P638	CPL P639	CPM P639	CPH P540



AISI
Round mold counter
CVR P641

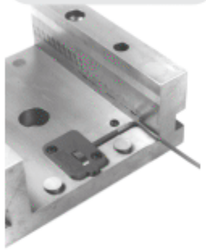
Email: sales@moldpartner.eu

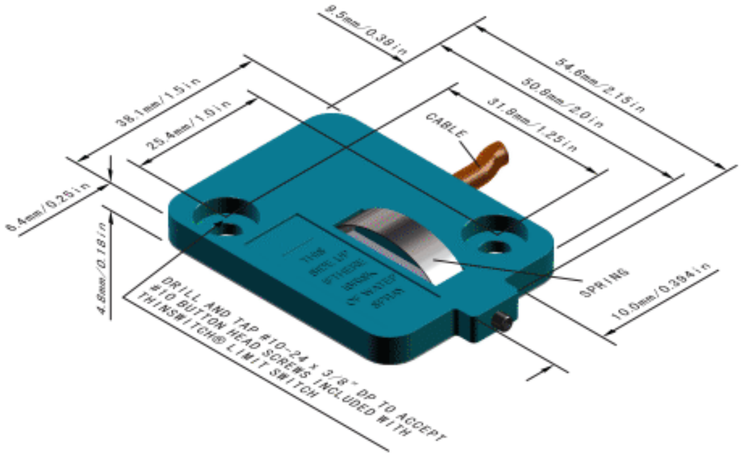
AISI

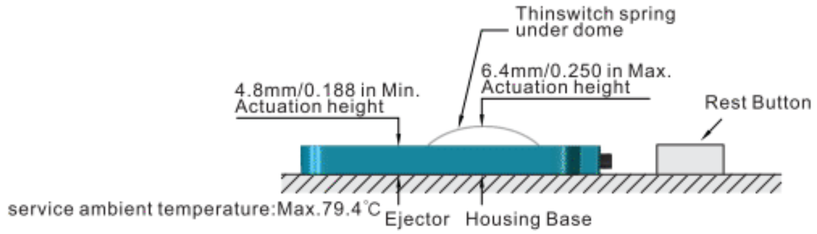
Limit switch

TSW2220









Thinswitch limit switch includes:

1.Thinswitch limit switch:1Pcs□ 4-40Allen wrench:1Pcs(for height adjustment)□ Screws:4Pcs(#10-24×1/2"button head)□ Wire clamps:2Pcs(0.5"×0.82"×0.5" with0.213" mounting hole)□

2.Instruction sheet cable:1Pcs□

☎Order TSW2220

Rated current VS. steel temperature							
TSW2220				HT291			
Amps	°F	°C	@¥/P	Amps	°F	°C	@¥/P
5	85	29.4		5	100	37.7	
4	120	49		4.5	155	68.3	
3	155	68.3		4	210	98.8	
2	175	79.4		3.5	250	121.1	

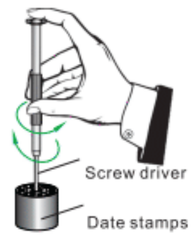
TAIWAN

Screw driver/Tool safety devices

MSD



Function chart:





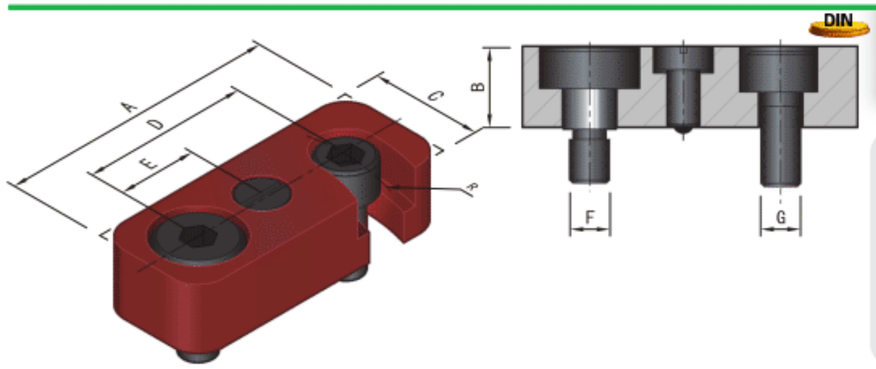
1.MSD is combination with screwdriver, which is for 1.4, 1.8,2.4,3 ,can be special use for different date stamps.
2.As right picture, press on the head of screwdriver with forefinger,Clamp screwdriver rod with other fingers to rotate and adjust the arrow.

☎ MSD

Code	D	Applicable date stamp specification	Q'ty(Pcs)	@¥/P
MSD	1.4	Ø3	1	
	1.8	Ø4-Ø5	1	
	2.4	Ø6	1	
	3.0	Ø8-Ø16	1	

DIN

ZZ73





1. This ZZ73 is used for mold keeping or moving.
2. Its application is flexible and easy by the Shoulder screws and Spring plunger.
3. If forget to open the ZZ73 tool safety device when mold moving, the front hook or the screw can break first, to protect the Mold base and the bolts.

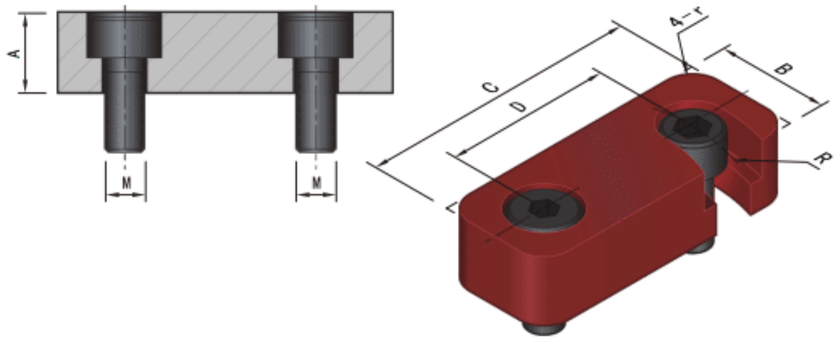
☎Order ZZ73×12

Code	A	B	C	D	E	R	F	G	@¥/P
ZZ73×12	50	12	20	30	14	30	M 6	M 6	
ZZ73×16	63	16	25	38	17	38	M 8	M 8	
ZZ73×20	80	20	32	48	20	48	M10	M10	

Tool safety devices

ZZ73A



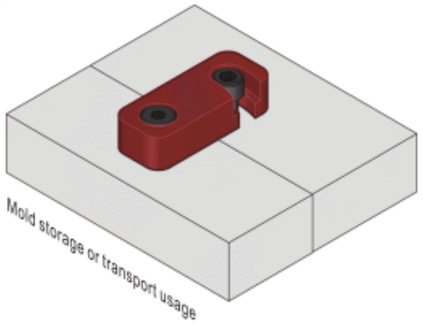


1. Precision alloy casting, economie and durable.
2. Its application is flexible and easy by the Shoulder screws and Spring plunger.
3. To protect the mold base and the bolts, do not forget to open the ZZ73A tool safety devices when mold moving. Otherwise, the front hook or the screws would break first.

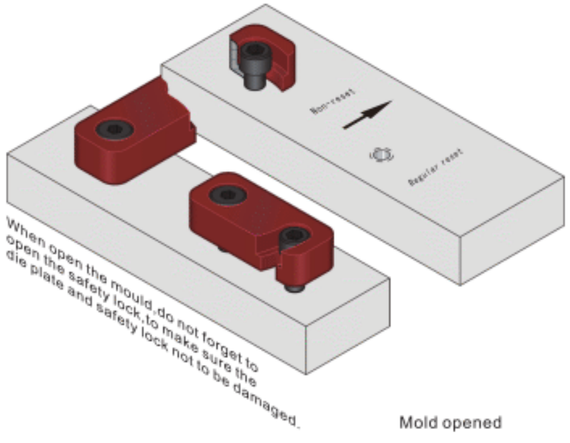
Order ZZ73A×12

Code	A	B	C	D	R	r	M	@¥/P
ZZ73A×12	12	20	52	30	30	5	M 6	
ZZ73A×16	16	25	63	38	38		M 6	
ZZ73A×20	20	32	80	48	48		M10	

Function chart:



Mold closed

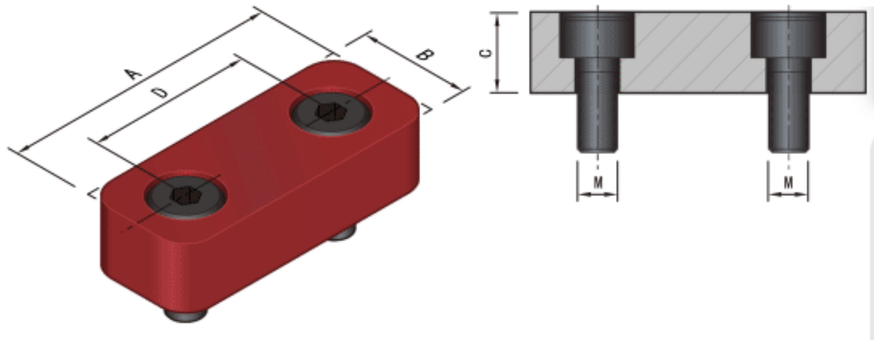


Mold opened

Tool safety devices

ZZ73B



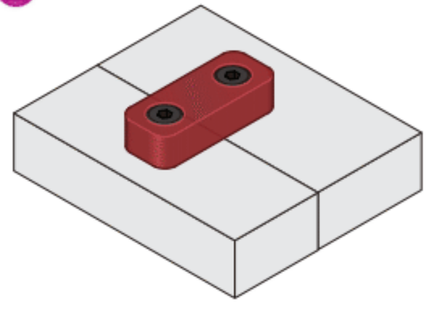


1. Precision alloy casting, economie and durable.
2. To protect the mold base and bolt,do not forget to open the ZZ73A tool safety devices when mold moving. Otherwise, the front hook or the screws would break first.

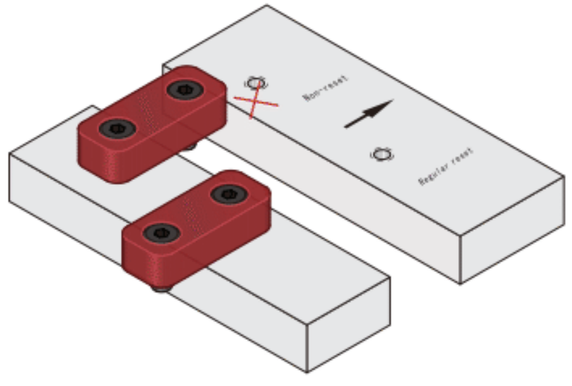
Order ZZ73B×12

Code	A	B	C	D	M	@¥/P
ZZ73B×12	50	20	12	30	M 6-16	
ZZ73B×16	63	25	16	38	M 6-20	
ZZ73B×20	80	32	20	48	M10-25	

Function chart:



Mold closed



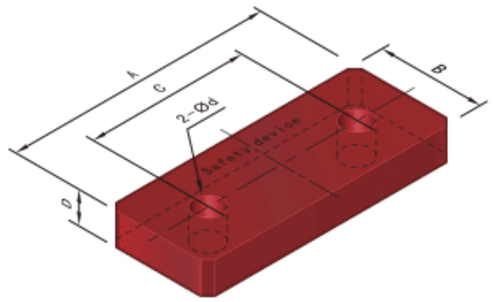
Mold opened

JIS

Tool safety devices

OOPS



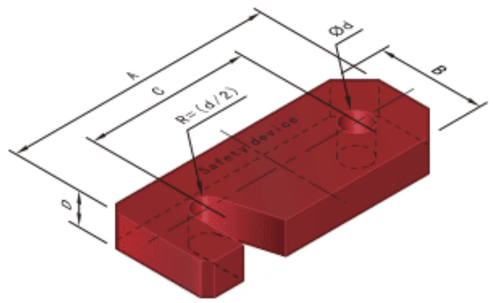


Order OOPS-D-A-C

Code	D	B	Ød	A	C	@¥/P
OOPS	12 16	25 38	6.5 8.5	40 50 60 70 80 90 100 110 120 130	20 25 30 40 50 60 70 80 90 100	

DDPS





Order DDPS-D-A-C

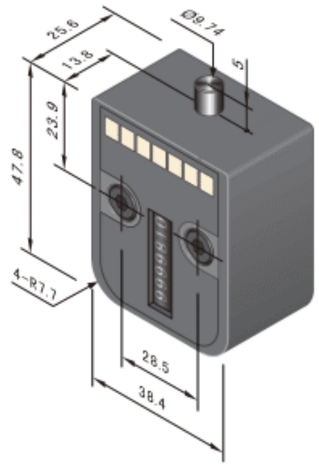
Code	D	B	Ød	A	C	@¥/P
DDPS	12	25	8.5	65 75 85 95 105 115	40 50 60 70 80	
	16	38	12.5 21	125 135 145 155 165	90 100 110 120 130	

AISI

Mold counter

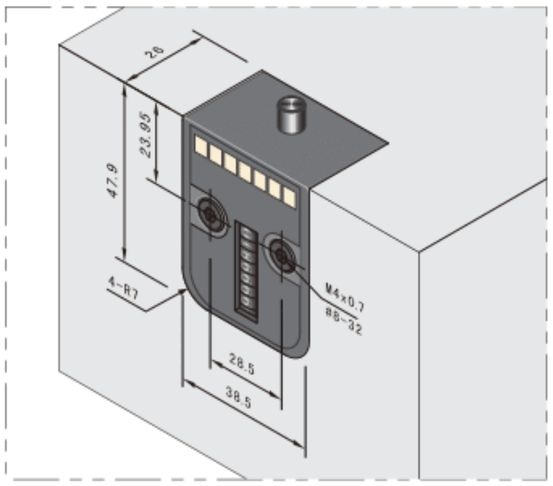
CPL CPM





1.The counters are installed in the plates in the case of having enough installation location.
2.If the temperature is too high,use the mold counter with insulating plate and install outside the mold.
(it can not influence mold inner structure after blocking) .
3.Max.working temperature 120□ .

Installation Diagram:



Order CPL/CPM

Code	Equipped screw(2 pcs)	@¥/P
CPL(Inch)	#8-32×1	
CPM(Metric)	M4×0.7×25	

Work temperature below 120 degrees

MOLD PARTNER

Heat-resistant mold counter

CPH



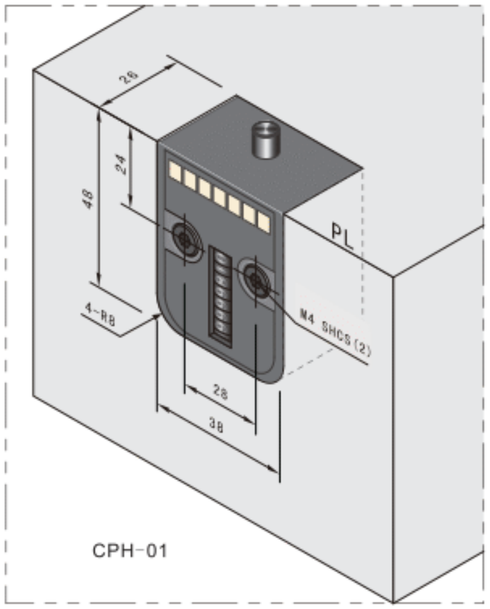
Order CPH-01

Code	Inner-hexagon	@¥/P
CPH-01	M4×25(2pcs)	
CPH-02	M4×25(4pcs)	

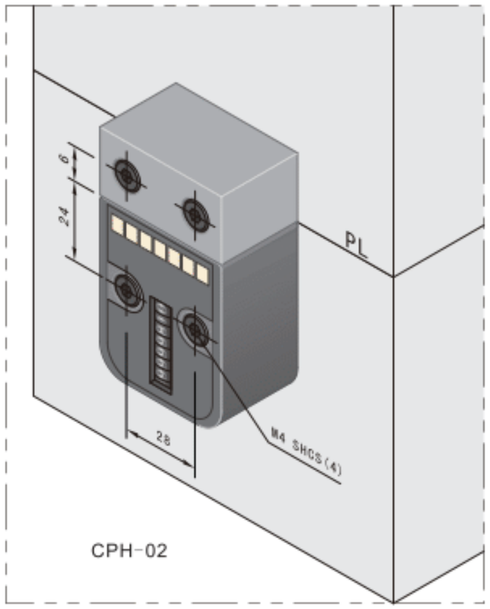
The highest application temperature is 180 degrees

MOLD PARTNER's high temperature resistant mould counter,test mould's service life precisely,there are two optional specifications,it's easy and convenient to install.
Material:nylon with fiberglass
The highest application temperature is 180 degrees
7 digits(million times counting),mechanical,can not return to zero

Installation Diagram:



CPH-01 embedded structure:simple and scientific operation
Material:nylon with fiberglass
Accessories:inner-hexagon screw(M4x25) 2pcs



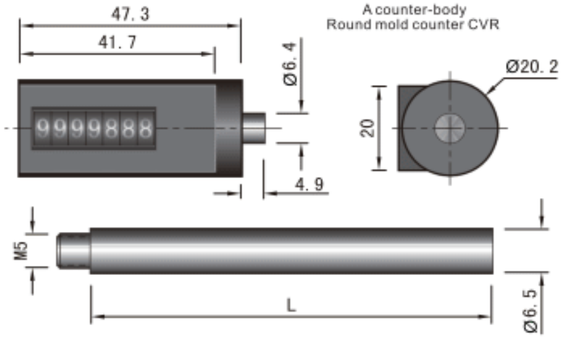
CPH-02 outboard structure:no need to open holes
The material of the dam board:iron dyed black
Accessories:inner-hexagon screw(M4x25) 4pcs

AISI

Round mold counter

CVR





C lengthen the size of the ejector rob L can be processed according to practical situation

Order CVR

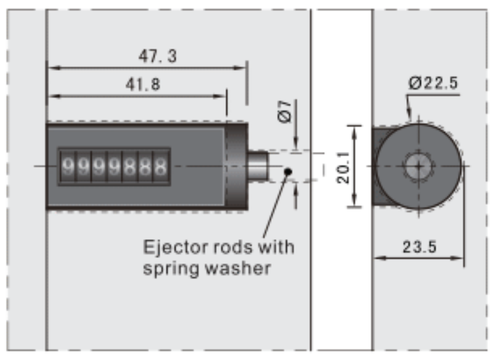
Code	@¥/P
CVR	

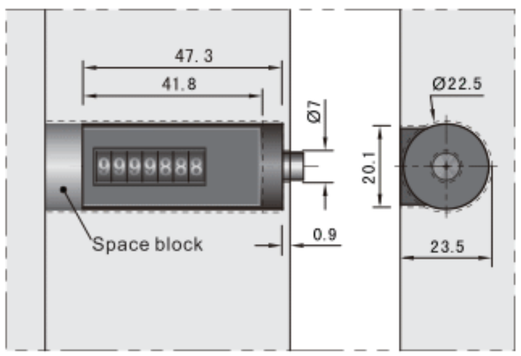
Used below 120 degrees

Lengthened type open-frame drawing A
Installation suggestions
1.When used in circumstance of plate B is thick, it needs to lengthen the ejector rob.
2.When open frame in underside of plate B,it requires to fix the counter by using the open frame's arc area and the die tie-plate.

Regular installation open-frame drawing(A+B)
1.When used in circumstance of plate B is not thick, it needn't to use the lengthened ejector rob.
2.The method of fixing the counter is same as above, if the depth of open-frame is greater than 47.5mm,it can be padded with hard objects,to make the counter's contactor has enough length to protrude from the mould joint.

Installation Diagram:





A

AAE 239
AAEB 241
AAEP 241
AAGS 472
AAKO 243
AAL 204
AAN 406
AAP 544
AAPHX 551
AAPHXS 552
AAPM 553
AAPMS 553
AAPRSS 322
AAPRWS 323
AAPU 551
AAPUS 552
AAPX 552
AAPXS 552
AAPZS 551
AAR-D 235
AATN 383
AJV 173
AMP 544
AS3-F-LG1 628
AS3-F-LG2 628
AS3-JD21 628
AS3-JP54 629
AS3-Q01 627
AS3-Q04 628
AS3-QK100 626
AS3-QK100-C6 626
AS3-SK80-T2 627
AS-F01 622
AS-F02 622
AS-F10 623
AS-F11 623
AS-JD21 624
AS-JP50 624
AS-JP90G 624
AS-J-SK25-15 625
AS-JU21 625
AS-JU31 630
AS-Q01 621
AS-Q04 622
AS-QK01-C1 616
AS-QK01-C2 616
AS-QK01-C3 617
AS-QK01-C4 617
AS-QK01-C6 618
AS-QK01-E110 619
AS-QK02-T2 619
AS-SK04-14 620
AS-SK04-15 620
AS-SK04-H4-C 619
AS-SK04-J150 621
AS-U-MK 630
AS-U-TL 631
AS-W10 631

B

BBB 396
BBBS 397
BBD 288
BBEP 382
BBFPXR 401
BBG 320
BBGS 460
BBGT 460
BBGT 460
BBP 406
BBSS 383
BBTC 406
BBTCM 406
BBTS 406
BBTSM 406
B-EEX 4
BFAPR 401
BPJ 38
BSJ 38

C

CCA 244
CCAMM 244
CCAP1 250
CCAP1MM 250
CCAP2 250
CCAP2MM 250
CCAP3 250
CCAP3MM 250
CCBG 601
CCBP 601
CCBR 251
CCGS 612
CCGSM 612
CCI 312
CCKB 602
CCKF 602
CCPD 8
CCPH-M 8
CCS15F 604
CCS15W 604
CCS30F 603
CCS30W 603
CCSE2 251
CCSE3 251
CO 171
CPH 640
CPL 639
CPM 639
CVR 641

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DAP 550
DAPS 550
DDATI-1000 160
DDATI-1200 161
DDATI-1300 162
DDATI-1800 163
DDATI-2000 164
DDATI-2200 165
DDF 288
DDKL 139
DDPS 638
DDT 313
DDTN 169
DDTNX 170
DDX 206
DS-EEX 4
DSWB 508
DSWF 488
DSWH 503
DSWL 495
DSWM 498
DSWR 480
DSWS 484
DT12 233
DT1451 598
DT1452 599
DT1461 594
DT1462 595
DT1463 596
DT1464 597
DT1471 589
DT1472 590
DT1473 591
DT1474 592
DT1475 593
DT1481 583
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DT1485 587
DT1486 588
DTK 290
DTP-03 62
DTP-04 62
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DTP-06 64
DTP-07 64
DTP-08 65
DTW 407

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EE1040 537
EE1060 536
EE1110 568
EE1140 562
EE1304 435
EE1306 435
EE1308 436
EE1320 437
EE1860 201
EE2102 399
EE2108 400
EE2222 350
EE2224 351
EE2232 350
EE2234 351
EE3044 27
EE3200 282
EE3202 283
EEDSF 13
EEGBH 555
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EEGH 542
EEJP 384
EEJS 14
EEP 238
EEPH 6
EER 224
EERPH 15
EERST 221
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EPS 12
EPSS 12
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FFD 166
FFN 384
FFOB 167
FFSK 360
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FFT 473
FFTM 472
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GGBE 554
GGBH 557
GGBHE 557
GGBS 556
GGBSE 556
GGI 545
GGL 453
GGLM 453
GGP 547
GGPBL 546
GGPHL 541
GGPHLSP 543
GGPOL 540
GGPSL 540
GGPSOT 543
GGR 321
GGR15S 610
GGR15SM 611
GGR5S 610
GGR5SC 610
GGR5SCM 611
GGR5SM 611
GGR8S 610
GGR8SM 611
GGRS 608
GGRSM 609
GGS 78
GGT5S 606
GGT5SM 607
GGT8S 606
GGT8SM 607
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JJEFS 394
JJEFSR 394
JJELF 394
JJEMF 393
JJEMFR 393
JJEMM 392
JJEMMR 392
JJP 387
JJPB 389
JJPF 388
JJP-SV 388
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JJS-...-MV 364
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JJTWF 391
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KKOCUM 293
KKPHF 299
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LLL 87
LLR 204

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MMK10-...-PL 356
MMK100 355
MMK100-...-PL 357
MMK12 354
MMK120 355
MMK15 354
MMK15-...-PL 356
MMK150 355
MMK150-...-PL 357
MMLK 60
MMLKC 59
MMP 287
MMRT-10M 49
MMRT-10MB 50
MMSCSB 277
MMSCSBM 277
MMSCSG 276
MMSCSGM 276
MMT 473
MMTGHL 301
MMTGHR 301
MMTGL 302
MMTGR 302
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NN 385

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PL 465
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PPCL 6
PPCM 6
PPCS 389
PPF 286
PPLF 455
PPLF 452
PPLL 84
PPLL 454
PPLM 84
PPLM 452
PPLMZ 82
PPLS 84
PPLSW 80
PPLSZ 82
PPSL-0001 45
PPSL-0001B 46
PPSM-0001 47
PPSM-0001B 48
PPSR-100 36
PPSR-1000 34
PPSR-1000B 35
PPV 175
PPW 280
PPXM 455

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RRCPHF 299
RRCSUF 295
RRCSUM 298
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RREF-461 120
RREF-462 120
RRM 40
RRPL 410
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SSCZA 292
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SSLLK 37
SSLM 456
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SSVK-...-PL(90°) 363

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TTLM 457
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TTPNC 470
TTPNF 467
TTPNFC 468
TTPNV 469
TTP-T 471
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WWRCCN 402
WWRCTN 402

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ZZ011 533

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ZZ016 545
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ZZ04 524
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ZZ051 474
ZZ06 475
ZZ060 448
ZZ07 439
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ZZ071-...-2 447
ZZ072-...-1 447
ZZ072-...-2 446
ZZ08 448
ZZ080 449
ZZ085-...-1 438
ZZ085-...-2 438
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ZZ10W 570
ZZ11 567
ZZ1100W 573
ZZ11W 569
ZZ12 574
ZZ13W 571
ZZ141 237
ZZ144 534
ZZ14W 571
ZZ1500 317
ZZ1520 318
ZZ163 227
ZZ164 227
ZZ169 186
ZZ1691 188
ZZ1692 198
ZZ1695 191
ZZ1697 195
ZZ17 439
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ZZ174 89
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ZZ1801 265
ZZ1802 266
ZZ181 260
ZZ1810 261
ZZ1811 289
ZZ1812 262
ZZ1820 275
ZZ1880 263
ZZ1881 264
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ZZ189-10B 42
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ZZ270 69
ZZ271 75
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ZZ4220 272
ZZ4222 273
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ZZ4296 258
ZZ4298 259
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ZZ44 14
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ZZ4800/ZZ48705 158
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ZZ5085 193
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ZZ73A 636
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ZZ75 561
ZZ76 566
ZZ78 562
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ZZ80(90°) 338
ZZ801 335
ZZ801(45°) 335
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ZZ801HT 343
ZZ801HT(45°) 344
ZZ802 349
ZZ803 339
ZZ804 339
ZZ805 336
ZZ8051 336
ZZ807 337
ZZ807(45°) 340
ZZ807(90°) 340

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ZZ80700 337
ZZ80700(45°) 341
ZZ80700(90°) 341
ZZ80700HT 346
ZZ80700HT(45°) 349
ZZ80700HT(90°) 349
ZZ807HT 345
ZZ807HT(45°) 345
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ZZ940 404
ZZ941 405
ZZ942 405