



Standard Mold Accessories
Custom Mold Components Manufacture

/ Quality supplier

Standard mold accessories

CORE PIN



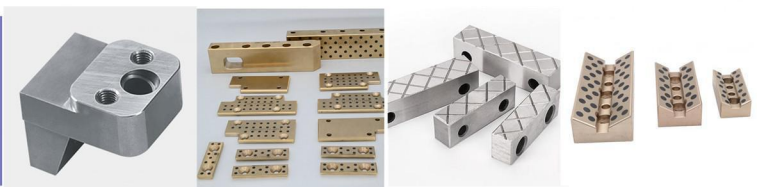
FORMED EJECTOR PIN



CORE INSERT



NON-STANDARD BLOCK



Standard mold accessories

DATE STAMPS SERIES ***	DATE STAMPS  P 022 A02	DATE STAMPS  P 023 A03	DATE STAMPS  P 024 A04	DATE STAMPS  P 025 A05
DATE STAMPS  P 026 A06	DATE STAMPS  P 027 A07	DATE STAMPS  P 028 A08	DATE STAMPS  P 029 A09	DATE STAMPS  P 030 A10
DATE STAMPS  P 031 A11S/A11L	DATE STAMPS  P 032 A12	DATE STAMPS  P 033 A13	DATE STAMPS  P 034 A14	DATE STAMPS  P 035 A16
DATE STAMPS  P 036 A17	DATE STAMPS  P 037 A18	DATE STAMPS  P 038 A19/A22	DATE STAMPS  P 039 A20/A21	DATE STAMPS / EMBOSSED  P 040 A23/A24
凸字章 EMBOSSED  P 040 A15	AIR EJECTOR & GAS VENT SERIES ***	AIR EJECTOR  P 042 A JV	AIR EJECTOR  P 043 VAD	AIR EJECTOR  P 044 VA/VAN
AIR EJECTOR  P 045 Z491/Z4911	AIR EJECTOR  P 045 PPV	AIR EJECTOR  P 046 PQ	AIR EJECTOR  P 046 VD	AIR SPIGOT  P 047 SAS01

AIR SPIGOT 	AIR SPIGOT 	AIR SPIGOT 	AIR SPIGOT 	AIR SPIGOT 
P 047 SAS02	P 047 SAS03	P 047 SAS04	P 047 SAS05	P 047 SAS06

AIR SPIGOT 	AIR SPIGOT 	AIR SPIGOT 	AIR SPIGOT 	AIR SPIGOT 
P 047 SAS07	P 047 SAS08	P 048 SAS09	P 048 SAS10	P 048 SAS11

AIR SPIGOT 	GAS VENT 	GAS VENT 	GAS VENT 	GAS VENT 
P 048 SAS12	P 049 GSV	P 049 GBSV	P 049 GBHV	P 050 GVC

GAS VENT 	POROUS STEEL 	POROUS STEEL 	POROUS STEEL 	SLIDE RETAINER SERIES ***
P 050 GVS	P 052 PSP	P 052 PSC	P 052 PSU	

SLIDE RETAINER 	SLIDE RETAINER 	SLIDE RETAINER 	SLIDE RETAINER 	SLIDE RETAINER 
P 056 SPSP/SPSM	P 057 SMRT	P 058 SPSR	P 059 SRC	P 060 SRCM

SLIDE RETAINER 	SLIDE RETAINER 	SLIDE RETAINER 	SLIDE RETAINER 	SLIDE RETAINER 
P 061 SSLK8A	P 062 SSLK25A/50A	P 063 SZ5130	P 064 SZ5140/0	P 064 SZ5140/1

Standard mold accessories

SLIDE RETAINER  P 064SZ5140/2	SLIDE RETAINER  P 064SZ5140/3	SLIDE RETAINER  P 064SZ5140/4	SLIDE RETAINER  P 065SLLK	SLIDE RETAINER  P 066SRRM
SLIDE RETAINER  P 067SZ5135	SLIDE RETAINER  P 067SZ189	BALL PLUNGERS  P 068SZ36	BALL PLUNGERS  P 068SZ37	BALL PLUNGERS  P 069SZ372
BALL PLUNGERS  P 069SZ374	AUTOMATIC RETAINER  P 070SZ73	AUTOMATIC RETAINER  P 070SOPP	LATCH LOCK COMPONENT SERIES ***	
			PARTING LOCK  P 072PO	
BUSHING FOR PARTING LOCK  P 072PLBS	LATCH LOCK  P 073SE	LATCH LOCK  P 073SL	LATCH LOCK  P 074BC	LATCH LOCK  P 074SLPL
LATCH LOCK  P 075SMLK	FORCED RETURN SET  P 076FRET	LATCH LOCK  P 077SBL	LATCH LOCK  P 077SLD	LATCH LOCK  P 078TYPE
LATCH LOCK  P 079SMLK	LATCH LOCK  P 080SRPL-P	LATCH LOCK  P 081SZ170	LATCH LOCK  P 082SZ171	LATCH LOCK  P 083SZ174



Standard mold accessories

TWO-STAGE EJECTORS  P 109 SZ1691	TWO-STAGE EJECTORS  P 110 SZ1695	TWO-STAGE EJECTORS  P 110 SZ1697	PLATE ACCELERATOR  P 111 SZ141	PLATE ACCELERATOR  P 112 SEP
PLATE ACCELERATOR  P 113 SAE	PLATE ACCELERATOR  P 114 SAEP / SAEB	SPRUNG CORE  P 115 SPW	SPRUNG CORE  P 116 SE3202	SPRUNG CORE  P 117 SEE
SPRUNG CORE  P 118 SMD	SPRUNG CORE  P 119 SPF	ROUND LATCH LOCKS  P 120 SZ163	ROUND LATCH LOCKS  P 120 SZ164	LOCATING COMPONENT SERIES ...
ROUND LOCATING UNITS  P 122 TPN	ROUND LOCATING UNITS  P 123 TPNF	ROUND LOCATING UNITS  P 124 Z05	ROUND LOCATING UNITS  P 124 Z051	ROUND LOCATING UNITS  P 125 GMT
DOWEL PIN  P 126 MS	DOWEL PIN  P 126 MSTP	SQUARE INTERLOCKS  P 127 PL	SQUARE INTERLOCKS  P 128 TLK	SQUARE INTERLOCKS  P 129 KY
SQUARE INTERLOCKS  P 130 Z080	SQUARE INTERLOCKS  P 130 Z08	SQUARE INTERLOCKS  P 131 Z46	SQUARE INTERLOCKS  P 132 Z48	SQUARE INTERLOCKS  P 133 Z50

SQUARE INTERLOCKS  P 134 Z07 / Z17	SQUARE INTERLOCKS  P 135 YLM	SQUARE INTERLOCKS  P 135 SL / SLM	X-SERIES LOCKS  P 136 PLF / XSI	SQUARE INTERLOCKS  P 137 TBSF
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SQUARE INTERLOCKS  P 138 TBS	SQUARE INTERLOCKS  P 139 TSSB / VTSSB	SQUARE INTERLOCKS  P 140 VTTSB / TTSB	GUIDE PIN  P 141 GP	GUIDE PIN  P 141 GPH
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GUIDE BUSH  P 142 GBA	GUIDE BUSH  P 142 GBB	GUIDE BUSH  P 143 GBC	GUIDE BUSH  P 143 GBE	GUIDE BUSH  P 144 GBF
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GUIDE BUSH  P 144 GBG	ANGLE GUIDE PIN  P 145 AP / APS	EJECTOR PIN & SHOULDER PUNCHES SERIES +...	EJECTOR PIN  P 148 EPT	EJECTOR PIN  P 149 EPG
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EJECTOR PIN  P 150 EPN	STEP PIN  P 151 SEP	FLAT EJECTOR PIN  P 152 FEP	EJECTOR PIN  P 153 ES/ESS	COOLING SERIES +...
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QUICK RELEASE CONNECTOR PLUGS  P 156 Z80 / ...	QUICK RELEASE CONNECTOR PLUGS  P 156 Z80 /.../45°	QUICK RELEASE CONNECTOR PLUGS  P 157 Z80 /.../90°	QUICK RELEASE CONNECTOR PLUGS  P 157 PTX	QUICK RELEASE CONNECTOR PLUGS  P 157 M-POC
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Standard mold accessories

QUICK RELEASE CONNECTOR PLUGS  P 158 FSVK	QUICK RELEASE CONNECTOR PLUGS  P 159 SVK	QUICK RELEASE CONNECTOR PLUGS  P 160 SK	NIPPLES  P 161 Z81 /.../ 90°	NIPPLES  P 161 Z811/...
NIPPLES  P 162 Z825 / ...	NIPPLES  P 162 Z83 / ...	COOLING WATER CONNECTOR  P 163 JTW / JTWS	COOLING WATER CONNECTOR  P 163 HX-JTW	COOLING WATER CONNECTOR  P 164 JTWF
COOLING WATER CONNECTOR  P 164 WCP / WCSP	STRAIGHT BRASS PLUG BAFFLES  P 165 CPF	STRAIGHT BRASS PLUG BAFFLES  P 165 W5039	STRAIGHT BRASS PLUG BAFFLES  P 166 WWRC	ALUMINUM SINGLE HELIX WATER CORES  P 167 ALC
ALUMINUM SINGLE HELIX WATER CORES  P 167 ALD	O-RING  P 168 SOR	COOLING WATER DIVERTER  CORD 10 CORD 8 P 169 CWD	FLOW METERS FOR MOLD  外螺纹安装用 内螺纹安装用 P 170 FLAF / FLAM	FLOW METERS FOR MOLD  外螺纹安装用 内螺纹安装用 P 170 FLBF / FLBM
COOLING WATER COUPLING  P 171 JWRf/JWRL	COOLING WATER COUPLING  P 172 JWRC	COOLING WATER NEEDLE  P 173 E2110	COOLING WATER NEEDLE  P 173 E2112	COOLING WATER NEEDLE  P 174 Z962
COOLING WATER NEEDLE  P 174 CPC	COOLING WATER NEEDLE  P 175 WCPK	COOLING WATER NEEDLE  P 175 WCPF	COOLING WATER NEEDLE  P 176 WCPFT	COOLING WATER NEEDLE  P 176 WCPs

COOLING WATER NEEDLE  P 177 WCPN	COOLING WATER NEEDLE  P 177 WCSP	COOLING WATER NEEDLE  P 178 WCPM	COOLING WATER NEEDLE  P 178 WCPPT	HEAT PIPES  P 179 HTK
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COOLING CIRCUIT PLUGS  P 181 JWP	COOLING CIRCUIT PLUGS  P 182 CCP	COOLING CIRCUIT PLUGS  P 182 Z942	SHOULDER BOLT  P 183 Z94	SHOULDER BOLT  P 183 Z940
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SHOULDER BOLT  P 183 BP	SPRUE BUSHING, LOCATING RINGS SERIES ***	SPRUE BUSHING  P 186 SBA	SPRUE BUSHING  P 187 SBB	SPRUE BUSHING  P 187 SBC
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SPRUE BUSHING  P 188 Z512	LOCATING RING  P 189 LRA	LOCATING RING  P 189 LRB	LOCATING RING  P 190 LRC	LOCATING RING  P 190 LRD
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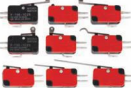
PULLER BOLTS  P 191 KSG	INSETS OF INLET GATE OF HORN WIRES  P 192 Z1050	INSETS OF INLET GATE OF HORN WIRES  P 192 Z1060	INSETS OF INLET GATE OF HORN WIRES  P 193 MTGC	INSETS OF INLET GATE OF HORN WIRES  P 193 MSGC
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STOP-FEEDING SCREW (STOPPING RUNNER)  P 194 SR	STOP-FEEDING SCREW (STOPPING RUNNER)  P 194 SRLP	RUNNER EJECTOR SETS  P 195 RES	NITROGEN GAS SPRING SERIES ***	NITROGEN GAS SPRING  P 201 TC170 (GSV170)
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Standard mold accessories

NITROGEN GAS SPRING  P 201 TC320 (GSV320)	NITROGEN GAS SPRING  P 202 TC350 (GSV350)	NITROGEN GAS SPRING  P 202 TC500 (GSV500)	NITROGEN GAS SPRING  P 203 TC1000 (GSV1000)	NITROGEN GAS SPRING  P 203 TC1200 (GSV1200)
NITROGEN GAS SPRING  P 204 TC1500 (GSV1500)	NITROGEN GAS SPRING  P 204 TC2400 (GSV2400)	NITROGEN GAS SPRING  P 205 TC4200 (GSV4200)	NITROGEN GAS SPRING  P 205 TC6600 (GSV6600)	NITROGEN GAS SPRING  P 206 TC9500 (GSV9500)
NITROGEN GAS SPRING  P 206 TC20000 (GSV20000)	BALL BEARING GUIDE POST SETS FOR DIE SET SERIES ***		BALL BEARING GUIDE POST SETS FOR DIESET  P 208 GBH / GBL / GBP	BALL BEARING GUIDE POST SETS FOR DIESET / REMOVABLE TYPE  P 209 RBSHRMSHRKSHRBRMRK
				BALL BEARING GUIDE POST SETS FOR DIE SET / PRESS FIT POST  P 211 RBSHPMISHPKSHPPBPMPK
BALL BEARING GUIDE POST SETS FOR DIESET  P 213 MY	BALL BEARING GUIDE POST SETS FOR DIESET  P 213 MYZP	BALL BEARING GUIDE POST SETS FOR DIESET  P 213 MYZ	BALL BEARING GUIDE POST SETS FOR DIESET  P 213 MYP	BALL BEARING GUIDE POST SETS FOR DIESET  P 215 MYA
BALL BEARING GUIDE POST SETS FOR DIESET  P 215 MYAP	BALL BEARING GUIDE POST SETS FOR DIESET  P 215 MYJ	BALL BEARING GUIDE POST SETS FOR DIESET  P 215 MYJP	BALL BEARING GUIDE POST SETS FOR DIESET  P 217 MYAK	BALL BEARING GUIDE POST SETS FOR DIESET  P 217 MYKP
BALL BEARING GUIDE POST SETS FOR DIESET  P 217 MYJK	BALL BEARING GUIDE POST SETS FOR DIESET  P 217 MJKP	OTHER COMPONENT SERIES ***		MOLD THERMOMETER  P 220 MTA
				MOLD THERMOMETER  P 220 MTB

MOLD THERMOMETER  P 220 MTC	MOLD COUNTER  P 221 CVPL	MOLD COUNTER  P 221 CVR	TAPERED INTERLOCKS  P 222 CEC	GASKET  P 222 SRA
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INSULATION BOARD  P 223 IB	PRECISE SHIMES  P 224 PS	LIMIT SWITCHES  P 225 Z7600	LIMIT SWITCHES  P 225 TSW2220/HT291	LIMIT SWITCHES  P 226 V-1C25
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LIMIT SWITCHES  P 226 Z-15	FIBER OILSTONES  P 227 FOS	DIAMOND COMPOUND  P 227 DC	MOLD SPRING  P 228 WS	MOLD SPRING  P 229 TF
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MOLD SPRING  P 230 TL	MOLD SPRING  P 231 TM	MOLD SPRING  P 232 TH	MOLD SPRING  P 233 TB	MOLD SPRING  P 234 TR
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MOLD SPRING  P 234 TY	MOLD SPRING  P 235 TR
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CORE PIN



Mold core pin includes all kinds of medical mold core pin, cosmetic core pin, all kinds of pen mold core pin , etc., have high requirements for precision, concentricity, roundness, not only that, in the core pin material selection, product design have special requirements. Our products can reach diameter tolerance $\pm 0.005\text{mm}$, concentricity 0.002mm , true roundness 0.003mm , surface roughness $Ra0.04\text{ }\mu$. For more advice and information please contact us.



FORMED EJECTOR PIN

REFAMOLD



Focus on all kinds of Ejector pin
non-standard customization,
Ejector pin EDM processing

Non-standard parts are quoted according to drawings



MOLD CORE INSERT

PRODUCTS AND SERVICES PROVIDED BY REFAMOLD

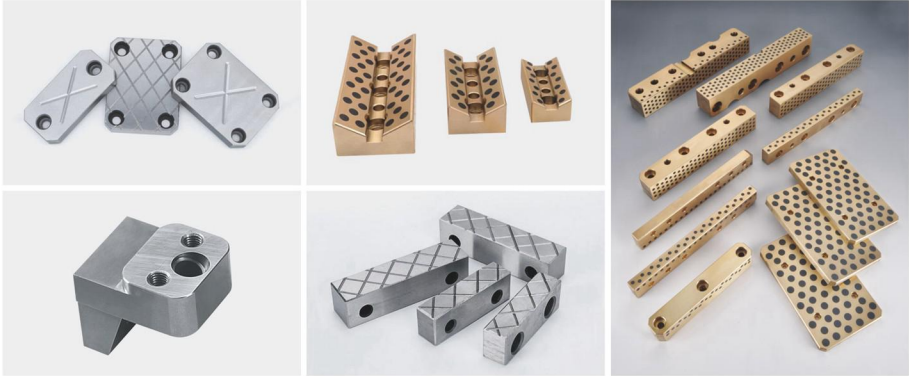
Mold core insert specifically refers to irregular mold parts used for embedding in the mold. It is a separate mold part used for forming the glue position. When a mold is made up of multiple parts, core inserts are the parts that are inserted in addition to the steel in the body. Core Inserts can be square, round, or slice, and, like all die parts, require a high degree of precision.



Non-standard parts are quoted according to drawings

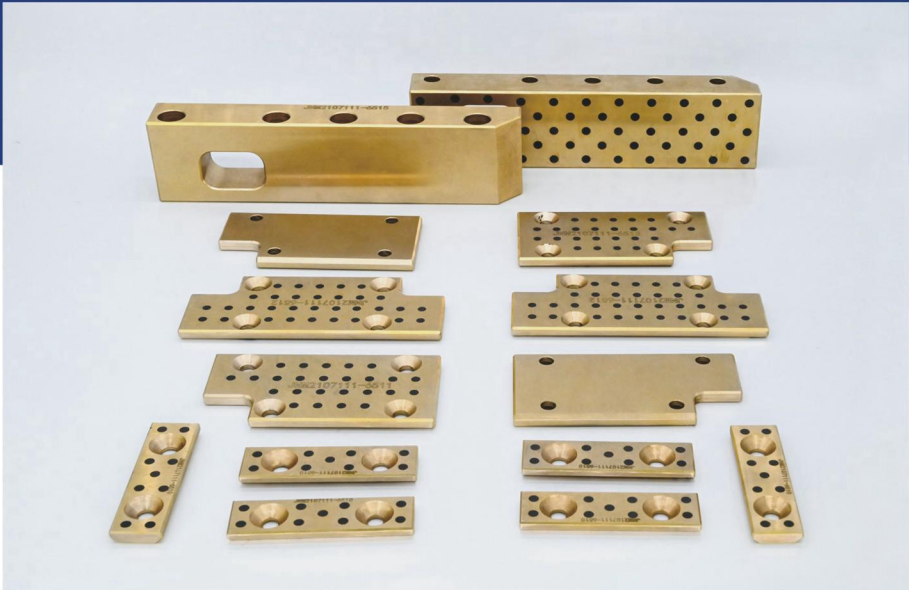
Types of core insert: core pin, insert block,
 insert cylinder, insert ring, etc
 Material: SKD61, SKH51, ASP23, SKD11, etc
 Hardness: 50HRC
 Standard accuracy: $\pm 0.01\text{mm}$

NON-STANDARD BLOCK



Non-standard parts are quoted according to drawings

All kinds of non-standard slide block, pad block, wear plate and other products customized processing



DATE STAMPS

SERIES >>>

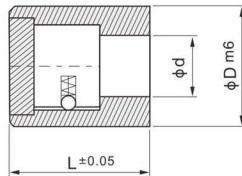


REFAMOLD
REFACCIONES Y SERVICIOS
PARA MOLDES DE INYECCIÓN



DATE STAMPS

A02



YR



MH



YM



DY



0-3



0-9



ABC



A-M



N-Z

M	H
SUS420	HRC 48-52



Y09



1-3



WK



YZ



BK

Other engravings available on request

Type	D(mm)	L(mm)	d(mm)	Text Depth	Arrow Depth
A02	3	6/8/10	1.6	0.1	0.2
	4	6/8/10	1.8	0.12	0.2
	5	6/8/10	2.5	0.18	0.25
	6	8/10	3	0.18	0.4
	8	10	4	0.18	0.4
	10	10/12	5	0.2	0.4
	12	12/14	6	0.25	0.45
	16	14	8	0.25	0.45
	20	14/16	10	0.25	0.45

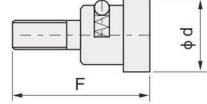
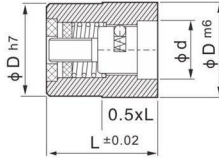
Type	Pattern	D	L	Year
A02	- YR -	3	6	22

Precautions

- A02 is an integral wave bead positioning structure, the arrow indicates accurate, easy to rotate, not easy to deviate.
- The arrow of this date stamps cannot be replaced.

DATE STAMPS

A03



YR



MH



YM



DY



0-3



0-9



ABC



A-M



N-Z

M	H
SUS420	HRC 48-52



Y09



1-3



WK



YZ



BK

Other engravings available on request

Type	D(mm)	L(mm)	d(mm)	F	Text Depth	Arrow Depth
A03	4	8	2.4	7.7	0.14	0.25
	5	8	2.9	7.7	0.18	0.25
	6	8	3.7	7.7	0.18	0.4
	8	10	5	9.7	0.18	0.4
	10	12	6.3	11.7	0.2	0.4
	12	14	7.5	13.7	0.2	0.4
	16	14	11	13.7	0.25	0.45
	20	16	13.2	15.7	0.25	0.45



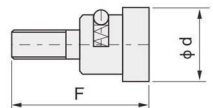
Type	Pattern	D	L	Year
A03	- YR	- 4	- 8	- 22

Precautions

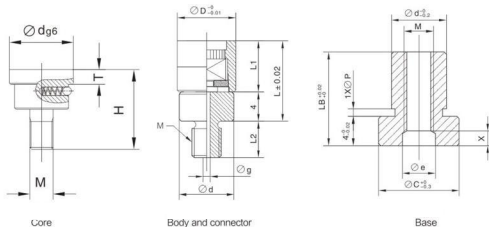
- It can be interchangeable with MISUMI's DTBX,DTXS,DTDx, DTEX,DTGX, etc.
- Wave bead structure, accurate arrow indication, good positioning effect;
- From the head of the date stamp, the inner insert can be quickly replaced; The inner inserts can change the year, which is suitable for long-term production molds, which can save mold costs.uld.

Insert or body can be ordered separately

Type	Name	price
AA03	Arrow of the date stamp	1/3 of the A03
AB03	Body of the date stamp	2/3 of the A03



A04



YR



MH



YM



DY



0-3



0-9



AB



A-1



N-



YOC



1-3



WK



YZ



BK

SUS420	HRC 48-52
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Other engravings available on request

Type	d	T	M	H			
A04X	3.7	1.5	1.6*0.2	7.7	0.22	0.4	0.85
	5.0	2.0	2.3*0.25	9.7			1.15
	6.3	2.5	2.5*0.45	11.7		0.5	1.4
	7.5	2.5	3*0.5	13.7			1.6

Type	D ₂₀₀	d	g	M	L1	L2	L			
A04K	6	5.5	1.0	3*0.5	8.0	4.0	12.0	0.22	0.4	0.85
	8	7.5	1.0	4*0.7	10.0	5.0	14.0			1.15
	10	9.5	1.5	5*0.8	12.0	6.0	16.0		0.5	1.4
	12	11.5	2.0	6*1	14.0	8.0	18.0			1.6

Type	d	M	œ	C	P
A04D	5.5	3*0.5	3.5	9.0	5.0
	7.5	4*0.7	4.5	11.0	7.0
	9.5	5*0.8	5.5	15.0	9.0
	11.5	6*1	6.5	20.0	11.0

M	H
SUS420	48-52HRC

LB	X			
	ø6	ø8	ø10	ø12
10.00–20.00	4.0	2.0	0	0
20.01–30.00	14.0	12.0	10	8
30.01–40.00	24.0	22.0	20	18
40.01–50.00	34.0	32.0	30	28
50.01–60.00	–	42.0	40	38
60.01–70.00	–	–	50	48

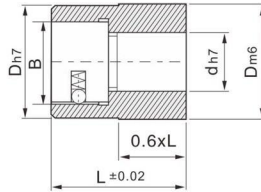


Type	Pattern	D	L	Year
A04	- YR -	6	- 12	- 22

- The advantage of the adjustable continuous interchangeable date marked pins is to increase the connection between the nut and base.
- Change the height of base, and adjust the required installation height according to the requirements.
- Due to the standard inserts combination, it improves the exhaust performance of mold.

DATE STAMPS

A05



YR



MH



YM



DY



0-3



0-9



ABC



A-M



N-Z

M	H
SUS420	HRC48-52



Y09



1-3



WK



YZ



BK

Other engravings available on request

Type	D(mm)	B(mm)	d(mm)	L(mm)	Text Depth	Arrow Depth
A05	3	2	1.4	8	0.14	0.2
	4	2.8	1.9	8	0.14	0.25
	5	3.4	2.3	8	0.18	0.25
	6	4	2.8	8	0.18	0.4
	8	5.6	4	10	0.18	0.4
	10	6.5	5	12	0.2	0.4
	12	8	6.5	14	0.2	0.4
	16	12	10	14	0.25	0.45
	20	14	12	16	0.25	0.45

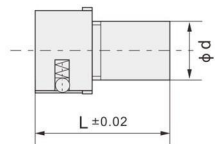


Type	Pattern	D	L	Year
A05	- YR	- 4	- 8	- 22

- It can be interchanged with MISUMI's DTBX, DTXS, DTDX, DTEX, DTGX, etc.
- ToWave bead structure, accurate arrow indication, good positioning effect.
- From the end of the date stamp, the inner insert can be quickly replaced.
- The inner inserts can change the year, which is suitable for long-term production molds, which can save mold costs..

Insert or body can be ordered separately

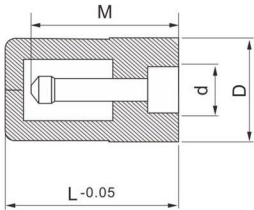
Type	Name	price
AA05	Insert of the date stamp	1/3 of the A05
AB05	Body of the date stamp	2/3 of the A05

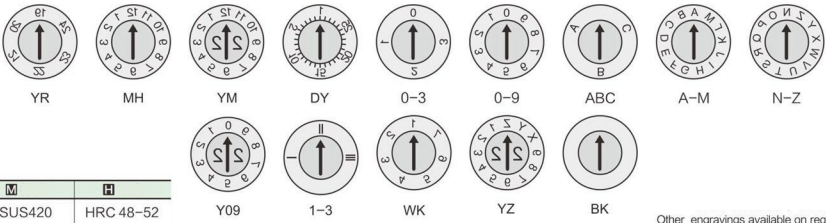


DATE STAMPS

DATE STAMPS SERIES

A06



M

H

SUS420

HRC 48-52

YR

MH

YM

DY

0-3

0-9

ABC

A-M

N-Z

Y09

1-3

WK

YZ

BK

Other engravings available on request

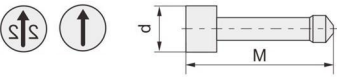
Type	D(mm)	L(mm)	d(mm)	M	Text Depth	Arrow Depth
A06A A06B	4	12	2.2	7.7	0.1	0.25
	5	12	3	7.7	0.12	0.25
	6	20	3.2	17	0.15	0.4
	8	20	4.7	17	0.18	0.4
	10	20	5.7	17	0.2	0.4
	12	20	6.7	17	0.2	0.4
	16	20	8.7	17	0.25	0.45
	20	20	10.7	17	0.25	0.45

Type	Pattern	D	L	Year
A06A	- YR -	4 -	12 -	22

- This date stamp can be replaced with the FA series of CUMSA
- A06A is integral structure, arrow core is not replaceable.
- A06B is a replaceable core structure, arrow core can be replaced.
- Rotate the inserted parts clockwise, and no concavo convex phenomenon appears;
- Inserts can be replaced frontally, and the core can be turned out by 2-4 turns counter-clockwise without removing the mould. The replacement is convenient and simple.
- Note: In the production process, don't rotate anticlockwise when adjusting the date stamp, and you should adjust it clockwise to avoid the inserted parts loose.

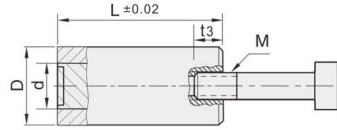
Insert or body can be ordered separately

Type	Name	price
AA06	Insert of the date stamp	1/3 of the A06
AB06	Body of the date stamp	2/3 of the A06



DATE STAMPS

A07



YR



MH



YM



DY



0-3



0-9



ABC



A-M



N-Z

M	H
SUS420	HRC 48-52



Y09



1-3



WK



YZ



BK

Other engravings available on request

Type	D(mm)	L(mm)	d(mm)	M	Text Depth	Arrow Depth
A07A A07B	4	12.5	2	M2	0.1	0.25
	5	14	2.5	M2.5	0.12	0.25
	6	16	3	M3	0.15	0.4
	8	18	4	M3	0.18	0.4
	10	22	5	M3	0.2	0.4
	12	25	6.4	M4	0.2	0.4



Type Pattern D L Year
A07A - YR - 4 - 12.5 - 22

- This date stamp can be replaced with the Z486 series of HASCO, Z486 is the old model, please refer to A09 for the new one
- A07A is integral structure, arrow core is not replaceable.
- A07B is a replaceable core structure, arrow core can be replaced, When installing internal insert, anticlockwise rotation is required.
- Tail end of date stamp has thread which is convenient for fixing by screw at back end.

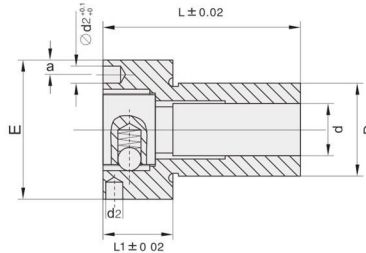
Insert or body can be ordered separately

Type	Name	price
AA07	Insert of the date stamp	1/3 of the A07B
AB07	Body of the date stamp	2/3 of the A07B



DATE STAMPS

A08



YR



MH



YM



DY



0-3



0-9



ABC



A-M



N-Z



Y09



1-3



WK



YZ



BK

Other engravings available on request

M	H
SUS420	HRC 48-52

Type	D(mm)	L(mm)	d(mm)	E(mm)	L1(mm)	d2(mm)	a(mm)	Text Depth	Arrow Depth
A08	6	14	3.5	10	5	1.5	0.9	0.18	0.4
	8	17	4.5	12	6	1.5	0.9	0.18	0.4
	12	22	6.5	20	10	2	3.5	0.2	0.4
	16	27	9	23	11	2	3.5	0.25	0.45
	20	36	10.5	28	14	3	4	0.25	0.45

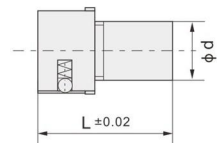


Type	Pattern	D	L	Year
A08	- YR	- 6	- 14	- 22

- It can be interchangeable with Z48, Z482, Z483, Z485 of the HASCO.
- The size of this model is the same as OPITZ DATI 2100, but the size of the internal arrow is slightly different. Please specify the required model when ordering.
- Insert can be replaced from the bottom, easy replacement and cost savings.
- The main hang desktop form factor design to solve injection molding manufacturing date chapter in a positive die sticking prolapse.
- The main body side is equipped with a positioning pin, used to date chapter anti-rotating;
- Note: Replace the insert need to open mold, insert inside out from within the template filer the replacement.

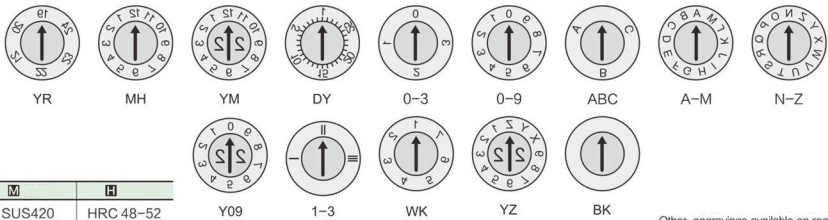
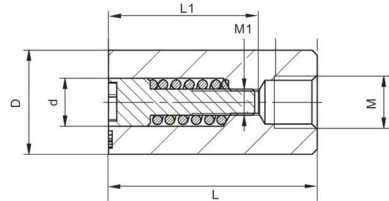
Insert or body can be ordered separately

Type	Name	price
AA08	Insert of the date stamp	1/3 of the A08
AB08	Body of the date stamp	2/3 of the A08



DATE STAMPS

A09



Other engravings available on request

Type	D(mm)	L(mm)	L1(mm)	d(mm)	M1	M	Text Depth	Arrow Depth
A09A A09B	3	14	9	1.6	M1x0.15	M2	0.1	0.2
	4	14	10.5	2.5	M1.4x0.2	M2	0.12	0.2
	5	17	13	3.1	M1.6x0.2	M3	0.18	0.25
	6	17	13	3.1	M1.6x0.2	M3	0.18	0.4
	8	20	14	4.6	M2.5x0.35	M4	0.18	0.4
	10	20	14	4.6	M2.5x0.35	M5	0.2	0.4
	12	25	17	6.4	M3x0.5	M6	0.2	0.4
	16	33	23	8.4	M3.5x0.6	M8	0.25	0.45
	20	33	23	11	M3.5x0.6	M8	0.25	0.45



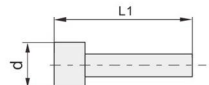
Type Pattern D L Year
A09A - YR - 4 - 14 - 22

Precautions

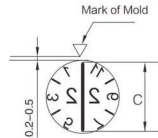
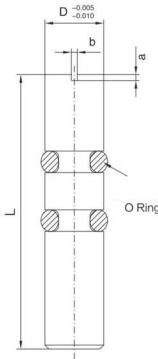
- It can be interchanged with HASCO's Z48700, Z48705, Z48706, Z48712 and DME's OYN, OMN, YMN, ODN, OSN and OPITZ's DATI 1000 series.
- A09A is integral structure, arrow core is not replaceable.
- A09B is a replaceable core structure, arrow core can be replaced.
- Replace the inserts on the mold directly without disassembly for replacement.
- The installation is convenient, the spring positioning and part structure are simple.
- Due to the fine thread adjustment, the sub-surface has the plus or minus of distance of one thread (max).
- In installation, remove the core to damage the thread of core.

Insert or body can be ordered separately

Type	Name	price
AA09	Insert of the date stamp	1/3 of the A09B
AB09	Body of the date stamp	2/3 of the A09B



A10



M	H	T
U140	HRC 38~40	≥ 150℃
SUS420	HRC 47~52	< 150℃

Other engravings available on request

Type	D(mm)	D2(mm)	L(mm)	c(mm)	b(mm)	a(mm)
A10	2	2.1	14	1.8	0.3	0.1
	2.5	2.6	14	2.3	0.3	0.1
	3	3.2	14	2.8	0.3	0.1
	4	4.2	14	3.8	0.3	0.1

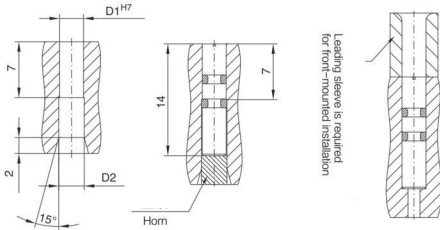


Type	Pattern	D	L	Year
A10	- YR -	2	14	22

Precautions

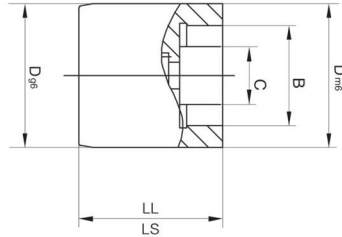
The micro data marked pins use the sub-surface pressure structure and O-ring positioning for convenient installation, and it is applied to the data indication of the mold of small electronic parts.

Installation diagram



DATE STAMPS

A11S / A11L



YMD



YM



WY



BJA



BKB

M	R
SUS420	HRC 48-52

Other engravings available on request

Type	D(mm)	B(mm)	C(mm)	LS(mm)	LL(mm)	Text Depth	Arrow Depth
A11S A11L	6	4	2	10	20	0.15	0.2
	8	5.3	2.5	10	20	0.18	0.25
	10	6.4	3.2	12	20	0.2	0.4
	12	8	4	12	20	0.2	0.4
	16	10.5	5.5	14	20	0.25	0.45
	20	12	6	16	20	0.25	0.45

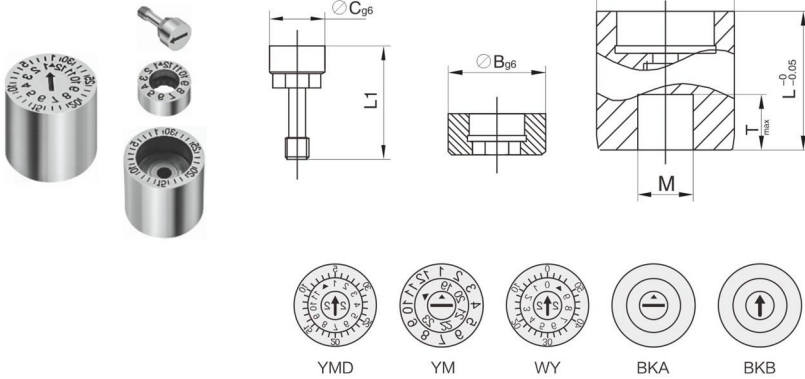


Type Pattern D L Year
A11S - YMD - 6 - 10 - 22

- A11S is a short model, which is equivalent to Mizumi's DTBZ model. Compared with BTBZ, we have increased the size of D12 and D20.
- A11L is a long section with a uniform length of 20mm.
- This type date marked pins use the overall structure design, the compact structure saves the space of mold, and the steel ball card bit: 12 bits, 31 bits for external ring; 12 bits, 10 bits for inner ring.
- The installation method is same with the overall data marked pins.

DATE STAMPS

A12



M	H
SUS420	HRC 48-52

Other engravings available on request

Type	A	B	C	L
A12	6	4.2	2.4	17
	8	5.8	3.6	20
	10	7	4	20
	12	8.5	5	25
	16	11.5	7	33
	20	14	8	33

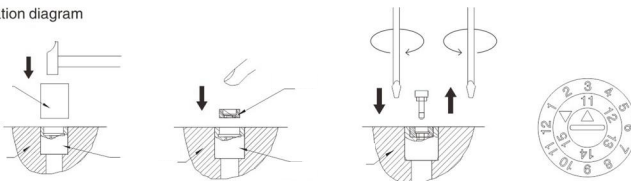


Type Pattern D L Year
A12 - YMD - 6 - 17 - 22

Precautions

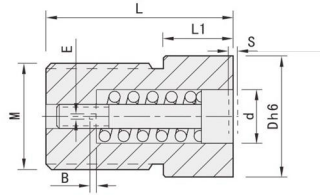
- A12 is equivalent to OPITZ's DATI 9000 series.
- A12 use the interchangeable design, and you may replace the inserts on the mold without disassembly of mold for replacement.
- The external ring indicates the spring positioning, and you may engrave any number and pattern. The inner ring is the multiple edges angle positioning, and the number of edges and angles is 12 angle and 10 angles.
- Compact structure saves the space of mold, and the installation method is the screw lifting structure at the tail.

Installation diagram



DATE STAMPS

A13



YR



MH



YM



DY



0-3



0-9



ABC



A-M



N-Z

M	H
SUS420	HRC 48-52



Y09



1-3



WK



YZ



BK

Other engravings available on request

Type	D(mm)	L(mm)	d(mm)	M	L1	ℓ	Arrow Depth	Arrow Depth
A13	3	4	1.5	2.5X0.35	1.8	3.9	0.12	0.2
	3.5	5	1.5	3X0.35	2	4.8	0.12	0.2
	4	5	2.1	3.5X0.35	2	4.8	0.18	0.25
	5	8	3.1	4.5X0.5	2	7.8	0.18	0.4
	6	8	3.1	5X0.5	2	7.8	0.18	0.4
	8	10	4.4	6X0.5	3	9.8	0.2	0.4
	10	12	5.2	8X0.75	3	11.8	0.2	0.4
	12	14	6.2	10X0.75	4	13.8	0.25	0.45
	16	14	8.2	12X1	5	13.8	0.25	0.45



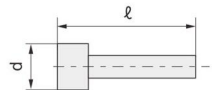
Type	Pattern	D	L	Year
A13	- Y09	- 3	- 4	- 22

■ Precautions

- The recessed indication arrow is used as a screw slot for the.
- The fitting is done using the random threading of the sleeve

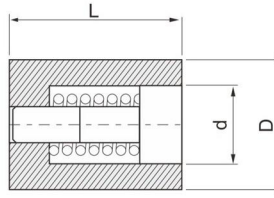
■ Insert or body can be ordered separately

Type	Name	price
AA13	Insert of the date stamp	1/3 of the A13
AB13	Body of the date stamp	2/3 of the A13



DATE STAMPS

A14



YR



MH



YM



DY



0-3



0-9



ABC



A-M



N-Z



Y09



1-3



WK



YZ



BK

Other engravings available on request

M	H
SUS420	HRC 48-52

Type	D(mm)	L(mm)	d(mm)	M	ℓ1	Arrow Depth	Arrow Depth
A14	2.6	4	1.4	0.8x0.2	3.9	0.1	0.2
	3	4	1.5	0.8x0.2	3.9	0.12	0.2
	4	5	2.1	1.1x0.2	4.8	0.18	0.25
	5	8	3.1	1.6x0.2	7.8	0.18	0.4
	6	8	3.1	1.6x0.2	7.8	0.18	0.4
	8	10	4.4	2.3x0.25	9.8	0.2	0.4
	10	12	5.2	2.5x0.35	11.8	0.2	0.4
	12	14	6.2	3x0.35	13.8	0.25	0.45
	16	14	8.2	4x0.35	13.8	0.25	0.45
	20	16	11	4x0.35	15.8	0.3	0.5



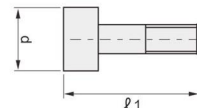
Type Pattern D L Year
A14 - YR - 2.6 - 4 - 22

Precautions

- It can be interchanged with HASCO's Z48715, Z48716, Z48717, Z48718, Z48720, Z48722, Z48723, Z48725, Z48730, Z48731, Z48732, Z48733, Z48734, Z48735 and DME's FOM, FYM, FOY, FOD, FOS, FAM, FNZ, FOB, FXX and OPITZ's DATI 1300 series.
- Replace the inserts on the mold directly without disassembly for replacement.
- The installation is convenient, the spring positioning and part structure are simple.
- Due to the fine thread adjustment, the sub-surface has the plus or minus of distance of one thread (max).
- In installation, remove the core to damage the thread of core.

Insert or body can be ordered separately

Type	Name	price
AA14	Insert of the date stamp	1/3 of the A14
AB14	Body of the date stamp	2/3 of the A14

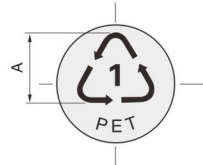
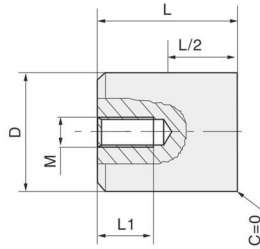


DATE STAMPS

A16



M	H
SUS420	HRC 48-54



Other engravings available on request

Type	D	L	L1	A	M	Text depth
A16	4	6/8	4	2	2x0.4	0.2
	5	8		3	2x0.45	
	6	8/10	5	4	3x0.5	
	8	10/12	6	5	4x0.7	
	10	10/12/14		6	5x0.8	
	12	12/14	7	7		0.3
	16	14/16		10	6x1	
	20	14/16	8/10	12		



Type Pattern D L
A16 - PET - 4 - 6

Applicable resins

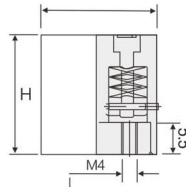
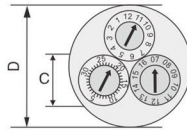
Polyethylene terephthalate	High density polyethylene	Polyvinyl chloride	Low density polyethylene	Polypropylene	Polystyrene	Other resins

Precautions

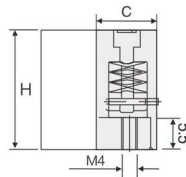
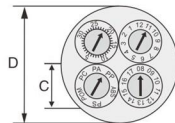
- Environmental protection stamp indicates indication sign to recover plastic products due to those reasons, such as the age and decrease of quality, etc.
- It indicates grade of plastics, which is convenient to classify indications or trademark or other characters or patterns needed to be indicated when recovery is made, due to those reasons, such as environmental protection of products, etc.
- Copper recycling insert is suitable for thin-walled mold plastic products, because the heat dissipation is good.
- Tapping can be selected at the tail for easy installation of date stamps.

A17

A17-3



A17-4



Other engravings available on request

Type	Size		
	D	H	C
A17-3/28	28	25	12
A17-3/32	32		14
A17-3/36	36		16

Type	Size		
	D	H	C
A17-4/32	32	25	12
A17-4/36	36		14
A17-4/40	40		16



Type Year
A17 - 22

ORDER

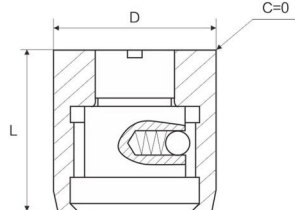
■ Precautions

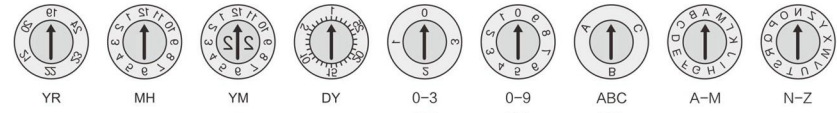
- It integrates the Year/month/day marked pins and Year/month/day shift for landscaping layout.
- The installation is convenient, and the installation process is simplified.
- You may customer three and four combinations of text and pattern according to your requirements.

DATE STAMPS

DATE STAMPS SERIES

A18




M	H
SUS420	HRC 48-52

Other engravings available on request

Type	D	L	Text depth	Arrow depth
A18	3	6、8、10	0.14	0.25
	4			
	5		0.18	0.4
	6	8、10		
	8	10		
	10	10、12	0.2	
	12	12、14		
	16	14	0.25	0.45
20	14、16			



Type Pattern D L Year
A18 - **YR** - **3** - **6** - **22**

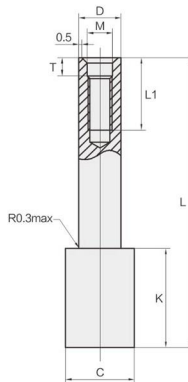
取出 Removal

Specification	3	4	5	6	8	10	12	16	20
Removal aperture	≤1.2	≤1.5	≤2.5	≤3	≤4	≤4.5	≤6	≤10	≤12

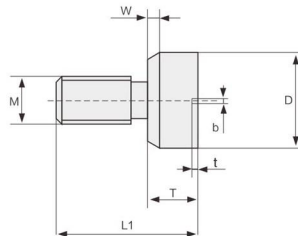
As the text and arrow of the date marked pins, environmental protection marked pins, material indication mark have a certain depth, for the thin-walled and precision plastic products, the heat dissipation is influenced, and after installation of ordinary date marked pins, there is a certain distance for the cooling water channel, it impacts the cooling effects, the new developed beryllium copper date marked pins and series products make up the above defects, and they are applicable to the products with precision requirements and thin-walled plastic.

DATE STAMPS

A19/A22



(A22)
Base



(A19)
Head



Other engravings available on request

M	H
SKD-61	HRC 48-54

Type	D	L	K	C	T	M	L1	Text depth	Arrow depth
A19 A22	6	30-150	L/2-5	10	3.2	3x0.5	10	0.3	1.0
	8			12	4.2	4x0.7	12	0.3	1.0
	10			13	4.2	5x0.8	12	0.3	1.2
	12			15	5.2	6x1	15	0.3	1.2
	16			18	6.5	8x1.25	20	0.3	1.2

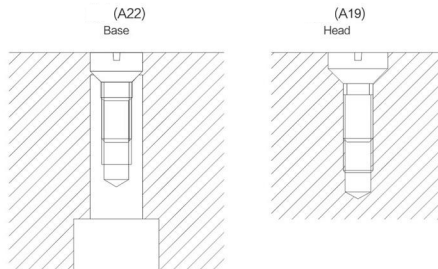


Type	Pattern	D	L1	L	Year
A19	- YR -	6	- 10 -	30	- 22

Precautions

- Date stamp of die casting die, only to directly process mounting hole on the die and replacement is convenient.
- A19 is the date stamp used for a separate die-casting mold, and A22 is base.
- A19 can also be purchased separately.

Installation diagram



DATE STAMPS

A20/A21

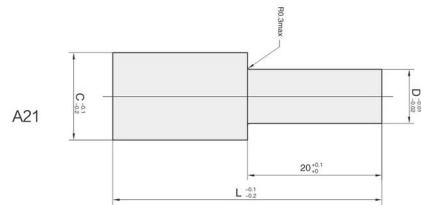
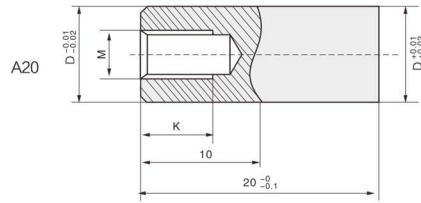


A20

A21

A21

M	R
SKD-61	HRC 48-54



Other engravings available on request

Type	D $\begin{smallmatrix} +0.02 \\ -0.01 \end{smallmatrix}$	K	M	Text depth	Depth of groove
A20	8	6	3 x 0.5	0.3	1
	10	7.5	4 x 0.7		
	12	9	6 x 1		

Type	$\phi D \begin{smallmatrix} -0.01 \\ -0.02 \end{smallmatrix}$	$\phi C \begin{smallmatrix} -0.1 \\ -0.2 \end{smallmatrix}$	L	Text height	Groove depth
A21	8	13	30-100	0.3	1
	10	15			
	12	17			

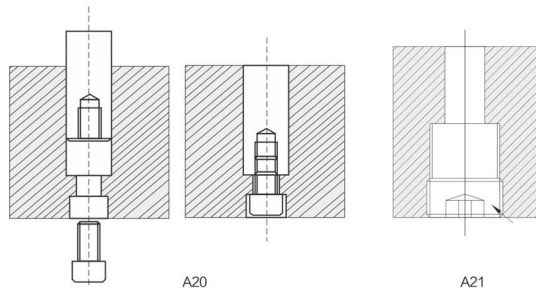


Type	Pattern	D	L	Year
A21	- YR -	8	- 30 -	22

Precautions

- Special date die-casting mould chapter
- The outer ring of a knockout punch each digital gap at point for date marking

Installation diagram

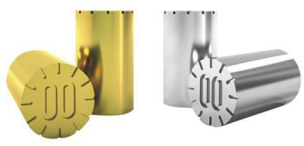


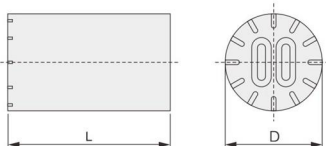
A20

A21

DATE STAMPS / EMBOSSED

A23/A24





T	M	H
A23	Brass	HB 80-110
A24	SUS420	HRC 48-52

Other engravings available on request

Type	D	L	Text depth	Depth of groove
A23 A24	3	20	0.5	0.3
	4		0.5	0.3
	5		0.5	0.3
	6		0.5	0.3
	8		0.5	0.3
	10		1	0.5
	12		1	0.5
	14		1	0.5
	16		1	0.5
	20		1	0.5



Type

D

Year

A23

-

3

-

22

A15

Embossed



■ Precautions

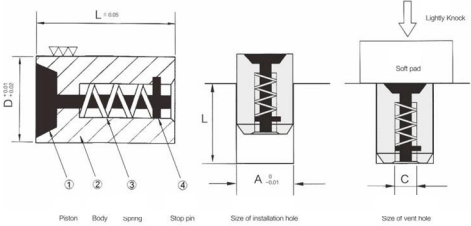
All date stamps with a diameter greater than 5mm can be made into embossed stamps.

AIR EJECTOR & GAS VENT SERIES >>>>



AIR EJECTOR

AJV



M	H
SUS420	HRC 48-52

Type	External dia	Length								A ± 0.01	C
		12	15	20	25	30	35	45	55		
AJV	5	●								5	4
	6	●								6	4.2
	8	○	●							8	4.5
	10	○	○	●						10	7
	12	○	○	○	●					12	7.7
	16					●				16	10.3
	18						●			18	12
	20					○	●			20	12.9
	25					○		●		25	14.9
	30					○		●		30	18

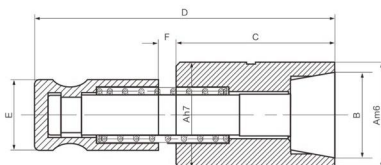
● Standard
 ○ Non-standard

■ Details

- It is used under the vacuumed condition in the deep and closed molds. Or it can be used for having problems with ejection of ejector pin and for the larger size of final products, which has difficulty leaving the molds.
- Easy installation, high precision and space saver.
- Using air valves to control the operation and the final products can leave the molds instantly.
- Air-jet valves are made from stainless steels and it will never rust.
- Sir-jet valves are one of the most innovated tools for the molding industries. It will improve the problems for molds design and injection troubles.

AIR EJECTOR

VAD



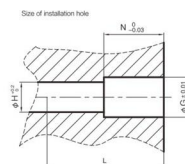
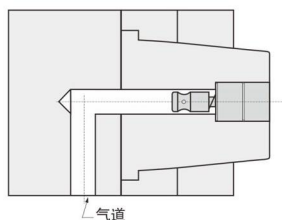
M	H
SUS420	HRC 48-52

Type	A	B	C	D	E	F
VAD-8	8	6.6	11	24	6	1
VAD-10	10	8				
VAD-12	12	9.7	18	34	8	2
VAD-16	16	13	20	38		4
VAD-18	18	14.8	22	46	12	
VAD-20	20	16	26	50		
VAD-25	25	20				

Size of installation hole	G	N	ϕ H	L
VAD-8	8	11	6.75	26
VAD-10	10		9	
VAD-12	12	18		36
VAD-16	16	20		40
VAD-18	18	22	14	48
VAD-20	20	26		
VAD-25	25			52



Installation diagram

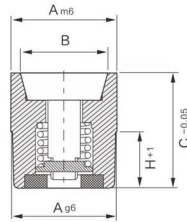


AIR EJECTOR

VA



M	H
SUS420	HRC 48-52



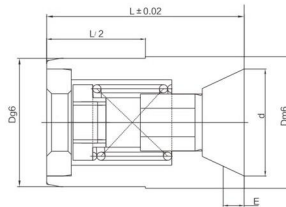
Precautions

- Gas cap with European standard;
- Advantage of rapid molding ejection;
- Using high temperature spring, up to 250 degrees Celsius;
- Own the characteristic of high-pressure circulation.

VAN

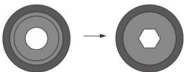


M	H
SUS420	HRC 48-52



New VA precision gas top improvement

Type	D	L	d	Work mpa	L/min(0.8Mpa)
VAN6	6	12	5	0.7-0.8	60
VAN8	8	12	6.5	0.7-0.8	65
VAN10	10	12	8	0.7-0.8	65
VAN12	12	12	10	0.7-0.8	70
VAN16	16	20	13	0.7-0.8	140
VAN20	20	20	17	0.7-0.8	200



Hexagonal core, not easy to rotate



Core and body fit more closely, not easy to stick

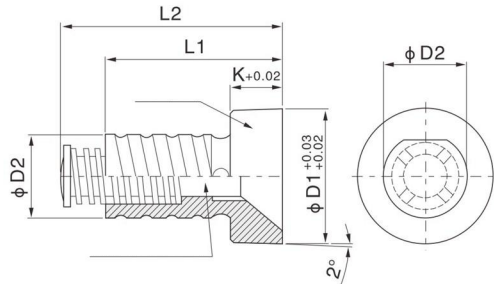
- When the air ejector is matched with the shell at 60 degree inclination, the extrusion separation decreases and no stuck.
- Core and shell are rotated by hexagonal, and arc surface with 5 degree deviation is allowed to be used.
- Conical surface acts as both supporting and matching surface, so the sealing is more precise.
- Adding a filler for removal, the bottom of the gasket can be knocked out without cracking.
- The gasket has a filtering function, which can effectively filter the impurities in the airway and prevent the Air poppet valve from being blocked due to impurities.

AIR EJECTOR

Z491/Z4911

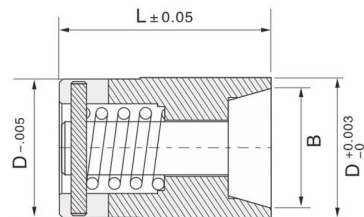


Type	M	H
Z4911	SUS420	HRC 48-52
Z491	COPPER	HRC 35-40



Type	φ D1	φ D2	K	L1	L2
Z491/8	8	6	5	8	16
Z491/12	12	8		13	21
Z491/16	16	10	6	12	22

PPV



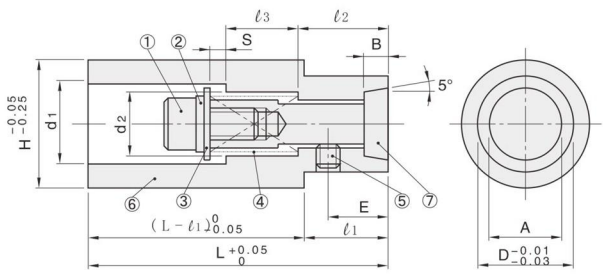
M	H
SUS420	HRC 48-52

Type		D $\begin{smallmatrix} +0.003 \\ 0 \end{smallmatrix}$	B ± 0.005	L $\begin{smallmatrix} +0.002 \\ 0 \end{smallmatrix}$
PPV-02	1/4"	0.2504	0.215	0.375
PPV-03	3/8"	0.3754	0.325	0.375
PPV-05	1/2"	0.5005	0.437	0.5
PPV-07	3/4"	0.7505	0.656	0.75
PPV-10	1"	1.0006	0.875	1
PPV-15	1-1/2"	1.5006	1.312	1.5

AIR EJECTOR

AIR EJECTOR & GAS VENT SERIES

PQ

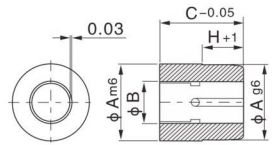


No.	PQE		PQ		
	M	Material	H	Hardness	
①		SCM435	HRC 38-43	SUS304	
②		SWRH62	HRC 42-50		
③		SK5	-		
④		SUS304			
⑤		SCM435	HRC 34-43	SCM435	HRC 34-43
⑥		S45C	HRC 33-38	NAK101	HRC 35
⑦					

D	N(kgf)		N(kgf)			
					①	②
10	9.61	(0.98)	4.81	(0.49)	M3-L6	MSW3
13	16.67	(1.70)	8.34	(0.85)	M4-L8	MSW3
16	24.51	(2.50)	12.26	(1.25)	M5-L10	MSW4
20	38.25	(3.90)	19.61	(2.00)	M6-L12	
25	64.72	(6.60)	32.36	(3.30)	M8-L15	MSW5
32	124.54	(12.70)	63.74	(6.50)	M10-L20	MSW6

						L				S	E	ℓ1	ℓ2	ℓ3	d1	d2	H	B	A
Type		PQE (Select)		PQ (Designated unit)1mm															
PQE PQ	10	20	25			19-35	1.5	7	12	10.5	8.5	8.5	6.5	15	3	7.5			
	13	25	30	30	25-40			8	15	14	11	10.5	8.5	18	4	9			
	16	30	40	35	35	28-50	2.5	10	16	12	12.5	10.5	21	6	11				
	20	40	50	50	40	36-60	3.0	12	20	21	15	16	13		25	14			
	25	50	60	60	44-70					26	18	19	16		32	18			
	32	70	80	70	55-80		5.0	15	25	35	20	25	22		40	8	25		

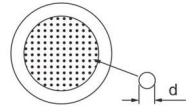
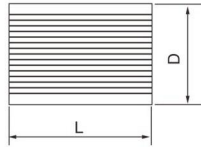
VD



Type	ϕA	ϕB	C	ϕE	H
VD08	8	5	12	4	7
VD10	10	6		5	
VD12	12	8		7	-
VD16	16	10	20	9	12

GAS VENT

GSV



Material	Hardness
SUS304	HRC 130-190

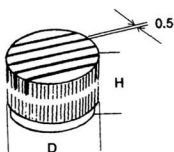
- Diameter of 0.3 is suitable for low-pressure casting mould;
- Diameter of 0.5 is suitable for low-pressure casting mould and suitable for gravity casting mould

Type	d	D ^{+0.08} _{-0.05}	L ± 0.2	Hole count	Punching rate	Applicable product
GSV	0.3	5	10/15	89	30	Low-pressure casting mould
		6			29	
		8		200	28	
		10		340	31	
		12			28	
		14	15.0	550	27	
	0.5	4	10.0	39	55	low-pressure casting mould and gravity casting mould
		6	10/15	61	40	
		8		89	35	
		10		200	34	
		12	10.0		31	
		14	15.0	340	35	
		16			32	

Foam mold gas vent

GBSV

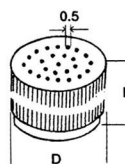
Strip hole



Type	D
GBSV-4	4
GBSV-6	6
GBSV-8	8
GBSV-10	10
GBSV-12	12

GBHV

Round hole



Type	D
GBHV-4	4
GBHV-6	6
GBHV-8	8
GBHV-10	10
GBHV-12	12

GVC

Hollow mold dedicated

Code	M	Material	H	Hardness	Hole diameter
GVC		Copper		RV 20	0.04

GVS

Shooting mold dedicated

Code	M	Material	H	Hardness	Hole diameter
GVS		Stainless steel		RV 50	0.04

In order to achieve its maximum molding productivities, simply using its ultra micro breathing cell to exhale gas and air from molds.

Common questions:

Burnt

When aberration and burnt issues occurred, it is because resin is filling faster than air exhaling which will result gasven to overheat.

Overflow

There are 2 possible conditions:

- When temperature of resin gets higher at the tip of seaming, it weakens its bonding strength.
- Air can filled up the path and blocks resin to flow functionallu which will cause ejection pressure to rise and materials to overflow.

Not enough fillings

Due to air pressure, it reduces the ratio of the filling speed, even there is no any sign of burnt or overflow.

Cell streak

If there are some cells ,streaks and mottles occurred, it is because the cells have not been vaporized completely between air and resin.

Extensive cycling time

The higher temperature of resin, molds and slower speed of injection cause extensive cycling time, however, it will not a ffect the quality of final products.

Enerty, time and cost saver

1.It will reduce the trial die,time and materials if users consider to use TX gasvent the beginning of the design.

2.It will save up to 1/3 to 1/10 of the total cost and time if installing gasvent

Installation

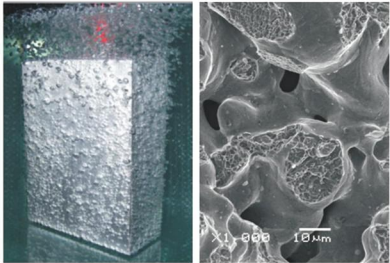
1.Do not touch the surface when gasvent is in use.

2.Use H7/s6 from JIS reference chart.

Type	External dia	Length
GVC	3	10
	4	
	5	
	6	
	8	
	10	
	12	12
	15	10
	16	16

Type	External dia	Length
GVS	3	4.5
	4	4.5 / 10
	5	10
	6	
	8	
	10	
	12	12
	16	15
	20	

POROUS STEEL



Chemical element:

C	Mn	Si	S	P	Cr	Ni	Cu
0.1	≤1	≤1	≤0.03	≤0.03	15~17	3~4	2~3

Chemical components are similar with SUS341.

Main performance:

Spec.	PMS-40~20 μm	
Mean pore radius	20 μm	
Facial porosity	26~32%	
Density	6.0~6.2g/cm3	
Impact toughness	7~8J/cm2	
Tensile strength	450~480Mpa	
Bending strength	700~720Mpa	
Hardness	400~450HV0.05	
Air permeability	EDM	1.5L/min · cm2 (3Bar)
	CNC	0.3L/min · cm2 (3Bar)
Surface smoothness	EDM	Ra6.30
	CNC	Ra0.80
Thermal conductivity	10~11 W/(m · K)	
Coefficient of linear expansion	12~12.5x10-6(20~150C)	

Product characteristics:

Porous steel is a new type metal material, with high strength, high toughness, corrosion resistance and good permeability. This material application in mold can exhaust gases in mold cavity and eliminate gases in plastics. Eliminate defects caused by poor exhaust, such as burning, flow marks, short shot, edge fin, etc.

Porous steel also has following economic advantages:

- Reduce injection pressure, molding and holding time, unit energy consumption and prolonged mold shelf life.
- Reduce internal forces to prevent deformation of product. Reduce following de-stressing procedure.
- Rapid prototyping, improving production efficiency and reducing scrap rate.



Made of ordinary steel, the mold is air trapped, and the center position is short of material.

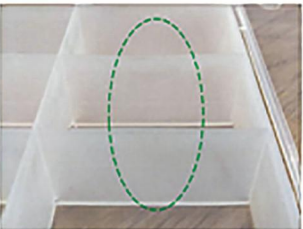
Made of porous steel, the mold is well vented, the grid is clear, and the shape is perfect.



Made of porous steel, the mold is well vented, the grid is clear, and the shape is perfect.



Made of porous steel, excellent exhaust, you can make different texture effects according to your needs.

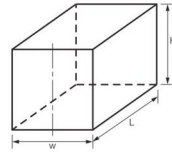


Before the porous steel is used in the above picture, the edge of the plastic box is bent. After the porous steel is used in the picture below, the air exhaust is good and the edge of the plastic box is flat.

POROUS STEEL

PSP

Porous steel plate

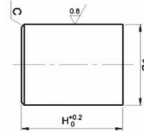


Type	L	W	H
PSP50	50	50	50
PSP75	75	75	30
PSP100	100	100	50
PSP200	300	200	
PSP300			100
PSP600	600	450	125

Other size available on request

PSC

Porous steel cylinder

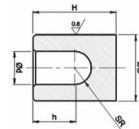


Type	D	H	C
PSC4	4	10	0.3 x 45
PSC6	6		
PSC8	8		
PSC10	10	12	0.5 x 45
PSC12	12		
PSC16	16	15	1.0 x 45
PSC20	20		
PSC28	28		

Integral cylindrical porous steel

PSU

U Porous steel cylinder



Type	D	H	h	d	SR
PSU4	4	10	7	2	1
PSU5	5			3	1.5
PSU6	6			4	2
PSU8	8			6	3
PSU10	10	16	11	8	4
PSU12	12			10	5
PSU16	16				
PSU18	18				
PSU20	20				

U shape cylindrical porous steel

POROUS STEEL

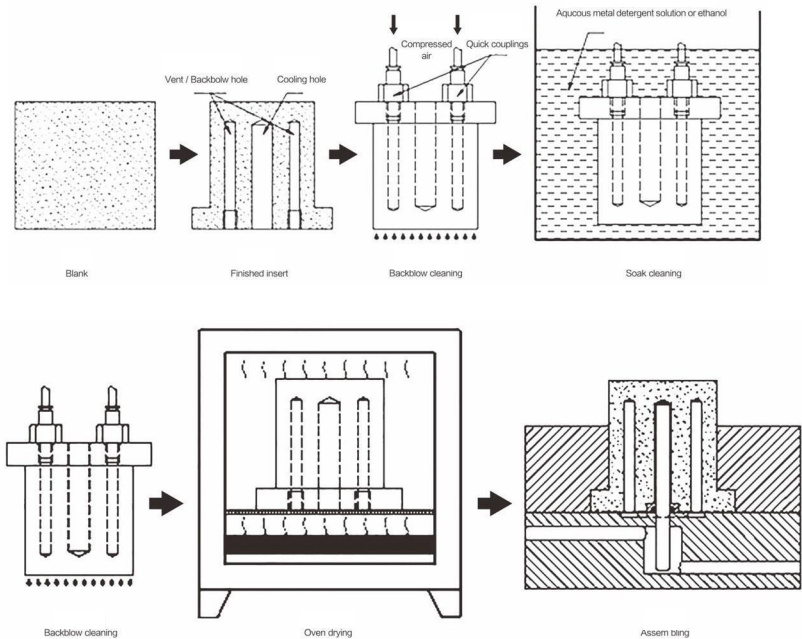
Guidelines for design, processing, maintenance of porous steel

Attentions:

- The liquid will seep into the holes during processing, so the material should be cleaned and dried before processing.
- The cooling water can't be connected directly when design cooling channels.
- Porous steel maybe blocked up by greasy dirt and particulates during injection, so compressed air of back blow needed to clean external greasy dirt and particulates. In addition, with the use of porous steel flow monitor can reduce block rate substantially.

Processing, cleaning and assembling:

Processing, cleaning and assembling flow chart refer to the picture as follows.



processing, cleaning and assembling flow chart

POROUS STEEL

Processing method:

Processing method of porous steel is the same with dense steel, but should attention that different processing method will result in block at different degrees. Processing method can be divided into two methods according to the effect on the permeability.

Contact processing

contact processing is a traditional machining, will result in block and reduce air permeability.

Non-contact processing

Usually means electro discharge machining and laser machining, and will not reduce air permeability. EDM process will enlarge surface holes.

- Choose arc milling cutter or ball headed milling cutter made from M series material. (If the knife coated with PVC will be better.)

WEDM

- Polishing treatment needed After middle-speed WEDM process to avoid sticking.
- It can be used directly after WEDM-LS process. Slightly steel wire skipping can be accepted.

EDM processing

- During EDM processing the current will enlarge surface holes. So polishing treatment needed after EDM processing.

Laser engraving

Surface oxidation will be worse with higher laser power. So high-power etching first, low-power deoxidization followed.

Polishing

- The mould can be polished after different machining. Except the method of wire cutting and EDM, it should be polished from 1000# fiber stone, the others can be started from 800# fiber stone.

Maintenance and cleaning

Blockage reason analysis:

The first problem of solving blockage: Back blow liquid grease and particulates in time to prevent high temperature consolidation on porous steel surface.

- Resin residues: Plastic residues, plasticizer, antistatic agent and flame retardant.
- Particulates: including different kind of mineral pigments, carbon black and dust in air.
- Grease: releasing agent, anti-rust agent and lubricant.

Maintenance and cleaning:

If slightly blocked caused monitor alarming, reactions refer to picture 6. Using watering can spraying alcohol or acetone on the surface of porous steel. Clean the surface with cotton cloth or absorbent cotton after the grease dissolved and repeat 2-3 times. Then blow the surface with back blow gas and wipe with cotton cloth or absorbent cotton at the same time.

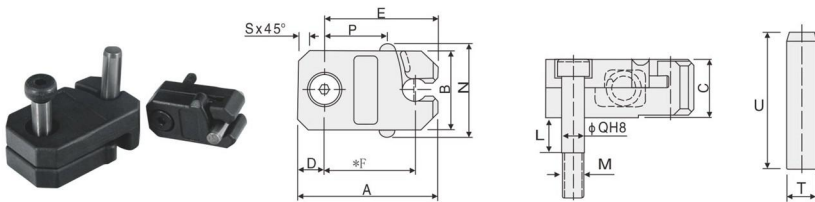
The design, use and maintenance of porous steel are more professional, if you want to further understand this product, please contact us in time, we will provide you with more detailed and professional guidance.

SLIDE RETAINER SERIES >>>>



SLIDE RETAINER

SPSL/SPSM



M	H
合金钢 8620steel	HRC 58-62

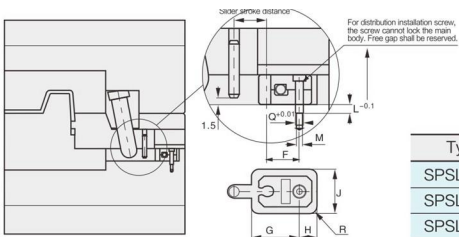
Type	Size														Loading weight Kg
	A	B	C	D	E	*F	N	H	Q	S	T	U	L	M	
SPSL 0001	1.50	0.76	0.63	0.27	1.23	0.980	0.94	0.61	0.250	0.14	0.250	1.25	0.31	#10-24	10
SPSL 0002	2.13	1.26	0.79	0.44	1.69	1.375	1.44	0.88	0.312	0.25	0.312	1.50	0.43	1/4-20	20
SPSL 0003	3.38	1.76	1.18	0.75	2.63	2.125	1.94	1.57	0.375	0.38	0.375	2.25	0.58	5/16-18	40

Type	Size														Loading weight Kg	Limit screw
	A	B	C	D	E	*F	P	Q	M	T	U	L	S			
	SPSPM 0001	38	19	16	7	31.5	24.89	15.5	6	M5	6	32	9	3.5	10	
SPSPM 0002	54	32	20	11	43.0	34.93	22.5	8	M6	8	40	11	6.35	20	PM 6X25	
SPSPM 0003	86	45	30	19	67.0	53.98	40.0	10	M8	10	60	17	9.65	40	PM 8X40	

Precautions

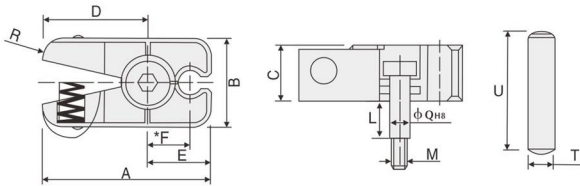
- It is simple and economic, sturdy and durable. Single or multiple position limiting clips can be used so as to reach greater load.

EX Exaple



Type	G	H	J	R	Q	L	L
SPSL 0001	1.35	0.39	1.00	0.31	0.249	#10-24	0.310
SPSL 0002	1.81	0.56	1.50	0.37	0.312	1/4-20	0.430
SPSL 0003	2.75	0.88	2.00	0.50	0.374	5/16-18	0.580

SMRT



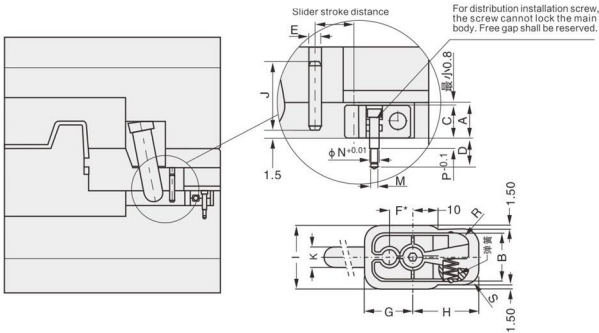
M	H
合金鋼 8620steel	HRC 58-62

Type	Size													Loading weight Kg	Limit screw
	A	B	C	D	E	*F	Q	R	M	N	T	L	U		
SMRT10M	38	19	16	22	16	9.15	6	5	M5	6	6	6	30	10	PM 5X16
SMRT20M	54	32	20	33	21	12.7	8	6	M6	8	8	8	40	20	PM 6X20
SMRT40M	86	45	30	53	33	20.3	10	10	M8	10	10	10	60	40	PM 8X30

Precautions

- This position limiting clip has the same function as that of PSL. However, "F" has shorter distance and locked coordination is more precise.

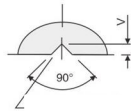
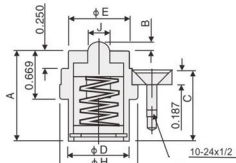
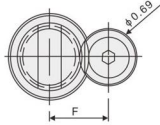
EX Example



Type	I	K	G	H	B	S	R	*F	E	J	C	A	P	D	N	M
SMRT10M	25	8	19	26	19	6	5	9.15	6	30	16	17	6	15.5	6	M5
SMRT20M	38	10	24	36	32	8	6	12.7	8	40	20	21	8.1	20.5	8	M6
SMRT40M	51	12	36	56	45	11	10	20.3	10	60	30	31	10	25	10	M8

SLIDE RETAINER

SPSR



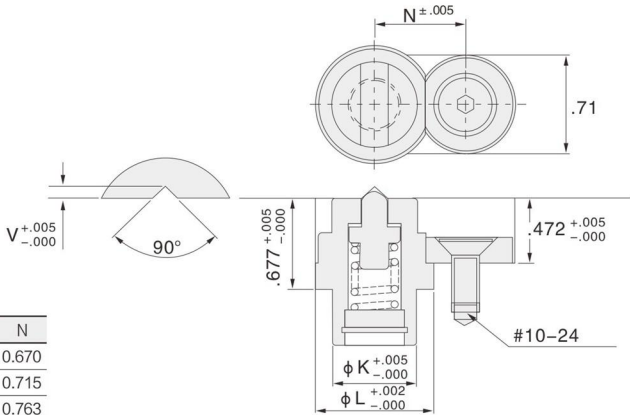
M	H
H-13steel	HRC 48-52

Type	Size									Loading weight
	A	B	C	CD	CE	F	CH	J	V	Kgf
SPSR1000	1.08	0.072	0.795	0.620	0.630	0.375	0.866	0.188	0.091	4.5
SPSR2000	1.32	0.121	1.035	0.740	0.748	0.420	0.984	0.250	0.153	9
SPSR4000	1.26	0.149	0.975	0.870	0.866	0.468	1.102	0.312	0.194	18

Precautions

- It has independent design and integrated device. Installation is simple. Although appearance is small, it has certain load.

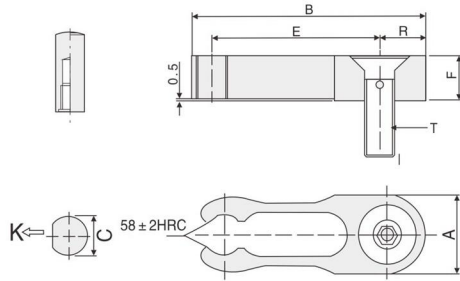
EX Exaple



Type	φ K	φ L	V	N
SPSR1000	0.625	0.869	0.091	0.670
SPSR2000	0.750	0.987	0.153	0.715
SPSR4000	0.875	1.105	0.194	0.763

SLIDE RETAINER

SRC



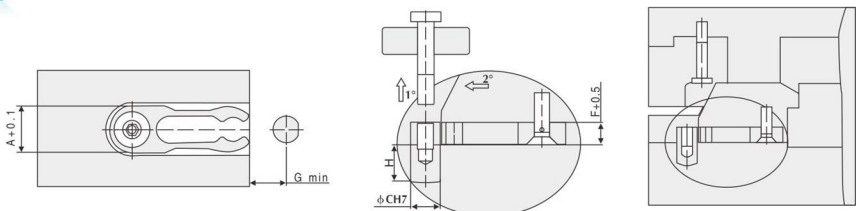
M	H
1.8159	HRC 45±3

Type	Size									Loading weight K(kgf)
	A	B	C	E	F	G	H	R	J	
SRC.123006	12	30	6X20	21	5	4	16	6	M5X16	5
SRC.164008	16	40	8X20	28	6	5	15	8	M6X25	7
SRC.205010	20	50	10X24	34	8	6	17	10	M8X30	14
SRC.246012	24	60	12X32	42	10	7	23	12	M10X40	21
SRC.328012	32	80	16X40	56	12	9	27	16	M12X50	28
SRC.328016					16		25			38

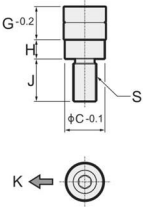
■ Precautions

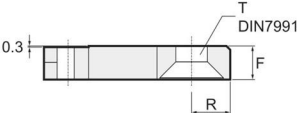
- It is very simple and practical, and can be fixed in a very small space.

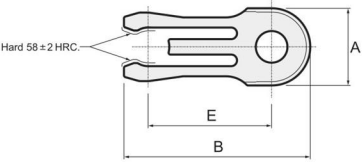
EX Exaple













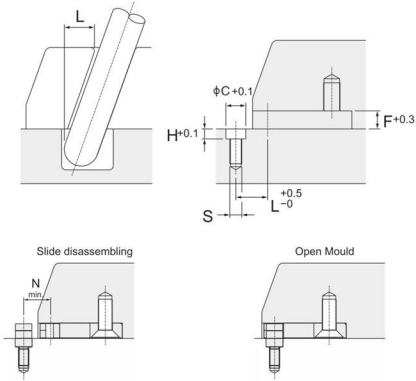
M	H
1.8159	HRCF 45 ± 3

Type	A	B	C	E	F	G	H	J	K	N	R	S	T
SRCM.163808	16	38	8	25	7.7	7.6	4	10	10kg	7	8	M5	M6
SRCM.204810	20	48	10	32	8.7	8.6	5	11	14kg	8	10	M6	M8
SRCM.245712	24	57	12	37.5	9.7	9.6	6	12	18kg	9	12	M8	M10

- Precautions
- It is an improved type on the basis of SRC.

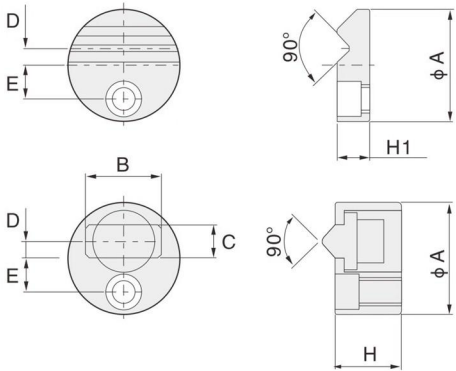
EX

Exaple



SLIDE RETAINER

SSLK8A



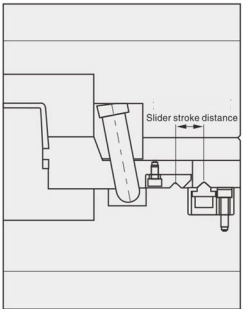
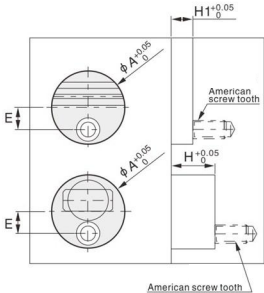
M	H
SKH51	HRC 58

Type	A	B	C	D	E	H	H1	Mounting screws	Max. holding weight
SSLK8A	± 0.001 0.498	0.34	0.15	0.075	0.15	± 0.002 0.295	± 0.002 0.145	#2-56x3/8	3.6
	12.65	8.61	3.81	1.91	3.81	7.49	3.68	#2-56x1/4	

■ Precautions

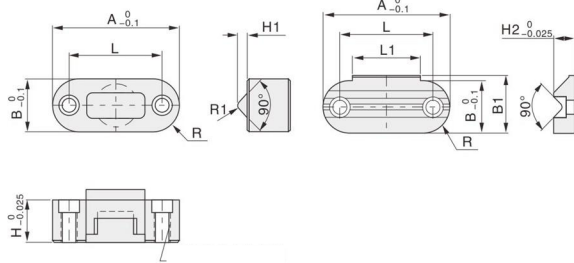
- Design of position limiting clip can effectively prevent slider die holder from gradually loosening.
Appearance of this type of position limiting clip is small and exquisite and it applies limited space reasonably.

EX Exaple



SLIDE RETAINER

SSLK25A/50A



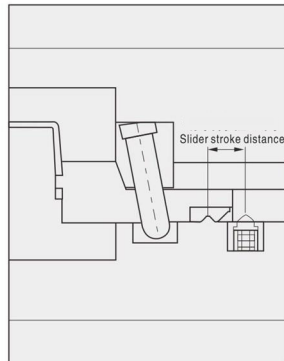
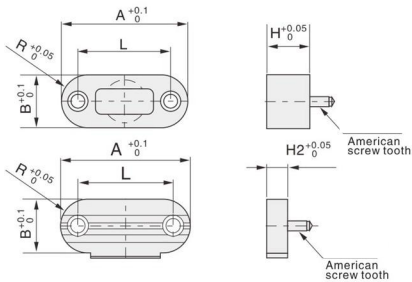
M	H
SKH51	HRC 58

Type	A	B	H	H1	H2	L	L1	R	R1	B1	Mounting screws	Max. holding weight
SSLK25A	1.494	620	0.499	0.117	0.249	1.1	0.80	0.312	0.062	0.68	#6-32x1/2	11.25
	37.95	15.75	12.67	2.97	6.32	27.94	20.32	7.92	1.57	17.27	#6-32x1/4	
SSLK50A	2.292	0.996	0.86	0.171	0.385	1.65	1.10	0.498	0.098	1.058	1/4-20x1"	22.5
	58.22	25.30	21.84	4.34	9.78	41.91	20.32	12.65	2.49	26.87	1/4-20x3/8	

Precautions

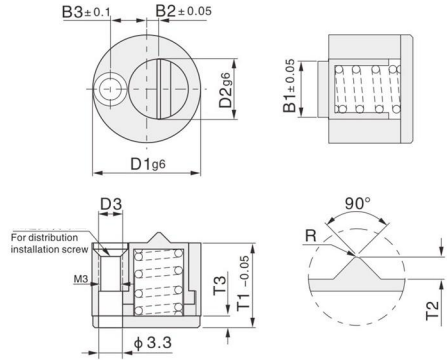
- It is easy to install it into slider of mold base, cleverly hidden in the caging device.

EX Eaple



SLIDE RETAINER

SZ5130



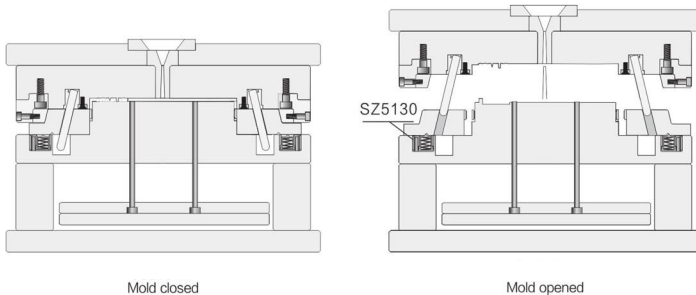
M	H
1.2343	HRC 48-53

Type	D1	D2	B1	B2	B3	T1	T2	T3	R	D3	Mounting screws	Max. holding weight
SZ5130	13	7	6.6	1.4	4.3	10	1.0	1.6	0.35	M3	M2 x 16	3.4
	18	10	9.6	2.0	6.0	14	1.8	2.0	0.50	M4	M3 x 20	4.2
	27	15	14.4	3.0	9.0	21	2.8	3.0	0.50	M5	M4 x 25	9.2

■ Precautions

- SZ5130 Slide holding devices with outside small shape and occupy the small space.
- SZ5130 Slide holding devices is the best convenient installment of the slide retainer series.
- SZ5130 Slide holding devices adopts precision machining to make location more accurate.

EX Exaple

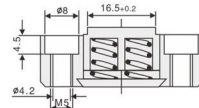
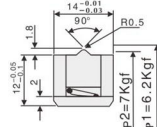
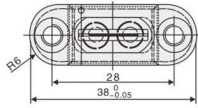


SLIDE RETAINER

SZ5140/0



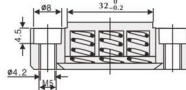
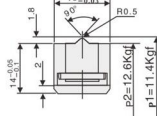
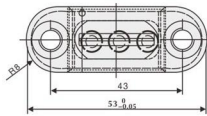
M	H
1.2343	HRC 48-53



SZ5140/1



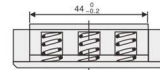
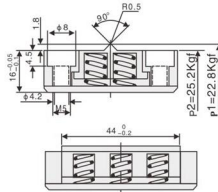
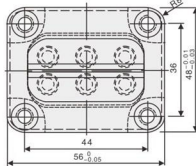
M	H
1.2343	HRC 48-53



SZ5140/2



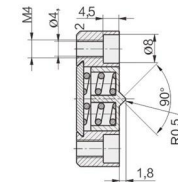
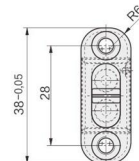
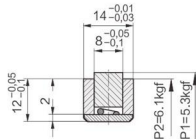
M	H
1.2343	HRC 48-53



SZ5140/3



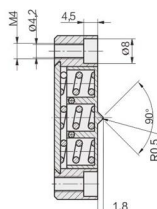
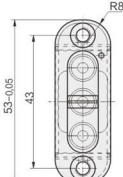
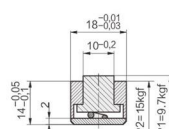
M	H
1.2343	HRC 48-53



SZ5140/4



M	H
1.2343	HRC 48-53

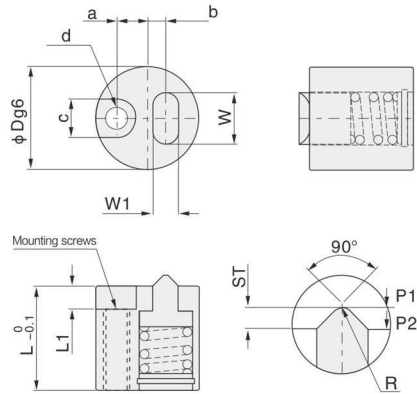


SLIDE RETAINER

SSLLK



M	H
1.2343	HRC 48-52



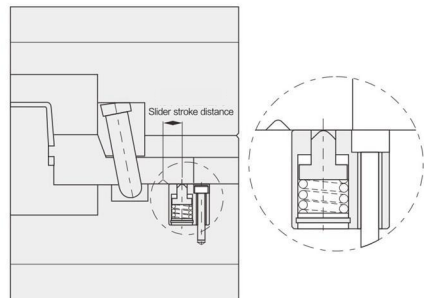
Type	D	P	ST	L	L1	a	b	c	d	W	W1	R	N	Mounting screws	Max. holding weight
SSLLK	16	C(SWC8-15)	1.6	15	3.3	5	2.5	6	3.2	8	4	1	M4	M3x20	28.6
	16	F(SWF8-15)													78.8
	20	F(SWF10-15)	2.0	20	4.5	6	3.5	7.5	4.3	10	5	1.1	M5	M4x25	62.9
	20	L(SWF10-15)													110.0

Precautions

- It adopts surface contact which reduces unit pressure of contact surface so that it can effectively prevent damage of side core-pulling slider. It applies to locking of much heavier component.

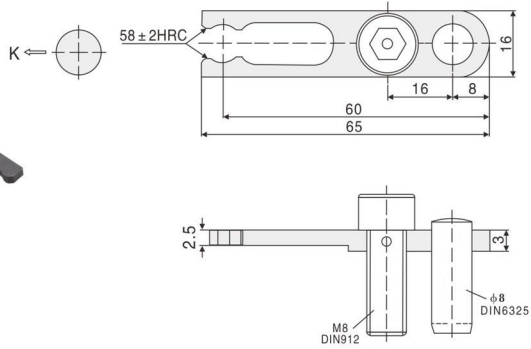
EX Exaple

Precautions: Locking load is too big, so it may make slanted guide pillar and bundle block bear too much load leading to sintering phenomenon. It is advised to reduce sliding resistance, implement lubrication and strengthen rigidity.



SLIDE RETAINER

SRRM



Note: The load datas are, from installed clamps, they are approximation, just for reference.

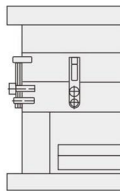
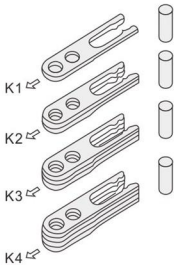
M	H
1.8159	HRC 45±3

Type	Loading weight (Kgf)			
	K1	K2	K3	K4
SRRM.651608	7.5	15	22.5	30

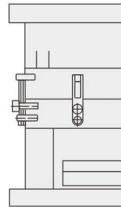
Precautions

- The standard limiting location chip is very useful to delay the dividing and closing of mould, and it can increase the load of limiting location chip by increasing the number of chips.

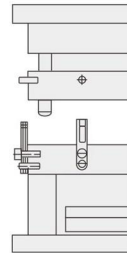
EX Exaple



Mold closed

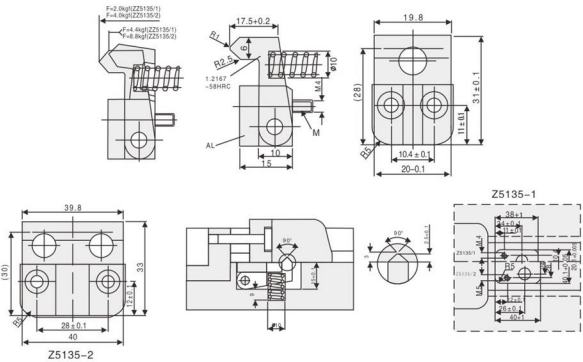


The first time
open mold



The second time
open mold

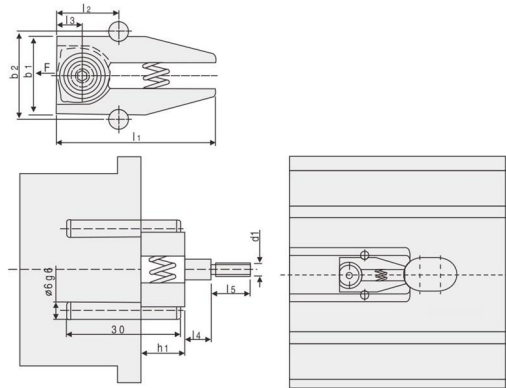
SZ5135



M	H
1.2162	HRC 58-60

Type	Screw	Loading weight (kgf)
SZ5135-1	4	2.0-4.4
SZ5135-2	5	4.0-8.8

SZ189

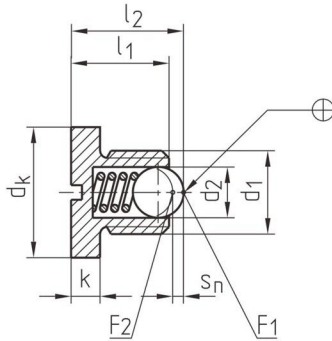


M	H
1.7131	HRC 54+2

Type	Size									Loading weight (kgf)
	h1	l1	l2	l3	l4	l5	d1	b1	b2	
SZ189/10	10	40	17.5	7	5.1	9.5	M5	18	21.5	10
SZ189/12	12	43	18	7.5	6.1	11	M6	22	25.5	15
SZ189/16	16	50	20.5	9.5	3.1			28	31.5	25

BALL PLUNGERS

SZ36

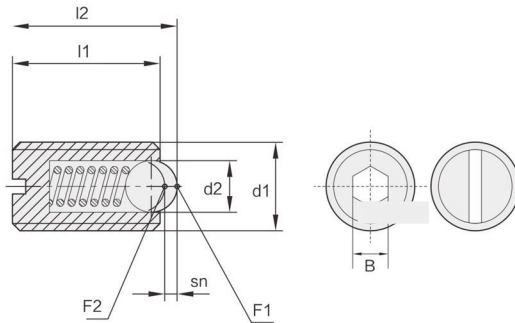


M

1.0718

Type	max. °C	d2	dk	K	Sn	F1 [N]	F2 [N]	l2	d1	l1
SZ36/4 x 9	250	2.5	6	2.5	0.64	6	11.6	9.8	M4	9
SZ36/5 x 12		3	8	3.5	0.72	8.8	13.3	12.9	M5	12
SZ36/6 x 14		3.5	10	5	0.8	11.2	15.1	15	M6	14
SZ36/8 x 16		5	13	5	1.2	18.5	29.5	17.5	M8	16
SZ36/10 x 20		6	16	6	1.6	23.9	43	22	M10	20
SZ36/12 x 22		8	18	7	2	35.9	59.8	24.5	M12	22

SZ37



M

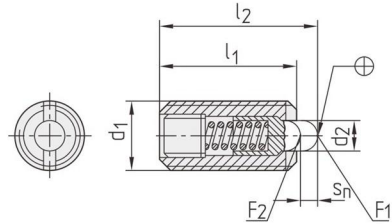
SUS304

S45C

Type	max. °C	d2	sn	F1 [N]	F2 [N]	l2	d1	l1
SZ37 / 4 x 9	250	2,5	0,64	6	11,6	9,8	M 4	9
SZ37 / 5x 12		3	0,72	8,8	13,3	12,9	M 5	12
SZ37 / 6x 14		3,5	0,8	11,2	15,1	15	M 6	14
SZ37 / 8x 16		5	1,2	18,5	29,5	17,5	M 8	16
SZ37 / 10x 19		6	1,6	23,9	43	21	M 10	19
SZ37 / 12x 22		8	2	35,9	59,8	24,5	M 12	22
SZ37 / 16x 24		10	2,4	74	101,6	27,5	M 16	24

BALL PLUNGERS

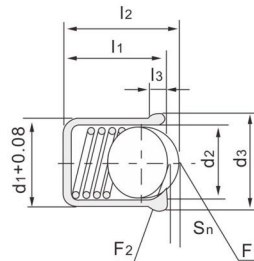
SZ372



M
1.0718

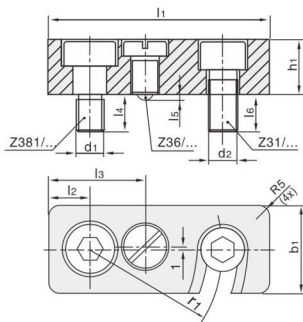
Type	max. °C	d2	Sn	F1 [N]	F2 [N]	l2	d1	l1
SZ372/3 x 12	250	1.0	0.8	1.7	2.8	13.0	M3	12
SZ372/4 x 15		1.5	1.2	5.0	12.0	16.5	M4	15
SZ372/5 x 18		2.4	1.8	7.0	16.0	20.3	M5	18
SZ372/6 x 20		2.7	2.0			22.5	M6	20
SZ372/8 x 22		3.5	2.4	9.0	28.0	25.0	M8	22
SZ372/10 x 22		4.0					M10	22
SZ372/12 x 28		6.0	3.2	15.0	44.0	32.0	M12	28
SZ372/16 x 32		7.5	4.0	45.0	80.0	37.0	M16	32
SZ372/20 x 40		10.0	5.6	70.0	112.0	47.0	M20	40
SZ372/24 x 52		12.0	8.0	80.0	144.0	62.0	M24	52

SZ374



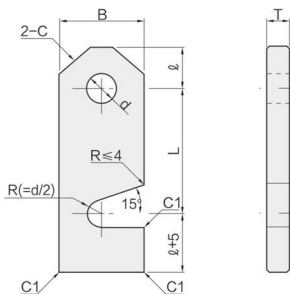
M
1.4305

Type	max. °C	d3	l3	d2	Sn	F1 [N]	F2 [N]	l2	d1	l1
SZ374/ 4x5	250	4.6	1	3	0.7	2	4	5.9	4	5
SZ374/ 5x6		5.6		4	0.8	4	5.6	7	5	6
SZ374/ 6x7		6.5		5	1.2	6	9.6	8.5	6	7
SZ374/ 8x9		8.5		6.5	1.4			10.8	8	9

SZ73


M
S45C

Type	Z381/...	Z31/...	Z36/...	d1	d2	r1	l2	l3	l4	l5	l6	h1	b1	l1
SZ73 / 12x20x50	Z381 / 6x6	Z31 / 6x14	Z36 / 5x12	M6	M6	30	10	24	9	0.9	8	12	20	50
SZ73 / 16x25x63	Z381 / 8x10	Z31 / 8x18	Z36 / 8x16	M8	M8	38	13	30	11	1.5	11	16	25	63
SZ73 / 20x32x80	Z381 / 10x12	Z31 / 10x22	Z36 / 10x20	M10	M10	48	15	35	13	2	13	20	32	80

SOPP


M
S45C

Type	B	L	Color	T	d	ℓ	C
SOPP	25	30	R	12	9	10	10
		40					
		50					
		60					
		70					
	38	80	Y	12	14	15	15
		50					
		60					
		70					
		80					
	50	90	N	20	22	25	15
		100					
		60					
		90					
		120					

LATCH LOCK COMPONENT SERIES >>>

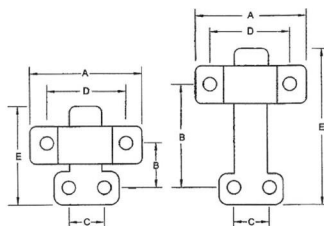


LATCH LOCK

SE



M	H
SK-2	HRC 58-60



ES type

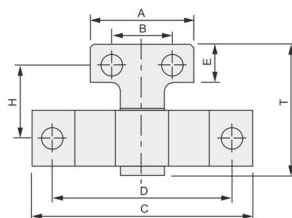
EL type

Type	A	B	C	D	E	Clamping force	Screw
SES	62	28	20	45	54	400kg	M8
SEL	62	62	20	45	88	400kg	M8

SL



M	H
SCM21	HRC 58-60



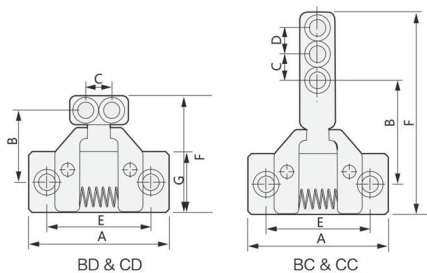
Type	A	B	C	D	E	F	H	T	Screw	Clamping force
SL2	40	26	72	60	20	20	23	48	M8	150
SL2T		22					66	96		
SL3	50	30	113	90	22	30	38	72	M10	250
SL3T							79	114		
SL4	50	30	113	90	22	30	38	75	M12	350
SL4T					25		103	139		

■ Precautions

- Based on its simple and easy design, the slide lock makes molds open and close complete, and it also makes installation and interchanging seem effortless.
- Excellent for 3-pcs mold plates for its precision injection (for example: needle-point injection). It will cut off the excessive materials and leave the mold at the time of finishing.
- 4 different styles to choose from:
 SL-2: good for molds less than 5 oz.
 SL-3: good for medium size molds.
 SL-4: good for large size molds.
- It is well-known for its exceptional quality.
 It was made by imported springs, heat-treated and grinded alloy steels.

LATCH LOCK

BC

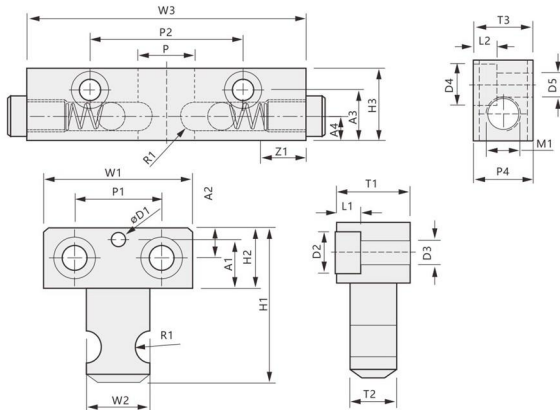


M	H
SK-2	HRC 58-60

Over-load heavy yellow flat spring

Type	A	B	C	D	E	F	G	Clamping force	Screw
BD	78	40	15	—	60	68	38	500kg	M8
BC	78	58	15	15	60	116			
CD	93	58	17	—	72	102	51	900kg	M10
CC	93	73	17	17	72	142			

SLPL



M
S50C

Type	Size													
	A1	A2	A3	A4	D1	D2	D3	D4	D5	H1	H2	H3	L1	L2
SLPLA	20	12.5	23	11	5	17	10	17	10	62.5	25	33	10	10
SLPLB	6	12	21	10	5	10.5	6.5	11	6.5	48	20	28	6.5	6.5

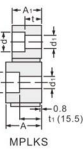
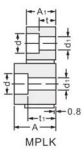
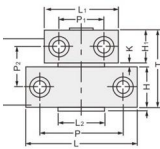
Type	Size												
	P1	P2	P3	P4	R1	T1	T2	T3	W1	W2	W3	Z1	M1
SLPLA	35	70	26	20	R6.5	30	19.5	30	60	25.5	127.5	21	M14x2.0
SLPLB	25	60	18	12.5	R4.25	20.5	12	20.5	40	17.5	86	20	M12x1.75

LATCH LOCK

SMPLK



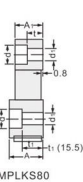
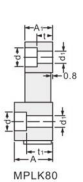
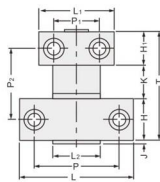
SMPLK



MPLK

MPLKS

SMPLKS



MPLK80

MPLKS80

Disc spring, and a combination of internal roller card wheel, can make the opening and closing of the mould has good balance. Wheel rotation can better prevent eccentric wear occurs. The locking sleeve is symmetric, so if the wear can also be installed to use again. Because the back of the locking seat is avoiding vacancy, can also use so the template has the steps.

M
SK3 + S50C

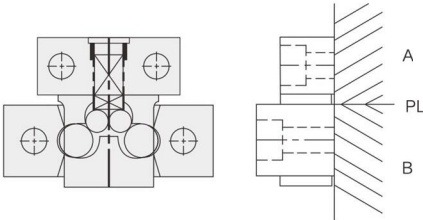
Type	Size																	
	L	L1	L2	T	H	H1	J	K	P	P1	P2	A	A1	t	t1	d	d1	
SMPLK	10	48	36	25	42	22	18	2	2	36	24	22	24	16	9.5	18	6.5	50
	20	54	42							40	28			9	16	11		100
	30	65	46							50	31						7	150
	60			35	48.5	25	20	3.5	3.5			26	27	19	9.5	17		300
	80S	73	50		56.5				11.5	52	33	34				14	9	400
SMPLKS	100	103	65	48	58	30	24	4	4	76	42	31	34	25	13	19	17	500
	30	65	46							50	31						11	7
	60			35	48.5	25	20	3.5	3.5			26	24	19	9.5	15.5		300
	80S	73	50		56.5				11.5	52	33	34				14	9	400

Type	Size																	
	L	L1	L2	T	H	H1	J	K	P	P1	P2	A	A1	t	t1	d	d1	
SMPLK	60			35	79.5	25	20	3.5	34.5	52	33	57	27	19	3.5	17	14	600
	80	73	50		87.5				42.5			65						800
SMPLKS	100	103	65	48	89	30	24	4	35	76	42	65	34	25	13	19	17	1000
	80	73	50	35	87.5	25	20	3.5	42.5	52	33	65	24	19	9.5	15.5	14	800

High temperature mold can choose heat resistant SMPLKH.



Installation diagram



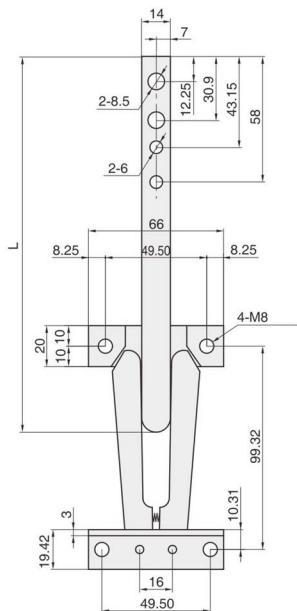
FORCED RETURN SET

FRET



Characteristic

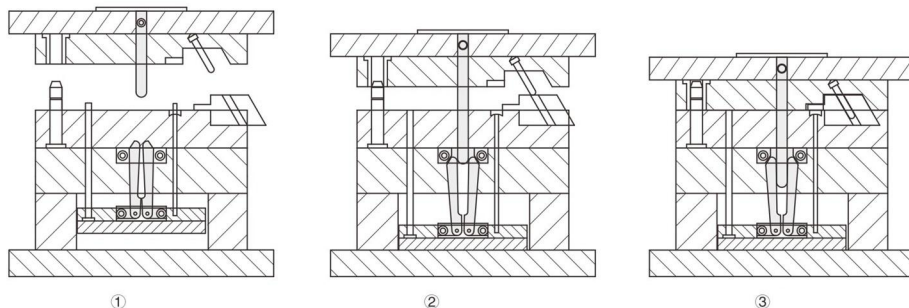
The fixed side and the movable side are open, and the pressure returning and ejector mechanism is synchronously performed during the clamping operation to ensure the forced returning of the ejector mechanism, thereby effectively preventing the oblique top block and the oblique guide column from being stuck due to unbalance during the returning process. Causes damage to the surface of the cavity.



Type		M	H	S
FRET	FRETL	SCM21	50-52HRC	(Fe ₃ O ₄)

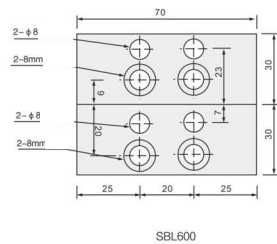
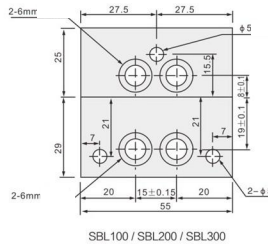
Type	L
FRET	220
FRETL	200-400

Functional chart



LATCH LOCK

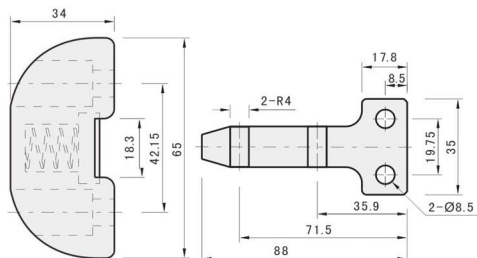
SBL



Applicable to the three template needle injection mold, has the function of breaking the head and release a completed. Precision casting, precision, hook adopts advanced alloy steel by heat treatment and grinding, ditch is particularly strong, on both sides of the use of heat-resistant spring sheet, good elasticity, heat tolerance, several die one hundred thousand times capacity. The locking device to the outside force, not to hurt the mold, after the device has symmetrical sides, fixed pin hole of 5mm cutter knife; and fixed by the fixing pin, to increase the fixed.

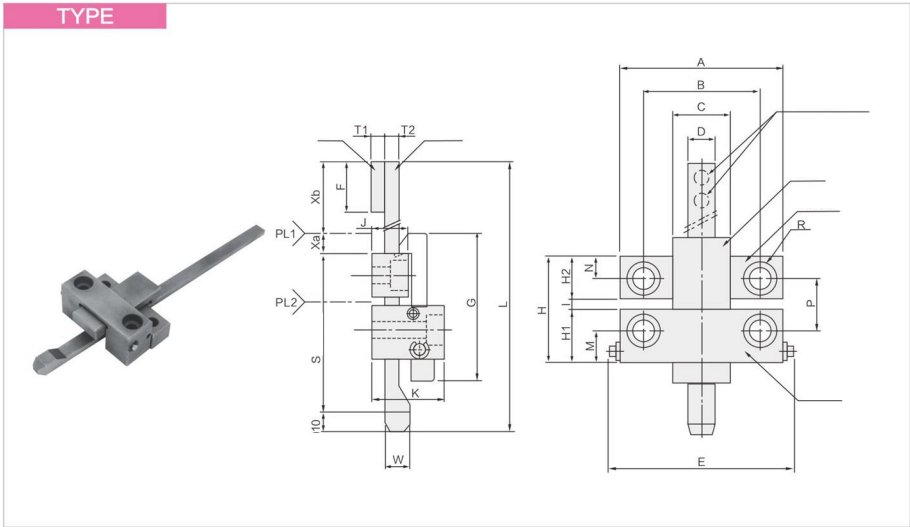
Type	(Kgf)
SBL100	100
SBL200	200
SBL300	300
SBL600	600

SLD



M	H
SCM21	HRC 55-60

LATCH LOCK



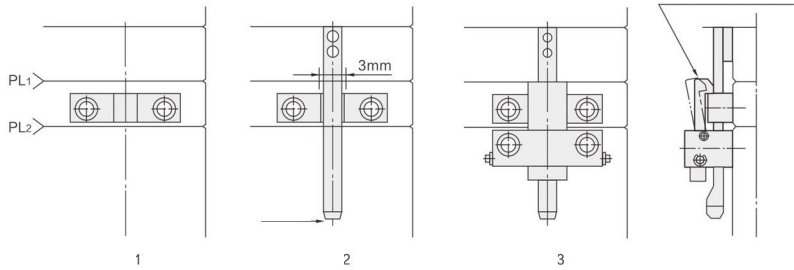
Type	N	A	B	C	D	E	F	G	H	H1	H2	I
TYPE-S	44129	73	52	26	12	78	40	69	49	25	20	4
TYPE-L	107872	103	76	45	18	108	50	80	58.5	30	24	4.5

Type	J	K	L	M	N	P	T1	T2	R	W	A	JCCB
TYPE-S	16	32	250	14	10	25	5.5	6	M8	11.2	8x30、8x45	
TYPE-L	18	38	300	16.5	12	30	5.5	8	M10	13.2	10x30、10x50	

Precautions

- Closed mould resistance is small, and it is most suitable for low-pressure closed mould forming.
- Simple structure, simple installation and large clamping force.
- The action state is visible and the unlocking point is easy to adjust.
- Not affected by mould temperature, reliable operation.

Functional chart

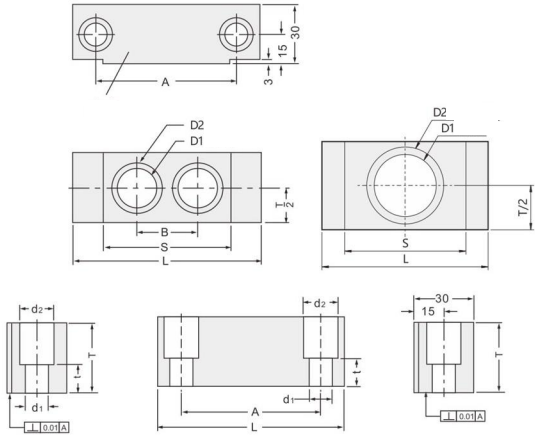


LATCH LOCK

SMLK



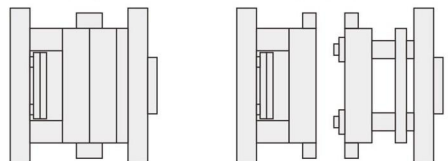
M
SS400+



Type	(kgf) 20°C	A	B	S	L	T	t	D1	D2	d1	d2
SMLK-40	40kgf	63	25	60	80	25	12	18	22	9	14
SMLK-80	80kgf										
SMLK-100	100kgf	100	39	79	126	40	15	30	34	11	18
SMLK-200	200kgf	100	39	79	126						
SMLK-400	400kgf	100	39	79	126	50	30	20	35	13	20
SMLK-600	600kgf	100	39	79	126						
SMLK-800	800kgf	124	39	79	150	60	30	20	35	13	20
SMLKC-20	20kgf	36	—	36	50	25	—	17.5	22	6.6	11
SMLKC-40	40kgf	36	—	36	50	25	—	17.5	22	6.6	11
SMLKC-50	50kgf	52	—	52	70	40	—	29.5	34	9	14
SMLKC-100	100kgf	52	—	52	70	40	—	29.5	34	9	14

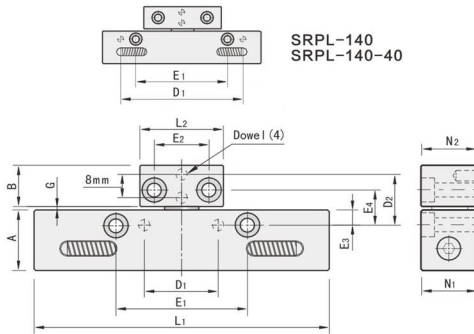
■ Precautions

- Comparing with other MOLD locking buckle, it is much easier to install.
- Deceleration is basically not needed
- During die assembly so that it shortens shaping cycle.
- Compared with SMLK,SMLKC overall dimensions is reduced 50%~60%.



LATCH LOCK

SRPL-P



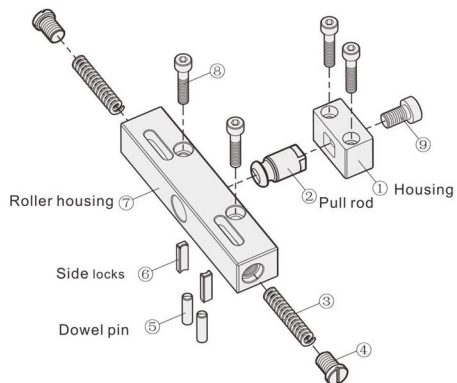
P20 & SKD61

Type	L1	L2	N1	N2	A	B	G	Dowel pin
SRPL-P	135	38	25	25	28	19	1	φ 5
							40	
	140	64	32		32	22	2	φ 6
							38	

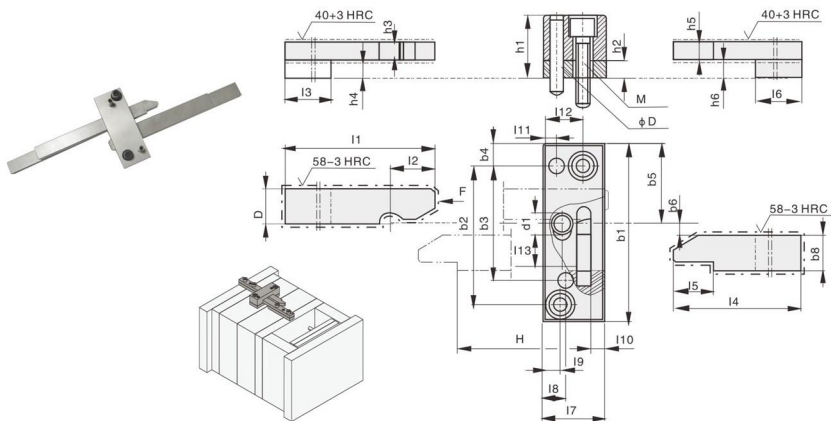
Type	E1	E2	E3	E4	D1	D2	Mounting screws	(kgf)
SRPL-P	60	25	7	15.6	30	22.1	M6 × 25	10
				54.6		61.1		
	70	35	10	23.1	100	28.1	M10 × 35	150
				59.3		64.3		

Precautions

- The clamping buckle is a precision device and must be installed symmetrically, otherwise it may cause the unbalanced force of the single set of clamping buckle and cause the clamping buckle to break;
- Precise coordination between the clamping components, please do not use it with other self-processed parts;
- If the mold needs to be repaired and changed, please remove the clamping device before proceeding with subsequent operations.



SZ170

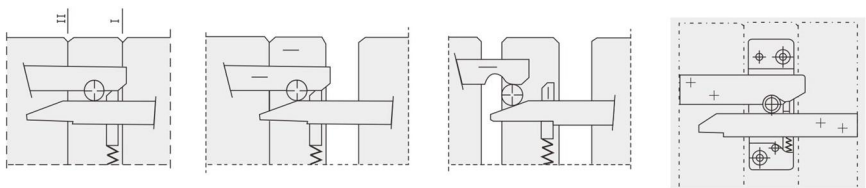


Designed simple, easy to install,
the height is adjustable when operating.
test proved that you can choose one from Z170 and Z171.

Type	b1	l7	b4	l11	l9	l8	l12	b5	l13	h2	l1	b7	h3	l4	b8	h5	d1	l6
SZ170/1	63	22	8	5	6	8	14	28.5	7	6	100	12.5	6	125	12.5	6	8	80
SZ170/2	90	34	13	8	8	18	24	45	16	7.5	140	20	12.5	160	16	12.5	12	117
SZ170/3	110	42	15	9	9	22	31	55	20	12	200	25	16	250	20	16	14	125

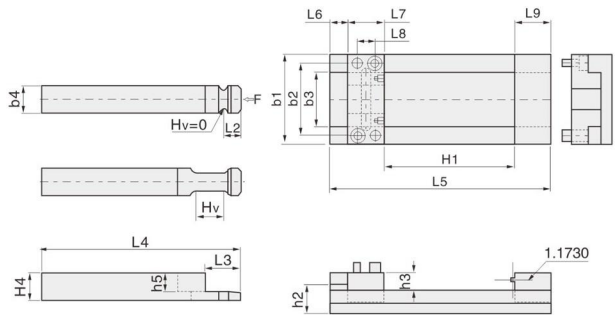
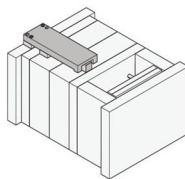
Type	h6	l3	h4	l5	l2	l10	F [N]	H min	H max.	h1	h6	b2	b3	φ D	M
SZ170/1	6.5	63	6.5	14.1	16	5	8000	5.5	80	22	4	49	40.5	φ 5x30	M5x25
SZ170/2	8	98	8	17.86	22.5	5	14000	9.5	110	32.5	6	69	62	φ 6x50	M6x40
SZ170/3	12.5	100	12.5	18	25	7	24000	10.5	190	44	7	80	80	φ 8x60	M8x45

Functional chart



LATCH LOCK

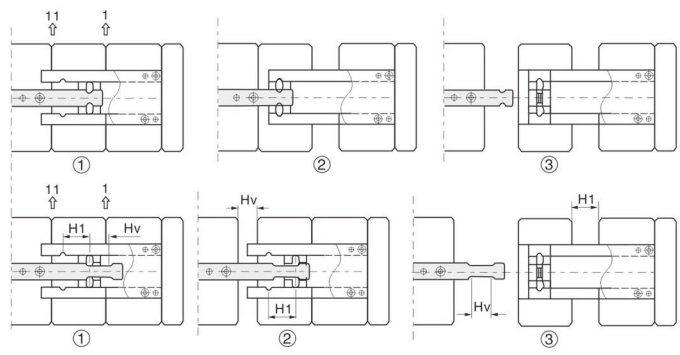
SZ174



Characteristics: Installation and processing are simple. Design of mechanical interlock is safe and reliable. Connecting body and square positioning make product more accurate. People can select corresponding product according to die load. There shall be at least 2 sets on template for symmetrical use. Operating temperature range is 120°C.

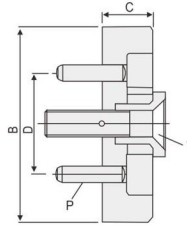
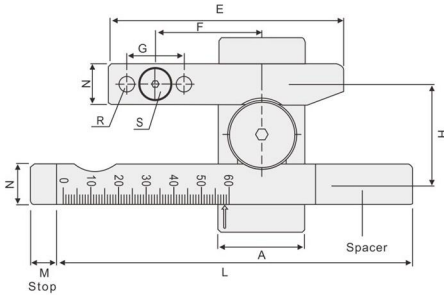
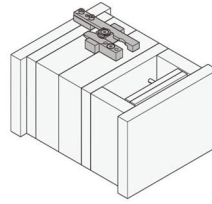
Type	b1	H1	Hv	L5	L4	L3	L2	h5	h4	h3	h2	h6	b4	b3	b2	L9	L8	L7	L6			F(N)
SZ174/50	50	90	0 20	140	140	20 40	9.75	10	16	9.3	16	22.3	15	30.05	40	20	10	20	10	M4 × 12	6 × 20	16000
		130	0 50	180	180	20 70																
SZ174/80	80	117	0 32	200	200	34 66	16.75	13	21	12.3	22	30.3	20	45.05	60	34	16	34	15	M6 × 16	6 × 20	27000
		167	0 75	250	250	34 109																
SZ174/100	100	145	0 50	250	250	45 95	22.25	16	27	15.5	27	37.5	25	60.05	80	45	22	45	15	M8 × 18	8 × 24	48000
		195	0 80	300	300	45 125																

Functional chart



LATCH LOCK

SGS



M	H
1.0503	HRC 55° ± 3°

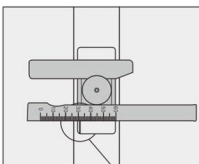
More accurate first plate opening compared to other conventional systems. Scale lever indicates opening of the first plate. Reduces costs compared to conventional mechanisms.

Type	Size															sca
	A	B	C	D	E	F	G	H	L	M	N	P(x2)	R(x4)	S(x2)	T	
SGS.226616	22	66	16	38	75	30	25	32	105	10	15	φ 6x20	φ 6x30	M6x30	M6x35	40
SGS.368619	36	86	19	46	102	43	32	42.7	153	12	20	φ 8x24	φ 8x36	M8x36	M8x40	60
SGS.421024	42	106	24	56	124	51	40	50.2	190	15	24.5	φ 10x30	φ 10x40	M10x40	M10x45	80

Note: Fixup the scale bar in cushion plate before choose the length.

Functional chart

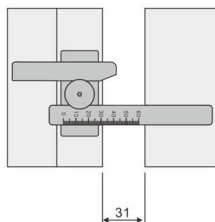
Closed state



Choose 31 inscalebar

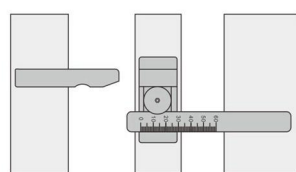


The first time open mole



Openmold length is 31.

The second time open mole



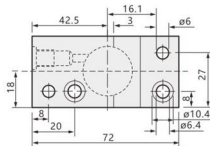
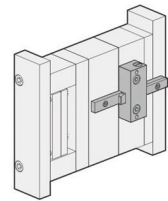
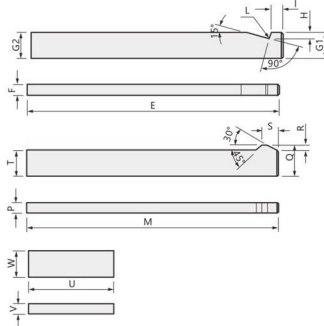
Separate completely

LATCH LOCK

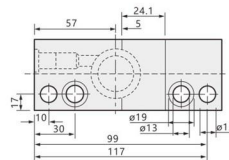
LLL



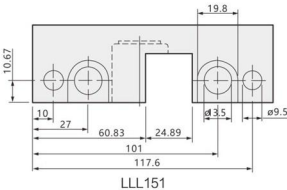
Eliminate the possibility of breaking the mold, as there is no need for any adjustments that can be changed or connections that may be accidentally knocked out. Suitable for general or heavy duty molds, requiring a minimum of four clamping clasps per pair of molds.



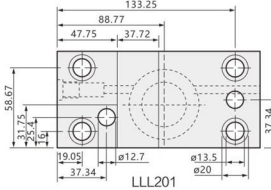
LLL051E



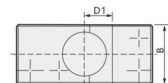
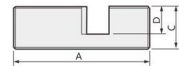
LLL101E



LLL151



LLL201

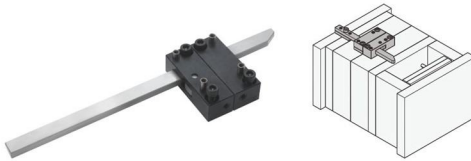


Type	Size										
	A	B	C	D NOM.	E	F	G1 NOM.	G2 NOM.	H	I NOM.	L RAD.
LLL 051E	80	35	25	16.2	180	7.9	16	16	3.4	6	1
LLL 101E	127	47	37	22.2	254	11.9	24	24	3.5	12	
LLL 151		49.2	36.5			12.07	24.56	24.81	2.92	12.7	0.75
LLL 201	152.5	74.6	61.9	38.1	406	24.77	37.21	37.46	4.75	15.9	1

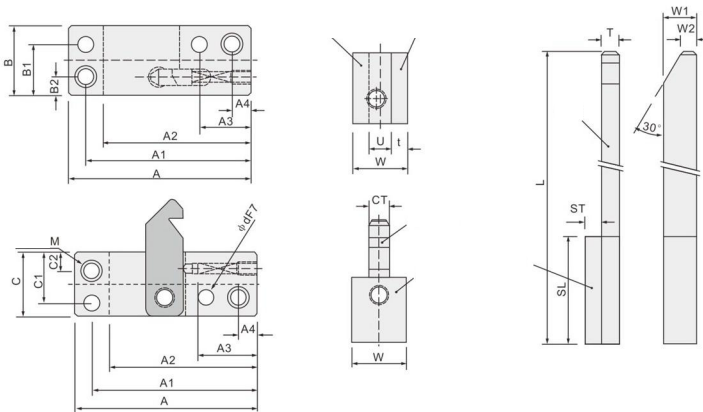
Type	Size								
	M	P	Q	R NOM	S	T	U	V	W
LLL 051E	180	7.9	16	3	3.5	12.5	55	8	12
LLL 101E	254	9.9	24	4	16	20	75	12	20
LLL 151		9	24.81	4.76	15.87	20.95	76.2	12.39	22.22
LLL 201	406	12.07	37.46	6.98	22.22	31.87	114.3	25.27	38.1

LATCH LOCK

SPL

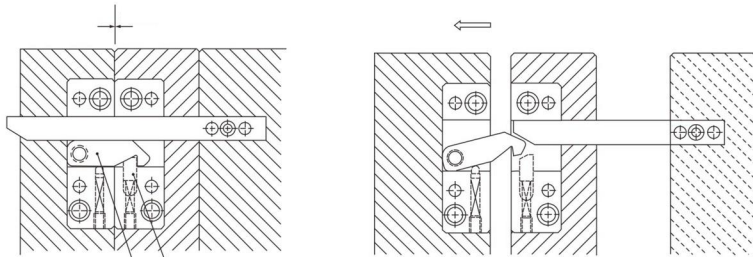


It with small frame, but open mold exactly and no counteractive. no lock load, apply to low pressure lock molding. It's action irrespective of compound molding sequence. locking blocks have back function when hot runner plate close before devide face.



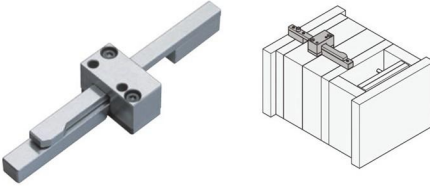
Type	A	A1	A2	A3	A4	B	B1	B2	C	C1	C2	W	U		d	t	w1	w2	T	L	ST	SL
SPLS	68	61.5	55	19	7	26	19	7	24	17	7	20	8	M6	φ6	6	13	5.9	7	250	6.5	40
SPLM	88	79	70	24	9	38	29	9	30	21	9	30	12	M8	φ8	7	16	8	10	300	8	50
SPLL	104	93	82	27	11	48	37	11	38	27	11	45	20	M10	φ10	8	20	9.5	15.5	350	10.2	55

Functional chart

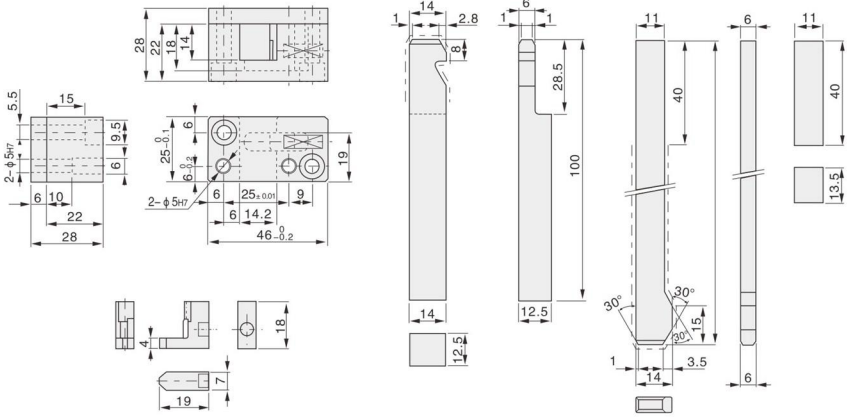


LATCH LOCK

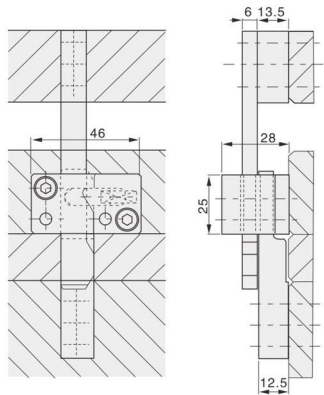
PLSW



The structure of hooked locking pin and repeated actions of plug pin makes the product miniaturization so that it saves installation space. It can also be used for ejection of stripper plate.

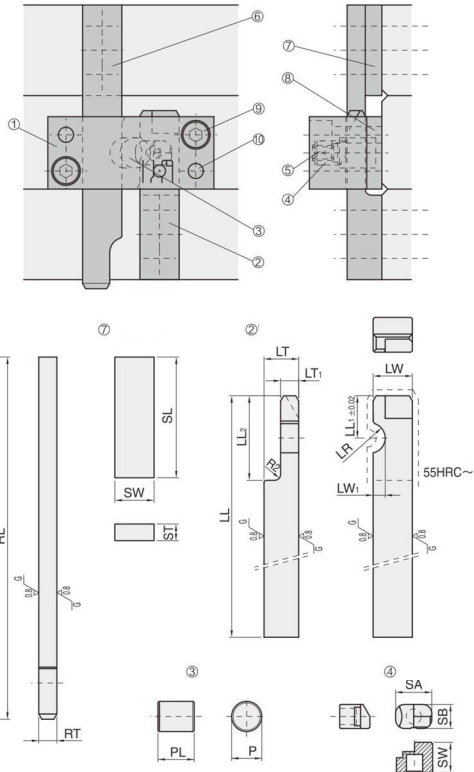


Functional chart



LATCH LOCK

PLSZ / PLMZ



No.	Type	M	H
①			HRC 50-55
②			HRC 58~
③			HRC 58-60
④			HRC 58-60
⑤		SUS631	
⑥			HRC 55~
⑦		S45C	
⑧			HRC 50~
⑨		SCM435	HRC 43
⑩		SUJ2	HRC 50

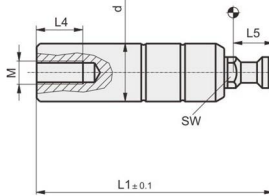
- Because the hook lock pin is longer, it can also be applied to the ejection of the runner push plate.
- Effectively control the order of opening and closing MOLD without reaction force.

Type	①										②								
	A	A1	A2	B	B1	B2	d	M	W	T	LW	LW1	LR	LL	LL1	LL2	LT	LT1	
PLSZ	55	43	6	24	12	6	5	5	24	5	13	4	5	100	14	28	11.5	6	
PLMZ	67	53	7	32	16	8	6	6	32.5	6	18	5	6	150	18	36	16.5	10	

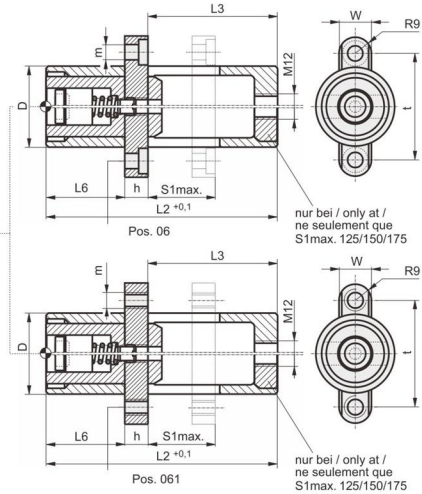
③		④			⑤	⑥						⑦			⑧		⑩
P	PL	SA	SB	SW		RW	RW1	RR	RL	RL1	RT	SW	SL	ST	CB5	CB6	
10	12	12	8	10	WLH5- 15	13	4	5	150	12	6	13	40	5.5	CB5 25	MSTM5 30	
12	17	16	10	13	WLH6- 20	16	5	6	200	16	10	16	50	6.6	CB6 35	MSTM6 35	

INTERNAL LATCH LOCK

SZ3



Characteristics: It has reset mechanism and double ejection device function. Good lubrication is needed in usage so that product life can be much longer and the product can become more abrasion resistant.



Type	S1	d	D	L1	L2	L3	L4	L5	L6	h	t	w	M	m
SZ3-11	16	17	25	45	66	33	20	10.8	25	8	35	10	M8	M5
				70										
	40			100	90	57								
	60			125	110	77								
				150										
SZ3-21	25	25	34	70	86	42	40	14.25	34	10	46	14	M10	M6
	120													
	170			111	67									
	120			136	92									
	170													
	75			220	161	117								
	100			270	186	142								
				220	211	167								
	125			270										
	150													
SZ3-31	50	30	42	125	130	76	50	18.4	42	12	57	18	M12	M8
	175													
	225			155	101									
	75			175	180	126								
	225			205	151									
	100			275	230	176								
	125			325										
				275	255	201								
	150			325										
	175													

090
442 819 21 51

LATCH LOCK

SZ5-0



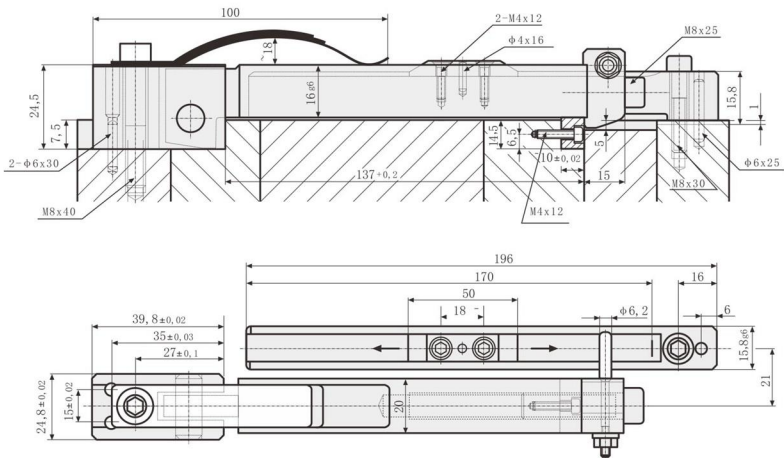
SZ5-0



SZ5-1



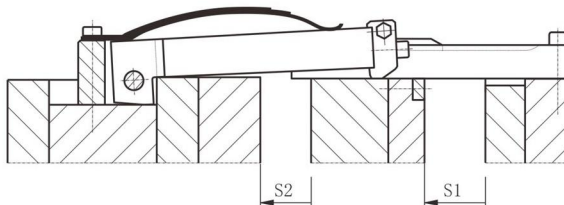
SZ5-2



■ Precautions

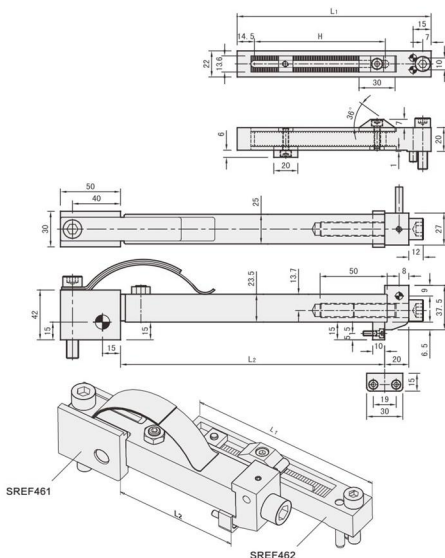
Characteristics: Installation is convenient. Spring design is safe and reliable. The stroke needs to be calculated accurately. Implement die opening in equilibrium state. Otherwise, the product will be damaged. There shall be at least 2 sets on template for symmetrical installation.

■ Functional chart



LATCH LOCK

SREF



■ Precautions

- The part of stroke adjustable adopt dental saw design , save dowel pin holes process , at the same simplify stroke adjustable.
- Unique shrapnel design , safety and reliable , and easy to install .
- 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.

Type	L1	L2	H
SREF460	140	90	83.5
	204	170	152
	254	220	254

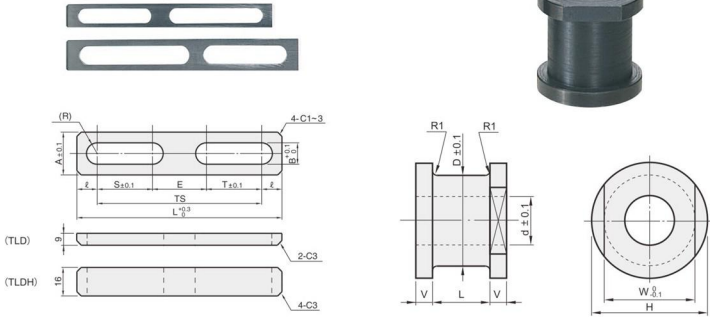
Type	L1	H
SREF462	140	83.5
	204	152
	254	194.5

Type	L1
SREF461	90
	170
	220

Pos	1	2	4	10	13	14
	Cr12MoV	P20	Cr12MoV	SKD61	SKD11	P20
	58-62HRC	26-33HRC	55-58HRC	52±2HRC	55-58HRC	26-33HRC

TENSION LINKS

TLD / LKT

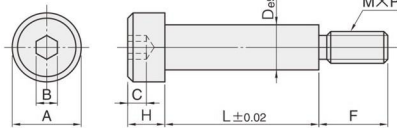


M
S45C / SCM435

Type	A	D	ℓ	L	5mm			
					S	E	T	TS
TLD	19	11	15	TS+30	15~130	25~235	40~140	70~290
	25	14	17.5	TS+35	15~135	25~245	40~140	80~300
	32	17	17.5	TS+35	25~140	25~275	50~180	105~350
	38	21	20	TS+45	25~150	30~295	50~185	115~375

Type	No.	A	d	D-W	H	L	V
LKT	10	19	6.5	10	13	11	3
	10-18					18	4
	13	25	9	13	19	11	3
	13-18					18	4
	16	32	11	16	22	11	3
	16-18					18	4
	20	38	13	20	26	11	3
	20-18					18	4

Z38



M	H	S
SCM435	HRC 30~35	Fe ₂ O ₃

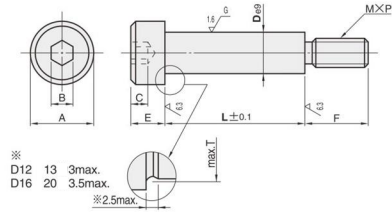
Type	D		A		H		MxP	F		C	B
	Max	Min	Max	Min	Max	Min		Max	Min		
Z38-6	5.987	5.951	10	9.78	4.5	4.32	M5X0.8	9.75	2.4	3	
Z38-6.5	6.487	6.451	10.22	9.78	4.5	4.32	M5X0.8	9.75	2.4	4	
Z38-8	7.987	7.951	13.27	12.73	5.5	5.32	M6X1	11.25	3.3	4	
Z38-10	9.987	9.951	16.27	15.73	7	6.78	M8X1.25	13.25	4.2	5	
Z38-12	11.984	11.941	18	17.73	9	8.78	M10X1.5	16.4	4.9	6	
Z38-13	12.984	12.941	18.27	17.73	9	8.78	M10X1.5	16.4	4.9	6	
Z38-16	15.984	15.941	24.83	23.67	11	10.73	M12X1.75	18.4	6.6	8	
Z38-20	19.980	19.928	30.33	29.67	14	1.73	M16X2	22.4	8.8	10	
Z38-24	23.98	23.928	36	35.61	16	15.73	M20X2.5	27.4	10	12	
Z38-25	24.98	24.928	36.39	35.61	16	15.73	M20X2.5	27.4	10	12	

STOP BOLTS

MSB



M	H	S
SCM435	HRC 30~35	Fe ₂ O ₃



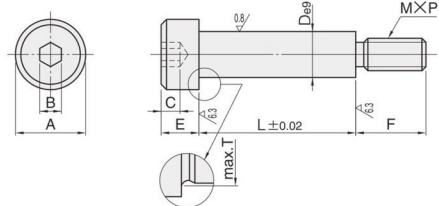
Type	D		A	B	C	E	F	MXP	T	L
MSB	4	-0.02 -0.05	6.5	2.5	1.6	3	5	2.5X0.45	4.5	10-45 (+5mm)
	4.5		7				6	5	10-50 (+5mm)	
	5		8			3.5		3x0.5	5.5	10-50 (+5mm)
	5.5		9	3	2.2	4	7	4X0.7	6	10-55 (+5mm)
	6				2				6.5	10-70 (+5mm)
	6.5	-0.025 -0.061	10	4	2.5	5	9	5X0.8	7	10-80 (+5mm)
	8		13	5	3	6		6X1.0	8.7	10-120 (+5mm)
	10		16	6	4	8	12	8X1.25	10.8	10-120 (+5mm) (+10mm)>100mm
	12	17	12.8						10-100 (+5mm)	
	13	-0.032 -0.075	18	8	5	10	16	10X1.5	14	10-130 (+5mm) (+10mm)>100mm
	16		24	10	7	14	18	12X1.75	17	15-150 (+5mm) (+10mm)>100mm
	20	-0.04 -0.092	27	14	9	18	24	16X2.0	21	40-150 (+10mm)

MSBL

长度精密型



M	H	S
SCM435	HRC 30~35	Fe ₂ O ₃

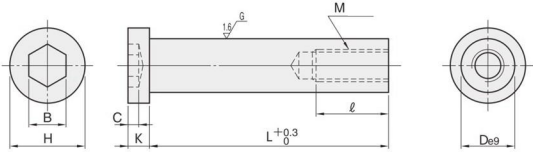


Type	D		A	B	C	E	F	MXP	T	L
MSBL	6.5	-0.025 -0.061	10	4	2.5	5	9	5X0.8	7	10 15 20 25 30 40
	8		13	5	3	6		6X1.0	8.7	10 15 20 25 30 35 40 45
	10		16	6	4	8	12	8X1.25	10.8	10 15 20 25 30 35 40 45 50
	13	-0.032 -0.075	18	8	5	10	16	10X1.5	14	15 20 25 30 35 45 50
	16		24	10	7	14	18	12X1.75	17	20 25 30
	20	-0.04 -0.092	27	14	9	18	24	16X2.0	21	20 25 30

PULLER BOLTS

LATCH LOCK COMPONENT SERIES

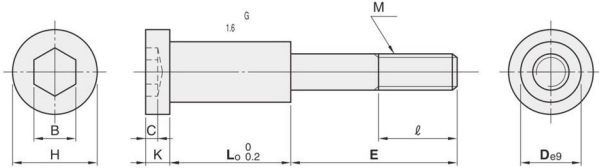
PBTN



M	H
SCM435	HRC33~38

Type	D		H		K		C		M	ℓ	B	L
PBTN	10	0 -0.15	16	0 -0.43	8	0 -0.36	4	0 -0.36	M6	17	6	40-180
	13		18				4		M8	20	8	60-280
	16		24	0 -0.52			7		M10	23	10	100-300
	20	0 -0.20	27		13	0 -0.43	9	0 -0.43	M12	26	14	120-400
	25		33	0 -0.62			10		M16	32	17	170-400

STBG



M	H
SCM435	HRC33~38

Type	D	C	K	H	B	M	ℓ	L	E							
STBG	10	4	8	16	6	6	17	10	19	24						
								15	19	24	29					
								20	19	24	29	34				
	13	4		18	8	8	20	10	22	27						
								15	22	27	32	37				
								20	22	27	32	37	42			
								25	27	32	37	42				
								30	27	32	37	42	47			
								35				37	42	47		
	16	7	13	24	10	10	23	10	30	35						
								15	30	35	40					
								20	30	35	40	45				
								25	30	35	40	45	50			
								30	35	40	45	50	55			
								35				45	50	55		
	20	9	13	27	14	12	26	15	38	43						
								20	38	43	48					
								25	38	43	48	53				
								30	48	53	58					
								35	48	53	58					
								45				53	58			
	25	10	18	33	17	16	32	15	44	49						
								20	49	54	59					
								25	49	54	59					
								30	49	54	59	64				
								40				54	59	64	69	

RESET EJECTION SERIES >>>>



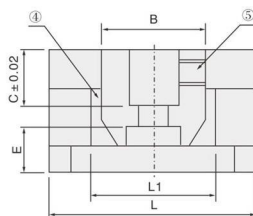
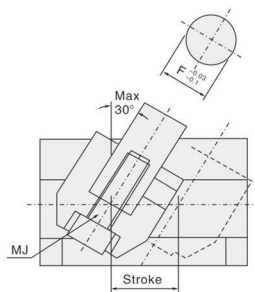
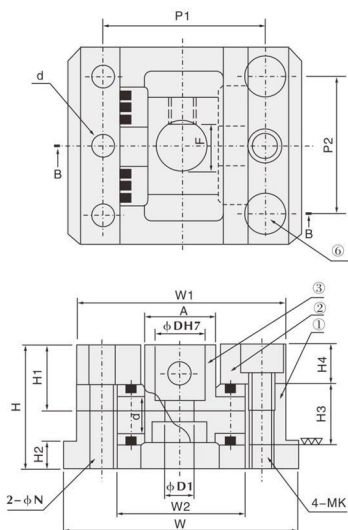
REFAMOLD
REFACCIONES Y SERVICIOS
PARA MOLDES DE INYECCIÓN



KOCUS

Table of components

Item	Part name	Material	Quantity
(1)	Slide base	S45c	1
(2)	Upper plate	S45c	2
(3)	Inclined pin holder	S45c	1
(4)	Slide plate	Bronze with graphite	2
(5)	Socket head screws	Scm435	1
(6)		Scm435	4



Type	D	d	D1	A	B	C	E	F	MJ	H	H1	H2	H3	H4	L	L1	W	W1	W2	P1	P2	MK	ϕN	Stroke
KOCUS-8	8	7	4.5	11	20	8	10	7	M4	22	12.5	5	11	7	32	20	33	30	19	24	20	M3	3	10
KOCUS-10	10	7	5.5	15	25	10	12.5	9	M5	27	15.5		15	8	45	25	45	40	25	32	30	M4	4	18
KOCUS-12	12	10	7	17	25	12	15	11	M6	32	18	7	16	10	50	30	57	51	31	39	35	M6	6	20
KOCUS-16	16	12	9	22	30	16		14.5	M8	36	20	8	20		65	40	65	58	38	46	40			25
KOCUS-20	20	14	11	26	40	20	16	18	M10	42	23	11	22	12	80	50	80	72	44	56	55	M8	8	30
KOCUS-25	25	16		32	45	25	17	22.5		50	28		26	15	90	55	93	85	52	66	65	M10	10	35
KOCUS-30	30	18	14	38	50	30		27	M12	55	30		30		100	60	101	93	60	74	70			40
KOCUS-35	35	20		45	60	35	18	32		62	35	15	34	18	120	75	120	110	70	85	80	M12	10	45
KOCUS-40	40	25	18	55	70	40	19	36		70	40		44		135	85	130	120	80	95	90			50
KOCUS-45	45	30	18	60	80	45	24	40	M16	80	45		50	20	150	95	140	130	90	105	110			55

SLIDE CORE UNITS

RCSUF

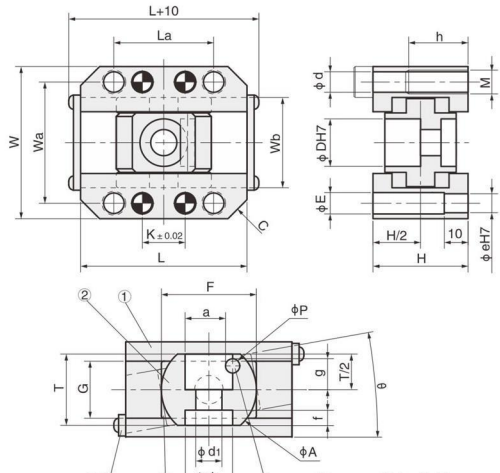


Table of components

Item	Part name	Material	Quantity
①	Slide Base	S45C	2
②	Inclined Pin Holder	S45C	1
③	Slide Plate	Bronze with Graphite	2
④	Key	S45C	1
⑤	Stopper	S45C	2
⑥	Round Head Screw	SCM435	4

*Remove ⑤ Lock Plate as required for operation.

Type	D	θ°	W	Wa	L	K	La	Wb	C	d	M	h	e	E	H
RCSUF	10	$0^\circ\sim5^\circ$	45	36	50	16	30	26	3	3.5	M 5	14	5	6	28
	12		51	40	60	20	40	29	4	6.6	M 8	20	6	6.6	35
	16	$0^\circ\sim20^\circ$	54	44	65	18	38	33	8	6.6					
	20		64	51	70		42	38		8.6	44				
	25		70	58	80	20	45	45	10	8.6	54				
	30		78	64	100	40	70	51	8	8.6	M12	30	10	11	60
	35		92	75	115	50	58	10.6	65						
	40		100	82	125	50	85	66	10.6						

H Dimension ($11^\circ \leq \theta \leq 20^\circ$)

D	T	G	F	A	p	a	g	d1	d2	f
10	16	17	28	20	3	8.5	6.5	6	10	3
12	20	20	36	25	4	10	8	7	12	5
16	24		40	30	6	13	10	9	16	6
20	30	24		40		17	13	11	20	7
25	35	26	45	45		22	14	14	25	9.5
30	38	30	55	50	27	15	9			
35	40	34	70	55	31			10		
40	43	38		60	8	36	16	18	32	11.5

D	$11^\circ \sim 15^\circ$	$16^\circ \sim 20^\circ$
10	—	—
12	—	—
16	41	48
20	47	55
25	52	61
30	62	72
35	70	82
40	78	90

RCSUM

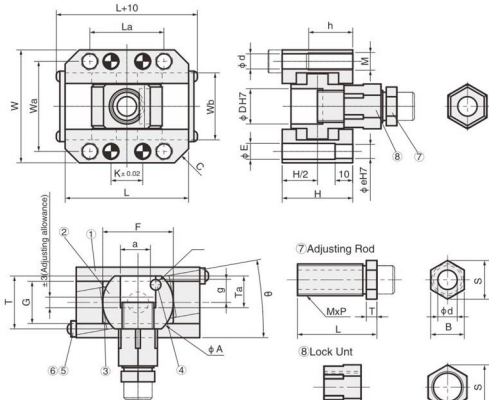


Table of components

Item	Part name	Material	Quantity
①	Slide Base	S45C	2
②	Inclined Pin Holder	S45C	1
③	Slide Plate	Bronze with Graphite	2
④	Key	S45C	1
⑤	Stopper	S45C	2
⑥	Round Head Screw	SCM435	4
⑦	Adjust Rod	S45C	1
⑧	Lock Nut	S45C	1

*Remove ⑤ Lock Plate as required for operation.

Type	D	θ°	W	Wa	L	K	La	Wb	C	d	M	h	e	E	H	T	G	F	A	p	a	g	Ta
RCSUM	16	$0^\circ\sim10^\circ$	54	44	65	18	38	33	8	6.6	M 8	20	6	6.6	35	24	20		30	6	13	10	15
	20		64	51	70	18	42	38							40	30	24	40	40		17	13	18
	25		70	58	80	20	45	45		10	8.6	M10	25	8	9	44	35	26	45		45	22	14
	30		78	64	100	40	70	51	8						54	38	30	55	50	27	15	22	
	35		92	75	115		85	58		10.6	M12	30	10	11	60	40	34	70	55		31		23
	40		100	82	125			66			M12	30	10	11	65	43	38		60	8	36	16	24.5

H Dimension ($11^\circ \leq \theta \leq 20^\circ$)

D	$11^\circ \sim 15^\circ$	$16^\circ \sim 20^\circ$
16	41	48
20	47	55
25	52	61
30	62	72
35	70	82
40	78	90

M x P	⑦ Adjusting Rod					⑧ Lock Unt		
	L	T	d	S	B	H	S	B
M14 x 1.5	42(50)	6	9	16.2	14	21(28)	19.6	17
M18 x 1.5	45(54)		11	21.9	19	21(29)	25.4	22
M22 x 1.5	49(59)	7	13	25.4	22	21.5(30.5)	31.2	27
M27 x 1.5	54(64)			31.2	27	25(35)	37	32
M30 x 1.5	58(68)			37	32	28(38)	41.6	36
M36 x 1.5	60.5(70.5)		17	43.9	38	29(39)	47.3	41

KOCUF

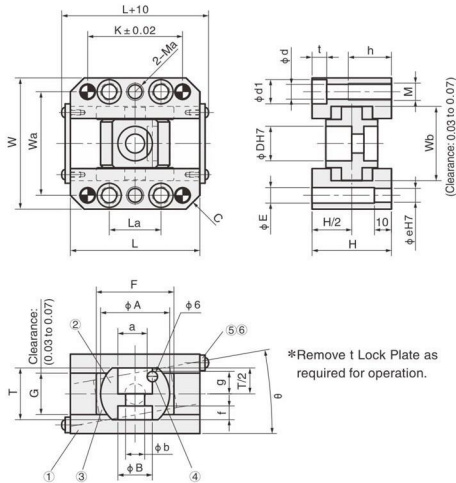


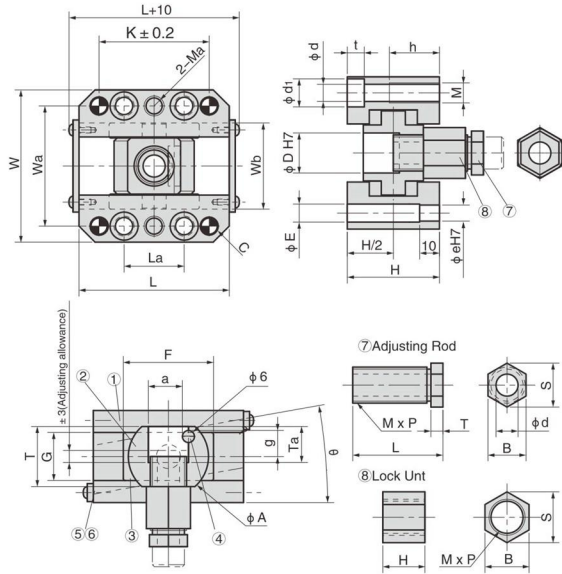
Table of components

Item	Part name	Material	Quantity
①	Slide Base	S45C	2
②	Inclined Pin Holder	S45C	1
③	Slide Plate	Bronze with Graphite	2
④	Key	S45C	1
⑤	Stopper	S45C	2
⑥	Round Head Screw	SCM435	4

*Remove 1 Lock Plate as required for operation.

Type	D	W	Wa	L	La	K	Ma	C	H	e	E	d	d1	t
KOCUF	8	41	33	44	12	25	M4	3	24	4	5	3.4	6	3.4
	10	47	38	50	16	30	M5		28	5	5.5	4.5	8	5
	12	53	42	60	20	40	M8	4	36	6	7	6.6	11	4.8
	16	64	50	70	25	50		6	40		6.6			6.5
	20	76	60	75	30	55	M10	8	46	8	9	8.6	14	8.5
	25	81	65	85	40	65			48					
	30	88	72	100	50	80			54					
	35	100	80	115		M12			60	10	11	11	18	6.5
	40	108	88	125					85	M12				65

D	h	M	Wb	A	a	B	b	g	F	f	G	T	
8	10	M4	24	20	7.5	10	5	6.5	25	5	13	16	1~5°
10	15	M5	28		8.5	12	6		32	4	17		-
12	20	M8	31	25	10	13	7	8.5	40	5	20	20	-
16		M8	36	30	13	16	9	10	45	6	24	24	1~5°
20	25	M10	43	40	17	20	11	13		8		30	-
25			48	45	22	25	14	15	50	9.5	26	35	-
30			55	50	27				60	9	30	38	1~5°
35	30	M12	64	55	31	25	18	16	70	10	34	40	-
40			72	60	36	32			80	11.5	38	43	1~5°

KOCUM

Table of components

Item	Part name	Material	Quantity
①	Slide Base	S45C	2
②	Inclined Pin Holder	S45C	1
③	Slide Plate	Bronze with Graphite	2
④	Key	S45C	1
⑤	Stopper	S45C	2
⑥	Round Head Screw	SCM435	4
⑦	Adjust Rod	S45C	1
⑧	Lock Nut	S45C	1

Type	D	θ°	W	Wa	L	La	K	Ma	Wb	C	d	H	e	E	d1	t	h
KOCUM	16	0°~10°	64	50	70	25	50	M8	36	6	6.6	40	6	6.6	11	6.5	20
	20		76	60	75	30	55	M10	43	8	8.6	46	8	9	14	8.5	25
	25		81	65	85	40	65		48			48					
	30		88	72	100	50	80		55			54					
	35		100	80	115		85	M12	64	11		60	10	11	18	6.5	30
	40		108	88	125				72			65				7	

M	A	a	g	F	G	T	Ta
M8	30	13	10	45	24	24	15
M10	40	17	13	50	26	30	18
	45	22	14			35	20.5
	50	27	15			38	22
M12	55	31	16	80	38	40	23
	60	36				43	24.5

M x P	⑦ Adjusting Rod				⑧ Lock Nut			
	L	T	d	S	B	H	S	B
M14 x 1.5	42	6	9	16.2	14	21	19.6	17
M18 x 1.5	45		11	21.9	19		25.4	22
M22 x 1.5	49		13	25.4	22		21.5	27
M27 x 1.5	55	7	13	31.2	27	26	37.0	32
M30 x 1.5	58			37	32	28	41.6	36
M36 x 1.5	60.5		17	43.9	38	29	47.4	41

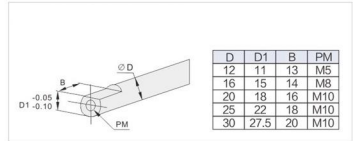
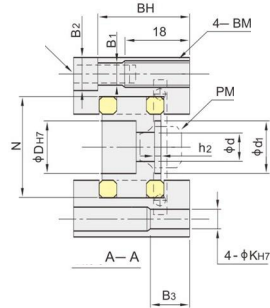
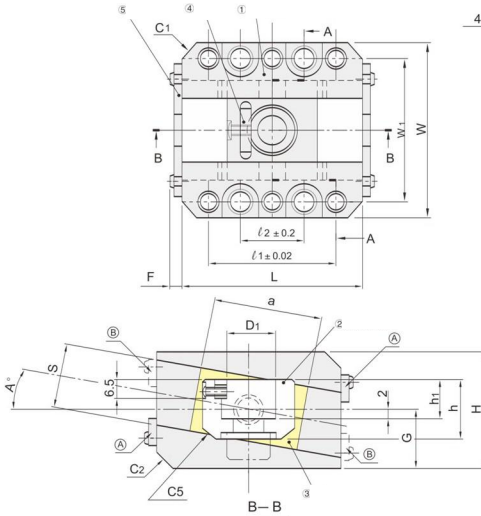
SLIDE CORE UNITS

SCZN



Table of components

Item	Part name	Material	Quantity
(1)	Slide base	S45C	2
(2)	Indined pin holder	S45C	1
(3)	Slide plate	Bronze with Graphite	2
(4)	Key	S45C	1
(5)	Stopper	S45C	2



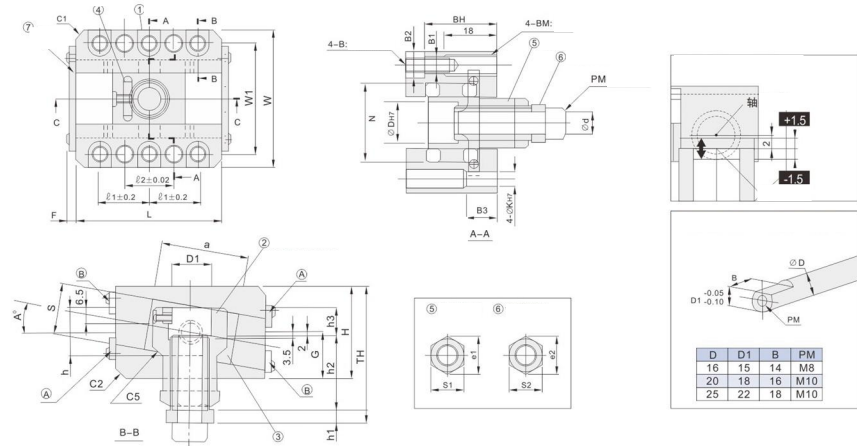
				①				②					③			TH	G	F		
Type	D	A°	W	L	H	C1	C2	D1	d	h	h1	h2	h3	N	S	a	58.5	17.5		
SCZN	12	0 1 3 5	56	55	35	5	—	11	5.5	16	6	36	10	30	20	35	40	59	18	4.65
	16		60	65	36	—	15	9	18	11			33	59	18					
	20		68	70	43	6	5	18	22	13			38	24	65.5	21.5				
	25		75	80	45			22	11	26			39	15	45	26		45	69.5	
	30		81	95	54			27.5	30	41			17	55	30	55		76	27	5.2
	35		98	110	60	32.5	36	50	20	60			34	70	88	30				
	40		105	120	64	37.5	13	40	52	22			67	38	80	92		32		

Type	D	I1	I2	W1	B1	B2	B3	B	BM	BH	K	h4	PM	(A)	(B)
SCZN	12	42	21	45	6.6	11	15	M6	M8	28.5	—	13	M5	0°1°3°5°	—
	16	46	25	48						29.5	6	14	M8		
	20	50	—	55						34.5	—	16	—		
	25	60	35	62	8.6	13.5	20	M8	M10	36.5	8	18	M10	5°	0°1°
	30	75	—	68						45.5	—	20	—		
	35	85	50	81						49.5	—	—	—		
	40	95	60	88	10.6	16.5	—	M10	M12	53.5	10	25	M12	—	—

SCZA

Table of components

Item	Part name	Material	Quantity
(1)	Slide Base	S50C	2
(2)	Inclined Pin Holder	SCM440	1
(3)	Slide Plate	Bronze with Graphite	2
(4)	Key	S45C	1
(5)	Lock Nut	S45C	1
(6)	Adjust Rod	S45C	1
(7)	Stopper	SS400	2



mm

		A°	①					2					③					TH	G	F
Type	D		W	L	H	C1	C2	D1	d	h	h1	h2	h3	N	S	a				
SCZA	12	0 1 3 5	56	55	35	5	—	11	5.5	16	6	33	10	30	20	35	58.5	17.5	4.65	
	16		60	65	36	—	15	9	18	36		11	33	40	59	18				
	20		68	70	43	—	18	22	36	13		38	24	65.5	21.5					
	25		75	80	45	6	22	11	26	39		15	45	26	69.5	22.5				
	30		81	95	54	6	5	27.5	30	41		17	55	30	76	27				
	35		98	110	60	—	32.5	36	50	20		60	34	70	88	30	5.2			
	40		105	120	64	—	37.5	40	52	22		67	38	80	92	32				

Type	D	I1	I2	W1	B1	B2	B3	B	BM	BH	K	⑤		⑥		h4	PM	(A)	(B)
												S1	e1	S2	e2				
SCZA	12	42	21	45	6.6	11	15	M6	M8	28.5	6	17	19.6	12	13.9	13	M5	0°1°3°5°	—
	16	46	25	48	—	—	—	—	—	29.5	—	21	24.2	16	18.5	14	M8	—	—
	20	50	—	55	—	—	—	—	—	34.5	—	—	—	—	—	16	—	—	—
	25	60	35	62	8.6	13.5	—	M8	M10	36.5	8	24	27.7	19	21.9	18	M10	5°	0°1°
	30	75	50	68	—	—	—	—	—	45.5	—	—	—	—	—	20	—	—	—
	35	85	—	81	10.6	16.5	—	M10	M12	49.5	10	27	31.2	21	24.2	23	—	—	—
	40	95	60	88	—	—	—	—	—	53.5	—	—	—	—	—	25	M12	—	—

SLIDE CORE UNITS

MTGL / MTGR

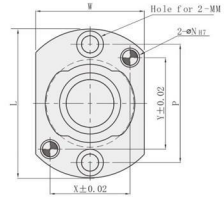
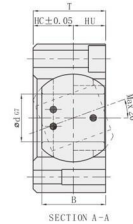


Table of components

Item	Part name	Material
①	Inner wheel	Copper alloy oilless type
②	Outer wheel	S45C

Type	d	L	W	T	HC	HU	B	Mounting hole		Dowel pin hole			Hexagon socket boll	Dowel pin
								MM	P	N	X	Y		
MTGL MTGR	8	44	28	17	9	8	14	M5	32	5	20	28	M5 × 20	φ5 × 20
	10	46	30	20	11	9	16		34				M5 × 25	
	12	50	32	22	12	10	18		36				M6 × 25	
	16	58	45	29	16	13	25	M6	45	6	30	35	M6 × 35	φ6 × 25
	20	65	50	33	18	15	28		52		35	40	M6 × 40	
	25	78	57	38	21	17	33	M8	62	8	40	50	M5 × 45	φ8 × 30
	30	86	65	43	24	19	37		70		48	55	M5 × 50	

MTGHL / MTGHR

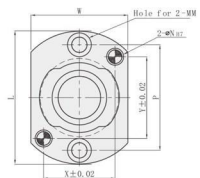
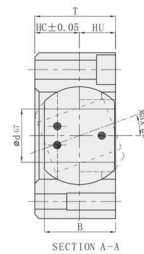
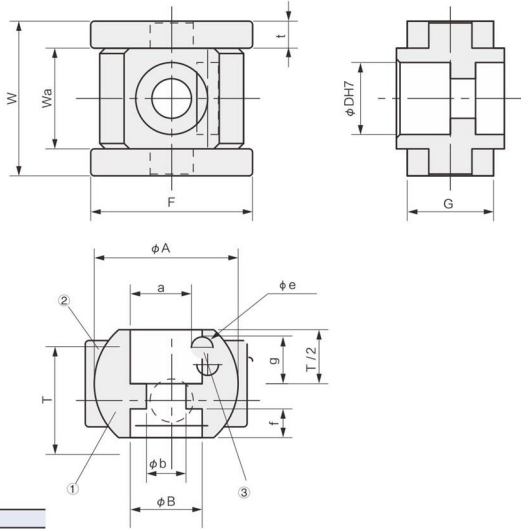
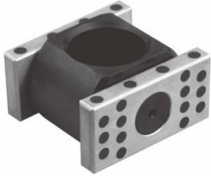


Table of components

Item	Part name	Material
①	Inner wheel	Copper alloy oilless type
②	Outer wheel	S45C

Type	d	L	W	T	HC	HU	B	Mounting hole		Dowel pin hole			Hexagon socket boll	Dowel pin
								MM	P	N	X	Y		
MTGHL MTGHR	25	85	57	42	21	21	33	M10	64	8	42	50	M10 × 45	φ8 × 30
	30	94	65	48	24	24	37		72		48	55	M10 × 55	
	35	98	72	54	27	27	40		78		52	60	M10 × 60	
	40	106	77	58	29	29	44		84		55	65	M10 × 65	
	50	124	88	66	33	33	48	M12	102	10	65	78	M12 × 65	φ10 × 40

KPHF / RCPHF

Table of components

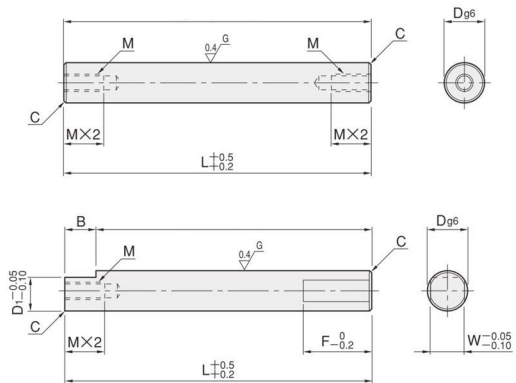
Item	Part name	Material
①	Inclined pin holder	S45C
②	Slide plate	Bronze with Graphite
③	Key	S45C

Type	D	W	Wa	F	t	G	A	a	T	g	f	B	b	e
KPHF	8	24	12	25	6	13	20	7.5	16	6.5	5	10	5	3
	10	28	14	32	7	17	20	8.5	16	6.5	4	12	6	3
	12	31	17	40		20	25	10	20	8.5	5	13	7	4
	16	36	21		45	24	30	13	24	10	6	16	9	6
	20	43	28		7.5	40	17	30	13	8	20	11		6
	25	48	33	50		26	45	22	35	14	9.5			6
	30	55	38	60	8.5	30	50	27	38	15	9	25	14	8
	35	64	44	70	10	34	55	31	40		10			8
	40	72	50	80	11	38	60	36	43	16	11.5	32	18	

Type	D	W	Wa	F	t	G	A	a	T	g	e	b	B	f
RCPHF	10	26	14	28	6	20	20	8.5	16	6.5	3	6	10	3
	12	29	17	36		20	25	10	20	8	4	7	12	5
	16	33	20		6.5	24	30	13	24	10		9	16	6
	20	38	25	40		24	40	17	30	13	6	11	20	7
	25	45	30	45		26	45	22	35	14				9.5
	30	51	36	55	7.5	30	50	27	38	15		14	25	9
	35	58	42		8	34	55	31	40		8			10
	40	66	48	70	9	38	60	36	43	16		18	32	11.5

HINGE PINS

HP

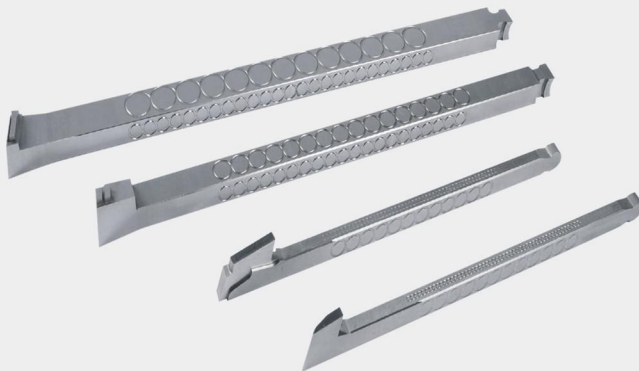


M	H	S
SUJ2	58HRC~	

For more hinge pin, please provide drawings for customization

Type	D	Dg6	L 1	M	C
HP	12	-0.006	100~800	M5	0.5
	16	-0.017		M8	
	20	-0.007		M10	1.0
	25	-0.020			
	30	-0.009			
	35	-0.025			
	40			M12	

All kinds of specifications can be customized

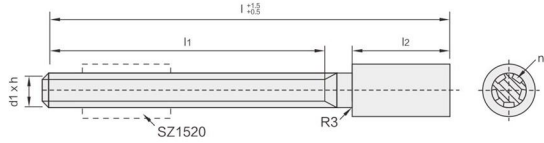


HELICAL SPINDLE

SZ1500



M	H
718	HV900-1100

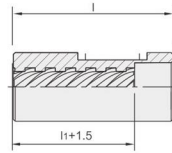
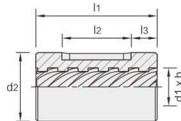
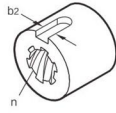


Type	n	l2	d2	l	d1 x h	Ø	l1	Nr./NO.
SZ1500L SZ1500R	5	50	28	240	Tr 16x50	L (R)	160	Z1500/16x50/L(R)/160
				330			250	250
				240			160	Z1500/16x63/L(R)/160
	6	60	36	330			250	250
				345			250	Z1500/20x63/L(R)/250
				410			315	315
	7	80	45	345			250	Z1500/20x80/L(R)/250
				410			315	315
				430			250	Z1500/20x100/L(R)/250
	8	100	56	410			315	315
				515			315	Z1500/25x80/L(R)/315
				430			400	400
	9	120	68	430			315	Z1500/25x100/L(R)/315
				515			400	400
				430			315	Z1500/25x125/L(R)/315
	10	140	80	515			400	400
				430			315	Z1500/25x160/L(R)/315
				490			400	400
	11	160	92	585			355	Z1500/32x100/L(R)/355
				490			450	450
				490			355	Z1500/32x125/L(R)/355
	12	180	104	585			450	450
				490			355	Z1500/32x160/L(R)/355
				585			450	450
	13	200	116	585			355	Z1500/32x200/L(R)/355
				490			450	450
				585			450	450

SZ1520



M
Aluminum bronze



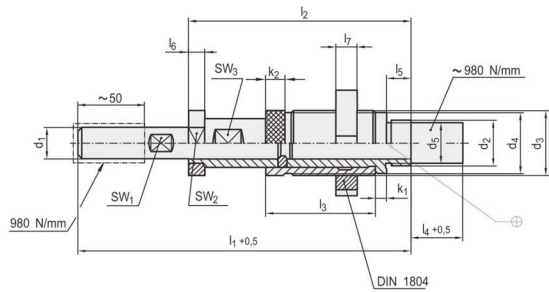
Type	n	t	b2	l3	l2	d2	d1 x h	Ø	l1	l	Nr./NO.		
SZ1520L SZ1520R	5	2.8	6	11	28	28	Tr 16x50	L (R)	50	80	Z1520/16x50(L/R)/50		
				15	40				50	80	Z1520/16x63(L/R)/50		
				11	28				50	80	Z1520/20x63(L/R)/63		
	6	3.8	8	15	40				36	Tr 20x63	63	100	Z1520/20x63(L/R)/63
				13.5	36						63	100	Z1520/20x80(L/R)/63
				18	50						63	100	Z1520/20x100(L/R)/63
	7	4.8	12	13.5	36	45	Tr 20x80				63	100	Z1520/20x80(L/R)/63
				18	50						63	100	Z1520/20x100(L/R)/63
				13.5	36						63	100	Z1520/25x80(L/R)/80
	8	5.8	16	18	50				56	Tr 25x80	80	125	Z1520/25x80(L/R)/80
				15	50						80	125	Z1520/25x100(L/R)/80
				20	63						80	125	Z1520/25x125(L/R)/80
	9	6.8	20	15	50	68	Tr 25x100				80	125	Z1520/25x160(L/R)/80
				20	63						80	125	Z1520/32x100(L/R)/100
				15	50						100	160	Z1520/32x125(L/R)/100
	10	7.8	24	20	63				80	Tr 32x125	100	160	Z1520/32x160(L/R)/100
				18.5	63						100	160	Z1520/32x160(L/R)/100
				25	80						100	160	Z1520/32x200(L/R)/100
	11	8.8	28	18.5	63	92	Tr 32x160				100	160	Z1520/32x200(L/R)/100
				25	80						100	160	Z1520/32x200(L/R)/100
				18.5	63						100	160	Z1520/32x200(L/R)/100
	12	9.8	32	25	80				104	Tr 32x200	100	160	Z1520/32x200(L/R)/100
				18.5	63						100	160	Z1520/32x200(L/R)/100
				25	80						100	160	Z1520/32x200(L/R)/100

TWO-STAGE EJECTORS

SZ169

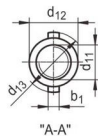


It is convenient for installing processing machinery interlocking design so that it is safe and reliable. The installation stroke needs to be calculated accurately. Otherwise, the product is likely to be damaged. Select appropriate specification according to load requirement of the die.

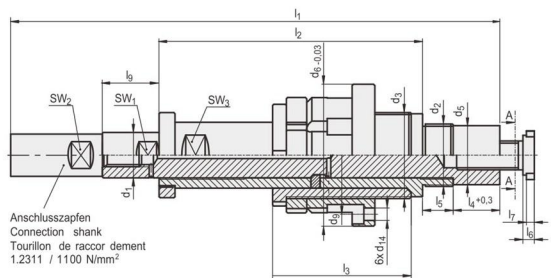


Type	Sw ₃	Sw ₂	Sw ₁	k ₂	k ₁	d ₆	d ₅	l ₇	l ₆	l ₅	l ₄	l ₃	l ₂	l ₁	d ₂	d ₃	H ₁		H ₂		d ₁
																	min.	max.	min.	max.	
SZ169/16	20	28	13	8	5	30	20	11	9	11	26	56	112	164	M22 × 1	M32 × 1,5	5	30	3	50	16
SZ169/22	27	38	17	10	6	40	28	12	16	36	75	148	220	M30 × 1,5	M42 × 1,5	6	40	4	70	22	
SZ169/30	38	55	24		7	50	38	13	21	45	80	170	255	M40 × 1,5	M60 × 1,5	7	50				30
SZ169/40	46	65	32	14	8	65	50	14	22	45	98	200	270	M52 × 1,5	M70 × 1,5	7,5	60	5	80	40	

SZ1691



It is convenient for installing processing machinery interlocking design so that it is safe and reliable. The installation stroke needs to be calculated accurately. Otherwise, the product is likely to be damaged. Select appropriate specification according to load requirement of the die.

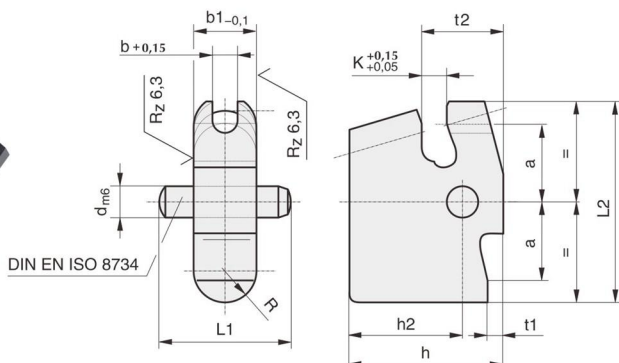


Anschlusszapfen
 Connection shank
 Tourillon de raccordement
 1.2311 / 1100 N/mm²

Type	Sw ₁	Sw ₂	Sw ₃	d ₂	d ₃	d ₄	d ₅	d ₆	d ₇	d ₈	d ₉	d ₁₀	d ₁₁	d ₁₂	d ₁₃	d ₁₄	b ₁	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	l ₈	H ₁	H ₂ max.	d ₁
SZ1691/13	10	10	17	M20 × 1	M28 × 1,5	18,5	50	41,6	M 8 × 0,75	13,4	17,6	4,3	3,2	164	72	38,8	21	9	4	2,6	22	3-20	44	13				
SZ1691/17	13	12	21	M24 × 1,5	M35 × 1,25	22	60	48	M11 × 1	17,4	22	5,4	4	228	110	63		12	5	3,5	25	4-30	65	17				
SZ1691/22	17	17	27	M30 × 1,5	M45 × 1,5	28	75	61	M14 × 1	21	27	6,5	5	270	131	74	17	17	6	4	30	6-42	80	22				
SZ1691/30	24	22	36	M40 × 1,5	M60 × 1,5	38	100	82	M18 × 1	26	33	8,8	6	340	166	89	27	17	7	5	38	10-60	95	30				
SZ1691/40	32	32	46	M55 × 1,5	M75 × 1,5	52	125	104	M25 × 1,5	35	43	11	8	470	232	122	41	27	10	7	50	14-86	130	40				
SZ1691/52	41	41	65	M72 × 1,5	M98 × 2	69	150	128	M34 × 1,5	48	58	11	9	583	295	155	51	27	15	11	60	18-110	180	52				

PLATE ACCELERATOR

SZ141

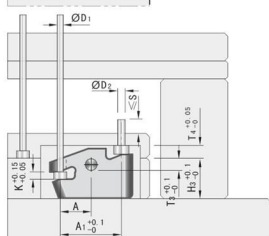
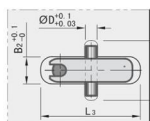


Type	d1	b	b1	b2	b3	a	a1	d	d2	h	k	h2	h3	L1	L2	L3	L4	t1	t2	t3	t4	R	S
SZ141	3	3	8	8.5	4	10	20	4	4	19	3	14	16	16	26	31	23	2	10	4	4	4	2.5
	6	6																					
	8	8	16	16.5	8	21	42	8	8	34	5	23	27	36	56	63	45	4	21	8	8	8	7.6

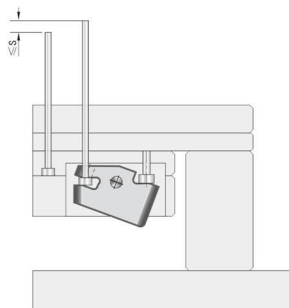
■ Precautions

- Mount 1pcs ejector pin can enlarge the stroke during ejecting.
- save space and cost.

■ Functional chart



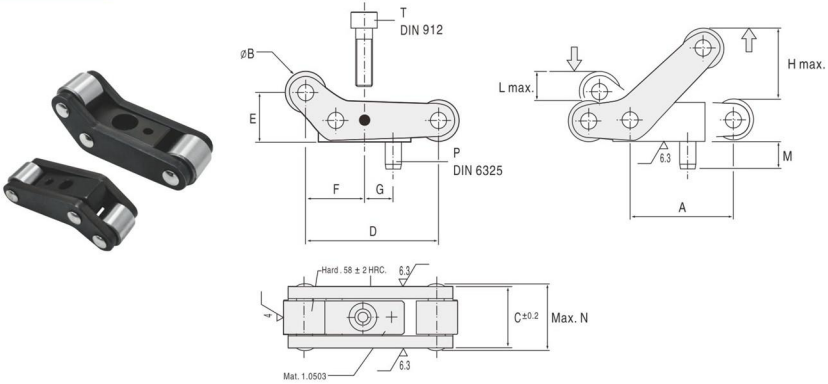
Mold closed



Mold opened

PLATE ACCELERATOR

SEP



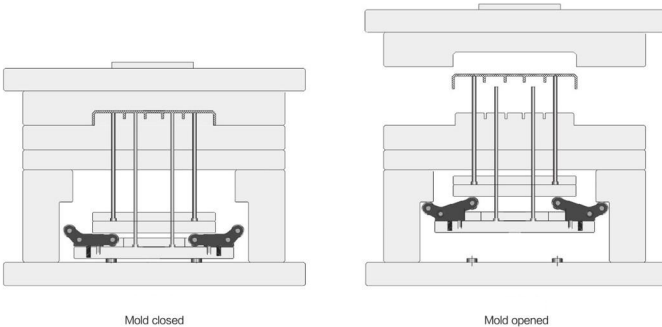
- Simple assembly will be able to achieve a good speedup.
- Small installation space, optimization of mold structure.

Type	A	B	C	D	E	F	G	H max.	L max.	M	N	P	T	Max. Force
SEP.200813	20	8	13.2	25.8	9.4	11.4	6	13.6	5.5	5	15	φ 2.5x10	M3x12	125kg.
SEP.251016	25	10	16	32.3	11.8	14.3	7	17	6.8	6	18.5	φ 3x12	M4x16	250kg.
SEP.371522	37.5	15	22	48.5	17.7	21.5	10.5	25.5	10.2	8	25	φ 4x16	M6x25	350kg.
SEP.502030	50	20	30	64.6	23.6	28.6	14	34	13.6	10	34	φ 5x20	M8x30	800kg.

Precautions

- Installation space is small, simple installation can achieve the effect of accelerated ejection.
- Installed on Ejector B Plate, Accelerate Ejection of Ejector A Plate in Ejection Process.
- At least 2 sets or more of this product are used for each set of each mold.

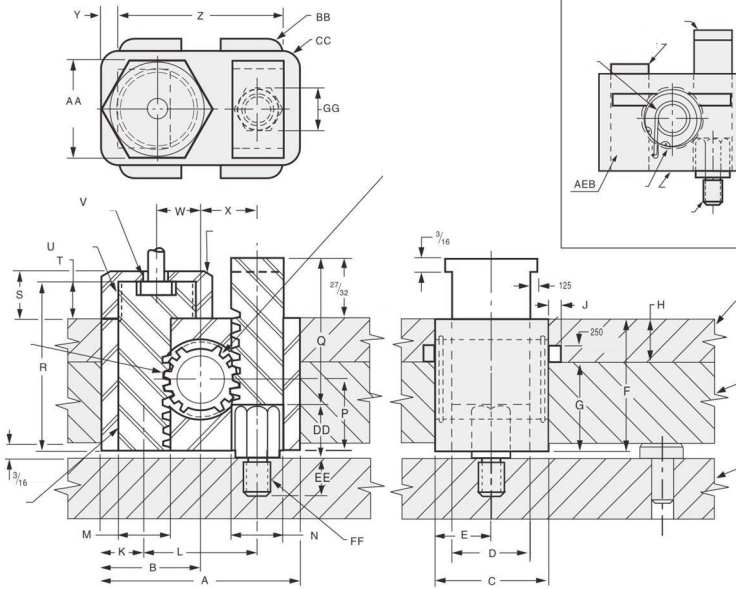
Functional chart



SAEP / SAEB

SAEP
SAEB

- Stroke for all units=5/8 maximum
- Kee pin lubricated
- Do not use with opposing spring pressure



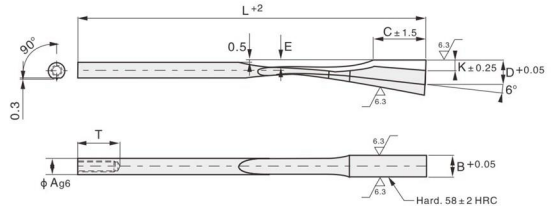
Accelerated ejector dimensions

Type	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q
SAEP-10	+0.000 -0.002	+0.000 -0.002	+0.000 -0.002	5/8	9/16	1.600	1.100	1/2	±0.002 .125	.510	1.1030	1/2	1/2	1.030	1.783
SAEB-10	2.125	1.062	1.125												
SAEP-20	+0.000 -0.004	+0.000 -0.002	+0.000 -0.002	1 1/8	13/16	1 7/8	1 1/4	5/8	±0.002 .187	5/8	1 5/8	3/4	3/4	1.016	21/16
SAEB-20	2.875	1.437	1.625												

Type	R	S	T	U	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG
SAEP-10	2.025	.550	.425	5/8-18	1/8	.491	.551	.250	1.625	15/16	1/4	1/4	3/4	3/8	5/16-18	3/8
SAEB-10	-	-	-	-	-	-				-						
SAEP-20	2 3/8	.680	1/2	1 1/8-12	1/4	5/8	13/16	.250	2.375	1 3/8	3/16	1/4	.72	1/2	3/8-16	9/16
SAEB-20	-	-	-	-	-	-				-						

SPRUNG CORE

SPW



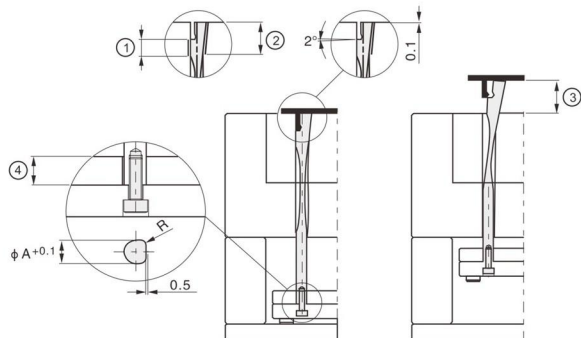
M	H
1.8159	45±3HRC
SKD61	50±2HRC

Type	φA	B	C	D	E	K	L	T
SPW.060622	6	6.2	22	9	3.5	4	125	M4 × 15
SPW.060822		8.2						
SPW.080825	8	10.2	25	11.5	4.5	5	140	M5 × 20
SPW.081025		12.2						
SPW.081225		14.2						
SPW.101430	10	16.2	30	13.6	5.5	5.8	175	M6 × 25
SPW.101630		18.2						
SPW.101830		18.2						

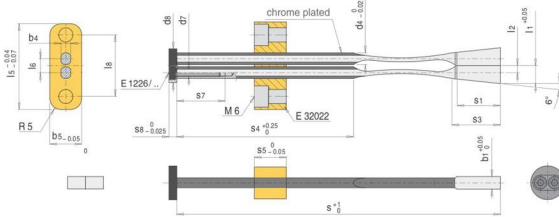
■ Precautions

- Simple structure, small installation space, only same as ejector pin size.
- easy to install, simplify processing procedure and save cost.
- Can use it lonely or two pcs use together.

■ Functional chart



SE3202



M	H
1.8159	45±3HRC
SKD61	50±2HRC

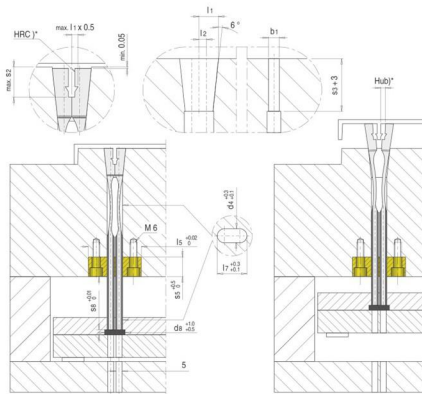
t max. = 120°C ^{32/}

Type	l8	d8	s8	l7	d7	s7	l6	b5	l5	s5	d4	b4	s4	s3	s2	l2	s1	max. Hub	b1	l1	s
SE3202/6/9.0/162	32.3	20		13	M4		7		45		5.94	4.83	88	24.3	12.5	3.5	22	3.5	6.2	9.0	162
SE3202/12/11.5/200			6														26		12.2	11.5	
SE3202/14/12.5/200	34.3	22		17	M5	19	9	16	48	20	7.92	7.37	111	30.0	16.5	4.5		4.5	14.2		200
SE3202/16/12.5/200													107	33.1	20		30		16.2	12.5	

Precautions

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

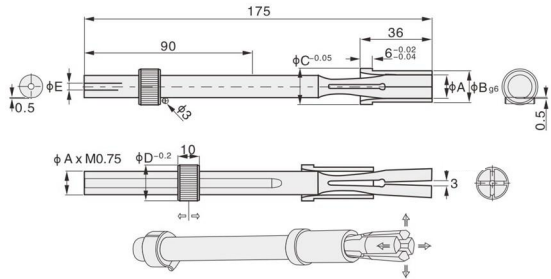
Functional chart



SEE



M	H
1.8159	45±3HRC

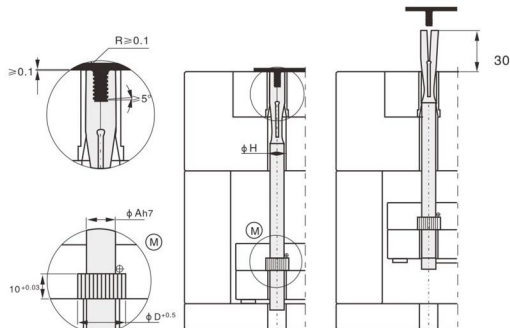


Type	ϕ A	ϕ B	ϕ C	ϕ D	ϕ E	ϕ H
SEE.060175	6	10	12	12	–	9
SEE.082175	8	12	14	14	2	11
SEE.103175	10	14	16	16	3	13
SEE.124175	12	16	18	18	4	15
SEE.168175	16	20	22	22	8	19

Precautions

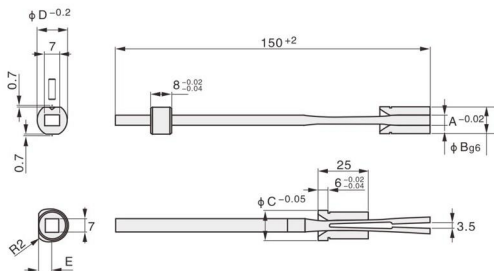
- Integrated four-lobe automatic pop-up mechanism, adjustable design, simple installation.
- It can easily make multi-sided plastic barb parts, vertical ejection, to ensure more accurate shaping of plastic barb parts.
- With sleeve, more accurate positioning.
- With adjustable fixed ring, stable and reliable.
- Installation and split surface into 90 degrees, simple processing, simplified process.

Functional chart



SPRUNG CORE

SMD



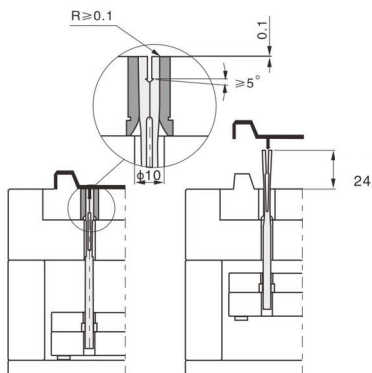
M	H
1.8159	45±3HRC

Type	A	ϕB	ϕC	ϕD	E
SMD.047150	4	10	12	12	5
SMD.057150	5				
SMD.067150	6	12	14	14	6
SMD.077150	7				

Precautions

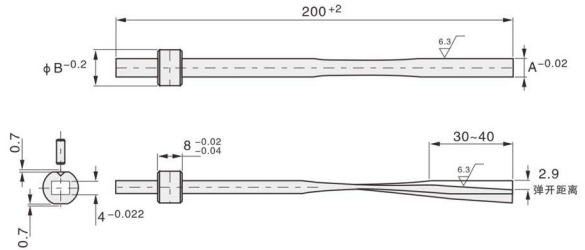
- Apply to release elasticity from bottom, the ejector device can adjust to required eject height in advance. easy to install, and keep 90° with the devided surface when install it.

Functional chart



SPRUNG CORE

SPF



M	H
1.8159	45±3HRC
SKD61	50±2HRC

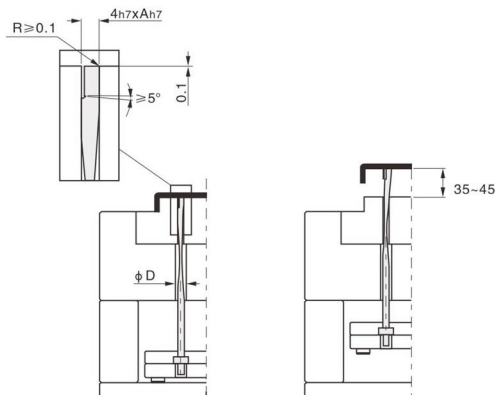
Because the contact surface is parallel with ejector plate, the thickness of release elasticity from bottom's smallest area is just 4mm, and a new characteristic of this product: first eject then elasticity from the bottom.

Type	A	B	D
SPF.064200	6	12	7.5
SPF.084200	8	14	9.5
SPF.104200	10	16	11
SPF.124200	12	18	13

Precautions

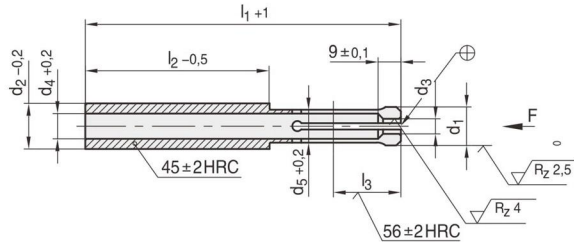
- Simple structure, small installation space, only same as ejector pin size.
- easy to install, simplify processing procedure and save cost.
- Can use it lonely or two pcs use together.

Functional chart



ROUND LATCH LOCKS

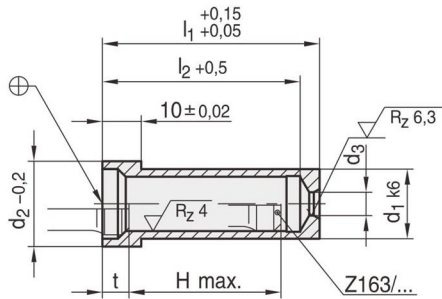
SZ163



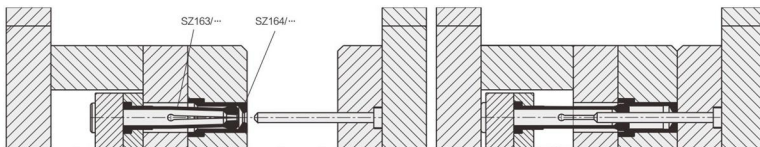
It is used for return device of thimble board. Besides, it can also be used for second ejection.
The installation shall be accurate. Otherwise, the product is likely to be damaged.

Type	max.F [N]	l_3	l_2	d_1	d_2	d_4	d_5	d_3	l_1
SZ163/6 × 125	12000	20	73	16	18	10	13	6	125
SZ163/10 × 160	20000	25	100	20	24	12,5	17	10	160

SZ164



Type	max.H	t	l_2	d_2	d_1	d_3	l_1
SZ164/6 × 36	24	6,7	31	22	18	6	36
SZ164/6 × 46	34		41				46
SZ164/6 × 56	44		51				56
SZ164/10 × 36	23	6,7	30	29	24	10	36
SZ164/10 × 46	33		40				46
SZ164/10 × 56	43		50				56
SZ164/10 × 76	63		70				76

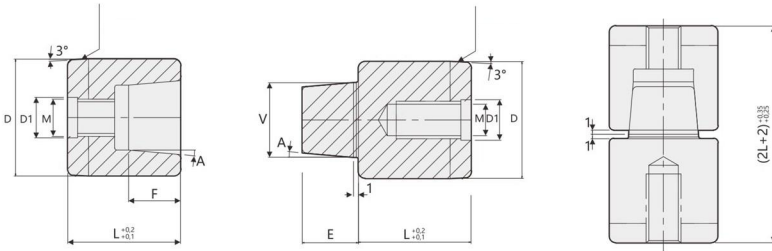


LOCATING COMPONENT SERIES ▶▶▶



ROUND LOCATING UNITS

TPN



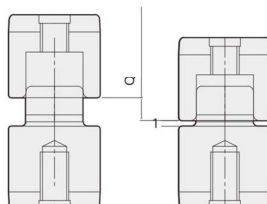
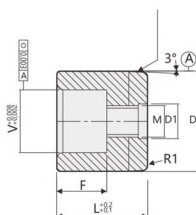
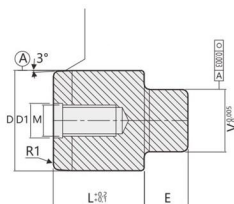
M	H
SKD11	HRC 58-62
SUJ2	HRC 58-62

Type	D	D	A	L	V	E	F	M	D1	
TPN TPNV	12	0.012 0.002	1° 3° 5°	14	7	6	5	M4	4.5	
	13				10			M5	5.5	
	16			19	13	9	8	M6	6.5	
	20				16			12	11	M8
	25			29	20	15	14	M10	10.5	
	30									
	32	0.015 0.002		34	24	18	17	M12	12.6	
	35									

Type	D	Concentricity		M	H
TPN	Dk6	Not interchangeable		SKD11 SUJ2	HRC 58-62 HRC 58-62
TPNV		0.01	Interchangeable		
VTPN	D ^{+0.0005} ₀	0.005			
ZTPN		0.003			

ROUND LOCATING UNITS

TPNF

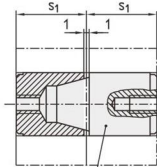
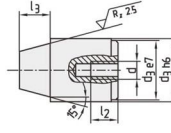
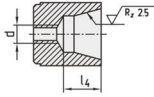


M	H
SKD11	HRC 58-62
SUJ2	HRC 58-62

Type	D	D	L	V	E	F	D1	M
TPNF	10	0.005	14.5	5	7	5	4.5	M4
	13							
			24.5	7	13	11	10.5	
	16		14.5	10	7	5	4.5	M5
			24.5		13	11	10.5	
	20		14.5	13	8	6	5.5	M6
			19.5		11	9	8.5	
			29		16	14	12	
	25		19.5	16	11	9	8.5	M8
			24.5		13	11	10.5	
34		20	18		16			
30		39	20	25	23	21	M10	

ROUND LOCATING UNITS

Z05

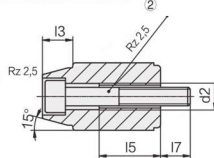
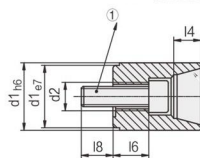
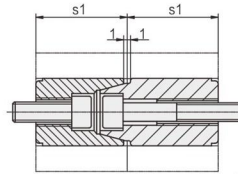


Z05/...

M	H
SKD11	HRC 58-62
SUJ2	HRC 58-62

Type	d3	l3	l4	l2	s1	d
Z05 / 12	12	5	8	10	17	M4
Z05 / 14	14	7		11		M5
Z05 / 16	16					
Z05 / 20	20	10	13	15	27	M8
Z05 / 25	25	11				
Z05 / 26	26	10				
Z05 / 30	30	14	20	18	36	M10
Z05 / 32	32					
Z05 / 42	42	18	25		46	

Z051

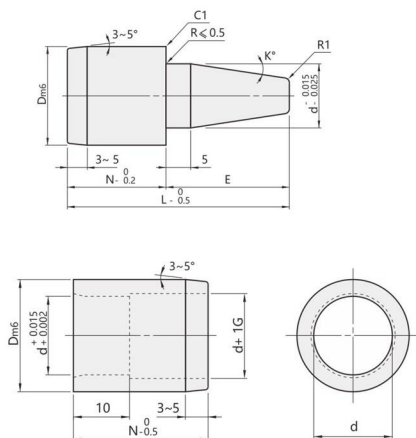


M	H
SKD11	HRC 58-62
S136	HRC 58-62

Type	d1	①	②	l8	l7	l6	l5	l4	l3	d2	s1		
Z051 / 12	12	M3 x 16	M3 x 25	7,5	8	8,5	9,6	5	4,5	M4	17		
Z051 / 14	14	M4 x 14	M4 x 25	8	7,5	6	12,4	7	6	M5			
Z051 / 16	16					5,8							
Z051 / 20	20	M6 x 20	M6 x 40	9,5	12	10,6	19,7	10	9	M8	27		
Z051 / 25	25			11	11	9,2		11	10				
Z051 / 26	26												
Z051 / 30	30	M8 x 25	M8 x 55	13	15	12,2	25	16	14	M10	36		
Z051 / 32	32				16	16,8		20	18		46		
Z051 / 42	42	M8 x 30	M8 x 70										

ROUND LOCATING UNITS

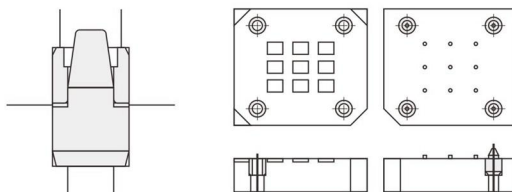
GMT



M	H
SKD11	HRC 58-62
SUJ2	HRC 58-62

Type	D	d	N	E										
	+0.05 +0.04	+0.01 0		11	14	17	20	23	26	30	35	40	45	50
GMT	12	8	15											
			18											
			21											
			23											
	16	10	18											
			21											
			23											
			25											
	18	12	18											
			21											
			23											
			25											
	20	12	18											
			21											
			23											
			25											

Functional chart

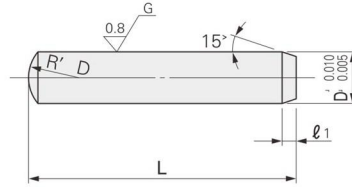


DOWEL PIN

MS



M	H
SUJ2	HRC 60 ± 2

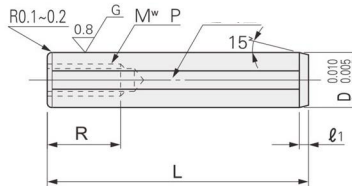


Type	ℓ_1	d	L															
			6	8	10	15	20	25	30	35	40	45	50	55	60	65	70	80
MS	0.4	1				-	-	-	-	-	-	-	-	-	-	-	-	-
	0.6	1.5				-	-	-	-	-	-	-	-	-	-	-	-	-
	1	2						-	-	-	-	-	-	-	-	-	-	-
	1	2.5								-	-	-	-	-	-	-	-	-
	1	3									-	-	-	-	-	-	-	-
	1.5	4	-									-	-	-	-	-	-	-
	1.5	5	-										-	-	-	-	-	-
	2	6	-											-	-	-	-	-
	2.5	8	-	-												-	-	-
	3	10	-	-	-												-	-
	3.5	12	-	-	-	-												-
	3.5	13	-	-	-	-	-											-

MSTP



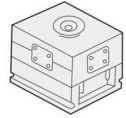
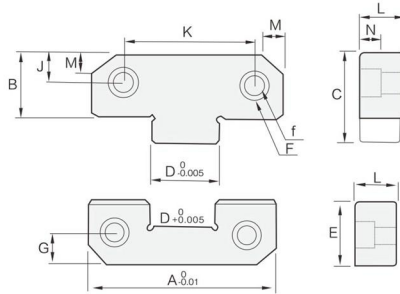
M	H
SUJ2	HRC 60 ± 2



Type	D	MxP	R	ℓ_1	L												
					10	15	20	25	30	35	40	45	50	60	70	80	
MSTP	5	3x0.5	6	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	4x0.7	8	2.0	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	5x0.8	8	2.0					-	-	-	-	-	-	-	-	-
	10	6x1.0	10	2.5					-	-	-	-	-	-	-	-	-
	12	6x1.0	10	2.5					-	-	-	-	-	-	-	-	-
	13	8x1.25	15	2.5							-	-	-	-	-	-	-
	16	8x1.25	15	3.0							-	-	-	-	-	-	-

SQUARE INTERLOCKS

PL



M	H
1.2510	HRC 55-58

Type	A	B	C	D	E	F	f	G	J	K	L	M	N
PL38	38	22	30	12	22	10.5	6.5	7	7	22	13	5	8
PL50	50	21.5		17	21.5			11	11	34	16		
PL75	75	36	50	25	36	16.5	10.5	18	18	50	19	8	12
PL100	100	45	65	35	45			22	22	70		10	
PL125	125			45						84	25		

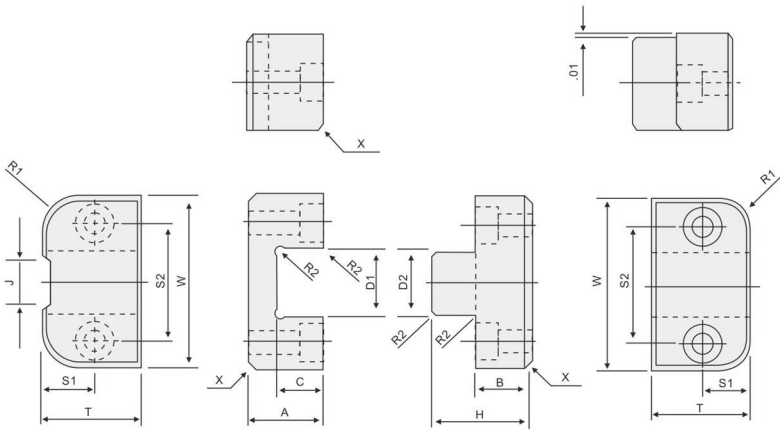
Type	A	B	C	D	E	F	f	G	J	K	L	M	N
PL1.5	1.5	0.87	1.18	0.50	0.87	0.433	0.276	0.281	0.437	0.938	0.620	0.19	0.3
PL2.0	2.0			0.68				0.375		1.250			
PL3.0	3.0	1.36	1.91	1.00	1.37	0.590	0.413	0.688	0.688	2.250	0.745	0.38	0.45
PL4.0	4.0	1.87	2.64	1.375	1.87			0.875	0.875	2.750		0.50	
PL5.0	5.0			1.75						3.500	1.120		

SQUARE INTERLOCKS

TLK



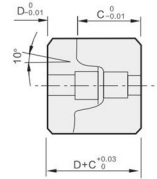
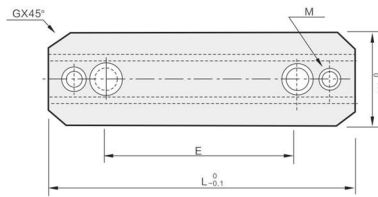
		M	H
TLK	M	1.2510	HRC 55-58
	F	1.2510	HRC 55-58
TLK-T	M	SKD11 Black	HRC 56-58
	F	SKD11 DLC	HRC 56-58



Type	W	T	A	B	C	D1	D2	H	J	R1	R2	S1	S2	X	SHCS
TLK15	1.5	1	0.875	0.375	0.5	0.5	0.5	0.843	3/8x1/16	0.28	0.06	0.5	1	0.04	#10-32
TLK20	2	1.125		0.625		0.75	0.75	1.110	1/2x1/16	0.40		.5625	1.375		1/4-20
TLK25	2.5	1.5	1.375	0.875	0.75	1	1	1.344		0.53	0.08	0.75	1.75	0.06	5/16-18
TLK30	3	1.75	1.25	0.875		1.125	1.125	1.61	3/4x3/32	0.53	0.09	0.875	2.25		3/8-16
TLK35	3.5	2	1.75	0.75	1	1.5	1.5	1.718		0.53	0.09	1	2.5		

SQUARE INTERLOCKS

KY



M	H
1.2510	HRC 55-58

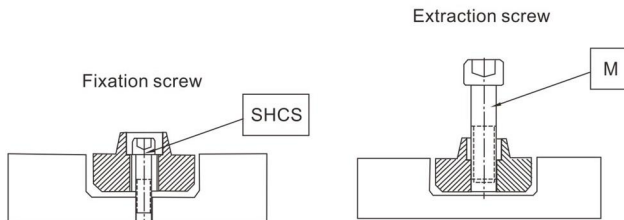
MM

Type	W	L	C	D	E	G	M
KY50	25	50	17.5	8	36	5	M5
KY100	30	100	22	10	60		M6
KY150	40	150	25	13	100		M8

INCH

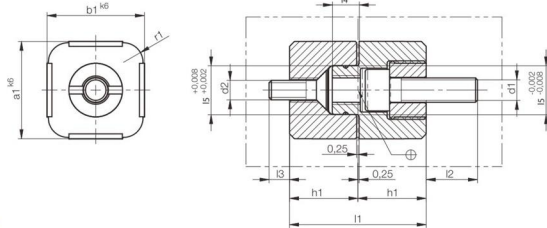
Type	W	L	C	D	E	G	M
KY2.0	1.00	1.98	0.69	0.312	1.4173	0.2	3/16"-24
KY4.0	1.25	3.98	0.87	0.375	2.5		1/4"-20
KY6.0	1.500	5.98	1.00	0.500	4.0		5/16"-18

Functional chart



SQUARE INTERLOCKS

Z080

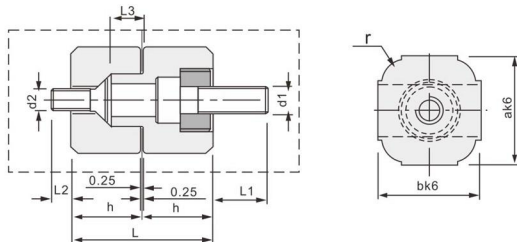


M	H
SKD11	HRC 56-58
1. 2510	HRC 55-58

Type	r1	d1	d2	h1	l1	l2	l3	l4	l5	a1	b1
Z080/20x20	4	M5	M4	14	28	12	4	5.5	10	20	20
25x25	5	M6	M5	16	32	13	8	7.5	12	25	25
32x32	6	M8	M6	18	36	15	12	9.5	16	32	32
40x40		M10	M8	22.5	45	17	10	11.5	20	40	40

Type	r1	d1	d2	h1	Tol. a1/b1	a1	b1
Z080/20x20	4	M5	M4	14	+0.011/+0.017	20	20
25x25	5	M6	M5	16		25	25
32x32	6	M8	M6	18		32	32
40x40		M10	M8	22.5	+0.014/+0.022	40	40

Z08



M	H
SKD11	HRC 56-58
1. 2510	HRC 55-58

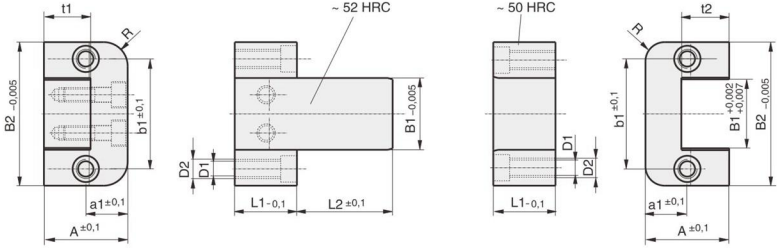
Type	r	d1	d2	l1	l2	l3	l	h	a	b
Z08/20x20	4	M5	M4	12	4	3.5	28	14	20	20
Z08/25x25	5	M6	M5	13	8	5.5	32	16	25	25
Z08/32x32	6	M8	M6	15	12	7.5	36	18	32	32
Z08/40x40		M10	M8	17	10	9.5	45	22.5	40	40

SQUARE INTERLOCKS

Z46

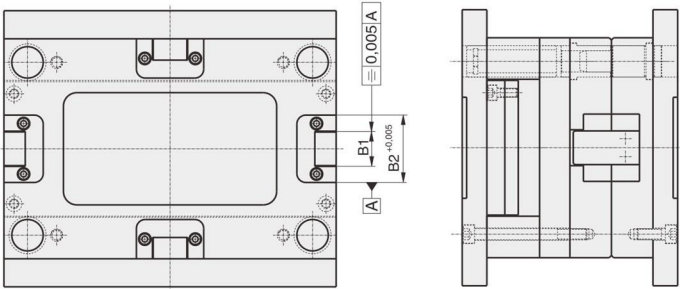


M	H
SKD11	HRC 56-58
1. 2510	HRC 55-58



Type	B1	L1	L2	A	B2	D1	D2	a1	b1	t1	t2	R
Z46	16	20	20	22	45	6.8	M8	11	30	11.5	12	8
			40									
	30	26	40	35	60	6.8	M8	17.5	46	19.5	20	10
			63									
	48	36	32	46	100	10.3	M12	23	74	25.5	26	12.5
			50									
			63									
			80									
	77	56	50	60	150	14	M16	30	114	35.5	36	16
			71									
			100									

Functional chart

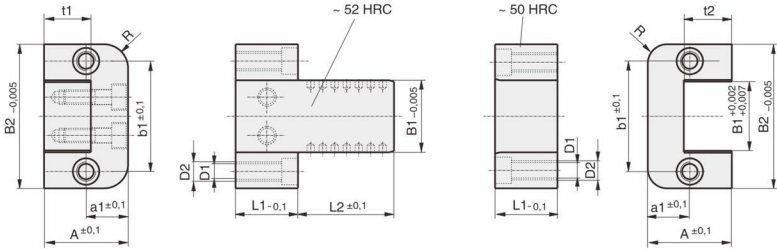


SQUARE INTERLOCKS

Z48

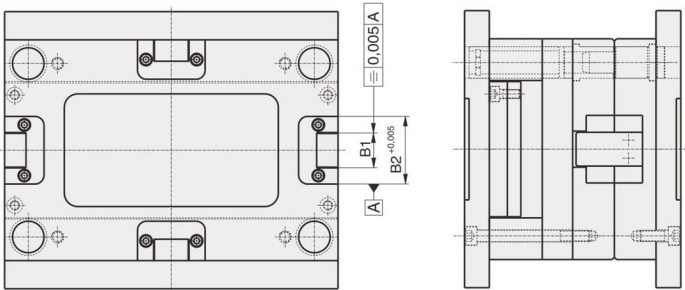


M	H
SKD11	HRC 56-58
1.2510	HRC 55-58



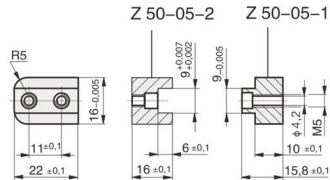
Type	B1	L1	L2	A	B2	D1	D2	a1	b1	t1	t2	R
Z48	16	20	20	22	45	6.8	M8	11	30	11.5	12	8
	30	26	40	35	60			17.5	46	19.5	20	10
			63									
	48	36	32	46	100	10.3	M12	23	74	25.5	26	12.5
			50									
			63									
			80									
	77	56	50	60	150	14	M16	30	114	35.5	36	16
			71									
			100									

■ Functional chart

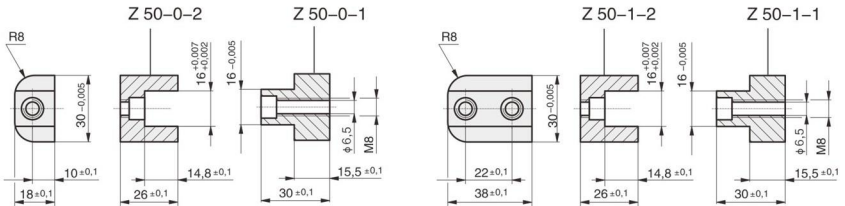


SQUARE INTERLOCKS

Z50

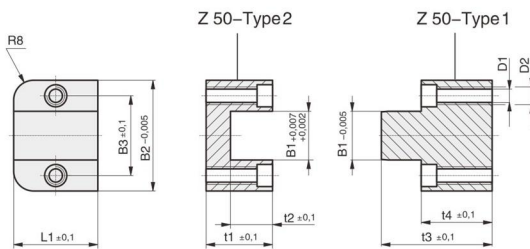


Z 50-5



Z 50-0

Z 50-1



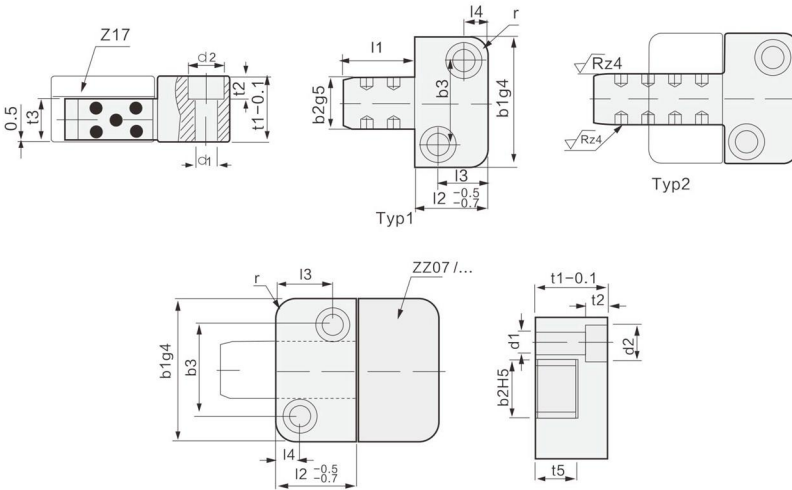
Z 50-

M	H
SKD11	HRC 56-58
1.2510	HRC 55-58

Type	B1	B2	B3	t1	t2	t3	t4	L1	D1	D2
2	20	50	35	29.8	20	48.8	29.8	38	6.5	M8
3	30	75	52	39.8	25	63.8	39.8	38	8.3	M10

SQUARE INTERLOCKS

Z07 / Z17

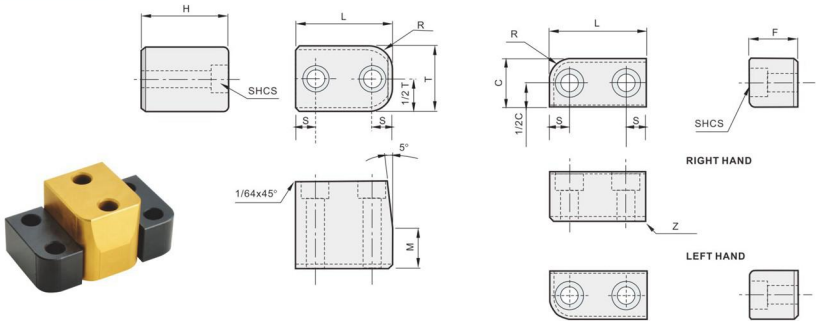


M	H
SKD11+石墨	HRC 56-58
1.2510+石墨	HRC 55-58

Type	Size																			
	r	t5	t4	t3	t2	t1	d2	d1	l4	l3	b3	b1	l2	b2	l1					
Z07/Z17/22x16x20	6	12	6.2	11	6.9	20	11	6.6	7	15	26	40	22	16	20					
Z07/Z17/22x16x40		14		13		22				19	31	45	27	20	40					
Z07/Z17/27x20x25																				
Z07/Z17/27x20x50																				
Z07/Z17/36x25x32	8	15	9	14	9	25	15	9	11	27	35	50	36	25	32					
Z07/Z17/36x25x63																				
Z07/Z17/46x32x40		20		9		19				9	32	15	9	35	45	63	46	32	40	
Z07/Z17/46x32x80																			80	
Z07/Z17/56x40x50	10	23	11	22	11	36	18	11	15	40	60	85	56	40	50					
Z07/Z17/56x40x100																			100	
Z07/Z17/66x50x56		25		13		24				13	4	20	14	18	48	74	100	66	50	56
Z07/Z17/66x50x112																				112

SQUARE INTERLOCKS

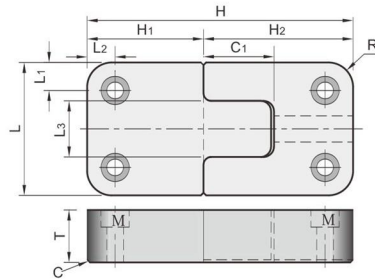
YLM



M	H
SKD11 Black	HRC 56-58
SKD11 DLC	HRC 56-58

Type	L	W	C	F	T	M	H	S	R	Z	SHCS
YLM25x45	25	45	15	15	15	10	24	7	4	1	M: M4 x 25 M: M4 x 14
YLM40x65	40	65	20	20	25	15	34	10	9	1.5	M: M5 x 35 M: M5 x 22
YLM50x90	50	90	25	25	40	20	44				M: M6 x 45 M: M6 x 30

SL / SLM



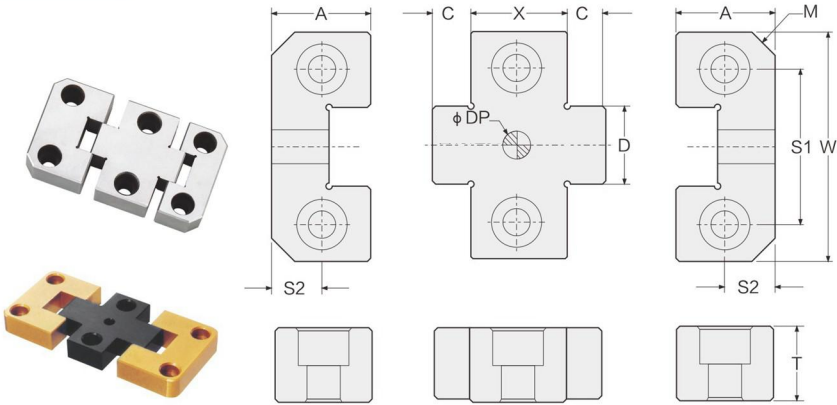
M	H
SKD11 Black	HRC 56-58
SKD11 DLC	HRC 56-58

Type	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	
SL-37-100	0.375	1.000	1.125	0.875	0.62	0.500	2.000	0.187	0.250	0.015	#10-32x1/2"
SL-60-125	0.490	1.250			0.68						# 8-32x5/8"
SL-60-150	0.500	1.500	0.875		0.56	0.563	1.750				# 8-32x5/8"
SL-50-200		2.000	1.375		0.86	0.750	2.250				#10-32x5/8"
SL-75-300	0.750	3.000	1.875	1.375	1.18	1.250	2.750	0.250	0.375	0.03	1/4-20x3/4"
SL-100-400	1.000	4.000	2.375		1.43	1.500	3.750				3/8-16x1"
SL-125-500	1.250	5.000			1.75	2.000					1/2-13x1-1/4"
SL-160-600	1.500	6.000	2.875		1.87	2.500	4.250				1/2-13x1-1/2"

Type	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
SLM-16-50	16	50	21.5	21.5	13	17	43	6.5	5	8	11	0.8
SLM-19-75	19	75	36	36	22.5	25	72			12.5	18	
SLM-19-100		100			30					15		
SLM-25-125	25	125	45	45	28.7	35	90	10.5		20.5	22	

X-SERIES LOCKS

PLF / XSI



		M	H
PLF	M	1.2510	HRC 55-58
	F	1.2510	HRC 55-58
XSI	M	SKD11 Black	HRC 56-58
	F	SKD11 DLC	HRC 56-58

Type	X	W	A	T	D	C	M	S1	S2	DP	
PLF50-030	30	50	21.5	16	17	8.5	5	34	11	6	M6 X 16
PLF50-035	35										
PLF50-040	40										
PLF75-035	35	75	36	19	25	14	8	50	18	8	M10 X 20
PLF75-040	40										
PLF75-045	45										
PLF100-045	45	100	45	19	35	20	10	70	22	10	M10 X 20
PLF100-050	50										

Type	X	W	A	T	D	C	M	S1	S2	DP	
XSI5026	26	50	21.5	16	17	8.5	5°45°	34	11	6	
XSI5036	36										
XSI7526	26	75	36	19	25	12.5		50	18	10	
XSI7536	36										
XSI10036	36	100	45		35	17.5		70	22		
XSI10046	46										
XSI12536	36	125		25	42			84		12	
XSI12546	46										

SQUARE INTERLOCKS

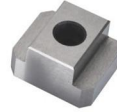
TBSF



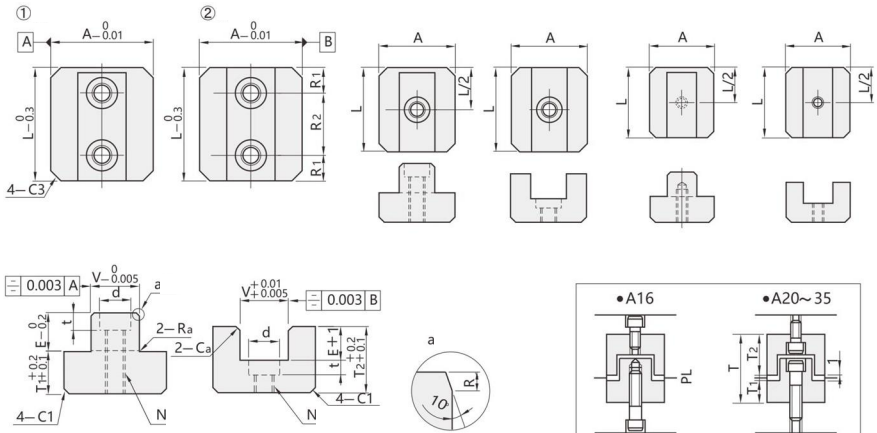
2 (L30-50)



1 (L25)



1 (L16-20)

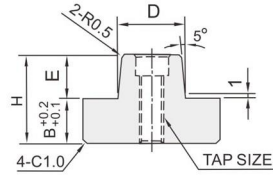
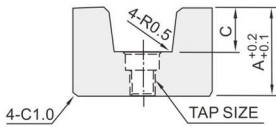
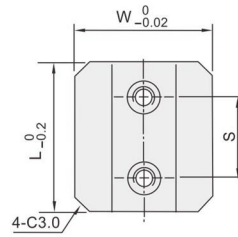
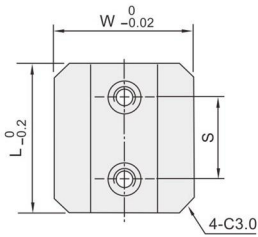
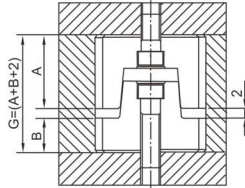


M	H
SKD11	HRC 56-58
1.2510	HRC 55-58

Type	A	V	T	T1	T2	R	Ra	Ca							N			L	E				
									R1	R2	d	t											
TBSF	16	9	26	8		1	0.5	0.5	-	-	-	-	M4	M4	1		16	8					
	20	12	30		21				6.5	3.5	M3	20											
			26		17							25											
			30		7.5							15	30										
			21	-	-	8	5	M4				M5	25	10									
	25	15	32	10		2	2	1	1	7.5	15	8	5	M4	M5	1	2	30	15				
	37	26	23	1	0.5	0.5	1	1	9.5											6	M5	M6	20
	36	31	2	1	1	1	1	6	6											M5	M6	12	
	44	36	23	1	0.5	0.5	1	1	6											6	M5	M6	20
	30	17	36	12		31	2		1	10	20	11	7	M6	M8	2	40	20					
	44	36	23		1	0.5	0.5	1	1										6	6	M5	M6	12
	44	31	2			1	1	1	1										6	6	M5	M6	20
	44	31	2			1	1	1	1										6	6	M5	M6	12
	35	20	41			28	2		1	1			11	7	M6	M8		40	15				

SQUARE INTERLOCKS

TBS



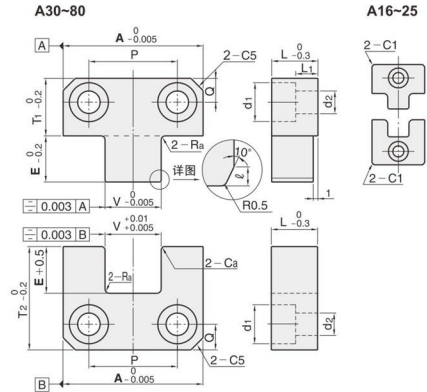
M	H
SKD11	HRC 56-58
1. 2510	HRC 55-58

mm

Type	W	L	A	B	C	D	E	G	H	S1	TAP SIZE	SHCS
TBS2525	25	25	17	9	8	15	8	28	17	-	M5	M4
TBS2530		30								15		
TBS2540	35	40	22	11	10	20	10	35	21	20	M8	M6
TBS3540		50	29	14	15	25	15	45	29	30	M8	M6
TBS3550												
TBS4550	45											

SQUARE INTERLOCKS

TSSB / VTSSB



Type	T				M	H
	①	②				
TSSB	0.005	+0.01 +0.005	0.005-0.015	0.003	SKD11	HRC 56-58
VTSSB	0.003	+0.005 +0.002	0.002-0.008	0.003	SKD11	HRC 56-58

Type	A	E	V	T	T1	T2	Ra	Ca						L	L 1
									P	Q	d1	d2			
TSSB	16	6	7	29	11	17	1	0.5	-	5	8	4.5	M4	8	3
	20	6	8	29		19									
	25	8	10	31	22										
	30	8	12	37	14	22	2	1	16	6	9.5	5.5	M5	10	4
	20			49		34									
	40	10	15	47	18	28	1	0.5	22	7	11	6.6	M6	13	6
	25			62		43									
	60	20	25	81	30	50	2	1	36	12	14	8.6	M8	20	11
	35			96		65									
	80	30	30	111	40	70									
45		126		85											
VTSSB	16	6	7	29	11	17	1	0.5	-	5	8	4.5	M4	8	3
	20	6	8	29		19									
	25	8	10	31		14									
	30	8	12	37	14	22			16	6	9.5	5.5	M5	10	4
	40	10	15	47	18	28									
									22	7	11	6.6	M6	13	6

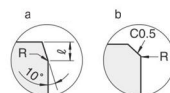
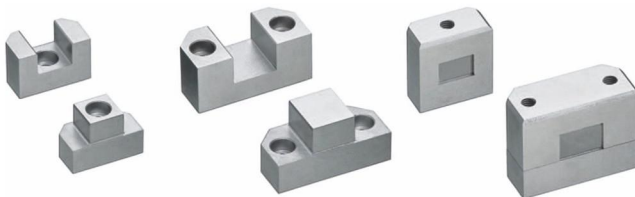


Precautions

- It is suitable for the positioning of precision mould such as connectors and electronic components.
- Locating the core before it is embedded in the cavity can prevent wear and tear of the core.
- Because of the narrow fit clearance, it is recommended to use precision round locating units.

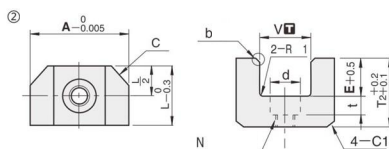
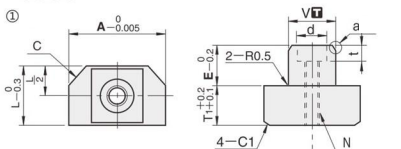
SQUARE INTERLOCKS

VTTSB / TTSB



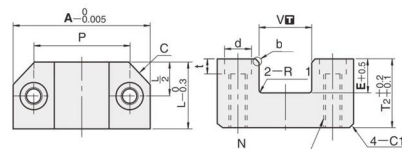
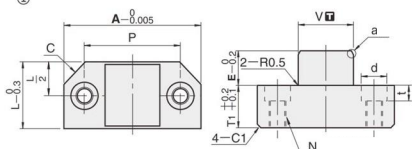
A20 • 25 • 30

③ ⑤ ⑤ ⑥



A40 • 50

①

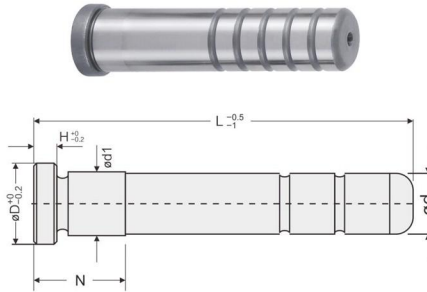


Type	T				M	H
	①	②				
TTSB	0 -0.005	+0.01 +0.005	0.005-0.015	0.003	SKD11	HRC 56-58
VTTSB	0 -0.003	+0.003 0	0.006		SKD11	HRC 56-58

Type	A	E	V	T	T1	T2	I	C	P				
										d	t		
VTTSB TTSB	20	6	10	23	8	14	0.5	4	-	6.5	3.5	M3	M4
	25	8	12	28	10	17				8	4.5	M4	M5
	30	8					15	32	12				
	40	10	43	17	25	2				35	9.5	5.5	M5
		15											
TTSB	50	15	20	46		28							

GUIDE PIN

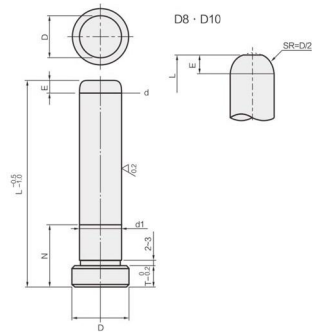
GP



M	H
SUJ2	HRC 60 ± 2
20Cr	HRC 60 ± 2

Type	d		d1		D	H	L
	Size	Tolerance	Size	Tolerance			
GP	12	-0.016	12	+0.018	17	5	50-140
	16	-0.027	16	+0.007	20	6	50-250
	20	-0.020	20	+0.021	25	8	50-300
	25	-0.033	25	+0.008	30		50-340
	30		30		35		70-410
	35		35		40		70-480
	40	-0.025	40	+0.025	45	10	80-480
	50	-0.040	50	+0.009	55	12	120-520
	60		60		66	15	180-520
		-0.030 / -0.049		+0.030 / +0.011			

GPH

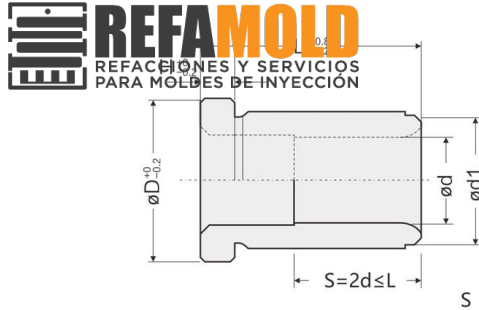


M	H
SUJ2	HRC 60 ± 2

Type	d		d1		D	T	L
	Size	Tolerance	Size	Tolerance			
GPH	8	-0.015	8	+0.012	11	5	30-70
	10	-0.020	10	+0.006	13	5	30-70
	12	-0.020	12	+0.015	17	5	30-200
	13	-0.025	13	+0.007	18	5	30-200
	16		16		21	8	30-250
	20		20		25	8	30-300
	25	-0.025	25	+0.017	30	8	40-350
	28	-0.030	28	+0.008	33	8	50-300
	30		30		35	8	50-400
	32	-0.030	32	+0.020	37	8	50-350
	35	-0.035	35	+0.009	40	8	60-450
	40	-0.030	40	+0.020	45	10	80-500
	50	-0.040	50	+0.009	55	12	100-550
	60	-0.030	60	+0.024	65	15	200-550
		-0.050		+0.011			

GUIDE BUSH

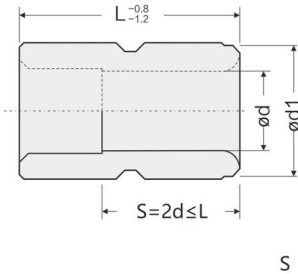
GBA



M	H
SUJ2	HRC 60 ± 2
20Cr	HRC 60 ± 2

Type	d		H	d1		D	L					
	Size	Tolerance		Size	Tolerance		15	20	25	30	35	40
GBA	8	+0.014	5	12	+0.015	14						
	10	+0.005		14	+0.007	16						
	12	+0.017		18		22						
	13	+0.006		20	+0.017	25						
	16		6	25	+0.008	30						
	20			30		35	-					
	25	+0.02		35		40	-					
	30	+0.007	8	42	+0.02	47	-	-				
	35			48	+0.009	54	-	-	-			
	40	+0.025		55		60	-	-	-			
	50	+0.009	10	70	+0.024	75	-	-	-	-	-	
	60	+0.029 +0.01		80	+0.011	86	-	-	-	-	-	-

GBB



M	H
SUJ2	HRC 60 ± 2
20Cr	HRC 60 ± 2

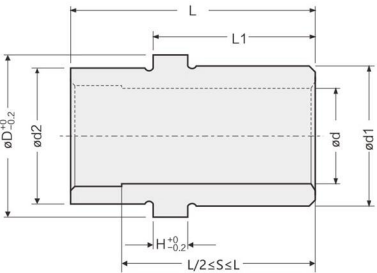
Type	d		d1		L
	Size	Tolerance	Size	Tolerance	
GBB	10	+0.009 0	14	+0.018	10
	12	+0.017	18	+0.007	13
	16	+0.006	25	+0.021	16
	20		30	+0.008	20
	25	+0.02	35		25
	30	+0.007	42	+0.025	20
	35		48	+0.009	
	40	+0.025	55		
	50	+0.009	70	+0.03	
	60	+0.003 +0.01	880	+0.011	

GUIDE BUSH

GBC



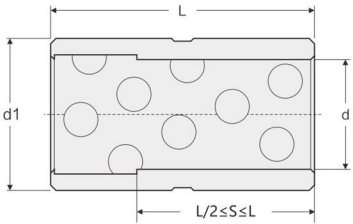
M	H
SUJ2	HRC 60 ± 2
20Cr	HRC 60 ± 2



S

Type													
	d		d1		d2	D	H	L/L1					
GBC	12	+0.018	20	+0.020 +0.010	-0.04 -0.06	25	4	25/13	30/18	40/23	50/28	60/33	80/43
	16	+0.007	25			30							
	20	+0.020 +0.008	30			35							
	25		35			40							
	30	+0.025 +0.010	42	47									
	35		48	54									
	40		+0.025 +0.008	55		61							
	50		70	+0.035 +0.015		76							

GBE

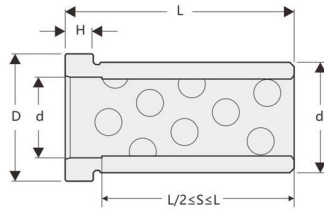


S

Type	dH7	d1m6	L											
GBE	20	30	20	25	30	35	40	50	60	70	80			
	25	35												
	30	42												
	35	48												
	40	55												
	50	70												
	60	80												
	70	90												
	80	105												

GUIDE BUSH

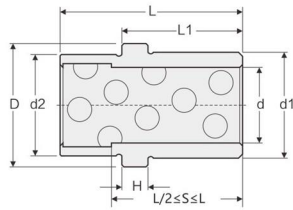
GBF



S

Type	dH7	d1m6	D ⁰ _{-0.2}	H ⁰ _{-0.2}	L																							
GBF	20	30	35	8	35	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	200	250						
	25	35	40																									
	30	42	47	10																								
	35	48	54																									
	40	55	61	12																								
	50	70	76	15																								
	60	80	86																									
	70	90	96																									
80	105	111	20																									

GBG



S

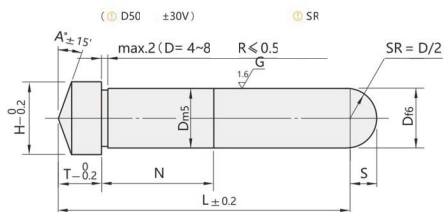
Type	d _{H2}	d1 _{m6}	d2 _{+0.04/-0.06}	D _{+0/-0.2}	H _{+0/-0.1}	L/L1				
GBG	12	20		25	4	25/13	30/18	40/23	50/28	60/33
	16	25		30						
	20	30		35						
	25	35		40						
	30	42		47						
	35	48		54						
	40	55		61						
	50	70		76						

ANGLE GUIDE PIN



M	H
SUJ2	HRC 60 ± 2
20Cr	HRC 60 ± 2

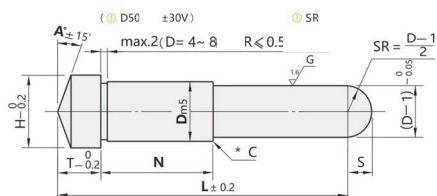
AP



① D= 20-25

D>30

APS



* D4~25

① D= 20-25

D>30

Type	D	m5	f6	T	H	S		0.1mm		A	1
			(AP)			AP	APS	L	N		
AP APS	4	+ 0.009 + 0.004	-0.010 -0.018	5	7	2	1.5	15.0~70.0	2≤N N≤L-T-1 N=0	0~30	
	5				2.5	2	70.1~90.0				
							15.0~70.0				
		70.1~90.0									
		90.1~100.0									
		15.0~70.0									
	6	3	2.5	70.1~90.0							
				90.1~110.0							
	8	4	3.5	15.0~80.0							
				80.1~110.0							
				110.1~130.0							
	10	5	4.5	20.0~110.0							
				110.1~160.0							
				160.1~200.0							
	12	6	5.5	20.0~110.0							
				110.1~160.0							
				160.1~200.0							
	13	6.5	6	200.1~250.0							
				20.0~110.0							
				110.1~160.0							
	15	7.5	7	160.1~200.0							
				200.1~250.0							
				20.0~110.0							
	16	8	7.5	110.1~160.0							
				160.1~200.0							
				200.1~250.0							
	20	23	9.5	40.0~130.0							
				130.1~200.0							
				200.1~300.0							
	25	28	10	300.1~350.0							
				350.1~400.0							
				60.0~160.0							
	30	35	10	160.1~220.0							
				220.1~300.0							
				300.1~400.0							
	35	40	10	400.1~500.0							
				100.0~160.0							
				160.1~220.0							
	40	45	10	220.1~300.0							
				300.1~400.0							
400.1~500.0											
50	55	10	100.0~160.0								
			160.1~220.0								
			220.1~300.0								
							300.1~400.0				
							400.1~500.0				
							200.0~260.0				
							260.1~320.0				
							320.1~400.0				
							400.1~500.0				

EJECTOR PIN & SHOULDER PUNCHES

SERIES >>>

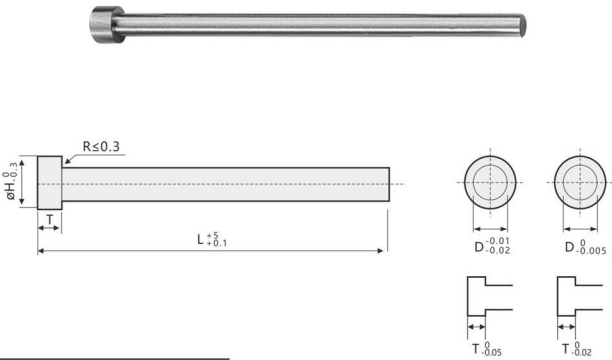


REFAMOLD
REFACCIONES Y SERVICIOS
PARA MOLDES DE INYECCION



EJECTOR PIN

EPT



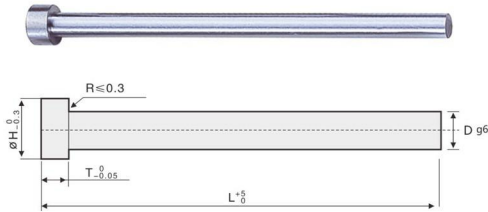
M	I.H	S.H	
1.2343 (SKD61)	HRC 40±3	HV 1000±100	Nitrided
	HRC 50±2	HV 1000±100	Vacuumed
1.2510 (SKH51)	HRC 60±2		

L	D	1~13	15~20	25
L≤500		-0.01 -0.02	-0.01 -0.03	-0.01 -0.04
L>500		-0.01 -0.03	-0.01 -0.03	-0.01 -0.05

Type	D	H	T	L																
				100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	900	950
EPT	1.0	3(6)	4									-	-	-	-	-	-	-	-	-
	1.2												-	-	-	-	-	-	-	-
	1.5												-	-	-	-	-	-	-	-
	1.6	6										-	-	-	-	-	-	-	-	
	2.0																			
	2.5																			
	3.0	7																		
	3.5																			
	4.0		8																	
	4.5																			
	5.0	9																		
	5.5		10																	
	6.0																			
	6.5	11																		
	7.0		13																	
	8.0																			
	9.0	14																		
	10		15																	
	12			17																
	13	18																		
	16		21																	
	20			25																
	25	30																		

EJECTOR PIN

EPG



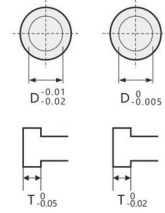
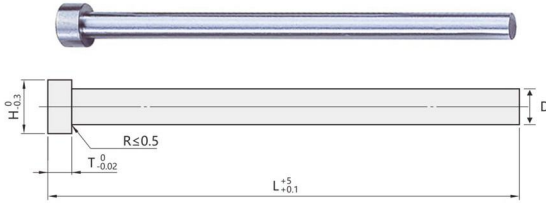
M	HR	SH	
1.2343 (SKD61)	HRC 40±3	HV 1000±100	Nitrided
	HRC 50±2	HV 1000±100	Vacuumed
1.2510 (SKH51)	HRC 60±2		

D	g6
0.5~3	-0.002 -0.008
3.01~6	-0.004 -0.012
6.01~10	-0.005 -0.014
10.0~18	-0.006 -0.017
18.01~30	-0.007 -0.020

Type	D g6	H 0 -0.3	T 0 -0.05	L										
				100	150	200	250	300	350	400	450	500	550	
EPG	0.8	2.5	1.2						-	-	-	-	-	
	1.0									-	-	-	-	
	1.2												-	
	1.5	3	1.5											
	2.0	4	2											
	2.2													
	2.5													
	2.7	5												
	3.0													
	3.2													
	3.5	6												
	3.7													
	4.0													
	4.2	7												
	4.5													
	5.0													
	5.2	8												
	5.5													
	6.0													
	6.2	10												
	6.5													
	7.0													
	7.5	12												
	8.0													
	8.2													
	8.5	14												
	9.0													
	9.5													
	10.0	16												
	11.0													
	12.0													
	14.0	20												
16.0	22													
18.0	24													
20.0	26													
25.0	32													
32.0	40													

EJECTOR PIN

EPN



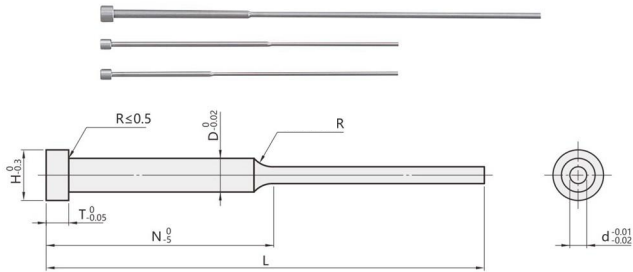
M	HH	SH	
1.2343 (SKD61)	HRC 40±3	HV 1000±100	Nitrided
	HRC 50±2	HV 1000±100	Vacuumed
1.2510 (SKH51)	HRC 60±2		

T	D	1~13	15~20	25
L ≤ 500		-0.01 -0.02	-0.01 -0.03	-0.01 -0.04
L > 500		-0.01 -0.03	-0.01 -0.03	-0.01 -0.05

Type					L												
4mm	D	0.1	H	T	100	150	200	250	300	350	400	450	500	550	600		
EPN	1~1.5		3	4						-	-	-	-	-	-		
	1.6~2.0		4								-	-	-	-	-		
	2.1~2.5		5														
	2.6~3.0		6												-	-	
	3.1~3.5		7														
	3.6~4.0																
	4.1~4.5		8														
	4.6~5.0																
	5.1~5.5		9														
	5.6~6.0																
	6.1~6.5		10														
	7																
	8		11														
	9		14														
	10		15														
	11		16														
	12		17														
	13		18														
	14		19														
	15		20														
	16		21														

STEP PIN

SEP

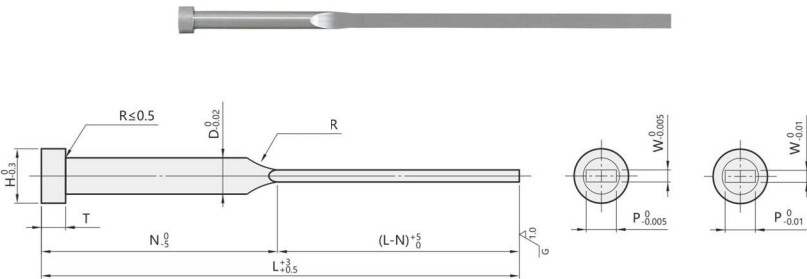


M	L.H	S.H	
1.2343 (SKD61)	HRC 40±3	HV 1000±100	Nitrided
	HRC 50±2	HV 1000±100	Vacuumed
1.2510 (SKH51)	HRC 60±2		

Type	D	H	T	L		d	N								
				L ₀ ^{+0.6}	L ₀ ^{+0.02}		40	50	60	70	80	90	100	125	150
SEP-A	1.5	3	4	100	50.00~100.00	0.8~1.0									
				150	100.01~150.00										
	2	4		100	50.00~100.00	0.8~1.5									
				150	100.01~150.00										
	2.5	5		200	150.01~200.00	0.8~2.0									
				100	60.00~100.00										
				150	100.01~150.00										
	3	6		200	150.01~200.00	0.8~2.5									
				100	60.00~100.00										
	SEP-B	4		8	150	100.00~150.00	1.5~3.0								
200					150.01~200.00										
250			200.01~250.00												
5		9	150	100.00~150.00	2.0~4.0										
			200	150.01~200.00											
			250	200.01~250.00											
6		10	150	100.00~150.00	3.0~4.0										
			200	150.01~200.00											
			250	200.01~250.00											

FLAT EJECTOR PIN

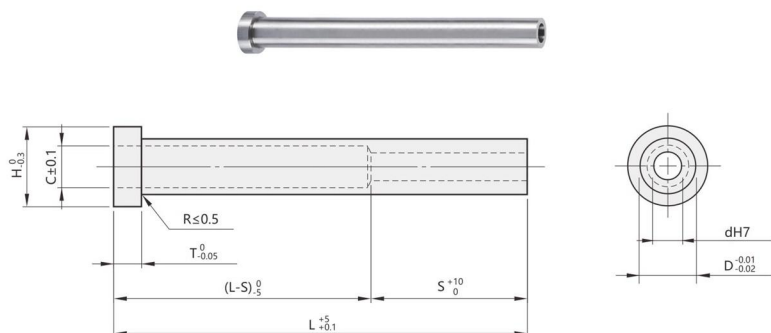
FEP



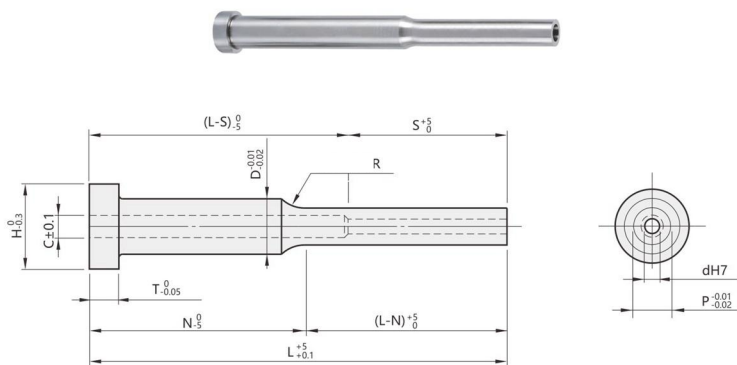
M	I.H	S.H	
1.2343 (SKD61)	HRC 40±3	HV 1000±100	Nitrided
	HRC 50±2	HV 1000±100	Vacuumed
1.2510 (SKH51)	HRC 60±2		

Type		4mm					L +0.01 0	P +0.01 0	W +0.01 0	N +1 0	
4mm		D	H	T	H	T					
FEP-A	FEP-B	2	4	4	6	4	40-300	0.8-1.8	0.3~	N≥30	
		2.5	5					0.8-2.3			
		3	6					0.8-2.8			
		3.5	7	7	40-359	1-3.3					
		4				8	1-3.8				
		4.5	9	1.2-4.3							
		5		4(6)	9	50-350	1.5-4.8	0.4~			
		5.5	10		10		1.8-5.3				
		6			11		10		2-5.8		0.5~
		6.5						4(8)	11		
		7		13							
		8	14								
		9			15		2.3-8.3				
		10					16	3-9.8			
		11		17				3-10.3			
		12	3.5-11.8					1~			

ES



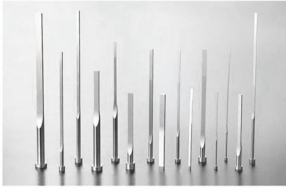
ESS



M	I.H	S.H	
1.2343 (SKD61)	HRC 40±3	HV1000±100	Nitrided
	HRC 50±2	HV1000±100	Vacuumed
1.2510 (SKH51)	HRC 60±2		

EJECTOR PIN NON-STANDARD PROCESSING

We provide Step ejector and Flat ejector pin non-standard processing, including R Angle processing, EDM processing, edge cutting and other special-shaped ejector pin processing. Our products are of good material, high precision, fast delivery, low price, welcome to contact us.



All kinds of flat ejector pin processing,
head minimum R=0.2



All kinds of step ejector pin processing,
the latest diameter 0.2mm



Ejector pin head EDM processing,
save cost and time



Ejector pin non-standard processing,
save cost and time



Ejector pin non-standard processing,
save cost and time



Ejector pin non-standard processing,
save cost and time



Ejector pin non-standard processing,
save cost and time



Ejector pin non-standard processing,
save cost and time

COOLING SERIES >>>

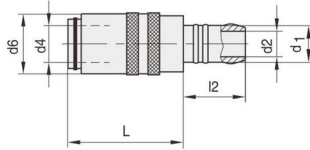


QUICK RELEASE CONNECTOR PLUGS

Z80 / ...



Z802/...
 Z81/...
 Z811/...
 Z83/...
 Z830/...
 Z831/...
 Z90/...



Z85/...
 Z851/...
 Z852/...
 Z853/...
 Z854/...

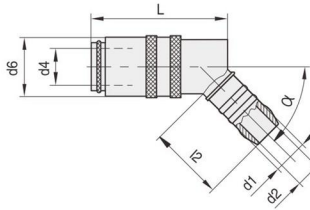
M	max.°C
Air	200
Oil	120
Water	100

Type	p[bar]	L	l2	d6	d2	d1/d4
Z80/9	25	31	22	17	6	9
Z80/13		37	25	22	9	13
Z80/19		58	32	31	13	19

Z80 /.../45°



Z802/...
 Z81/...
 Z811/...
 Z83/...
 Z830/...
 Z831/...
 Z90/...



Z85/...
 Z851/...
 Z852/...
 Z853/...
 Z854/...

M	max.°C
Air	200
Oil	120
Water	100

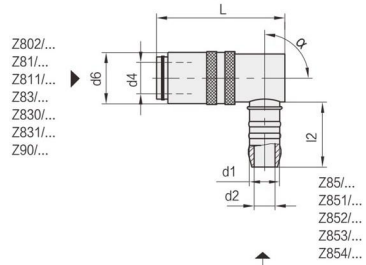
Type	p [bar]	L	l2	d6	d2	d1/d4	α
Z80/9/45	25	41	28	17	6	9	90°
Z80/13/45		51		22	9	13	
Z80/19/45		78	34	31	13	19	

QUICK RELEASE CONNECTOR PLUGS

Z80 /.../ 90°

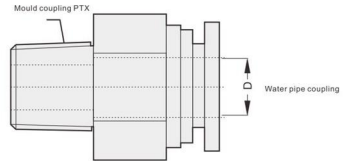


T	max. °C
Air	200
Oil	
Water	160



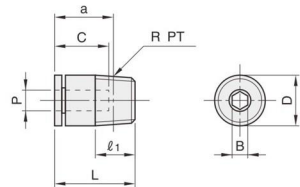
Type	p [bar]	L	l2	d6	d2	d1/d4	α
Z80/9/90	25	41	24	17	6	9	90°
Z80/13/90		51	28	22	9	13	
Z80/19/90		78	31	31	13	19	

PTX



Type	PT	D(φ)
PTX-1	1/8	6, 8, 10, 12
PTX-2	1/4	
PTX-3	3/8	
PTX-4	1/2	8, 10, 12

M-POC

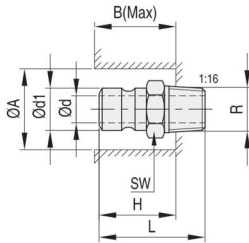


Type	PT	D(φ)
M-POC	1/8	4/6/8
	1/4	6/8/10
	3/8	8/10/12

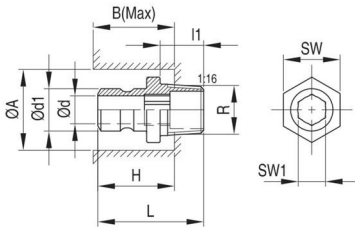

 Type PT D
 M-POC - 1/8 - 4

QUICK RELEASE CONNECTOR PLUGS

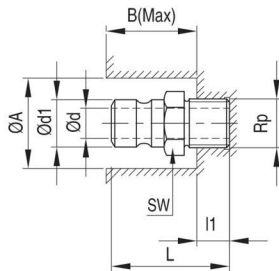
FSVK



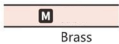
Type	R	d1	d	L	A	B	H	SW	Series
N6-1/8"A	1/8"BSPT	9,4	6	24,0	22	18	17	13	N6
N6-MA	M10x1			23,0					
N6-1/4"A	1/4"BSPT			29,0	26	20	19	16	
N6-3/8"A	3/8"BSPT			30,0	30	22	21	19	
N9-1/8"A	1/8"BSPT	13,5	9	34,0	26	26	25	14	N9
N9-1/4"A	1/4"BSPT							16	
N9-3/8"A	3/8"BSPT				30	28	26	19	
N9-MA	M10x1				6	29,5	26	25	16
N9-1/2"A	1/2"BSPT	19,9	16	39,0	37	28	26	24	N16
N16-1/2"A	1/2"BSPT			44,0	32	38	37	22	
N16-3/4"A	3/4"BSPT			45,0	38	40	38	29	



Type	R	d	d1	L	I1	A	B	H	SW	SW1	Series
N6-1/8"AHN	1/8"BSPT	6	9,4	23	9	22			11		N6
N6-M10x1AHN	M10x1						16	14		5	
N6-1/4"AHN	1/4"BSPT			28							
N6-M14x1.5AHM	M14x1.5					26			16		
N9-1/4"AHM	1/4"BSPT	9,3	13,5	34	14		22	20			N9
N9-M14x1.5AHN	M14x1.5									8	
N9-M16x1.5AHN	M16x1.5										
N9-3/8"AHM	3/8"BSPT			35		30	23	21	19		

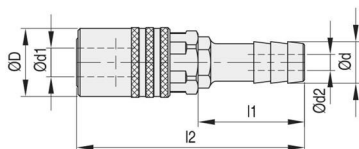


Type	Rp	A	B	d1	d	L	I1	SW	Series
FN 9-14 A	1/4"BSP	30	23,5	13,5	9	34	11,5	16	N9
FN 9-38 A	3/8"BSP							19	
FN 16-38 A	3/8"BSP	32	29,5	19,9	15	40			N16
FN 16-38 AL	3/8"BSP					53	24,5		
FN 16-12 A	1/2"BSP					45	16,5	22	
FN 16-12 AL	1/2"BSP					54	25,5		

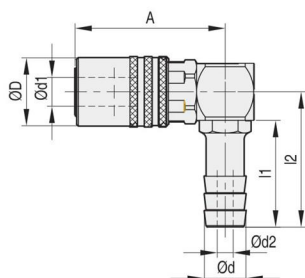


QUICK RELEASE CONNECTOR PLUGS

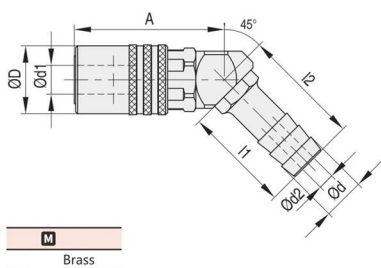
SVK



Type	d1	d2	d	D	l1	l2	Series
SVK-106	9,5	5	7,3	17,0	27	57	N6
SVK-109		6	10,5				
SVK-111	13,6	9	12,2	22,6		68	N9
SVK-113			14,0				
SVK-119	20,0	16	20,0	30,0	46	103	N16

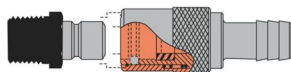


Type	d1	d2	d	D	A	l1	l2	Series	
SVK-206	9,5	5	7,3	17,0	38		34	N6	
SVK-209		6	10,5						
SVK-211	13,6	9	12,2	22,6		52	27	37	N9
SVK-213			14,0						
SVK-219	20,0	16	20,0	30,0	74	46	69	N16	

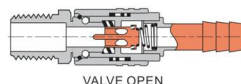
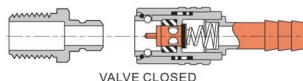


Type	d1	d2	d	D	A	I1	I2	Series
SVK-306	9,5	5	7,3	17,0	38	27	34	N6
SVK-309		6	10,5					
SVK-311	13,6	9	12,2	22,6		37	N9	
SVK-313			14,0					
SVK-319	20,0	16	20,0	30,0	74	46	69	N16

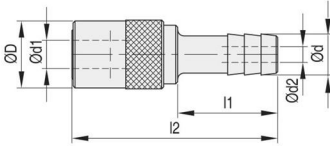
Flow-thru type



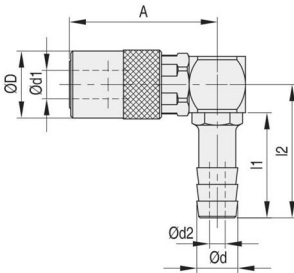
Automatic shut-off type



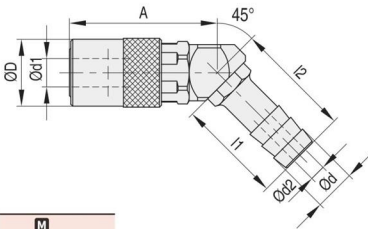
SK



Type	d1	d2	d	D	l1	l2	Series
SK-106	9,5	5	7,3	17,0	25	52	N6
SK-109		6	10,5				
SK-111	13,6	9	12,2	22,6		62	N9
SK-113			14,0				
SK-119	20,0	16	20,0	30,0	32	77	N16



Type	d1	d2	d	D	A	l1	l2	Series
SK-206	9,5	5	7,3	17,0	38	27	34	N6
SK-209		6	10,5					
SK-211	13,6	9	12,2	22,6	52		37	N9
SK-213			14,0					
SK-219	20,0	16	20,0	30,0	68	46	69	N16



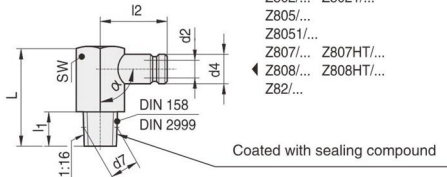
Type	d1	d2	d	D	A	l1	l2	Series
SK-306	9,5	5	7,3	17,0	38	27	37	N6
SK-309		6	10,5					
SK-311	13,6	9	12,2	22,6	52			N9
SK-313			14,0					
SK-319	20,0	16	20,0	30,0	67	46	69	N16



Z81 /.../ 90°



M	max. °C
Air	200
Oil	120
Water	100



Z80/... Z80HT/... Z80PL /...
 Z801/... Z801HT/... Z801PL /...
 Z802/... Z8021/...
 Z805/...
 Z8051/...
 Z807/... Z807HT/...
 Z808/... Z808HT/...
 Z82/...

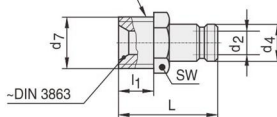
Type	L	I1	SW	I2	d2	d4	d7
Z81/9/8x0,75/90	27	9	11	23	4,5	9	M 8x0,75
Z81/9/9x1/90					5,5		M 9x1
Z81/9/10x1/90					6		M 10x1
Z81/9/R1/8/90							R 1/8A
Z81/13/11x1/90	34	11	15	25	8,5	13	M 11x1
Z81/13/14x1,5/90					9		M 14x1,5
Z81/13/R1/4/90							R 1/4A
Z81/19/24x1,5/90	47	16	24	42	13	19	M 24x1,5
Z81/19/R1/2/90							G 1/2A

Z811/...



M	max. °C
Air	200
Oil	120
Water	100

Coated with sealing compound



Z80/... Z80PL /...
 Z802/...
 Z807/...
 Z80700/...
 Z805/...
 Z82/...

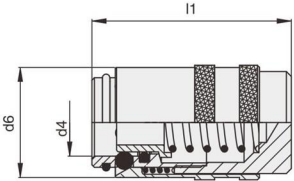
Type	L	l1	SW	d2	d4	d7
Z811/9/14x1,5	29	12	15	6	9	M 14x1,5
Z811/9/R1/4						G 1/4A
Z811/13/16x1,5	30		17	9	13	M 16X1,5
Z811/13/R3/8						G 3/8A
Z811/19/24x1,5	51	16	27	13	19	M 24X1,5
Z811/19/R3/4						G 3/4A

NIPPLES

Z825 / ...



Z804/...
 Z811/...
 Z810/...
 Z83/...
 Z830/...
 Z831/...
 Z90/...
 Z900/...



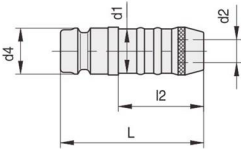
M	max.°C
Air	200
Oil	120
Water	100

Type	l1	d6	d4
Z825/9	34	17,25	9
Z825/13	40	22,1	13
Z825/19	58	31	19

Z83 / ...



Z80/... Z80PL /...
 Z801/... Z801PL /...
 Z807/...
 Z82/...



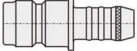
Z85/...
 Z851/...
 Z852/...
 Z853/...
 Z854/...

M	max.°C
Air	200
Oil	120
Water	100

Typ 1



Typ 2

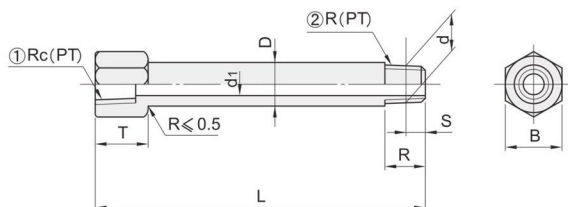


Type	l2	L	d2	Typ	d4	d1
Z83/9	22,5	43,5	6	1	9	9
Z83/13	25	42	9		13	13
Z83/19	32	61	13		19	19
Z83/9/5	13,5	29,5	3,5	2	9	5
Z83/13/9	22,5	39,5	6		13	9
Z83/19/13	25	54	9		19	13

COOLING WATER CONNECTOR

JTW / JTWS

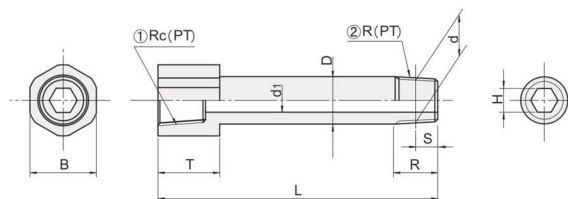
RoHS



Code	M
JTW	C3604
JTWS	SUS304

Type	No.	L		B	T	D	d ₁	ℓ	S	d	①	②
		5mm	10mm								Rc(PT)	R(PT)
JTW JTWS	1	30~145	150~300	14	13	10.5	6	10	3.97	9.728	1/8	1/8
	2			17	16	13.8	8		6.01	13.157	1/4	1/4
	3			21	17	17.3	10	12	6.35	16.662	3/8	3/8

HX-JTW



M
(C3604)

HX- JTW

Type	No.	L		B	T	D	d ₁	○H	ℓ	S	d	^① Rc(PT)	^② R(PT)
HX-JTW	1	50~150	10mm	14	13	10	6	○ 6	9	3.97	9.728	1/8	1/8
	2			17	16	13	8	○ 8	11	6.01	13.157	1/4	1/4
	3	50 · 100 · 150		21	17	17	10	○ 10	13	6.35	16.662	3/8	3/8

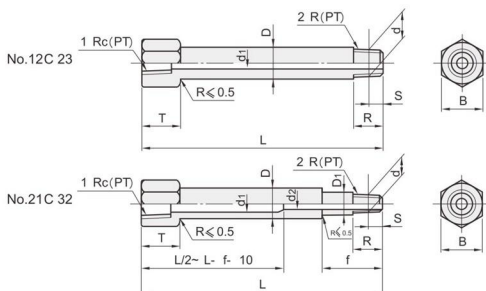

 Type No. L
 JTW - 1 - 50

COOLING WATER CONNECTOR

JTWF



M
C3604



Type	No.	L 10mm	B	T	D	D ₁	d ₁	d ₂	f	ℓ	S	d	① Rc(PT)	② R(PT)
JTWF	1	50~ 200	17	16	13.8	-	6	-	-	10	6.01	13.157	1/8	1/4
	2		21	17	17.3	-	8	-	-	12	6.35	16.662	1/4	3/8
	3		17	16	13.8	11	-	6	-	15	3.97	9.728	1/8	1/8
	4		21	17	17.3	14	10	8	-	10	6.01	13.157	3/8	1/4

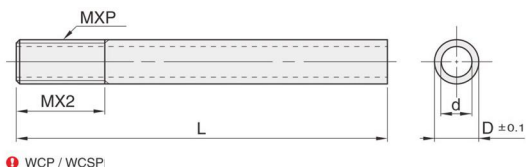


Type No. L
JTWF - 1 - 50

WCP / WCSP



Code	M
WCP	C3604
WCSP	SUS304

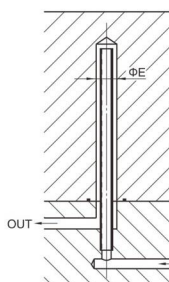


WCP / WCSP

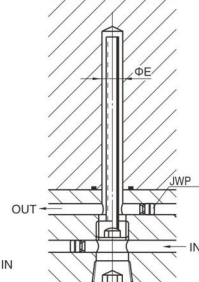
Type	D	MXPitch	d	L
WCP	3	M3X0.35	1.0	50 100 150 200
	4	M4X0.5	2.0	50 100 150 200
	5	M5X0.5	3.0	50 100 150 200 250 300
WCSP	6	M6X0.75	4.0	50 100 150 200 250 300
	8	M8X0.75	5.0	50 100 150 200 250 300
	10	M10X1.0	7.0	50 100 150 200 250 300

Functional chart

• WCPWCSP



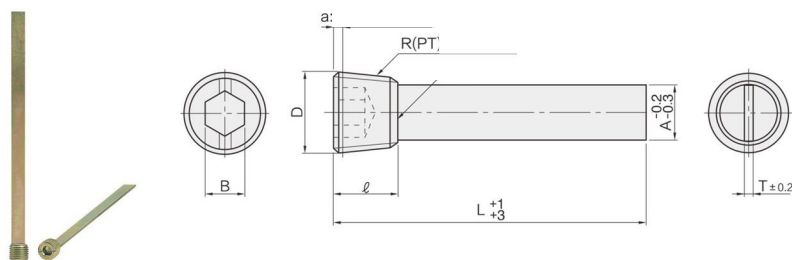
• WCPMCWCPPT



Type D L
WCP - 3 - 50

STRAIGHT BRASS PLUG BAFFLES

CPF



H	M
HRC32~42	C3604 S45C

Type	A	L Φ 10	T	R(PT)	D	a		Pitch	l	B
CPF	6	50~200	1.5	1/8	9.728	0.45	28	0.91	7	5
	8									
	9	50~250	2.0	1/4	13.157	0.7	19	1.34	8.9	6
	10			3/8	16.662				10	8
	12	50~300								
	14									

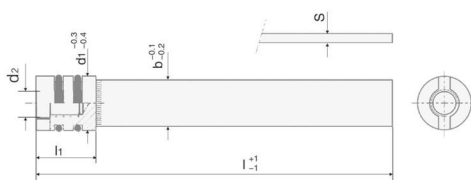


Type A L
CPF - 6 - 50

W5039



M
C3604 Viton



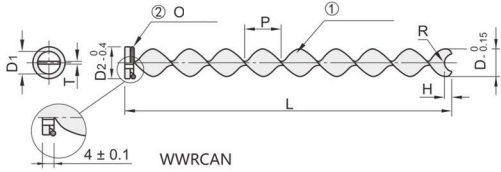
Type	S	b	l	l1	d1	d2
W5039/10/180	2	10	180	13	12	M6
W5039/15/250		15	250	16	16	M8
W5039/20/300		20	300	20	22	M12
W5039/25/390		25	390	22	26	M16

STRAIGHT BRASS PLUG BAFFLES

WWRC

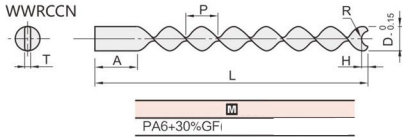
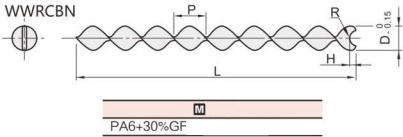
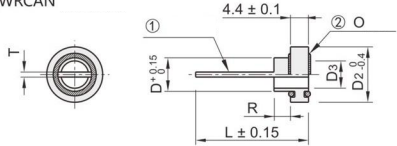


Code	M	
①	PA6+30%GF	1



Code	M	
①	PA6+30%GF	1

WWRCTN(WRCAN)



Type	D	D1	D2	T	R	H	P	A
WWRCAN	8	8	15	1.5	2	2	20	4.2
	10	10	18	1.8	2.5	2.5		
	12	11	22	2	3	3		
	16	15	25	3	4	4	25	
	20	18	30		5	5		

Type	D	D2	D3	T	R	B
WWRCTN	8	15	6	1.2		4.5
	10	18	8	1.5	4.1	
	12	22	10	1.6		
	16	25	13	2	6.0	
	20	30	17			

Type	D	R	H	P
WWRCBN	8	2	2	20
	10	2.5	2.5	
	12	3	3	
	16	4	4	
	20	5	5	

Type	D	T	R	H	P
WWRCCN	8	1.5	2	2	20
	10	1.8	2.5	2.5	
	12	2	3	3	
	16		4	4	
	20	3	5	5	25
	25	3.5	6	6	


 ORDER

Type

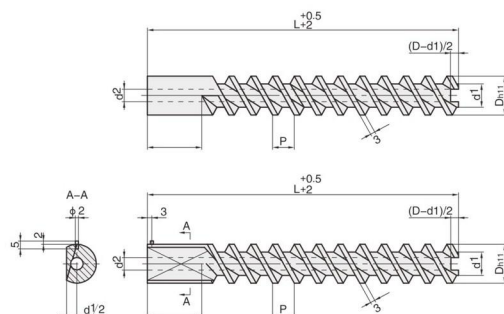
WWRCAN - 8 - ...

ALUMINUM SINGLE HELIX WATER CORES

ALC



Code		M
ALC-A	A	6061
ALC-B	B	

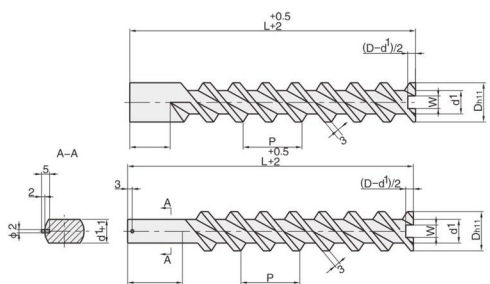


Type	D	d ₁	d ₂	ℓ	P	L							
ALC-A	12	8	5	35	14	L125	L150	L175	L200	L250	L300	L350	L400
	16	11	6										
ALC-B	20	13	8		18								
	25	15	10										
	32	22	12										
	40	26	14										
	50	32	16										

ALD



Code		M
ALD-A	A	3061
ALD-B	B	



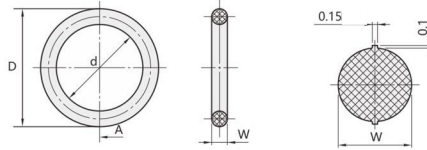
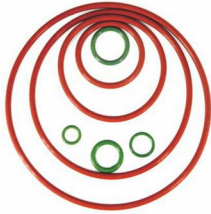
Type	D	L	d ₁	W	ℓ	P	L							
ALD-A	12	125	8	5	35	28	L125	L150	L175	L200	L250	L300	L350	L400
	16	150	11	6										
ALD-B	20	175	13	8		36								
	25	200	15	10										
	32	250	22	12										
	40	300	26	14										
	50	350	32	16										
		400												



Type D P L
 ALC-A - 12 - 14 - 125

O-RING

SOR



	M
-15~150°C	FKM-70

Other sizes and specifications can be customized according to requirements

Type	No.	O			W	do	
		*d	*D, D1				
SOR	P 3	3	6	0 -0.05	+0.05 0	1.9±0.07	2.8
	P 4	4	7				3.8
	P 5	5	8				4.8
	P 6	6	9				5.8
	P 7	7	10				6.8
	P 8	8	11				7.8
	P 9	9	12	0 -0.06	+0.06 0	2.4±0.07	8.8
	P 10	10	13				9.8
	P 11	11	15				10.8
	P 12	12	16				11.8
	P 14	14	18				13.8
	P 15	15	19				14.8
	P 16	16	20	0 -0.08	+0.08 0	3.5±0.1	15.8
	P 18	18	22				17.8
	P 20	20	24				19.8
	P 21	21	25				20.8
	P 22	22	26				21.8
	P 24	24	30				23.7
	P 25	25	31				24.7
	P 26	26	32				25.7
	P 28	28	34				27.7
	P 30	30	36				29.7
	P 31	31	37				30.7
	P 32	32	38				31.7
	P 34	34	40				33.7
	P 35	35	41	0 -0.08	+0.08 0	3.5±0.1	34.7
	P 36	36	42				35.7
	P 38	38	44				37.7
	P 39	39	45				38.7
	P 40	40	46				39.7
	P 42	42	48				41.7
	P 44	44	50				43.7
	P 46	46	52				45.7
	P 48	48	54				47.7

	Type	No.
ORDER	SOR	- P3

COOLING WATER DIVERTER

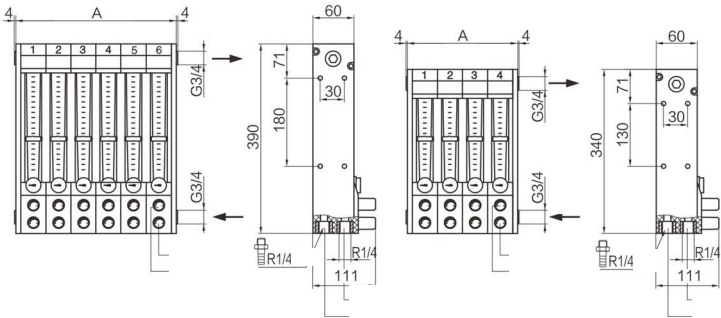
CWD



CORD 10



CORD 8



■ Precautions

- Temperature Control: Control the mould temperature by controlling the cooling water flow of mechanical equipment to improve the quality of production and moulding.
- Water Flow Detection: When the cooling water is blocked, it can be displayed immediately to avoid bad products.
- Group monitoring: Each group has a temperature meter and a flow controller, which can control the flow of water through the flow controller. So as to ensure the consistency of shrinkage rate of products
- Easy to clean: When the shunt is blocked or rusty, just remove the bolt at the top and clean the pipe.

A
R1/4
2
M12

Type	No.	Pipe number	A
CWD8 CWD10	T2	2	124
	T4	4	229
	T6	6	334
	T8	8	439
	T10	10	543
	T12	12	647

CWD8

2. 0~8Ltr/min.

bar)	(°C)
8	80
6	100
4	120

CWD10

2. 0~10Ltr/min.

(bar)	(°C)
10	60
8	80
6	100
4	120



Type	No.	L
CWD8	- T2	- 50

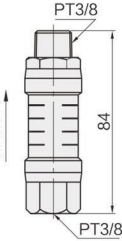
FLOW METERS FOR MOLD

FLAF / FLAM

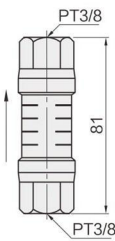


M	
	10°C~120°C

FLAF



FLAM

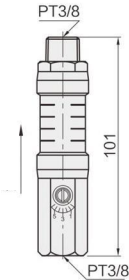


FLBF / FLBM

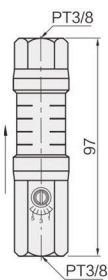


M	
	10°C~120°C

FLBF



FLBM



Precautions

- The cooling water flow rate can be confirmed by the scale, which can prevent the instability of cooling conditions.
- Built-in flow adjustment device, mold cooling conditions can be set.

Attention

- Cannot be used for purposes other than mold cooling.
- Please use the recommended data in the table.

MPa	0.5
MPa	0.8
ℓ/min.	18
N · m	12

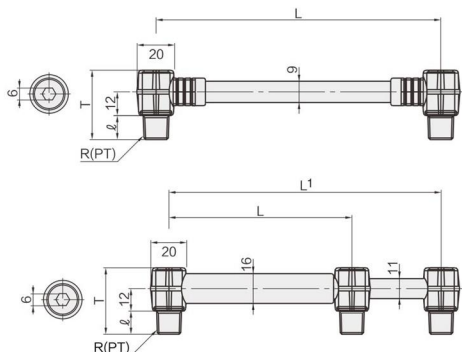
COOLING WATER COUPLING

JWRF/JWRL



JIS B 0203
R(PT)

Code		M
JWRF	JWRL	



Type	No.	L	R(PT)	T	ℓ
JWRF	1	140	1/8	31	9
	2		1/4	35	12.7

Type	No.	L	L ₁	R(PT)	T	ℓ
JWRL	1	50	65	1/8	31	9
		65	100			
		100	160			
	2	50	65	1/4	35	12.7
		65	100			
		100	160			



Type No. L
JWRF - 1 - 140

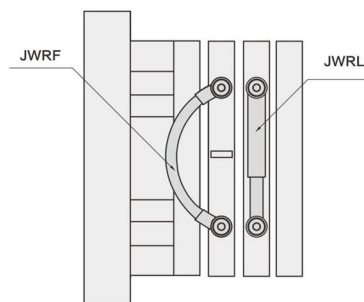
Precautions

- JWRF is used for the interconnection of mold cooling systems, which can avoid the obstacles in the middle, reduce the volume of the mold, and is easy to install.
- JWRL can adjust the length within the range of L₁, reduce pipeline complexity and reduce mold volume.

Attention

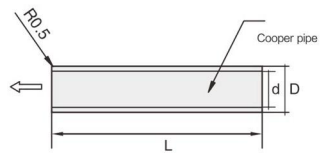
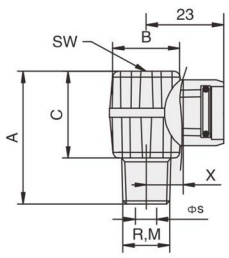
- Before installing the JWRF, use the hex wrench to run idling for 5-6 times, otherwise it may cause water leakage.

Functional chart



COOLING WATER COUPLING

JWRC



C3604	C3604	R(PT)
-------	-------	-------

Type	No.	A	B	C	X	R(PT)	M	S	T	SW	D	d	L
JWRC	1	35	21	26	8.7	1/8"	10	5	8	6	8	6	50~300
	2					1/4"		6					
	3	39	25	30	11.2	1/4"	12	9	12	8	12	10	50~300
	4					3/8"							

For example: when installing, center distance of cooling water hole is 300 mm. Actual length of copper pipe is (300-2X) mm.

Specification

Dimension	1/8	1/4	3/8
(N · cm) {kgf · cm ² } Maximum tighten torque	490 {50}	880 {90}	1176 {120}
(kPa) {kgf · cm ² } Common pressure	980 {10}		
(kPa) {kgf · cm ² } Maximum pressure	1470 {15}		
Applicable temperature range	Lower than 80 degree		
Vacuum resistance	Not applicable		

Precautions

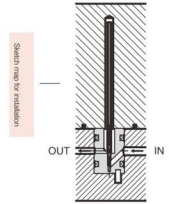
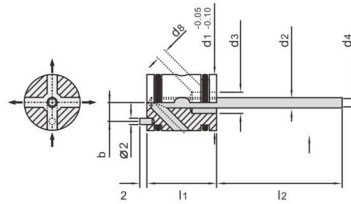
Cooling water coupling with regulating type:
It applies to connection between cooling water holes, cooperate with copper pipe, and be able to adjust distance randomly (maximum distance of 500 mm). The assembly is simple, and it could be disassembled and assembled through hexagonal wrench.



Type	No.	L
JWRC	1	50

COOLING WATER NEEDLE

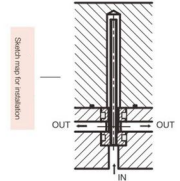
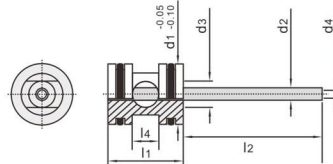
E2110



M			
SUS 304	O	Viton	150°C

Type	b	d3	d4	d8	l1	l2	d1	d2
E2110/10/1,3	3	4	0.8	2	15	150	10	1.3
E2110/10/1,6			1.2					1.6
E2110/10/2,4			1.8					2.4
E2110/16/1,6	5.5	6	1.2	3	20	200	16	1.6
E2110/16/2,4			1.8					2.4
E2110/16/3,3			2.5					3.3
E2110/25/4	9	12	3.2	12	30	200	25	4
E2110/25/5			4					5
E2110/25/6			5					6
E2110/25/8			7					8

E2112

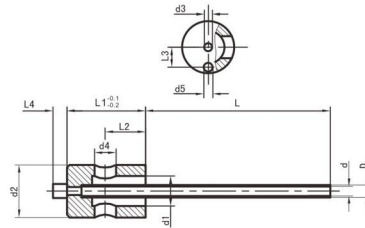


M			
SUS 304	O	Viton	150°C

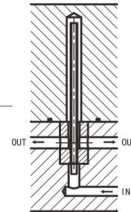
Type	d3	d4	l1	l2	l4	d1	d2
E 2112/10/1,3	4	0.8	15	150	4	10	1.3
E 2112/10/1,6		1.2					1.6
E 2112/10/2,4		1.8					2.4
E 2112/16/1,6	7	1.2	20	200	7	16	1.6
E 2112/16/2,4		1.8					2.4
E 2112/16/3,3		2.5					3.3
E 2112/16/4		3.2					4
E 2112/16/5	12	4	30	200	12	25	5
E 2112/16/6		5					6
E 2112/25/4		3.2					4
E 2112/25/5		4					5
E 2112/25/6		5					6
E 2112/25/8		7					8

COOLING WATER NEEDLE

Z962

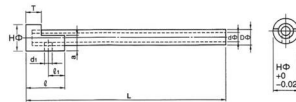


Sketch map for installation

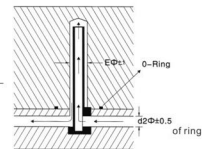

M
 SUS 304

Type	D	d2	d3	L	L1
Z9622	2.6	10	2	100/200	16
Z9623	3		2.4		
Z9624	4		3		
Z9625	5	12	4	160/315	18
Z9626	6	16	5		
Z9628	8	18	6		
Z96210	10	20	8		20
Z96212	12	25	10		25

CPC



Use example

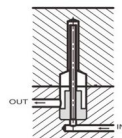
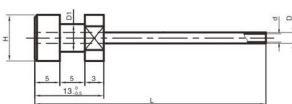

M
 Brass

Type	ϕ Hh8		T	ℓ ₁	ℓ	d1	a	d	D	L		
CPC	10	$\begin{smallmatrix} 0 \\ -0.022 \end{smallmatrix}$	4	10	18	3	8.5	0.9	1.5	150		
			5.1					1.5	2.5			
								2(2.2)	3(3.2)	200		
	12	$\begin{smallmatrix} 0 \\ -0.027 \end{smallmatrix}$	5.6	11	20	3.5	7.2	3	4			
	5.4					9.5	5	6	300			
	6.5					12	6	8				
	18	$\begin{smallmatrix} 0 \\ -0.033 \end{smallmatrix}$			22	8.5	11	8	10	350		
	10.5					14	10	12				


 Type D L
 Z9622 - 3 - 100

COOLING WATER NEEDLE

WCPK

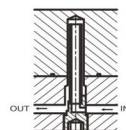
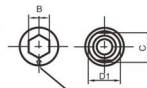
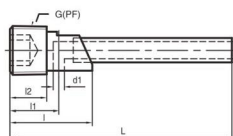


M

SUS 304

Type	H	D1	C	d	D	L
WCPK	8	6	6	1.6	2	100
						200
				2.5	3	100
						200
						300
	10	8	8	3.6	4	200
						300

WCPF



M

SUS 304

Type	G (PF)	B	I	I1	I2	C	D1	d1	d	D	L
WCPF	1/8	4	20	13	10	6.7	8	1.6	1.6	2	100
											200
								2.5	2.5	3	100
											200
	1/4	5	23	15	12	8.5	10	3.6	3.6	4	300
											200
											300



Type

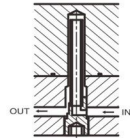
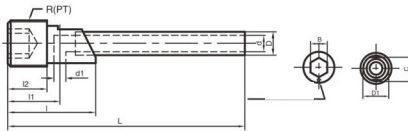
D

L

WCPK - 2 - 100

COOLING WATER NEEDLE

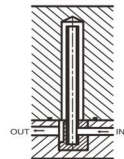
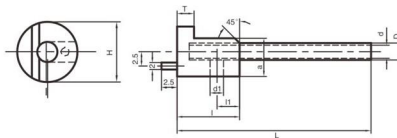
WCPFT



M
SUS 304

Type	R (PT)	B	I	l1	l2	C	D1	d1	d	D	L
WCPFT	1/8	4	20	13	10	6.7	8	1.6	1.6	2	100
											200
								2.5	2.5	3	100
											200
											300
											200
	1/4	5	23	15	12	8.5	10	3.6	3.6	4	300

WCPS



M
SUS 304

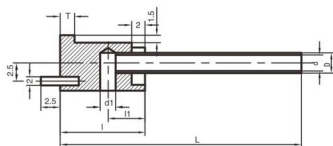
Type	Hh8		T	l1	l	d1	a	d	D	L
WCPS	10	0 -0.022	5.1	10	18	3.5	7.2	3	4	200
	12					5.4	9.5	5	6	300
	15	0 -0.027	5.6	11	20	6.5	12	6	8	300
	18				22	8.5	11	8	10	350
	22	0 -0.033				10.5	14	10	12	350



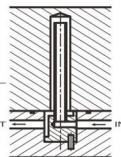
Type D L
WCPFT - 2 - 100

COOLING WATER NEEDLE

WCPN



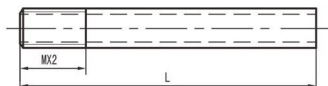
Sketch map for installation



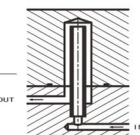
 SUS 304

Type	Hh8		T	l1	l	d1	a	d	D	L
WCPN	10	$0_{-0.022}^0$	4	10	18	3	-	0.9	1.5	150
								1.5	2.5	
								2.2	3.2	

WCSP



Sketch map for installation



 SUS 304

Type	M x P	d	D	L
WCSP	M3 x 0.35	1.0	3	50 100
				150 200
				250 300
	M4 x 0.5	2.0	4	50 100
				150 200
				250 300
	M5 x 0.5	3.0	5	50 100
				150 200
				250 300
	M6 x 0.75	4.0	6	50 100
				150 200
				250 300
	M8 x 0.75	5.0	8	50 100
				150 200
				250 300
	M10 x 1.0	7.0	10	50 100
				150 200
				250 300



Type

D

L

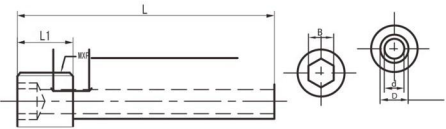
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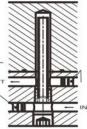
WCPN - 1.5 - 150

COOLING WATER NEEDLE

WCPM

普通直螺纹

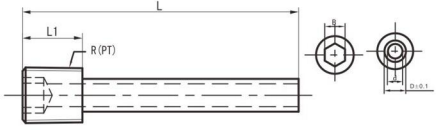



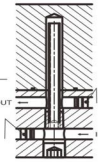
M

SUS 304

Type	MXP	B	d	D	L1	L
WCPM	M6 × 1.0	3	1.6	2	6	150
						200
						200
	M8 × 1.25	4	2.5	3	8	200
						250
			3.6	4		200
						300

WCPPT

M

SUS 304

Type	R (PT)	B	d	D	L1	L
WCPPT	1/8	5	1.6	2	7	150
						200
			2.5	3		200
						250
			3.6	4		200
						300



Type

D

L

WCPM

-

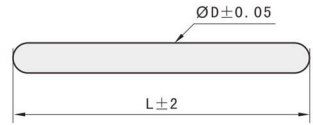
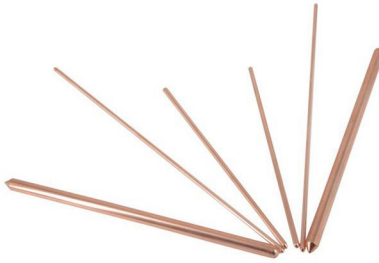
2

-

150

HEAT PIPES

HTK



Type	D	L
HTK	2	30-300
	2.5	
	3	
	4	
	5	
	6	
	8	
	10	
	12	

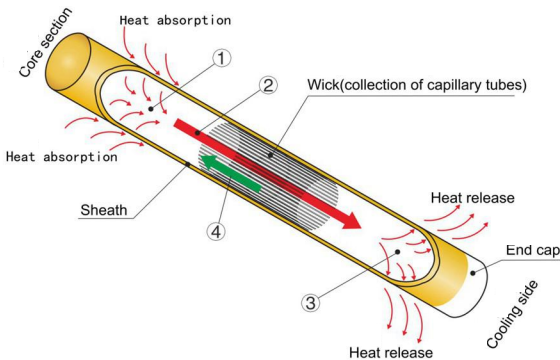
■ Precautions

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.

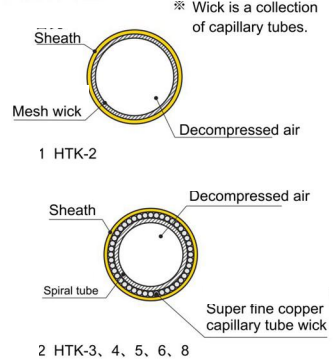


Type	D	L
HTK	2	30

■ Functional chart



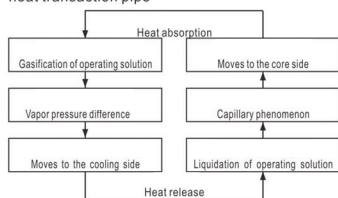
Cross section:



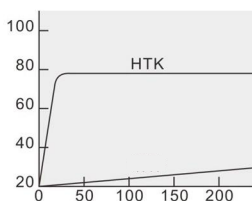
Exploded View of the HTK Heat Transaction Pipe:

- ① The operating solution absorbs the core side heat and gasifies;
- ② Vapor pressure difference causes the gasified operating solution to move to the cooling side;
- ③ Moved to the cooling side, the gasified solution releases heat and liquidates;
- ④ The wick's capillarity causes the operating solution to return to the core side.

Operating cycle of the HTK heat transaction pipe

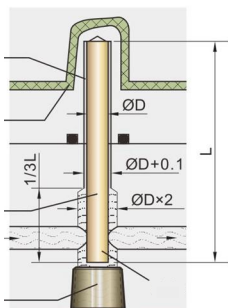


Thermal response property



- (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

Installation diagram



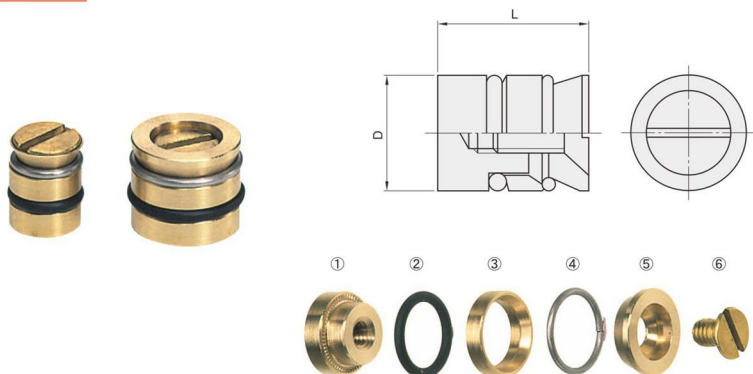
- Installed holes shall be bigger 0.1mm than heat pipe .
- Please use special heat transfer agent fill to the full space when install heat pipe.
- Insert heat pipe , end position shall be on side of heat pipe.
- Usage temperature :30°C-200°C
- Please refer to installation instructions to processing installed holes.

Attention

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

COOLING CIRCUIT PLUGS

JWP



	①
M	(C3604)

③	④	⑤	⑥
(C3604)	—	(C3604)	(C3604)

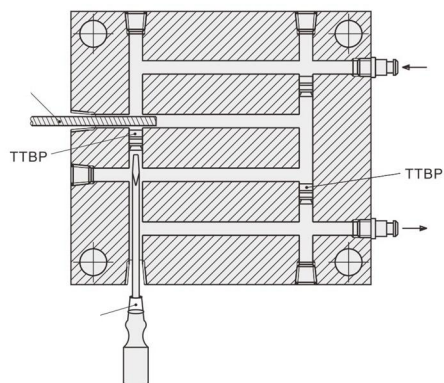
Type	D	L
JWP	6	10
	8	
	8.5	
	10	
	11.5	
	12	12
	14	

■ Precautions

This product is to be set freely circulating cooling water circuit and the development of products. Can be installed in the cooling channels anywhere.

■ Installation diagram

As shown below, insert a rod, so that JWP can no longer move forward, with a screwdriver, tighten the screw, O-ring expansion and deformation, the cooling holes plugged.



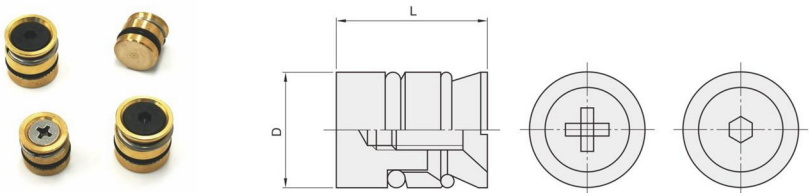
■ Specification

D6	D8	D8.5	D10	D11.5	D12	D14
6	8.2	8.7	10.2	11.7	12.2	14.2
±0.25						
6	8	8.5	10	11.5	12	14
+0.3 0						
588 [6]						
80°C						

Viton O-ring temperature range of -15 °C ~ 150 °C, because the O-ring is deformed after use, it is recommended to use below 80 °C

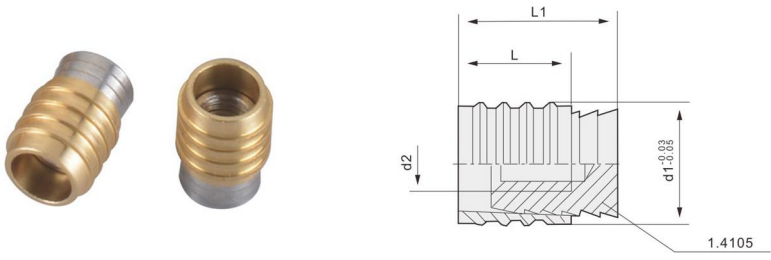
COOLING CIRCUIT PLUGS

CCP



Type		D	ø6	ø8	ø10	ø12	ø16	ø20	ø25	ø30
		L	10	10	10	12	14	19	19	19
CCP-A	80-110°									
CCP-B	120-160°									
CCP-C	160-220°									

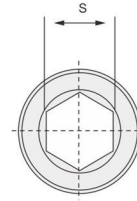
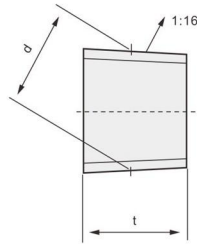
Z942



Type				
	d1	d2	L	L1
Z942/6	6	M3	8	11.5
Z942/8	8	M4		
Z942/10	10	M6	10	14
Z942/12	12			
Z942/16	16	M8	12	16

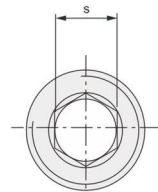
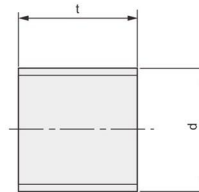
SHOULDER BOLT

Z94



Type	(d)	(t)	(s)
Z94/ 5x0.5	M 5x0.5	5	3
Z94/ 8x0.75	M 8x0.75	8	4
Z94/ 10x1	M 10x1		5
Z94/ 12x1.5	M 12x1.5		6
Z94/ 14x1.5	M 14x1.5	10	7
Z94/ R1/8	R 1/8A	8	5
Z94/ R1/4	R 1/4A	10	7
Z94/ R3/8	R 3/8A		8
Z94/ R1/2	R 1/2A		10

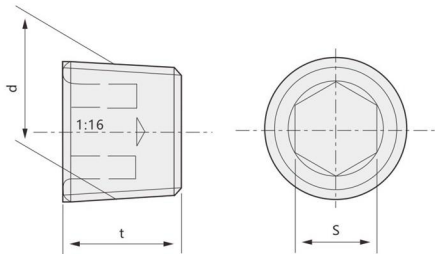
Z940



Type	(d)	(t)	(s)
Z940/ 8x0.75	M 8x0.75	8	4
Z940/ 10x1	M 10x1		5
Z940/ 12x1.5	M 12x1.5		6
Z940/ 14x1.5	M 14x1.5	10	7
Z940/ R1/8	G1/8A	8	5
Z940/ R1/4	R1/4A	10	7
Z940/ R3/8	R3/8		8
Z940/ R1/2	G1/2A		10

SHOULDER BOLT

BP



M

Brass

Type	(d)	(t)	(s)	(s)
BP-10	1/8NPT	0.25	0.187	27
BP-20	1/4NPT	0.406	0.25	18
BP-40	3/8NPT		0.312	
BP-60	1/2NPT	0.531	0.375	14
BP-100	3/4NPT		0.562	
BP-140	1"NPT	0.656	0.625	11.5

Type	(d)	(t)	(s)	(s)
PT-01	1/8PT	7	5	28
PT-02	1/4PT	8.9	6	19
PT-03	3/8PT	10	8	
PT-04	1/2PT	12	10	14
PT-06	3/4PT	14	14	
PT-08	1"PT	17	17	11

Type	R	L	SW
AN-8	1/8"BSPT	8	5
AN-4	1/4"BSPT	10	7
AN-3	3/8"BSPT		8
AN-2	1/2"BSPT	10	10
AN-M8	M 8x0.75	8	4
AN-M10	M 10x1	8	5
AN-M12	M 12x1.5	8	6
AN-M14	M 14x1.5	8	7

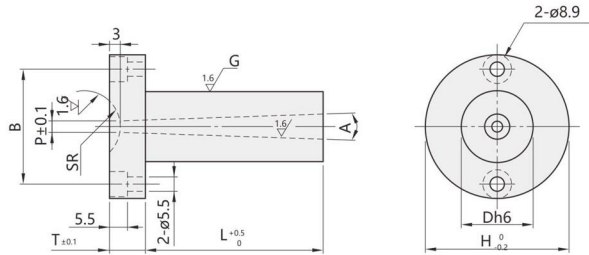
SPRUE BUSHING, LOCATING RINGS

SERIES >>>>



SPRUE BUSHING

SBA



M	H
SKD61	HRC48~52
S45C	HRC40~48

Type	H	B	Dh6		T	L 0.5mm	SR	P	A 0.5
SBA	35	25	8	0 -0.01	T=10 T=15	10~100	0 11 16	2 2.5 3 3.5	1~3
			10			10~150	0 11 13 16	2 2.5 3 3.5 4 4.5 5	1~4
			12	0 -0.02					
	40	30	10						
			12						
			13						
			16						
	50	36	12						
			16						
			20						

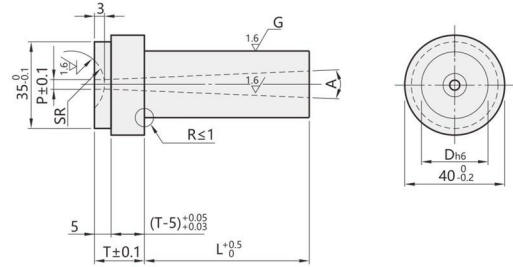
Type	D	T	L	SR	P	A
SBA	- 8	- 10	- 50	- 0	- 3	- 1

SPRUE BUSHING

SBB



M	H
SKD61	HRC48~52
S45C	HRC40~48



Type	D	T	L 1mm	SR	P	A 0.5
SBB	10		60~100	0	2	
	12	20		11	2.5	1
	13	25		16	3	2
	16	30		19	3.5	3
	20			20	4	
				21	4.5	
					5	

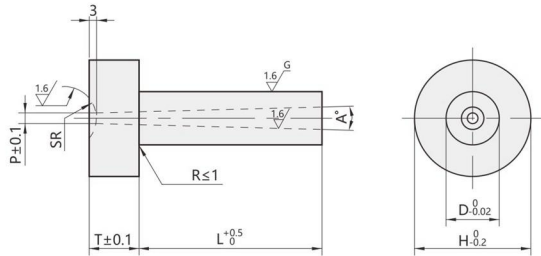


Type	D	T	L	SR	P	A
SBB	10	20	60	0	2	1

SBC



M	H
SKD61	HRC48~52
S45C	HRC40~48



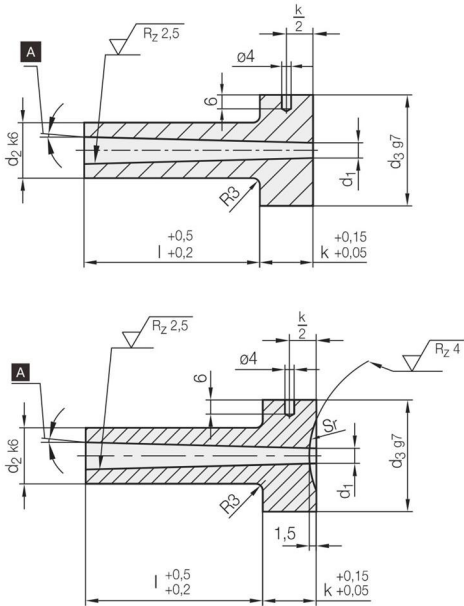
Type	D	T	L 1mm	H	SR	P	A 0.5
SBC	10		60~100	20	0	2	
	12	15		25	11	2.5	1
	13	20		16	16	3	2
	16			30	20	3.5	3
	20			35	21	4	
						4.5	
						5	



Type	D	T	L	H	SR	P	A
SBC	10	20	60	20	0	2	1

SPRUE BUSHING

Z512



M	H
SKD61	HRC48~52
S45C	HRC40~48

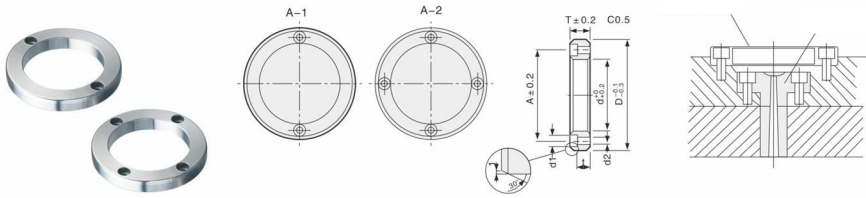
Type	Sr	A°	d2	L	d1	d3	K
Z512	0	0.5	12	22	2.5	28	13
				27			
				36			
				46			
				22	3.5		
				27			
				36			
				46			
	56	3	38	18			
	27						
	36						
	46						
	56						
	66						
	76						
	86						
	96						
	116						
	27				4		
	36						
	46						
	56						
	66						
	76						
	86						
	96						
	116						



Type	Sr	A°	L	d1	K
Z512	- 0	- 0.5	- 22	- 2.5	- 13

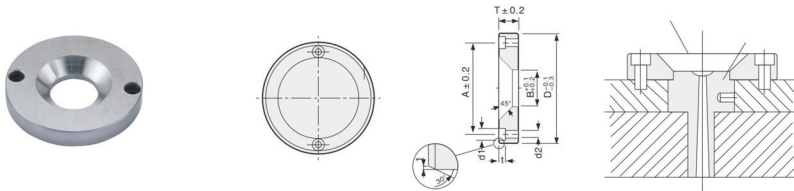
LOCATING RING

LRA



Type	D	T				t	d	A
				d2	d1			
LRA	60	10	M5	5.5	9	5	40	50
		15						
		20						
		25						
	100	10	M6	6.5	11	3	70	85
		15						
		20				8		
		25						
	30							
	110	10				3	80	95
		15				8		
		20						
		25						
	120	10				3	90	105
		15						
		20						
		25						
	150	15	M8	9	14	6	110	130
		20						
25								
25								

LRB



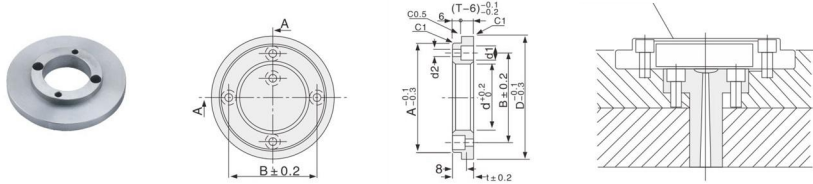
Type	D	T	B				A
				d2	d1	t	
LRB	100	15	35 40 50	M6	6.6	11	6.5
		20					
		25					
	120	15	35 40 50	M8	9	14	8.6
		20					
	150	15					



Type D T
LRA - 60 - 10

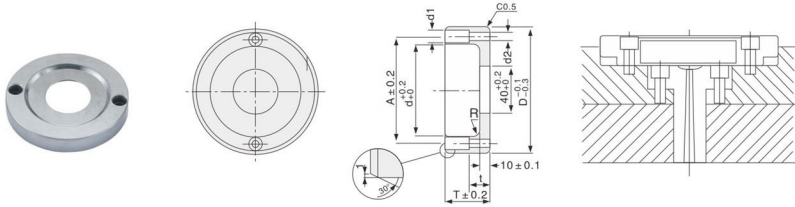
LOCATING RING

LRC



Type	D	T				d	B	A
				d2	d1			
LRC	100	14	M5	5.5	9	40	50	60
		16						
	120	14	M6	6.5	11	70	85	100
		16						
	130	14						
		16						

LRD



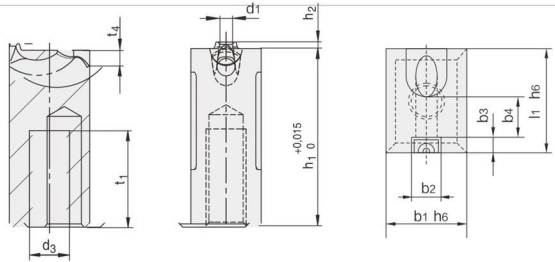
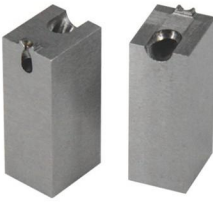
Type	D	T				t	R	d	A	
				d2	d1					
LRD	100	15	M6	6.5	11	9	5	70	85	
		20				20	10			
		35								
		40								
		45				120	15	9	5	90
	20	20					10			
	35									
	40									
	45									



Type D T
LRC - 100 - 14

PULLER BOLTS

KSG



Type	r1	t1	t4	b2	b3	b4	d3	h2	l1	b1	h1	d1
KSG	1.5	8	2	2.6	1.3	3.7	M4	0.8	8	6	17	0.4 0.6 0.8
	2		2	2.6	1.3	3.7			10	8	22	0.6 0.8 1
	2.25	10	2.25	3.0	1.5	4.5	M5		12	10	27	0.6 0.8 1
	2.5		2.5	3.5	1.75	5	M6		15	12		0.8 1 1.2



Type	r1	d1
KSG	1.5	0.4

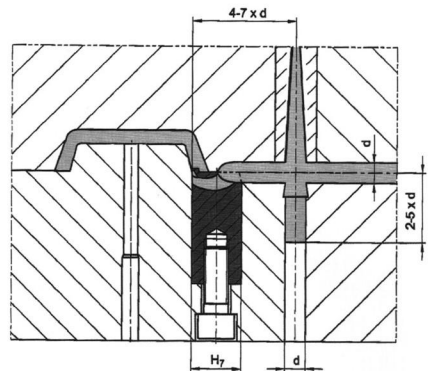
The submarine gate simplifies the mould gate structure. The gate separation way of this runner structure ensures the fluent separation of the plastic products. There is no obvious trail at the top of the gate, which makes the products quality reach higher level.

■ Precautions

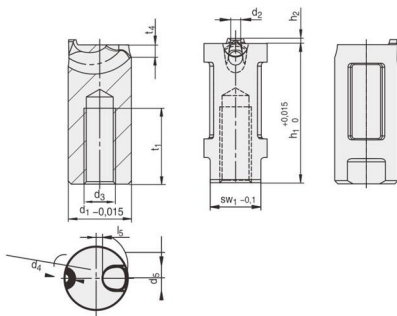
- Gate and mould can be separated when demoulding.
- The gate part forms Standard part and is easy to replace.
- It is fit for the plastic components with plain surface or thin walls.

■ Installation diagram

According to the hardness of the plastic, the gate mouth and the ejector point of the gate should be kept a distance of $4-7d$, so as to ensure enough demoulding space due to its attachment strength of the gate (about $2-5d$).

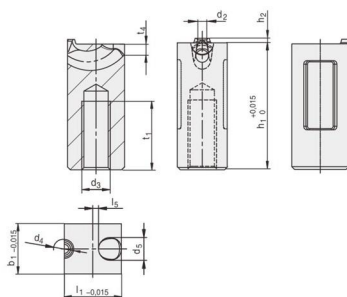


Z1050



Type	No.	SW1	t1	t4	I5	h2	d3	d4	d5	d1	h1	d2
Z1050	6x17x0.6	5.5	10	1.25	0.5	0.6	M4	2.2	2.5	6	17	0.6
	8x22x0.6	6	13	1.5	0.75			2.4	3	8	22	
	8x22x0.8											
	10x22x0.8	8	12	2	1	0.8	M5	2.5	4	10		0.8
	10x22x1.2							2.9				
	10x22x1.6							3.3				1.6
	12x22x1.2	10	11	2.5	1	0.8	M5	2.9	5	12		1.2
	12x22x1.6							3.3				1.6
	12x22x2.0							3.7				2.0

Z1060



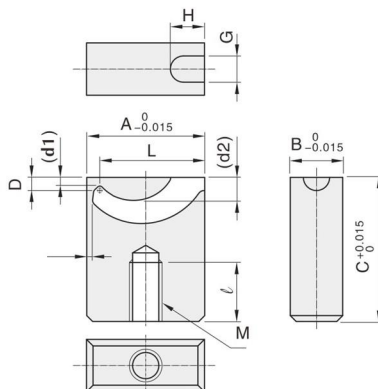
Type	No.	t1	t4	I5	h2	d3	d4	d5	l1	d1	h1	d2					
Z1060	8x6x22x0.6	13	1.5	0.75	0.6	M4	2.2	3	8	6	22	0.6					
	8x6x22x0.8						2.4					0.8					
	10x8x22x0.8						2.5					1.2					
	10x8x22x1.2	12	2			1	0.8	M5	3.0	4		10	8	1.6			
	10x8x22x1.6								3.3					1.2			
	12x10x22x1.2								2.9					1.2			
	12x10x22x1.6	11	2.5										5	12	10	1.6	
	12x10x22x2.0															3.3	2.0
																3.7	



Type	No.
Z1050	- 6x17x0.6

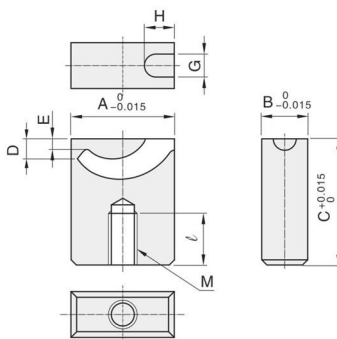
INSETS OF INLET GATE OF HORN WIRES

MTGC



Type	No.	A	B	C	L	D	(d1)	(d2)	(d3)	G	H	M x l
MTGC	1	18	8	22	16	2	(1.3)	(3.5)	(0.9)	4	5.2	M5x9
	2	25	10		22.1	3	(2.1)	(4.8)	(1.2)	6	6.5	M5x8
	3	30	12	27	26.9	5	(4.1)	(7.5)	(1.2)	8	7	M6x9

MSGC



Type	No.	A	B	C	D	E	G	H	M x l
MSGC	1	18	8	22	4.1	2.5	4	5.2	M5x9
	2	25	10	22	5.7	3.2	6	6.6	M5x8
	3	30	12	27	8.4	5.5	8	7	M6x9



Type

No.

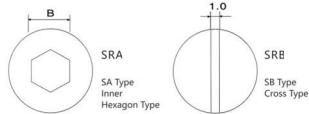
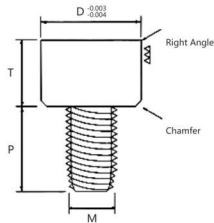
MTGC

-

1

STOP-FEEDING SCREW (STOPPING RUNNER)

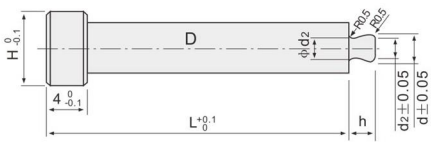
SR



M	H
	HRC50°C

Type	D	T	P	M	B
SRA Inner Hexagon	6	7	11	5	3
	8		12	6	4
SRB Cross Type	10	8	16	8	5
	12	10	20	10	6

SRLP



M	H
SUJ2	HRC60° ± 2°

Type	D	H	h	d	d2	L
SRLP	2	4	2	1.5	1.0	15 20 25 30 35 40
	3	5		2.3	1.8	15 20 25 30 35 40 45 50
	4	6	2.5	2.8	2.3	20 25 30 35 40 45 50 60 70 80
	5	7	3	3.3	2.8	20 25 30 35 40 45 50 60 70 80
	6	8		3.8	3.0	30 35 40 45 50 60 70 80
	8	10	4	5.8	5.0	30 35 40 45 50 60 70 80

ORDER

Type

Type

D

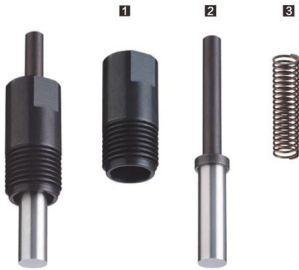
D

L

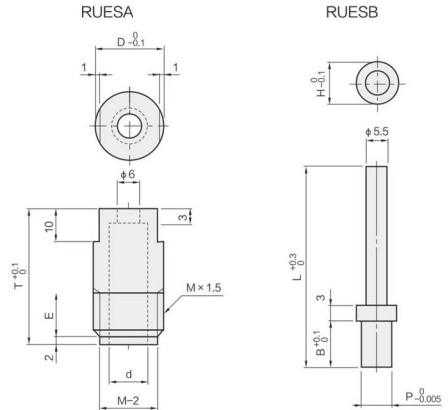
L

SRLP - 6 - 15

RES



Code		M	H
RES	1 RESA	SCM435	HRC33~38
	2 RESB	SK95	HRC53~58



3					2					3	
D	M	d	E	T	H	P	B	L			
14	M14×P=1.5	9	10	26	8	6	10	35 40 45 50 55 60 65	WWF 8–25 WWFH 8–25 WWL 8–25 WWLH 8–25	WWF =0.05 WWFH=0.05 WWL =0.1 WWLH=0.1	
							15	40 45 50 55 60 65 70 75 80			
16	M16×P=1.5	11	12	35	10	8	23	50 55 60 65 70 75 80 85	WWF 8–30 WWFH 8–30 WWL 8–30 WWLH 8–30		
							28	60 65 70 75 80 85 90			
18	M18×P=1.5	13	12	35	12	10	33	70 75 80 85 90 95			
							38	85 90 95 100			
							48	105 110			

Type	D	B	L	
123 RES	6.0	10	35 40 45 50 55 60 65	WWF WWFH WWL WWLH
		15	40 45 50 55 60 65 70 75 80	
	8.0	23	50 55 60 65 70 75 80 85	
		28	60 65 70 75 80 85 90	
	10.0	33	70 75 80 85 90 95	
		38	85 90 95 100	
		48	105 110	



Type	D		B		L	
RES	-	1	-	10	-	35

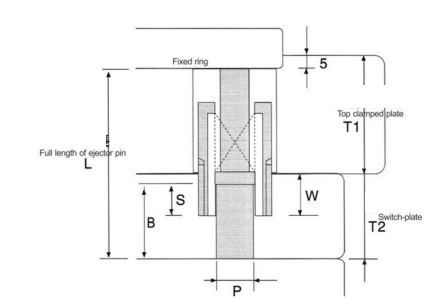
RUNNER EJECTOR SETS

Type	D	P	T
1 RESA	14.0	6	26
	16.0	8	35
	18.0	10	35

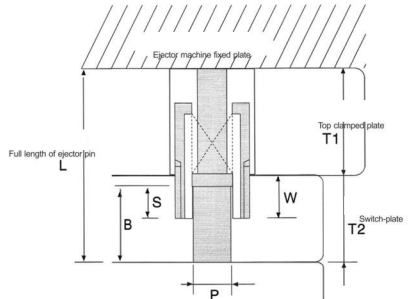
Type	D	B	L
2 RESB	6.0	10	35 40 45 55 60 65
		15	40 45 50 55 60 65 70 75 80
	8.0	23	50 55 60 65 70 75 80 85
		28	60 65 70 75 80 85 90
		33	70 75 80 85 90 95
	10.0	38	85 90 95 100
		48	105 110

■ Installation diagram

Using fixed ring to press it:
Embed the fixed ring 5mm in the clamped plate at the top of the template and fix it.
 $L=T1+T2-5$



Using ejector machine fixed plate to withstand it:
Must ensure that the hole of the ejector machine fixed plate is not disturbed.
 $L=T1+T2$



SERIES ▶▶▶



The nitrogen gas spring is a new type of elastic component that uses high-pressure nitrogen as the working medium. It has small size, large elastic force, long stroke, stable operation, precise manufacturing, long service life, stable elastic curve, and does not require pretension, etc. Metal springs, rubbers, air cushions and other conventional elastic components do not have the performance, which can make up for their shortcomings, and replace conventional elastic components to complete tasks that are difficult to complete with conventional elastic components, simplify mold design and manufacturing, facilitate mold installation and adjustment, and extend mold The service life ensures the stability of product quality. It can be installed in the mold as an independent component, or it can be designed as a nitrogen spring system. It can work as a part of the mold. It can easily achieve constant elastic pressure and delayed action in the system. It is a new type of flexible performance. The most ideal elastic component.

■ Functional

Initial force F: refers to the elastic pressure of this series of nitrogen springs in the initial state when the pressure is 15MPa at room temperature; the initial force of the same series of nitrogen springs is the same.

Stroke S: Refers to the working stroke of the nitrogen spring of this model. These strokes can be fully utilized. However, in order to prevent the sudden event of the nitrogen spring exceeding the stroke and overload during mold replacement or debugging, it is recommended to keep it in the design $> 5\text{mm}$ or $10\%S$ spare stroke.

Total length L: refers to the manufacturing length of this type of nitrogen gas spring, that is, the maximum length in the natural state, which must meet: total length $\geq$ base length $J+2 \times$ stroke S

Working life: Under correct installation and normal use, the working life of the nitrogen gas spring (stroke $\leq 50\text{mm}$) is more than one million times. If the stroke is greater than 50mm, the actual cumulative stroke of the nitrogen gas spring is about 100000 meters as its life, that is: working life = 100000 meters + (actual stroke $\times 2$)



■ Installation diagram

The nitrogen gas spring is a high-pressure sealing product, which has been strictly inspected and tested before leaving the factory, and no other leakage is allowed. Therefore, users are required to install and use correctly to ensure safety, reliability and best service life.

After the nitrogen gas spring is installed in the mold as an independent part, it does not need to be disassembled and repaired within the service life. But try to avoid using molds equipped with nitrogen gas springs on hydraulic presses.

The screw at the lower end of the nitrogen gas spring is mainly used to protect and strengthen the seal. It is not allowed to be disassembled and knocked at will.

Recommended working stroke $\leq 0.9 \times S$ (manufacturing stroke).

The perpendicularity between the contact surface of the workpiece pressed by the upper end of the piston rod and the axis of the piston rod should be $\leq 1^\circ$ (that is, it should be kept vertical, and partial load is strictly prohibited).

The movement direction of the workpiece pressed by the upper end of the piston rod must be parallel to the movement direction of the piston rod.

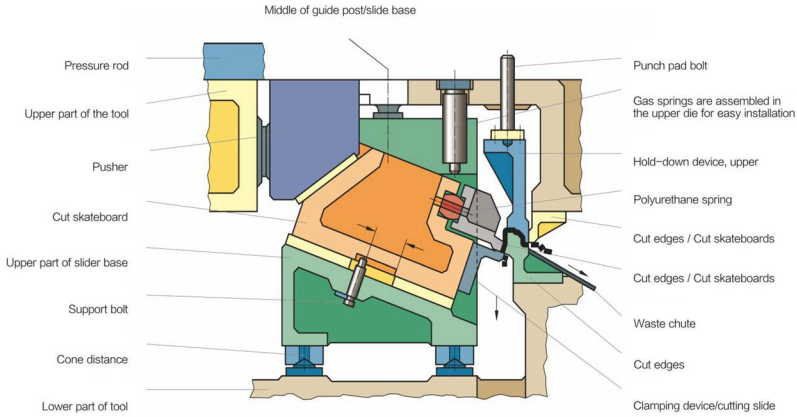
After the nitrogen gas spring is compressed, do not use the free-air return stroke of the piston rod to avoid internal damage to the nitrogen gas spring.

It is strictly forbidden to place the nitrogen gas spring in the environment of hot sun and high heat source, and the maximum allowable temperature is $+80^\circ\text{C}$.

Application examples

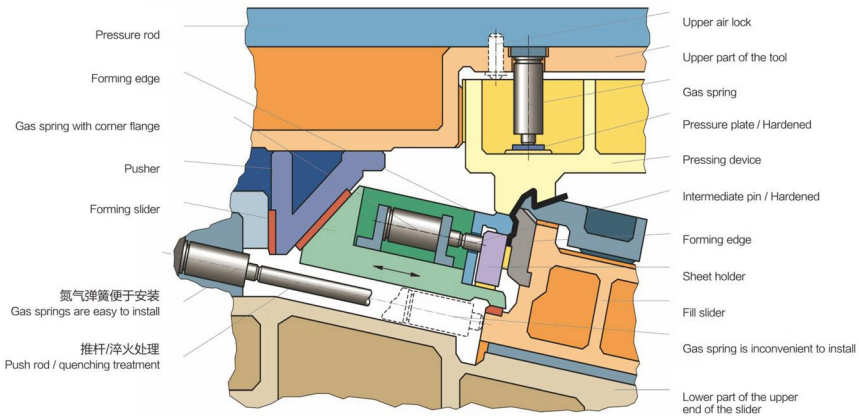
Trimming dies with hanging guides

For the convenience of installation, the function of the nitrogen gas spring installed in the upper die is to save effort for the positioning of the guide plate support within the conical length of the lower die.



Mold

When installing a nitrogen gas spring in the mold guide, it is often necessary to consider installing a protective cover. Such protective covers are required to withstand high guide-flattening die pressures. The purpose of the nitrogen gas spring installed in the upper mold is to increase the pressure for the too weak ejector cushion..



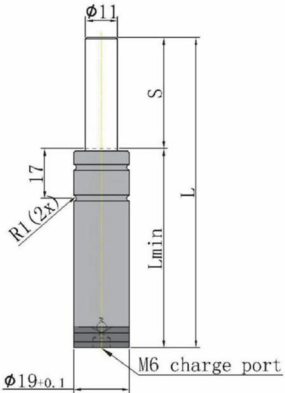
TC170 (GSV170)

■ Precautions

- Initial load: 1700N
- Maximum load: 2800N
- Nitrogen gas charge pressure: 18MPa
- Maximum speed: 1m/s
- Working temperature: -20°C-80°C
- Working frequency: 6-60/min

■ Specification

Type	S	L	L (Min)
TC170-007	7	44	37
TC170-010	10	50	40
TC170-015	15	60	45
TC170-019	19	68	49
TC170-025	25	80	55
TC170-038	38	106	68
TC170-050	50	130	80
TC170-063	63	156	93
TC170-075	75	185	110
TC170-080	80	195	115
TC170-100	100	235	135
TC170-125	125	285	160



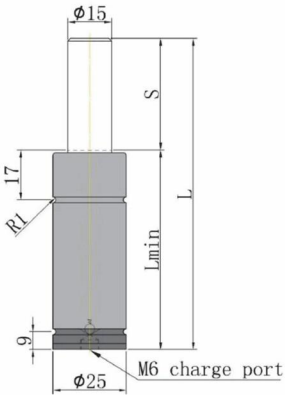
TC320 (GSV320)

■ Precautions

- Initial load: 3200N
- Maximum load: 5300N
- Nitrogen gas charge pressure: 18MPa
- Maximum speed: 1m/s
- Working temperature: -20°C-80°C
- Working frequency: 6-60/min

■ Specification

Type	S	L	L (Min)
TC320-007	7	44	37
TC320-010	10	50	40
TC320-015	15	60	45
TC320-019	19	68	49
TC320-025	25	80	55
TC320-038	38	106	68
TC320-050	50	130	80
TC320-063	63	156	93
TC320-075	75	185	110
TC320-080	80	195	115
TC320-100	100	235	135
TC320-125	125	285	160



NITROGEN GAS SPRING

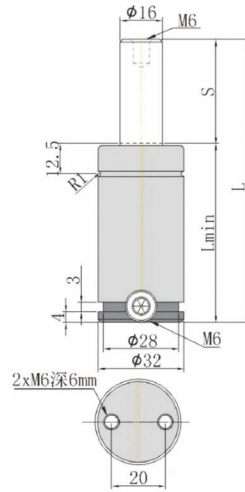
TC350 (GSV350)

■ Precautions

- Initial load: 3450N
- Maximum load: 5500N
- Nitrogen gas charge pressure: 18MPa
- Maximum speed: 1m/s
- Working temperature: -20°C-80°C
- Working frequency: 6-60/min

■ Specification

Type	S	L	L (Min)
TC350-010	10	50	40
TC350-013	13	56	43
TC350-016	16	62	46
TC350-019	19	68	49
TC350-025	25	80	55
TC350-032	32	94	62
TC350-035	35	100	65
TC350-038	38	106	68
TC350-045	45	120	75
TC350-050	50	130	80
TC350-055	55	140	85
TC350-063	63	156	93
TC350-070	70	170	100
TC350-075	75	180	105
TC350-080	80	190	110
TC350-090	90	210	120
TC350-100	100	230	130
TC350-125	125	280	155



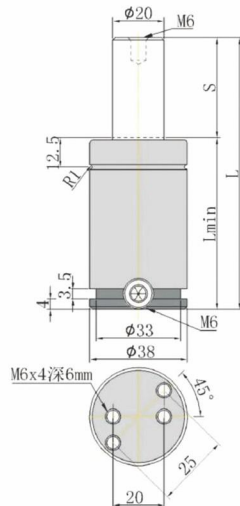
TC500 (GSV500)

■ Precautions

- Initial load: 4710N
- Maximum load: 7200N
- Nitrogen gas charge pressure: 15MPa
- Maximum speed: 1m/s
- Working temperature: -20°C-80°C
- Working frequency: 6-60/min

■ Specification

Type	S	L	L (Min)
TC500-010	10	50	40
TC500-013	13	56	43
TC500-016	16	62	46
TC500-019	19	68	49
TC500-025	25	80	55
TC500-030	30	90	60
TC500-032	32	94	62
TC500-035	35	100	65
TC500-038	38	106	68
TC500-045	45	120	75
TC500-050	50	130	80
TC500-055	55	140	85
TC500-063	63	156	93
TC500-070	70	170	100
TC500-075	75	180	105
TC500-080	80	190	110
TC500-090	90	210	120
TC500-100	100	230	130
TC500-125	125	280	155



NITROGEN GAS SPRING

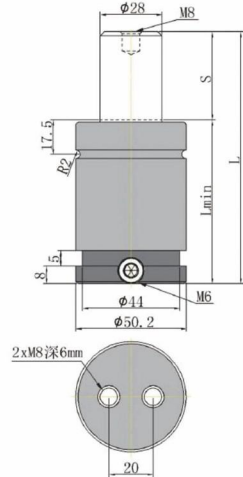
TC1000 (GSV1000)

■ Precautions

- Initial load: 9230N
- Maximum load: 14600N
- Nitrogen gas charge pressure: 15MPa
- Maximum speed: 1m/s
- Working temperature: -20°C~80°C
- Working frequency: 6~60/min

■ Specification

Type	S	L	L (Min)
TC1000-013	13	64	51
TC1000-016	16	70	54
TC1000-019	19	76	57
TC1000-025	25	88	63
TC1000-030	30	98	68
TC1000-032	32	102	70
TC1000-035	35	108	73
TC1000-038	38	114	76
TC1000-040	40	118	78
TC1000-045	45	128	83
TC1000-050	50	138	88
TC1000-055	55	148	93
TC1000-063	63	164	101
TC1000-070	70	178	108
TC1000-075	75	188	113
TC1000-080	80	198	118
TC1000-090	90	218	128
TC1000-100	100	238	138
TC1000-125	125	288	163



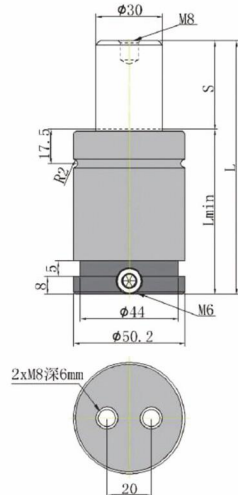
TC1200 (GSV1200)

■ Precautions

- Initial load: 4710N
- Maximum load: 7200N
- Nitrogen gas charge pressure: 15MPa
- Maximum speed: 1m/s
- Working temperature: -20°C~80°C
- Working frequency: 6~60/min

■ Specification

Type	S	L	L (Min)
TC1200-010	10	58	48
TC1200-013	13	64	51
TC1200-019	19	76	57
TC1200-025	25	88	63
TC1200-038	38	114	76
TC1200-050	50	138	88
TC1200-063	63	164	101
TC1200-080	80	198	118
TC1200-100	100	238	138
TC1200-125	125	288	163



NITROGEN GAS SPRING

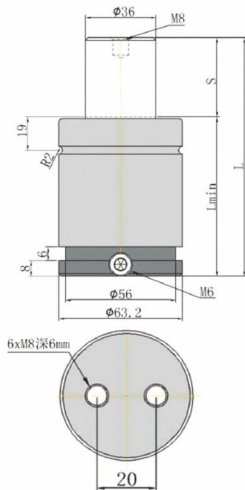
TC1500 (GSV1500)

■ Precautions

- Initial load: 15300N
- Maximum load: 24000N
- Nitrogen gas charge pressure: 15MPa
- Maximum speed: 1m/s
- Working temperature: -20°C~80°C
- Working frequency: 6~60/min

■ Specification

Type	S	L	L (Min)
TC1500-013	13	70	57
TC1500-016	16	76	60
TC1500-019	19	82	63
TC1500-025	25	94	69
TC1500-030	30	104	74
TC1500-032	32	108	76
TC1500-035	35	114	79
TC1500-038	38	120	82
TC1500-040	40	124	84
TC1500-045	45	134	89
TC1500-050	50	144	94
TC1500-055	55	154	99
TC1500-063	63	170	107
TC1500-070	70	184	114
TC1500-075	75	194	119
TC1500-080	80	204	124
TC1500-090	90	224	134
TC1500-100	100	244	144
TC1500-125	125	294	169



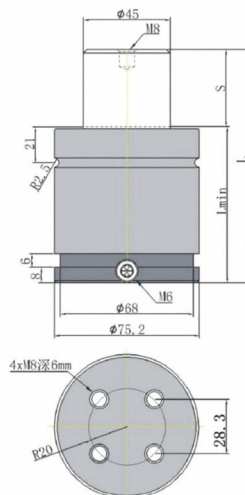
TC2400 (GSV2400)

■ Precautions

- Initial load: 24000N
- Maximum load: 39200N
- Nitrogen gas charge pressure: 15MPa
- Maximum speed: 1m/s
- Working temperature: -20°C~80°C
- Working frequency: 6~60/min

■ Specification

Type	S	L	L (Min)
TC2400-016	16	77	61
TC2400-019	19	83	64
TC2400-025	25	95	70
TC2400-030	30	105	75
TC2400-032	32	109	77
TC2400-035	35	115	80
TC2400-038	38	121	83
TC2400-040	40	125	85
TC2400-045	45	135	90
TC2400-050	50	145	95
TC2400-055	55	155	100
TC2400-063	63	171	108
TC2400-070	70	185	115
TC2400-075	75	195	120
TC2400-080	80	205	125
TC2400-090	90	225	135
TC2400-100	100	245	145
TC2400-125	125	295	170



NITROGEN GAS SPRING

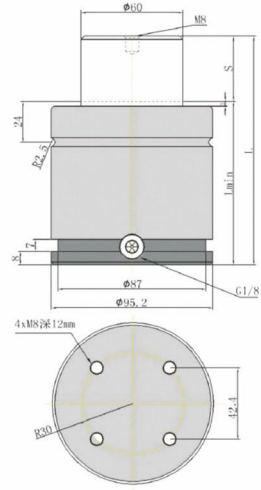
TC4200 (GSV4200)

■ Precautions

- Initial load: 42000N
- Maximum load: 66000N
- Nitrogen gas charge pressure: 15MPa
- Maximum speed: 1m/s
- Working temperature: -20°C~80°C
- Working frequency: 6~60/min

■ Specification

Type	S	L	L (Min)
TC4200-016	16	90	74
TC4200-019	19	96	77
TC4200-025	25	108	83
TC4200-032	32	122	90
TC4200-035	35	128	93
TC4200-038	38	134	96
TC4200-045	45	148	103
TC4200-050	50	158	108
TC4200-055	55	168	113
TC4200-063	63	184	121
TC4200-075	75	208	133
TC4200-080	80	218	138
TC4200-090	90	238	148
TC4200-100	100	258	158
TC4200-125	125	308	183



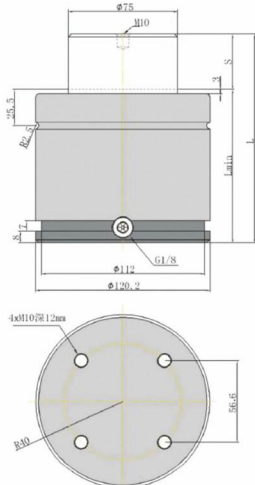
TC6600 (GSV6600)

■ Precautions

- Initial load: 66000N
- Maximum load: 102400N
- Nitrogen gas charge pressure: 15MPa
- Maximum speed: 1m/s
- Working temperature: -20°C~80°C
- Working frequency: 6~60/min

■ Specification

Type	S	L	L (Min)
TC6600-016	16	100	84
TC6600-019	19	106	87
TC6600-025	25	118	93
TC6600-032	32	132	100
TC6600-035	35	138	103
TC6600-038	38	144	106
TC6600-045	45	158	113
TC6600-050	50	168	118
TC6600-055	55	178	123
TC6600-063	63	194	131
TC6600-075	75	218	143
TC6600-080	80	228	148
TC6600-100	100	268	168
TC6600-125	125	318	193

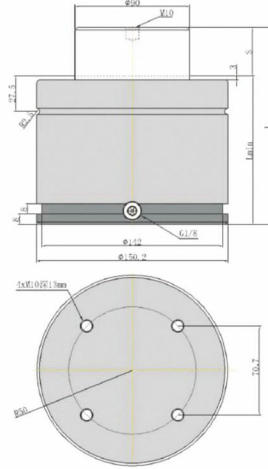


TC9500 (GSV9500)
■ Precautions

- Initial load: 95000N
- Maximum load: 145000N
- Nitrogen gas charge pressure: 15MPa
- Maximum speed: 1m/s
- Working temperature: -20°C~80°C
- Working frequency: 6~60/min

■ Specification

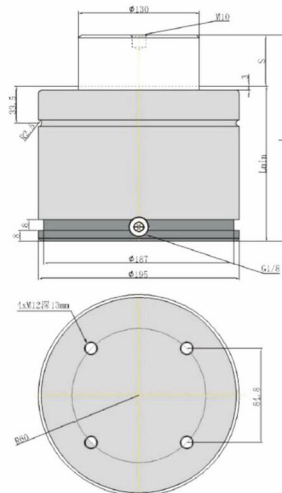
Type	S	L	L (Min)
TC9500-025	25	128	103
TC9500-032	32	142	110
TC9500-038	38	154	116
TC9500-050	50	178	128
TC9500-063	63	204	141
TC9500-075	75	228	153
TC9500-080	80	238	158
TC9500-100	100	178	78
TC9500-125	125	328	203


TC20000 (GSV20000)
■ Precautions

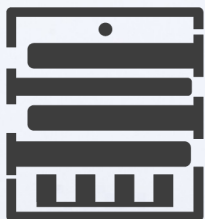
- Initial load: 200000N
- Maximum load: 307000N
- Nitrogen gas charge pressure: 15MPa
- Maximum speed: 1m/s
- Working temperature: -20°C~80°C
- Working frequency: 6~60/min

■ Specification

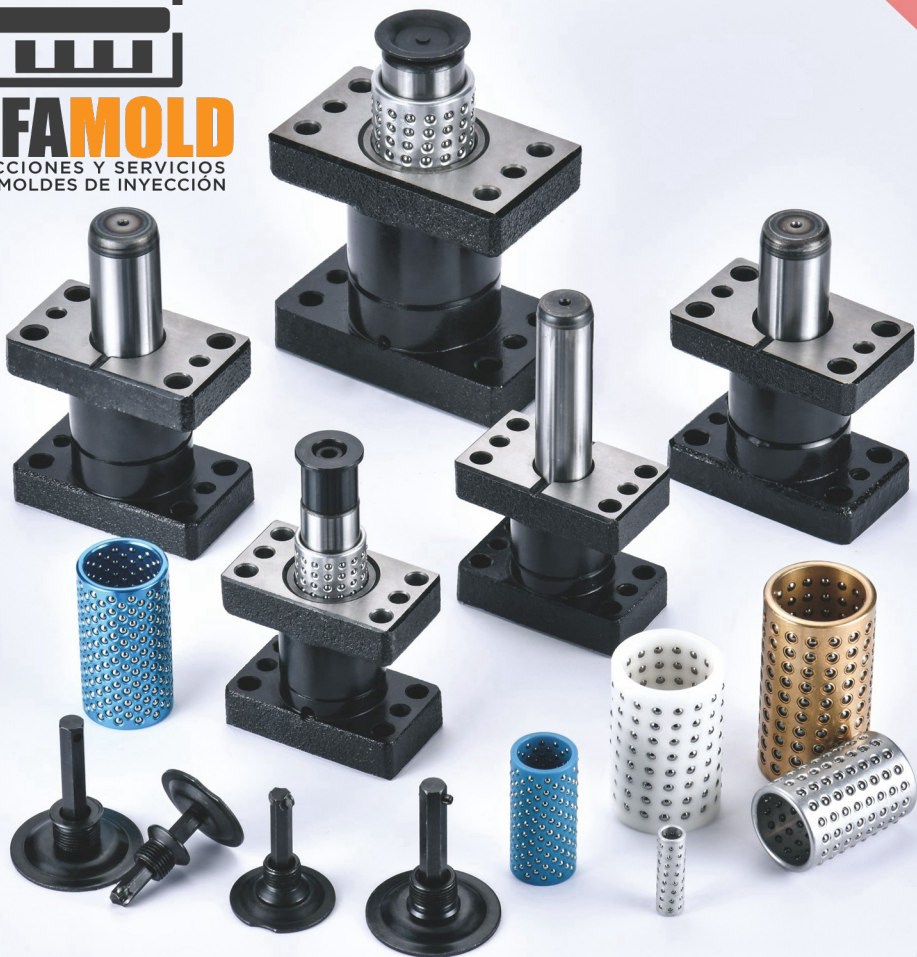
Type	S	L	L (Min)
TC20000-019	19	148	129
TC20000-025	25	160	135
TC20000-032	32	175	143
TC20000-038	38	186	148
TC20000-050	50	210	160
TC20000-063	63	236	173
TC20000-075	75	260	185
TC20000-080	80	270	190
TC20000-100	100	310	210
TC20000-125	125	360	235



BALL BEARING GUIDE POST SETS FOR DIE SET SERIES >>>

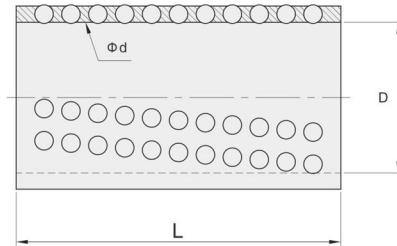


REFAMOLD
REFACCIONES Y SERVICIOS
PARA MOLDES DE INYECCIÓN



BALL BEARING GUIDE POST SETS FOR DIESET

GBH / GBL / GBP



M Body	M Ball	H Ball
GBH copper	GCr15	HRC 61~66
GBL aluminum		
GBP plastic		

d	D	L
2	10	15
		20
	12	15
		25
	14	15
		25
3	16	18
		30
	18	30
		45
		60
	19	45
		60
	20	45
		60
	22	50
		60
	25	50
		75
	28	60
		75

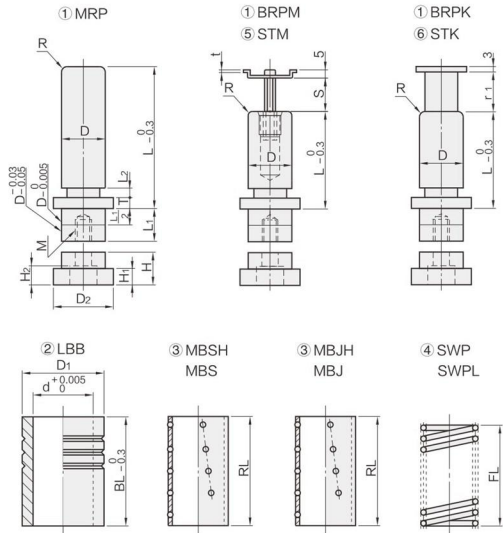
d	D	L
4	28	50
		60
		75
	30	50
		60
		75
	32	80
		50
		60
	35	60
		75
		90
5	36	60
		75
		90
	38	60
		75
		90

d	D	L
4	40	70
		80
		90
	50	70
		80
		90
5	38	60
		70
		90
	40	60
		90
		110
	50	60
		90
		110
	60	70
		110
		120
	70	80
		120
	80	100
		120

BALL BEARING GUIDE POST SETS FOR DIESET / REMOVABLE TYPE



Type	Part					
	①	②	③	④	⑤	⑥
RBESH	MRP	LBB	MBSH	SWP	-	-
RMESH	BRPM				STM	-
RKSH	BRPK				-	STK
QMH	MRP				-	-
QMSH	BRPM	MBJH	SWP	STM	-	-
QKSH	BRPK				-	STK
RB	MRP	LBB	MBS	SWP	-	-
RM	BRPM				STM	-
RK	BRPK				-	STK
QB	MRP				-	-
QM	BRPM	MBJ	SWP	STM	-	-
QK	BRPK				-	STK



MRPP - BRPMM - BRPKK													
D	D1	L1	L2	T	H	H1	H2	D2	D3	t	M	R	
20	+0.020 +0.015	29	15	5	14	7	8.5	28	19.5	1.6	8 × 18	2.0	CB8-25
22		31	16	10				30	21.5			3.0	
25		36	18					35	24.5				
28	+0.025 +0.020	39	20	10	16	8	10.5	36	27.5		10 × 22	3.5	CB10-30
32		44	23	12				40	31.5				
38	+0.030 +0.025	53	27					49	37.5	2.0	12 × 27	4.0	
45		59	32	15	12	18	10	55	44.5		14 × 31	5.0	CB12-35
50	+0.035 +0.030	69	35		15	20	12	62	49.5				

LBBB			
d	D4		
26	37		
28	40		
31	44	0	-0.007
34	48		
40	54		
48	63	0	-0.008
55	74		
60	78	0	-0.010

RL	S	S1
50	0-19	15
60	0-23	20
75	0-30	25
90	0-37	30
110	0-47	35

BALL BEARING GUIDE POST SETS FOR DIESET / REMOVABLE TYPE

Type	PD	L						② LBB		RL	④ FL					
								Code	BL							
RGSH RMSH RKSH QBSH QMSH QKSH RB RM RK QB QM QK	20	80	90	100	110	120		L (LBB)	50	50	40140					
	22	80	90	100	110	120			50	50	40140					
									60	60						
	25	80	90	100	110	120	130			60	60	40150				
									80	75						
	28			100	110	120	130		140	150	160	60	60	50150		
												80	75			
	32					120	130		140	150	160	80	75	70190		
												100	90			
		38								140	150	160	170	180	80	75
													100	90		
	45							140	150	160	170	180	100	90	80190	
													120	110		
	50									160	170	180	200	100	90	80190
														120	110	



Type PD L
 RGSH - 20 - 80

Precautions

Type	Ball	Material	Stopper
RBSH	More	Aluminum cage	No stopper
QBSH	More	Resin cage	No stopper
RMSH	More	Aluminum cage	Movable stopper
QMSH	More	Resin cage	Movable stopper
RKSH	More	Aluminum cage	Fixed stopper
QKSH	More	Resin cage	Fixed stopper
RB	Few	Aluminum cage	No stopper
QB	Few	Resin cage	No stopper
RM	Few	Aluminum cage	Movable stopper
QM	Few	Resin cage	Movable stopper
RK	Few	Aluminum cage	Fixed stopper
QK	Few	Resin cage	Fixed stopper

Precautions

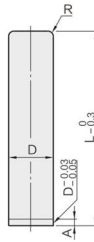
1. Large number of steel balls, higher strength
2. Aluminum cage, strong holding force, Resin cage, light and no wear powder
3. The height of the Movable stopper is adjustable, suitable for molds with low closing degree, and the Fixed stopper has high strength, suitable for molds with inserting and pulling actions between the guide pillars.
4. The Press-Fit post type needs to be installed to the template by a hydraulic machine, and the Detachable post type needs to be installed with a flange.

BALL BEARING GUIDE POST SETS FOR DIE SET / PRESS FIT POST

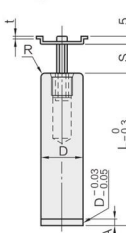


Type	Part						
	①	②	③	④	⑤	⑥	
PBSH	MSP	LBB	MBSH	SWP	-	-	
PMSH	BSPM				STM	-	
PKSH	BSPK		MBJH		-	STK	
GBSH	MSP				-	-	
GMSH	BSPM	LBB	MBS	SWP	STM	-	
GKSH	BSPK				-	-	
PB	MSP		MBJ		-	-	
PM	BSPM				STM	-	
PK	BSPK	LBB	MBJ	SWP	-	STK	
GB	MSP				STM	-	
GM	BSPM		MBJ		STM	-	
GK	BSPK				-	STK	

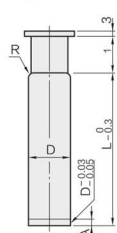
① MSP



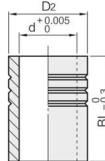
① BSPM
⑤ STM



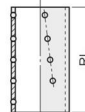
① BSPK
⑥ STK



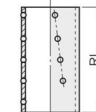
② LBB



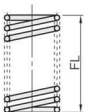
③ MBSH
MBS



③ MBJH
MBJ



④ SWP



MSP · BSPM · BSPK				
D		A	t	R
20	+0.020 +0.015	4	1.6	2.0
22				3.0
25				
28	+0.025 +0.020	5	2.0	3.5
32				
38	+0.030 +0.025	6	2.0	4.0
45				
50				5.0

LBB		
d	D4	
20	37	0 -0.007
22	40	
25	44	
28	48	
32	54	0 -0.008
38	63	
45	74	
50	78	0 -0.010

RL	S	S1
50	0-19	15
60	0-23	20
75	0-30	25
90	0-37	30
110	0-47	35

BALL BEARING GUIDE POST SETS FOR DIE SET / PRESS FIT POST

Type	D	L	② LBB		RL	④ FL
			Code	BL		
PBSH	20	100 110 120 130 140 150 160 170 180	L (LBB)	50	50	40~140
PMSH	22	120 130 140 150 160 170 180		50	50	40~140
PKSH				60	60	
GBSH	25	120 130 140 150 160 170 180		60	60	40~150
GMSH				80	75	
GKSH	28	140 150 160 170 180 190 200		60	60	50~150
PB				80	75	
PM	32	160 170 180 190 200 220 240		80	75	70~190
PK				100	90	
GB	38	180 190 200 220 240 260		80	75	80~190
GM				100	90	
GK	45	180 190 200 220 240 260		100	90	80~190
				120	110	
	50	220 240 260		100	90	80~190
				120	110	

 **ORDER**

TypeDLPBSH-20-100

■ Comparison Table

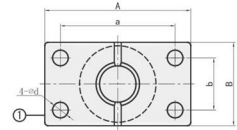
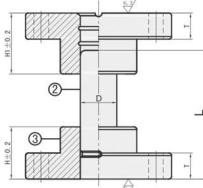
Type	Ball	Material	Stopper
PBSH	More	Aluminum cage	No stopper
GBSH	More	Resin cage	No stopper
PMSH	More	Aluminum cage	Movable stopper
GMSH	More	Resin cage	Movable stopper
PKSH	More	Aluminum cage	Fixed stopper
GKSH	More	Resin cage	Fixed stopper
PB	Few	Aluminum cage	No stopper
GB	Few	Resin cage	No stopper
PM	Few	Aluminum cage	Movable stopper
GM	Few	Resin cage	Movable stopper
PK	Few	Aluminum cage	Fixed stopper
GK	Few	Resin cage	Fixed stopper

■ Precautions

1. Large number of steel balls, higher strength
2. Aluminum cage, strong holding force, Resin cage, light and no wear powder
3. The height of the Movable stopper is adjustable, suitable for molds with low closing degree, and the Fixed stopper has high strength, suitable for molds with inserting and pulling actions between the guide pillars.
4. The Press-Fit post type needs to be installed to the template by a hydraulic machine, and the Detachable post type needs to be installed with a flange.

BALL BEARING GUIDE POST SETS FOR DIESET

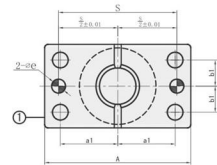
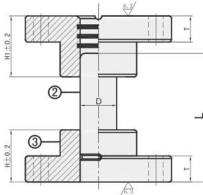
MY



M

- | | |
|----------|--------|
| ① FC1 50 | |
| ② 45C | 55HRC~ |
| ③ FC250 | |

MYZP

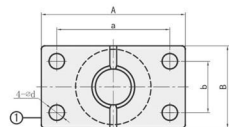
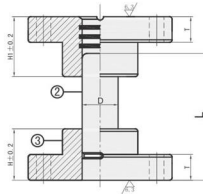


M

- | | |
|----------|--------|
| ① FC1 50 | |
| ② 45C | 55HRC~ |
| ③ FC250 | |

H

MYZ

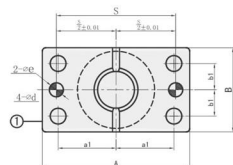
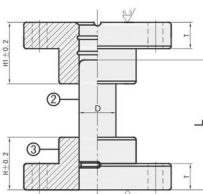


M

- | | |
|----------|--------|
| ① FC1 50 | |
| ② 45C | 55HRC~ |
| ③ FC250 | |

H

MYP



M

- | | |
|----------|--------|
| ① FC1 50 | |
| ② 45C | 55HRC~ |
| ③ FC250 | |

H

BALL BEARING GUIDE POST SETS FOR DIESET

D		A	B	a	b	d	H	H1	T	S	a1	b1	eH 7			
20	+0.020	74	44	56	30	6.6	30	40	15	56	28	15	6	+0.012 0	M6 30	Φ 6 20
25	+0.015	84	48	66	30	9	30	45	20	66	33	15	8		M8 35	Φ 8 30
32	+0.025 +0.020	100	58	76	36	11	40	50	20	76	38	18	8	+0.015 0	M10 40	Φ 8 30
38	+0.030 +0.025	130	75	100	44	11	50	60	25	100	50	22	10		M10 45	Φ 10 40
50	+0.035 +0.030	155	90	125	60	14	65	85	25	125	62.5	30	10		M12 50	Φ 10 40

Type	D	L														
MYP	25	90	100	110	120	130	140	150								
	32				120	130	140	150	160							

Type	D	L														
MY MYZ MYZP	25	100	110	120	130	140	150	160								
	32			120	130	140	150	160	170	180	200	220	250			
	38				130	140	150	160	170	180	200	220	250			
	50									180	200	220	250			

	Type	D	L
ORDER	MYP	- 25 -	100

■ Comparison Table

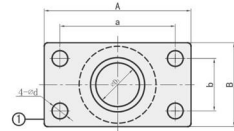
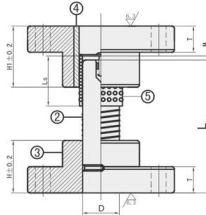
Type	Positioning Hole	Material	Stopper
MY	No	Oil Lubrication	No Stopper
MYP	Yes	No	No Stopper
MYZ	No	Oil Lubrication	No Stopper
MYZP	Yes	No	No Stopper

■ Precautions

- Both MYZ and MYZP do not need lubricating oil. There are self-lubricating graphite blocks inlaid inside. MYZP has two positioning holes than MYZ.
- Aluminum cage, aluminum alloy bushings have greater holding power and higher strength. Resin cages are lighter and hardly produce wear powder during working.
- The height of the steel ball bushing is easy to adjust when the movable stopper is assembled. Since the movable stopper will decrease with the lowering of the punch, the mold with a lower closed height can also be used.

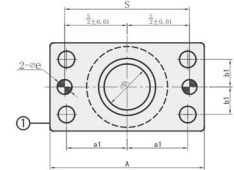
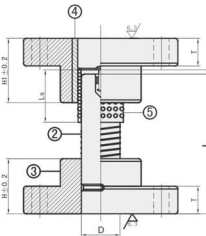
BALL BEARING GUIDE POST SETS FOR DIESET

MYA



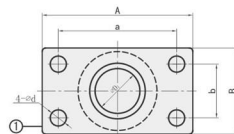
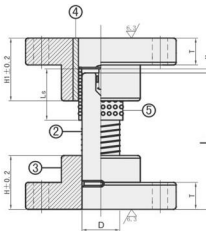
M	H
①③ FC150	
② GCr15	58HRC~
④ GCr15	58HRC~
⑤ AL	

MYAP



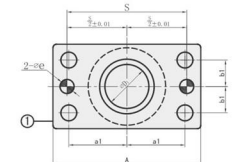
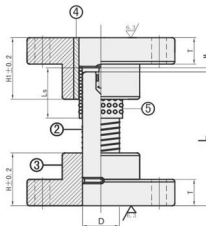
M	H
①③ FC150	
② GCr15	58HRC~
④ GCr15	58HRC~
⑤ AL	

MYJ



M	H
①③ FC150	
② GCr15	58HRC~
④ GCr15	58HRC~
⑤ POM	

MYJP



M	H
①③ FC150	
② GCr15	58HRC~
④ GCr15	58HRC~
⑤ POM	

BALL BEARING GUIDE POST SETS FOR DIESET

D		D1	A	B	a	b	d	H	H1	T	Ls	M	S	a1	b1	eH7			
20	+0.020 +0.015	26	74	44	56	30	6.6	30	50	15	50	0-20	56	28	15	6	+0.012 0 +0.015 0	M6 30	Φ 6 20
25		31	84	48	66	30	9	30	50	20	50	0-20	66	33	15	8		m8 35	Φ 8 30
32	+0.025 +0.020	40	100	58	76	36	11	40	60	20	60	0-25	76	38	18	8		M10 40	Φ 8 30
38	+0.030 +0.025	48	130	75	100	44	11	50	70	25	70	0-29	100	50	22	10		M10 45	Φ10 40
50	+0.035 +0.030	60	155	90	125	60	14	65	90	25	90	0-42	125	62.5	30	10		M12 50	Φ10 40

Type	D	L									
MYA MYJ	20	90	100	110	120	130	140	150			
	25	90	100	110	120	130	140	150	160	180	200
	32		100	110	120	130	140	150	160	180	200
	38					130	140	150	160	180	200
	50									180	200

Type	D	L									
MYAP MYJP	20	90	100	110	120	130	140	150			
	25	90	100	110	120	130	140	150	160	180	200
	32		100	110	120	130	140	150	160	180	200
	38					130	140	150	160	180	200
	50									180	200 220

 **ORDER**

Type D L

MYA - 20 - 90

■ Comparison Table

Type	Positioning Hole	Material	Stopper
MYA	No	Aluminum cage	Movable Stopper
MYAP	Yes	Aluminum cage	Movable Stopper
MYJ	No	Resin cage	Movable Stopper
MYJP	Yes	Resin cage	Movable Stopper

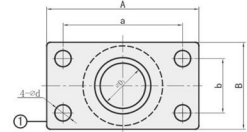
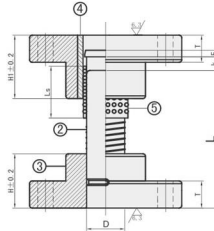
■ Precautions

- MYAP/ MYJP has two positioning holes than MYA/MYJ.
- Aluminum cage, aluminum alloy bushings have greater holding power and higher strength.
Resin cages are lighter and hardly produce wear powder during working.
- The height of the steel ball bushing is easy to adjust when the movable stopper is assembled.
Since the movable stopper will decrease with the lowering of the punch,
the mold with a lower closed height can also be used.

BALL BEARING GUIDE POST SETS FOR DIESET

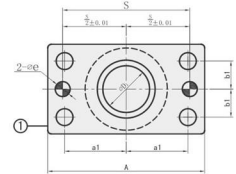
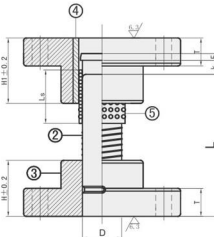
BALL BEARING GUIDE POST SETS FOR DIESET

MYAK



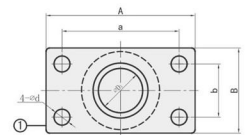
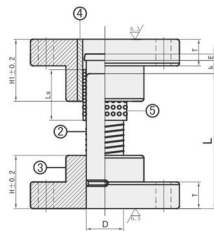
M	H
①③ FC150	
② GCr15	58HRC~
④ GCr15	58HRC~
⑤ AL	

MYKP



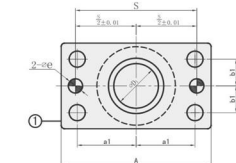
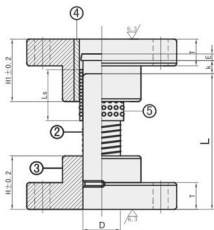
M	H
①③ FC150	
② GCr15	58HRC~
④ GCr15	58HRC~
⑤ AL	

MYJK



M	H
①③ FC150	
② GCr15	58HRC~
④ GCr15	58HRC~
⑤ POM	

MJKP



M	H
①③ FC150	
② GCr15	58HRC~
④ GCr15	58HRC~
⑤ POM	

BALL BEARING GUIDE POST SETS FOR DIESET

D		D1	A	B	a	b	d	H	H1	T	Ls	K	E	S	a1	b1	eH7			
25	+0.020 +0.015	31	84	48	66	30	9	30	50	20	50	20	5	66	33	15	8	+0.015 0	m8 35	Φ 8x30
32	+0.025 +0.020	40	100	58	76	36	11	40	60	20	60	25	5	76	38	18	8		M10 40	Φ 8x30
38	+0.030 +0.025	48	130	75	100	44	11	50	70	25	70	30	10	100	50	22	10		M10 45	Φ 10x40
50	+0.035 +0.030	60	155	90	125	60	14	65	90	25	90	40	10	125	62.5	30	10		M12 50	Φ 10x40

Type	D	L																
MJKP MYKP	25	100	110	120	130	140	150	160										
	32		110	120	130	140	150	160	180									
	38								180	200								
	50								180	200	220							

Type	D	L																
MYJK MYAK	25	90	100	110	120	130	140	150	160	170	180	200						
	32		100	110	120	130	140	150	160	170	180	200	220					
	38					130	140	150	160	170	180	200	220					
	50										180	200	220					

	Type	D	L
ORDER	MJKP	- 25	- 100

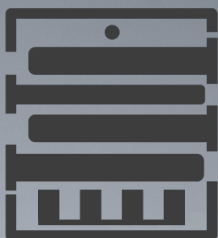
■ Comparison Table

Type	Positioning Hole	Material	Stopper
MYAK	No	Aluminum cage	Fixed Stopper
MYKP	Yes	Aluminum cage	Fixed Stopper
MYJK	No	Resin cage	Fixed Stopper
MJKP	Yes	Resin cage	Fixed Stopper

■ Precautions

1. MYKP/ MJKP has two positioning holes than MYAK/MYJK.
2. Aluminum cage, aluminum alloy bushings have greater holding power and higher strength.
Resin cages are lighter and hardly produce wear powder during working.
3. The height of the steel ball bushing is easy to adjust when the movable stopper is assembled.
Since the movable stopper will decrease with the lowering of the punch,
the mold with a lower closed height can also be used.

OTHER COMPONENT SERIES >>>>

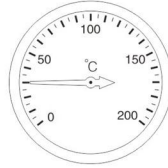
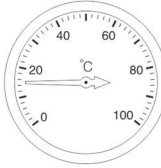


REFAMOLD
REFACCIONES Y SERVICIOS
PARA MOLDES DE INYECCIÓN



MOLD THERMOMETER

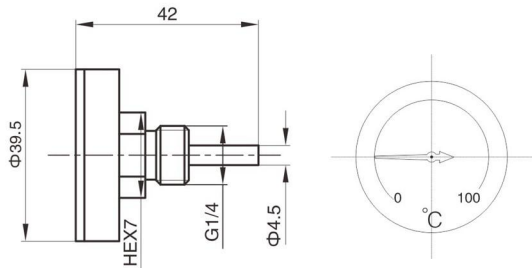
MTA



0~200°C	± 3
---------	-----

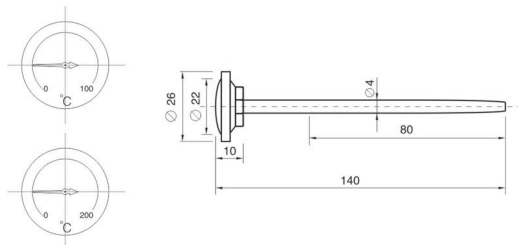
Type				
MTA-100	0~100	40	13	100°C±2
MTA-200	0~200	40	13	200°C±3

MTB



0~100°C	± 3
---------	-----

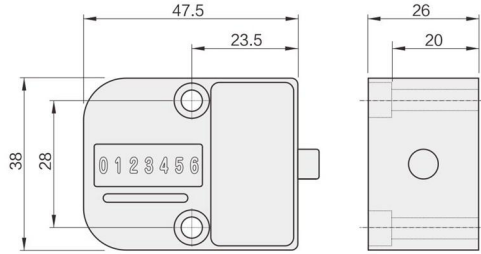
MTC



0~200°C	± 3
---------	-----

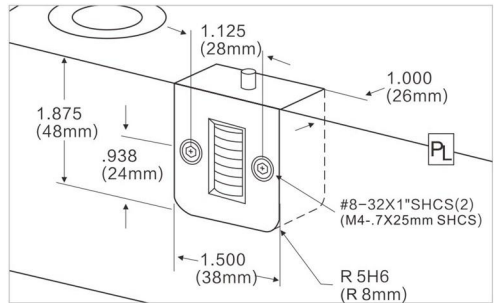
MOLD COUNTER

CVPL

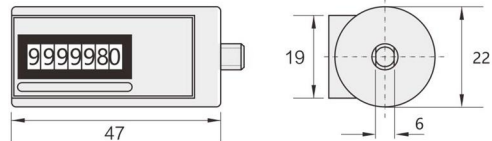


CVPL 80℃以下
CVPLH 150℃以下

- The mold counter adopts a mechanical structure, which is not prone to malfunction, and can accurately count the number of mold openings.
- Bulk purchase, we can print logo according to your needs.

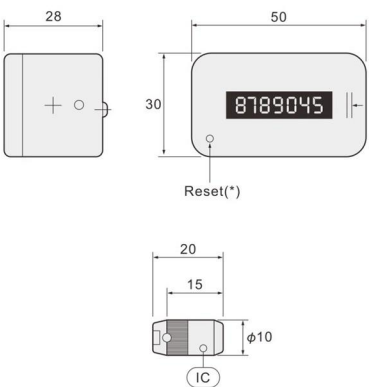


CVR



TAPERED INTERLOCKS

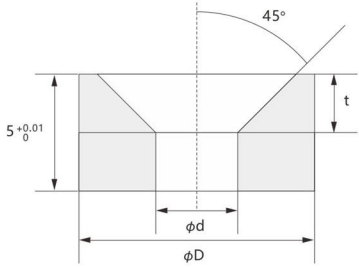
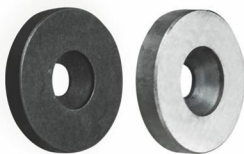
CEC



M	A
ABS	60°C

CC. 503028
CC. RE5328

SRA



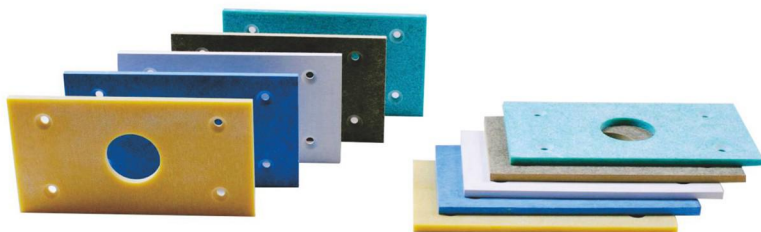
M
S45C

Type	ϕD	ϕd	t
SRA-16	16	5.5	3.0
SRA-20	20	6.5	3.5
SRA-25	25	8.5	4.4

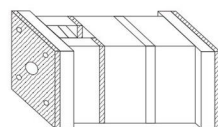
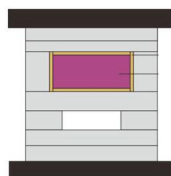
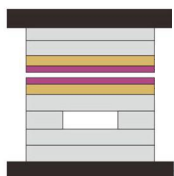
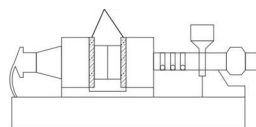
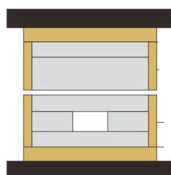
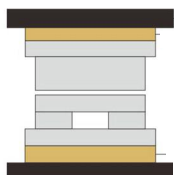
More specifications can be customized.

INSULATION BOARD

IB

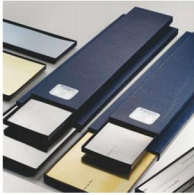
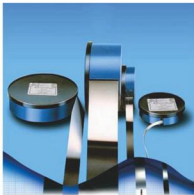


properties	(WH)	(YE)	(GN)	(BL)	(BU)	(SL)	(GR)	(BR)	(GD)
Density (g/cm ³)	1.4	1.9	1.9	1.85	1.8	2.1	1.8	1.9	1.8
Flexural strength (N/mm ²)	200	380	380	400	140	200	140	500	140
Compressive strength (N/mm ²)	300	600	580	560	330	400	330	600	300
CTE (10 ⁻⁶ K ⁻¹)	13	13	13	15	18	10	18	20	8
导热系数 (W/mK) Thermal conductivity	0.19	0.19	0.19	0.23	0.18	0.15	0.18	0.21	0.1
Service temperature (°C)	200	200	200	250	200	600	200	230	800
Maximum temperature (°C)	210	210	210	260	210	600	210	250	800



PRECISE SHIMES

PS



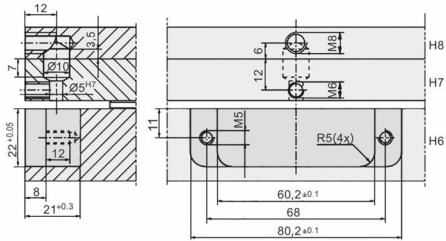
M	H
1.1274C	HRC47-51
1.4310C	HRC43-47
C27400	

- High precision German precision gaskets are made of original German 1.4310c stainless steel, 1.1274c high carbon steel and c27400 brass after heat treatment and finishing. They have the characteristics of high precision, strong tensile strength, good finish, toughness and not easy to break. Among them, the material of high carbon steel has certain elasticity.
- Widely used in electronic instruments, Mold manufacturing, precision machinery manufacturing industry. All kinds of hardware parts, mechanical parts, stamping parts, hardware manufacturing. This product can be used to solve the problem of machine maintenance in the mold workshop, when the gap of the mold measurement and the phenomenon of swaying, swaying and instability occur due to mechanical aging.

Thickness	Long 5000mm		Long 3000mm
	Wide 12.7mm	Wide 50mm	
0.005			—
0.01			—
0.02			—
0.03			—
0.04			—
0.05			—
0.06			—
0.07			—
0.08			—
0.09			—
0.10			—
0.12			—
0.15			—
0.20			—
0.25			—
0.30			
0.40			
0.50		—	
0.60		—	
0.70		—	
0.80		—	
0.90		—	
1.00		—	

LIMIT SWITCHES

Z7600



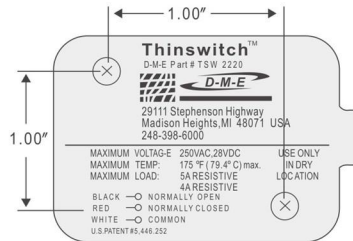
1 Safe only for driving voltage up to max.48V, 2A / 24V, 2A

Type	Temperature	Voltage	Current
Z7600	Max. 120°C	48V	2A
Z7600-2	Max. 85°C	24V	2A

■ Precautions

- Thermal endurance up to 85° C / 120° C
- Splash-proof to IP 66.
- Adjustment via Z 7601 test light.
- Can only be closed when the ejector system has reached its limit position.
- Fine adjustment and locking with Z7608
- Sturdy aluminium housing with integral micro-limit switch.
- Cast housing protected against short-circuits.
- Connection to the machine control system via 17602/Z7603.
- Connection housing Z7625 must be used if several limit switches have to be switched simultaneously.
- Dummy plug Z7626 must be fitted on unused connections.

TSW2220/HT291

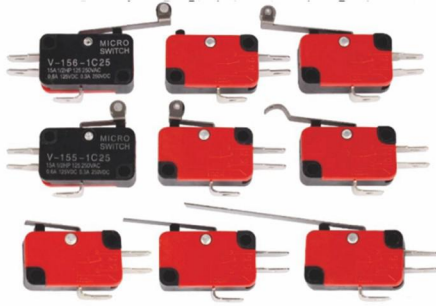


■ Precautions

- By ensuring that the ejector assembly returns completely, expensive mold damage can be avoided.
 - Operating points can be adjusted to allow start-up between 187 inches and 250 inches from the base.
 - The 3/16 inch thick design fits perfectly in the space provided by the positioning knob behind the ejector plate.
 - The included installation hardware makes it easy to install the limit switch.
 - The 6-foot lead stripped and tin-coated enables the switch to be installed on the spot without any modification.
- The standard temperature rating of 80 degrees Celsius enables it to be used in most moulding applications.

LIMIT SWITCHES

V-1C25



Type					
V-15-1C25		30	Min100M	AC250V	15A
V-151-1C25		30	Min100M	AC250V	15A
V-152-1C25		30	Min100M	AC250V	15A
V-153-1C25		30	Min100M	AC250V	15A
V-154-1C25		30	Min100M	AC250V	15A
V-155-1C25		30	Min100M	AC250V	15A
V-156-1C25		30	Min100M	AC250V	15A

Z-15



Type					
Z-15GW-B		20	Min100M	AC250V	15A
Z-15GW2-B		20	Min100M	AC250V	15A
Z-15GW22613-B		20	Min100M	AC250V	15A
Z-15GD-B		20	Min100M	AC250V	15A
Z-15GQ-B		20	Min100M	AC250V	15A
Z-15GQ22-B		20	Min100M	AC250V	15A

FIBER OILSTONES

FOS



Precautions

- This product uses high-purified white aluminium oxide fiber as its raw material having excellent cutting performance, able to quickly eliminate the roughness and spots after the discharging processing. It is used for coarse cutting intermediate cutting and elaborate cutting of heat treatment molds, hard tool steels and fine engraving of molds. This product mainly uses combined oyster, so there is no air hole plug, besides, it has fantastic cutting performance.

Size	Sand No.										
1.5x6x100	120#	240#	320#	400#	600#	800#	1000#	1200#	1500#	2000#	3000#
2x6x100											
3x6x100											
1.5x13x100											
2x13x100											
3x3x150											
3x6x150											
6x6x150											
3x13x150											
5x13x150											
10x10x150											
13x13x150											

DIAMOND COMPOUND

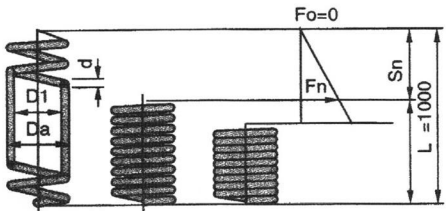
DC



Sand No.	Micron Size	Color	Cutting purposes
#170	90 μ	White	Course grinding
#230	60 μ	Orange	Course grinding
#300	45 μ	Purple	Course grinding
#600	25 μ	Mahogany	Course grinding
#1200	14 μ	Brown	General brightness
#1800	8 μ	Pink	General brightness
#3000	6 μ	Yellow	Precise brightness
#8000	3 μ	Green	Precise brightness
#14000	1 μ	Blue	Precise brightness
#10000	1/4 μ	Grey	Polishing
#24000	1/10 μ	Sliver	Polishing

MOLD SPRING

WS



Length can be determined as needed

M	T
SAE6150	30°C~+300°C

Type	Di Inner Dia (mm)	Da Outer Dia (mm)	d Line Dia (mm)	Compression Ratio Sn%	Fn Loading (kg)
WS-10	11	16	2.5	45%	40
WS-12	13	20	3.3		55
WS-16	17	25	4.0		95
WS-20	21	31	5.0		110
WS-25	26	38	6.0		170
WS-30	31	45	7.0		220

❶ Flat-shaped spring of general size is available



MOLD SPRING

TF



SPEC	p	SPEC	p	SPEC	p	SPEC	p	SPEC	p
TF 8X4X15	13	TF 16X8X55	31	TF 22X11X75	41	TF 30X16X55	39	TF50X27.5X175	216
20	15	60	33	80	42	60	41	200	240
25	16	65	34	90	45	65	42	250	288
30	17	70	35	100	48	70	43	300	336
35	18	75	36	125	54	75	46	350	384
40	19	80	37	150	60	80	48	400	432
45	21	TF 18X9X25	25	TF25X13.5X25	29	90	51	450	492
50	22	30	27	30	30	100	55	500	552
55	23	35	28	35	31	125	63	TF 60X33X70	144
60	24	40	29	40	33	150	72	80	156
TF 10X5X20	15	45	30	45	34	175	90	90	168
25	16	50	31	50	35	TF 35X20X40	39	100	180
30	17	55	33	55	36	45	41	125	216
35	18	60	34	60	37	50	43	150	252
40	19	65	35	65	39	55	46	175	288
45	21	70	36	70	40	60	48	200	324
50	22	75	37	75	42	65	51	250	396
55	23	80	39	80	45	70	53	300	468
60	24	90	41	90	47	75	55	350	552
TF 12X6X20	17	TF 20X11X25	27	100	51	80	58	400	636
25	18	30	28	125	55	90	60	450	720
30	19	35	29	150	63	100	65	500	804
35	21	40	30	TF27X13.5X25	30	125	82		
40	22	45	31	30	31	150	94		
45	23	50	33	35	33	175	108		
50	24	55	34	40	34	200	126		
55	25	60	35	45	35	TF 40X22X50	48		
60	27	65	36	50	36	60	54		
TF 14X7X25	22	70	37	55	37	70	60		
30	23	75	39	60	40	80	66		
35	24	80	41	65	41	90	72		
40	25	90	43	70	42	100	84		
45	27	100	46	75	45	125	102		
50	28	125	48	80	47	150	120		
55	29	TF 22X11X25	28	90	50	175	138		
60	30	30	29	100	53	200	156		
65	31	35	30	125	60	250	192		
70	33	40	31	150	70	TF50X27.5X60	90		
TF 16X8X25	24	45	33	TF 30X16X25	31	70	102		
30	25	50	34	30	33	80	114		
35	27	55	35	35	34	90	126		
40	28	60	36	40	35	100	138		
45	29	65	37	45	36	125	168		
50	30	70	39	50	37	150	192		

TL



SPEC	P	SPEC	P	SPEC	P		SPEC	P		SPEC	P			
					TL	TLR		TL	TLR		TL	TLR		
TL 8x4x15	13	TL 16x8x55	31	TL 22x11x75	42		TL 30x15x TLR30x16x	55	43	43	TL 50x25x TLR50x30x	175	276	276
20	15	60	33	80	45		60	46	46		200	312	312	
25	16	65	34	90	47		65	48	48		250	372	372	
30	17	70	35	100	54		70	51	51		300	432	432	
35	18	75	36	125	60		75	53	53		350	492	492	
40	19	80	37	150	66		80	55	55		400	552	552	
45	21	TL 18x9x25	25	TL 25x12.5x25	30		90	60	60		450	624	624	
50	22	30	27	30	31		100	66	66		500	696	696	
55	23	35	28	35	33		125	78	78	TL 60x30x TLR60x35x	70	204	204	
60	24	40	29	40	34		150	90	90		80	216	216	
TL 10x5x20	15	45	30	45	35		175	106	106		90	228	228	
25	16	50	31	50	36	TL 35x17.5x TLR 35x20x	40	43	43		100	240	240	
30	17	55	33	55	37		45	47	47		125	276	276	
35	18	60	34	60	39		50	51	51		150	324	324	
40	19	65	35	65	40		55	54	54		175	372	372	
45	21	70	36	70	41		60	58	58		200	420	420	
50	22	75	37	75	43		65	61	61		250	504	504	
55	23	80	39	80	46		70	65	65		300	588	588	
60	24	90	41	90	48		75	69	69		350	672	672	
TL 12x6x20	17	TL 20x10x25	28	100	55		80	72	72		400	756	756	
25	18	30	29	125	63		90	78	78		450	840	840	
30	19	35	30	150	70		100	88	88		500	924	924	
35	21	40	31	TL 27x13.5x25	31		125	102	102					
40	22	45	33	30	33		150	120	120					
45	23	50	34	35	34		175	128	128					
50	24	55	35	40	35		200	162	162					
55	25	60	36	45	36	TL 40x20x TLR40x26x	50	63	63					
60	27	65	37	50	37		60	70	70					
TL 14x7x25	22	70	39	55	39		70	82	82					
30	23	75	41	60	41		80	94	94					
35	24	80	43	65	43		90	106	106					
40	25	90	46	70	46		100	118	118					
45	27	100	48	75	48		125	138	138					
50	28	125	51	80	51		150	156	156					
55	29	TL 22x11x25	29	90	54		175	174	174					
60	30	30	30	100	60		200	198	198					
65	31	35	31	125	72		250	240	240					
70	33	40	33	150	82	TL 50x25x TLR 50x30x	60	114	114					
TL 16x8x25	24	45	34	TL 30x15x25	33		70	126	126					
30	25	50	35	TLR 30x16x30	34	34	80	138	138					
35	27	55	36	35	35	35	90	156	156					
40	28	60	37	40	36	36	100	168	168					
45	29	65	39	45	39	39	125	210	210					
50	30	70	40	50	41	41	150	240	240					

TM



SPEC	p	SPEC	p	SPEC	p	SPEC	p	SPEC	p
TM 8X4X15	13	TM 16X8X55	33	TM 22X11X70	42	TM 30X15X50	48	TM 50X25X150	288
20	15	60	34	75	45	55	51	175	324
25	16	65	35	80	48	60	53	200	360
30	17	70	36	90	52	65	55	250	432
35	18	75	39	100	55	70	58	300	504
40	19	80	41	125	61	75	60	TM 60X30X70	216
45	21	TM 18X9X25	28	150	67	80	64	80	228
50	22	30	29	TM 25X12.5X25	31	90	67	90	252
55	24	35	30	30	33	100	75	100	276
60	27	40	31	35	34	125	91	125	336
TM 10X5X20	15	45	33	40	35	150	108	150	396
25	16	50	34	45	36	175	126	175	456
30	17	55	35	50	39	TM 35X17.5X40	49	200	516
35	18	60	36	55	40	45	53	250	612
40	19	65	37	60	41	50	57	300	720
45	21	70	40	65	42	55	60		
50	22	75	42	70	43	60	66		
55	23	80	46	75	46	65	72		
60	24	90	48	80	49	70	78		
TM 12X6X20	17	TM 20X10X25	29	90	53	75	84		
25	18	30	30	100	58	80	90		
30	19	35	31	125	66	90	96		
35	21	40	33	150	82	100	106		
40	22	45	34	TM 27X13.5X25	34	125	126		
45	23	50	36	30	35	150	142		
50	24	55	37	35	36	175	162		
55	25	60	39	40	37	200	186		
60	27	65	40	45	39	TM 40X20X50	75		
TM 14X7X25	22	70	41	50	40	60	84		
30	23	75	43	55	42	70	96		
35	24	80	47	60	45	80	108		
40	25	90	51	65	47	90	120		
45	27	100	54	70	50	100	132		
50	28	125	58	75	52	125	156		
55	29	150	65	80	55	150	186		
60	30	TM 22X11X25	30	90	59	175	216		
65	31	30	31	100	66	200	228		
70	33	35	33	125	76	250	288		
TM 16X8X25	25	40	34	150	88	TM 50X25X60	138		
30	27	45	35	TM 30X15X25	36	70	150		
35	28	50	37	30	39	80	168		
40	29	55	39	35	41	90	186		
45	30	60	40	40	43	100	204		
50	31	65	41	45	46	125	252		



TH

SPEC	p	SPEC	p	SPEC	p	SPEC	p	SPEC	p
TH 8X4X15	15	TH 16X8X55	35	TH 22X11X75	50	TH 30X15X55	54	TH 50X25X175	360
20	16	60	36	80	52	60	57	200	408
25	17	65	37	90	55	65	60	250	504
30	18	70	40	100	61	70	63	300	600
35	19	75	42	125	66	75	65	TH 60X30X70	252
40	21	80	45	150	72	80	69	80	276
45	22	TH 18X9X25	30	TH25X12.5X25	34	90	75	90	300
50	23	30	31	30	35	100	90	100	324
55	25	35	33	35	36	125	106	125	344
60	28	40	34	40	37	150	126	150	384
TH 10X5X20	16	45	35	45	39	175	144	175	504
25	17	50	36	50	41	TH 35X17.5X40	55	200	584
30	18	55	37	55	42	45	60	250	672
35	19	60	39	60	43	50	65	300	768
40	21	65	41	65	46	55	70		
45	22	70	44	70	48	60	76		
50	23	75	46	75	51	65	82		
55	24	80	50	80	53	70	88		
60	25	90	53	90	58	75	94		
TH 12X6X20	18	TH 20X10X25	31	100	65	80	100		
25	19	30	33	125	72	90	106		
30	21	35	34	150	87	100	118		
35	22	40	35	TH27X13.5X25	36	125	138		
40	23	45	36	30	39	150	162		
45	24	50	39	35	41	175	186		
50	25	55	40	40	43	200	214		
55	27	60	41	45	46	TH 40X20X50	84		
60	28	65	43	50	48	60	96		
TH 14X7X25	24	70	46	55	51	70	108		
30	25	75	48	60	53	80	120		
35	27	80	51	65	55	90	132		
40	28	90	54	70	58	100	150		
45	29	100	60	75	60	125	174		
50	30	125	64	80	63	150	198		
55	31	TH 22X11X25	33	90	65	175	228		
60	33	30	34	100	75	200	264		
65	34	35	35	125	84	250	324		
70	35	40	36	150	99	TH 50X25X60	156		
TH 16X8X25	28	45	37	TH 30X15X25	40	70	168		
30	29	50	40	30	42	80	186		
35	30	55	41	35	45	90	210		
40	31	60	42	40	47	100	228		
45	33	65	45	45	49	125	264		
50	34	70	47	50	52	150	312		

TB



SPEC	p	SPEC	p	SPEC	p	SPEC	p	SPEC	p
TB 8x4x15	19	TB 16x8x55	41	TB 22x11x75	59	TB 30x15x55	60	TB 50x25x175	408
20	21	60	43	80	65	60	63	200	456
25	22	65	47	90	70	65	65	250	540
30	23	70	49	100	77	70	69	300	648
35	24	75	53	125	87	75	76	TB 60x30x70	300
40	25	80	55	150	96	80	84	80	324
45	27	TB 18x9x25	34	TB 25x12.5x25	39	90	96	90	348
50	28	30	35	30	40	100	108	100	372
55	30	35	36	35	41	125	120	125	432
60	33	40	39	40	43	150	138	150	492
TB 10x5x20	21	45	41	45	46	175	162	175	552
25	22	50	43	50	48	TB 35x17.5x40	64	200	612
30	23	55	46	55	51	45	70	250	720
35	24	60	48	60	53	50	76	300	840
40	25	65	51	65	55	55	82		
45	27	70	53	70	60	60	88		
50	28	75	55	75	67	65	94		
55	29	80	58	80	72	70	100		
60	30	90	63	90	78	75	106		
TB 12x6x20	23	TB 20x10x25	36	100	84	80	118		
25	24	30	37	125	96	90	130		
30	25	35	39	150	108	100	142		
35	27	40	41	TB 27x13.5x25	42	125	163		
40	28	45	43	30	45	150	192		
45	29	50	46	35	47	175	223		
50	30	55	48	40	49	200	240		
55	31	60	51	45	52	TB 40x20x50	102		
60	33	65	53	50	54	60	114		
TB 14x7x25	28	70	55	55	57	70	130		
30	29	75	58	60	59	80	144		
35	30	80	60	65	61	90	156		
40	31	90	66	70	66	100	168		
45	34	100	72	75	71	125	204		
50	35	125	82	80	76	150	240		
55	37	TB 22x11x25	37	90	82	175	264		
60	40	30	39	100	90	200	300		
65	43	35	40	125	102	250	360		
70	46	40	42	150	120	TB 50x25x60	188		
TB 16x8x25	31	45	45	TM 30x15x25	46	70	204		
30	33	50	47	30	48	80	222		
35	34	55	49	35	51	90	240		
40	35	60	52	40	53	100	258		
45	36	65	54	45	55	125	300		
50	39	70	57	50	58	150	348		

TR


SPEC	p	SPEC	p	SPEC	p	SPEC	p	SPEC	p
TR 14.5x9x20	19	TR 21x13x30	27	TR26x16.5x80	41	TR 32x21x175	72	TR 46x32x50	55
25	21	35	28	90	43	TR 39x26x40	45	60	58
30	22	40	29	100	46	45	47	70	60
35	23	45	30	125	52	50	49	80	63
40	24	50	31	150	55	60	52	90	66
45	25	60	34	TR 32x21x40	35	70	54	100	70
50	27	70	36	45	37	80	57	125	79
TR 17x11x25	22	80	39	50	40	90	60	150	84
30	23	90	41	60	42	100	64	175	90
35	24	100	43	70	45	125	71	200	96
40	25	TR 26x16.5x40	31	80	48	150	75	250	108
45	27	45	33	90	52	175	78	300	120
50	28	50	34	100	55	200	83		
55	29	60	36	125	64	250	90		
60	30	70	39	150	67	300	106		

TY


SPEC	p	SPEC	p	SPEC	p	SPEC	p	SPEC	p
TY 14.5x9x20	22	TY 21x13x35	30	TY 26x16.5x90	47	TY 39x26x40	48	TY 46x32x60	63
25	23	40	31	100	51	45	51	70	65
30	24	45	33	125	58	50	53	80	67
35	25	50	34	150	64	60	57	90	72
40	27	60	36	TY 32x21x40	40	70	60	100	77
45	28	70	39	45	43	80	64	125	90
50	29	80	41	50	47	90	67	150	96
TY 17x11x25	24	90	43	60	51	100	72	175	102
30	25	100	46	70	54	125	82	200	108
35	27	TY 26x16.5x40	35	80	58	150	87	250	120
40	28	45	36	90	61	175	94	300	132
45	29	50	37	100	66	200	101		
50	30	60	40	125	75	250	108		
60	33	70	42	150	78	300	120		
TY 21x13x30	29	80	40	175	84	TY 46x32x50	60		

LR, JIS



SPEC	P	SPEC	P	SPEC	P
LR 3x2x10	4	LR 16x10.7x25	10	LR 22x14.7x50	23
15	4	30	11	55	24
20	5	35	12	60	25
25	6	40	13	65	27
LR 4x2.6x10	4	45	15	7	28
15	4	50	16	75	29
20	5	55	17	80	30
25	6	60	18	90	31
30	6	65	19	100	33
LR 6x4x15	5	70	21	LR 25x17x25	19
20	6	75	22	30	21
25	6	80	23	35	22
30	7	LR 18x12x25	12	40	23
35	7	30	13	45	24
LR 8x5.4x15	6	35	15	50	25
20	7	40	16	55	27
25	7	45	17	60	28
30	8	50	18	65	29
35	9	55	19	70	30
40	9	60	21	75	31
LR 10x6.5x25	8	65	22	80	33
30	9	70	23	90	35
35	9	75	24	100	36
40	10	80	25		
45	10	90	27		
50	11	LR 20x13.5x25	13		
LR 12x8x25	9	30	15		
30	9	35	16		
35	10	40	17		
40	10	45	18		
45	11	50	19		
50	12	55	21		
55	12	60	22		
60	13	65	23		
LR 14x9.3x25	9	70	24		
30	10	75	25		
35	10	80	27		
40	11	90	28		
45	12	100	29		
50	13	LR 22x14.7x25	17		
55	15	30	18		
60	16	35	19		
65	17	40	21		
70	18	45	22		