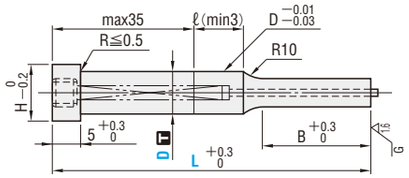
JECTOR PUNCHES

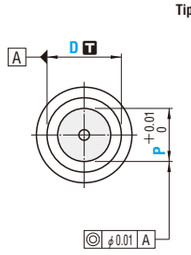
RELATED PRODUCTS P.67

Calculating the projection length of the jector pin (reference value) P.185

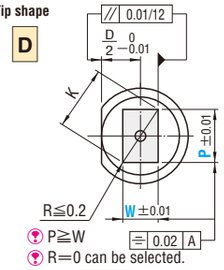
- For details of jector holes, refer to Jector Punch Blanks P.180
- For details of jector pins, refer to Jector Pin Sets P.185

Type	Shank diameter D T tolerance	M / H	Catalog No. Type	Tip shape	B Tip length	The tip shape can be selected from Tip shape A~G in the figure below.
RoHS  For shank diameter tolerance D T, select either m5 or $^{+0.005}_{0}$.	D_{m5}	D4~6 SKH51 61~64HRC	SJ SJV	A D R E G	S L X Tip length (B) X>L>S	
		D8~25 Equivalent to SKD11 60~63HRC	PJ PJV			
		Powdered high-speed steel 64~67HRC				
	$D^{+0.005}_{0}$	D4~6 SKH51 61~64HRC	A—SJ A—SJV			
		D8~25 Equivalent to SKD11 60~63HRC				
		Powdered high-speed steel 64~67HRC	A—PJ A—PJV			

Tip shape A

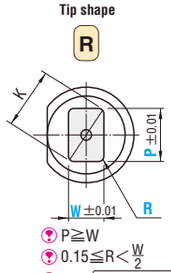


Tip shape D



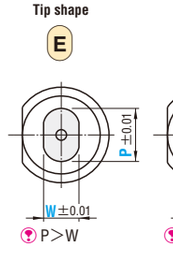
- P≧W
- R=0 can be selected.
- $K=\sqrt{P^2+W^2}$

Tip shape R



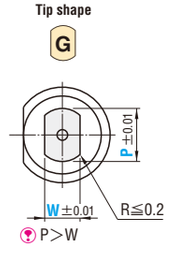
- P≧W
- $0.15 \leqq R < \frac{W}{2}$
- $K=\sqrt{(P-2R)^2+(W-2R)^2}+2R$

Tip shape E



- P>W

Tip shape G



- P>W

Catalog No. Type	Tip shape	B Tip length	D	L	0.01 mm increments Ⓐ min. P max.	DREG P·Kmax.	DREG P·Wmin.	R R	B	H
(D_{m5}) SJ PJ Spring reinforced type (D8~25) SJV PJV	A D R E G	S	(4)	40 50 60 70 80	1.00~ 3.99	3.97	1.00	$0.15 \leqq R < \frac{W}{2}$ (R only)	8	7
			(5)	40 50 60 70 80	2.00~ 4.99	4.97	2.00			8
			(6)	40 50 60 70 80	2.00~ 5.99	5.97	2.00			9
			8	(40) 50 60 70 80 90 100	3.00~ 7.99	7.97	3.00		13	11
			10	(40) 50 60 70 80 90 100	3.00~ 9.99	9.97	3.00			13
			13	(40) 50 60 70 80 90 100	6.00~ 12.99	12.97	6.00			16
			16	(40) (50) 60 70 80 90 100	10.00~ 15.99	15.97	6.00		19	19
			20	(40) (50) 60 70 80 90 100	13.00~ 19.99	19.97	6.00			23
			25	(40) (50) 60 70 80 90 100	18.00~ 24.99	24.97	6.00			28
($D^{+0.005}_{0}$) A—SJ A—PJ Spring reinforced type (D8~25) A—SJV A—PJV		L	(4)	50 60 70 80	1.00~ 3.99	3.97	2.00		13	7
			(5)	50 60 70 80	2.00~ 4.99	4.97	2.00			8
			(6)	50 60 70 80	2.00~ 5.99	5.97	2.00			9
			8	50 60 70 80 90 100	3.00~ 7.99	7.97	3.00		19	11
			10	50 60 70 80 90 100	3.00~ 9.99	9.97	3.00			13
			13	50 60 70 80 90 100	6.00~ 12.99	12.97	6.00			16
			16	60 70 80 90 100	10.00~ 15.99	15.97	6.00		25	19
			20	60 70 80 90 100	13.00~ 19.99	19.97	6.00			23
			25	60 70 80 90 100	18.00~ 24.99	24.97	6.00			28
(D_{m5}) SJ Spring reinforced type (D8~25) SJV ($D^{+0.005}_{0}$) A—SJ Spring reinforced type (D8~25) A—SJV		X	(5)	60 70 80	2.00~ 4.99	4.97	3.50		25	8
			(6)	60 70 80	2.00~ 5.99	5.97	3.50			9
			8	70 80 90 100	3.00~ 7.99	7.97	5.00		30	11
			10	70 80 90 100	3.00~ 9.99	9.97	6.00			13
			13	70 80 90 100	6.00~ 12.99	12.97	6.00			16
			16	80 90 100	10.00~ 15.99	—		—	40	19
			20	80 90 100	13.00~ 19.99					23
			25	80 90 100	18.00~ 24.99					28

- The spring constants of SJV, PJV, A—SJV, and A—PJV are twice those of SJ, PJ, A—SJ, and A—PJ respectively.
- L(40)⋯B=6 If full length is (40), tip length is 6 mm in all cases.
- L(50)⋯B=13 If full length is (50), tip length is 13 mm in all cases.
- Ⓐ: P>D−0.03⋯ℓ=0 If P>D−0.03 for a round punch, $D^{-0.01}_{-0.03}$ (press-in lead) is not included.
- DREG: P·K>D−0.05⋯ℓ=0 If P·K>D−0.05 for a shaped punch, $D^{-0.01}_{-0.03}$ (press-in lead) is not included.
- D(4), (5), and (6) are specifications available for SJ, PJ, A—SJ, and A—PJ only. Spring reinforced types are available for D8~25 only.

Order

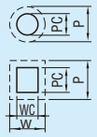
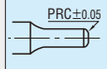
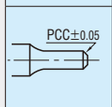
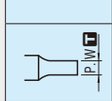
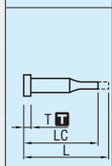
Catalog No.	L	P	W	R (R only)
SJDS 6	60	P3.00	W2.80	
A—SJEL 10	70	P8.50	W4.25	

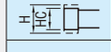
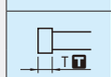
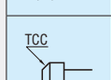
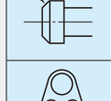
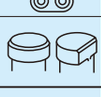
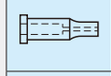
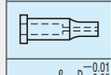
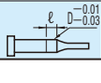
Days to Ship: Quotation

■Effect of spring reinforced type
The spring constant is twice that of a standard type jector punch. The large spring load results in more effective scrap removal.

Alterations

Catalog No. — L(LC·LCT·LMT) — P(PC) — W(WC) — R — (BC·HC·TC, etc.)
SJDS 6 — LC58 — P3.00 — W2.80 — HC8—KC45

Alteration		Code	Ⓐ	DREG	1Code
Alterations to tip		PC WC	Tip dimension change PC≧PCmin. 0.01 mm increments (If combined with PKC, 0.001 mm increments can be selected.)	Tip dimension change PC·WC≧PC·WCmin. 0.01 mm increments ⊗ Cannot be used for D4. ⊗ Cannot be used for tip X.	Quotation
		BC	Tip length change (shorter than standard) 2≦BC<B 0.1 mm increments The following restriction applies to SJAX, A—SJAX with D dimension 5 or 6.		
		PRC	Rounding of tip side edge 0.3≦PRC≦1 0.1 mm increments (?) PRC≦(P−d_1−0.5)/2 d_1 dimension P.180 ⊗ Cannot be combined with PCC.	——	
		PCC	Chamfering to tip side edge 0.3≦PCC≦1 0.1 mm increments (?) PCC≦(P−d_1−0.5)/2 d_1 dimension P.180 ⊗ Cannot be combined with PRC.	——	
		PKC	Tip tolerance change $P^{+0.01}_{0} \Rightarrow {}^{+0.005}_{0}$ (?) (P dimension can be selected in 0.001 mm increments.)	Tip tolerance change $P \cdot W \pm 0.01 \Rightarrow {}^{+0.01}_{0}$	
Alterations to full length		LC	Full length change (reduction in tip length) LC<L 0.1 mm increments (?) Tip length B is reduced by (L—LC). (If combined with LKC·LKZ, 0.01 mm increments can be selected.) (?) Projection length of jector pin is 2 mm.		
		LCT	Changes to head thickness tolerance and full length are processed using a single code. The allowable range of change, increment, ordering process, and notes (?) are the same as for LC. TKC Head thickness tolerance change $T^{+0.3}_{0} \Rightarrow {}^{+0.02}_{0}$ + LC Full length change + Full length tolerance change $L^{+0.3}_{0} \Rightarrow {}^{+0.1}_{0}$		
		LMT	Changes to head thickness tolerance and full length are processed using a single code. The allowable range of change, increment, ordering process, and notes (?) are the same as for LC. TKM Head thickness tolerance change $T^{+0.3}_{0} \Rightarrow {}^{0}_{-0.02}$ + LC Full length change + Full length tolerance change $L^{+0.3}_{0} \Rightarrow {}^{+0.1}_{0}$		
		LKC	Full length tolerance change $L^{+0.3}_{0} \Rightarrow {}^{+0.05}_{0}$		
		LKZ	Full length tolerance change $L^{+0.3}_{0} \Rightarrow {}^{+0.01}_{0}$		

Alteration		Code	Ⓐ	DREG	1Code
Alterations to head		KC	Addition of single key flat to head	Key flat position change 1° increments	
		WKC	Addition of double key flats in parallel	Double key flats in parallel Can be combined with KC.	
		KFC	Double key flats at 0° and a selected angle 1° increments ⊗ Cannot be combined with KC·WKC.	Double key flats at 0° and a selected angle 1° increments ⊗ Cannot be combined with KC·WKC.	
		NKC	——	No key flat	
		HC	Head diameter change D≦HC<H 0.1 mm increments		
		TC	Head thickness change 3.5≦TC<5 0.1 mm increments (If combined with TKC·TKM·LCT·LMT, 0.01 mm increments can be selected.) (?) Full length L is shortened by (5—TC). If combined with LC·LCT·LMT, full length remains as specified.		
		TKC	Head thickness tolerance change $T^{+0.3}_{0} \Rightarrow {}^{+0.02}_{0}$		
		TKM	Head thickness tolerance change $T^{+0.3}_{0} \Rightarrow {}^{0}_{-0.02}$		
		TCC	Chamfering of head This improves the strength of the punch head P.1097 0.1 mm increments 0.5≦TCC≦(H−D)/2 (?) If H≦5, then TCC is 0.5 ⊗ Cannot be combined with SRC.		
		RC	Head thickness is machined to a tolerance of −0.04 ~ 0 relative to the retainer surface. ⊗ Cannot be used for $D^{+0.005}_{0}$ types.		
		SRC	Modification of head for use with select retainers (SLS) (?) For details, refer to P.629. (?) Can be used for D10 ~ 25. ⊗ Cannot be used for $D^{+0.005}_{0}$ types.		
Alterations to shank		SKC	Single key flat on shank Ⓐ DREG $\frac{D}{2}-0.5^{0}_{-0.01}$ ·D4~6 P≦D−1.2 W≦D−1.2 (Machining width 0.5) ·D8~ P≦D−2.2 W≦D−2.2 (Machining width 1) $\frac{D}{2}-1^{0}_{-0.01}$ ⊗ Cannot be combined with KC·WKC·KFC.		
		AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside by inserting a resin (ABS) ring.		
		NC	The jector pin is removed. ⊗ Cannot be combined with AC.		
		NDC	No press-in lead ℓ≧3 ⇨ ℓ=0		

Price: Quotation