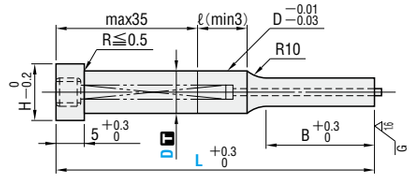
JECTOR PUNCHES
—TiCN COATING—

PRODUCTS DATA P.1601・1604

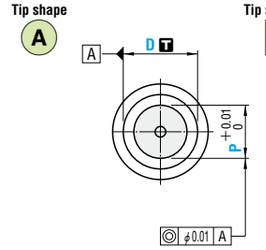
PUNCHES

Calculating the projection length of the jector pin (reference value) P.241

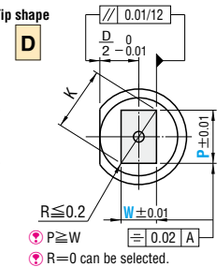
- For details of jector holes, refer to Jector Punch Blanks. P.236
- For details of jector pins, refer to Jector Pin Sets. P.241

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}	Powdered high-speed steel 64～67HRC	H—PJ H—PJVV	A D R E G	S L Tip length (B) L>S	 The tip end is ground before the coating is applied.
	$D^{+0.005}_{0}$	Powdered high-speed steel 64～67HRC	AH—PJ AH—PJVV			

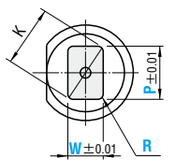
Tip shape A



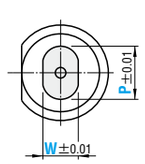
Tip shape D



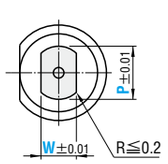
Tip shape R



Tip shape E



Tip shape G



Catalog No. Type	Tip shape	B Tip length	D	L	0.01 mm increments Ⓐ min. P max.	Ⓓ R Ⓔ G P・Kmax.	Ⓓ R Ⓔ G P・Wmin.	Ⓡ R	B	H
(D_{m5}) H—PJ Spring reinforced type (D8～25) H—PJV	A D R E G	S	(4)	40 50 60 70 80	1.00～ 3.99	3.97	1.00	0.15≦R<$\frac{W}{2}$ (Ⓡ 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
($D^{+0.005}_{0}$) AH—PJ Spring reinforced type (D8～25) AH—PJVV		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

- The spring constants of H—SJV, H—PJV, AH—SJV, and AH—PJV are twice those of H—SJ, H—PJ, AH—SJ, and AH—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.
- Ⓓ Ⓡ Ⓔ Ⓖ: 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 H—SJ, H—PJ, AH—SJ, and AH—PJ only. Spring reinforced types are available for D8～25 only.

Order

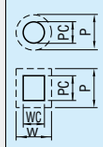
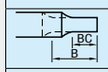
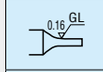
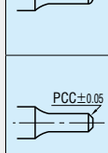
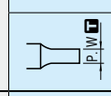
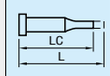
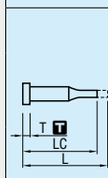
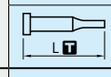
Catalog No.	L	P	W	R (Ⓡ only)
H—PJEL16	70	P12.00	W6.00	

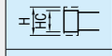
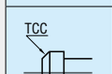
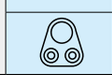
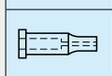
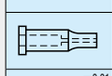
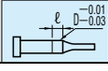
■Effect of spring reinforced type
Spring constant is twice that of a standard jector punch. The large spring load results in more effective scrap removal.

Days to Ship Quotation

Alterations

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

Alteration		Code	Ⓐ	Ⓓ R Ⓔ G	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.) ⊗ Cannot be used for D4. D 5 6 8 10 13 16 20 25 / PCmin. 1.800 1.800 2.500 2.800 5.000 8.000 9.000 9.000	Tip dimension change PC・WC≧PC・WCmin. 0.01 mm increments ⊗ Cannot be used for D4. D 5 6 8 10 13 16 20 25 / PC・WCmin. 1.80 1.80 2.50 2.80 5.00 5.00 5.00 5.00	
		BC	Tip length change (shorter than standard) 2≦BC<B 0.1 mm increments		
		SC	Lapping of tip (?) P dimension tolerance and increment are the same. The base material is finished before the coating is applied. ⊗ R=0 cannot be selected for the tip shape Ⓓ corners.		
		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.236 ⊗ 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.236 ⊗ Cannot be combined with PRC.	—	
		PKC	Tip tolerance change P $^{+0.01}_{0}$ ⇨ $^{+0.005}_{0}$ (?) P dimension can be selected in 0.001 mm increments. ⊗ Cannot be used for D>13.	Tip tolerance change P・W±0.01 ⇨ $^{+0.01}_{0}$ ⊗ Cannot be used for D>13.	Quotation
Alterations to full length		LC	Full length change (reduction in tip length) LC<L 0.1 mm increments (?) Tip length B is shortened by (L−LC). (If combined with LKC, 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 $^{+0.3}_{0}$ ⇨ $^{+0.02}_{0}$ + LC Full length change + Full length tolerance change L $^{+0.3}_{0}$ ⇨ $^{+0.1}_{0}$		
		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 $^{+0.3}_{0}$ ⇨ $^{0}_{-0.02}$ + LC Full length change + Full length tolerance change L $^{+0.3}_{0}$ ⇨ $^{+0.1}_{0}$		
		LKC	Full length tolerance change L $^{+0.3}_{0}$ ⇨ $^{+0.05}_{0}$		
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	

Alteration		Code	Ⓐ	Ⓓ R Ⓔ G	1Code
Alterations to head		HC	Head diameter change D≦HC<H 0.1 mm increments		Quotation
		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 $^{+0.3}_{0}$ ⇨ $^{+0.02}_{0}$		
		TKM	Head thickness tolerance change T $^{+0.3}_{0}$ ⇨ $^{0}_{-0.02}$		
		TCC	Chamfering of head This improves the strength of the punch head. P.1611 0.1 mm increments 0.5≦TCC≦(H−D)/2 (?) If H≦5, then TCC is 0.5.		
		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.		
Alterations to shank		SKC	Single key flat on shank Ⓐ Ⓓ R Ⓔ G ・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) ⊗ 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