

JECTOR PUNCHES

-TiCN COATING-

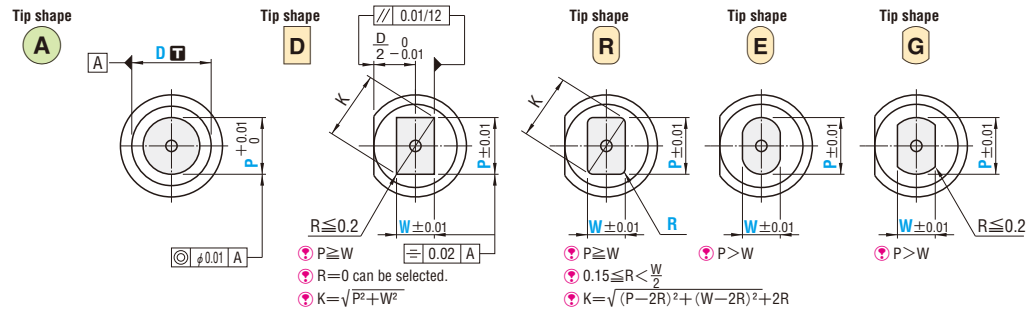


Calculating the projection length of the jector pin (reference value) **P.185**

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 Tolerance	Material M H	Catalog No.		The tip shape can be selected from Tip shape A~G in the figure below.
			Type	Tip shape B Tip length	
-TiCN coating- RoHS	Dm5	Powdered high-speed steel 64~67HRC	H-PJ H-PJV	A D R E L	
			AH-PJ AH-PJV	E G	

For shank diameter tolerance D, select either m5 or $\begin{matrix} +0.005 \\ 0 \end{matrix}$.



Type	Tip shape	Tip length	Catalog No.		L					0.01 mm increments				B	H
			D	L	A	DREG	R	min. P max.							
								P-Kmax.	P-Wmin.	R					
Spring reinforced type (D8~25) H-PJ H-PJV	A	S	(4)	40 50 60 70 80	1.00~3.99	3.97	1.00	0.15 ≤ R < W/2	8	7					
			(5)	40 50 60 70 80	2.00~4.99	4.97	2.00								
			(6)	40 50 60 70 80	2.00~5.99	5.97	2.00								
			8	40 50 60 70 80 90 100	3.00~7.99	7.97	3.00								
			10	40 50 60 70 80 90 100	3.00~9.99	9.97	3.00								
			13	40 50 60 70 80 90 100	6.00~12.99	12.97	6.00								
Spring reinforced type (D8~25) AH-PJ AH-PJV	G	L	(4)	40 50 60 70 80	1.00~3.99	3.97	2.00	13	8						
			(5)	50 60 70 80	2.00~4.99	4.97	2.00								
			(6)	50 60 70 80	2.00~5.99	5.97	2.00								
			8	50 60 70 80 90 100	3.00~7.99	7.97	3.00								
			10	50 60 70 80 90 100	3.00~9.99	9.97	3.00								
			13	50 60 70 80 90 100	6.00~12.99	12.97	6.00								

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.
 A: P > D - 0.03 → ℓ = 0 If P > D - 0.03 for a round punch, D $\begin{matrix} -0.01 \\ -0.03 \end{matrix}$ (press-in lead) is not included.
 R: P > D - 0.05 → ℓ = 0 If P > D - 0.05 for a shaped punch, D $\begin{matrix} -0.01 \\ -0.03 \end{matrix}$ (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 (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-PJDS6 - LC58 - P3.00 - W2.80 - HC8

Alteration	Code	A	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.) ✗ Cannot be used for D4.	Tip dimension change PC·WC ≥ PC·WCmin. 0.01 mm increments ✗ Cannot be used for D4.	
	BC	Tip length change (shorter than standard) 2 ≤ BC < B 0.1 mm increments		
	PRC	Rounding of tip side edge 0.3 ≤ PRC ≤ 1 0.1 mm increments ✗ PRC ≤ (P - d _i - 0.5) / 2 d _i 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 _i - 0.5) / 2 d _i dimension P.180 ✗ Cannot be combined with PRC.		
	PKC	Tip tolerance change P + 0.01 → +0.005 0 → 0 ✗ P dimension can be selected in 0.01 mm increments. ✗ Cannot be used for D > 13.	Tip tolerance change P·W ± 0.01 → +0.01 0 → 0 ✗ Cannot be used for D > 13.	
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 → +0.02 0 → 0 + Full length change + L + 0.3 → +0.1	Full length tolerance change L + 0.3 → +0.1 0 → 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 + Full length change + L + 0.3 → +0.1 0 → 0	Full length tolerance change L + 0.3 → +0.1 0 → 0
	LKC	Full length tolerance L + 0.3 → +0.05 0 → 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	Double key flats at 0° and a selected angle 1° increments	
NKC			No key flat	

Alteration	Code	A	DREG	1Code
Alterations to head	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 → +0.02 0 → 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.1097 0.5 ≤ TCC ≤ (H - D) / 2 ✗ If H ≤ 5, then TCC is 0.5. ✗ Cannot be combined with SRC.		
Alterations to shank	RC	Head thickness is machined to a tolerance of -0.04 ~ 0 relative to the retainer surface. ✗ Cannot be used for D $\begin{matrix} +0.005 \\ 0 \end{matrix}$ 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 $\begin{matrix} +0.005 \\ 0 \end{matrix}$ types.		
	SKC	Single key flat on shank D/2 - 0.5 ~ 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) ✗ 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.		
Alterations to shank	NC	The jector pin is removed. ✗ Cannot be combined with AC.		
	NDC	No press-in lead ℓ ≥ 3 → ℓ = 0		

Price **Quotation**