

KEY FLAT SHANK JECTOR PUNCHES

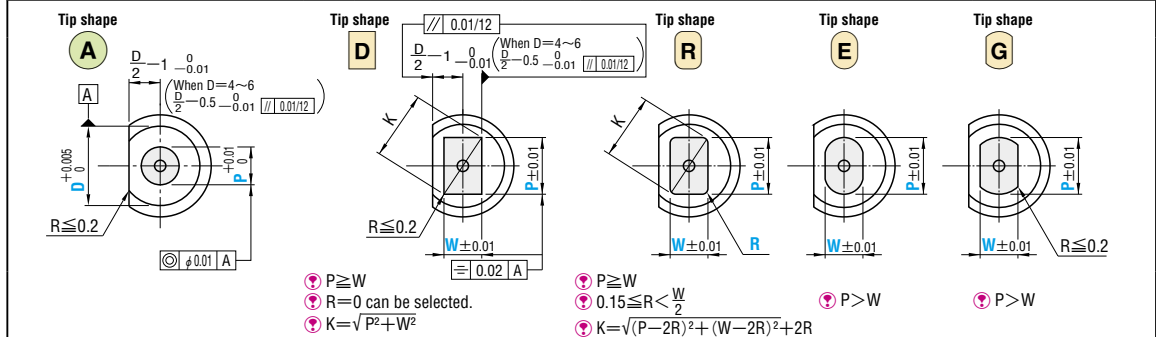
—NORMAL·TiCN COATING—



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 tolerance	M H	Catalog No.		The tip shape can be selected from Tip shape A~G in the figure below.
			Type	Tip shape	
Normal	D ₊ 0.005 0	D4~6 Equivalent to SKH51 61~64HRC D8~25 Equivalent to SKD11 60~63HRC	G-SJ G-SJV	A	
			G-PJ G-PJV	D	
			GH-PJ GH-PJV	E	
					<p>Tip length (B) X>L>S</p> <p>The tip end of a TiCN coating punch is ground before the coating is applied.</p>



Type	Catalog No.	Tip shape	Tip length B	D	0.01mm increments										B	H
					A					D R E G						
					min.	P max.	P-Kmax.	W max.	P-Wmin.	min.	P max.	P-Kmax.	W max.	P-Wmin.		
G-SJ G-PJ	S	(4)	40	50	60	70	80	1.00	2.80	3.97	2.80	1.00	8	7		
		(5)	40	50	60	70	80	2.00	3.80	4.97	3.80	2.00		8		
		(6)	40	50	60	70	80	2.00	4.80	5.97	4.80	2.00		9		
		8	(40)	50	60	70	80	90	100	3.00	5.80	7.97		5.80	3.00	11
		10	(40)	50	60	70	80	90	100	3.00	7.80	9.97		7.80	3.00	13
		13	(40)	50	60	70	80	90	100	6.00	10.80	12.97		10.80	6.00	16
		16	(40)	(50)	60	70	80	90	100	10.00	13.80	15.97		13.80	6.00	19
		20	(40)	(50)	60	70	80	90	100	13.00	17.80	19.97		17.80	6.00	23
		25	(40)	(50)	60	70	80	90	100	18.00	22.80	24.97		22.80	6.00	28
		GH-PJ GH-PJV	L	(4)	50	60	70	80	1.00	2.80	3.97	2.80		2.00	13	7
(5)	50			60	70	80	2.00	3.80	4.97	3.80	2.00	8				
(6)	50			60	70	80	2.00	4.80	5.97	4.80	2.00	9				
8	50			60	70	80	90	100	3.00	5.80	7.97	5.80	3.00	11		
10	50			60	70	80	90	100	3.00	7.80	9.97	7.80	3.00	13		
13	50			60	70	80	90	100	6.00	10.80	12.97	10.80	6.00	16		
16	60			70	80	90	100	10.00	13.80	15.97	13.80	6.00	19			
20	60			70	80	90	100	13.00	17.80	19.97	17.80	6.00	23			
25	60			70	80	90	100	18.00	22.80	24.97	22.80	6.00	28			
G-SJ G-SJV	X			(5)	60	70	80	2.00	3.80	4.97	3.80	3.50	25	8		
		(6)	60	70	80	2.00	4.80	5.97	4.80	3.50	9					
		8	70	80	90	100	3.00	5.80	7.97	5.80	5.00	11				
		10	70	80	90	100	3.00	7.80	9.97	7.80	6.00	13				
		13	70	80	90	100	6.00	10.80	12.97	10.80	6.00	16				
		16	80	90	100	10.00	13.80	15.97	13.80	6.00	19					
		20	80	90	100	13.00	17.80	19.97	17.80	6.00	23					
		25	80	90	100	18.00	22.80	24.97	22.80	6.00	28					

The spring constants of G-SJV, G-PJV, and GH-PJV are twice those of G-SJ, G-PJ, and G-SJ 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 13mm in all cases.
 P·K>D-0.05→l=0 If P·K>D-0.05 for a shaped punch, D-0.01 (press-in lead) is not included.
 D=4~6→a=0.5 When D dimension is 4~6, dimension a is 0.5mm.
 D=8~25→a=1 When D dimension is 8~25, dimension a is 1mm.
 D(4), (5), and (6) are specifications available for G-SJ, G-PJ, and GH-PJ only.
 Spring reinforced types are available for D8~25 only.

Order **Catalog No.** — L — P — W — R (R only)
G-SJDS 6 — 60 — P3.00 — W2.80

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.)
G-SJDS 6 — LC58 — P3.00 — W2.80 — R — HC8

Alteration	Code	A	D R E 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.) ⊗ D4 cannot be used with TiCN coating.	Tip dimension change PC·WC ≥ PC·WCmin. 0.01 mm increments ⊗ Cannot be used for tip X. ⊗ Cannot be used for tip Y.																																					
		<table border="1"> <tr><th>D</th><th>PCmin.</th></tr> <tr><td>4</td><td>0.900</td></tr> <tr><td>5</td><td>1.800</td></tr> <tr><td>6</td><td>1.800</td></tr> <tr><td>8</td><td>2.500</td></tr> <tr><td>10</td><td>2.800</td></tr> <tr><td>12</td><td>5.000</td></tr> <tr><td>16</td><td>8.000</td></tr> <tr><td>20</td><td>9.000</td></tr> <tr><td>25</td><td>9.000</td></tr> </table> <table border="1"> <tr><th>D</th><th>PC·WCmin.</th></tr> <tr><td>5</td><td>1.80</td></tr> <tr><td>6</td><td>1.80</td></tr> <tr><td>8</td><td>2.50</td></tr> <tr><td>10</td><td>2.80</td></tr> <tr><td>13</td><td>5.00</td></tr> <tr><td>16</td><td>5.00</td></tr> <tr><td>20</td><td>5.00</td></tr> <tr><td>25</td><td>5.00</td></tr> </table>	D	PCmin.	4	0.900	5	1.800	6	1.800	8	2.500	10	2.800	12	5.000	16	8.000	20	9.000	25	9.000	D	PC·WCmin.	5	1.80	6	1.80	8	2.50	10	2.80	13	5.00	16	5.00	20	5.00	25	5.00
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16	5.00																																							
20	5.00																																							
25	5.00																																							
BC	Tip length change (shorter than standard) 2 ≤ BC < B 0.1 mm increments ⊗ The following restriction applies to tip type X with D dimension of 5 or 6.																																							
SC	Lapping of tip ⊗ P dimension tolerance and increment are the same. ⊗ With TiCN coating, the base material is finished before the coating is applied. ⊗ R=0 cannot be selected for the tip shape D corners.																																							
PRC	Rounding of tip side edge 0.3 ≤ PRC ≤ 1 0.1 mm increments ⊗ PRC ≤ (P-d-0.5)/2 d, 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-0.5)/2 d, dimension P.236 ⊗ Cannot be combined with PRC.																																							
PKC	Tip tolerance change P+0.01 → +0.005 ⊗ Dimension can be selected in 0.01 mm increments. ⊗ TiCN coating cannot be used for D>13.	Tip tolerance change P·W ± 0.01 → +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.	Full length tolerance change T+0.3 → +0.02 0	Full length change L+0.3 → +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.	Full length tolerance change T+0.3 → 0 0	Full length change L+0.3 → +0.1 0																																				
	LKC	Full length tolerance change L+0.3 → +0.05 0																																						
	LKZ	Full length tolerance change L+0.3 → +0.01 0	⊗ Cannot be used with TiCN coating.																																					

Alteration	Code	A	D R E G	1Code
Alterations to head	WKC		Addition of double key flats in parallel	
	HC	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		
	TKM	Head thickness tolerance change T+0.3 → 0 -0.02		
Alterations to shank	TCC	Chamfering of head This improves the strength of the punch head. P.1611 1.80~1.99 20		
	SKF	Single key flat on shank, configurable size SKF-0.01 P ≤ 2 (SKF-0.1) W ≤ 2 (SKF-0.1) 0.1 mm increments 0.1 mm increments D4~6 D/2-0.5 ≤ SKF ≤ D/2-0.1 D8~25 D/2-1.0 ≤ SKF ≤ D/2-0.1 ⊗ Cannot be combined with WKC.		
	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**