

JECTOR PUNCHES FOR HEAVY LOAD WITH DOWEL HOLES


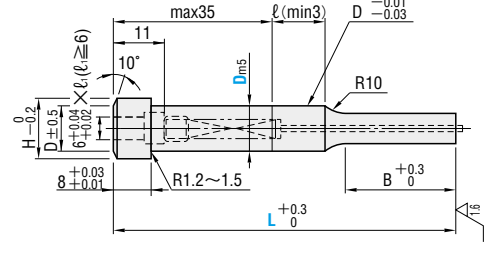
— FINISHED FOR RETAINERS · SPRING AND PIN REINFORCED TYPE —



Projection length of the jector pin is 2mm for reinforced types and 4mm for non-reinforced types.

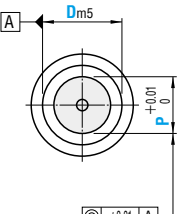
For details of jector holes, refer to Jector Punch Blanks. P.238
 For details of jector pins, refer to Jector Pin Sets. P.241

Type	A	Shank diameter D tolerance	M	Catalog No.			The tip shape can be selected from Tip shape A~G in the figure below.
				Type	Tip shape	Tip length	
With locating dowel hole	Dowel pin MS6—25	Dm5	Equivalent to SKH51 61~64HRC	AHJ Spring and pin reinforced type AHJV	S D R E G	L B	—C

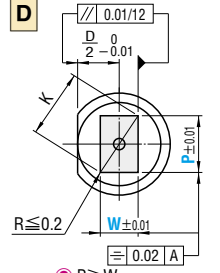



Tip length (B) L > S

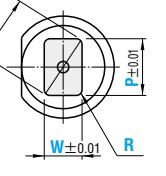
Tip shape A



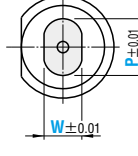
Tip shape D



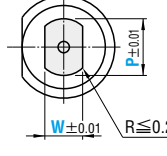
Tip shape R



Tip shape E



Tip shape G



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

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

$P > W$

$P > W$

Type	Tip shape	Tip length	With dowel hole	D	0.01mm increments										B	H		
					L													
					A	D	R	E	G	R	min. P	max. P	P-Kmax.	P-Wmin.				
AHJ Spring and pin reinforced type AHJV	S	—C		10	(60)	70	80	90	100	(110)	(120)	(130)	5.00~	9.99	9.97	5.00	13	15
				13	(60)	70	80	90	100	(110)	(120)	(130)	6.00~	12.99	12.97	6.00		18
				16	(60)	70	80	90	100	(110)	(120)	(130)	10.00~	15.99	15.97	6.00		21
				20	(60)	70	80	90	100	(110)	(120)	(130)	13.00~	19.99	19.97	6.00		25
				25	(60)	70	80	90	100	(110)	(120)	(130)	18.00~	24.99	24.97	6.00		30
	L		10	(60)	70	80	90	100	(110)	(120)	(130)	5.00~	9.99	9.97	5.00	19	15	
			13	(60)	70	80	90	100	(110)	(120)	(130)	6.00~	12.99	12.97	6.00		18	
			16		70	80	90	100	(110)	(120)	(130)	10.00~	15.99	15.97	6.00		21	
			20		70	80	90	100	(110)	(120)	(130)	13.00~	19.99	19.97	6.00		25	
			25		70	80	90	100	(110)	(120)	(130)	18.00~	24.99	24.97	6.00		30	

L(60)→B=8 If full length is (60), tip length is 8mm in all cases.
 A: $P > D - 0.03 \rightarrow \ell = 0$ If $P > D - 0.03$ for a round punch, $D_{-0.01}^{0.01}$ (press-in lead) is not included.
 D R E G: $P \cdot K > D - 0.05 \rightarrow \ell = 0$ If $P \cdot K > D - 0.05$ for a shaped punch, $D_{-0.01}^{0.01}$ (press-in lead) is not included.
 L(110), (120) and (130) cannot be used for spring and pin reinforced types.

Order **Catalog No.** — **L** — **P** — **W** — **R (R only)**

AHJAS—C 20 — 80 — P15.00
 AHJVS—C 25 — 80 — P18.00 — W10.00

Effect of spring and pin reinforced type
 The spring constant is twice that of the standard type, resulting in improved scrap removal. In addition, the improved strength under the pin head prevents breakage below the head.

Days to Ship **Quotation**

Alterations **Catalog No.** — **L(LC)** — **P** — **W** — **R** — (BC·KC, etc.)
 AHJAS—C 20 — LC82 — P13.00 — BC13

Alteration	Code	A	D R E G	1Code
Alterations to tip	BC	Tip length change (shorter than standard) $2 \leq BC < B$ 0.1 mm increments		
	SC	Lapping of tip P dimension tolerance and increment are the same. R=0 cannot be selected for tip shape D corners.		
	PRC	Rounding of tip side edge $0.3 \leq PRC \leq 1$ 0.1 mm increments $PRC \leq (P-d)/2$ d, dimension P.238 Cannot be combined with PCC.		
	PCC	Chamfering to tip side edge $0.3 \leq PCC \leq 1$ 0.1 mm increments $PCC \leq (P-d)/2$ d, dimension P.238 Cannot be combined with PRC.		
	PKC	Tip tolerance change $P + 0.01 \rightarrow +0.005$ P dimension can be selected in 0.001 mm increments.	Tip tolerance change $P \cdot W \pm 0.01 \rightarrow +0.01$	
Alterations to full length	LC	Full length change $LC < L$ (reduction in tip length) 0.1 mm increments (if combined with LKC-LKZ 0.01 mm increments can be selected.) Tip length B is shortened by $(L-LC)$. Projection length of the jector pin is 2mm for reinforced types and 4mm for non-reinforced types.		
	LKC	Full length tolerance change $L + 0.3 \rightarrow +0.05$		
	LKZ	Full length tolerance change $L + 0.3 \rightarrow +0.01$		

Alteration	Code	A	D R E G	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		
Alterations to shank	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.		
	TPC	Dowel pin change MS6—25 that comes with the product is changed to MSTP6—25 (tapped type).		
	NDC	No press-in lead $\ell \geq 3 \rightarrow \ell = 0$		

EX Example Uses of punches with locating dowel holes
 This type of punch is mainly used with dies for parts such as automobile bodies, in combination with a retainer that holds the punch. Rather than indirect positioning using the retainer dowel hole, these punches can be positioned directly using the dowel hole machined on the punch axis, improving die accuracy. These punches are particularly effective when used for die machining with NC machines. This type of punch can be also used with dies for the external panels of electrical appliances, either in combination with a retainer, or attached to the punch plate of an ordinary progressive die.



P Price **Quotation**