

TAPPED PUNCHES

Tip profile alteration	1F	2F	3F	4F	5F	6F	7F

Type	Material	Catalog No.		Tip shape	B Tip length	The tip shape can be selected from Tip shape A~G in the figure below.
		Type	Tip length			
	Equivalent to SKD 11 60~63HRC	(D5~25) MP (D16~25) MPL	(D5~25) A-MP	A D R	S L	<p>* When D=5, the key slot depth is 0.5.</p>
	Powdered high-speed steel 64~67HRC	(D5~25) MPH (D5~25) A-MPH	(D5~25) A-MPH	E G	X	

Tip shape	Tip shape	Tip shape	Tip shape	Tip shape
A	D	R	E	G
<ul style="list-style-type: none"> $P \geq W$ $R=0$ can be selected. $K = \sqrt{P^2 + W^2}$ 	<ul style="list-style-type: none"> $P \geq W$ $0.15 \leq R < \frac{W}{2}$ $K = \sqrt{(P-2R)^2 + (W-2R)^2} + 2R$ 	<ul style="list-style-type: none"> $P \geq W$ $W \geq 0.01$ $R > W$ 	<ul style="list-style-type: none"> $P \geq W$ $W \geq 0.01$ $R > W$ 	<ul style="list-style-type: none"> $P \geq W$ $W \geq 0.01$ $R > W$

Type	Tip shape	Tip length	D	L					0.01mm increments				B	M		
									D R E G							
									min. P	max. P	P-Kmax.	P-Wmin.			R	
(D _{m5}) MP MPH	A D R E G	S	5	40	50	60	70	80	2.00	4.99	4.97	1.20	8	3		
			6	40	50	60	70	80	2.00	5.99	5.97	1.50	13	4		
			8	(40)	50	60	70	80	90	100	3.00	7.99	7.97	2.00	19	5
			10	(40)	50	60	70	80	90	100	3.00	9.99	9.97	2.50	25	6
			13	(40)	50	60	70	80	90	100	6.00	12.99	12.97	3.00	25	3
			16	(40)	50	60	70	80	90	100	10.00	15.99	15.97	4.00	30	4
			20	(40)	50	60	70	80	90	100	13.00	19.99	19.97	5.00	40	5
			25	(40)	50	60	70	80	90	100	18.00	24.99	24.97	6.00	40	6
			5	50	60	70	80	2.00	4.99	4.97	2.00	13	3			
			6	50	60	70	80	2.00	5.99	5.97	2.00	19	4			
			8	50	60	70	80	90	100	3.00	7.99	7.97	2.50	25	5	
			10	50	60	70	80	90	100	3.00	9.99	9.97	2.50	25	6	
			13	50	60	70	80	90	100	6.00	12.99	12.97	3.00	25	3	
			16	60	70	80	90	100	10.00	15.99	15.97	4.00	30	4		
			20	60	70	80	90	100	13.00	19.99	19.97	5.00	40	5		
25	60	70	80	90	100	18.00	24.99	24.97	6.00	40	6					
(D _{m5}) A-MP A-MPH	A D R E G	L	5	60	70	80	2.00	4.99	4.97	3.50	25	3				
			6	60	70	80	2.00	5.99	5.97	3.50	30	4				
			8	60	70	80	90	100	3.00	7.99	7.97	5.00	30	5		
			10	60	70	80	90	100	3.00	9.99	9.97	5.00	40	6		
			13	60	70	80	90	100	6.00	12.99	12.97	5.00	40	6		
			16	70	80	90	100	10.00	15.99	15.97	4.00	40	8			
			20	70	80	90	100	13.00	19.99	19.97	5.00	40	8			
			25	70	80	90	100	18.00	24.99	24.97	6.00	40	8			
			5	60	70	80	2.00	4.99	4.97	3.50	25	3				
			6	60	70	80	2.00	5.99	5.97	3.50	30	4				
			8	60	70	80	90	100	3.00	7.99	7.97	5.00	30	5		
			10	60	70	80	90	100	3.00	9.99	9.97	5.00	40	6		
			13	60	70	80	90	100	6.00	12.99	12.97	5.00	40	6		
			16	70	80	90	100	10.00	15.99	15.97	4.00	40	8			
			20	70	80	90	100	13.00	19.99	19.97	5.00	40	8			
25	70	80	90	100	18.00	24.99	24.97	6.00	40	8						

* L(40)→B=8 If the full length is (40), the tip length is 8mm in all cases.

Order	Catalog No.	L	P	W	R (R only)
	MPAL 13	80	P8.24		
	MPLRS 20	60	P15.50	W7.25	R0.50

Days to Ship **Quotation**

Alterations	Catalog No.	L(LC)	P(PC)	W(WC)	R	(BC-KC-WKC, etc.)
	MPAL 13	80	P8.24			KC-LKC

Alteration	Code	A	D R E G	1Code	
Alterations to tip	PC	Tip dimension change $PC \geq \frac{P_{min}}{2}$ 0.01 mm increments (If combined with PKC, 0.001 mm increments can be selected.)	Tip dimension change $PC \geq P-W_{min} \geq 0.80$ 0.01 mm increments * Cannot be used for tip X.		
	WC	$\frac{P(PC) \cdot W(WC)}{B_{max}}$ 1.000~1.999 20 2.000~3.999 35 4.000~5.999 45 6.000~ 60	$\frac{P(PC) \cdot W(WC)}{B_{max}}$ 0.80~1.49 8 1.50~1.99 13 2.00~3.49 19 3.50~4.99 25 5.00~ 30		
	BC	Tip length change $2 \leq BC \leq B_{max}$ 0.1 mm increments * Full length L must be at least 25mm longer than tip length BC.	Tip length change $2 \leq BC \leq B_{max}$ 0.1 mm increments * Full length L must be at least 30mm longer than tip length BC.		
	SC	Lapping of tip * P dimension tolerance and increment are the same. * R=0 cannot be selected for the tip D corner.			
	PRC	Rounding of tip side edge $0.3 \leq PRC \leq 1$ 0.1 mm increments * $PRC \leq (P-0.2)/2$ * Cannot be combined with PCC-GC.			
	PCC	Chamfering to tip side edge $0.3 \leq PCC \leq 1$ 0.1 mm increments * $PCC \leq (P-0.2)/2$ * Cannot be combined with PRC-GC.			
Alterations to full length	LC	Full length change $25+B(BC) \leq LC < L$ 0.1 mm increments * If difference between full length and tip length is 25mm or less, tip length is adjusted to (Full length-25mm). (If combined with LKC-LKZ, 0.01mm increments can be selected.)	Full length change $30+B(BC) \leq LC < L$ 0.1 mm increments * If difference between full length and tip length is 30mm or less, tip length is adjusted to (Full length-30mm).		
	LKC	Full length tolerance change $L +0.3 \begin{matrix} \rightarrow \\ \leftarrow \end{matrix} +0.05$ 0			
	LKZ	Full length tolerance change $L +0.3 \begin{matrix} \rightarrow \\ \leftarrow \end{matrix} +0.01$ 0			
Others	KC	Addition of single key slot * Cannot be used for D5.	Key slot position change 1° increments		
	WKC	Addition of double key slots in parallel * Cannot be used for D5.	Double key slots in parallel Can be combined with KC.		
	NKC	—	No key slot		
	SKC		Single key flat on shank * $D5-6 P \leq D-1.2 W \leq D-1.2$ (Machining width 0.5) * $D8- P \leq D-2.2 W \leq D-2.2$ (Machining width 1) * Cannot be combined with KC-WKC.		

Price **Quotation**