
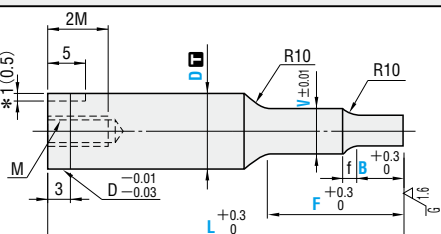



# DOUBLE-STEPPED TAPPED PUNCHES

—NORMAL·TiCN COATING·HW COATING—

Type	Shank diameter, D tolerance	M H	Catalog No.			Tip shape	The tip shape can be selected from Tip shape A~G in the figure below.
			Normal	TiCN coating surface 3000HV	HW coating surface 3000HV		
 For shank diameter tolerance D, select either m5 or +0.005.	D <sub>m5</sub>	Equivalent to SKD11 60~63HRC	MPTW Tapped large-diameter type	—	—	A	
			MPHTW	H-MPHTW	HW-MPHTW	D	
	D <sub>+0.005</sub>	Equivalent to SKD11 60~63HRC	A-MPTW	—	—	E	* When D=5, the key slot depth is 0.5. The tip end is ground before the coating is applied. The tip edge of a HW coating punch is very slightly rounded.
			A-MPHTW	AH-MPHTW	AHW-MPHTW	G	


Type	Tip shape	D	L	0.01mm increments		Diagonal Kmax	0.01mm increments		DREG	R	DREG	V	F	M
				A	B		P-W	R						
Standard type (D <sub>m5</sub> ) Normal MPTW MPHTW TiCN coating H-MPHTW HW coating HW-MPHTW (D <sub>+0.005</sub> ) Normal A-MPTW A-MPHTW TiCN coating AH-MPHTW HW coating AHW-MPHTW	A	5	40-50-60-70-80	1.00~1.999	2.0~20.0	4.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	3
				2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0						
	D	6	40-50-60-70-80	1.00~1.999	2.0~20.0	5.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	4
				2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0						
	R	8	40-50-60-70-80-90-100	1.00~1.999	2.0~20.0	7.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	5
				2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0						
	E	10	40-50-60-70-80-90-100	1.00~1.999	2.0~20.0	9.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	6
				2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0						
	G	13	40-50-60-70-80-90-100	1.00~1.999	2.0~20.0	12.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	7
				2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0						
		16	40-50-60-70-80-90-100	1.00~1.999	2.0~20.0	15.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	8
				2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0						
	20	40-50-60-70-80-90-100	1.00~1.999	2.0~20.0	19.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	8	
			2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0							
	25	40-50-60-70-80-90-100	1.00~1.999	2.0~20.0	24.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	8	
			2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0							
Tapped large-diameter type MPLTW	16	40-50-60-70-80-90-100	1.00~1.999	2.0~20.0	15.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	8	
			2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0							
	20	40-50-60-70-80-90-100	1.00~1.999	2.0~20.0	19.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	8	
			2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0							
	25	40-50-60-70-80-90-100	1.00~1.999	2.0~20.0	24.96	0.80(1.00)~1.49	2.0~8.0	DREG	R	DREG	V	F	8	
			2.00~3.999	2.0~35.0		1.50~1.99	2.0~13.0							

\* If V>D-0.03→ℓ=0 If V>D-0.03, D<sub>-0.01</sub> (press-in lead) is not included. \* For TiCN coating and HW coating, P.W min. is 1.00.

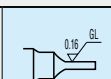
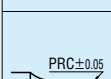
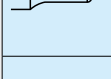
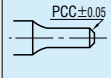

Order  Catalog No. — L — P — W — B — V — F — R (only)

MPTWA10 — 80 — P9.50 — B30 — V9.80 — F45  
 A-MPHTWR13 — 80 — P10.50 — W7.34 — B25 — V12.00 — F45 — R0.5

Days to Ship  **Quotation**

Alterations  Catalog No. — L(LC) — P — W — B — V — F — R (only) — (KC-WKC, etc.)

MPTWA10 — LC72 — P4.80 — B10 — V6.80 — F40 — KC

Alteration	Code	A	DREG	1Code
	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. Cannot be used with HW coating. R=0 cannot be selected for the tip D corner.	—	—
	PRC	Rounding of tip side edge 0.3≤PRC≤1 0.1 mm increments PRC≤(P-0.2)/2 Cannot be combined with PCC-GC. For HW coating, the tolerance is PRC±0.1.	—	—
	PCC	Chamfering to tip side edge 0.3≤PCC≤1 0.1 mm increments PCC≤(P-0.2)/2 Cannot be combined with PRC-GC. For HW coating, the tolerance is PCC±0.1.	—	—
	GC	20°≤GC<90° 1° increments Tip length B≥g+2 g=P/2×tan(90°-GC°) If combined with SC, tip edges are rounded. Cannot be combined with LKC-LKZ-PRC-PCC. Cannot be used with TiCN coating or HW coating.	—	—
	PKC	Tip tolerance change P <sub>0</sub> <sup>+0.01</sup> → <sub>0</sub> <sup>+0.005</sup> (P dimension can be selected in 0.001 mm increments.) TiCN coating/HW coating cannot be used for D>13.	Tip tolerance change P·W±0.01 → <sub>0</sub> <sup>+0.01</sup>	—

Price  **Quotation**

Alteration	Code	A	DREG	1Code
Alterations to full length	LC	Full length change 30+F≤LC<L 0.1 mm increments (If combined with LKC-LKZ, 0.01 mm increments can be selected.)	—	—
	LKC	Full length tolerance change L <sub>0</sub> <sup>+0.3</sup> → <sub>0</sub> <sup>+0.05</sup>	—	—
Alterations to tip	LKZ	Full length tolerance change L <sub>0</sub> <sup>+0.3</sup> → <sub>0</sub> <sup>+0.01</sup> Cannot be used with TiCN-HW coating	—	—
	KC	Addition of single key slot Cannot be used for D5. Key slot position change 1° increments	—	—
Others	WKC	Addition of double key slots in parallel Cannot be used for D5.	—	—
	NKC	No key slot	—	—
	SKC	Single key flat on shank D5·6 V≤D-1.2 (Machining width 0.5) D8~ V≤D-2.2 (Machining width 1) Cannot be combined with KC-WKC.	—	—