

PILOT PUNCHES WITH KEY GROOVES

—TiCN COATING · HW COATING · DLC COATING—



Type	Shank diameter D tolerance	M H	Catalog No.		B tip length	Shape
			DLC coating DLC foundation WPC® Surface 3000HV ~	TiCN coating HW coating Surface 3000HV ~		
—Tip R type— Shape of tip changes depending on P dimension. P.250 For shank diameter tolerance D, select either m5 or 0.	D _{m5}	Equivalent to SKH51 61~64 HRC	N—HSTKA NW—HSTKA	H—HSTKA HW—HSTKA	 RT(*)... If P<8, tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0. RT=0 cannot be selected with HW coating·foundation WPC® (If P≥8, tip end is flat. P.1592) For the length of tip R, refer to the products data "Punch R length". P.1592	
			N—PSTKA NW—PSTKA	H—PSTKA HW—PSTKA		
	D ₀ ^{+0.005}	Equivalent to SKH51 61~64 HRC	AN—HSTKA ANW—HSTKA	AH—HSTKA AHW—HSTKA		
			AN—PSTKA ANW—PSTKA	AH—PSTKA AHW—PSTKA		
	—Tapered tip type— S L X	D _{m5}	Equivalent to SKH51 61~64 HRC	N—HTPKA NW—HTPKA		H—HTPKA HW—HTPKA
				N—PTPKA NW—PTPKA		H—PTPKA HW—PTPKA
D ₀ ^{+0.005}		Equivalent to SKH51 61~64 HRC	AN—HTPKA ANW—HTPKA	AH—HTPKA AHW—HTPKA		
			AN—PTPKA ANW—PTPKA	AH—PTPKA AHW—PTPKA		
—Sharp tip angle type— RoHS		D _{m5}	Equivalent to SKH51 61~64 HRC	N—HATKA NW—HATKA	H—HATKA HW—HATKA	
				N—PATKA NW—PATKA	H—PATKA HW—PATKA	
	D ₀ ^{+0.005}	Equivalent to SKH51 61~64 HRC	AN—HATKA ANW—HATKA	AH—HATKA AHW—HATKA		
			AN—PATKA ANW—PATKA	AH—PATKA AHW—PATKA		

Catalog No.	Type	B tip length	D	L		A	0.1mm increments		B	Y	U	
				0.01mm increments min.	0.01mm increments max.		T	U				
M Equivalent to SKH51	—TiCN coating— H—HSTKA AH—HSTKA H—HTPKA AH—HTPKA H—HATKA AH—HATKA	S	3	42	52 62 (72)	(10)	T>5.0	1.00	2.99	10	2	0.5
			4	42	52 62 (72)			1.00	3.99			
			5	42	52 62 (72)			2.00	4.99			
			6	42	52 62 (72)			2.50	5.99			
			8	(42)	52 62 72 82 (92)			3.00	7.99			
			10	(42)	52 62 72 82 (92) (102)			3.00	9.99			
	—HW coating— HW—HSTKA AHW—HSTKA HW—HTPKA AHW—HTPKA HW—HATKA AHW—HATKA	L	3	52	62 (72)	(10)	T>5.0	1.00	2.99	15	5	1.5
			4	52	62 (72)			1.00	3.99			
			5	52	62 (72)			2.00	4.99			
			6	52	62 (72)			2.50	5.99			
			8	52	62 72 82 (92)			3.00	7.99			
			10	(42)	52 62 72 82 (92) (102)			3.00	9.99			
	—DLC coating— N—HSTKA AN—HSTKA N—HTPKA AN—HTPKA N—HATKA AN—HATKA	X	3	52	62 (72)	(10)	T>5.0	1.00	2.99	21	8	1.5
			4	52	62 (72)			1.00	3.99			
			5	52	62 (72)			2.00	4.99			
			6	52	62 (72)			2.50	5.99			
8			52	62 72 82 (92)	3.00			7.99				
10			(42)	52 62 72 82 (92) (102)	3.00			9.99				
M Powdered high-speed steel	—TiCN coating— H—PSTKA AH—PSTKA H—PTPKA AH—PTPKA H—PATKA AH—PATKA	L	3	52	62 (72)	(10)	T>5.0	1.00	2.99	15	2	0.5
			4	52	62 (72)			1.00	3.99			
			5	52	62 (72)			2.00	4.99			
			6	52	62 (72)			2.50	5.99			
			8	52	62 72 82 (92)			3.00	7.99			
			10	(42)	52 62 72 82 (92) (102)			3.00	9.99			
	—HW coating— HW—PSTKA AHW—PSTKA HW—PTPKA AHW—PTPKA HW—PATKA AHW—PATKA	L	3	52	62 (72)	(10)	T>5.0	1.20	2.99	21	2	0.5
			4	52	62 (72)			1.20	3.99			
			5	52	62 (72)			2.00	4.99			
			6	52	62 (72)			2.50	5.99			
			8	52	62 72 82 (92)			3.00	7.99			
			10	(42)	52 62 72 82 (92) (102)			3.00	9.99			
	—DLC coating— N—PSTKA AN—PSTKA N—PTPKA AN—PTPKA N—PATKA AN—PATKA	X	3	52	62 (72)	(10)	T>5.0	1.20	2.99	27	8	1.5
			4	52	62 (72)			1.20	3.99			
			5	52	62 (72)			2.00	4.99			
			6	52	62 (72)			2.50	5.99			
8			52	62 72 82 (92)	3.00			7.99				
10			(42)	52 62 72 82 (92) (102)	3.00			9.99				
—DLC foundation WPC®— NW—PSTKA ANW—PSTKA NW—PTPKA ANW—PTPKA NW—PATKA ANW—PATKA	X	3	52	62 (72)	(10)	T>5.0	1.20	2.99	27	8	1.5	
		4	52	62 (72)			1.20	3.99				
		5	52	62 (72)			2.00	4.99				
		6	52	62 (72)			2.50	5.99				
		8	52	62 72 82 (92)			3.00	7.99				
		10	(42)	52 62 72 82 (92) (102)			3.00	9.99				
			13	62	72 82 (92) (102)		6.00	12.99				
			16	72	82 (92) (102)		10.00	15.99				

① L(42)→B=10 If full length L is (42), tip length B is 10mm in all cases.
 ② L(72) (92) (102)→L72 with D3~6 and L92~102 with D8~16 can be used for tip R types and tapered tip types only.
 ③ A(10)→If P≥6.0, A10 cannot be selected. ④ A(15)→If P≥15.0, A15 cannot be selected.

Order Catalog No. — L — P — A — T — (RT=0) — (R=0)

AN—HSTKA 6 — 72 — P5.02 — T20.0 — RT0
 N—PTKA 6 — 52 — P4.97 — T15.0
 H—HATKA 10 — 62 — P5.01 — A15 — T16.0 — R0

① If no key groove is required, select T=L.
 ② A can be used for sharp tip angle types only.
 ③ RT=0 only can be selected. (Can be used for tip R types with P<8 and sharp tip angle types.)
 ④ R=0 only can be selected. (Can be used for tapered tip types and sharp tip angle types.)

Days to Ship **Quotation**

Effects of DLC coating
 Effective for preventing adhesion during aluminum or copper blanking thanks to its low affinity for nonferrous metal. See the product data for details. P.1609

Alterations Catalog No. — L(LC·LCT) — P(PC) — A — T — (RT=0) — (R=0) — (BC·YC...etc.)

AN—PSTKA 8 — 82 — PC1.50 — T20.0 — YC1.0

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	1Code
	PC	Tip diameter change PC ≥ P _{min.} / 2 0.01mm increments (If combined with PKC, 0.001mm increments can be selected.) ① TiCN coating cannot be used for PC < 1.	Tip diameter change PC ≥ P _{min.} / 2 ≥ 1.00 0.01mm increments (If combined with PKC, 0.001mm increments can be selected.) ① Ymax. = YCmax.	
	BC	Tip length change 2 ≤ BC ≤ Bmax. ① Full length L must be at least 30mm longer than tip length BC. ② For TiCN coating, Bmax. = 50.	0.1mm increments	
	YC	Tip taper length change • P < 2.0 1 ≤ YC ≤ P × 2.83 - 0.3 • P ≥ 2.0 1 ≤ YC ≤ P × 1.86 - 0.2 ≤ 18 L(LC) + YC ≤ Lmax. + 8 0.1mm increments ① Cannot be used for sharp tip angle types.		
	RLC	Tip R is cut flat. 2 ≤ RLC < Y < 8 Y = √(P(10-P/4)) 0.1mm increments		
	PKC	Tip diameter tolerance change P + 0.01 ⇔ +0.005 / 0		

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	1Code
	SC	Lapping of tip ① P dimension tolerance remains the same. ② With TiCN coating, the base material is finished before the coating is applied. ③ R=0 and RT=0 cannot be selected.		
	LC	Full length change 30 + B (BC) ≤ LC < L 0.1mm increments ① If difference between full length and tip length is 30mm or less, tip length is adjusted to (Full length - 30mm).		
	LCT	TKC LC Head thickness tolerance change + Full length change T + 0.05 ⇔ -0.02		
	WKD	① Addition of double key grooves in parallel		
	TKC	T dimension tolerance change T + 0.05 ⇔ -0.02		
	UK	Key groove depth change ① Cannot be used for D3.	D UK 4~5 0.7 6 1.2 8~16 1.7	

Price **Quotation**

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