

# MOVABLE PILOT PUNCHES

—TiCN COATING · HW COATING · DLC COATING—



Type	Shank diameter D Tolerance	M H	Catalog No.	Shape			
—Sharp tip angle type— <b>RoHS</b>	D <sub>g6</sub>	Equivalent to SKH51 61~64HRC Surface hardness 3000HV	H—HUPT HW—HUPT				
			N—HUPT NW—HUPT				
			H—PUPT HW—PUPT				
			N—PUPT NW—PUPT				
			D <sub>-0.005</sub> -0.010		Equivalent to SKH51 61~64HRC Surface hardness 3000HV	AH—HUPT AHW—HUPT	
						AN—HUPT ANW—HUPT	
	AH—PUPT AHW—PUPT						
	AN—PUPT ANW—PUPT						
	Add alterations to tip according to specifications.						
	—Tip R and taper combined types— <b>RoHS</b>	D <sub>g6</sub>				Equivalent to SKH51 61~64HRC Surface hardness 3000HV	H—HUPTF HW—HUPTF
			N—HUPTF NW—HUPTF				
			H—PUPTF HW—PUPTF				
N—PUPTF NW—PUPTF							
D <sub>-0.005</sub> -0.010			Equivalent to SKH51 61~64HRC Surface hardness 3000HV	AH—HUPTF AHW—HUPTF			
				AN—HUPTF ANW—HUPTF			
		AH—PUPTF AHW—PUPTF					
		AN—PUPTF ANW—PUPTF					
		RT (※) → 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®.)					

Catalog No.				L	0.01mm increments		0.1mm increments		
Type	D				min.	P max.	B		
M Equivalent to SKH51				2.0	32	42	1.00 ~ 1.50		
TiCN coating	HW coating	-DLC coating-	-DLC foundation WPC®-		2.5	32	42	1.00 ~ 2.00	
H—HUPT	HW—HUPT	N—HUPT	NW—HUPT	3	42	52	62	72	2.0 ~ 23.0 (B ≤ L/2)
H—HUPTF	HW—HUPTF	N—HUPTF	NW—HUPTF						
AH—HUPT	AHW—HUPT	AN—HUPT	ANW—HUPT						
AH—HUPTF	AHW—HUPTF	AN—HUPTF	ANW—HUPTF						
M Powdered high-speed steel				5	42	52	62	72	2.00 ~ 4.50
H—PUPT	HW—PUPT	N—PUPT	NW—PUPT						
H—PUPTF	HW—PUPTF	N—PUPTF	NW—PUPTF						
AH—PUPT	AHW—PUPT	AN—PUPT	ANW—PUPT						
AH—PUPTF	AHW—PUPTF	AN—PUPTF	ANW—PUPTF	8	42	52	62	72	3.00 ~ 7.50
AH—PUPTF	AHW—PUPTF	AN—PUPTF	ANW—PUPTF						

Ⓜ An extremely thin coating layer is also formed on the shank. Ⓜ (Y) → Tip Y length = 0.6 + √(P-0.2) (40.2-P)/4

Order  Catalog No.  L  P  B  (RT=0)

H—PUPT 8 — 72 — P5.88 — B20.0  
 H—HUPTF 6 — 62 — P4.50 — B8.0 — RT0  
 Ⓜ (RT=0) only can be selected. (Can be used for tip R and taper combined types. However alteration SC-HW coating·foundation WPC® cannot be used.)

**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)  P(PC)  B  (RT=0)  (GC-RC-SC...etc.)  — BKC

H—PUPT 8 — LC70 — P5.88 — B20.0 — BKC

Alteration	Code	Spec.	1Code
Alterations to tip	PC	Tip diameter change PC ≥ Pmin./2 ≥ 1.00 0.01mm increments (If combined with PKC, 0.001mm increments can be selected.)	Quotation
	GC	Tip angle change 15° < GC ≤ 45° 1° Ⓜ Cannot be used for tip R-taper combined types.	
	RC	Rounding to tip Tip is rounded to R10. Ⓜ Cannot be used for tip R and taper combined types.	
	RLC	Tip R is cut flat. 3 ≤ RLC < Ymax. 0.1mm increments Ⓜ RT=0 cannot be selected. Ⓜ Cannot be used for sharp tip angle types.	

Price  Quotation

Alteration	Code	Spec.	1Code
Alterations to tip	SC	Lapping of tip Ⓜ P dimension tolerance remains the same. The base material is finished before the coating is applied. Ⓜ RT=0 cannot be selected. Ⓜ Cannot be used with HW coating and DLC foundation WPC®.	Quotation
	BKC	Tip length tolerance change B +0.3/0 → +0.05/0 Ⓜ B dimension can be selected in 0.01mm increments. Ⓜ Cannot be combined with RC.	
	PKC	Tip diameter tolerance change P +0.01/0 → +0.005/0 Ⓜ P dimension can be selected in 0.001mm increments.	
Length	LC	Full length change B+9 ≤ LC < L 0.1mm increments	

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