



# 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				
		Powdered high-speed steel 64~67HRC Surface hardness 3000HV	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				
		Powdered high-speed steel 64~67HRC Surface hardness 3000HV	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							
Powdered high-speed steel 64~67HRC Surface hardness 3000HV	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				
	Powdered high-speed steel 64~67HRC Surface hardness 3000HV		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.	max.	B	
Ⓜ 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
H—HUPTF	HW—HUPTF	N—HUPTF	NW—HUPTF					
AH—HUPT	AHW—HUPT	AN—HUPT	ANW—HUPT					
AH—HUPTF	AHW—HUPTF	AN—HUPTF	ANW—HUPTF					
Ⓜ Powdered high-speed steel				5	42	52	62	72
H—PUPT	HW—PUPT	N—PUPT	NW—PUPT	6	42	52	62	72
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
							82	3.00 ~ 7.50

Ⓜ 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.)  
 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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