

PILOT PUNCHES, MOVABLE TYPE

—HEADED TYPE, TiCN COATING·HW COATING·DLC COATING—



Type	Shank diameter D tolerance	Material	Catalog No.	Shape
—Sharp tip angle type— RoHS	D _{g6}	Equivalent to SKH51 61~64HRC Surface hardness 3000HV	H—HUPTH HW—HUPTH	Add alterations to tip according to specifications.
		Equivalent to SKH51 61~64HRC	N—HUPTH NW—HUPTH	
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV	H—PUPTH HW—PUPTH	
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV~	N—PUPTH NW—PUPTH	
—Tip R and taper combined type— RoHS	D _{g6}	Equivalent to SKH51 61~64HRC Surface hardness 3000HV	H—HUPTHF HW—HUPTHF	Enlarged view of circled part
		Equivalent to SKH51 61~64HRC	N—HUPTHF NW—HUPTHF	
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV	H—PUPTHF HW—PUPTHF	
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV~	N—PUPTHF NW—PUPTHF	

H	Catalog No.		L				0.01mm increments	0.1mm increments		
	Type	D	L is the dimension under the head.				min. P max.	B		
6	—TiCN coating— H—HUPTH H—HUPTHF H—PUPTH H—PUPTHF	—DLC coating— N—HUPTH N—PUPTH N—HUPTHF N—PUPTHF	3	42	52	62	72	1.00~2.50	2.0~25.0 and B ≤ L/2	
			4	42	52	62	72	1.50~3.50		
	8	—HW coating— HW—HUPTH HW—HUPTHF HW—PUPTH HW—PUPTHF	—DLC foundation WPC®— NW—HUPTH NW—PUPTH NW—HUPTHF NW—PUPTHF	5	42	52	62	72		2.00~4.50
				6	42	52	62	72		2.50~5.50
10			8	42	52	62	72	82	3.00~7.50	

With TiCN coating, an extremely thin coating layer is also formed on the shank. (Y) → Tip Y length = $0.6 + \sqrt{(P-0.2)(40.2-P)/4}$

Order

Catalog No. — L — P — B — (RT=0)

H—PUPTH 4 — 52 — P2.55 — B2.5

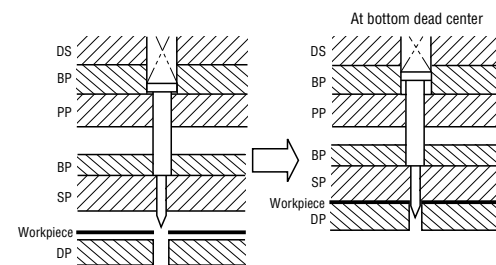
H—HUPTHF 6 — 62 — P3.00 — B8.0 — RT0

(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.

Example ■ Features

- A large spring is used, providing a large load and allowing these punches to be used for high-speed operations.
- Because they include heads, the punches will not fall out even if the stripper plate is removed during trial operation or adjustment.



Alterations

Catalog No. — L(LC) — P(PC) — B — (RT=0) — (GC·PKC...etc.)

H—HUPTH 8 — LC70 — P5.88 — B20 — GC30 — PKC

Alteration	Code	Spec.	1Code
	PC	Tip diameter change PC ≥ Pmin./2 ≥ 1.00 0.01mm increments (If combined with PKC, 0.001mm increments can be selected.)	
	GC	Tip angle change 15° < GC ≤ 45° 1° increments ⊗ Cannot be used for tip R and taper combined types.	
	RC	Rounding to tip Tip is rounded to R10. ⊗ Cannot be used for tip R and taper combined types.	Quotation
	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.	
	BKC	Tip length tolerance change $B +0.3 \begin{matrix} \rightarrow \\ \leftarrow \end{matrix} +0.05$ 0 0 ⊗ B dimension can be selected in 0.01mm increments. ⊗ Cannot be combined with RC.	

Alteration	Code	Spec.	1Code
	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®.	
	PKC	Tip diameter tolerance change $P +0.01 \begin{matrix} \rightarrow \\ \leftarrow \end{matrix} +0.005$ 0 0 ⊗ P dimension can be selected in 0.001mm increments.	
	LC	Full length change $B +15 \leq LC < L$ 0.1mm increments	Quotation
	HC	Head diameter change $D \leq HC < H$ 0.1mm increments	
	TC	Head thickness change $2 \leq TC < 5$ 0.1mm increments	

■ **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

P Price **Quotation**

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