

# STRAIGHT PILOT PUNCHES

— DLC COATING —



Type	M H	Catalog No.	Shape
— Tip R type — <b>RoHS</b>	Equivalent to SKH51 61~64HRC Surface 3000HV~	<b>N—HSTC</b>	<p>No. Ra 1.6 R≤0.2 2.0 R≤0.2 2.5 R≤0.5 3~ R≤0.5</p>
	Powdered high-speed steel 64~67HRC Surface 3000HV~	<b>N—PSTC</b>	
Shape of tip changes depending on P dimension. <b>P.250</b>			
— Tapered tip type — <b>RoHS</b>	Equivalent to SKH51 61~64HRC Surface 3000HV~	<b>N—HTTC</b>	<p>No. Ra 1.6 R≤0.2 2.0 R≤0.2 2.5 R≤0.5 3~ R≤0.5</p> <p>P G 1.00~1.99 10° 2.00~ 15°</p>
	Powdered high-speed steel 64~67HRC Surface 3000HV~	<b>N—PTTC</b>	
— Sharp tip angle type — <b>RoHS</b>	Equivalent to SKH51 61~64HRC Surface 3000HV~	<b>N—HATTC</b>	<p>No. Ra 1.6 R≤0.2 2.0 R≤0.2 2.5 R≤0.5 3~ R≤0.5</p>
	Powdered high-speed steel 64~67HRC Surface 3000HV~	<b>N—PATTC</b>	

⊕ RT(※) → If P < 8, tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0. (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**

Type	Catalog No.			L	0.01mm increments min. P max.	A	Y	H		
	No.									
M Equivalent to SKH51 <b>N—HSTC</b> <b>N—HTTC</b> <b>N—HATTC</b>	1.6	42	52	62	1.00~ 1.60	(10)	2	2.6		
	2.0	42	52	62	1.00~ 2.00			3		
	2.5	42	52	62	1.50~ 2.50			3.5		
	3	42	52	62	2.00~ 3.00			5		
	4	42	52	62	2.00~ 3.00			7		
	5	42	52	62	2.00~ 3.00			8		
	6	42	52	62	2.00~ 3.00			9		
	8	42	52	62	2.00~ 3.00			11		
	10	42	52	62	2.00~ 3.00			13		
	13	42	52	62	2.00~ 3.00			16		
M Powdered high-speed steel <b>N—PSTC</b> <b>N—PTTC</b> <b>N—PATTC</b>	16	42	52	62	2.00~ 3.00	25	3	19		
	20	42	52	62	2.00~ 3.00			23		
	25	42	52	62	2.00~ 3.00			25		
		42	52	62	2.00~ 3.00			30	8	16
		42	52	62	2.00~ 3.00			30	19	
		42	52	62	2.00~ 3.00			30	28	

⊕ L(92)(102) → L92 and 102 can be used for tip R types and tapered tip types only.  
 ⊕ A(10) → If P ≥ 6.0, A10 cannot be selected. ⊕ A(15) → If P ≥ 15.0, A15 cannot be selected.  
 ⊕ A(20) → If P ≥ 20.0, A20 cannot be selected.



Order

Catalog No. — L — P — A —  $\begin{matrix} RT=0 \\ R=0 \end{matrix}$

**N—PSTC 6 — 72 — P5.02 — RT0**

**N—HATTC 8 — 42 — P7.03 — A15**

⊕ A Can be used for sharp tip angle types only.

⊕ RT=0 only can be selected. (Can be used for tip R types with P < 8 and sharp tip angle types.)

⊕ R=0 only can be selected. (Can be used for tapered tip types and sharp tip angle types.)



Days to Ship

**Quotation**



Alterations

Catalog No. — L(LC-LCT-LMT) — P — A —  $\begin{matrix} RT=0 \\ R=0 \end{matrix}$  — (YC-HC-TC...etc.)

**N—PSTC 10 — LC65 — P8.50 — KC**

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	1Code
Alterations to tip	YC	—	Tip taper length change • P < 2.0 1 ≤ YC ≤ P × 2.83 - 0.3 • P ≥ 2.0 1 ≤ YC ≤ P × 1.86 - 0.3 ≤ 18 L(LC) + YC ≤ Lmax. + 8 0.1mm increments ⊕ 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	—	
	SC	Lapping of tip ⊕ P dimension tolerance remains the same. ⊕ the base material is finished before the coating is applied. Lapping range (B) P (B) 1.00~2.99 13 3.00~9.99 19 10.00~ 25	⊕ If L < (B) + 20, (B) is adjusted to (L-20). ⊕ R=0 and RT=0 cannot be selected. ⊕ Lapping range for straight portion is min.5mm.	<b>Quotation</b>
Alterations to full length	LC	Full length change 25 ≤ LC < L 0.1mm increments	—	
	LCT	Changes to head thickness tolerance and full length are processed using a single code. The allowable range of change, increments, and notes (⊕) are the same as for LC. <b>TKC</b> Head thickness tolerance change T +0.3 ↔ +0.02 0 0	<b>LC</b> Full length change	
	LMT	Changes to head thickness tolerance and full length are processed using a single code. The allowable range of change, increments, and notes (⊕) are the same as for LC. <b>TKM</b> Head thickness tolerance change T +0.3 ↔ 0 0 -0.02	<b>LC</b> Full length change	

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	1Code
Alterations to head	HC	Head diameter change P ≤ HC < H 0.1mm increments ⊕ 2.6 ≤ HC < H	—	
	TC	Head thickness change 4 ≤ TC < 5 0.1mm increments (If combined with LCT, LMT, TKC, and TKM, 0.01mm increments can be selected.) ⊕ Full length L is shortened by (5-TC). If combined with LC, full length is equal to LC.	—	
	KC	Addition of single key flat to head	—	
	WKC	Addition of double key flats in parallel	—	
	TKC	Head thickness tolerance change T +0.3 ↔ +0.02 0 0	—	
TKM	Head thickness tolerance change T +0.3 ↔ 0 0 -0.02	—		

**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**



Price

**Quotation**

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