



STRAIGHT PILOT PUNCHES — FOR FIXING TO STRIPPER PLATE —

— TIP R AND TAPER COMBINED TYPE, MINUS HEAD TOLERANCE · NORMAL LAPPING TiCN COATING · DLC COATING —



Type	M H	Catalog No.		Shape						
		DLC coating	TiCN coating Surface hardness 3000HV							
	Equivalent to SKH51 61~64HRC Powdered high-speed steel 64~67HRC	N-HTFRF	H-HTFRF	—Straight type— Enlarged view of circled part Ra, R10, 1.5, 0.15, RT, F, L, Y, H, 3, 0-0.02, F+0.05/0, L±0.05. RT (※) → Tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0. <table border="1"> <tr><th>No.</th><th>Ra</th></tr> <tr><td>1.6 2.0 2.5</td><td>R≤0.2</td></tr> <tr><td>3 ~</td><td>R≤0.5</td></tr> </table>	No.	Ra	1.6 2.0 2.5	R≤0.2	3 ~	R≤0.5
		No.	Ra							
1.6 2.0 2.5	R≤0.2									
3 ~	R≤0.5									
N-PTFRF	H-PTFRF									

Catalog No.		0.1mm increments	0.01mm increments (0.001mm increments for lapping)	H
Type	No.	L	min. P max.	
M Equivalent to SKH51 M Powdered high-speed steel M Equivalent to SKH51 M Powdered high-speed steel	DLC coating N-HTFRF N-PTFRF	10.0 ~ 40.0	1.00~1.60	2.6
			1.00~2.00	3.0
			1.50~2.50	3.5
			2.00~3.00	5
	TiCN coating H-HTFRF H-PTFRF		3.00~4.00	7
			4.00~5.00	8
			5.00~6.00	9
			6.00~8.00	11

(Y) → Tip Y length = $0.6 + \sqrt{(P-0.2)(40.2-P)/4}$

Order

Catalog No.	L	P	(RT=0)
N-HTFRF 2.0	28.0	P1.90	RT0
H-PTFRF 2.5	35.0	P2.20	

- Features
- These pilot punches for fixing to stripper plates were developed for use with press dies that are used with thin workpieces.
 - The under-head dimension F is highly accurate and the tip is smoothly rounded.

Days to Ship **Quotation**

Alterations Catalog No. — L — P — (RT=0) — (RLC·HC...etc.)
H-HTFRF3 — 28.0 — P2.48 — HC4

Alteration	Code	Spec.	1Code														
Alterations to tip 	RLC	Tip R is cut flat. $3 \leq RLC < Y_{max}$. 0.1mm increments ⊗ RT=0 cannot be selected. <table border="1"> <tr><th>P(PC)</th><th>Ymax</th></tr> <tr><td>1.000~1.499</td><td>3</td></tr> <tr><td>1.500~2.499</td><td>4</td></tr> <tr><td>2.500~3.499</td><td>5</td></tr> <tr><td>3.500~4.999</td><td>6</td></tr> <tr><td>5.000~6.999</td><td>7</td></tr> <tr><td>7.000~8.000</td><td>8</td></tr> </table>	P(PC)	Ymax	1.000~1.499	3	1.500~2.499	4	2.500~3.499	5	3.500~4.999	6	5.000~6.999	7	7.000~8.000	8	Quotation
	P(PC)	Ymax															
	1.000~1.499	3															
1.500~2.499	4																
2.500~3.499	5																
3.500~4.999	6																
5.000~6.999	7																
7.000~8.000	8																
SC	Lapping of tip ⊕ P dimension increment remains the same. ⊕ The base material is finished before the coating is applied. ⊗ RT=0 cannot be selected.																
PKC	Tip diameter tolerance change $P \begin{matrix} +0.01 \\ 0 \end{matrix} \Rightarrow \begin{matrix} +0.005 \\ 0 \end{matrix}$ ⊕ P dimension can be selected in 0.001mm increments.																

Alteration	Code	Spec.	1Code
Full length 	LKC	Full length tolerance change $L \pm 0.05 \Rightarrow \begin{matrix} +0.05 \\ 0 \end{matrix}$ ⊕ F dimension tolerance $F \begin{matrix} +0.05 \\ 0 \end{matrix} \Rightarrow \pm 0.05$	Quotation
	HC	Head diameter change $2.6 \leq P + 0.1 \leq HC < H$ 0.1mm increments	
Alterations to head 	KC	Addition of single key flat to head	Quotation
	WKC	Addition of double key flats in parallel	
	TNK	Addition of undercut (Cut of 0.2 or less)	

Price **Quotation**