

# CARBIDE PILOT PUNCHES FOR FIXING TO STRIPPER PLATES

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—TiCN COATING—

PRODUCTS DATA

P.1604

Type	Shank diameter D tolerance	Material	Catalog No.	Shape
—Tip R type—	Dm5	V30 (HIP) 88~89HRA	WSPTP Lapping L—WSPTP	
—Tip R-lapping—	D+0.005/0		A—WSPTP Lapping AL—WSPTP	
—Tapered tip type—	Dm5	V30 (HIP) 88~89HRA	WTPTP Lapping L—WTPTP	
—Tapered tip-lapping—	D+0.005/0		A—WTPTP Lapping AL—WTPTP	
—Sharp tip angle type—	Dm5	V30 (HIP) 88~89HRA	WAPTP Lapping L—WAPTP	
—Sharp tip angle-lapping—	D+0.005/0		A—WAPTP Lapping AL—WAPTP	

For shank diameter tolerance D, select either m5 or +0.005/0.

Ⓜ RT (※) → Tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0.

Ⓜ For the length of tip R, refer to the products data "Punch R length" P.1592.

Ⓜ RT=0 with lapping cannot be selected.

Ⓜ Although the marks of processing may remain in the center of a Shank end face, it is satisfactory on a function.

Type	Shank diameter D tolerance	Material	Catalog No.	Shape
—Tip R type—	Dm5	V30 (HIP) 88~89HRA Surface 3000HV	H—WSPTP	
	D+0.005/0		AH—WSPTP	
—Tapered tip type—	Dm5	V30 (HIP) 88~89HRA Surface 3000HV	H—WTPTP	
	D+0.005/0		AH—WTPTP	
—Sharp tip angle type—	Dm5	V30 (HIP) 88~89HRA Surface 3000HV	H—WAPTP	
	D+0.005/0		AH—WAPTP	

For shank diameter tolerance D, select either m5 or +0.005/0.

Ⓜ RT (※) → Tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0.

Ⓜ For the length of tip R, refer to the products data "Punch R length" P.1592.

Ⓜ Although the marks of processing may remain in the center of a Shank end face, it is satisfactory on a function.

Catalog No.	0.1mm increments	0.001mm increments	A	B	Y	H
(Dm5) (D+0.005/0)	1.6	0.800~1.599			1	2.6
WSPTP A—WSPTP	2.0	1.000~1.999	(10)		1	3
WTPTP A—WTPTP	2.5	1.000~2.499	15		2	3.5
WAPTP A—WAPTP	3	1.000~2.999	20	4	2	5
—Lapping—						
L—WSPTP AL—WSPTP	4	2.000~3.999	25		2	7
L—WTPTP AL—WTPTP	5	2.000~4.999	30		2	8
L—WAPTP AL—WAPTP	6	2.500~5.999			3	9

Ⓜ P>D-0.03 → ℓ=0 If P>D-0.03, D-0.01 (press-in lead) is not included.

Ⓜ A(10) → P<2.000 If P≥2.000, A=10 cannot be selected.

**P** Price **Quotation**

Order **Catalog No.** — L — P — A — (RT=0/R=0)

WAPTP 6 — 29.0 — P4.071 — A15 — RO

WTPTP 6 — 20.0 — P5.020 — RO

Ⓜ RT=0 only can be selected. Can be used for tip R types with P<3 and sharp tip angle types. (Except lapping)

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

Days to Ship **Quotation**

Alterations **Catalog No.** — L — P — A(AC) — (RT=0/R=0) — (HC-TC, etc.)

WAPTP 6 — 20.0 — P5.020 — AC18 — HC6-PKC

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	1Code
	RLC	Tip R is cut flat. Allowable range of change 2≤RLC<P(10-P/4) 0.1mm increments		
	BC	Tip length change 2≤BC≤Bmax. 0.1mm increments	P Bmax. 0.800~1.999 15 2.000~ 21	
	AC	Tip angle change 15°<AC≤45° 1° increments		

Ⓜ Full length L must be at least 8mm longer than tip length BC.

Ⓜ Cannot be used for tapered tip types.

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	1Code
	PKC	Tip diameter tolerance change P+0.005/0 → +0.003		
	PKV	Tip diameter tolerance change P+0.005/0 → ±0.002		
	YC	Tip taper length change • If P<2.0, 1≤YC≤P×2.83-0.3 • If P≥2.0, 1≤YC≤P×1.86-0.3 L(LC)+YC≤Lmax.+8 0.1mm increments		
	HC	Head diameter change D≤HC<H 0.1mm increments		
	KC	Addition of single key flat to head		
	WKC	Addition of double key flats in parallel		
	TC	Head thickness change 2≤TC<3 0.1mm increments (If combined with TKC·TKM, 0.01mm increments can be selected.)		
	TKC	Head thickness tolerance change +0.3/0 → +0.02/0		
	TKM	Head thickness tolerance change +0.3/0 → -0.02/0		
	NDC	No press-in lead ℓ=1 → ℓ=0		

Ⓜ Cannot be used for sharp tip angle types.

Catalog No.	Type	D	L	0.1mm increments	0.01mm increments	A	B	Y	H
(Dm5) (D+0.005/0)		1.6			1.00 ~ 1.59			1	2.6
		2.0	10.0 ~ 32.0		1.00 ~ 1.99	(10)		1	3
		2.5			1.00 ~ 2.49	15		2	3.5
	H—WSPTP AH—WSPTP	3			1.00 ~ 2.99	20	4	2	5
	H—WTPTP AH—WTPTP	4			2.00 ~ 3.99	25		2	7
	H—WAPTP AH—WAPTP	5	10.0 ~ 40.0		2.00 ~ 4.99	30		2	8
		6			2.50 ~ 5.99			3	9

Ⓜ P>D-0.03 → ℓ=0 If P>D-0.03, D-0.01 (press-in lead) is not included.

Ⓜ An extremely thin coating layer is also formed on the shank.

Ⓜ A(10) → P<2.000 If P≥2.000, A=10 cannot be selected.

Ⓜ If used with PKC alteration, P dimension can be selected in 0.001mm increments.

**P** Price **Quotation**

Order **Catalog No.** — L — P — A — (RT=0/R=0)

H—WAPTP 6 — 29.0 — P4.00 — A15 — RO—RT0

H—WSPTP 6 — 20.0 — P5.02

Ⓜ RT=0 only can be selected. Can be used for tip R types with P<3 and sharp tip angle types. (Except lapping)

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

Alterations **Catalog No.** — L — P — A(AC) — (RT=0/R=0) — (HC-TC, etc.)

H—WAPTP 6 — 20.0 — P5.02 — AC18 — HC7

**P** Days to Ship **Quotation**

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	1Code
	RLC	Tip R is cut flat. Allowable range of change 2≤RLC<P(10-P/4) 0.1mm increments		
	BC	Tip length change 2≤BC≤Bmax. 0.1mm increments	P Bmax. 1.00 ~ 1.99 15 2.00 ~ 21	
	PKC	Tip diameter tolerance change P+0.01/0 → +0.005/0		
	PKV	Tip diameter tolerance change P+0.01/0 → ±0.005/0		
	SC	Tip roughness change 0.2/0.08 → 0.08/0.08		
	AC	Tip angle change 15°<AC≤45° 1° increments		

Ⓜ Full length L must be at least 8mm longer than tip length BC.

Ⓜ P dimension can be selected in 0.001mm increments.

Ⓜ P dimension increment remains the same.

Ⓜ The base material is finished before the coating is applied.

Ⓜ R=0 and RT=0 cannot be selected.

Ⓜ Cannot be used for tapered tip types.

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	1Code
	YC	Tip taper length change • If P<2.0, 1≤YC≤P×2.83-0.3 • If P≥2.0, 1≤YC≤P×1.86-0.3 L(LC)+YC≤Lmax.+8 0.1mm increments		
	HC	Head diameter change D≤HC<H 0.1mm increments		
	KC	Addition of single key flat to head		
	WKC	Addition of double key flats in parallel		
	TC	Head thickness change 2≤TC<3 0.1mm increments (If combined with TKC·TKM, 0.01mm increments can be selected.)		
	TKC	Head thickness tolerance change T+0.3/0 → +0.02/0		
	TKM	Head thickness tolerance change T+0.3/0 → -0.02/0		
	NDC	No press-in lead ℓ=1 → ℓ=0		

Ⓜ Cannot be used for sharp tip angle types.