

# FLANGE STOPPER PILOT PUNCHES

—NORMAL·TiCN COATING·HW COATING·DLC COATING—



Type	RoHS	Material	Catalog No.	Shape
—Tip R type—	RoHS	Powdered high-speed steel 64~67HRC	<b>PSTHAL</b>	<p>RT (※) → Tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0. HW coating or foundation WPC® cannot be used. For the length of tip R, refer to the products data "Punch R length". P.1592</p>
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV	<b>H—PSTHAL</b> <b>HW—PSTHAL</b>	
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV	<b>N—PSTHAL</b> <b>NW—PSTHAL</b>	
—Tapered tip type—	RoHS	Powdered high-speed steel 64~67HRC	<b>PTPHAL</b>	<p>RT (※) → Tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0. HW coating or foundation WPC® cannot be used. For the length of tip R, refer to the products data "Punch R length". P.1592</p>
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV	<b>H—PTPHAL</b> <b>HW—PTPHAL</b>	
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV	<b>N—PTPHAL</b> <b>NW—PTPHAL</b>	
—Sharp tip angle type—	RoHS	Powdered high-speed steel 64~67HRC	<b>PATHAL</b>	<p>RT (※) → Tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0. HW coating or foundation WPC® cannot be used. For the length of tip R, refer to the products data "Punch R length". P.1592</p>
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV	<b>H—PATHAL</b> <b>HW—PATHAL</b>	
		Powdered high-speed steel 64~67HRC Surface hardness 3000 HV	<b>N—PATHAL</b> <b>NW—PATHAL</b>	



Order

Catalog No. — L — P — A — T — B — (RT=0 / R=0)

PSTHAL 5 — 62 — P3.00 — T20 — B5 — RT0  
H—PATHAL 6 — 52 — P2.03 — A15 — T13 — B4

- ⓐ 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) — P — A — T(TC) — B — (RT=0 / R=0) — (PKC-LKC...etc.) — PKC

PSTHAL 5 — LC60 — P3.00 — TC15.0 — B5 — PKC

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	TCode
Alterations to tip	RLC	Tip R is cut flat. 2 ≤ RLC < Y < 8 Y = √(P(10 - P/4)) 0.1mm increments		Quotation
	SC	Lapping of tip P dimension tolerance and increment remain the same. R=0 and RT=0 cannot be selected. The base material is finished before coating is applied. HW coating and foundation WPC® cannot be used.		
Alterations to full length	PKC	Tip diameter tolerance change P +0.01 / 0 → +0.005 / 0 P dimension can be selected in 0.001mm increments.		Quotation
	LC	Full length change 40 < LC < L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) If LC < 50, T and TC must be 20 or less. If LC < 50 with D6·8, the allowable range of B is 2~10.		

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	TCode
Alterations to full length	LKC		Full length tolerance change L +0.3 / 0 → +0.05 / 0 Cannot be used with TiCN coating, HW coating, DLC coating and foundation WPC® cannot be used.	Quotation
	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. Head thickness tolerance change T 0 / -0.05 → 0 / -0.02 Full length change	
Alterations to head	TC		T dimension change 13 < TC < 25 0.1mm increments If L < 50, the available range is 13 < TC < 20. The full length L remains the same.	Quotation
	TKC		Head thickness tolerance change T 0 / -0.05 → 0 / -0.02	



Price

Quotation

**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

Catalog No. Type	D	L	0.01mm increments min. P max.	A	T	1mm increments B	V	Y	R
—Normal— PSTHAL PTPHAL PATHAL	4	42	0.50(1.00) ~ 2.00		13 16 20	2 ~ 6	2	1	2~3
		52			13 16 20 25				
—TiCN coating— H—PSTHAL H—PTPHAL H—PATHAL	5	42	1.00 ~ 3.00	10	13 16 20	2 ~ 8	3	2	10
		52 (62)			13 16 20 25				
—HW coating— HW—PSTHAL HW—PTPHAL HW—PATHAL	6	42	1.50 ~ 4.00	15	13 16 20	2 ~ 10	4	3	10
		52 (72)			13 16 20 25				
—DLC coating— N—PSTHAL N—PTPHAL N—PATHAL	8	42	2.00 ~ 6.00	20	13 16 20	2 ~ 13	6	3	10
		52 (72)			13 16 20 25				
—DLC foundation WPC®— NW—PSTHAL NW—PTPHAL NW—PATHAL	8	42	2.00 ~ 6.00	25	13 16 20	2 ~ 10	6	3	10
		52 (72)			13 16 20 25				

L(62)(72) → L62 of D5 and L72 of D6·8 can be used for tip R types and tapered tip types only. P(1.00) → For TiCN coating·HW coating·DLC coating, Pmin. is 1.00.