

PILOT PUNCHES

—CONFIGURABLE TYPE—

PRODUCTS DATA

P.1215

Rs. The volume discount rate is also applicable to alteration costs. **P.39**

Type	Shank diameter D Tolerance	M H	Catalog No.	Shape
—Normal— RoHS	D _{m5}		RTP	
—Dicoat® treatment— RoHS	D _{m5}		T—RTP	
—Normal— RoHS	D _{m5}		RTPE	
—Dicoat® treatment— RoHS	D _{m5}		T—RTPE	

H	Catalog No.	1mm increments	0.01mm increments	1mm increments	1mm increments	A	Base unit price 1~9 pieces
Type	D	L	min. P max.	B	S		RTP T—RTP
13	(10)		6.00~ 9.99			20	2,663 — —
16	13		6.00~ 12.99			30	2,747 5,468 6,880
19	16		8.00~ 15.99			45	3,041 6,006 7,770
23	20		11.00~ 19.99				3,654 7,073 9,223
28	25		16.00~ 24.99				4,536 8,702 11,189
35	(32)		18.00~ 31.99				5,670 — —

The center hole remains at the tip end. Because the center hole is required, the flat surface on the end of the tip must be 2 mm or larger. $P-2\text{Stan}(A/2) \geq 2$
 D(10) (32) → Cannot be used for T—RTP. L(200) → For RTP with D10 and T—RTP, L must not exceed 150. P(100) → If D=10, B must not exceed 50.

H	Catalog No.	1mm increments	0.01mm increments	1mm increments	1mm increments	A	Base unit price 1~9 pieces
Type	D	L	min. P max.	B	S		RTPE T—RTPE
13	(10)		6.00~ 9.99			8~45	1,949 — —
16	13		6.00~ 12.99			S≤B-2	2,033 4,586 6,098
19	16		8.00~ 15.99				2,251 5,023 6,686
23	20		11.00~ 19.99				2,705 5,788 7,678
28	25		16.00~ 24.99				3,343 6,670 8,702
35	(32)		18.00~ 31.99				4,200 — —

(L-35) ≥ B ≥ (S+2) D(10) (32) → Cannot be used for T—RTPE.

Order	Catalog No.	L	P	B	S	A	Dispatch
	RTP 20	160	P15.20	B43	S20	A30	6 Days
	RTPE 20	150	P15.20	B43	S20	A30	
	T—RTP 20	120	P15.20	B43	S20	A30	

Alterations	Catalog No.	L	P	B	S	A	Price
	RTP 20	160	P15.20	B43	S20	A30	HC-TC-LKC, etc.)
	RTPE 20	150	P15.20	B43	S20	A30	HC22.0
	T—RTP 20	120	P15.20	B43	S20	A30	HC22.0

Alterations to head	Alteration	Code	Spec.	Rs./Code
	Head diameter change $D \leq H < H$ 0.1mm increments	HC		168
	Head thickness change $2 \leq TC \leq 5$ 0.1mm increments	TC		168
	Addition of single key flat to head	KC		168

Alterations	Alteration	Code	Spec.	Rs./Code
	Length	LKC	Full length tolerance change $L \pm 0.5 \rightarrow L \pm 0.05$ Cannot be used with Dicoat® treatment. If used with LKC, 0.1mm increments can be selected for L dimension. Shape of tip R remains unchanged.	336
	Shank	NDC	No press-in lead $\ell \geq 3 \rightarrow \ell = 0$	0
	Others	TPC	Dowel pin change Provided MS6—25 is changed to MSTP6—25 (tapped type).	84

FLANGE STOPPER PILOT PUNCHES

—NORMAL · TiCN COATING—

PRODUCTS DATA

P.1220

Rs. The volume discount rate is also applicable to alteration costs. **P.39**

Type	M H	Catalog No.	Shape
—Tip R type— RoHS		PSTHAL	
		PSTHAL	
—Tapered tip type— RoHS		PTPHAL	
		PTPHAL	
—Sharp tip angle type— RoHS		PATHAL	
		PATHAL	

Catalog No.	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	10	13 16 20	2 ~ 6	2	1	2~3
	5	42	1.00 ~ 3.00	15	13 16 20 25	2 ~ 8	3	2	
	6	42	1.50 ~ 4.00	20	13 16 20 25	2 ~ 10	4	3	10
	8	42	2.00 ~ 6.00	25	13 16 20 25	2 ~ 13	6		
				30	13 16 20 25	2 ~ 13			

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, Pmin. is 1.00.

Order	Catalog No.	L	P	A	T	B	(RT=0 R=0)	Volume discount price P.37
	PSTHAL 5	62	P3.00	T20	B5	RT0		Quantity 1~9 10~29 30~99 100~200
	H—PATHAL 6	52	P2.03	A15	T13	B4		Discount rate Base unit price 5% 10% 15%

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.)

Dispatch	Alterations	Catalog No.	L(LC-LCT)	P	A	T(TC)	B	(RT=0 R=0)	(PKC-LKC, etc.)
		PSTHAL 5	LC60	P3.00	TC15.0	B5			PKC

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	Rs./Code
Alterations to tip	RLC	Tip R is cut flat. $2 \leq RLC < Y < 8$ $Y = \sqrt{P(10-P/4)}$ 0.1mm increments		148
	SC	Lapping of tip P dimension tolerance and increment remain the same. R=0 and RT=0 cannot be selected. With TiCN coating, the base material is finished before coating is applied.		888
	PKC	Tip diameter tolerance change $P + 0.01 \rightarrow +0.005$ P dimension can be selected in 0.001mm increments. Cannot be used with TiCN coating.		296
Alterations to full length	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.		148

Alteration	Code	Tip R type	Tapered tip and sharp tip angle types	Rs./Code
Alterations to full length	LKC		Full length tolerance change $L + 0.3 \rightarrow +0.05$ Cannot be used with TiCN coating.	740
	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.	222
	TKC		Head thickness tolerance change $T - 0.05 \rightarrow -0.02$	
Alterations to head	TC		T dimension change $13 < TC < 25$ 0.1mm increments If LC<50, the allowable range is $13 < TC < 20$. The full length L remains the same.	148
	TKC		Head thickness tolerance change $T - 0.05 \rightarrow -0.02$	148