

ROUND PUNCHES

—NORMAL·TICN COATING·HW COATING·DLC COATING—



STRAIGHT PUNCHES

—NORMAL·LAPPING TYPE—

Type	Catalog No.	Shape
RoHS Powdered high-speed steel 64~67HRC	PHTAL	
TICN coating Powdered high-speed steel 64~67HRC	H-PHTAL	
HW coating Surface 3000HV	HW-PHTAL	
DLC coating Powdered high-speed steel 64~67HRC	N-PHTAL	
DLC foundation WPC® Surface 3000HV~	NW-PHTAL	

The tip end is ground before the coating is applied.
The tip edges of a HW coating or DLC foundation WPC® type are very slightly rounded.

Catalog No.	D	L	T	V	R	Base Unit Price	PHTAL	H-PHTAL	HW-PHTAL	N-PHTAL	NW-PHTAL
PHTAL	4	40	50	2~6	2~3	13.16	13.16	13.16	13.16	13.16	13.16
	5	40	50	2~6	2~3	13.16	13.16	13.16	13.16	13.16	13.16
	6	40	50	2~6	2~3	13.16	13.16	13.16	13.16	13.16	13.16
	8	40	50	2~6	2~3	13.16	13.16	13.16	13.16	13.16	13.16
	10	40	50	2~6	2~3	13.16	13.16	13.16	13.16	13.16	13.16
	13	40	50	2~6	2~3	13.16	13.16	13.16	13.16	13.16	13.16
	16	40	50	2~6	2~3	13.16	13.16	13.16	13.16	13.16	13.16
	20	40	50	2~6	2~3	13.16	13.16	13.16	13.16	13.16	13.16
	25	40	50	2~6	2~3	13.16	13.16	13.16	13.16	13.16	13.16

Quotation

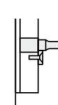
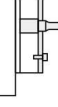
P (1.00) → For TICN coating, P min. is 1.00.

Order Catalog No. L P T B Price PHTAL 5 60 P3.00 T20 B85

Quotation

Example showing use of plate to prevent loosening of punch

Example showing use of punch fixing key



Effects of DLC coating
Effective for preventing adhesion during aluminum or copper blanking thanks to its low affinity for nonferrous metal. See the product card for details. **P.1609**

Alterations	Code	Spec.	1Code
	BC	Tip length change 0.500~1.999 6 2.500~3.999 10 0.1 mm increments 1.000~1.999 10 0.1 mm increments 2.000~2.999 20 L-B=7~10 3.000~3.999 30 4.000~ 40	
	SC	Lapping of tip P dimension tolerance and increment are the same. P=12.7 (P=12.7) → Cannot be combined with P=12.7. The base material is finished before coating is applied. P=12.7 (P=12.7) → Cannot be combined with P=12.7. For HW coating and DLC foundation WPC® cannot be used.	
	PRC	Rounding of tip side edge 0.3≤PRC≤1 0.1 mm increments P=12.7 (P=12.7) → Cannot be combined with P=12.7. For HW coating and DLC foundation WPC® cannot be used.	
	PCC	Chamfering to tip side edge 0.3≤PCC≤1 0.1 mm increments P=12.7 (P=12.7) → Cannot be combined with P=12.7. For HW coating and DLC foundation WPC® cannot be used.	
	GC	Tip length B=H+2 (P=12.7tan 90°-60°) If combined with SC, tip edges are rounded. Cannot be combined with LK-LC-LT-LMT-PRC-PCC. Cannot be used for P<1.0 HW coating and DLC foundation WPC® cannot be used.	
	PKC	Tip tolerance change P=0.01~0.005 Full length tolerance change L=0.3~0.05 Full length tolerance change L=0.3~0.05 Full length tolerance change L=0.3~0.05	

Quotation

Quotation

Quotation

Type	Catalog No.	Shape
RoHS Equivalent to SKD11 60~63HRC	SPC Lapping L-SPC	
Equivalent to SKH51 61~64HRC	SHC Lapping L-SHC	
Powdered high-speed steel 64~67HRC	PHC Lapping L-PHC	

Effective lapping range

No.	R	L	B	H	T
1.0~2.5	≤0.2	≤0.2	≤0.2	≤2.5	≤2.5
3~25	≤0.5	≤0.5	≤0.5	≤2.5	≤2.5

Catalog No.	No.	L	P	H	T
SHC	1.0	20	25	30	2.0
PHC	1.6	20	25	30	2.6
	2.0	20	25	30	3.0
	2.5	20	25	30	3.5
	3	40	50	60	5
	4	40	50	60	7
	5	40	50	60	8
	6	40	50	60	9
	8	40	50	60	11
	10	40	50	60	13
	13	40	50	60	16
	16	40	50	60	19
	20	40	50	60	23
	25	40	50	60	28

Quotation

Price

Order Catalog No. L P PHC 6 40 P5.50

Days to Ship **Quotation**

Alterations Catalog No. L LC-LT-LMT P HC-TC-GC, etc. SPC 6 LC45 P5.50 PRC-LKC

Alterations	Code	Spec.	1Code
	WKC	Addition of cable key to head Double key data at 1° increments Can be used for No.3 and above Can be used for No.3 and above Can be combined with KC-WKC.	
	KFC	Head diameter change P=12.7 (P=12.7) → Cannot be combined with KC-WKC.	
	HC	Head thickness change 0.1 mm increments 2.5 TC<T	
	TC	Head thickness tolerance change 0.1 mm increments Full length L is shortened by (T-TC). If combined with LC-LT-LMT, full length is equal to LC.	
	TKC	Head thickness tolerance change 0.1 mm increments Full length L is shortened by (T-TC). If combined with LC-LT-LMT, full length is equal to LC.	
	TKM	Chamfering of head 0.1 mm increments Full length L is shortened by (T-TC). If combined with LC-LT-LMT, full length is equal to LC.	
	TCC	Chamfering of head 0.1 mm increments Full length L is shortened by (T-TC). If combined with LC-LT-LMT, full length is equal to LC.	

Alterations to head

Alterations	Code	Spec.	1Code
	PRC	Rounding of tip side edge 0.3≤PRC≤1 0.1 mm increments P=12.7 (P=12.7) → Cannot be combined with P=12.7.	
	PCC	Chamfering to tip side edge 0.3≤PCC≤1 0.1 mm increments P=12.7 (P=12.7) → Cannot be combined with P=12.7.	
	GC	Tip tolerance change P=0.01~0.005 Full length tolerance change L=0.3~0.05 Full length tolerance change L=0.3~0.05	
	PKC	Tip tolerance change P=0.01~0.005 Full length tolerance change L=0.3~0.05 Full length tolerance change L=0.3~0.05	
	LC	Full length change 20≤LC<L 0.1 mm increments If combined with LC-LC, 0.01 mm increments can be selected.	
	LCT	Full length change 20≤LCT<L 0.1 mm increments If combined with LC-LC, 0.01 mm increments can be selected.	
	LMT	Full length change 20≤LMT<L 0.1 mm increments If combined with LC-LC, 0.01 mm increments can be selected.	
	LKC	Full length change 20≤LKC<L 0.1 mm increments If combined with LC-LC, 0.01 mm increments can be selected.	
	LKZ	Full length change 20≤LKZ<L 0.1 mm increments If combined with LC-LC, 0.01 mm increments can be selected.	

Alterations to full length

Alterations to tip

Alterations to head