

STRAIGHT PUNCHES

—TiCN COATING—



—TiCN coating—

•Tip machining limit

Tip shape: **D**, **R**, **E**, **G** (RoHS)

W ≤ P
R=0 can be selected.

W ≤ P
0.15 ≤ R < W/2
W - 2R ≥ 1
0.01mm increments

W < P
P ≤ 10 P - W ≥ 1
10 < P ≤ 20 P - W ≥ 2
20 < P ≤ 30 P - W ≥ 3

W < P
P ≤ 10 P - W ≥ 1
10 < P ≤ 20 P - W ≥ 2
20 < P ≤ 30 P - W ≥ 3

Equivalent to SKH51 61~64HRC

Powdered high-speed steel 64~67HRC

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Details of key groove: R ≤ 0.3, T ≥ 2

Catalog No.	Type	Tip shape	L	W	P						0.1mm increments T	M	U	B
					2.00 5.00	5.01 10.00	10.01 15.00	15.01 20.00	20.01 25.00	25.01 30.00				
Straight H-HSPC H-PHPC	D	D	40	2.00 ~ 3.00	○	○	○	○			T ≥ 2.0	-	1.0	15
			50	3.01 ~ 4.00	○	○	○	○						
			60	4.01 ~ 5.00	○	○	○	○						
			70	5.01 ~ 6.00		○	○	○	○					
Tapped H-HSMC H-PHMC	R	R	80	6.01 ~ 8.00		○	○	○	○					
			90	8.01 ~ 10.00		○	○	○	○	○				
			100	10.01 ~ 15.00			○	○	○	○				
			(80)	15.01 ~ 20.00				○	○	○				
With key groove H-HSKC H-PHKC	G	G	40	2.00 ~ 3.00										
			50	3.01 ~ 4.00										
			60	4.01 ~ 5.00										
			70	5.01 ~ 6.00										

For tapped types, P-W ≥ 4.01 L (80) (90) (100) → W4.01 ~ 30.00 For L (80) (90) (100), select W within the range of 4.01 ~ 30.00.

Order

Catalog No. — L — 0.01mm increments — P — W — R (R only) — T ≥ 2 — K

H-PHPCD — 60 — P14.28 — W9.28

H-HSMCD — 80 — P5.80 — W5.20

H-PHKCR — 60 — P14.28 — W9.28 — R0.15 — T25.5 — K0

Key groove position specified

K0, K90 diagrams

Alterations

Catalog No. — L(LC) — P — W — R — T — K — (LKC-TKC-RTC, etc.)

H-PHPCD — LC65.5 — P5.80 — W5.20 — LKC

Alteration	Code	Spec.	1Code
Alterations to full length	LC	Full length change 30 ≤ LC < L 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.)	Quotation
Alterations to key groove	LKC	Full length tolerance change L +0.2 / 0 → +0.05 / 0	
Alterations to tap	MC	Tap diameter change W P 5.01~20.00 5.01~6.00 M4→M3 6.01~8.00 M5→M4 8.01~10.00 M6→M5 10.01~13.00 M8→M6	

Price Quotation

Alteration	Code	Spec.	1Code
Alterations to key groove	TKC	Key groove position tolerance change T 0 / -0.05 → -0.02	Quotation
Alterations to key groove	RTC	Key groove position tolerance change T 0 / -0.05 → +0.05 / 0	
Alterations to key groove	WK	Addition of key groove at symmetrically opposite position KO, K90 W - (2 × U (UK)) ≥ 2.0 (KO) P - (2 × U (UK)) ≥ 2.0 (K90) An additional key groove is added at a position symmetrically opposite to the specified key groove. Can be combined with UK. Can be used for key groove types.	
Alterations to key groove	UK	Key groove depth change 0.5 ≤ UK ≤ U + 0.2 0.1mm increments P(W) — UK ≥ 2.00 Can be combined with WK. Can be used for key groove types.	
Alterations to shape	CCN	Chamfering of shank (4 locations) 5 ≤ CCN ≤ L 1mm increments Can be used for tip D shape only. Cannot be used for tapped types with P-W-M < 2.	

BLOCK PUNCHES