

# SPECIAL SHAPED BLOCK PUNCHES

**RoHS**

	M	H	S	Type				
				Straight	Tapped	With key groove	Single flange	Double flanges
H3~5 Equivalent to SKH51 H6~30 Equivalent to SKD11	H3~5 61~64HRC H6~30 60~63HRC	—	—	HP	HM	HK	HF	HW
Powdered high-speed steel	64~67HRC	—	—	PHP	PHM	PHK	PHF	PHW
Equivalent to SKH51	61~64HRC	TICN surface hardness 3000HV	—	H-HSP	H-HSM	H-HSK	H-HSF	H-HSW
Powdered high-speed steel	64~67HRC	TICN surface hardness 3000HV	—	H-PHP	H-PHM	H-PHK	H-PHF	H-PHW

  

**Shank type**

Straight:  $T = 0.05$  ( $T \geq 2$ ),  $5 \pm 0.1$ ,  $L = 40 \sim 70$ ,  $B = 8$

Tapped:  $M$ ,  $H = 10 \sim 30$ ,  $L = 40$ ,  $B = 8$

With key groove:  $U \pm 0.1$ ,  $H = 10 \sim 30$ ,  $L = 40$ ,  $B = 8$

Single flange type:  $1.5 \pm 0.1$ ,  $H = 10 \sim 30$ ,  $L = 40$ ,  $B = 8$

Double flanges type:  $1.5 \pm 0.1$ ,  $H = 10 \sim 30$ ,  $L = 40$ ,  $B = 8$ ,  $W \pm 0.01$ ,  $H \pm 0.01$ ,  $V = 0$

(Example of tip shape)

For single flange and double flanges types, the flange thickness is  $5^{+0.2}_0$  mm.

Catalog No.	Type	Shape	H	V	P																L	B	M	U
					3	4	5	6	8	10	13	16	20	22	25	28	30	40	50					
V3~V50	HP	PHP	(3)	1.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	—	1.0
	HM	PHM	(4)	1.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	3	1.0
	HK	PHK	5	1.2	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	4	1.0
	HF	PHF	6	1.5	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	5	1.0
	HW	PHW	8	2.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	6	1.0
			10	2.5	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	5	1.5
			13	3.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	6	1.5
			16	4.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	6	1.5
			20	5.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	6	1.5
			22	6.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	6	1.5
			25	6.5	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	6	1.5
			28	7.0	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	6	1.5
			30	7.5	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	(40)	8	6	1.5

- ⊙ H = (3), (4) ... L = 40~70 If H dimension is (3) or (4), full length L is within a range of 40~70. L80 is not available.
- ⊙ H = 10~30, L = (40) ... B = 8 If H dimension is 10~30 and L dimension is 40, tip length B is 8mm in all cases.
- ⊙ 9J~13J·16J·K·L Type ... Pmax. = 30.00
- ⊙ For 29K, 13 ≤ H - V ≤ 25, P ≤ V - 0.4, W ≤ H - 0.4, tip length B = 13
- ⊙ For coating punches, 10J·13J·5K·10K·18K·29K cannot be used.
- ⊙ Although the effective range of coating is part B, an extremely thin coating film is formed also on part S to a length of approximately 10mm.

Tap M of HM·PHM·H-HSM·H-PHM

Details of key groove:  $R \leq 0.3$

Details of flange:  $R \leq 0.3$

**Order**

Catalog No. — No. — Catalog No. V H — L — **0.01mm increments** — (T·K·F·WF)

P·W·A·B·C·R·S·.....

HP 4J — 1 — HP 4J 06 05 — 50 — P5.25—W3.83—A3.50—R1.50 — S1.50

HP 4J — 2 — HP 4J 20 16 — 60 — P16.32—W14.23—A8.00—R3.50 — S4.00

HP 4J — 3 — HP 4J 40 30 — 70 — P35.88—W28.45—A8.00—R3.90 — S6.50

Catalog No. — No. — Catalog No. V H — L — **0.01mm increments** — (T·K·F·WF)

HP 4J — 2 — HP 4J 13 13 — 70 — P8.44—W6.23—A2.50—R1.22 — S2.10

— X1.00—Y1.00

(X and Y dimensions must be set either to 0 or to 0.02 or more. Tolerance ±0.01)

⊙ For 29K, X and Y cannot be selected.

**Key groove and flange position selection**

K0, K90, K180, K270, F0, F90, F180, F270, WF0, WF90

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

**Alterations** Catalog No. — No. — Catalog No. V H — (L(LC)) — P(PC)·W(WC)·A·... — (T·K·F·WF) — (BC·HC, etc.)

H-HSP 7H — 1 — H-HSP 7H 13 10 — LC65.0 — P10.00—WC2.00—R0.50 — S2.00 — BC8.00

Alteration	Code	Spec.	1Code												
Alterations to tip	PC	Tip dimension change $1.00 \leq V \times 0.3 \leq PC$ $0.50 \leq H \times 0.15 \leq WC$ ⊙ Cannot be used for 29K.	Quotation												
	WC	Tip length change $2 \leq BC \leq Bmax.$ 0.1mm increments ⊙ Full length L must be at least 30mm longer than tip length BC. ⊙ The requirements of machining limit ⊙ take priority. P.716 ⊙ 29K → $2 \leq BC \leq Bmax. \leq 13$													
	BC	<table border="1"> <thead> <tr> <th>P(PC)·W(WC)</th> <th>Bmax.</th> </tr> </thead> <tbody> <tr> <td>0.50~0.99</td> <td>7</td> </tr> <tr> <td>1.00~1.99</td> <td>8</td> </tr> <tr> <td>2.00~2.99</td> <td>13</td> </tr> <tr> <td>3.00~3.99</td> <td>19</td> </tr> <tr> <td>4.00~4.99</td> <td>25</td> </tr> <tr> <td>5.00~</td> <td>30</td> </tr> </tbody> </table>		P(PC)·W(WC)	Bmax.	0.50~0.99	7	1.00~1.99	8	2.00~2.99	13	3.00~3.99	19	4.00~4.99	25
P(PC)·W(WC)	Bmax.														
0.50~0.99	7														
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2.00~2.99	13														
3.00~3.99	19														
4.00~4.99	25														
5.00~	30														
Alterations to key groove	PKC	Tip tolerance $P-W \pm 0.01 \rightarrow +0.01_0$ ⊙ Cannot be used with TICN coating. ⊙ Cannot be used for 29K.	Quotation												

Alteration	Code	Spec.	1Code
Alterations to full length	LC	Full length change $30+B(BC) \leq LC < L$ 0.1mm increments ⊙ If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length-30).	Quotation
	LKC	Full length tolerance change $L \pm 0.2 \rightarrow \pm 0.05_0$	
Alterations to key groove	LKZ	Full length tolerance change $L \pm 0.2 \rightarrow \pm 0.01_0$ ⊙ Cannot be used with TICN coating.	Quotation
	RTC	Key groove position tolerance $T \pm 0 \rightarrow \pm 0.05_0$ change	
Alterations to flange	TKC	Key groove position tolerance $T \pm 0 \rightarrow \pm 0.02_0$ change	Quotation
	HC	Flange width change $0 \leq HC < 1.5$ 0.1mm increments	
	TC	Flange thickness change $2 \leq TC < 5$ 0.1mm increments ⊙ Full length L is shortened by $(5-TC)$ . ⊙ If combined with LC, full length is equal to LC.	
Alterations to flange	TKM	Flange thickness tolerance change $T \pm 0.2 \rightarrow \pm 0.02_0$	Quotation
	TKK	Flange thickness tolerance change $T \pm 0.2 \rightarrow \pm 0.02_0$	

**Price** **Quotation**