

BLOCK PUNCHES

—DOUBLE FLANGES—

Material	Catalog No.		Tip shape	Tip length
	Type	Tip shape		
(H2~5) Equivalent to SKH51 61~64HRC (H6~30) Equivalent to SKD11 60~63HRC	HW	D	S	
Equivalent to SKH51 61~64HRC	HSW (H6~30)	R, E, G	L	
Powdered high-speed steel 64~67HRC	PHW	G	L	Tip length (B) L > S

$W \leq P \leq W \times 20$ $W \leq P \leq W \times 20$ $W \leq P \leq W \times 20$ $W < P \leq W \times 20$
 $R=0$ can be selected. $0.15 \leq R < W/2$
 0.01mm increments

Details of flange: $R \leq 0.3$
 Even when $P=W$ and $W=H$, the tip tolerance is determined by the P and W tolerances.

Type	Tip shape	Tip length	H	V	P min. W min.																L	B			
					2	3	4	5	6	8	10	13	16	20	22	25	28	30	(40)	(50)		6	8		
HW HSW (H6~30) PHW	D	S	(2)	1.0																		(40)	6	8	
			(3)	1.0																					
			(4)	1.0																					
			5	1.2																					
			6	1.5																					
	R, E, G	L	8	2.0																			60	8	13
			10	2.5																			70	13	19
			13	3.0																					
			16	4.0																					
			20	5.0																					
G	L	22	6.0																			80	19	25	
		25	6.5																						
		28	7.0																						
		30	7.5																						

L(40)-H10~30 B=13 If full length is (40) and H dimension is 10~30, tip length is 13mm in all cases.
 L(50)-H16~30 B=19 If full length is (50) and H dimension is 16~30, tip length is 19mm in all cases.
 H(2)(3)(4) L40~70 If H dimension is (2), (3) or (4), full length L is within a range of 40~70.
 V(40) and (50) are specifications available for HW types only.

Order

Flange position: WF specification

(1) If tip is at center of shank

Catalog No. V H L P W R (R only) WF
 PHWES 08 08 - 60 - P7.00 - W6.00 - WF0

(2) If tip is not at center of shank

Catalog No. V H L P W R (R only) WF X-Y
 PHWEL 10 10 - 60 - P6.00 - W5.00 - WF90 - X0.00 - Y0.10

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

Days to Ship **Quotation**

Alterations **PHWES 10 10 - L573 - P8.00 - W6.00 - WF90 - X-Y - (BC-PKC, etc.) TC4.0**

P Price **Quotation**

Alteration	Code	Spec.	1Code
Alterations to tip	PC	Tip dimension change PC ≥ V × 0.3 ≥ 1.00 WC ≥ H × 0.15 ≥ 0.50 0.01mm increments	W(WC) Bmax 0.50~0.99 4 1.00~1.19 8 1.20~1.99 13 2.00~2.99 20 3.00~4.99 30 5.00~ 35
	BC	Tip length change 2 ≤ BC ≤ Bmax. 0.1mm increments Full length (L) must be at least 30mm longer than tip length (BC).	
	SC	Lapping of tip W ≥ 2.00 P dimension tolerance and increment remain the same. R=0 cannot be selected for the tip corner	
Alterations to full length	PKC	Tip tolerance change P-W ± 0.01 ⇨ +0.01 0	
	PKV	Tip tolerance change P-W ± 0.01 ⇨ ±0.005	
	LC	Full length change 30 + B(BC) ≤ LC < L 0.1mm increments (if combined with LKC-LKZ, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 30mm or less, tip length is adjusted to (Full length - 30).	
Alterations to flange	LKC	Full length tolerance change L +0.2 0 ⇨ +0.05 0	Quotation
	LKZ	Full length tolerance change L +0.2 0 ⇨ +0.01 0	
Alterations to shape	HC	Flange width change 0 ≤ HC < 1.5 0.1mm increments	
	TC	Flange thickness change 2 ≤ TC < 5 0.1mm increments (if combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (5-TC). If combined with LC, full length is equal to LC.	
	TKC	Flange tolerance change T +0.2 0 ⇨ +0.02 0	
	TKM	Flange tolerance change T +0.2 0 ⇨ 0 -0.02	
Alterations to shape	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
	CC	Chamfering to four corners of shank The four corners of shank are chamfered to C0.5. The distance between shank corners and the tip must be 0.5mm or more.	
	VKC	Shank tolerance change V-H +0.01 0 ⇨ +0.005 0	
	VKM	Shank tolerance change V-H +0.01 0 ⇨ 0 -0.005	
	VHM	Shank tolerance change V-H +0.01 0 ⇨ 0 -0.01	
VHZ	Shank tolerance change V-H +0.01 0 ⇨ ±0.005		

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