

BLOCK PUNCHES (FOR HEAVY LOAD)

— FLANGE THICKNESS 10mm · WPC® TREATMENT · HW COATING —



— WPC® treatment · HW coating —

● Tip machining limit

RoHS



- Tip shape D: $W \leq P \leq W \times 20$
- Tip shape R: $W \leq P \leq W \times 20$, $0.15 \leq R < W/2$, 0.01mm increments
- Tip shape E: $W \leq P \leq W \times 20$
- Tip shape G: $W < P \leq W \times 20$
- Even when $P=V$ and $W=H$, the tip tolerance is determined by the P and W tolerances.
- The tip edges are very slightly rounded.

WPC® treatment HW coating

1000~1100HV 3000HV

Although the coating is applied to the B part, a thin coating film is formed also on the shank up to a length of approximately 10mm.

Type	Catalog No.		Single flange
	Tip shape	Tip length	
(H2~5) Equivalent to SKH51 61~64HRC Surface 1000~1100HV	WPC® treatment	W-AHF	
(H6~13) Equivalent to SKD11 60~63HRC Surface 1000~1100HV	WPC® treatment	W-AHSF	
Equivalent to SKH51 61~64HRC Surface 1000~1100HV	HW coating	HW-AHSF	
Powdered high-speed steel 64~67HRC Surface 1000~1100HV	WPC® treatment	W-APHF	
Powdered high-speed steel 64~67HRC Surface 3000HV	HW coating	HW-APHF	

Type	Catalog No.		Double flanges
	Tip shape	Tip length	
(H2~5) Equivalent to SKH51 61~64HRC Surface 1000~1100HV	WPC® treatment	W-AHW	
(H6~13) Equivalent to SKD11 60~63HRC Surface 1000~1100HV	WPC® treatment	W-AHSW	
Equivalent to SKH51 61~64HRC Surface 1000~1100HV	HW coating	HW-AHSW	
Powdered high-speed steel 64~67HRC Surface 1000~1100HV	WPC® treatment	W-APHW	
Powdered high-speed steel 64~67HRC Surface 3000HV	HW coating	HW-APHW	

Type	Tip shape	Tip length	V	P _{min.}												L	B	
				H	3	4	5	6	8	10	13	16	20	22	25		28	30
Single flange WPC® treatment HW coating W-AHF W-AHSF W-APHF	D	S	(2)	1.0	○	○	○	○	○	○	○	○	○	○	○	50	6	8
			(3)	1.0	○	○	○	○	○	○	○	○	○	○	○			
			(4)	1.0	○	○	○	○	○	○	○	○	○	○	○			
			(5)	1.2	○	○	○	○	○	○	○	○	○	○	○			
Double flanges WPC® treatment HW coating W-AHW W-AHSW W-APHW	E	L	(6)	1.5	○	○	○	○	○	○	○	○	○	○	70	8	13	
			(8)	2.0	○	○	○	○	○	○	○	○	○	○				
			(10)	2.5	○	○	○	○	○	○	○	○	○	○				
			(13)	3.0	○	○	○	○	○	○	○	○	○	○				

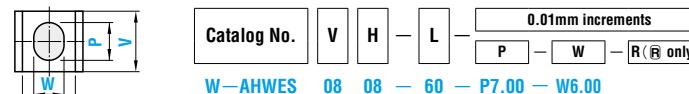
H(2)(3)(4) → L50~70 If H dimension is (2),(3) or (4), full length L is within a range of 50~70.



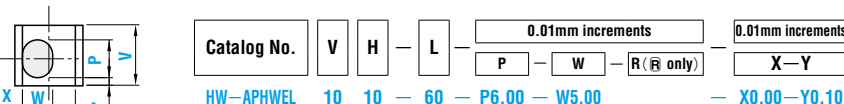
The flange position is fixed.



(1) If tip is at center of shank



(2) If tip is not at center of shank



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



Quotation



Quotation



Alterations Catalog No. V H L(LC) P(PC)-W(WC)-R X-Y (BC-PKC, etc.) W-APHFS 10 10 - LC58.5 - P8.00-W6.00 - HC1.5

Alteration	Code	Spec.	1Code												
Alterations to tip	PC	Tip dimension change $PC \geq V \times 0.3 \geq 1.00$ $WC \geq H \times 0.15 \geq 0.50$ 0.01mm increments													
	WC	<table border="1"> <thead> <tr> <th>W (WC)</th> <th>Bmax.</th> </tr> </thead> <tbody> <tr><td>0.50~0.99</td><td>4</td></tr> <tr><td>1.00~1.19</td><td>8</td></tr> <tr><td>1.20~1.99</td><td>13</td></tr> <tr><td>2.00~2.99</td><td>20</td></tr> <tr><td>3.00~4.99</td><td>30</td></tr> <tr><td>5.00~</td><td>35</td></tr> </tbody> </table>		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
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														
Alterations to shape	BC	Tip length change $2 \leq BC \leq Bmax.$ 0.1mm increments	<p>Full length (L) must be at least 36mm longer than tip length (BC).</p>												
	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. Chamfering of the flange base R portion is not performed.													
Alterations to full length	LC	Full length change $36 + B(BC) \leq LC < L$ 0.1mm increments (If combined with LKC, 0.01mm increments can be selected.) If difference between full length (LC) and tip length (B) is 36mm or less, tip length is adjusted to (Full length-36).	Quotation												
	LKC	Full length tolerance change $L +0.2 \begin{matrix} 0 \\ \rightarrow \end{matrix} +0.05 \begin{matrix} 0 \\ 0 \end{matrix}$													
	HC	Flange width change $1.0 \leq HC < 2.0$ 0.1mm increments													
	TC	Flange thickness change $5 \leq TC < 10$ 0.1mm increments (If combined with TKC, 0.01mm increments can be selected.) Full length L is shortened by (10-TC). If combined with LC, full length is equal to LC.													
Alterations to flange	RE	Flange R change $R=0.8 \sim 1.0 \rightarrow R \leq 0.3$	Quotation												
	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.													
	TKC	Flange tolerance change $T +0.2 \begin{matrix} 0 \\ \rightarrow \end{matrix} +0.02 \begin{matrix} 0 \\ 0 \end{matrix}$													
	TKM	Flange tolerance change $T +0.2 \begin{matrix} 0 \\ \rightarrow \end{matrix} 0 \begin{matrix} 0 \\ -0.02 \end{matrix}$													

Alteration	Code	Spec.	1Code
Alterations to shape	VKC	Shank tolerance change $V \cdot H +0.01 \begin{matrix} 0 \\ \rightarrow \end{matrix} +0.005 \begin{matrix} 0 \\ 0 \end{matrix}$	Quotation
	VKM	Shank tolerance change $V \cdot H +0.01 \begin{matrix} 0 \\ \rightarrow \end{matrix} -0.005 \begin{matrix} 0 \\ 0 \end{matrix}$	
	VHM	Shank tolerance change $V \cdot H +0.01 \begin{matrix} 0 \\ \rightarrow \end{matrix} -0.01 \begin{matrix} 0 \\ 0 \end{matrix}$	
	VHZ	Shank tolerance change $V \cdot H +0.01 \begin{matrix} 0 \\ \rightarrow \end{matrix} \pm 0.005 \begin{matrix} 0 \\ 0 \end{matrix}$	

Features

These block punches have greater flange strength than ordinary block punches. Use them for punching of heavy loads or high-tensile steels where punch flanges are prone to damage.

Comparison of flange dimensions Units: mm

Type	Thickness	Width	Base R
Ordinary type	5	1.5	0.3 or less
Flange thickness 10mm	10	2.0	0.8~1.0