BLOCK PUNCHES (FOR HEAVY LOAD)

—FLANGE THICKNESS 10mm・TiCN COATING—

PRODUCTS DATA P.1604

—TiCN coating—

S TiCN
H 3000HV
Although the effective range of the coating is part B, an extremely thin coating film is formed also on the shank up to a length of approximately 10mm.

●Tip machining limit

RoHS

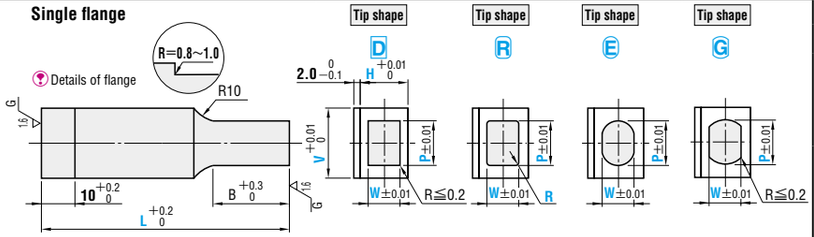
Tip shape D	Tip shape R	Tip shape E	Tip shape G
W≦P≦W×20 R=0 can be selected.	W≦P≦W×20 0.15≦R＜W/2 0.01mm increments	W≦P≦W×20	W＜P≦W×20

Even when P=V and W=H, the tip tolerance is determined by the P and W tolerances.
The tip end is ground before the coating is applied.

H	Catalog No. Type	Tip shape	B Tip length
Equivalent to SKH51 61～64HRC	H—AHSF	D R	S
Powdered high-speed steel 64～67HRC	H—APHF	E G	L

Tip length (B) L＞S

Single flange



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Equivalent to SKH51 61～64HRC	H—AHSW	D R	S
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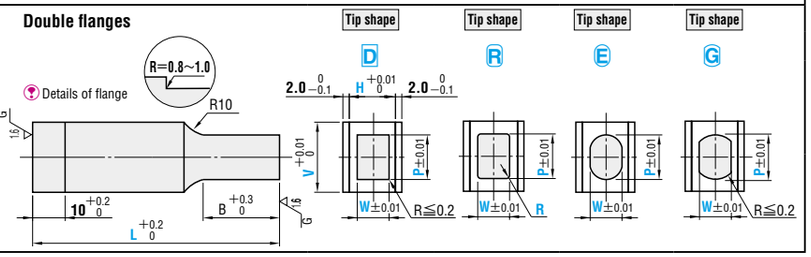
Tip length (B) L＞S

Double flanges



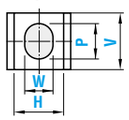
Catalog No. Type	Tip shape	B Tip length	H	V Pmin. / Wmin.	3	4	5	6	8	10	13	16	20	22	25	28	30	L	B S	B L
					1.5	2.0	2.5	3.0	3.0	4.0	5.0	7.0	8.0	9.0	10.0	12.0	12.0			
Single flange H—AHSF H—APHF	D R	S	(2)	1.0	○	○	○	○	○	○	○							50	6	8
			(3)	1.0	○	○	○	○	○	○	○	○	○	○						
			(4)	1.0		○	○	○	○	○	○	○	○	○				60		
			5	1.2			○	○	○	○	○	○	○	○	○	○	○	70	8	13
Double flanges H—AHSW H—APHW	E G	L	6	1.5				○	○	○	○	○	○	○	○	○	○	80		
			8	2.0					○	○	○	○	○	○	○	○	○			
			10	2.5						○	○	○	○	○	○	○	○		13	19
			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.

Order

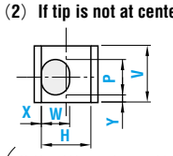
■The flange position is fixed.

(1) If tip is at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (Ⓡ only)
H—APHWES	08	08	—	60	—	P7.00	—	W6.00		

(2) If tip is not at center of shank



Catalog No.	V	H	—	L	—	0.01mm increments P	—	W	—	R (Ⓡ only)	—	0.01mm increments X—Y
H—APHWEL	10	10	—	60	—	P6.00	—	W5.00			—	X0.00—Y0.10

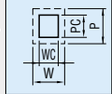
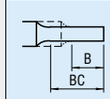
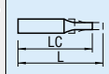
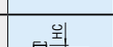
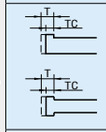
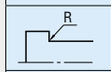
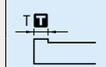
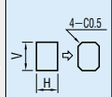
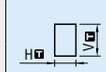
(Ⓡ X and Y must be set either to 0 or to 0.02 or more. Tolerance±0.01)

Days to Ship Quotation

Alterations

Catalog No. V H — L(LC) — P(PC)—W(WC)—R — X—Y — (BC・LKC, etc.)
H—APHFES 10 10 — LC58.5 — P8.00—W6.00 — HC1.5

Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tip		PC WC	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 36mm longer than tip length (BC).)	
Alterations to full length		LC	Full length change 36+B(BC)≦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).)	
		LKC	Full length tolerance $L^{+0.2}_{0} \Rightarrow {}^{+0.05}_{0}$ change	
Alterations to flange		HC	Flange width change 1.0≦HC＜2.0 0.1mm increments	
		TC	Flange thickness change 5≦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.)	Quotation
		RE	Flange R change R=0.8～1.0 ⇨ R≦0.3	
		FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage.	
		TKC	Flange tolerance change $T^{+0.2}_{0} \Rightarrow {}^{+0.02}_{0}$	
		TKM	Flange tolerance change $T^{+0.2}_{0} \Rightarrow {}^{0}_{-0.02}$	
Alterations to shape		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.)	
		VKC	Shank tolerance change $V \cdot H^{+0.01}_{0} \Rightarrow {}^{+0.005}_{0}$	
		VKM	Shank tolerance change $V \cdot H^{+0.01}_{0} \Rightarrow {}^{0}_{-0.005}$	
		VHM	Shank tolerance change $V \cdot H^{+0.01}_{0} \Rightarrow {}^{0}_{-0.01}$	
		VHZ	Shank tolerance change $V \cdot H^{+0.01}_{0} \Rightarrow \pm 0.005$	

■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 Unit 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