

CARBIDE BLOCK PUNCHES

— CONFIGURABLE SIZE TYPE —

Tip machining limit

RoHS

Tip shape



P ≥ W

Tip shape



P ≥ W

0.15 ≤ R < W/2

Tip shape



P > W



Shank dimensions V·H	Shank dimensions V·H	Shank dimensions V·H	Shank dimensions V·H	Shank dimensions V·H	Shank dimensions V·H
Normal	V30 (HIP) 88~89HRA V·H 2.0~20.0	Normal	V30 (HIP) 88~89HRA V·H 2.0~20.0	Normal	V30 (HIP) 88~89HRA V·H 2.0~20.0
Tapped	V30 (HIP) 88~89HRA V·H 8.1~20.0	Tapped	V30 (HIP) 88~89HRA V·H 8.1~20.0	Tapped	V30 (HIP) 88~89HRA V·H 8.1~20.0
With key groove	V30 (HIP) 88~89HRA V·H 3.1~20.0	With key groove	V30 (HIP) 88~89HRA V·H 3.1~20.0	With key groove	V30 (HIP) 88~89HRA V·H 3.1~20.0
Single flange	V30 (HIP) 88~89HRA V·H 2.0~16.0	Single flange	V30 (HIP) 88~89HRA V·H 2.0~16.0	Single flange	V30 (HIP) 88~89HRA V·H 2.0~16.0
Double flanges	V30 (HIP) 88~89HRA V·H 2.0~16.0	Double flanges	V30 (HIP) 88~89HRA V·H 2.0~16.0	Double flanges	V30 (HIP) 88~89HRA V·H 2.0~16.0

Type	Tip shape	Type	V											L	T	B				M	(a)	U														
			2.0	3.1	4.1	5.1	6.1	8.1	10.1	13.1	16.1	20.0	40			50	60-70	80																		
FZP	D R E	BL ML KL FL WL	2.0~3.0	3.0~4.0	4.0~5.0	5.0~6.0	6.0~8.0	8.0~10.0	10.0~13.0	13.0~16.0	16.0~20.0	1.0	1.0	2.0	2.0	2.5	3.0	4.0	5.0	7.0	8.0	40	50	60	70	13	13	19	25	—	—	4	12	6	16	1.5

Order (1) If tip is at center of shank

Catalog No. V H L P W R (R only) T

0.1mm increments V H L P W R (R only) T

0.01mm increments P W R (R only) T

0.1mm increments T

K·F·WF

FZPEML V19.5 H 9.0 L 70 P16.00 W 9.00 R 0.15 T25.5 K0

FZPEKL V 9.0 H 6.0 L 60 P 8.00 W 5.00 R 0.15 T25.5 K0

FZPEFL V15.5 H 3.0 L 60 P15.00 W 2.50 R 0.15 T25.5 K0

FZPEWL V12.0 H 7.0 L 40 P 8.00 W 5.00 R 0.15 T25.5 K0

FZPRBL V15.5 H 9.5 L 60 P10.00 W 8.00 R 0.15 T25.5 K0

(2) If tip is not at center of shank

Catalog No. V H L P W R (R only) T X Y

0.1mm increments V H L P W R (R only) T

0.01mm increments P W R (R only) T

0.1mm increments T

K·F·WF X-Y

FZPEFL V15.0 H12.0 L 50 P14.00 W 3.00 R 0.15 T25.5 K0

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

Key groove position and flange position change (KEY POSITION Rs0)

With key groove	Single flange	Double flanges
K0 K90 K180 K270	F0 F90 F180 F270	WFO WF90

Days to Ship Quotation Price Quotation

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

FZPEBL V19.0 H16.0 L 60 P18.00 W C1.50 T25.5 K0

Alteration	Code	Spec.	1Code
Alterations to tip	PC	Tip dimension change PC ≥ V × 0.3 ≥ 1.00 0.50~0.99 8 1.00~1.99 13 2.00~2.99 20 0.01mm increments	
	WC	WC ≥ H × 0.15 ≥ 0.50 1.00~1.99 13 2.00~2.99 20 0.01mm increments	
	BC	Tip length change 2 ≤ BC ≤ Bmax. 3.00~4.99 30 5.00~ 35	
Alterations to full length	PKC	Tip tolerance change P·W +0.01 → +0.005	
	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 +0.3 → +0.05	
	LKZ	Full length tolerance change L +0.3 → +0.01	
	HC	Flange width change 0 ≤ HC < 1.5 0.1mm increments	
Alterations to tap	TC	Flange thickness change 2 ≤ TC < 5 0.1mm increments (if combined with TKC·TKM, 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 thickness tolerance change T +0.2 → +0.02	
	TKM	Flange thickness tolerance change T +0.2 → -0.02	
Tap	FK	Relief chamfering to flange top edge Flange edge is chamfered to prevent flange breakage. Cannot be used for normal, tapped, and key groove types.	
	MC	Tap diameter change H √ 8.1~10.0 10.1~13.0 13.1~16.0 16.1~20.0 M4→M3 M6→M5 M8→M6 M10→M8	
	DC	Tap diameter change H √ 8.1~10.0 10.1~13.0 13.1~16.0 16.1~20.0 M4→M3 M6→M5 M8→M6 M10→M8	

Alteration	Code	Spec.	1Code
Key groove	RTC	Key groove position tolerance change T 0 → +0.05 -0.02 → 0	
	WK	Addition of key groove at symmetrically opposite position K0·K90·K180·K270 H - (2×U(UK)) ≥ 2.0 (K0, K180) V - (2×U(UK)) ≥ 2.0 (K90, K270) 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.	
	UK	Key groove depth change 0.5 ≤ UK ≤ U + 0.2 0.1mm increments H(V) - UK ≥ 2.0 Can be combined with WK. Can be used for key groove types.	
Others	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.	
	CCP	Chamfering to one corner of shank (for error prevention) One corner of shank is chamfered to C1.0. Can be used if distances a and b from tip corners to shank meet the following conditions. a + b ≥ 1.3	
	VKC	Shank tolerance change V·H +0.005 → +0.003	
VKM	Shank tolerance change V·H +0.005 → -0.003		
VHM	Shank tolerance change V·H +0.005 → -0.005		
DC	Addition of press-in lead 3mm (V·H = 0.01) Cannot be used for flanged types.		