CARBIDE BLOCK PUNCH BLANKS

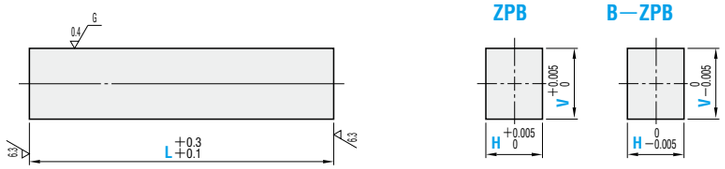
—NORMAL・MINUS SHANK TOLERANCE—

RoHS

M H	Shank dimensions V・H
V30(HIP) 88～89HRA	V・H 2～20

—Normal—

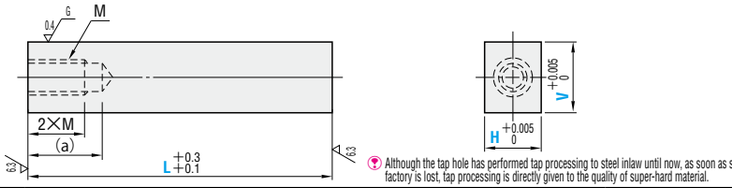
ZPB
B—ZPB



M H	Shank dimensions V・H
V30(HIP) 88～89HRA	V・H 8～20

—Tapped—

ZPM



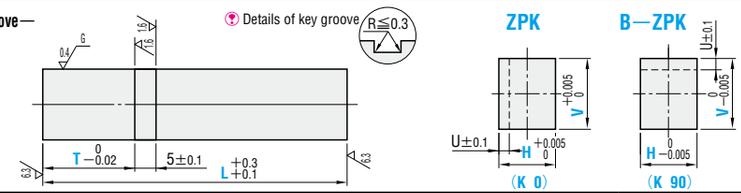
Although the tap hole has performed tap processing to steel inlaw until now, as soon as stock of a factory is lost, tap processing is directly given to the quality of super-hard material.

M H	Shank dimensions V・H
V30(HIP) 88～89HRA	V・H 2～20

—With key groove—

ZPK
B—ZPK

Details of key groove

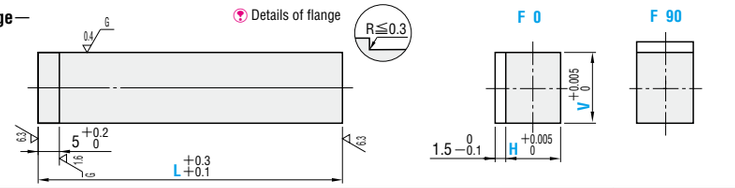


M H	Shank dimensions V・H
V30(HIP) 88～89HRA	V・H 2～16 Cannot be used for products marked with ● in the specification table.

—Single flange—

ZPF

Details of flange

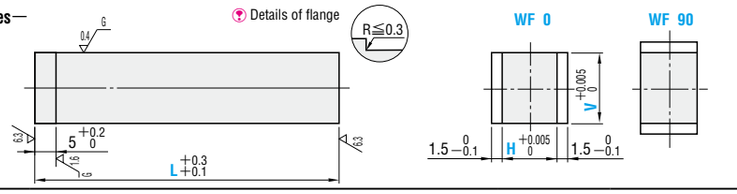


M H	Shank dimensions V・H
V30(HIP) 88～89HRA	V・H 2～16 Cannot be used for products marked with ● in the specification table.

—Double flanges—

ZPW

Details of flange



Catalog No.	H \ V	2	2.5	3	3.5	4	4.5	5	5.5	6	6.5	8	10	13	16	20	L	0.1mm T	M	(a)	U
※Pay special attention to the ordering procedure ZPB ZPK ZPF ZPW B—ZPB B—ZPK	2	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	(20) (25) (30) 40 50	T≧2.0	—	—	1.0
	2.5		○	○	○	○	○	○	○	○	○	○	○	○	○	●					
	3			○	○	○	○	○	○	○	○	○	○	○	○	●					
	3.5				○	○	○	○	○	○	○	○	○	○	○	●					
	4					○	○	○	○	○	○	○	○	○	○	●					
	4.5						○	○	○	○	○	○	○	○	○	●					
	5							○	○	○	○	○	○	○	○	●					
	5.5								○	○	○	○	○	○	○	●					
	6									○	○	○	○	○	○	●					
	6.5										○	○	○	○	○	●					
ZPB ZPM ZPK ZPF ZPW B—ZPB B—ZPK	8											○	○	○	○	●	60 70		4	12	1.5
	10												○	○	○	●			6	16	
	13													○	○	●			8	20	
	16														○	●					
	20															●					

⊗ L(20)・(25)・(30) cannot be used for ZPM・ZPK・B—ZPK.

Order (In case of V3, H2.5)

Catalog No.	V	H	—	L	—	0.1mm increments T≧2.0	—	K・F・WF
ZPB	03	025	—	50				
ZPM	20	10	—	70				
ZPK	10	045	—	60	—	T25.0	—	K0
ZPF	16	13	—	50			—	F90
ZPW	13	10	—	40			—	WF0

If H and V dimensions are selected in 0.5mm increments, pay special attention to the ordering process.

Days to Ship Quotation

Alterations

Catalog No.	V	H	—	L(LC)	—	T	—	K・F・WF	— (HC・TC・WK, etc.)
ZPB	20	08	—	50					— VKC
B—ZPK	16	03	—	50				— K90	— WK

	Alteration	Code	Spec.	1Code
Alterations to full length		LC	Full length change 20<LC<L For ZPM・ZPK・B—ZPK, 30≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.)	Quotation
		LKC	Full length tolerance change $L^{+0.3}_{+0.1} \Rightarrow {}^{+0.05}_{0}$	
		LKZ	Full length tolerance change $L^{+0.3}_{+0.1} \Rightarrow {}^{+0.01}_{0}$	
Alterations to flange		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・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 $T^{+0.2}_{0} \Rightarrow {}^{+0.02}_{0}$	
		TKM	Flange thickness tolerance change $T^{+0.2}_{0} \Rightarrow {}^{0}_{-0.02}$	
		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.	
Alterations to key groove		RTC	Key groove position tolerance change $T^{0}_{-0.02} \Rightarrow {}^{+0.05}_{0}$	
		WK	Addition of key groove at symmetrically opposite position H— {2×U(UK)} ≧2.0(K0) V— {2×U(UK)} ≧2.0(K90) 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 0.1mm increments 0.5≦UK≦U+0.2 H(V)—UK≧2.0 Can be combined with WK. Can be used for key groove types.	

Price Quotation

	Alteration	Code	Spec.	1Code
Alterations to tap		MC	Tap diameter change H \ V: 8 / 10 / 13 / 16 / 20 8: M4→M3 10: — / M6→M5 13: — / — / M8→M6 16: — / — / — / M8→M6 20: — / — / — / — / M8→M6 (a) size is M×2+4mm (reference value).	Quotation
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. 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 Tip corner ■Selection of chamfering position CCP0 CCP90 CCP180 CCP270 Can be used for normal and tapped types only.	
		VKC	Shank tolerance change $V・H^{+0.005}_{0} \Rightarrow {}^{+0.003}_{0}$ (For B—ZPB・B—ZPK, $V・H^{0}_{-0.005} \Rightarrow {}^{0}_{-0.003}$)	
		VKM	Shank tolerance change $V・H^{+0.005}_{0} \Rightarrow {}^{0}_{-0.003}$ ⊗ Cannot be used for B—ZPB・B—ZPK.	
		VHM	Shank tolerance change $V・H^{+0.005}_{0} \Rightarrow {}^{0}_{-0.005}$ ⊗ Cannot be used for ZPB・ZPK・B—ZPB・B—ZPK.	

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