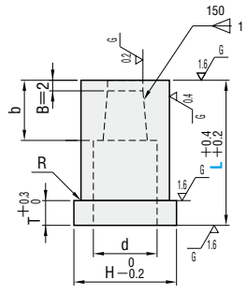
CARBIDE BUTTON DIES
—HEADED TYPE・STRAIGHT TYPE—

—Headed—

RoHS

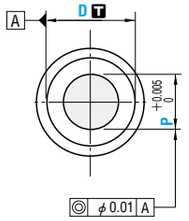
For shank diameter tolerance D T, select either m5 or $^{+0.005}_{0}$.

M H	Shank diameter D T tolerance	Catalog No.
V40(HIP) 87～88HRA	D_{m5}	Ⓐ WHD Ⓓ WHDD Ⓡ WHDR Ⓔ WHDE Ⓖ WHDG
	$D\ ^{+0.005}_{0}$	Ⓐ A—WHD Ⓓ A—WHDD Ⓡ A—WHDR Ⓔ A—WHDE Ⓖ A—WHDG

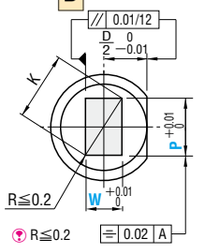


D	3・4・5	6～25
R	R≦0.2	R≦0.5

Hole shape Ⓐ

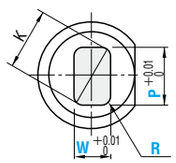


Hole shape Ⓓ



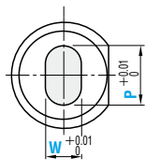
- R≦0.2
- P≧W
- $K=\sqrt{P^2+W^2}$

Hole shape Ⓡ



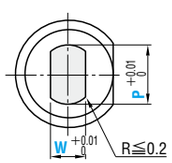
- P≧W
- $0.15 \leq R < \frac{W}{2}$
- $K=\sqrt{(P-2R)^2+(W-2R)^2}+2R$

Hole shape Ⓔ



- P>W

Hole shape Ⓖ



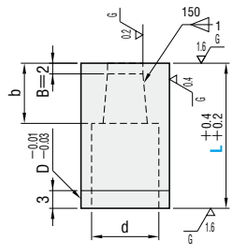
- R≦0.2
- P>W

—Straight—

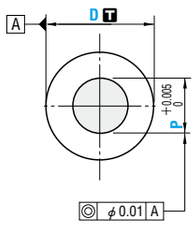
RoHS

For shank diameter tolerance D T, select either n5 or $^{+0.005}_{0}$.

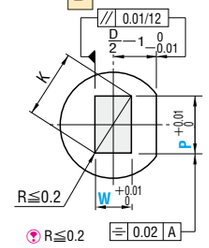
M H	Shank diameter D T tolerance	Catalog No.
V40(HIP) 87～88HRA	D_{n5}	Ⓐ WSD Ⓓ WSDD Ⓡ WSDR Ⓔ WSDE Ⓖ WSDG
	$D\ ^{+0.005}_{0}$	Ⓐ A—WSD Ⓓ A—WSDD Ⓡ A—WSDR Ⓔ A—WSDE Ⓖ A—WSDG



Hole shape Ⓐ

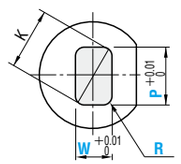


Hole shape Ⓓ



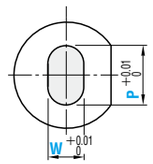
- R≦0.2
- P≧W
- $K=\sqrt{P^2+W^2}$

Hole shape Ⓡ



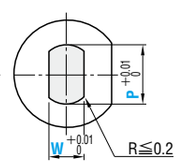
- P≧W
- $0.15 \leq R < \frac{W}{2}$
- $K=\sqrt{(P-2R)^2+(W-2R)^2}+2R$

Hole shape Ⓔ



- P>W

Hole shape Ⓖ



- R≦0.2
- P>W

D tolerance D	m5	n5	Catalog No. Type: Headed (Dm5)	Type: Straight (Dn5)	D	L	0.01mm increments Ⓐ min. P max.	DREG P・Kmax.	DREG P・Wmin.	R R	b	d	H	T
3	+0.006 +0.002	+0.008 +0.004	WHD	WSD	(3)	13	0.50～ 1.00	—	—	0.15≦R<W/2 (Ⓡ only)	2	1.4	4	3
4	+0.009 +0.004	+0.013 +0.008	WHDD	WSDD	(4)	16	0.50～ 1.50	—	—			2.0	5	
5			WHDR	WSDR	(5)	20	0.50～ 2.50	—	—			3.0	6	
6			WHDE	WSDE	6	22	1.00～ 3.00	3.00	1.00		3	3.4	9	5
8	+0.012 +0.006	+0.016 +0.010	WHDG	WSDG	8	25	1.00～ 4.00	4.00	1.00		4	4.4	11	
10			(D +0.005 0)	(D +0.005 0)	10	(30)	2.00～ 6.00	6.00	1.20		6	6.4	13	
13	+0.015 +0.007	+0.020 +0.012	A—WHD	A—WSD	13	(35)	3.00～ 8.00	8.00	1.50		8	8.4	16	
16			A—WHDD	A—WSDD	16		5.00～ 10.00	10.00	2.00			10.6	19	
20	+0.017 +0.008	+0.024 +0.015	A—WHDR	A—WSDR	20		7.00～ 12.00	12.00	2.00			12.6	23	
25			A—WHDE	A—WSDE	25		10.00～ 16.00	16.00	2.00			16.6	28	
			A—WHDG	A—WSDG										

D=(3),(4), and (5) are specifications available for shape Ⓐ (round) only. They are not available for shapes DREG. L(30)・(35) ··· D8～25 Full length (30)・(35) are specifications available for D8～25 only.

Order

Catalog No.	L	P	W	R (Ⓡ only)
WHDR 13	25	P6.50	W4.00	R1.00

Days to Ship Quotation

Price Quotation

Alterations

Catalog No.	L(LC・SLC)	P(PC)	W(WC)	R	(BC・HC・TC・CKC・MKC, etc.)
WHDD 10	25	P5.00	W3.20		TC3.0 -TKC- KFC45

Alteration	Code	Ⓐ	DREG	1Code
Alterations to shaped hole	PC WC	Shaped hole diameter change min.: $\frac{P}{W} > \frac{PC}{WC} \geq \frac{P \cdot Wmin.}{2} \geq 1.00$ 0.01mm increments max.: $\frac{P}{W} < \frac{PC}{WC} \leq P \cdot Kmax. + 0.2$ 0.01mm increments		Quotation
	BC	Shaped hole depth change 1≦BC≦b 0.1mm increments For Ⓐ only, 1≦BC≦4 if PC1.00～1.99.		
Alterations to full length	LC	Full length change 10≦L−(b−1)≦LC<L 0.1mm increments (If combined with LKC・LKZ・CKC・MKC, 0.01mm increments can be selected.) b dimension is shortened by (L−LC). Full length change 8≦LC<L 0.1mm increments (If combined with LKC・LKZ, 0.01mm increments can be selected.)		
	LKC	Full length tolerance change $L\ ^{+0.4}_{+0.2} \Rightarrow ^{+0.05}_{0}$ Cannot be used for L(LC)<10.		
	LKZ	Full length tolerance change $L\ ^{+0.4}_{+0.2} \Rightarrow ^{+0.01}_{0}$ Cannot be used for L(LC)<10.		
	CKC	Changes to head thickness tolerance and full length tolerance are processed using a single code. For the machining limit, refer to the description of each alteration. TKC: Head thickness tolerance change + LKC: Full length tolerance change $T\ ^{+0.3}_{0} \Rightarrow ^{+0.02}_{0}$ $L\ ^{+0.4}_{+0.2} \Rightarrow ^{+0.05}_{0}$ Cannot be used for L(LC)<16.		
	MKC	TKM: Head thickness tolerance change + LKC: Full length tolerance change $T\ ^{+0.3}_{0} \Rightarrow ^{0}_{-0.02}$ $L\ ^{+0.4}_{+0.2} \Rightarrow ^{+0.05}_{0}$ Cannot be used for L(LC)<16.		
	SLC	Changes to full length and full length tolerance are processed using a single code. The allowable range of change, increment, ordering process, and notes (?) are the same as for LC. LC: Full length tolerance + LKC: Full length tolerance change $L\ ^{+0.4}_{+0.2} \Rightarrow ^{+0.05}_{0}$ 0.01mm increments Can be used for straight types only. Cannot be used for L(LC)<10.		

Alteration	Code	Ⓐ	DREG	1Code
Alterations to head	KC	Addition of single key flat to head Addition of single key flat Cannot be used for D3～5.	Key flat position change 1° increments Key flat position change 1° increments	Quotation
	WKC	Addition of double key flats in parallel Cannot be combined with KC・KFC. Cannot be used for straight types with D3～5.		
	KFC	Double key flats at 0° and a selected angle 1° increments Cannot be used for straight types. Cannot be used for L(LC)<16. Cannot be combined with KC・WKC.	Double key flats at 0° and a selected angle 1° increments	
	HC	Head diameter change D≦HC<H 0.1mm increments		
	TC	Head thickness change 2≦TC<T 0.1mm increments (If combined with TKC・TKM・CKC・MKC, 0.01mm increments can be selected.) Full length L is shortened by (T−TC). If combined with LC, full length is equal to LC.		
	TKC	Head thickness tolerance change $T\ ^{+0.3}_{0} \Rightarrow ^{+0.02}_{0}$ Cannot be used for L(LC)<16.		
	TKM	Head thickness tolerance change $T\ ^{+0.3}_{0} \Rightarrow ^{0}_{-0.02}$ Cannot be used for L(LC)<16.		
Shank	SKC	Single key flat on shank Can be used for headed types only. Can be used for D≧8 and L≧20. Cannot be combined with KC・WKC・KFC.		