

BUTTON DIES

—HEADED TYPE (REGULAR)—

Headed	Shank diameter D tolerance	M H	D dimension	Catalog No.	The hole shape can be selected from A D R E G below.
	D _{m5}	M	D3~5	MHD	Regular type
			D6~56	HD	
			D6~56	PMHD	
			D6~25	PHD	
			D3~5	A-MHD	
			D6~16	A-HD	
D ₀ +0.005	D	H	D3~5	A-MHD	
			D6~16	A-HD	
			D6~16	A-PMHD	
			D6~16	A-PHD	
			D3~5	A-MHD	
			D6~16	A-HD	

D tolerance	Catalog No.	Type	D	0.01mm increments					b	d	H	T								
				A		D R E G		R												
				min. P	max.	P-Kmax.	P-Wmin.	R												
D _{m5}	(Equivalent to SKH51)	MHD	(3)	16	20	0.30~1.00	—	—	—	2	2.0	4								
			(4)	16	20	22	25	28					30	0.50~2.00	—	—				
			(5)	16	20	22	25	28					30	0.50~2.50	—	—				
			(6)	16	20	22	25	28					30	32	35	1.00~3.00	3.00	1.00		
			(8)	16	20	22	25	28					30	32	35	40	1.00~4.00	4.00	1.00	
			(10)	16	20	22	25	28					30	32	35	40	(45)	2.00~6.00	6.00	1.20
			(13)	16	20	22	25	28					30	32	35	40	(45)	3.00~8.00	8.00	1.50
			(16)	16	20	22	25	28					30	32	35	40	(45)	5.00~10.00	10.00	2.00
			(20)	16	20	22	25	28					30	32	35	40	(45)	7.00~12.00	12.00	3.00
			(22)	16	20	22	25	28					30	32	35	40	(45)	8.00~14.00	14.00	3.00
			(25)	16	20	22	25	28					30	32	35	40	(45)	10.00~16.00	16.00	3.00
			(32)	16	20	22	25	28					30	32	35	—	—	15.00~20.00	20.00	4.00
D ₀ +0.005	(Equivalent to SKD11)	MHD	(3)	16	20	22	25	28	30	35	—	—	—	—	3	3.4	9			
			(4)	16	20	22	25	28	30	32	35	40	1.00~4.00					4.00	1.00	
			(5)	16	20	22	25	28	30	32	35	40	(45)					2.00~6.00	6.00	1.20
			(6)	16	20	22	25	28	30	32	35	40	(45)					3.00~8.00	8.00	1.50
			(8)	16	20	22	25	28	30	32	35	40	(45)					5.00~10.00	10.00	2.00
			(10)	16	20	22	25	28	30	32	35	40	(45)					7.00~12.00	12.00	3.00
			(13)	16	20	22	25	28	30	32	35	40	(45)					8.00~14.00	14.00	3.00
			(16)	16	20	22	25	28	30	32	35	40	(45)					10.00~16.00	16.00	3.00
			(20)	16	20	22	25	28	30	32	35	—	—					15.00~20.00	20.00	4.00
			(22)	16	20	22	25	28	30	32	35	—	—					19.00~26.00	26.00	5.00
			(25)	16	20	22	25	28	30	32	35	—	—					25.00~35.00	35.00	6.00
			(32)	16	20	22	25	28	30	35	—	—	—					33.00~40.00	40.00	7.00
D ₀ +0.009	(Powdered high-speed steel)	PMHD	(3)	16	20	22	25	30	35	—	—	—	—	3	3.4	9				
			(4)	16	20	22	25	30	35	1.00~4.00	4.00	1.00								
			(5)	16	20	22	25	30	35	2.00~6.00	6.00	1.20								
			(6)	16	20	22	25	30	35	3.00~8.00	8.00	1.50								
			(8)	16	20	22	25	30	35	5.00~10.00	10.00	2.00								
			(10)	16	20	22	25	30	35	7.00~12.00	12.00	3.00								
			(13)	16	20	22	25	30	35	8.00~14.00	14.00	3.00								
			(16)	16	20	22	25	30	35	10.00~16.00	16.00	3.00								
			(20)	16	20	22	25	30	35	15.00~20.00	20.00	4.00								
			(22)	16	20	22	25	30	35	19.00~26.00	26.00	5.00								
			(25)	16	20	22	25	30	35	25.00~35.00	35.00	6.00								
			(32)	16	20	22	25	30	35	33.00~40.00	40.00	7.00								

- Ⓜ D3 dies are thin under the head. Be careful not to damage the bushings when mounting them.
- Ⓜ D (3), (4), and (5) specifications are available for A shape (round) only. They are not available for shapes D R E G.
- Ⓜ D = (20), (22), (25), (32), (38), (45), (50), (56) are specifications available for shank diameter tolerance of D_{m5} only.
- Ⓜ L = (45) is a specification available for shank dia. tolerance of D_{m5} only.

Order Catalog No. — L — P — W — R (R only)
MHD 13 — 30 — P7.00

Days to Ship Quotation

Alterations Catalog No. — L (LC) — P (PC) — W (WC) — R — (BC-HC-TC-CKC-MKC, etc.)
MHD 13 — 30 — P7.00 — TC4.0 — KFC90

Alteration	Code	A	D R E G	1Code
Alterations to shaped hole	PC	Shaped hole diameter change min. P > PC ≥ $\frac{P_{min}}{2} \geq 0.50$ 0.01 mm increments Ⓜ If PC is 1.00~1.99, then b = 4.	Shaped hole diameter change min. P > PC ≥ $\frac{P_{Wmin}}{2} \geq 1.00$ 0.01 mm increments	
	WC	max. $\frac{P}{W} < \frac{PC}{WC} \leq P \cdot K_{max} + 0.2$ 0.01 mm increments		
	BC	Shaped hole depth change $1 \leq BC \leq b$ 0.1 mm increments Ⓜ Cannot be used for P < 1.00.		
Alterations to full length	PKC	Shaped hole diameter tolerance change $P \pm 0.01 \rightarrow +0.005$ Ⓜ Cannot be used for P < 1.00.	Shaped hole diameter tolerance change $P \cdot W \pm 0.01 \rightarrow +0.01$	
	LC	Full length change (reduction in shaped hole depth) $10 \leq L - (b-1) \leq LC < L$ 0.1 mm increments (If combined with LKC-LKZ-CKC-MKC, 0.01 mm units can be selected.) Ⓜ b dimension and press-in lead are shortened by (L-LC).		Quotation
	LKC	Full length tolerance change $L \pm 0.4 \rightarrow +0.05$ $\pm 0.2 \rightarrow 0$		
Alterations to head	LKZ	Full length tolerance change $L \pm 0.4 \rightarrow +0.01$ $\pm 0.2 \rightarrow 0$ Ⓜ Cannot be used for L (LC) < 16. Ⓜ Cannot be used for D > 25.		
	CKC	Changes to head thickness tolerance and full length tolerance are processed using a single code. Machining limits are the same as for TKC and LKC. Ⓜ Cannot be used for L (LC) < 16. TKC Head thickness tolerance change $T \pm 0.3 \rightarrow +0.02$ $\pm 0 \rightarrow 0$ LKC Full length tolerance change $L \pm 0.4 \rightarrow +0.05$ $\pm 0.2 \rightarrow 0$		
	MKC	Changes to head thickness tolerance and full length tolerance are processed using a single code. Machining limits are the same as for TKM and LKC. Ⓜ Cannot be used for L (LC) < 16. TKM Head thickness tolerance change $T \pm 0.3 \rightarrow +0.02$ $\pm 0 \rightarrow -0.02$ LKC Full length tolerance change $L \pm 0.4 \rightarrow +0.05$ $\pm 0.2 \rightarrow 0$		
Others	SKC	Single key flat on shank Ⓜ Can be used with D ≥ 8 and L (LC) ≥ 20. Ⓜ Cannot be combined with KC-WKC-KFC.		

Price Quotation

Alteration	Code	A	D R E G	1Code
Alterations to head	KC	Addition of single key flat to head	270° Key flat position change 1° increments 180°	
	WKC	Addition of double key flats in parallel	Double key flats in parallel Can be combined with KC.	
	KFC	Double key flats at 0° and a selected angle 1° increments	270° Double key flats at 0° and a selected angle 1° increments 180°	
Alterations to full length	HC	Head diameter change $D \leq HC < H$ 0.1 mm increments		
	TC	Head thickness change $2 \leq TC < T$ 0.1 mm increments (If combined with TKC-TKM-CKC-MKC, 0.01 mm increments can be selected.) Ⓜ Full length L is shortened by (T-TC). If combined with LC, full length is equal to LC.		Quotation
	TKC	Head thickness tolerance change $T \pm 0.3 \rightarrow +0.02$ $\pm 0 \rightarrow 0$	Ⓜ Cannot be used with L (LC) < 16.	
	TKM	Head thickness tolerance change $T \pm 0.3 \rightarrow +0.02$ $\pm 0 \rightarrow -0.02$	Ⓜ Cannot be used for L (LC) < 16.	
	RC	Head thickness is machined to a tolerance of -0.04~0 relative to the retainer surface. Ⓜ Cannot be used for L (LC) < 30.		
	Others	SKC	Single key flat on shank Ⓜ Can be used with D ≥ 8 and L (LC) ≥ 20. Ⓜ Cannot be combined with KC-WKC-KFC.	

BUTTON DIES