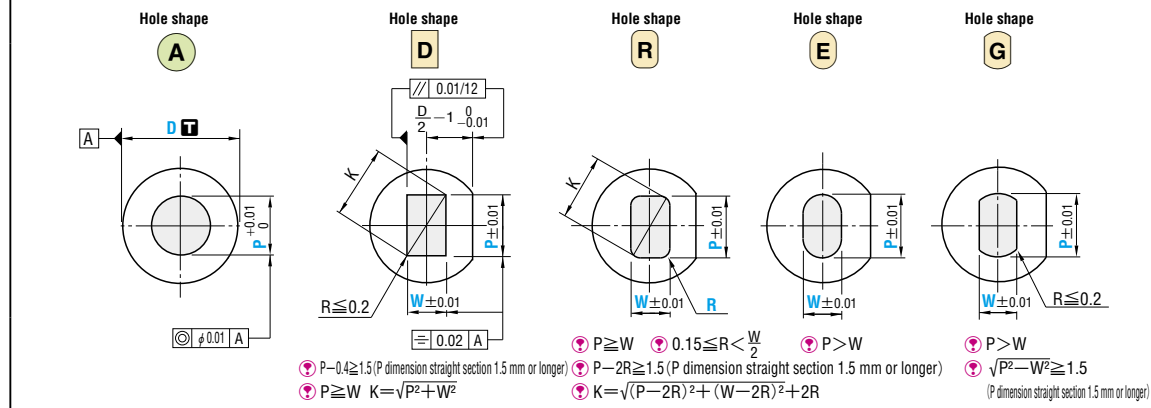


# SCRAP RETENTION BUTTON DIES

—STRAIGHT TYPE (ECONOMY)—



Straight type	Shank diameter D tolerance	M H	D dimension	Catalog No.	The hole shape can be selected from A D R E G below.	
<p>For shank diameter tolerance D tolerance, select either n5 or 0.</p>	Dn5	Equivalent to SKD11 60~63HRC	D6~56	SR—EMSD	<b>Economy type</b> 	
			D8~56	SR—ESD□		
			Powdered high-speed steel 64~67HRC	D6~25		SR—EPMSD
				D8~25		SR—EPSD□
			Equivalent to SKD11 60~63HRC	D6~16		SRA—EMSD
				D8~16		SRA—ESD□
Powdered high-speed steel 64~67HRC	D6~16	SRA—EPMSD				
	D8~16	SRA—EPSD□				



D tolerance	n5	+0.005 0	Catalog No.	Type	D	L	0.01mm increments				C (clearance)	b	d
							A	D R E G	R	MT (workpiece material thickness)			
6	+0.013 +0.008	+0.005 0	(Equivalent to SKD11) (Dn5) (D+0.005)	<b>A</b> SR—EMSD <b>SRA</b> —EMSD <b>D</b> SR—ESDD <b>SRA</b> —ESDD <b>R</b> SR—ESDR <b>SRA</b> —ESDR <b>E</b> SR—ESDE <b>SRA</b> —ESDE <b>G</b> SR—ESDG <b>SRA</b> —ESDG	(6)	16 20 22 25 28 30 32 35	1.00~ 3.00	—	—	<b>C</b> $\geq 0.010$ Select a clearance of 0.010mm or more. 	<b>MT</b> $\geq 0.15$ Select a workpiece material thickness of 0.15 mm or more.	3 4 6 8 10.6 12.6 14.6 16.6 20.6 26.6 36.0 41.0 46.0	3.4 4.4 6.4 8.4 10.6 12.6 14.6 16.6 20.6 26.6 36.0 41.0 46.0
8	8				16 20 22 25 28 30 32 35	1.00~ 4.00	4.00	1.00					
10	10				16 20 22 25 28 30 32 35 (40)	2.00~ 6.00	6.00	1.20					
13	13				16 20 22 25 28 30 32 35 (40)	3.00~ 8.00	8.00	1.50					
16	16				16 20 22 25 28 30 32 35 (40)	5.00~ 10.00	10.00	2.00					
20	20				16 20 22 25 28 30 32 35 (40)	7.00~ 12.00	12.00	3.00					
22	22				16 20 22 25 28 30 32 35 (40)	8.00~ 14.00	14.00	3.00					
25	25				16 20 22 25 28 30 32 35 (40)	10.00~ 16.00	16.00	3.00					
32	32				16 20 22 25 28 30 32 35	15.00~ 20.00	20.00	4.00					
38	38				16 20 22 25 30 35	19.00~ 26.00	26.00	5.00					
45	45	20 22 25 30 35	25.00~ 35.00	35.00	6.00								
50	50	20 22 25 30 35	33.00~ 40.00	40.00	7.00								
56	56	20 22 25 30 35	38.00~ 45.00	45.00	8.00								
6	+0.013 +0.008	+0.005 0	(Powdered high-speed steel) (Dn5) (D+0.005)	<b>A</b> SR—EPMSD <b>SRA</b> —EPMSD <b>D</b> SR—EPSDD <b>SRA</b> —EPSDD <b>R</b> SR—EPSDR <b>SRA</b> —EPSDR <b>E</b> SR—EPSDE <b>SRA</b> —EPSDE <b>G</b> SR—EPSDG <b>SRA</b> —EPSDG	(6)	16 20 22 25 30 35	1.00~ 3.00	—	—	<b>C</b> $\geq 0.010$ Select a clearance of 0.010mm or more. 	<b>MT</b> $\geq 0.15$ Select a workpiece material thickness of 0.15 mm or more.	3 4 6 8 10.6 12.6 14.6 16.6 20.6 26.6 36.0 41.0 46.0	3.4 4.4 6.4 8.4 10.6 12.6 14.6 16.6 20.6 26.6 36.0 41.0 46.0
8	8				16 20 22 25 30 35	1.00~ 4.00	4.00	1.00					
10	10				16 20 22 25 30 35	2.00~ 6.00	6.00	1.20					
13	13				16 20 22 25 30 35	3.00~ 8.00	8.00	1.50					
16	16				16 20 22 25 30 35	5.00~ 10.00	10.00	2.00					
20	20				16 20 22 25 30 35	7.00~ 12.00	12.00	3.00					
25	25				16 20 22 25 30 35	10.00~ 16.00	16.00	3.00					

\* D (6) is a specification available for shape A (round) only. It is not available for shapes D R E G. \* Can be used only for workpiece materials with tensile strengths up to 1177 N/mm<sup>2</sup> (120 kgf/mm<sup>2</sup>).  
 \* D = (20), (22), (25), (32), (38), (45), (50), (56) are specifications available for shank diameter tolerance of Dn5 only.  
 \* L = (40) is a specification available for shank dia. tolerance of Dn5 only.  
 \* MT (workpiece material thickness) and C (clearance) are used as data for machining the scrap retention grooves. Specify the shaped hole dimensions (P-W-R) when selecting the button die finishing dimensions.

Order **Catalog No.** — L — P — W — R (R only) — MT — C  
 SR—ESDR 13 — 35 — P5.25 — W2.82 — R0.40 — MT1.50 — C0.105

Days to Ship **Quotation**

Alterations **Catalog No.** — L (LC·SLC) — P (PC) — W (WC) — R — MT — C — (KC·LKC, etc.)  
 SR—ESDD13 — 35 — P5.58 — W2.25 — MT1.50 — C0.105 — LKC

Alteration	Code	A	D R E G	1Code
Alterations to shaped hole	PC WC	Shaped hole diameter change $\min. \frac{P}{W} > \frac{PC}{WC} \geq \frac{P \cdot W_{\min}}{2} \geq 1.00$ 0.01 mm increments * For A only, if PC is 1.00~1.99, then b=4. $\max. \frac{P}{W} < \frac{PC}{WC} \leq P \cdot K_{\max} + 0.2$ 0.01 mm increments		<b>Quotation</b>
		LC	Full length change $10 \leq LC < L$ 0.1 mm increments (if combined with LKC-LKZ, 0.01 mm increments can be selected.) * Press-in lead is shortened by (L-LC).	
Alterations to full length	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.		<b>Quotation</b>
		LK	Full length change + Full length tolerance change $L +0.4 \Rightarrow +0.05$ $L +0.2 \Rightarrow 0$	

Alteration	Code	A	D R E G	1Code
Alterations to full length	LKC LKZ	Full length tolerance change $L +0.4 \Rightarrow +0.05$ $L +0.2 \Rightarrow 0$		<b>Quotation</b>
		KC	Addition of single key flat * Cannot be used for D6. * Cannot be used for D > 25.	
Others	WKC	Addition of double key flats in parallel * Cannot be used for D6. * Can be combined with KC for shapes D R E G.		<b>Quotation</b>
		LKZ	Full length tolerance change $L +0.4 \Rightarrow +0.01$ $L +0.2 \Rightarrow 0$ * Cannot be used for D > 25.	

Price **Quotation**

BUTTON DIES