

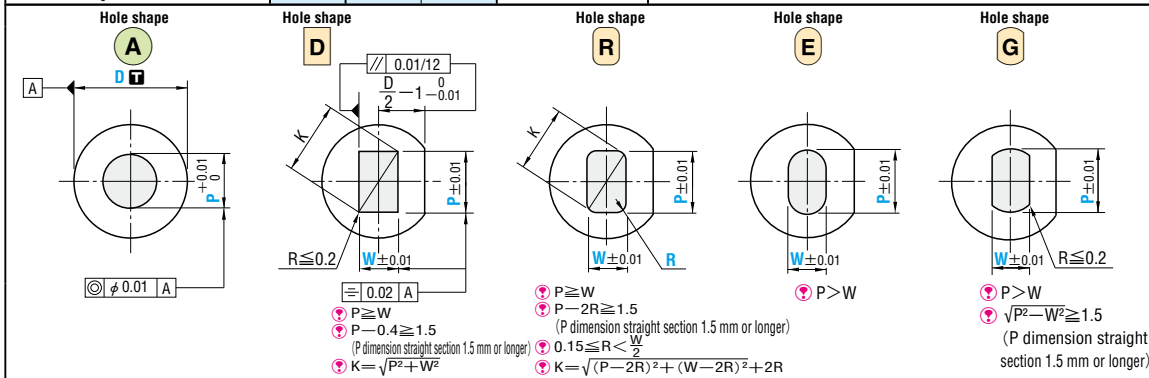
# SCRAP RETENTION ANGULAR BUTTON DIES

— STRAIGHT —



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.
	Dn5	M	D4~5	SR-ASD	
			D6~25	SR-ASD	
			D8~25	SR-ASD	
			D4~25	SR-PASD	
			D8~25	SR-PASD	
			D4~5	SRA-ASD	
D+0.005/0	H	D4~5	SRA-ASD		
		D6~16	SRA-ASD		
		D8~16	SRA-ASD		
		D4~16	SRA-PASD		
		D8~16	SRA-PASD		
		D4~16	SRA-PASD		

For shank diameter tolerance D tolerance, select either n5 or +0.005/0.



D tolerance	Catalog No.	Type	D	L	0.01mm increments				MT (workpiece material thickness)	C (clearance)
					A min. . P max.	D R E G P-Kmax. P-Wmin.	R	R		
D n5	(Dn5) (D+0.005/0) (Equivalent to SKH51)	A SR-ASD SRA-ASD	(4)	8 13 16 20 22 25 30	1.00~ 1.50	—	—	—	C ≥ 0.010	
				5 8 13 16 20 22 25 30	1.00~ 2.50	—	—			
+0.013 / +0.008	(Powdered high-speed steel)	A SR-PASD SRA-PASD	(5)	8 13 16 20 22 25 30	1.00~ 2.50	—	—	—	C ≥ 0.010	
				6 16 20 22 25 30 35	1.00~ 3.00	—	—			
+0.005/0	(Dn5) (D+0.005/0) (Equivalent to SKD11)	A SR-ASD SRA-ASD	(6)	16 20 22 25 30 35	1.00~ 3.00	—	—	—	C ≥ 0.010	
				8 16 20 22 25 30 35	1.00~ 4.00	4.00	1.00			
+0.016 / +0.010	(Powdered high-speed steel)	D SR-ASDD SRA-ASDD	8	16 20 22 25 30 35	1.00~ 4.00	4.00	1.00	MT ≥ 0.15	Select a clearance of 0.010 mm or more.	
				10 16 20 22 25 30 35	2.00~ 6.00	6.00	1.20			
+0.020 / +0.012	(Powdered high-speed steel)	E SR-ASDE SRA-ASDE	10	16 20 22 25 30 35	3.00~ 8.00	8.00	1.50	0.15 ≤ R < W/2 (R only)	Select a workpiece material thickness of 0.15 mm or more.	
				13 16 20 22 25 30 35	3.00~ 8.00	8.00	1.50			
+0.024 / +0.015	(Powdered high-speed steel)	G SR-ASDG SRA-ASDG	13	16 20 22 25 30 35	3.00~ 8.00	8.00	1.50	—	—	
				16 20 22 25 30 35	5.00~ 10.00	10.00	2.00			
+0.020 / +0.012	(Powdered high-speed steel)	D SR-ASDD SRA-ASDD	8	16 20 22 25 30 35	1.00~ 4.00	4.00	1.00	—	—	
				10 16 20 22 25 30 35	2.00~ 6.00	6.00	1.20			
+0.024 / +0.015	(Powdered high-speed steel)	E SR-ASDE SRA-ASDE	10	16 20 22 25 30 35	3.00~ 8.00	8.00	1.50	—	—	
				13 16 20 22 25 30 35	3.00~ 8.00	8.00	1.50			
+0.024 / +0.015	(Powdered high-speed steel)	G SR-ASDG SRA-ASDG	13	16 20 22 25 30 35	3.00~ 8.00	8.00	1.50	—	—	
				16 20 22 25 30 35	5.00~ 10.00	10.00	2.00			

(D) = (4), (5), and (6) are specifications available for shape (A) (round) only. They are not available for shapes (D) (R) (E) (G).  
 (D) = (20) and (25) are specifications available for shank diameter tolerance of Dn5 only.  
 (P) Can be used only for workpiece materials with tensile strengths up to 1177 N/mm<sup>2</sup> (120 kgf/mm<sup>2</sup>).  
 (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-ASDE 8	20	P3.80	W2.00		MT1.50	C0.105

Days to Ship **Quotation**

Alterations	Catalog No.	L (LC-SLC)	P (PC)	W (WC)	R	MT	C	(BC·KC, etc.)
	SR-ASD 6	16	P2.47			MT1.50	C0.105	LKZ

Alteration	Code	A	D R E G	1Code
Alterations to shaped hole	PC WC	Shaped hole diameter change min.: $\frac{P}{W} < \frac{PC}{WC} \leq \frac{P-Wmin.}{2} \geq 1.00$ 0.01 mm increments		
		max.: $\frac{P}{W} < \frac{PC}{WC} \leq P \cdot Kmax. + 0.2$ 0.01 mm increments		
	BC	Shaped hole depth change $\frac{P}{1.00 \sim 1.99}$ $\frac{Bmax.}{2.00 \sim 4}$ $1 \leq BC \leq Bmax.$ 0.1 mm increments	Shaped hole depth change $1 \leq BC \leq 2$ 0.1 mm increments	
Alterations to full length	PKC	Shaped hole diameter tolerance change $P \pm 0.01 \rightarrow +0.005$ $0$	Shaped hole diameter tolerance change $P \cdot W \pm 0.01 \rightarrow +0.01$ $0$	
	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).		
	LKC LKZ	Full length tolerance change $L + 0.4 \rightarrow +0.05$ $+0.2$ $0$ Cannot be used for L (LC) < 10.	Full length tolerance change $L + 0.4 \rightarrow +0.01$ $+0.2$ $0$ Cannot be used for L (LC) < 16.	
Alterations to full length	SLC	Full length change + Full length tolerance change $L + 0.4 \rightarrow +0.05$ $+0.2$ $0$ Cannot be used for L (LC) < 10.		
		Changes to full length and full length tolerance are processed using a single code. The allowable range of change, increment, ordering process, and notes (P) are the same as for LC.		

Alteration	Code	A	D R E G	1Code																							
Others	KC	Addition of single key flat Cannot be used for D < 6.	Key flat position change $180^\circ$ $90^\circ$ $0^\circ$ 1° increments																								
	WKC	Addition of double key flats in parallel Can be combined with KC for shapes (D) (R) (E) (G). Cannot be used for L (LC) < 16. Cannot be used for D4~6.																									
	KM	Addition of key groove to prevent lifting Cannot be used for D < 6. Cannot be combined with WKC-ANF. If D=6, can be used for hole shape (A) only.	<table border="1"> <tr><th>D</th><th>h</th><th>l</th></tr> <tr><td>6</td><td>1</td><td></td></tr> <tr><td>8</td><td></td><td></td></tr> <tr><td>10</td><td>1.5</td><td></td></tr> <tr><td>13</td><td></td><td></td></tr> <tr><td>16</td><td></td><td></td></tr> <tr><td>20</td><td>2</td><td></td></tr> <tr><td>25</td><td></td><td></td></tr> </table> 5 ≤ l < L 0.1 mm increments	D	h	l	6	1		8			10	1.5		13			16			20	2		25		
D	h	l																									
6	1																										
8																											
10	1.5																										
13																											
16																											
20	2																										
25																											
Others	ANF	Angular angle change $0.6 \leq ANF \leq 1.2$ 0.2° increments d ≤ dmax. $d = P + 2((L-B) \tan(ANF))$ $P - B \tan(ANF) \geq 0.6$ $W - B \tan(ANF) \geq 0.6$ Cannot be used for P, W < 1.0.	<table border="1"> <tr><th>D</th><th>d max.</th></tr> <tr><td>4</td><td>2.4</td></tr> <tr><td>5</td><td>2.9</td></tr> <tr><td>6</td><td>3.4</td></tr> <tr><td>8</td><td>4.4</td></tr> <tr><td>10</td><td>6.4</td></tr> <tr><td>13</td><td>8.4</td></tr> <tr><td>16</td><td>10.6</td></tr> <tr><td>20</td><td>12.6</td></tr> <tr><td>25</td><td>16.6</td></tr> </table> Taper 1/50 Angle one side 0.573°	D	d max.	4	2.4	5	2.9	6	3.4	8	4.4	10	6.4	13	8.4	16	10.6	20	12.6	25	16.6				
		D	d max.																								
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Price **Quotation**

BUTTON DIES