

SCRAP RETENTION REVERSE TAPER BUTTON DIES

—HEADED TYPE—

Patent pending

PRODUCTS DATA

P.1619

Headed type	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}	Equivalent to SKH51 61~64HRC	D5	SRT-MHD		
			D6~25	SRT-HD□		
			D6~25	SRT-PMHD		
			D6~25	SRT-PHD□		
			D ₀ ^{+0.005}	D5		SRTA-MHD
				D6~16		SRTA-HD□
D6~16	SRTA-PMHD					

For shank diameter tolerance D₀ select either m5 or +0.005/0

⊕ Select a push-in amount of punch greater than FH dimension. Pushing in until the straight part is effective against scrap retention and scrap clogging.

Tip shape	Tip shape	Tip shape	Tip shape	Tip shape
A	D	R	E	G
$P \geq 0.01$ $P \geq W$	$R \leq 0.2$ $P \geq 0.4 \geq 1.5$ (P dimension straight section 1.5mm or longer) $P \geq W$	$P \geq W$ $0.15 \leq R < \frac{W}{2}$ $K = \sqrt{(P-2R)^2 + (W-2R)^2} + 2R$	$P > W$	$P > W$ $\sqrt{P^2 - W^2} \geq 1.5$ (P dimension straight section 1.5mm or longer)

D	Shank diameter D tolerance	Catalog No.	Type	D	L	0.01mm increments				MT	C	Select	TS	FH	b	d	H	T						
						A	D	R	E															
5	+0.009 +0.004	(Equivalent to SKH51)	A SRT-MHD SRTA-MHD	5	16 20 22 25 28 30	2.00~2.50	-	-	-	MT ≥ 0.5 C ≥ 0.060 (But C ≥ 0.050 if the clearance is 10% or below C ≥ 0.050) Clearance (C) ≤ Proceed plate material thickness (MT) × 20%	Select the level of tensile strength Tensile strength (N/mm ²) Level H 800~ M 600~ L ~599	1.0 1.0~2.0 1.0~3.0 1.0~5.0 8.4 10.6 12.6 14.6 16.6	2 3 4 6 8 8 3 4 6 8 5	2.9 3.4 4.4 6.4 12.6 14.6 16.6	6 9 11 13 16 19 23 25 28 3 4 6 8 5	3 9 11 13 16 19 23 25 28 9 11 13 16 19 23 25 28								
6	+0.012 +0.006	(Equivalent to SKD11)	A SRT-MHD SRTA-MHD	6	16 20 22 25 28 30 32 35	2.00~3.00	3.00	2.00																
8	+0.015 +0.007		D SRT-HDD SRTA-HDD	8	16 20 22 25 28 30 32 35 40	2.00~4.00	4.00	2.00																
10	+0.015 +0.007		R SRT-HDR SRTA-HDR	10	16 20 22 25 28 30 32 35 40 (45)	2.00~6.00	6.00	2.00																
13	+0.017 +0.008		E SRT-HDE SRTA-HDE	13	16 20 22 25 28 30 32 35 40 (45)	3.00~8.00	8.00	2.00																
16	+0.017 +0.008		G SRT-HDG SRTA-HDG	16	16 20 22 25 28 30 32 35 40 (45)	5.00~10.00	10.00	2.00																
20	+0.017 +0.008			20	16 20 22 25 28 30 32 35 40 (45)	7.00~12.00	12.00	3.00																
22	+0.017 +0.008			22	16 20 22 25 28 30 32 35 40 (45)	8.00~14.00	14.00	3.00																
25	+0.017 +0.008			25	16 20 22 25 28 30 32 35 40 (45)	10.00~16.00	16.00	3.00																
6	+0.009 +0.004	(Powdered high-speed steel)	A SRT-PMHD SRTA-PMHD	6	16 20 22 25 30 35	2.00~3.00	3.00	2.00																
8	+0.012 +0.006		D SRT-PHDD SRTA-PHDD	8	16 20 22 25 30 35	2.00~4.00	4.00	2.00																
10	+0.015 +0.007		R SRT-PHDR SRTA-PHDR	10	16 20 22 25 30 35	2.00~6.00	6.00	2.00																
13	+0.017 +0.008		E SRT-PHDE SRTA-PHDE	13	16 20 22 25 30 35	3.00~8.00	8.00	2.00																
16	+0.017 +0.008		G SRT-PHDG SRTA-PHDG	16	16 20 22 25 30 35	5.00~10.00	10.00	2.00																
20	+0.017 +0.008			20	16 20 22 25 30 35	7.00~12.00	12.00	3.00																
25	+0.017 +0.008			25	16 20 22 25 30 35	10.00~16.00	16.00	3.00																

⊕ D=(20)(22)(25) are specifications available for shank diameter tolerance of D_{m5} only
 ⊕ L=(45) is specification available for shank dia. tolerance of D_{m5} only
 ⊕ Use with the clearance (C) less than 20% of the processed plate material thickness (MT), otherwise the effect will not be as expected. Clearance (C) ≤ Proceed plate material thickness (MT) × 20%
 ⊕ Taper depth FH will be in the right area. But, in case of LC alteration, it'll be in the right area.
 ⊕ 1/100 of relief taper length is as follows. Relief taper length = b - (FH + 1) In case of LC alteration, b = (L - LC) - (FH + 1)
 ⊕ P dimension will change if regrinding is applied. Note that the change amount varies with the taper width (max. 0.05mm on one side) and taper depth & regrinding amount.

Order Catalog No. — L — P — W — R (R only) — MT — C — TS — FH

SRT-MHD 13 — 30 — P7.00 — MT1.5 — C0.105 — H — FH2.0
 SRT-HDD 16 — 25 — P9.2 — W3.0 — MT1.0 — C0.1 — L — FH1.5

Days to Ship **Quotation**

Alterations Catalog No. — L (LC) — P (PC) — W (WC) — R — MT — C — TS — FH — (HC·TC·CKC·MKC...etc.)

SRT-MHD 13 — 30 — P7.00 — MT1.50 — C0.105 — H — FH2.0 — TC3

Alterations	Code	A	D R E G	1Code
Alterations to shaped hole	PC WC	Shaped hole diameter change min. $\frac{P-PC}{W} \geq \frac{P-Wmin.}{2} \geq 2.00$ 0.01mm increments		
		$\max. \frac{P-PC}{WC} \leq P \cdot Kmax. + 0.2$ 0.01 mm increments		
Alterations to full length	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).		
	LKC	Full length tolerance change $L +0.4 \rightarrow +0.05$ $L +0.2 \rightarrow 0$		
	LKZ	Full length tolerance change $L +0.4 \rightarrow +0.01$ $L +0.2 \rightarrow 0$ ⊗ Cannot be used for L (LC) < 16.		
	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.		
Alterations to head	TKC	Head thickness tolerance change $T +0.3 \rightarrow +0.02$ $T +0 \rightarrow -0.02$ ⊗ Cannot be used with L (LC) < 16.		
	TKM	Head thickness tolerance change $T +0.3 \rightarrow 0$ $T +0 \rightarrow -0.02$ ⊗ Cannot be used for L (LC) < 16.		
Others	RC	Head thickness is machined to a tolerance of -0.04~0 relative to the retainer surface. ⊗ Cannot be used for L (LC) < 30.		
	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**

Alterations	Code	A	D R E G	1Code
Alterations to head	KC	Addition of single key flat to head 270° at 0° and a selected angle 180° at 0° and a selected angle 90° position change 1° increments		
	WKC	Addition of double key flats in parallel ⊕ Can be combined with KC for shapes D R E G		
	KFC	Double key flats at 0° and a selected angle 1° increments ⊗ Cannot be combined with KC-WKC. ⊗ L (LC) < 16.		
	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.		
	TKC	Head thickness tolerance change $T +0.3 \rightarrow +0.02$ $T +0 \rightarrow -0.02$ ⊗ Cannot be used with L (LC) < 16.		
Others	RC	Head thickness is machined to a tolerance of -0.04~0 relative to the retainer surface. ⊗ Cannot be used for L (LC) < 30.		
	SKC	Single key flat on shank ⊕ Can be used with D ≥ 8 and L (LC) ≥ 20. ⊗ Cannot be combined with KC-WKC-KFC.		

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