

SKH51 equivalent  
Wall thickness  
0.6mm~

# PRECISION STRAIGHT EJECTOR SLEEVES

ⓘ Non JIS material definition is listed on P.1351 - 1352

RoHS

Part Number		Head Thickness	D · P	V	Concentricity	Applicable center pin shaft diameter tolerance
ESV	ESVB	4mm(T4)	0 -0.005	+0.005 0	◎ φ 0.005	0 -0.005
ESVJ	ESVJB	6 · 8mm(JIS)				
ESV-H	ESVB-H	4mm(T4)	-0.01 -0.02	+0.01 0	◎ φ 0.01	-0.01 -0.02
ESV-M	ESVB-M					

※Note that for sleeves with V dimension tolerance of  $\frac{+0.01}{0}$ , combination with center pins that have shaft diameter tolerance  $\frac{+0.005}{0}$  is not recommended.  $\frac{-0.005}{0}$  The reason for this is the fitting sections S are longer than ones with tolerance.

ESV ESJV  
ESVB ESVJB

V  $\frac{+0.005}{0}$

D or P

ESV-H ESV-M  
ESVB-H ESVB-M

V  $\frac{+0.01}{0}$

D or P

C = V + (0.2 ~ 0.4)

■ SKH51 equivalent  
 □ 58~60HRC  
 ※ Range of guaranteed base material hardness (Details P.1307)  
 Overall quenching (No annealing on head)

### ■ Shaft diameter (D) selection type

4mm head		JIS head		Part Number		0.01mm increments			S 0.5mm increments	
H	T	H	T	Type		D	L	V		
7				ESV (V $\frac{+0.005}{0}$ )	-	3.5	40.00~225.00	0.80~ 2.30	(ESV · ESJV $1.0 \leq S \leq (V \times 3)$ and $S \leq 25$	
8						4	40.00~250.00	0.80~ 2.80		
9	10	6				5		0.80~ 3.80		
10	11					6	ESVJ (V $\frac{+0.005}{0}$ )	0.80~ 4.80		(ESV-H · ESV-M $1.0 \leq S \leq (V \times 5)$ and $S \leq 25$
11	13					7		0.80~ 5.80		
14	14	8				8		2.00~ 6.20		
15	15					9		2.00~ 7.20		
16	17			10	40.00~250.00	2.00~ 8.20				
17	17			11		2.00~ 9.20				
18	19			12		2.00~ 10.20				
19				13		2.00~ 11.20				
				14		2.00~ 12.20				

### ■ Shaft diameter (P) designation 0.01mm increments type

4mm head		JIS head		Part Number		0.01mm increments			S 0.5mm increments	
H	T	H	T	Type		No.	L	P		
7				ESVB (V $\frac{+0.005}{0}$ )	-	4	40.00~225.00	3.20~ 3.99	(ESVB · ESVJB $1.0 \leq S \leq (V \times 3)$ and $S \leq 25$	
8						5	40.00~250.00	4.00~ 4.99		
9	10	6				6		5.00~ 5.99		
10	11					7	ESVJB (V $\frac{+0.005}{0}$ )	6.00~ 6.99		(ESVB-H · ESVB-M $1.0 \leq S \leq (V \times 5)$ and $S \leq 25$
11	13					8		7.00~ 7.99		
14	14	8				9		8.00~ 8.99		
15	15					10		9.00~ 9.99		
16	17			11	40.00~250.00	10.00~ 10.99				
17	17			12		11.00~ 11.99				
18	19			13		12.00~ 12.99				
19				14		13.00~ 13.99				

Order Part Number - L - P - V - S

(Shaft diameter (D) selection type) ESV6 - 150.00 - V4.00 - S12

(Shaft diameter (P) designation type) ESVB6 - 140.00 - P5.95 - V3.95 - S11.5

Days to Ship Quotation

P Price Quotation

Alterations Part Number - L - P - V - S - (KC · WKC...etc.)

ESV6 - 100.52 - V4.00 - S12 - KC 3.0

Alterations	Code	Spec.	1Code
	KC	Single flat cutting (D or P)/2 ≤ KC < H/2	Quotation
	WKC	Two flats cutting (D or P)/2 ≤ WKC < H/2	
	KAC	Varied width parallel flats cutting (D or P)/2 ≤ KAC < H/2 KBC=0.1mm increments only KAC < KBC < H/2	
	KBC		
	RKC	Two flats (right angled) cutting (D or P)/2 ≤ RKC < H/2	
	DKC	Three flats cutting (D or P)/2 ≤ DKC < H/2	
	SKC	Four flats cutting (D or P)/2 ≤ SKC < H/2	
	KGC	Two flats (angled) cutting (D or P)/2 ≤ KGC < H/2 AG=1° increments 0 < AG < 360	
	KTC	Three flats cutting at 120° (D or P)/2 ≤ KTC < H/2	

Alteration details P.275

Alterations	Code	Spec.	1Code
	TC	TC=0.1mm increments Ⓢ (T-TC) ≤ Lmax. - L Ⓢ T/2 ≤ TC < T Dimensions L and (L-S) remain unchanged.	Quotation
	HC	HC=0.1mm increments Ⓢ Shaft diameter (D or P) ≤ HC < H Ⓢ In relation to the diameter tolerance, alteration may create a straight piece with little diameter difference between the head and shaft.	
	HCC	HCC=0.1mm increments Ⓢ (D or P) + 1 ≤ HCC < H - 0.3	
	CGX	CGX=0.1mm increments Ⓢ 0.2 ≤ CGX ≤ 1.5 and CGX ≤ $\frac{(D or P) - V}{2} - 0.1$ Ⓢ Combination with RGX not available.	
	RGX	RGX=0.1mm increments Ⓢ 0.3 ≤ RGX ≤ 1.5 and RGX ≤ $\frac{(D or P) - V}{2} - 0.1$ Ⓢ Combination with CGX not available.	