STRAIGHT EJECTOR SLEEVE & ONE-STEP CENTER PIN SETS

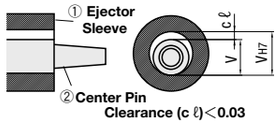
—HOLE (SHAFT) DIAMETER • L DIMENSION DESIGNATION TYPE—

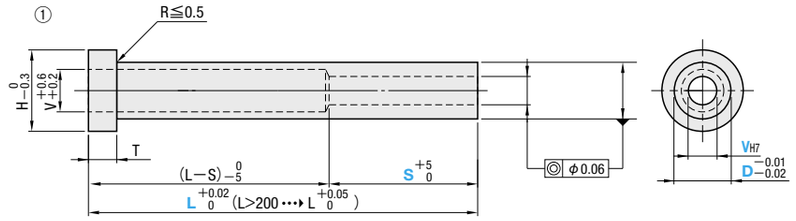
Non JIS material definition is listed on P.1351 - 1352

RoHS

Part Number	Head Thickness (T·J)	T Head Thickness (T・J)
ESNP—□	4mm (T4)	0 −0.02
ESJP—□	4・6・8mm (JIS)	0 −0.05

Clearance (c ℓ) between the ejector sleeve's internal diameter (V_{H7}) and the center pin's shaft diameter (V).

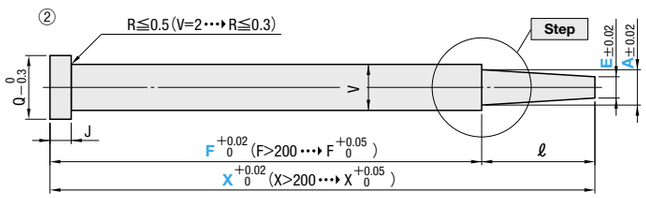




T V_{H7}dimension

V	tolerance
2.0～3.0	+0.010 0
3.1～6.0	+0.012 0
6.1～8.0	+0.015 0

V	4mm head Q	4mm head J	JIS head Q	JIS head J
2.0	4	4	4	4
2.1～2.5	5		5	
2.6～3.0	6		6	
3.1～3.5	7		7	
3.6～3.9			8	6
4.0				
4.1～4.5	8		9	
4.6～4.9				
5.0				
5.1～5.5	9		10	
5.6～5.9				
6.0				
6.1～6.4	10		11	
6.5				
6.6～7.0				
7.1～7.5	11		13	8
7.6～7.9				
8.0				



Default α=0
When CX code is used α=CX
When RX code is used α=RX
When SR code is used α=E/2

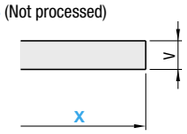
① M SKD61 equivalent+Nitrided
H Surface 900HV
Base material 40±3HRC

② M SKD61 equivalent+Nitrided
H Surface 900HV
Base material 40～45HRC

Range of guaranteed shaft diameter precision (Details P.1305)
Range of guaranteed base material hardness (Details P.1307)
Range of guaranteed surface hardness for nitriding (Details P.1308)

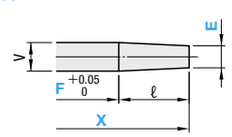
No nitriding on the tip (ℓ) of center pin.

Step S (Not processed)



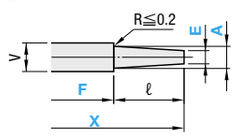
Alterations CX	0.3Designate in 0.3≦CX≦0.5, CX<V/2
Alterations RX	0.3Designate in 0.3 ≦ RX ≦ 0.5 ～ 1.0, RX < V/2
Alterations SR	SR=V/2

Step A



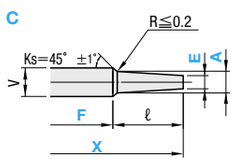
ℓ≧0.5+α

Step B



ℓ≧0.7+α

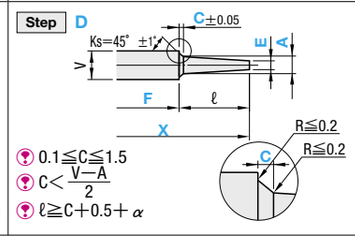
Step C



ℓ≧ (V−A)/2 +0.5+α

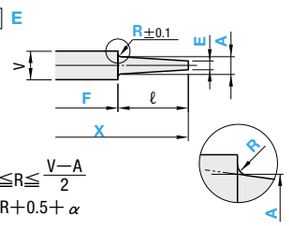
When AC code is used
ℓ≧ (V−A)/(2tanAC) +0.5+α

Step D



0.1≦C≦1.5
C< (V−A)/2
ℓ≧C+0.5+α

Step E



0.3≦R≦ (V−A)/2
ℓ≧R+0.5+α

Ejector Sleeve 4mm head H	Ejector Sleeve 4mm head T	Ejector Sleeve JIS head H	Ejector Sleeve JIS head T	Part Number Type	Part Number Step	Part Number D	L 0.01mm increments	V 0.1mm increments	S 1mm increments	0.01mm increments X	0.01mm increments F	0.01mm increments A	0.01mm increments Emin.	0.1mm increments C・R	ℓ max.
7	4	8	6	ESNP— (4mm head) ESJP— (JIS Head)	S A B C D E	4	50.00～200.00	2.0～2.5	20～100 L (L−S) min. 50.00～60.00 20 60.01～ 30	L+100≧X and X≧L+20	F≧50.00 No need to designate F when Step S is selected.	V>A≧E No need to designate A・E when Step S is selected. No need to designate A when Step A is selected.	0.70	Step D only 0.1≦C≦1.5 and C< (V−A)/2	V×10 (V≧5.0 ••• ℓ max.=50)
						4.5									
8		9				5	50.00～250.00	2.0～3.0					1.00		
9						5.5		2.0～3.5							
		10				6		2.5～4.0							
10		11				6.5		2.5～4.0							
						7		2.5～4.5							
11		12				7.5	80.00～300.00	2.5～4.5					1.50		
		13				8		2.5～5.5	30～100 L (L−S) min. 80.00 40 80.01～ 50						
15		15	8			10		4.0～7.0					2.00		
17		17				12		4.0～8.0							

Order

Part Number	L	V	S	X	F	A	E	C(R)
ESNP—E10	250.00	V6.5	S80	X350.00	F300.00	A4.20	E3.20	R0.5

Days to Ship: Quotation

Price: Quotation

Alterations

Part Number	L	V	S	X	F	A	E	C(R)	(KC・WKC…etc.)
ESNP—A6	150.00	V2.5	S80	X210.05	F200.00		E1.60		TC3

Alteration details P.275

Alterations	Code	Spec.	1Code
KC 0 WC −0.1	KC WC	KC・WC=0.1mm increments KC=D/2 ••• 0.05mm increments possible WC=V/2 ••• 0.05mm increments possible D/2≦KC<H/2, V/2≦WC<Q/2	Quotation
WKC 0 WWC −0.1	WKC WWC	WKC・WWC=0.1mm increments WKC=D/2 ••• 0.05mm increments possible WWC=V/2 ••• 0.05mm increments possible D/2≦WKC<H/2, V/2≦WWC<Q/2	
H・Q HC QC 0 −0.3	HC QC	HC・QC=0.1mm increments D≦HC<H, V≦QC<Q In relation to the diameter tolerance, alteration may create a straight piece with little diameter difference between the head and shaft.	
TC・JC T・J	TC JC	TC・JC=0.1mm increments (Dimensions L・X and F remain unchanged.) T/2≦TC<T, T−TC≦Lmax.−L J/2≦JC<J, J−JC≦Xmax.−X	

① Alterations for Ejector Sleeves : KC, WKC, HC, TC
② Center pin alteration : WC, WWC, QC, JC, CX, RX, SR, AC, RR

Alterations	Code	Spec.	1Code
CX ±0.1	CX	CX=0.1mm increments 0.3≦CX≦0.5, CX<E (orV)/2 E (orV) is a dimension prior to CX machining. α=CX	Quotation
RX ±0.1	RX	RX=0.1mm increments V≦4.5, 0.3≦RX≦0.5, RX<E (orV)/2 V>4.5, 0.3≦RX≦1.0 E (orV) is a dimension prior to RX machining. α=RX	
SR	SR	Finishes the tip in spherical shape (SR). α=E (orV)/2 X is +0 −0.05 E (orV) is a dimension prior to SR machining.	
AC°	AC	Changes the standard angle (Ks=45°). AC=1° increments 30≦AC≦60 Step Available for C/D ⊗ Combination with RR not available. When Step D, 0≦1.0, A+2(C×tanAC°)<V	
RR	RR	Changes R (normally 0.2 or less) to R0.3～0.5. (for strength improvement) Designation method RR Available for Step B, C, D V−A≧1.0 Step When Step D, C≧0.5	