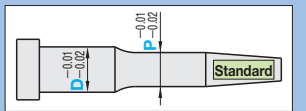


Dies Steel
SKD61 equivalent
+
Nitrided

STEPPED ONE-STEP CENTER PINS

—SHAFT DIAMETER (P) DESIGNATION (0.01mm INCREMENTS) TIP (A · V) TOLERANCE : ±0.02 TYPE—



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

RoHS

SKD61 equivalent+Nitrided
Surface 900HV
Base material 40~45HRC
No nitriding on the tip (ℓ).
Nitriding may extend to the head as it is applied after dimension P machining.

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

Type	P	Head Thickness (T)	Head Thickness (ℓ)	Applicable ejector sleeve hole tolerance
CPNB-5	-0.01 -0.02	4mm (T4)	0 -0.02 (L>300) T-0.05	+0.01 0 or H7
CPJB-5	⚠ P 12 or L>500 → P-0.01 → -0.03	4 · 6 · 8mm (JIS)	0 -0.05	Details P.1309

Step A

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

Step B

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

Step C

When AC code is used
 $\ell \geq \frac{P-A}{2 \tan \alpha} + 0.5 + \alpha$

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

Step D

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

Step E

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

4mm head		JIS head		Part Number			L		0.01mm increments				0.1mm increments		ℓ	
H	T	H	T	Type		Step	D	0.01mm increments (L>500 → 0.1mm increments)	P	F	A	Vmin.	C · R	N	max.	
4mm head		JIS head														
4	4	4	4	CPNB—5	CPJB—5	A	2		1.50 ~ 1.99	F≥50.00	No need to designate A when [Step] A is selected.	0.70	[Step] D only and $0.1 \leq C \leq 1.5$ and $C < \frac{P-A}{2}$	$N \geq \frac{L}{3}$ and $F-N \geq 30$	25	
5		5					2.5	70.00 ~ 400.00	1.50 ~ 2.49						30	
6		6					3		2.00 ~ 2.99						35	
7		7					3.5	70.00 ~ 400.00 (500.00)	2.50 ~ 3.49			40				
8		8					4		3.00 ~ 3.99			1.00			[Step] E only and $R \geq 0.3$ and $R \leq \frac{P-A}{2}$	45
							4.5		3.50 ~ 4.49							
9		9	5				70.00 ~ 500.00	4.00 ~ 4.99	1.50							
10		10	5.5					5.00 ~ 5.49								
11		11	6					5.00 ~ 5.99	2.00							
12		12	6.5					5.00 ~ 6.49								
13		13	7				70.00 ~ 500.00 (600.0)	6.00 ~ 6.99	2.50							
14		14	8					6.00 ~ 7.99								
15		15	9					8.00 ~ 8.99								
16		16	10					8.00 ~ 9.99								
17		17	12					10.00 ~ 11.99								
18		18	15				70.00 ~ 500.00 (700.0)	12.00 ~ 14.99								
19		19	16					15.00 ~ 15.99								

① L dimension in () is available only for CPJB—5.

② Refer to the drawing for ℓ min. (normally, α=0)

⚠ L dimension in () is available only for CPJB-5. ⚠ Refer to the drawing for ℓ min. (normally, α=0)

Alterations

Part Number

CPJB-5D 10 - 160.72 - P9.20 - F140.00 - A6.20 - V5.20 - C0.5 - N60.0 - KC5.0

Alteration details **P.351**

Alterations	Code	Spec.	1Code	Alterations	Code	Spec.	1Code
	KC	Single flat cutting D/2 ≤ KC < H/2			TC	TC=0.1mm increments T/2 ≤ TC < T T-TC ≤ Lmax.-L (Dimensions L, F and N remain unchanged.)	
	WKC	Two flats cutting D/2 ≤ WKC < H/2			NC	Dowel hole boring Combination with other than NHC · NHN · CX · RX · SR · AC · RR not available.	
	KAC	Varied width parallel flats cutting D/2 ≤ KAC < H/2 KBC=0.1mm increments only KAC < KBC < H/2			NCW	Dowel hole boring+Spring pin driving Combination with other than NHC · NHN · CX · RX · SR · AC · RR not available.	
	RKC	Two flats (right angled) cutting D/2 ≤ RKC < H/2			NHC	Numbering on the head How to order P.352	
	DKC	Three flats cutting D/2 ≤ DKC < H/2			NHN	Automatic sequential numbering on the head How to order P.352	
	KGC	Two flats (angled) cutting D/2 ≤ KGC < H/2 AG=1° increments 0 < AG < 360			CX	CX=0.1mm increments 0.3 ≤ CX ≤ 0.5, CX < V/2 V is a dimension prior to CX machining. ※ α=CX	
	KTC	Three flats cutting at 120° D/2 ≤ KTC < H/2			RX	RX=0.1mm increments P ≤ 4.5 0.3 ≤ RX ≤ 0.5, RX < V/2 P > 4.5 0.3 ≤ RX ≤ 1.0 V is a dimension prior to RX machining. ※ α=RX	
	HC	HC=0.1mm increments D ≤ HC < H In relation to the diameter tolerance, alteration may create a straight piece with little diameter difference between the head and shaft.			SR	Finishes the tip in spherical shape (SR). ※ α=V/2 ⚠ L+0.05 (L ≤ 500) V is a dimension prior to SR machining.	
	HCC	HCC=0.1mm increments D+1 ≤ HCC < H-0.3			AC	Changes the standard angle (Ks=45°). AC=1° increments ⚠ 30 ≤ AC ≤ 60 Available for [Step] C · D ⚠ Combination with RR not available. When [Step] D, A+2(C×tanAC) < P	
	RR	Changes R (normally 0.2 or less) to R0.3~0.5. (for Strength improvement) ⚠ Designation method Available for [Step] B · C · D P-A ≥ 1.0 When [Step] D, C ≥ 0.5					

P Price

Quotation

Order

Part Number

CPJB-5D 10 - 160.72 - P9.20 - F140.00 - A6.20 - V5.20 - C0.5 - N60.0

Days to Ship

Quotation