



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

		Part Number		Step	Shape
		Type	Shaft diameter (P) designation type		
	RoHS SKD61 equivalent 48~52HRC	CPDJ—	CPDJB—	1A	Not processed
				1B	C
				1C	G
				1D	T
				1E	R

Step type selected from 1A~1E below

1A

Shape Select a tip shape from the drawings on the right.

$\ell \geq 0.5 + \alpha$

1B

$\ell \geq 0.7 + \alpha$

1C

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

1D

$\ell \geq C + 0.5 + \alpha$
 $C = \frac{(D \text{ or } P) - A}{2} \rightarrow$ [Step] 1C

1E

$\ell \geq R + 0.5 + \alpha$

Shape (Tip shape: V is dimension before tip processing.)

(Not processed) Ⓜ Designation of the shape is unnecessary when tip processing is not required.
 $\alpha = 0$

C (C chamfered)
 $0.5 \leq G < V/2$
 0.1mm increments
 $\alpha = G \quad \theta < 45^\circ$

G (Cone)
 $20 < K \leq 60$
 1° increments
 $\alpha = \frac{V}{2 \tan K} \quad \theta < K$

T (Tapered)
 $0.1 \leq S < \frac{V}{2 \tan K}$
 0.1mm increments
 $10 \leq K \leq 45$
 1° increments
 $\alpha = S \quad \theta < K$

R (R chamfered)
 $0.2 \leq Q < V/2$
 0.1mm increments
 $\alpha = Q$

B (Spherical processed)
 $\alpha = V/2$

Ⓜ Refer to the [Shape] drawing for L tolerance

(Calculation of tip gradient θ Ⓜ P.1315)

Order

Part Number	L	P	F	A	V	C · R	Tip size (K · S · G · Q)
CPDJ-1BR6	46.00		F38.00	A5.00	V3.00		Q1.0
CPDJB-1CC6	45.50	P5.49	F30.50	A5.00	V4.50		G1.5

Shaft diameter (D) selection type

H	T	Part Number			0.01mm increments				0.1mm increments		ℓ_{max}			
		Type	Step	Shape	D	L min.	L max.	F min.	F max.	A		Vmin.	C	R
8	6	CPDJ—	1A	Designation is unnecessary when tip processing is not required. C G T R B	4	40.00	120.00	30.00	$L - \ell_{min}$ Ⓜ ℓ_{min} . Refer to the [Step] drawing	No designation necessary for A	1.00	Only [Step] 1D designated $C < \frac{D-A}{2}$ and $0.50 \leq CVC \leq 1.00$	Only [Step] 1E designated $R \leq \frac{D-A}{2}$ and $R \geq 0.2$	45.00
4.5														
5														
5.5														
6														
10	1B	5	45.00	120.00	30.00	$L - \ell_{min}$ Ⓜ ℓ_{min} . Refer to the [Step] drawing	1.50							
11	1C	6												
13	1D	6.5												
15	1E	7												
	8	10												

Shaft diameter (P) designation type

H	T	Part Number			0.01mm increments				0.1mm increments		ℓ_{max}			
		Type	Step	Shape	No.	L min.	L max.	P max.	F min.	F max.		A	Vmin.	C
8	6	CPDJB—	1A	Designation is unnecessary when tip processing is not required. C G T R B	4	40.00	120.00	30.00	$L - \ell_{min}$ Ⓜ ℓ_{min} . Refer to the [Step] drawing	No designation necessary for A	1.00	Only [Step] 1D designated $C < \frac{P-A}{2}$ and $0.50 \leq CVC \leq 1.00$	Only [Step] 1E designated $R \leq \frac{P-A}{2}$ and $R \geq 0.2$	45.00
9			1B		5									
10			1C		6									
13			1D		8									
15			1E		10									

P Price **Quotation** Days to Ship **Quotation**

Alterations Part Number — L — P — F — A — V(VC) — C(CVC) — R(RE) — Tip size (K · S · G · Q) — (KC · WKC...etc.)

CPDJ-1EC6 — 50.00 — F40.00 — A5.00 — V3.10 — RE1.5 — G1.0 — HC8.0

CPDJB-1EC6 — 50.00 — P5.70 — F40.00 — A5.00 — V3.10 — RE1.5 — G1.0 — HC8.0

Alterations	Code	Spec.	1Code	Alterations	Code	Spec.	1Code
	KC	Single flat cutting (D or P) $2 \leq KC < H/2$			TC	Head thickness change TC=0.1mm increments T/2 \leq TC < T (Dimensions L and F remain unchanged.) T—TC \leq Lmax.—L	
	WKC	Two flats cutting (D or P) $2 \leq WKC < H/2$	About Designation Unit for Key Flat Cutting		TRN	Relief under the head (No need for plate chamfering)	
	KAC	Varied width parallel flats cutting (D or P) $2 \leq KAC < H/2$ KBC=0.1mm increments only KAC < KBC < H/2	(1) To align the key flat with the shaft diameter Unit of designation Shaft diameter (D) selection type 0.5mm increments possible		NHC	Numbering on the head How to order Ⓜ P.442 Ⓜ Combination with SKC not available.	
	KBC						
	RKC	Two flats (right angled) cutting (D or P) $2 \leq RKC < H/2$	Shaft diameter (P) designation type 0.005mm increments possible		RR	Changes R (normally 0.2 or less) to R0.3~0.5. (Strength has been improved) [Designation method] RR Ⓜ Available for [Step] 1B/1C/1D Ⓜ (D or P) — A \geq 1.0 [Step] When 1D, C \geq 0.5	Quotation
	DKC	Three flats cutting (D or P) $2 \leq DKC < H/2$					
	SKC	Four flats cutting (D or P) $2 \leq SKC < H/2$			AC	Changes the standard angle (Ks=45°) AC=1° increments Ⓜ Available for [Step] 1C/1D Ⓜ 30 \leq AC \leq 60 Ⓜ Combination with CVC · RR not available Ⓜ [Step] When 1D, C \leq 1.0, A + 2(C \times tan AC) < (D or P)	Quotation
	KGC	Two flats (angled) cutting (D or P) $2 \leq KGC < H/2$ 0 < AG < 360 AG=1° increments	(2) To designate arbitrary key flat dimensions Unit of designation 0.1mm		CVC	C dimension can be designated at 0.01mm increments. Ⓜ 0.50 \leq CVC \leq 1.00 Ⓜ Available for [Step] 1D Ⓜ CVC < (D or P) — A / 2 Ⓜ Combination with AC not available.	
	KTC	Three flats cutting at 120° (D or P) $2 \leq KTC < H/2$			VC	Vmin. is enlarged. VC=0.01mm increments Ⓜ $\ell \leq A \times 5, \ell \leq 50$ (D or P) $\times 5$ for [Step] 1A Ⓜ (D or P) > A \geq VC Ⓜ Regarding D=4.5 · 5, =Vmin. is the machining limit, and VC cannot be used.	
	HC	Head diameter change HC=0.1mm increments (D or P) \leq HC < H Ⓜ In relation to the diameter tolerance, alteration may create a straight piece with little diameter difference between the head and shaft.			RE	R shape alteration (enlargement) RE=0.5mm increments Ⓜ 0.5 \leq RE \leq 2.0 Ⓜ F tolerance is ± 0.05 Ⓜ Available for [Step] 1E	
	HCC	Head diameter change (precision) HCC=0.1mm increments (D or P) + 0.5 \leq HCC < H — 0.3					