

# ROUND SHANK CORE PINS

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

	RoHS									
	Part Number	M	H	Group	T D	T L · F	T P	T (P-2E) Tip	T W	T (W-2E) Tip
	CPD-□□	SKD61 equivalent	48~52HRC	Standard	-0.01 -0.02	+0.05 0	±0.02	±0.02	±0.02	±0.02
	CPP-□□				0 -0.005	+0.02 0	±0.01	±0.01	±0.01	±0.01
CPH-□□	SKH51 equivalent	58~60HRC	Precision	0 -0.005	+0.02 0	±0.01	±0.01	±0.01	±0.01	
CPV-□□				±0.01 Shape H only ±0.005	+0.01 0	±0.01	±0.01	±0.005	±0.005	

### Step

**B**

ℓmin.	CPD · CPH	ℓmax.	CPP · CPV
0.7	D2 · 2.5 ~ 8 0.6 ≤ P · W < 1.0 ~ 6 1.0 ≤ P · W < 1.3 ~ 8 1.3 ≤ P · W < 1.5 ~ 15 1.5 ≤ P · W ~ 20		0.6 ≤ P · W < 2.5 ~ 6 2.5 ≤ P · W < 4.0 ~ 12 4.0 ≤ P · W ~ 15

### Shape

**D**  $K = \sqrt{P^2 + W^2}$

**H**  $K = P \times 1.1547$

**E**  $E \leq \frac{W}{2}$

**F**  $W \geq \frac{P}{2} + 0.2$

**G**

Ⓜ P ≥ W  
Ⓜ To position Core Pins to process, make a key flat cutting at the standard 0°

### Step

**C**

ℓmin.	CPD · CPH	ℓmax.	CPP · CPV
C+0.5	D2 · 2.5 ~ 8 0.6 ≤ P · W < 1.0 ~ 6 1.0 ≤ P · W < 1.3 ~ 8 1.3 ≤ P · W < 1.5 ~ 15 1.5 ≤ P · W ~ 20		0.6 ≤ P · W < 2.5 ~ 6 2.5 ≤ P · W < 4.0 ~ 12 4.0 ≤ P · W ~ 15

### Shape

**F**  $W \geq \frac{P}{2} + 0.2$

**G**

Ⓜ P ≥ W  
Ⓜ Key flat cut is added for positioning of machining to the core pins.

### Step

**D**

ℓmin.	CPD · CPH	ℓmax.	CPP · CPV
C+0.5	D2 · 2.5 ~ 8 0.6 ≤ P · W < 1.0 ~ 6 1.0 ≤ P · W < 1.3 ~ 8 1.3 ≤ P · W < 1.5 ~ 15 1.5 ≤ P · W ~ 20		0.6 ≤ P · W < 2.5 ~ 6 2.5 ≤ P · W < 4.0 ~ 12 4.0 ≤ P · W ~ 15

### Shape

**D**  $K = \sqrt{(P+2C)^2 + (W+2C)^2}$

**H**  $K = (P+2C) \times 1.1547$

**E**  $E \leq \frac{W}{2}$

**F**  $W \geq \frac{P}{2} + 0.2$

**G**

Ⓜ P ≥ W  
Ⓜ Key flat cut is added for positioning of machining to the core pins.

• Shape F · G  
Ⓜ When C =  $\frac{D-P}{2}$   
Select Step C.

H	Part Number				0.01mm increments						(P-2E) (W-2E) min.	
	Type	Step	Shape	D	L	F	P · Kmax.	P · Wmin.	E	C		
4	CPD- CPP- (SKD61 equivalent)	B	D	2	17.00	15.00	1.90	0.60	E ≥ 0	0.30 ≤ C ≤ 0.50 and C ≤ $\frac{D-P}{2}$	0.50	
5				2.5			2.40	0.80			0.60	
6				3			2.90	1.00			0.70	
7				3.5			3.40					
8				4			3.90					
9				CPH- CPV- (SKH51 equivalent)			D	F			4.5	100.00
10	5	4.90	1.50									
11	5.5	5.40	1.60		1.40							
12	6	5.90										
13	6.5	6.40										
14	7	6.90	1.50		1.50							
15	8	7.90										
16	9	8.90										

Ⓜ Step B \* ℓ · ℓmin. 0.7  
ℓmax. Refer to the figure of the left page for details.

Ⓜ Step C · D \* ℓ · ℓmin. = C + 0.5  
ℓmax. Refer to the figure of the left page for details.

Ⓜ Step C is available for Shape F and G only.

Order Part Number — L — F — P — W — E — C  
CPD-CF5.5 — 38.00 — F35.10 — P3.45 — W3.00 — E0.05 — C0.30

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

Alterations Part Number — L — F — P — W — E — C — (AKC · AWC · etc.)  
CPD-CF5.5 — 38.00 — F35.10 — P3.45 — W3.00 — E0.05 — C0.30 — TC3.0

Alterations	Code	Spec.	1Code
	AKC	AKC=1° increments 0 < AKC < 360 No need to designate AKC0 Designation method θ = 50° ~ AKC50	<b>Quotation</b>
	AWC	AWC=1° increments 0 ≤ AWC < 360 Designation method θ = 0° ~ AWC0 θ = 60° ~ AWC60	
	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. Designation method HC6.5	
	TC	TC=0.1mm increments 2.0 ≤ TC < 4 Dimensions L and F remain unchanged. 4-TC ≤ ℓmax. - L Designation method TC3.5	

Step	B					Step	C	
Shape	D	H	E	F	G	Shape	F	G
Three dimensional diagram								

Step	D				
Shape	D	H	E	F	G
Three dimensional diagram					