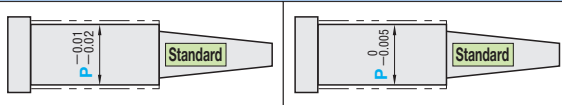


ONE-STEP CORE PINS

—SHAFT DIAMETER(P)DESIGNATION(0.01mm INCREMENTS) • SHAFT DIAMETER TOLERANCE —0.01 / —0.02 TYPE—



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

When exceeds the size of tip (ℓ) dimension (Refer to lower right on the step drawing) ... Details of the tip (ℓ) short type P.447 • 453

M	H	Type		Step	Shape
		Shaft diameter tolerance D	Shaft diameter tolerance D		
NAK80	37~43HRC	CPNB—	CPKB—	1A	C
DH2F	38~42HRC	CPFB—	CPGB—		
SKD61 equivalent	48~52HRC	CPDB—	CPPB—		
SKH51 equivalent	58~60HRC	CPXB—	CPHB—		
SUS440C	56~60HRC	—	CPWB—		
MAS1C	50~54HRC	CPAB—	CPYB—	1D	R
STAMAX ESP®	50~54HRC	CPTHB—	CPEHB—	1E	B
PROVA400	50~54HRC	CPQHB—	CPRHB—		

STAMAX ESP® is a registered trademark of UDDEHOLM TOOL CO.
PROVA400 is equivalent to SUS420J2 upgrading steel from Fujikoshi. Features P.405

When [Step] 1E, A tolerance is ±0.02.

Step type selected from 1A~1E below

1A

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

1B

Shape

1C

Shape

1D

Shape

1E

Shape

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

(Not processed)

Designation of the shape is unnecessary when tip processing is not required.

C (C chamfered)

0.5 ≤ G < V/2
0.1mm increments
α = G θ < 45°

G (Cone)

20 < K ≤ 60
1° increments
α = V/(2tanK) θ < K

T (Tapered)

0.1 ≤ S < V/(2tanK)
0.1mm increments
10 ≤ K ≤ 45
1° increments
α = S θ < K

R (R chamfered)

0.2 ≤ Q < V/2
0.1mm increments
α = Q

B (Spherical processed)

α = V/2

(Calculation of tip gradient θ P.1315)

H	Part Number		0.01mm increments				0.1mm increments				ℓmax.
			L min.	L max.	min. P max.	F min.	A	Vmin.	C	R	
3	CPNB—	CPKB—	100.00	12.00	0.80~0.99	10.00	P>A≥V	0.50	Only [Step] 1D designated	Only [Step] 1E designated	15.00
4	CPNB—	CPKB—			1.00~1.49						20.00
5	CPFB—	CPGB—			1.50~1.99						25.00
6	CPFB—	CPGB—			2.00~2.49						30.00
7	CPDB—	CPPB—			2.50~2.99						35.00
8	CPDB—	CPPB—	120.00	150.00	3.00~3.49	ℓmin. Refer to the [Step] drawing	No designation necessary for A	1.00	C < (P-A)/2 and 0.50 ≤ CVC ≤ 1.00	R ≤ (P-A)/2 and R ≥ 0.2	40.00
9	CPWB—	CPYB—			3.50~3.99						45.00
10	CPAB—	CPYB—			4.00~4.49						50.00
11	CPTHB—	CPEHB—			4.50~4.99						
15	CPQHB—	CPRHB—			5.00~5.49						

Order

Part Number — L — P — F — A — V — C · R — Tip size (K · S · G · Q)

CPNB—1A 5 — 58.00 — P4.95 — F40.00 — V4.50 — G1.5

CPXB—1CC5.5 — 45.50 — P5.49 — F30.50 — A5.00 — V4.50 — R0.5 — K30—S1

CPWB—1ET5 — 30.00 — P4.86 — F20.00 — A2.80 — V2.50 — R0.5 — K30—S1

Days to Ship

Quotation

Price

Quotation

Alterations

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

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

CPGB—1A 5 — 58.00 — P4.60 — F50.00 — V4.40 — NHC—23

Alterations	Code	Spec.	1Code	Alterations	Code	Spec.	1Code
	KC	Single flat cutting P/2 ≤ KC < H/2			TC	Head thickness change TC=0.1mm increments 1.5 ≤ TC < 4 (Dimensions L and F remain unchanged.) 4—TC ≤ Lmax.—L	
	WKC	Two flats cutting P/2 ≤ 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 P/2 ≤ KAC < H/2	(1)To align the key flat with the shaft diameter (Unit of designation) 0.005mm increments possible		NHC	Numbering on the head How to order P.442 Available when H ≥ 2 Combination with SKC not available.	
	KBC	KBC=0.1mm increment KAC < KBC < H/2			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 P—A ≥ 1.0 When [Step] 1D, C ≥ 0.5	
	RKC	Two flats (right angled) cutting P/2 ≤ RKC < H/2			AC	Changes the standard angle (Ks=45°) AC=1° increments Available for [Step] 1C/1D 30 ≤ AC ≤ 60 Combination with CVC · RR not available When [Step] 1D, C ≤ 1.0A+2(C×tanAC) < P C dimension can be designated at 0.01mm increments. 0.50 ≤ CVC ≤ 1.00 Available for [Step] 1D CVC < (P—A)/2 Combination with AC not available.	
	DKC	Three flats cutting P/2 ≤ DKC < H/2			CVC	Vmin. is enlarged. VC=0.01mm increments ℓ ≤ A×5, ℓ ≤ 50 (P×5 for [Step] 1A) P > A ≥ VC Regarding No.=2~3, 4.5, 5 and 13~16, Vmin. is the machining limit, and VC cannot be used.	
	SKC	Four flats cutting P/2 ≤ SKC < H/2			VC		
	KGC	Two flats (angled) cutting P/2 ≤ KGC < H/2 0 < AG < 360 AG=1° increments	(2)To designate arbitrary key flat dimensions (Unit of designation) 0.1mm		RE	R shape alteration (enlargement) RE=0.5mm increments 0.5 ≤ RE ≤ 2.0 F tolerance is +0.05 Available for [Step] 1E	
	KTC	Three flats cutting at 120° P/2 ≤ KTC < H/2			GVC	Gas vent machining GS · GB=1mm increments Available when P ≥ 2.00 2 ≤ GS ≤ 10 GS+2 ≤ GB ≤ 30 Fmin. ≤ F—GB How to order P.442	
	HC	Head diameter change HC=0.1mm increments 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	Head diameter change (precision) HCC=0.1mm increments P+0.5 ≤ HCC < H—0.3					

For details of a Gas Release Core Pin, which is a product similar to alteration GVC, P.469