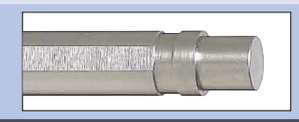
GAS RELEASE TAPERLESS ONE-STEP CORE PINS (NO DRAFT ANGLE CORE PINS)

—SHAFT DIAMETER (P) DESIGNATION TYPE—

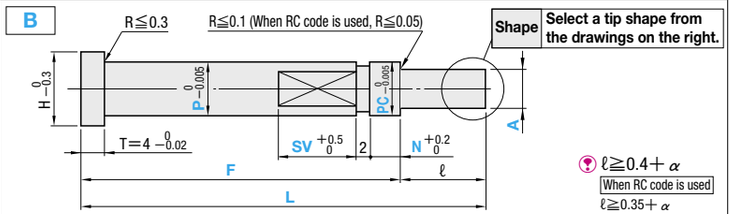


Non JIS material definition is listed on P.1351 - 1352

M H	Part Number Type	Step	Shape	Group	T A	T L・F
SKD61 equivalent 48～52HRC	GV—CPPBS—	B C D E	S C G T R B	Standard	0 −0.01	+0.02 0 (G B only 0 L−0.05)
SKH51 equivalent 58～60HRC	GV—CPHBS—					
SKD61 equivalent 48～52HRC	GV—CPZBS—			Precision	0 −0.005	+0.01 0 (G B only 0 L−0.05)
SKH51 equivalent 58～60HRC	GV—CPVBS—					

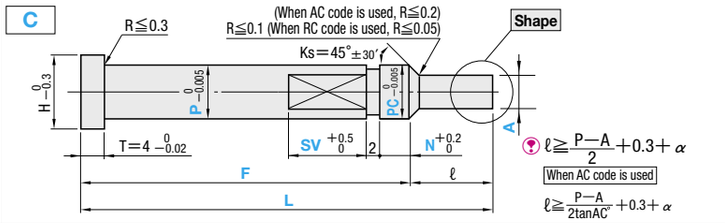
Step (Step type) Select from 1A～1D in the drawing below

B



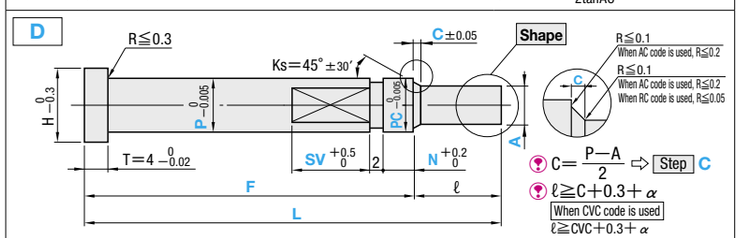
ℓ≧0.4+α
When RC code is used
ℓ≧0.35+α

C



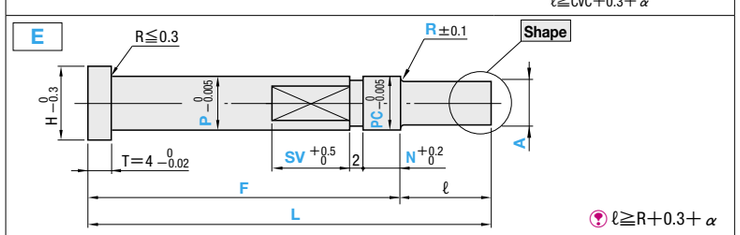
ℓ≧(P−A)/2 +0.3+α
When AC code is used
ℓ≧P−A/2tanAC +0.3+α

D



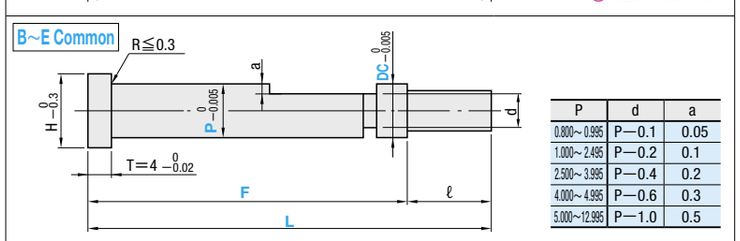
C=(P−A)/2 ⇨ Step C
ℓ≧C+0.3+α
When CVC code is used
ℓ≧CVC+0.3+α

E



ℓ≧R+0.3+α

B～E Common



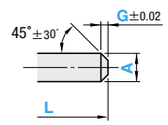
P	d	a
0.800～0.995	P−0.1	0.05
1.000～2.495	P−0.2	0.1
2.500～3.995	P−0.4	0.2
4.000～4.995	P−0.6	0.3
5.000～12.995	P−1.0	0.5

Shape (Tip shape)

S (Not processed)

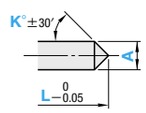
α=0

C (C chamfering)



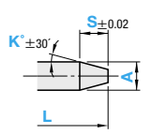
0.1≦G<A/2
Standard 0.1mm increments
Precision 0.05mm increments
α=G

G (Cone)



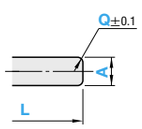
20<K≦60
1° increments
α=A/2tanK

T (Tapered)



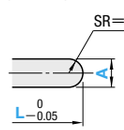
0.1≦S<A/2tanK
Standard 0.1mm increments
Precision 0.05mm increments
0<K≦45
1° increments
α=S

R (R chamfering)



0.2≦Q<A/2
0.1mm increments
α=Q

B (Spherical processed)



α=A/2

H	Part Number Type	Step	Shape	No.	0.01mm increments L	P Standard 0.01mm increments	P Precision 0.005mm increments	0.01mm increments F	A min.	A max.	0.1mm increments C	0.1mm increments R	0.005mm increments PC	0.1mm increments N	0.5mm increments SV	ℓ max.
3	GV—CPPBS— GV—CPHBS— GV—CPZBS— GV—CPVBS—	B C D E	S C G T R B	1	16.50～100.00	0.80～0.99	0.800～0.995	14.50～L−ℓ min. (ℓ min. Refer to Step drawing)	0.50	PC>A	Only Step D is designated. C<(P−A)/2 and ※0.1≦C≦4.0 ※When CVC code is used 0.10≦CVC≦1.00	Only Step E is designated. R≦(P−A)/2 and R≧0.2	(P−0.08)≦PC≦P When PC=P, designate PCX	0.3～10.0	2.0～50.0	Standard L≦10XA and ℓ≦35
4				1.5		1.00～1.49	1.000～1.495									
5				2		1.50～1.99	1.500～1.995							F−(2+SV+N)≧10		
6				2.5		2.00～2.49	2.000～2.495									
7				3		2.50～2.99	2.500～2.995		0.70							
8				3.5	16.50～120.00	3.00～3.49	3.000～3.495		1.00					0.5～15.0	2.0～60.0	Precision L≦12XA and ℓ≦35
9				4		3.50～3.99	3.500～3.995									
10				4.5		4.00～4.49	4.000～4.495									
11				5		4.50～4.99	4.500～4.995		1.50					F−(2+SV+N)≧10		
15				5.5		5.00～5.49	5.000～5.495									
18				6		5.50～5.99	5.500～5.995		2.00							
				7		6.00～6.99	6.000～6.995									
				8		7.00～7.99	7.000～7.995									
				10		8.00～9.99	8.000～9.995									
				13		10.00～12.99	10.000～12.995									

Order

Part Number	L	P	F	A	C・R	Tip size (K・S・G・Q)	PC(PCX)	N	SV
GV—CPPBS—BS5	58.00	P4.95	F40.00	A4.80			PC4.890	N2	SV10
GV—CPVBS—DR6	46.00	P5.900	F38.00	A5.00	C0.3	Q1.0	PCX	N4	SV15

Days to Ship Quotation

Price Quotation

Alterations

Part Number	L	P	F	A(AAC)	C(CVC)・R(RE)	Tip size (K・S・G・Q)	PC(PCX)	N	SV(SVC)	(KC・WKC…etc.)
GV—CPHBS—BC6	50.00	P5.90	F40.00	A5.00		G1.0	PCX	N4	SV10	HC8.0
GV—CPPBS—CS5	58.00	P4.90	F50.00	A4.80			PC4.69	N2	SV15	NHC—23

Alteration details P.495

Alterations	Code	Spec.	1Code
KC 0 −0.01	KC	Single flat cutting P/2≦KC<H/2	Quotation
WKC 0 −0.01	WKC	Two flats cutting P/2≦WKC<H/2	
KAC KBC 0 −0.01	KAC KBC	Varied width parallel flats cutting P/2≦KAC<H/2 KBC=0.1mm increments only KAC<KBC<H/2	
H HC −0.3 0	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.	
H HCC −0.02 0	HCC	Head diameter change (precision) HCC=0.1mm increments P+0.5≦HCC<H−0.3	
TC 0 −0.02 4	TC	Head thickness change TC=0.1mm increments 1.5≦TC<4 (Dimensions L and F remain unchanged.) 4−TC≦Lmax.−L	

About Designation Unit for Key Flat Cutting
(1)To align the key flat with the shaft diameter
Unit of designation 0.005mm increments possible Precision 0.0025mm increments possible
(2)To designate arbitrary key flat dimensions
Unit of designation 0.1mm

Alterations	Code	Spec.	1Code
	TRN	Relief under the head (Makes plate chamfering unnecessary)	
A15 8	NHC	Numbering on the head How to order P.496 ℗Available when H≧2	
RE	RE	R shape alteration (enlargement) RE=0.5mm increments ℗0.5≦RE≦2.0 ℗F tolerance is +0.05 0 ℗Standard Available for Step E	
AAC	AAC	Extends the working limit of A min. ℗AAC=0.01mm increments ℗ℓ≦10×AAC	Quotation

No.	A min.	AAC min.
1～1.5	0.50	0.40
3.5～4	1.00	0.70
5.5	1.50	1.00
6～13	2.00	1.50

⊗In case of No.=2～3・4.5・5, A min. is the machining limit, and AAC cannot be used.

Alterations	Code	Spec.	1Code
45° RC	RC	Changes R (normally ≦0.1) to R≦0.05. Designation method RC ℗Precision Available for Step B・C・D	Quotation
45° CVC±0.02	CVC	C dimension can be designated at 0.01mm increments. 0.10≦CVC≦1.00 CVC=0.01mm increments ℗Available for Step D	
AC°	AC	Changes the standard angle (Ks=45°). AC=1° increments ℗Available for Step C・D ℗30≦AC≦60 ⊗Combination with CVC/RC not available. ℗When Step D, C≦1.0, A+2(C×tanAC°)<PC	
FC F	FC	F dimension becomes shorter than F min., and L dimension becomes shorter than L min.,too. FC≧5mm ℗It can be designated up to L min.=6.5mm. ℗Available for Precision	
SVC	SVC	Extend the flat section SV to the bottom. ℗When P<1 ⋯ Available for L=60 or less ℗When used concurrently with key flat cutting, SVC processing is done perpendicularly to the key flat surface.	