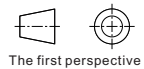
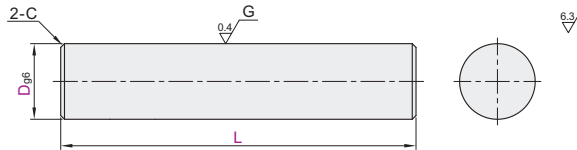


Code	Type	D Tol.	Material		Hardness	Surface Treatment
			GB	Equiv.		
SAD02	Standard	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P15	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5µm
SAD06			9Cr18Mo	SUS440C	Quench Hardness GCr15 HRC56~ S45C HRC56~ 9Cr18Mo HRC54~	—
SAD07						
SAD22			45	S45C		Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5µm



The first perspective

Part Number			L	C
Code	Dg6		1 mm Increment	
SAD02 SAD06 SAD07 SAD22	6	-0.004 -0.012	15~600	0.2
	8	-0.005 -0.014	15~800	
	10		15~1000	
	12		20~1000	0.5
	13	-0.006 -0.017	25~1200	
	15		30~1200	
	16		30~1500	1.0
	18	-0.007 -0.020	40~1500	
	20		60~1500	
	25	-0.009 -0.025		
	30			
	35			
	40			
	50			



Please order as shown

Part Number	D	L	C
SAD02	6	15~600	0.2
SAD06	8	15~800	0.5

SAD02—D6—L100

Optional Processing

Part Number	D	L	Optional Processing Code
SAD02	6	15~600	LC EC()
SAD06	8	15~800	SD() JD()...

SAD02—D6—L100—SC4



Discount price

Per	1~4	5~
Price	100%	Additional quotation

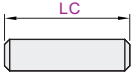
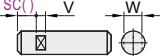


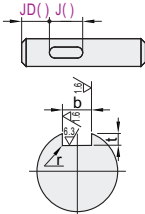
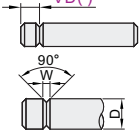
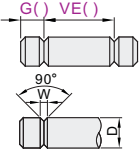
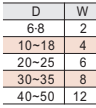
Delivery

8



Optional Processing

Code	Spec.																																															
LC	L Dimension Tolerance Change	Ordering Code LC ① 0.1 mm Increment ② When L < 300, L±0.03; When 300 ≤ L < 600, L±0.05; When L ≥ 600, L±0.1.																																														
																																																
EC ()	Set Screw Flat at One Location	Ordering Code EC10-K8 ① 1 mm Increment	<table><tr><th>D</th><th>h</th></tr><tr><td>6~18</td><td>1</td></tr><tr><td>20~40</td><td>2</td></tr><tr><td>50</td><td>3</td></tr></table>	D	h	6~18	1	20~40	2	50	3																																					
	D	h																																														
6~18	1																																															
20~40	2																																															
50	3																																															
ED ()	Set Screw Flats at Two Locations	Ordering Code ED10-K8-T20 ① 1 mm Increment	<table><tr><th>D</th><th>h</th></tr><tr><td>6~18</td><td>1</td></tr><tr><td>20~40</td><td>2</td></tr><tr><td>50</td><td>3</td></tr></table>	D	h	6~18	1	20~40	2	50	3																																					
	D	h																																														
6~18	1																																															
20~40	2																																															
50	3																																															
SC ()	Wrench Flats at One Location	Ordering Code SC5 ① 1 mm Increment ② Application Notes: D ≥ 5	<table><tr><th>D</th><th>W</th><th>V</th></tr><tr><td>6</td><td>5</td><td></td></tr><tr><td>8</td><td>7</td><td>9</td></tr><tr><td>10</td><td>8</td><td></td></tr><tr><td>12</td><td>10</td><td></td></tr><tr><td>13</td><td>11</td><td></td></tr><tr><td>15</td><td>13</td><td></td></tr><tr><td>16</td><td>14</td><td>11</td></tr><tr><td>18</td><td>16</td><td></td></tr><tr><td>20</td><td>17</td><td></td></tr><tr><td>25</td><td>22</td><td></td></tr><tr><td>30</td><td>27</td><td>16</td></tr><tr><td>35</td><td>30</td><td></td></tr><tr><td>40</td><td>36</td><td></td></tr><tr><td>50</td><td>41</td><td>21</td></tr></table>	D	W	V	6	5		8	7	9	10	8		12	10		13	11		15	13		16	14	11	18	16		20	17		25	22		30	27	16	35	30		40	36		50	41	21
	D	W	V																																													
6	5																																															
8	7	9																																														
10	8																																															
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16	14	11																																														
18	16																																															
20	17																																															
25	22																																															
30	27	16																																														
35	30																																															
40	36																																															
50	41	21																																														
																																																

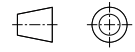
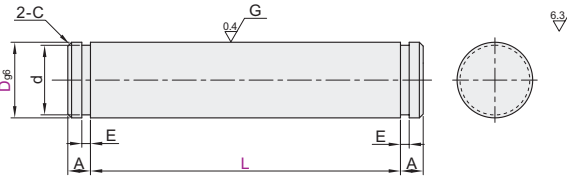
Code	Spec.													
JD ()	Add Keyway at One Location	Ordering Code JD10-J10 ① 1 mm Increment ② When JD = 0, see the Above figure. ③ Only applicable to D=12, 16, 20, 25 and 30. ④ Keyway details refer to P15.												
														
VD ()	Adds V Groove at One Location	Ordering Code VD8 ① 1 mm Increment ② Application Notes: D ≥ 5. <table><thead><tr><th>D</th><th>W</th></tr></thead><tbody><tr><td>6-8</td><td>2</td></tr><tr><td>10~18</td><td>4</td></tr><tr><td>20-25</td><td>6</td></tr><tr><td>30-35</td><td>8</td></tr><tr><td>40-50</td><td>12</td></tr></tbody></table>	D	W	6-8	2	10~18	4	20-25	6	30-35	8	40-50	12
	D	W												
6-8	2													
10~18	4													
20-25	6													
30-35	8													
40-50	12													
														
VE ()	Adds V Grooves at Two Locations	Ordering Code VE180-G8 ① 1 mm Increment ② Application Notes: D ≥ 5. <table><thead><tr><th>D</th><th>W</th></tr></thead><tbody><tr><td>6-8</td><td>2</td></tr><tr><td>10~18</td><td>4</td></tr><tr><td>20-25</td><td>6</td></tr><tr><td>30-35</td><td>8</td></tr><tr><td>40-50</td><td>12</td></tr></tbody></table>	D	W	6-8	2	10~18	4	20-25	6	30-35	8	40-50	12
	D	W												
6-8	2													
10~18	4													
20-25	6													
30-35	8													
40-50	12													
														

- ① When selecting two or more optional processing, the distance between the processing areas should be greater than 2 mm.
② Optional Processing may reduce hardness.

Code	Type	D Tol.	Material		Hardness	Surface Treatment
			GB	Equiv.		
SAE02	With Retaining Ring Grooves	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P15	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5μm
SAE06			9Cr18Mo	SUS440C	Quench Hardness GCr15 HRC56~	—
SAE07					9Cr18Mo HRC54~	
						Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5μm



Self-made



The first perspective

□ Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.

Part Number		L 1 mm Increment	A	E	d	Applicable Retaining Ring (2 pcs)		C
Code	D _{g6}					SAE06	SAE02/07	
SAE02	6	-0.004 -0.012	15~600	2	0.7	5	TBP11-5	0.5
	8	-0.005 -0.014	15~800	3	0.9	7	TBP11-7	
	10					9.6	TBP01-10	
	12					11.5	TBP01-12	
SAE06	13			1.15		12.4	TBP01-13	
	15	-0.006 -0.017	20~1000			14.3	TBP01-15	
	16					15.2	TBP01-16	
	18					17	TBP01-18	
SAE07	20			1.35		19	TBP01-20	
	25	-0.007 -0.020	30~1200	4.5		23.9	TBP01-25	1.0
	30			1.65		28.6	TBP01-30	
							TBP02-30	

□ For Retaining Rings, Refer to P844.

□ Optional Processing



Please order as shown

Part Number		L	A
Code	D		
SAE02	6	15~600	2
SAE06	8	15~800	3

SAE02—D6—L100

SAE02—D6—L100

Part Number	Code	D	L	Optional Processing Code
SAE02	6	15~600		KC()
SAE06	8	15~800		

SAE02—D6—L100—HC



Discount price	Per	1~4	5~
Price	100%		Additional quotation



Delivery	8
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Optional Processing

Code	Spec.
HC	One End W/O Retaining Ring Groove Ordering Code HC

Code	Spec.
KC()	Length Leader Position Change (Dimensioning leader position of L dimension will be altered to the outside of retaining ring grooves) Ordering Code KC30 □ 1 mm Increment

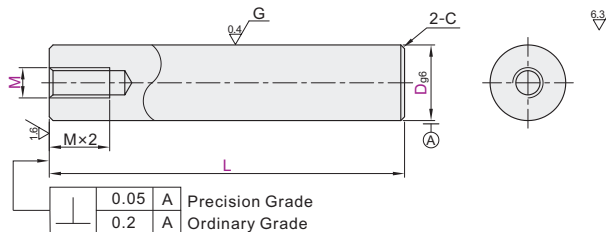
□ When selecting two or more optional processing, the distance between the processing areas should be greater than 2 mm.

□ Optional Processing may reduce hardness.

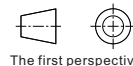
Code	Type	Accuracy Grade	DTol.	Material		Hardness	Surface Treatment
				GB	Equiv.		
SCD02	One End Tapped	Ordinary Grade	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P15 Quench Hardness GCr15 HRC56~ S45C HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5µm
SCD06				9Cr18Mo	SUS440C		—
SCD07				45	S45C		Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5µm
SCD22				GCr15	SUJ2		—
SCD52	Precision Grade	Precision Grade		GCr15	SUJ2	9Cr18Mo HRC54~	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5µm
SCD56				9Cr18Mo	SUS440C		—
SCD57				9Cr18Mo	SUS440C		Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5µm



Self-made



- Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). Please refer to shaft product introduction.



The first perspective

Ordinary Grade

Part Number		L	M	C
Code	D _{g6}	1 mm Inc.	Selection	
SCD02	6	15~600	3	0.5
	8	15~800	3 4 5	
	10	15~800	3 4 5 6	
	12	15~1000	4 5 6 8	
	13	15~1000	4 5 6 8	
	15	20~1000	4 5 6 8 10	
	16	20~1200	4 5 6 8 10	
	18	20~1200	4 5 6 8 10 12	
	20	25~1200	4 5 6 8 10 12	
	25	25~1200	4 5 6 8 10 12 16	
SCD06	30	30~1500	4 5 6 8 10 12 16 20	1.0
	35	30~1500	8 10 12 16 20 24	
	40	40~1500	10 12 16 20 24 30	
	50	60~1500	12 16 20 24 30	
	50	60~1500	12 16 20 24 30	

Precision Grade

Part Number		L	M	C
Code	D _{g6}	1 mm Inc.	Selection	
SCD52	6	20~300	3	0.5
	8	20~300	3 4 5	
	10	20~300	3 4 5 6	
	12	20~300	4 5 6 8	
	13	20~350	4 5 6 8	
	15	20~350	4 5 6 8 10	
	16	20~350	4 5 6 8 10	
	18	20~350	4 5 6 8 10 12	
	20	20~350	4 5 6 8 10 12	
	25	25~450	4 5 6 8 10 12 16	
SCD57	30	25~450	4 5 6 8 10 12 16 20	1.0
	30	25~450	4 5 6 8 10 12 16 20	



Please order as shown

Part Number	D	L	M
SCD02	6	15~600	3
SCD06	8	15~800	3 4 5

SCD02—D6—L20—M3

Optional Processing

Part Number	D	L	M	Optional Processing Code
SCD02	6	15~600	3	EC()
SCD06	8	15~800	3 4 5	MC() JD()

SCD02—D6—L20—M3— LC



Discount price	Per	1~4	5~
Price	100%	Additional quotation	

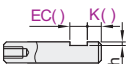
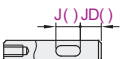


Delivery 8



Optional Processing

Code	Spec.																				
LC	L Dimension Tolerance Change  - Ordering Code LC 0.1 mm Increment - When $L < 300$, $L_{\pm 0.03}$; When $300 \leq L < 600$, $L_{\pm 0.05}$; When $L \geq 600$, $L_{\pm 0.1}$. $L > 300$'s Precision Grade is not applicable.																				
MC()	Change to Fine Tapped Thread  <table><tr><th>Ordering Code</th><th>MC14</th></tr><tr><th>D</th><th>MC</th></tr><tr><td>12-13</td><td>8 —</td></tr><tr><td>15-16</td><td>8 10 —</td></tr><tr><td>18</td><td>8 10 12</td></tr><tr><td>20</td><td>8 10 12 16</td></tr><tr><td>25-35</td><td>8 10 12 16 20</td></tr><tr><td>40</td><td>— 10 12 16 20</td></tr><tr><td>50</td><td>— 12 16 20</td></tr><tr><td>Pitch</td><td>1.0 1.25 1.5</td></tr></table> - In selection, M must be changed to MC. - In selection, M and MC must be the same size.	Ordering Code	MC14	D	MC	12-13	8 —	15-16	8 10 —	18	8 10 12	20	8 10 12 16	25-35	8 10 12 16 20	40	— 10 12 16 20	50	— 12 16 20	Pitch	1.0 1.25 1.5
	Ordering Code	MC14																			
D	MC																				
12-13	8 —																				
15-16	8 10 —																				
18	8 10 12																				
20	8 10 12 16																				
25-35	8 10 12 16 20																				
40	— 10 12 16 20																				
50	— 12 16 20																				
Pitch	1.0 1.25 1.5																				

Code	Spec.									
EC ()	Set Screw Flat at One Location 	Ordering Code EC10-K8 ① 1 mm Increment ① Only applicable to ordinary grade. <table><tr><th>D</th><th>h</th></tr><tr><td>6~18</td><td>1</td></tr><tr><td>20~40</td><td>2</td></tr><tr><td>50</td><td>3</td></tr></table>	D	h	6~18	1	20~40	2	50	3
	D	h								
6~18	1									
20~40	2									
50	3									
JD ()	Add Keyway at One Location 	Ordering Code JD10-J10 ① 1 mm Increment ① When JD = 0, see the right figure. ① Only applicable to D=12, 16, 20, 25 and 30. ① Keyway details refer to P15. ① Only applicable to ordinary grade. 								

- When selecting multiple Optional Processing, the distance between machined areas should be greater than 2 mm.
- Optional Processing may reduce hardness.

Shafts

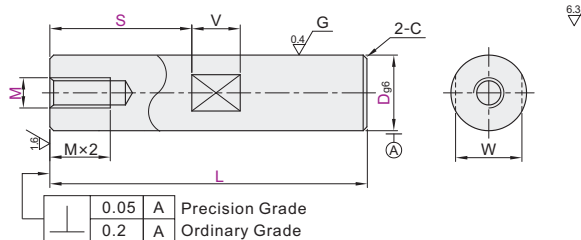
With Wrench Flats

One End Tapped(Ordinary Grade/Precision Grade)

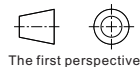
With Wrench Flats		D Tol.	Material		Hardness	Surface Treatment
Ordinary Grade	Precision Grade		GB	Equiv.		
SCE02	SCE32	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P15	Hard Chrome Plating, Plating Hardness HV850~ Plating Thickness 3~5µm
SCE06	SCE36		9Cr18Mo	SUS440C	Quench Hardness	—
SCE07	SCE37		GCr15	HRC56~	GCr15 HRC56~	Hard Chrome Plating, Plating Hardness HV850~ Plating Thickness 3~5µm
SCE22	—		45	S45C	S45C HRC56~ 9Cr18Mo HRC54~	—



Self-made



6.3



The first perspective

- ① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- ② Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). Please refer to shaft product introduction.

Ordinary Grade

Part Number		L	M	Wrench Flats Dimensions			C
Code	D _{g6}	1mm Increment	Selection	S	W	V	
SCE02 SCE06 SCE07 SCE22	6	15~600	3	① According to the use of Request for designation S size. ② 1 mm Increment ③ Wrench Flats Dimensions refer to the product introduction of shafts.	5		0.5
	8	15~800	3 4 5		7	9	
	10	15~1000	3 4 5 6		8		
	12	15~1000	4 5 6 8		10		
	13	20~1000	4 5 6 8		11		
	15	20~1000	4 5 6 8 10		13		
	16	25~1200	4 5 6 8 10		14	11	
	18	30~1200	4 5 6 8 10 12		16		
	20	30~1200	4 5 6 8 10 12		17		
	25	30~1200	4 5 6 8 10 12 16		22		
	30	30~1500	6 8 10 12 16 20		27		
	35	40~1500	8 10 12 16 20 24		30	16	
	40	40~1500	10 12 16 20 24 30		36		
	50	60~1500	12 16 20 24 30		41	21	

Precision Grade

Part Number		L	M	Wrench Flats Dimensions			C
Code	D _{g6}	1mm Increment	Selection	S	W	V	
SCE32 SCE36 SCE37	6	20~300	3	① According to the use of Request for designation S size. ② 1 mm Increment ③ Wrench Flats Dimensions refer to the product introduction of shafts.	5		0.5
	8	20~300	3 4 5		7	9	
	10	20~300	3 4 5 6		8		
	12	20~300	4 5 6 8		10		
	13	20~350	4 5 6 8		11		
	15	20~350	4 5 6 8 10		13		
	16	25~450	4 5 6 8 10		14	11	
	18	30~450	4 5 6 8 10 12		16		
	20	30~450	4 5 6 8 10 12		17		
	25	30~450	4 5 6 8 10 12 16		22		
	30		6 8 10 12 16 20		27	16	1.0

Optional processing

Part Number	L	M	S
SCE02	15~600	3	4 5
SCE06	15~800	3 4 5	

Part Number	L	M	S	Optional Processing Code
SCE02	15~600	3	4 5	MC()
SCE06	15~800	3 4 5		



Discount price	Per	1~4	5~
Price	100%	Additional quotation	



Delivery	8
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Code	Spec.
LC	Alteration to L Dimension Tolerance Ordering Code: LC ① 0.1 mm Increment ② When L < 300, L ± 0.03; When 300 ≤ L < 600, L ± 0.05; When L ≥ 600, L ± 0.1. ③ L > 300 's Precision Grade is not applicable.
JD()	Add Keyway at One Location Ordering Code: JD10-J10 ① 1 mm Increment ② When JD = 0, see the above figure. ③ Only applicable to D = 12, 16, 20, 25 and 30. ④ Keyway details refer to P15.

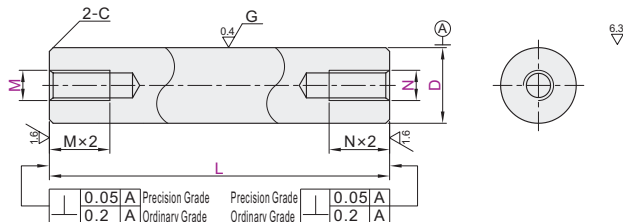
Code	Spec.
EC()	Set Screw Flat at One Location Ordering Code: EC10-K8 ① 1 mm Increment D h 6~18 1 20~40 2 50 3
MC()	Change to Fine Tapped Thread Ordering Code: MC14 D MC 12~13 — 15~16 — 18 8 12 20 10 12 16 25~35 — 12 16 20 40 — 12 16 20 50 — 12 16 20 Pitch 1.0 1.25 1.5 ① In selection, M must be changed to MC. ② In selection, M and MC must be the same size.

Both Ends Tapped(Ordinary Grade/Precision Grade)

Code	Type	Accuracy Grade	D Tol.	Material		Hardness	Surface Treatment
				GB	Equiv.		
SCJ02	Standard	Ordinary Grade	g6	GCr15	SUJ2	Induction Hardened	Hard Chrome Plating, Plating Hardness HV850~Plating Thickness 3~5μm
SCJ06				9Cr18Mo	SUS440C	Effective Hardened	—
SCJ07				45	S45C	Depth refer to P15	—
SCJ22				GCr15	SUJ2	Quench Hardness	Hard Chrome Plating, Plating Hardness HV850~Plating Thickness 3~5μm
SCJ52	Precision Grade	Precision Grade		GCr15	SUJ2	GCr15 HRC56~S45C HRC56~9Cr18Mo HRC54~	—
SCJ56				9Cr18Mo	SUS440C		—
SCJ57							Hard Chrome Plating, Plating Hardness HV850~Plating Thickness 3~5μm

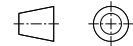


Self-made



① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.

② Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). Please refer to shaft product introduction.



The first perspective

Ordinary Grade

Part Number		L 1mm Inc.	M·N Selection	C
Code	D _{g6}			
SCJ02 SCJ06 SCJ07 SCJ22	6	15~600	3	0.5
	8	15~800	3 4 5	
	10		3 4 5 6	
	12		4 5 6 8	
	13	15~1000	4 5 6 8	0.2
	15	20~1000	4 5 6 8 10	
	16	20~1200	4 5 6 8 10	
	18		4 5 6 8 10 12	
	20	25~1200	4 5 6 8 10 12	1.0
	25		4 5 6 8 10 12 16	
	30		4 5 6 8 10 12 16 20	
	35		4 5 6 8 10 12 16 20 24	
	40	30~1500	4 5 6 8 10 12 16 20 24 30	
	50		4 5 6 8 10 12 16 20 24 30	

Precision Grade

Part Number		L 1mm Inc.	M·N Selection	C
Code	D _{g6}			
SCJ52 SCJ56 SCJ57	6	20~300	3	0.2
	8		3 4 5	
	10		3 4 5 6	
	12		4 5 6 8	
	13	20~350	4 5 6 8	
	15		4 5 6 8 10	
	16		4 5 6 8 10	
	18		4 5 6 8 10 12	
	20		4 5 6 8 10 12	
	25	25~450	4 5 6 8 10 12 16	
	30		4 5 6 8 10 12 16 20	



Please order as shown



Optional Processing

Part Number	D	L	M·N
Code	D	L	M·N
SCJ02	6	15~600	3
SCJ06	8	15~800	3 4 5

SCJ02—D6—L80—M3—N3

Optional Processing

Part Number	D	L	M·N	Optional Processing Code
Code	D	L	M·N	Optional Processing Code
SCJ02	6	15~600	3	SD() CD MC() NC()
SCJ06	8	15~800	3 4 5	MC() NC()

SCJ02—D6—L80—M3—N3—LC



Discount price
Per 1~4 5~
Price 100% Additional quotation



Delivery
8

Code	Spec.
SD()	Wrench Flats at Two Locations [Ordering Code] SD12-S8 ① 1mm Increment ② Application Notes: D≥5 D W V 6 5 8 7 9 10 8 12 10 13 11 15 13 16 14 11 18 16 20 17 25 22 30 27 35 30 16 40 36 50 41 21 M Side SD() V V S() W ① Orientation between wrench flats is not coplanar.

Code	Spec.
LC	Alteration to L Dimension Tolerance [Ordering Code] LC ① 0.1mm Increment ② When L<300, L±0.03; When 300≤L<600, L±0.05; When L≥600, L±0.1. ③ L>300's Precision Grade is not applicable.
MC() NC()	Change to Fine Tapped Thread [Ordering Code] MC12 D MC-NC 12-13 8 10 15-16 8 10 12 18 8 10 12 16 20 8 10 12 16 20 25-35 8 10 12 16 20 40 10 12 16 20 50 12 16 20 Pitch 1.0 1.25 1.5 ① In selection, M(N) must be changed to MC(NC). ② In selection, M(N) and MC(NC) must be the same size.

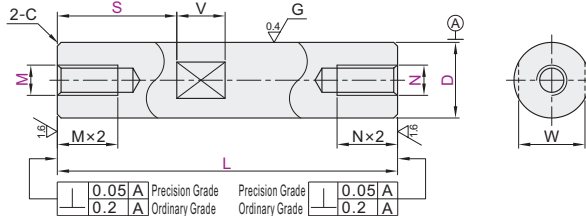
① When selecting two or more optional processing, the distance between the processing areas should be greater than 2 mm.

② Optional Processing may reduce hardness.

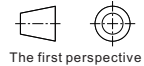
With Wrench Flats		D Tol.	Material		Hardness	Surface Treatment
Ordinary Grade	Precision Grade		GB	Equiv.		
SCK02	SCK32	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P15	Hard Chrome Plating,Plating Hardness HV850~ Plating Thickness 3~5µm
SCK06	SCK36		9Cr18Mo	SUS440C	Quench Hardness GCr15 HRC56~ S45C HRC56~ 9Cr18Mo HRC54~	—
SCK07	SCK37					
SCK22	—		45	S45C		Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5µm



Self-made



6.3/



- Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). Please refer to shaft product introduction.

□ Ordinary Grade

Part Number		D _{g6}	L 1mm Inc.	M-N Selection	Wrench Flats Dimensions			C
Code					S	W	V	
SCK02 SCK06 SCK07 SCK22	6	-0.004 -0.012	15~600	3	□ According to the use of Request for designation S size.	5	9	0.5
	8	-0.005 -0.014	15~800	3 4 5		7		
	10			3 4 5 6		8		
	12		15~1000	4 5 6 8		10		
	13			4 5 6 8	□ 1 mm Increment	11	11	
	15	-0.006 -0.017	20~1000	4 5 6 8 10		13		
	16			4 5 6 8 10		14		
	18		25~1200	4 5 6 8 10 12		16		
	20			4 5 6 8 10 12	□ Wrench Flats Dimensions refer to the product introduction of shafts.	17	16	1.0
	25	-0.007 -0.020	30~1200	4 5 6 8 10 12 16		22		
	30		30~1500	4 5 6 8 10 12 16 20		27		
	35			4 5 6 8 10 12 16 20 24		30		
	40	-0.009 -0.025	50~1500	4 5 6 8 10 12 16 20 24 30		36		
	50			4 5 6 8 10 12 16 20 24 30		41	21	

□ Precision Grade

Part Number		D _{g6}	L 1mm Inc.	M-N Selection	Wrench Flats Dimensions			C
Code					S	W	V	
SCK32 SCK36 SCK37	6	-0.004 -0.012	20~300	3	□ According to the use of Request for designation S size.	5	9	0.2
	8	-0.005 -0.014		3 4 5		7		
	10			3 4 5 6		8		
	12			4 5 6 8		10		
	13		20~350	4 5 6 8	□ 1 mm Increment	11	11	
	15	-0.006 -0.017		4 5 6 8 10		13		
	16			4 5 6 8 10		14		
	18			4 5 6 8 10 12		16		
	20			4 5 6 8 10 12	□ Wrench Flats Dimensions refer to the product introduction of shafts.	17	16	
	25	-0.007 -0.020	25~450	4 5 6 8 10 12 16		22		
	30			6 8 10 12 16 20		27		

□ Ordinary Grade

Part Number	D	L	M-N	S
SCK02	6	15~600	3	□
SCK06	8	15~800	3 4 5	□

According to the use of Request for designation S size.

SCK02—D6—L85—M3—N3—S20

□ Optional Processing

Part Number	D	L	M-N	S	Optional Processing Code
SCK02	6	15~600	3	□	□ MC() NC()
SCK06	8	15~800	3 4 5	□	□ MC() NC()

According to the use of Request for designation S size.

SCK02—D6—L85—M3—N3—S20—LC



Discount price
Per 1~4 5~
Price 100% Additional quotation

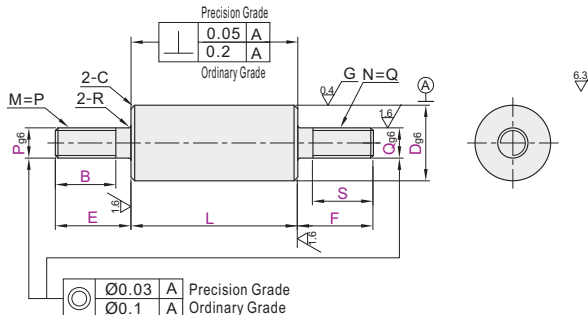
Delivery
8



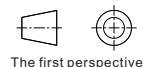
Code	Spec.
LC	Alteration to L Dimension Tolerance Ordering Code LC □ 0.1 mm Increment □ When L < 300, L_{±0.03}; When 300 ≤ L < 600, L_{±0.05}; When L ≥ 600, L_{±0.1}. □ L > 300 's Precision Grade is not applicable.

Code	Spec.																		
MC() NC()	Change to Fine Tapped Thread Ordering Code MC12 <table border="1"> <thead> <tr> <th>D</th><th>MC-NC</th></tr> </thead> <tbody> <tr> <td>12-13</td><td>8 —</td></tr> <tr> <td>15-16</td><td>8 10 —</td></tr> <tr> <td>18</td><td>8 10 12</td></tr> <tr> <td>20</td><td>8 10 12 16</td></tr> <tr> <td>25-35</td><td>8 10 12 16 20</td></tr> <tr> <td>40</td><td>— 12 16 20</td></tr> <tr> <td>50</td><td>— — 12 16 20</td></tr> <tr> <td>Pitch</td><td>1.0 1.25 1.5</td></tr> </tbody> </table> □ In selection, M(N) must be changed to MC(NC). □ In selection, M(N) and MC(NC) must be the same size.	D	MC-NC	12-13	8 —	15-16	8 10 —	18	8 10 12	20	8 10 12 16	25-35	8 10 12 16 20	40	— 12 16 20	50	— — 12 16 20	Pitch	1.0 1.25 1.5
D	MC-NC																		
12-13	8 —																		
15-16	8 10 —																		
18	8 10 12																		
20	8 10 12 16																		
25-35	8 10 12 16 20																		
40	— 12 16 20																		
50	— — 12 16 20																		
Pitch	1.0 1.25 1.5																		

Standard		D Tol.	Material		Hardness	Surface Treatment
Ordinary Grade	Precision Grade		GB	Equiv.		
SEP02	SEP32		GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P15	Hard Chrome Plating, Plating Hardness HV850-, Plating Thickness 3~5µm
SEP06	SEP36	g6	9Cr18Mo	SUS440C	Quench Hardness GCr15 HRC56~ 9Cr18Mo HRC54~	—
SEP07	SEP37					Hard Chrome Plating, Plating Hardness HV850-, Plating Thickness 3~5µm



- ① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- ② Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). Please refer to shaft product introduction.
- ③ The thread root of the precision shaft has a grinding undercut (1mm wide and 0.1mm depth).



Ordinary Grade

Part Number			1 mm Increment			P-Q Selection	R	C
Code	D _{g6}		L	E-F	B-S			
SEP02 SEP06 SEP07	6	-0.004 -0.012	20~600			3 4 5		
	8	-0.005 -0.014	20~800			3 4 5 6		
	10					4 5 6 8		
	12					5 6 8 10 12		
	13		20~1000			5 6 8 10 12		0.5
	15	-0.006 -0.017				5 6 8 10 12	0.3	
	16			E=2~P×5		5 6 8 10 12 16		
	18		20~1200	F=2~Q×5		6 8 10 12 16		
	20					8 10 12 16		
	25	-0.007 -0.020				8 10 12 16 20 24		
	30					8 10 12 16 20 24		
	35					10 12 16 20 24 30		1.0
	40	-0.009 -0.025	20~1500			12 16 20 24 30	0.5	
	50					16 20 24 30		

Precision Grade

Part Number			1 mm Increment			P-Q Selection	R	C
Code	D _{g6}		L	E-F	B-S			
SEP32 SEP36 SEP37	6	-0.004 -0.012	20~300			3 4		
	8	-0.005 -0.014				3 4 5 6		
	10					4 5 6 8		
	12					5 6 8 10		
	13		20~350			5 6 8 10		
	15	-0.006 -0.017		E=2~P×5		5 6 8 10 12	0.3	0.2
	16			F=2~Q×5		5 6 8 10 12		
	18					5 6 8 10 12 16		
	20					6 8 10 12 16		
	25	-0.007 -0.020	25~450			8 10 12 16 20		
	30					8 10 12 16 20 24		

Ordinary Grade

Part Number	D	L	E-F	B-S	P-Q
SEP02	6	20~600	E=2~P×5		3 4 5
SEP06	8	20~800	F=2~Q×5		3 4 5 6

SEP02—D6—L200—E10—F10—B6—S6—P3—Q3

Optional Processing

Part Number	D	L	E-F	B-S	P-Q	Optional Processing Code
SEP02	6	20~600	E=2~P×5		3 4 5	SCD
SEP06	8	20~800	F=2~Q×5		3 4 5 6	

SEP02—D6—L200—E10—F10—B6—S6—P3—Q3—SC50

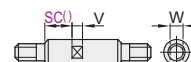


Discount price
Per 1~4 5~
Price 100% Additional quotation

Delivery
8



Code	Spec.
Wrench Flats at One Location	
Ordering Code SC5	
① 1 mm Increment	
D	W V
8	7 9
10	8 11
12	10 11
16	14 16
20	17 16
30	27 16

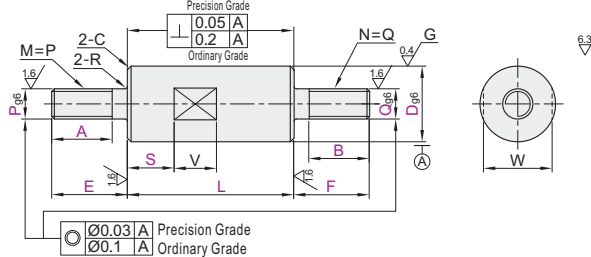


With Wrench Flats ▶

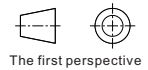
Both Ends Threaded(Ordinary Grade/Precision Grade)

Shafts

With Wrench Flats		D Tol.	Material		Hardness	Surface Treatment
Ordinary Grade	Precision Grade		GB	Equiv.		
SER02	SER32		GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P15	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5µm
SER06	SER36	g6	9Cr18Mo	SUS440C	Quench Hardness GCr15 HRC56~ 9Cr18Mo HRC54~	—
SER07	SER37					Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5µm



- ① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- ① Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm), Please refer to shaft product introduction.
- ① The thread root of the precision shaft has a grinding undercut (1mm wide and 0.1mm depth).



Ordinary Grade

Part Number		1 mm Increment			P-Q Selection	Wrench Flats Dimensions			R	C
Code	D _{g6}	L	E-F	A-B		S	W	V		
SER02 SER06 SER07	6	20~600			3 4 5	5	5			
	8	20~800			3 4 5 6	7	9			
	10				4 5 6 8	8				
	12	20~1000			5 6 8 10	10				0.5
	13				5 6 8 10 12	11				
	15				5 6 8 10 12	13			0.3	
	16		E=2~P×5		5 6 8 10 12	14	11			
	18		F=2~Q×5		5 6 8 10 12 16	16				
	20	20~1200			6 8 10 12 16	17				
	25				8 10 12 16 20 24	22				
	30				8 10 12 16 20 24	27				
	35				10 12 16 20 24 30	30	16		1.0	
	40	20~1500			12 16 20 24 30	36			0.5	
	50				16 20 24 30	41	21			

Precision Grade

Part Number		1 mm Increment			P-Q Selection	Wrench Flats Dimensions			R	C
Code	D _{g6}	L	E-F	A-B		S	W	V		
SER32 SER36 SER37	6	20~300			3 4	5	5			
	8				3 4 5 6	7	9			
	10				4 5 6 8	8				
	12				5 6 8 10	10				
	13	20~350			5 6 8 10	11				
	15		E=2~P×5		5 6 8 10 12	13			0.3	0.2
	16		F=2~Q×5		5 6 8 10 12	14	11			
	18				5 6 8 10 12 16	16				
	20				6 8 10 12 16	17				
	25	20~450			8 10 12 16 20	22				
	30				8 10 12 16 20	27	16			

Ordinary Grade

Part Number	D	L	E-F	A-B	P-Q	S
SER02	6	20~800	E=2~P×5	According to the use of Request for designation A-B size	4 5	According to the use of Request for designation S size
SER06	10		F=2~Q×5			

SER02—D8—L80—E10—F10—A6—B6—P3—Q3—S10

Optional Processing

Part Number	D	L	E-F	A-B	P-Q	S	Optional Processing Code
SER02	6	20~800	E=2~P×5	According to the use of Request for designation A-B size	4 5	According to the use of Request for designation S size	PC(PD) QC(QD)
SER06	10		F=2~Q×5				

SER02—D8—L80—E10—F10—A6—B6—P3—Q3—S10—LC



Please order as shown



Discount price
Per 1~4 5~
Price 100% Additional quotation



Delivery
8



Optional Processing

Code	Spec.
LC	Alteration to L Dimension Tolerance Ordering Code LC ① 0.1 mm Increment ① When L < 300, L_{±0.03}; When 300 ≤ L < 600, L_{±0.05}; When L ≥ 600, L_{±0.1}. ① L > 300 's Precision Grade is not applicable.



Code	Spec.
	Change to Fine Thread PC() PD() QC() QD()

- ① When selecting two or more optional processing, the distance between the processing areas should be greater than 2 mm.
- ① Optional Processing may reduce hardness.

Shafts

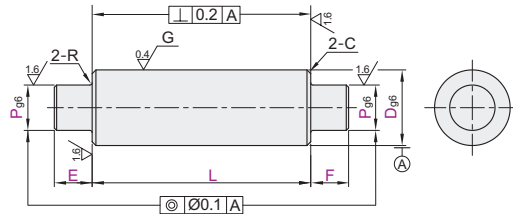
- Both Ends Stepped
- Both Ends Stepped and Tapped
- Ordinary Grade/Precision Grade



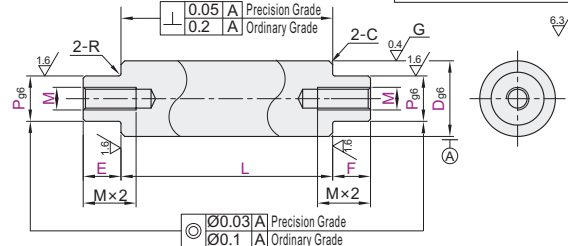
Self-made

Both Ends Stepped	Both Ends Stepped and Tapped		D Tol.	Material		Hardness	Surface Treatment
	Ordinary Grade	Precision Grade		GB	Equiv.		
SHM02	SHN02	SHN32	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P15 Quench Hardness GCr15 HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating/Plating Hardness HV650~Plating Thickness 3~5µm
SHM06	SHN06	SHN36		9Cr18Mo	SUS440C		
SHM07	SHN07	SHN37					

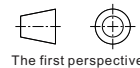
Both Ends Stepped
SHM02/06/07



Both Ends Stepped and Tapped
SHN02/06/07
SHN32/36/37



- Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). Please refer to shaft product introduction.
- The thread root of the precision shaft has a grinding undercut (1mm wide and 0.1mm depth).



Both Ends Stepped (Ordinary Grade)

Part Number	1 mm Increment			R	C
Code	D _{g6}	L	P		
8	-0.005	20~800	6	0.5	
10	-0.014		6~8		
12			6~10		
13		20~1000	6~11	0.3	
15	-0.006		6~13		
16	-0.017		6~14		
18		20~1200	8~16	1.0	
20			8~17		
25	-0.007		8~22		
30	-0.020	20~1500	9~27	0.5	
35			9~32		
40	-0.009		11~37		
50	-0.025		11~47		

Both Ends Stepped and Tapped (Ordinary Grade)

Part Number		1 mm Increment			M		R	C
Code	D _{g6}	L	E/F	P	Selection			
SHN02 SHN06 SHN07	8	-0.005	20~800	6	3			
	10	-0.014		6~8	3 4 5			
	12			6~10	3 4 5 6			
	13		20~1000	6~11	3 4 5 6 8		0.5	
	15	-0.006		6~13	3 4 5 6 8 10			
	16	-0.017		6~14	3 4 5 6 8 10			
	18		20~1200	8~16	4 5 6 8 10 12		0.3	
	20			8~17	4 5 6 8 10 12			
	25	-0.007		8~22	4 5 6 8 10 12 16			
	30	-0.020		9~27	5 6 8 10 12 16 20 24		1.0	
	35		9~32	5 6 8 10 12 16 20 24				
	40	-0.009	11~37	6 8 10 12 16 20 24 30				
	50	-0.025		11~47	6 8 10 12 16 20 24 30		0.5	

Both Ends Stepped and Tapped (Precision Grade)

Part Number		1 mm Increment			M		R	C
Code	D _{g6}	L	E/F	P	Selection			
SHN32 SHN36 SHN37	8	-0.005	20~300	6	3			0.5
	10	-0.014		6~8	3 4 5			
	12			6~10	3 4 5 6			
	13		20~350	6~11	3 4 5 6 8		0.3	
	15	-0.006		6~13	3 4 5 6 8 10			
	16	-0.017		6~14	3 4 5 6 8 10			
	18		20~450	8~16	3 4 5 6 8 10 12		1.0	
	20			8~17	4 5 6 8 10 12			
	25	-0.007		8~22	4 5 6 8 10 12 16			
	30	-0.020		9~27	5 6 8 10 12 16 20 24			

Both Ends Stepped (Ordinary Grade)

Part Number	L	E-F	P
SHM02	20~300	E=2~P×4	6
SHM06	10	F=2~P×4	6~8

SHM02—D8—L30—E10—F10—P6

Both Ends Stepped and Tapped (Ordinary Grade)

Part Number	L	E-F	P	M
SHN02	20~300	E=2~P×4	6	3 4 5
SHN06	10	F=2~P×4	6~8	3 4 5

SHN02—D8—L30—E10—F10—P6—M3

Optional Processing (Both Ends Stepped (Ordinary Grade))

Part Number	L	E-F	P	Optional Processing Code
SHM02	20~300	E=2~P×4	6	JD() JE() SD() EC() ED() K()
SHM06	10	F=2~P×4	6~8	

SHM02—D8—L30—E10—F10—P6—LC

Code	Spec.
LC	Alteration to L Dimension Tolerance Ordering Code LC □ 0.1 mm Increment □ When L < 300, L _{±0.03} ; When 300 ≤ L < 600, L _{±0.05} ; When L ≥ 600, L _{±0.1} .
JD() JE()	Add Keyway at One Location Ordering Code JD10-J10 Ordering Code JE10-X10-JD10-J8 Add Keyways at Two Locations Ordering Code JD10-J10 Ordering Code JE10-X10-JD10-J8 □ 1 mm Increment □ When JD = 0 / JE = 0, see the right figure. □ Only applicable to D=12, 16, 20, 25 and 30. □ Keyway details refer to P15.
EC() ED()	Set Screw Flat at One Location Ordering Code EC10-K8 Ordering Code ED10-K8-T10 Set Screw Flats at Two Locations Ordering Code EC10-K8 Ordering Code ED10-K8-T10 □ 1 mm Increment
SD()	Wrench Flats at Two Locations Ordering Code SD12-S8 □ 1 mm Increment



Delivery 8

- When selecting multiple alteration additions, the distance between machined areas should be greater than 2mm.
- Optional Processing may reduce hardness.



Discount price	Per	1~4	5~
Price	100%	Additional quotation	

Both Ends Stepped and Tapped With Wrench Flats

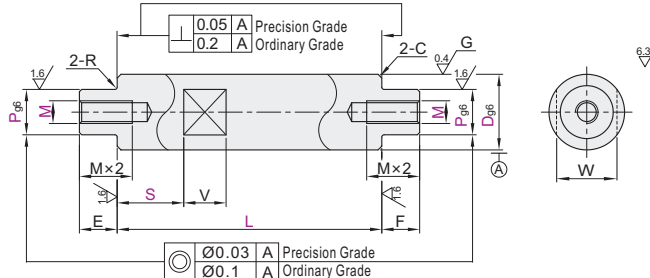
Ordinary Grade/Precision Grade

Shafts

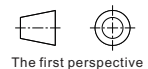


Self-made

Code	Type	Accuracy Grade	D Tol.	Material		Hardness	Surface Treatment
				GB	Equiv.		
SHP02	Both Ends Stepped and Tapped With Wrench Flats	Ordinary Grade	g6	GCr15	SUJ2	Induction Hardened	Hard Chrome Plating,Plating Hardness HV850~ Plating Thickness 3~5µm
SHP06				9Cr18Mo	SUS440C	Effective Hardened	—
SHP32		Precision Grade		GCr15	SUJ2	Depth refer to P15	Hard Chrome Plating,Plating Hardness HV850~ Plating Thickness 3~5µm
SHP36						Quench Hardness	—
SHP37						GCr15	HRC56~
				9Cr18Mo	SUS440C	9Cr18Mo	HRC54~



- ① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- ① Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). Please refer to shaft product introduction.
- ① There are grinding grooves (1 mm wide and 0.1 mm deep) on the steps of the precision shaft.



Ordinary Grade

Part Number		1 mm Increment			M Selection	Wrench Flats Dimensions			R	C	
Code	D _{g6}	L	E-F	P		S	W	V			
SHP02 SHP06 SHP07	8	-0.005	20~800		6	3		7			
	10	-0.014			6~8	3 4 5		8	9		
	12				6~10	3 4 5 6		10			
	13		20~1000		6~11	3 4 5 6 8		11			0.5
	15	-0.006			6~13	3 4 5 6 8 10		13			
	16	-0.017			6~14	3 4 5 6 8 10		14	11	0.3	
	18		20~1200	E=2~P×4	8~16	4 5 6 8 10 12		16			
	20			F=2~P×4	8~17	4 5 6 8 10 12		17			
	25	-0.007			8~22	4 5 6 8 10 12 16		22			
	30	-0.020			9~27	5 6 8 10 12 16 20 24		27			
	35		20~1500		9~32	5 6 8 10 12 16 20 24		30	16		1.0
	40	-0.009			11~37	6 8 10 12 16 20 24 30		36		0.5	
	50	-0.025			11~47	6 8 10 12 16 20 24 30		41	21		

Precision Grade

Part Number		1 mm Increment				M Selection		Wrench Flats Dimensions			R	C
Code	D _{g6}	L	E-F	P	S			W	V			
SHP32 SHP36 SHP37	8	-0.005	20~300		6	3	7	9	① According to the use of Request for designation S size.		0.5	
	10	-0.014			6~8	3 4 5	8					
	12				6~10	3 4 5 6	10					
	13		20~350	E=2~P×4	6~11	3 4 5 6 8	11		① 1mm Increment			
	15	-0.006			6~13	3 4 5 6 8 10	13					
	16	-0.017			F=2~P×4	6~14	3 4 5 6 8 10	14				11
	18		8~16	4 5 6 8 10 12	16							
	20		8~17	4 5 6 8 10 12	17		1.0					
	25	-0.007	20~450		8~22	4 5 6 8 10 12 16		22				
	30	-0.020			9~27	5 6 8 10 12 16 20 24		27	16			



Please order as shown

Part Number	L	E-F	P	M	S
SHP02	20~300	E=2~P×4	6	3	7
SHP06	10	F=2~P×4	6~8	3 4 5	8

SHP02—D8—L50—E10—F10—P6—M3—S15



Discount price
Per 1~4 5~
Price 100% Additional quotation



Delivery

Optional Processing

Part Number	L	E-F	P	M	S	Optional Processing code
SHP02	20~300	E=2~P×4	6	3	7	EC() ED()
SHP06	10	F=2~P×4	6~8	3 4 5	8	JD() JE()

SHP02—D8—L50—E10—F10—P6—M3—S15—LC



Optional Processing

Code	Spec.
LC	Alteration to L Dimension Tolerance Ordering Code LC ① 0.1 mm Increment ① When L<300, L±0.03; When 300≤L<600, L±0.05; When L≥600, L±0.1; ① L>300's precision grade is not applicable.
EC() ED()	Set Screw Flat at One Location Ordering Code EC10-K8 Ordering Code ED10-K8-T10 ① Only applicable to Ordinary Grade.
	Set Screw Flats at Two Locations Ordering Code EC10-K8 Ordering Code ED10-K8-T10 ① Only applicable to Ordinary Grade.

Code	Spec.
JD() JE()	Add keyway at One Location Ordering Code JD10-J10 Ordering Code JE10-X10-JD10-J8
	Add Keyways at Two Locations Ordering Code JD10-J10 Ordering Code JE10-X10-JD10-J8

- ① When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.
- ① Optional processing may reduce hardness.

Hollow Shafts

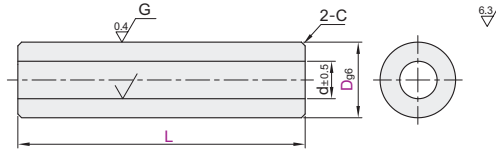
- Standard/One End Tapped
- One End Tapped With Wrench Flats

Code	Type	D Tol.	Material GB Equiv.	Hardness	Surface Treatment
SLD01	Standard	g6	GCr15 SUJ2	Induction Hardened Effective Hardened Depth refer to P15 Quench Hardness GCr15 HRC56~	Hard Chrome Plating, Plating Hardness HV 850~, Plating Thickness 3~5µm
SLD11	One End Tapped				
SLD21	One End Tapped With Wrench Flats				

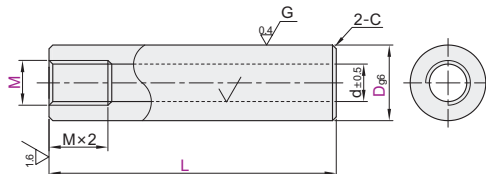


Self-made

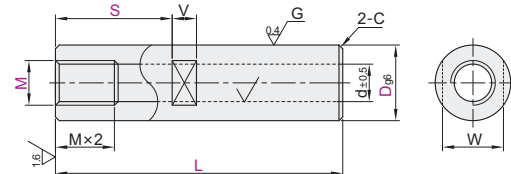
Standard
SLD01



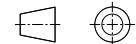
One End Tapped
SLD11



One End Tapped With Wrench Flats
SLD21



- The inner part of Hollow, Tapped part and lateral holes are not chrome plated, which may cause rust.
- 15mm on both sides of wrench flats may exceed the accuracy range of Circularity and O.D. tolerance.
- Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm), Please refer to shaft product introduction.



The first perspective

Standard

Part Number Code	Dg6	L 1 mm Increment	d	C
SLD01	16	25~1200	8	0.5
	20		14	
	25	30~1200	15	
	30	30~1500	16	1.0
	35		19	
	40	45~1500	20	
	50	55~1500	26	

One End Tapped

Part Number Code	Dg6	L 1 mm Increment	M Selection	d	C
SLD11	16	25~1200	12 T2(RC1/4)	8	0.5
	20		16 T3(RC3/8)	14	
	25	30~1200		15	
	30	30~1500	20	16	1.0
	35			19	
	40	45~1500	24 30	20	
	50	55~1500	30	26	

One End Tapped With Wrench Flats

Part Number Code	Dg6	L 1 mm Increment	M Selection	Wrench Flats Dimensions S W V	d	C
SLD21	16	25~1200	12 T2(RC1/4)	14	8	0.5
	20		16 T3(RC3/8)	17	14	
	25	30~1200		22	15	
	30	30~1500	20	27	16	1.0
	35			30	19	
	40	45~1500	24 30	36	20	
	50	55~1500	30	41	26	

Standard

Part Number Code	D	L
SLD01	16 20	25~1200

SLD01—D16—L80

One End Tapped

Part Number Code	D	L	M
SLD11	16 20	25~1200	12 T2(RC1/4) 16 T3(RC3/8)

SLD11—D16—L80—MT2

One End Tapped With Wrench Flats

Part Number Code	D	L	M	S
SLD21	16 20	25~1200	12 T2(RC1/4) 16 T3(RC3/8)	According to the use of Request for designation S size

SLD21—D16—L80—MT2—S5

Optional Processing

Part Number Code	D	L	M	S	Optional Processing Code
SLD21	16 20	25~1200	12 T2(RC1/4) 16 T3(RC3/8)	According to the use of Request for designation S size	CORD()...

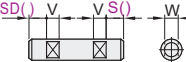
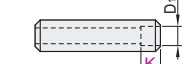
SLD21—D16—L80—MT2—S5—LC



Optional Processing

Code	Spec.												
LC	Alteration To L Dimension Tolerance Ordering Code LC 0.1 mm Increment When L < 300, L±0.03; When 300 ≤ L < 600, L±0.05; When L ≥ 600, L±0.1.												
RD() LB()	Lateral Hole on One Side Ordering Code One End: RD5 Both Ends: RB5-LB6 1 mm Increment Adds a lateral hole on one side. Orientation between two cross-drilled holes is random. <table border="1"> <tr> <th>D</th><th>d</th></tr> <tr> <td>16</td><td>5</td></tr> <tr> <td>20</td><td>6</td></tr> <tr> <td>25-30</td><td>6</td></tr> <tr> <td>35-40</td><td>8</td></tr> <tr> <td>50</td><td>10</td></tr> </table> LB only applies to SLD01.	D	d	16	5	20	6	25-30	6	35-40	8	50	10
D	d												
16	5												
20	6												
25-30	6												
35-40	8												
50	10												

- When selecting multiple alteration additions, the distance between machined areas should be greater than 2mm.
- Alterations may lower hardness.

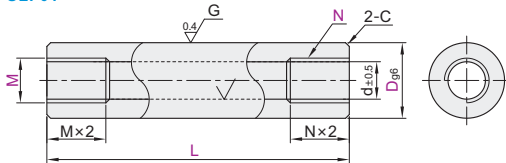
Code	Spec.																														
SD ()	Adds Wrench Flats At Two Locations M Side  Ordering Code SD12-S8 1 mm Increment <table><tr><th>D</th><th>W</th><th>V</th></tr><tr><td>16</td><td>14</td><td></td></tr><tr><td>18</td><td>16</td><td>11</td></tr><tr><td>20</td><td>17</td><td></td></tr><tr><td>25</td><td>22</td><td></td></tr></table><table><tr><th>D</th><th>W</th><th>V</th></tr><tr><td>30</td><td>27</td><td>16</td></tr><tr><td>35</td><td>30</td><td></td></tr><tr><td>40</td><td>36</td><td>21</td></tr><tr><td>50</td><td>41</td><td></td></tr></table> Only applicable to SLD01.	D	W	V	16	14		18	16	11	20	17		25	22		D	W	V	30	27	16	35	30		40	36	21	50	41	
D	W	V																													
16	14																														
18	16	11																													
20	17																														
25	22																														
D	W	V																													
30	27	16																													
35	30																														
40	36	21																													
50	41																														
KD ()	Adds End Boring  Ordering Code KD-K5 1 mm Increment <table><tr><th>D</th><th>D1H7</th></tr><tr><td>16</td><td>12</td></tr><tr><td>20</td><td>16</td></tr><tr><td>25-30</td><td>20</td></tr><tr><td>35-40</td><td>24</td></tr><tr><td>50</td><td>30</td></tr></table>	D	D1H7	16	12	20	16	25-30	20	35-40	24	50	30																		
D	D1H7																														
16	12																														
20	16																														
25-30	20																														
35-40	24																														
50	30																														
KE ()	Adds Both Ends Boring  Ordering Code KE-K10 1 mm Increment Only applicable to SLD01. <table><tr><th>D</th><th>D1H7</th></tr><tr><td>16</td><td>12</td></tr><tr><td>20</td><td>16</td></tr><tr><td>25-30</td><td>20</td></tr><tr><td>35-40</td><td>24</td></tr><tr><td>50</td><td>30</td></tr></table>	D	D1H7	16	12	20	16	25-30	20	35-40	24	50	30																		
D	D1H7																														
16	12																														
20	16																														
25-30	20																														
35-40	24																														
50	30																														

Code	Type	D Tol.	Material GB Equiv.	Hardness	Surface Treatment
SLF01	Both Ends Tapped	g6	GCr15 SUJ2	Induction Hardened Effective Hardened Depth refer to P15 Quench Hardness GCr15 HRC56~	Hard Chrome Plating, Plating Hardness HV 850~, Plating Thickness 3~5µm
SLF11	Both Ends Tapped With Wrench Flats				
SLF21	One End Threaded				
SLF31	One End Threaded With Wrench Flats				

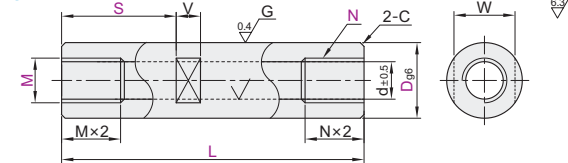


- ① The inner part of Hollow, Tapped part and lateral holes are not chrome plated, which may cause rust.
- ② 15 mm on both sides of wrench flats may exceed the accuracy range of Circularity and O.D. tolerance.
- ③ Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- ④ Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm), Please refer to shaft product introduction.

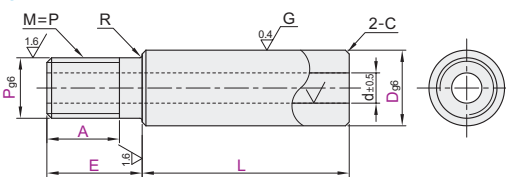
Both Ends Tapped
SLF01



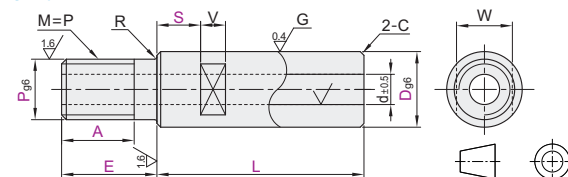
Both Ends Tapped With Wrench Flats
SLF11



One End Threaded
SLF21



One End Threaded With Wrench Flats
SLF31



The first perspective

Both Ends Tapped

Part Number Code	Dg6	1 mm Inc.	M-N Selection	d	C
16	-0.006 -0.017	45~1200	12 T2(RC1/4)	8	0.5
20	-0.007 -0.020	60~1200	16 T3(RC3/8)	14	
25	-0.007 -0.020	75~1200	20	15	
30	-0.009 -0.025	75~1500	24	16	1.0
35	-0.009 -0.025	90~1500	24 30	19	
40	-0.009 -0.025	115~1500	30	20	
50	-0.009 -0.025	115~1500	30	26	

Both Ends Tapped With Wrench Flats

Part Number Code	Dg6	1 mm Inc.	M-N Selection	Wrench Flats Dimensions S W V	d	C
16	-0.006 -0.017	45~1200	12 T2(RC1/4)	14	8	0.5
20	-0.007 -0.020	60~1200	16 T3(RC3/8)	17 11 14	14	
25	-0.007 -0.020	75~1200	20	22	15	
30	-0.009 -0.025	75~1500	24	27	16	1.0
35	-0.009 -0.025	90~1500	24 30	30 16 19	19	
40	-0.009 -0.025	115~1500	30	36 21 20	20	
50	-0.009 -0.025	115~1500	30	41	26	

One End Threaded

Part Number Code	Dg6	1 mm Increment L E A	P Selection	d	R	C
16	-0.006 -0.017		16	8		0.5
20	-0.007 -0.020	20~1198	20	14	0.3	
25	-0.007 -0.020	E=2-Px5	24 30	15		
30	-0.009 -0.025		24 30	16		1.0
35	-0.009 -0.025	20~1498	30	19		0.5
40	-0.009 -0.025		30	20		

One End Threaded With Wrench Flats

Part Number Code	Dg6	1 mm Increment L E A	P Selection	Wrench Flats Dimensions S W V	d	R	C
16	-0.006 -0.017		16	14	8		0.5
20	-0.007 -0.020	20~1198	20	17 11 14	14	0.3	
25	-0.007 -0.020	E=2-Px5	24	22	15		
30	-0.009 -0.025		24 30	27	16		1.0
35	-0.009 -0.025	20~1498	30	30	19		0.5
40	-0.009 -0.025		30	36 21 20	20		

Both Ends Tapped

Part Number Code	D	L	M-N
SLF01	16	45~1200	12 T2
	20	60~1200	16 T3

Both Ends Tapped With Wrench Flats

Part Number Code	D	L	M-N	S
SLF11	16	45~1200	12 T2	16
	20	60~1200	16 T3	20

One End Threaded

Part Number Code	D	L	E	A	P
SLF21	16	20~1198	E=2-Px5	16	20
	20	20~1198	E=2-Px5	20	20

Optional Processing (Both Ends Tapped)

Part Number Code	D	L	M-N	Optional Processing Code
SLF01	16	45~1200	12 T2	LC
	20	60~1200	16 T3	SD()

One End Threaded With Wrench Flats

Part Number Code	D	L	E	A	P	S
SLF31	16	20~1198	E=2-Px5	16	20	16
	20	20~1198	E=2-Px5	20	20	20

Optional Processing (Both Ends Tapped With Wrench Flats)

Part Number Code	D	L	M-N	S	Optional Processing Code
SLF11	16	45~1200	12 T2	16	LC
	20	60~1200	16 T3	20	LC KD()



Discount price
Per 1~4 5~
Price 100% Additional quotation



Delivery
8



Code	Spec.																								
SD()	Wrench Flats at Two Locations Ordering Code SD12-S8 ① 1 mm Increment ② Only applicable to SLF01. <table><tr><th>D</th><th>W</th><th>V</th></tr><tr><td>16</td><td>14</td><td></td></tr><tr><td>20</td><td>17</td><td>11</td></tr><tr><td>25</td><td>22</td><td></td></tr><tr><td>30</td><td>27</td><td>16</td></tr><tr><td>35</td><td>30</td><td></td></tr><tr><td>40</td><td>36</td><td>21</td></tr><tr><td>50</td><td>41</td><td></td></tr></table>	D	W	V	16	14		20	17	11	25	22		30	27	16	35	30		40	36	21	50	41	
D	W	V																							
16	14																								
20	17	11																							
25	22																								
30	27	16																							
35	30																								
40	36	21																							
50	41																								

Code	Spec.										
LC	Alteration to L Dimension Tolerance Ordering Code LC ① 0.1 mm Increment ② When L<300, L±0.03; When 300≤L<600, L±0.05; When L≥600, L±0.1.										
KD()	Adds End Boring Ordering Code KD-K5 ① 1 mm Increment <table border="1"> <tr> <th>D</th><th>D1H7</th></tr> <tr> <td>16</td><td>12</td></tr> <tr> <td>20</td><td>16</td></tr> <tr> <td>25-30</td><td>20</td></tr> <tr> <td>35-40</td><td>24</td></tr> </table> ② Only applicable to SLF21/31.	D	D1H7	16	12	20	16	25-30	20	35-40	24
D	D1H7										
16	12										
20	16										
25-30	20										
35-40	24										

- ① When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.
- ② Optional processing may reduce hardness.

Hollow Shafts

- One End Threaded, One End Tapped / Both Ends Threaded
- One End Stepped / One End Stepped, One End Tapped

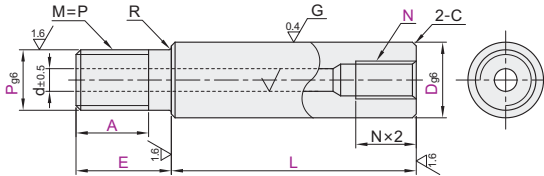
Code	Type	D Tol.	Material GB Equiv.	Hardness	Surface Treatment
SLJ01	One End Threaded, One End Tapped	g6	GCr15 SUJ2	Induction Hardened Effective Hardened Depth refer to P15 Quench Hardness GCr15 HRC56~	Hard Chrome Plating, Plating Hardness HV 850~, Plating Thickness 3~5µm
SLL01	Both Ends Threaded				
SLM01	One End Stepped				
SLN01	One End Stepped, One End Tapped				



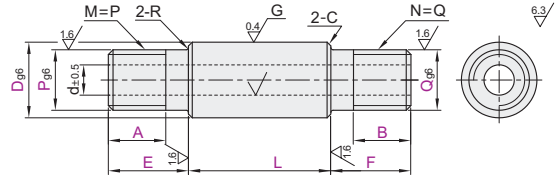
Self-made

- The inner part of Hollow, Tapped part and lateral holes are not chrome plated, which may cause rust.
- Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.
- Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm), Please refer to shaft product introduction.

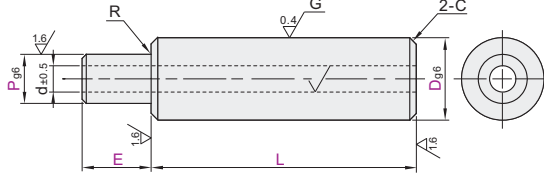
One End Threaded, One End Tapped
SLJ01



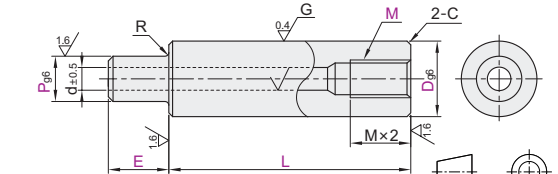
Both Ends Threaded
SLL01



One End Stepped
SLM01



One End Stepped, One End Tapped
SLN01



The first perspective

One End Threaded, One End Tapped

Part Number	1 mm Increment	P	N	d	R	C
Code	Dg6	L	E	A	Selection	
16	-0.006 -0.017				16 12 T2(RC1/4)	8 0.5
20		20~1200			20 16 T3(RC3/8)	14 0.3
25	-0.007 -0.020		E=2~P×5		24 30 20	15 1.0
30					24 30	16 0.5
35	-0.009 -0.025	20~1500			24 30	19 0.5
40					24 30	20 0.5

According to the use of Request for designation A size.

One End Stepped

Part Number	1 mm Increment	P	d	R	C
Code	Dg6	L	E		
16	-0.006 -0.017			13≤P<D	8 0.5
20		20~1200		16≤P<D	14 0.5
25	-0.007 -0.020		E=2~P×3	20≤P<D	15 1.0
30				22≤P<D	16 1.0
35	-0.009 -0.025	20~1500		24≤P<D	19 0.3
40				25≤P<D	20 0.3
50				32≤P<D	26

Both Ends Threaded

Part Number	1 mm Increment	P-Q	d	R	C
Code	Dg6	L	E-F	A-B	Selection
16	-0.006 -0.017				16 8 0.5
20		20~1200			20 14 0.3
25	-0.007 -0.020		E=2~P×5		24 15 1.0
30			F=2~Q×5		24 30 16 0.5
35	-0.009 -0.025	20~1500			30 19 0.5
40					30 20 0.5

According to the use of Request for designation A-B size.

One End Stepped, One End Tapped

Part Number	1 mm Increment	M	d	R	C
Code	Dg6	L	E	P	Selection
16	-0.006 -0.017			13≤P<D	12 T2(RC1/4) 8 0.5
20		20~1200		16≤P<D	16 T3(RC3/8) 14 0.5
25	-0.007 -0.020		E=2~P×3	20≤P<D	20 15 1.0
30				22≤P<D	24 16 1.0
35	-0.009 -0.025	20~1500		24≤P<D	24 30 19 0.3
40				25≤P<D	24 30 20 0.3
50				32≤P<D	30 26

If A=0 and B=0 are specified, there is no thread machining.

One End Threaded, One End Tapped

Part Number	1 mm Increment	P	N
Code	D L E A		
SLJ01	16 20~1200 E=2~P×5	16 12 T2	8 0.5
		20 16 T3	14 0.3
		24 30 20	15 1.0
		24 30	16 0.5
		24 30	19 0.5
		24 30	20 0.5

Both Ends Threaded

Part Number	1 mm Increment	P-Q
Code	D L E-F A-B	
SLL01	16 20~1200 E=2~P×5 F=2~Q×5	16 8 0.5
		20 14 0.3
		24 15 1.0
		24 30 16 0.5
		30 19 0.5
		30 20 0.5

One End Stepped

Part Number	L	E	P
Code	D		
SLM01	16 20~1200 E=2~P×3	13≤P<D	12 T2(RC1/4)
		16≤P<D	16 T3(RC3/8)
		20≤P<D	20
		22≤P<D	24
		24≤P<D	24 30
		25≤P<D	24 30
		32≤P<D	30



Discount price	Per	1~4	5~
	Price	100%	Additional quotation

One End Stepped, One End Tapped

Part Number	1 mm Increment	M
Code	D L E P	Selection
SLN01	16 20~1200 E=2~P×3	13≤P<D 12 T2
		16≤P<D 16 T3
		20≤P<D 20
		22≤P<D 24
		24≤P<D 24 30
		25≤P<D 24 30
		32≤P<D 30

Optional Processing (One End Threaded, One End Tapped)

Part Number	1 mm Increment	P	N	Optional Processing
Code	D L E A			
SLJ01	16 20~1200 E=2~P×5	16 12 T2	8 0.5	SD () SD ()
		20 16 T3	14 0.3	
		24 30 20	15 1.0	
		24 30	16 0.5	
		24 30	19 0.5	
		24 30	20 0.3	
		24 30	26	



Delivery	8
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Code	Spec.
LC	Alteration to L Dimension Tolerance Ordering Code LC 0.1 mm Increment When L < 300, L±0.03; When 300 ≤ L < 600, L±0.05; When L ≥ 600, L±0.1.

Code	Spec.
SC () SD ()	Wrench Flats at One Location Wrench Flats at Two Locations

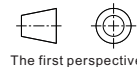
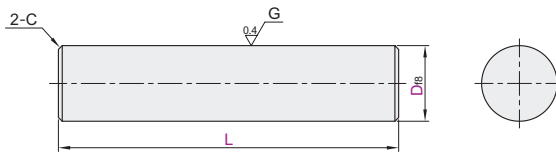
- When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.
- Optional processing may reduce hardness.

SD optional machining is only applicable to SLJ01/SLL01.

Code	Type	D Tol.	Material		Hardness	Surface Treatment
			GB	Equiv.		
SAD11	Standard	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV 850~, Plating Thickness 10~15μm
SAD14			0Cr18Ni9	SUS304		



Self-made



The first perspective

Code	Part Number		L 1 mm Increment	C
	D _{f8}			
(D Tol. f8) SAD11 SAD14	6	-0.010 -0.028	15~600	0.5
	8	-0.013 -0.035	15~800	
	10		15~800	
	12		15~1000	
	13		20~1000	
	15	-0.016 -0.043	20~1000	
	16		30~1200	1.0
	18*		25~1200	
	20		25~1200	
	25	-0.020 -0.053	25~1200	
	30		30~1500	
	35*		30~1500	
	40*	-0.025 -0.064	40~1500	
	50*		60~1500	

Specifications with * do not apply to SAD14.

Optional Processing



Part Number	D	L	C
SAD11	6	15~600	0.5
SAD14	8	15~800	

SAD11—D6—L80

Part Number	D	L	Optional Processing Code
SAD11	6	15~600	LC EC()
SAD14	8	15~800	SC() JD()...

SAD11—D6—L80—SC4



Discount price	Per	1~4	5~
Price	100%	Additional quotation	



Delivery	8
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Optional Processing

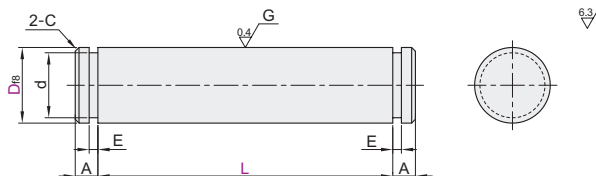
Code	Spec.		Code	Spec.	
LC	Alteration to L Dimension Tolerance	Ordering Code LC ① 0.1 mm Increment ② When L<300, L±0.03; When 300≤L<600, L±0.05; When L≥600, L±0.1.	JD()	Add Keyway at One Location	Ordering Code JD10-J10 ① 1 mm Increment ② When JD = 0, see the right figure. ③ Only applicable to D=12, 16, 20, 25 and 30. ④ Keyway details refer to P15.
	Set Screw Flat at One Location	Ordering Code EC10-K8 ① 1 mm Increment		Adds V Groove at One Location	Ordering Code VD8 ① 1 mm Increment
EC()	Set Screw Flats at Two Locations	Ordering Code ED10-K8-T20 ① 1 mm Increment	VD()	Adds V Grooves at Two Locations	Ordering Code VE180-G8 ① 1 mm Increment
	Wrench Flats at One Location	Ordering Code SC5 ① 1 mm Increment			

- ① When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.
② Optional processing may reduce hardness.

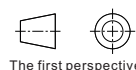
Code	Type	Accuracy Grade	D Tol.	Material		Hardness	Surface Treatment
				GB	Equiv.		
SAE11	with Retaining Ring Grooves	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV 850~, Plating Thickness 10~15µm



Self-made



① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.



Part Number			L	A	E		d	Applicable Retaining Ring(2 pcs)	C
Code	D _{f8}		1 mm Increment						
(D Tol. f8) SAE11	6	-0.010 -0.028	15~600	2	0.7	+0.1 0	5	+0.075 0	TBP12-5
	8	-0.013 -0.035	15~800	3	0.9		7	+0.09 0	TBP12-7
	10				9.6		0 -0.09	TBP02-10	
	12		15~1000				11.5		TBP02-12
	13		20~1000		1.15		12.4		TBP02-13
	15	-0.016 -0.043	20~1200	3.5		+0.14 0	14.3	0 -0.11	TBP02-15
	16				15.2			TBP02-16	
	18		25~1200		17			TBP02-18	
	20				1.35		19		TBP02-20
	25	-0.020 -0.053					23.9	0 -0.21	TBP02-25
	30		30~1200	4.5	1.65		28.6		TBP02-30

① For Retaining Rings, Refer to P844.



Part Number	D	L	A
SAE11	6	15~600	2
	8	15~800	3

SAE11—D6—L100

Optional Processing

Part Number	D	L	Optional Processing Code
SAE11	6	15~600	KC()
	8	15~800	

SAE11—D6—L100—HC



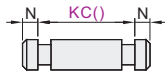
Discount price	Per	1~4	5~
Price	100%		Additional quotation



Delivery	8
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Code	Spec.
HC	One End W/O Retaining Ring Groove Ordering Code HC 

Code	Spec.
KC()	Length Leader Position Change (Dimensioning leader position of L dimension will be altered to the outside of retaining ring grooves) Ordering Code KC30 ① 1 mm Increment 

① When selecting two or more optional processing, the distance between the processing areas should be greater than 2 mm.

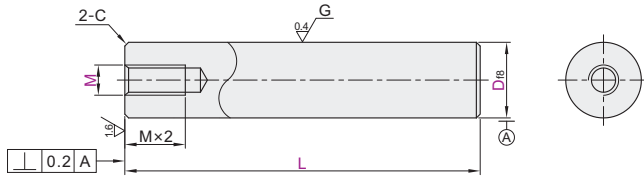
① Optional Processing may reduce hardness.

Standard	with Wrench Flats	Accuracy Grade	D Tol.	Material		Hardness	Surface Treatment
				GB	Equiv.		
SCD11	SCE11	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV 850~, Plating Thickness 10~15µm
SCD14	SCE14	Ordinary Grade	f8	0Cr18Ni9	SUS304	—	

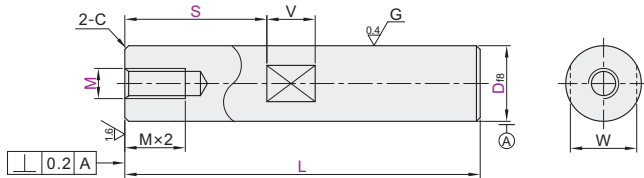


Self-made

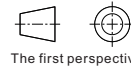
Standard
SCD11
SCD14



with Wrench Flats
SCE11
SCE14



① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.



② Standard

Part Number	D8	1 mm Inc.	M Selection	C
Code	D8	1 mm Inc.	M Selection	C
6	15~600	3		
8	15~800	3 4 5		
10	15~800	3 4 5 6		
12	15~1000	4 5 6 8		
13	15~1000	4 5 6 8		
15	20~1000	4 5 6 8 10		
16	20~1200	4 5 6 8 10		
18*	20~1200	4 5 6 8 10 12		
20	25~1200	4 5 6 8 10 12		
25	25~1200	4 5 6 8 10 12 16		
30	30~1500	4 5 6 8 10 12 16 20		
35*	30~1500	8 10 12 16 20 24		
40*	40~1500	10 12 16 20 24 30		
50*	60~1500	12 16 20 24 30		

① Specifications with * do not apply to SCD14.

② with Wrench Flats

Part Number		L	M	Wrench Flats Dimensions			C
Code	D ₁₈	1 mm Inc.	Selection	S	W	V	
(D Tol. f8) SCE11 SCE14	6	15~600	3		5		0.5
	8	15~800	3 4 5		7	9	
	10	15~800	3 4 5 6		8		
	12	15~1000	4 5 6 8	□ According to the use of Request for designation S size.	10		
	13	15~1000	4 5 6 8		11		
	15	20~1000	4 5 6 8 10		13		
	16	20~1000	4 5 6 8 10	□ 1 mm Increment	14	11	
	18*	25~1200	4 5 6 8 10 12	□ Wrench Flats Dimensions refer to the product introduction of shafts.	16		
	20	25~1200	4 5 6 8 10 12		17		
	25	30~1200	4 5 6 8 10 12 16		22		
	30	30~1200	6 8 10 12 16 20		27		
	35*	30~1500	8 10 12 16 20 24		30	16	
	40*	40~1500	10 12 16 20 24 30		36		
	50*	60~1500	12 16 20 24 30		41	21	

① Specifications with * do not apply to SCE14.



③ Standard

Part Number		L	M
Code	D		
SCD11	6	15~600	3
SCD14	8	15~800	3 4 5

SCD11—D6—L80—M3

SCD11—D6—L80—M3

④ with Wrench Flats

Part Number		L	M	S
Code	D			
SCE11	6	15~600	3	According to the use of Request designation S size
SCE14	8	15~800	3 4 5	

SCE11—D6—L80—M3—S20

⑤ Optional Processing (Standard)

Part Number		L	M	Optional Processing Code
Code	D			
SCD11	6	15~600	3	EC()
SCD14	8	15~800	3 4 5	MC()JD()

SCD11—D6—180—M3—1C

SCD11—D6—L80—M3—LC

⑥ Optional Processing (with Wrench Flats)

Part Number		L	M	S	Optional Processing Code
Code	D				
SCE11	6	15~600	3	According to the use of Requestor designation S size	MC()...
SCE14	8	15~800	3 4 5		

SCE11—D6—L80—M3—S20—LC



Discount price	Per	1~4	5~
Price	100%		Additional quotation



Delivery	8
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Code	Spec.
LC	Alteration to L Dimension Tolerance Ordering Code LC ① 0.1 mm Increment ② When L < 300, L_{±0.03}; When 300 ≤ L < 600, L_{±0.05}; When L ≥ 600, L_{±0.1}.
JD()	Add Keyway at One Location Ordering Code JD10-J10 ① 1 mm Increment ② When JD = 0, see the right figure. ③ Only applicable to D = 12, 16, 20, 25 and 30. ④ Keyway details refer to P15.

Code	Spec.																		
EC()	Set Screw Flat at One Location Ordering Code EC10-K8 ① 1 mm Increment <table border="1"> <tr> <th>D</th><th>h</th></tr> <tr> <td>6~18</td><td>1</td></tr> <tr> <td>20~40</td><td>2</td></tr> <tr> <td>50</td><td>3</td></tr> </table>	D	h	6~18	1	20~40	2	50	3										
D	h																		
6~18	1																		
20~40	2																		
50	3																		
MC()	Change to Fine Tapped Thread Ordering Code MC14 <table border="1"> <tr> <th>D</th><th>MC</th></tr> <tr> <td>12~13</td><td>—</td></tr> <tr> <td>15~16</td><td>—</td></tr> <tr> <td>18</td><td>—</td></tr> <tr> <td>20</td><td>12</td></tr> <tr> <td>25~35</td><td>10</td></tr> <tr> <td>40</td><td>12</td></tr> <tr> <td>50</td><td>12</td></tr> <tr> <td>Pitch</td><td>1.0 1.25 1.5</td></tr> </table> ① In selection, M must be changed to MC. ② In selection, M and MC must be the same size.	D	MC	12~13	—	15~16	—	18	—	20	12	25~35	10	40	12	50	12	Pitch	1.0 1.25 1.5
D	MC																		
12~13	—																		
15~16	—																		
18	—																		
20	12																		
25~35	10																		
40	12																		
50	12																		
Pitch	1.0 1.25 1.5																		

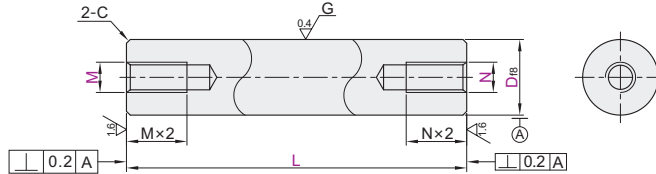
① When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.

② Optional processing may reduce hardness.

Standard	with Wrench Flats	Accuracy Grade	D Tol.	Material		Hardness	Surface Treatment
				GB	Equiv.		
SCJ11	SCK11	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV 850~, Plating Thickness 10~15μm
SCJ14	SCK14	Grade		0Cr18Ni9	SUS304		

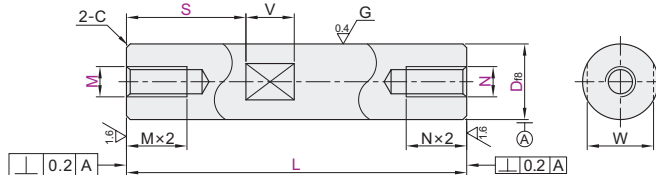


Standard
SCJ11
SCJ14

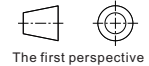


6.3

with Wrench Flats
SCK11
SCK14



① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.



Standard

Part Number	D _{f8}	L 1 mm Inc.	M-N Selection	C
Code				
6	-0.010 -0.029	15~600	3	
8	-0.013 -0.035	15~800	3 4 5	
10			3 4 5 6	
12		15~1000	4 5 6 8	
13			4 5 6 8	0.5
15	-0.016 -0.043	20~1000	4 5 6 8 10	
16		20~1200	4 5 6 8 10	
18*			4 5 6 8 10 12	
20		25~1200	4 5 6 8 10 12	
25	-0.020 -0.053		4 5 6 8 10 12 16	
30			4 5 6 8 10 12 16 20	
35*		30~1500	4 5 6 8 10 12 16 20 24	
40*	-0.025 -0.064		4 5 6 8 10 12 16 20 24 30	
50*			4 5 6 8 10 12 16 20 24 30	1.0

① Specifications with * do not apply to SCJ14.

with Wrench Flats

Part Number	D _{f8}	L 1 mm Inc.	M-N Selection	Wrench Flats Dimensions			C
Code				S	W	V	
6	-0.010 -0.029	15~600	3		5		
8	-0.013 -0.035	15~800	3 4 5		7	9	
10			3 4 5 6		8		
12		15~1000	4 5 6 8		10		0.5
13			4 5 6 8		11		
15	-0.016 -0.043	20~1000	4 5 6 8 10		13	11	
16			4 5 6 8 10		14		
18*		25~1200	4 5 6 8 10 12		16		
20			4 5 6 8 10 12		17		
25	-0.020 -0.053	30~1200	4 5 6 8 10 12 16		22		
30			4 5 6 8 10 12 16 20		27	16	1.0
35*		30~1500	4 5 6 8 10 12 16 20 24		30		
40*	-0.025 -0.064		4 5 6 8 10 12 16 20 24 30		36		
50*		50~1500	4 5 6 8 10 12 16 20 24 30		41	21	

① Specifications with * do not apply to SCK14.



Standard

Part Number	D	L	M-N
Code			
SCJ11	15~600	3	
SCJ14	15~800	3 4 5	

SCJ11—D6—L80—M3—N3

Optional Processing(Standard)

Part Number	D	L	M-N	Optional Processing Code
Code				
SCJ11	15~600	3		SD() MC() NC()
SCJ14	15~800	3 4 5		

SCJ11—D6—L80—M3—N3—LC

with Wrench Flats

Part Number	D	L	M-N	S
Code				
SCK11	15~600	3		
SCK14	15~800	3 4 5		

SCK11—D6—L85—M3—N3—S20

Optional Processing(with Wrench Flats)

Part Number	D	L	M-N	S	Optional Processing Code
Code					
SCK11	15~600	3			SD() MC() NC()
SCK14	15~800	3 4 5			

SCK11—D6—L85—M3—N3—S20—LC



Per Price	1~4	5~
Discount price	100%	Additional quotation



8



Code	Spec.
LC	Alteration to L Dimension Tolerance Ordering Code: LC ① 0.1 mm Increment ② When L < 300, L _{±0.03} ; When 300 ≤ L < 600, L _{±0.05} ; When L ≥ 600, L _{±0.1} .
MC() NC()	Change to Fine Tapped Thread Ordering Code: MC12 MC-NC D: 12-13 8 — MC-NC 15-16 8 10 — 18 8 10 12 20 8 10 12 16 25-35 8 10 12 16 20 40 — 10 12 16 20 50 — 12 16 20 Pitch: 1.0 1.25 1.5 ① In selection, M(N) must be changed to MC(NC). ② In selection, M(N) and MC(NC) must be the same size.

Code	Spec.
SD()	Wrench Flats at Two Locations Ordering Code: SD12-S8 ① 1 mm Increment D W V 6 5 8 7 9 10 8 12 10 13 11 15 13 16 14 11 18 16 20 17 25 22 30 27 16 35 30 40 36 50 41 21 ② Only applicable to SCJ11/14.

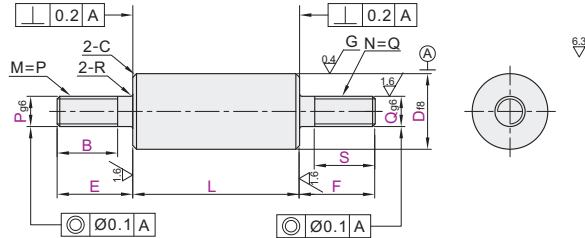
① When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.

② Optional processing may reduce hardness.

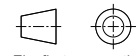
Code	Type	Accuracy Grade	D Tol.	Material		Hardness	Surface Treatment
				GB	Equiv.		
SEP11	Standard	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV 850~, Plating Thickness 10~15μm
SEP14				0Cr18Ni9	SUS304		



Self-made



① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.



The first perspective

Part Number		1 mm Increment			P-Q Selection	R	C
Code	D f8	L	E-F	B-S			
(D Tol. f8) SEP11 SEP14	6	20~600			3 4 5		
	8	20~800			3 4 5 6		
	10	20~800			4 5 6 8		
	12				5 6 8 10 12		0.5
	13	20~1000			5 6 8 10 12		
	15				5 6 8 10 12	0.3	
	16				5 6 8 10 12 16		
	18*		E=2~P×5 F=2~Q×5	① According to the use of Request for designation B-S size.	6 8 10 12 16		
	20	20~1200			8 10 12 16		
	25				8 10 12 16 20 24		1.0
	30				8 10 12 16 20 24		
	35*				10 12 16 20 24 30		
	40*	20~1500			12 16 20 24 30	0.5	
	50*				16 20 24 30		

① Specifications with * do not apply to SEP14.

② Optional Processing



Please order as shown

Part Number	L	E-F	B-S	P-Q
Code	D			
SEP11	20~800	E=2~P×5	According to the use of Request for designation B-S size	3 4 5 6
SEP14	20~800	F=2~Q×5	According to the use of Request for designation B-S size	3 4 5 6

SEP11-D6-L200-E10-F10-B6-S6-P3-Q3

Part Number	L	E-F	B-S	P-Q	Optional Processing Code
Code	D				
SEP11	20~800	E=2~P×5	According to the use of Request for designation B-S size	3 4 5 6	PC() PS()...
SEP14	20~800	F=2~Q×5	According to the use of Request for designation B-S size	3 4 5 6	PC() PS()...

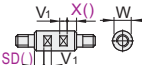
SEP11-D6-L200-E10-F10-B6-S6-P3-Q3-LC

Discount price	Per	1~4	5~
Price	100%		Additional quotation

Delivery	8
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Optional Processing

Code	Spec.																																																
LC	Alteration to L Dimension Tolerance	Ordering Code LC ① 0.1 mm Increment ② When $L < 200$, $L_{\pm 0.03}$; When $200 \leq L < 500$, $L_{\pm 0.05}$; When $L \geq 500$, $L_{\pm 0.1}$.																																															
																																																	
SD ()	Wrench Flats at Two Locations	Ordering Code SD12-X8 ① 1 mm Increment ② $SD + X + V_1 \times 2 < L$ ③ $SD = 0$ or $SD \geq 1$ $X = 0$ or $X \geq 1$																																															
	P Side  SD () <table><tr><th>D</th><th>W</th><th>V</th><th>D</th><th>W</th><th>V</th></tr><tr><td>6</td><td>5</td><td></td><td>18</td><td>16</td><td></td></tr><tr><td>8</td><td>7</td><td>9</td><td>20</td><td>17</td><td>11</td></tr><tr><td>10</td><td>8</td><td></td><td>25</td><td>22</td><td></td></tr><tr><td>12</td><td>10</td><td></td><td>30</td><td>27</td><td></td></tr><tr><td>13</td><td>11</td><td></td><td>35</td><td>30</td><td>16</td></tr><tr><td>15</td><td>13</td><td>11</td><td>40</td><td>36</td><td></td></tr><tr><td>16</td><td>14</td><td></td><td>50</td><td>41</td><td>21</td></tr></table> ① Orientation between wrench flats is not coplanar.	D	W	V	D	W	V	6	5		18	16		8	7	9	20	17	11	10	8		25	22		12	10		30	27		13	11		35	30	16	15	13	11	40	36		16	14		50	41	21
D	W	V	D	W	V																																												
6	5		18	16																																													
8	7	9	20	17	11																																												
10	8		25	22																																													
12	10		30	27																																													
13	11		35	30	16																																												
15	13	11	40	36																																													
16	14		50	41	21																																												

Code	Spec.																																													
PC() PS() QC() QS() Change to Fine Thread PC()PS() (Fine Thread) QC()QS() (Fine Thread)	Ordering Code PC17 ① (PC/QC: the Fine Thread Pitch corresponds to the Bearing Nut). ② (PS/QS: the Fine Thread Pitch corresponds to the Cylinder). <table> <tr> <th>D</th><th>PC/QC</th><th>PS/QS</th></tr> <tr><td>6</td><td>3 4 5 6</td><td></td></tr> <tr><td>8</td><td>3 4 5 6 8</td><td></td></tr> <tr><td>10</td><td>4 5 6 8 10</td><td>10</td></tr> <tr><td>12</td><td>5 6 8 10 12</td><td>10 12</td></tr> <tr><td>13</td><td>5 6 8 10 12</td><td>10</td></tr> <tr><td>15</td><td>5 6 8 10 12</td><td>10 12</td></tr> <tr><td>16</td><td>5 6 8 10 12 15</td><td>10 12 14</td></tr> <tr><td>18</td><td>5 6 8 10 12 15</td><td>10 12 14 18</td></tr> <tr><td>20</td><td>6 8 10 12 15 17</td><td>10 12 14 18</td></tr> <tr><td>25</td><td>8 10 12 15 17 20</td><td>10 12 14 18</td></tr> <tr><td>30</td><td>10 15 17 20 25</td><td>10 12 14 18</td></tr> <tr><td>35</td><td>15 17 20 25 30</td><td>10 12 14 18</td></tr> <tr><td>40</td><td>15 17 20 25 30</td><td>12 14 18</td></tr> <tr><td>50</td><td>15 17 20 25 30</td><td>14 18</td></tr> </table> ① In selection, P/Q must be changed to PC(PS)/QC(QS). ② In selection, P/Q and PC(PS)/QC(QS) must be the same size.	D	PC/QC	PS/QS	6	3 4 5 6		8	3 4 5 6 8		10	4 5 6 8 10	10	12	5 6 8 10 12	10 12	13	5 6 8 10 12	10	15	5 6 8 10 12	10 12	16	5 6 8 10 12 15	10 12 14	18	5 6 8 10 12 15	10 12 14 18	20	6 8 10 12 15 17	10 12 14 18	25	8 10 12 15 17 20	10 12 14 18	30	10 15 17 20 25	10 12 14 18	35	15 17 20 25 30	10 12 14 18	40	15 17 20 25 30	12 14 18	50	15 17 20 25 30	14 18
D	PC/QC	PS/QS																																												
6	3 4 5 6																																													
8	3 4 5 6 8																																													
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50	15 17 20 25 30	14 18																																												

① When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.

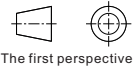
② Optional processing may reduce hardness.

D Tol. f8



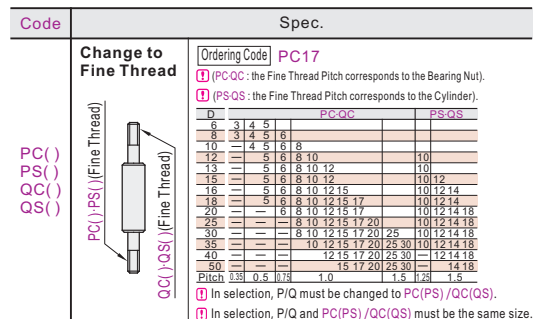
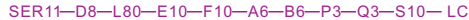
Two stainless steel self-made pins are shown. One pin is positioned vertically, and the other is positioned horizontally. Both pins have a threaded section at one end and a smooth section at the other.

Self-made



The first perspective

 Optional Processing



❗ In selection, P/Q must be changed to **PC(PS) / QC(QS)**.

❗ In selection, P/Q and **PC(PS) / QC(QS)** must be the same size.

Both Ends Stepped ▶
Both Ends Stepped and Tapped ▶
(D Tol. f8)

Shafts

Both Ends Stepped	Both Ends Stepped and Tapped	Accuracy Grade	D Tol.	Material		Hardness	Surface Treatment
				GB	Equiv.		
SHM11	SHN11	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV 850~, Plating Thickness 10~15μm

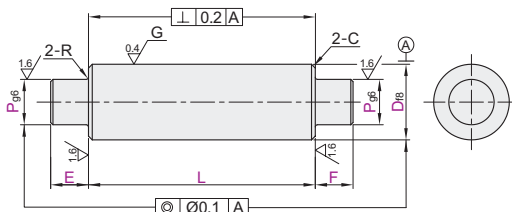


Self-made

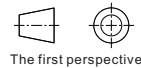
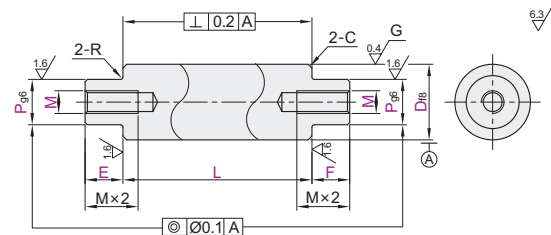
Shafts

A1

Both Ends Stepped
SHM11



Both Ends Stepped and Tapped
SHN11



① Circularity, Straightness, Perpendicularity and Changes in Hardness. Please refer to shaft product introduction.

The first perspective

Both Ends Stepped

Part Number		1 mm Increment			R	C	
Code	D ₁₆	L	E-F	P			
(D Tbl. f8) SHM11	8	-0.013	20~800		6		
	10	-0.035			6~8		
	12				6~10		
	13		20~1000		6~11		0.5
	15	-0.016			6~13		0.3
	16	-0.043			6~14		
	18		20~1200	E=2~P×4	8~16		
	20			F=2~P×4	8~17		
	25	-0.020			8~22		
	30	-0.053		9~27		1.0	
	35			9~32			
	40	-0.025	20~1500		11~37		0.5
	50	-0.064			11~47		

(D Tol. f8)
SHM11

Both Ends Stepped and Tapped

Part Number		1 mm Increment			M Selection		R	C
Code	D ₁₆	L	E-F	P				
(D Tol. f8) SHN11	8	-0.013	20~800		6	3		
	10	-0.035			6~8	3 4 5		
	12				6~10	3 4 5 6		
	13		20~1000		6~11	3 4 5 6 8		0.5
	15	-0.016			6~13	3 4 5 6 8 10		
	16	-0.043			6~14	3 4 5 6 8 10		0.3
	18		20~1200	E=2~P×4 F=2~P×4	8~16	4 5 6 8 10 12		
	20				8~17	4 5 6 8 10 12		
	25	-0.020				8~22	4 5 6 8 10 12 16	
	30	-0.053			9~27	5 6 8 10 12 16 20 24		1.0
	35		20~1500		9~32	5 6 8 10 12 16 20 24		
	40	-0.025			11~37	6 8 10 12 16 20 24 30		0.5
	50	-0.064			11~47	6 8 10 12 16 20 24 30		

(D Tol. f8)
SHN11

Both Ends Stepped

Part Number	L	E-F	P
Code	D		
SHM11	20~800	E=2~P×4	6~8
SHM11	D8-L30-E10-F10-P6		

SHM11—D8—L30—E10—F10—P6

Both Ends Stepped and Tapped

Part Number	L	E-F	P	M
Code	D			
SHN11	20~800	E=2~P×4	6~8	3 4 5
SHN11	D8-L30-E10-F10-M3			

SHN11—D8—L30—E10—F10—P6—M3

Optional Processing (Both Ends Stepped)

Part Number	L	E-F	P	Optional Processing Code
Code	D			
SHM11	20~800	E=2~P×4	6~8	JD() JE() SD() EC() ED() LC
SHM11	D8-L30-E10-F10-P6-LC			

Optional Processing (Both Ends Stepped and Tapped)

Part Number	L	E-F	P	M	Optional Processing Code
Code	D				
SHN11	20~800	E=2~P×4	6~8	3 4 5	JD() JE() SD() EC() ED() LC
SHN11	D8-L30-E10-F10-P6-M3-LC				

SHN11—D8—L30—E10—F10—P6—M3—LC



Optional Processing

LC

Alteration to L Dimension Tolerance



Spec.

Ordering Code LC
① 0.1 mm Increment
② When L<300, L±0.03;
When 300≤L<600, L±0.05;
When L≥600, L±0.1.

Add keyway at One Location



JD()
JE()

Add Keyways at Two Locations



Ordering Code

JD10-J10
JE10-X10-JD10-J8

① 1 mm Increment
② When JD=0/JE=0, see the right figure.
③ Application Notes: D12, D16, D20, D25, D30.
④ Keyway details refer to P15.
⑤ Only applicable to SHM11.

Spec.

Set Screw Flat at One Location

EC() K()

Set Screw Flats at Two Locations



ED() K()

Wrench Flats at Two Locations

SD() V V S() W



① Only applicable to SHM11.

Discount price	Per	1~4	5~
Price 100%			Additional quotation

Delivery	8
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① When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.

② Optional processing may reduce hardness.