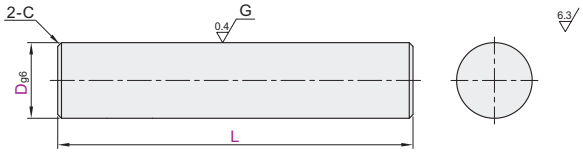
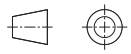
Standard
Straight Type

Code	Type	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SAD02	Standard	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~ S45C HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness HV850~,Plating Thickness 3~5μm
SAD06			9Cr18Mo	SUS440C		—
SAD07						Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm
SAD22			45	S45C		

Processing according to drawings




The first perspective

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

Please order as shown

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

SAD02—D6—L100

Optional Processing

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

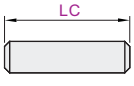
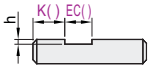
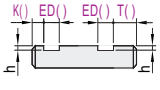
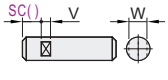
SAD02—D6—L100—SC4

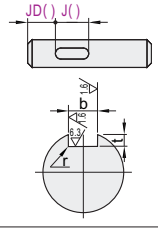
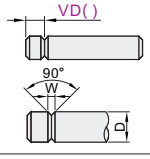
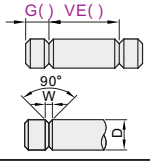
Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

Code	Spec.		
LC	**L Dimension Tolerance Change** 	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.	
EC( )	**Set Screw Flat at One Location** 	Ordering Code EC10-K8 1 mm Increment	D / h 6~18 / 1 20~40 / 2 50 / 3
ED( )	**Set Screw Flats at Two Locations** 	Ordering Code ED10-K8-T20 1 mm Increment	D / h 6~18 / 1 20~40 / 2 50 / 3
SC( )	**Wrench Flats at One Location** 	Ordering Code SC5 1 mm Increment 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 / 16 35 / 30 / 40 / 36 / 21 50 / 41 /

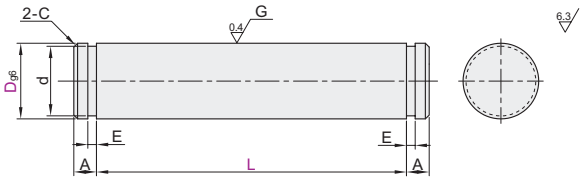
Code	Spec.		
JD( )	**Add Keyway at One Location** 	Ordering Code JD10-J10 1 mm Increment When JD = 0 , see the Above figure. Only applicable to D=12, 16, 20, 25 and 30. Keyway details refer to P10.	
VD( )	**Adds V Groove at One Location** 	Ordering Code VD8 1 mm Increment Application Notes: D≥5.	D / 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 mm Increment Application Notes: D≥5.	D / W 6-8 / 2 10~18 / 4 20~25 / 6 30~35 / 8 40~50 / 12

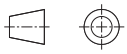
When selecting two or more optional processing, the distance between the processing areas should be greater than 2 mm.
Optional Processing may reduce hardness.

Code	Type	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SAE02	with Retaining Ring Grooves	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm
SAE06			9Cr18Mo	SUS440C		—
SAE07						Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm

Processing according to drawings

Self-made





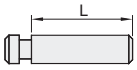
The first perspective

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

Code	Dg6		L 1 mm Increment	A	E		d		Applicable Retaining Ring(2 pcs) SAE06	SAE02/07	C
SAE02 SAE06 SAE07	6	-0.004 -0.012	15~600	2	0.7	+0.1 0	5	+0.075 0	TBP11-5	TBP12-5	0.5
	8	-0.005 -0.014	15~800	3	0.9		7	+0.09 0	TBP11-7	TBP12-7	
	10						9.6	0 -0.09	TBP01-10	TBP02-10	
	12	-0.006 -0.017	15~1000	3.5	1.15	+0.14 0	11.5	0 -0.11	TBP01-12	TBP02-12	
	13		20~1000				12.4		TBP01-13	TBP02-13	
	15		20~1200				14.3		TBP01-15	TBP02-15	
	16		25~1200				15.2		TBP01-16	TBP02-16	
	18						17		TBP01-18	TBP02-18	
	20	-0.007 -0.020	30~1200	4.5	1.35		19	0 -0.21	TBP01-20	TBP02-20	1.0
	25						23.9		TBP01-25	TBP02-25	
	30				1.65		28.6		TBP01-30	TBP02-30	

For Retaining Rings, Refer to P1061.

Optional Processing

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

Optional Processing may reduce hardness.

Please order as shown

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

SAE02—D6—L100

Optional Processing

Part Number Code	D	L	Optional Processing Code
SAE02	6	15~600	HC
SAE06	8	15~800	

SAE02—D6—L100—HC

Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

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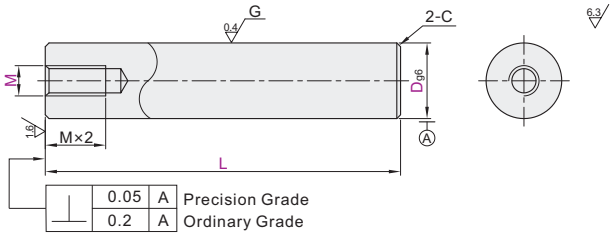
Minimize procurement costs. Ordering online saves more time.
Improve efficiency and save 50% design time !
3D model library | Example | Catalog for selection

One End Tapped

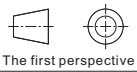
Ordinary Grade/Precision Grade

Code	Type	Accuracy Grade	DTol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SCD02	One End Tapped	Ordinary Grade	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~ S45C HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness HV850~,Plating Thickness 3~5μm
SCD06				9Cr18Mo	SUS440C		—
SCD07							Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5μm
SCD22				45	S45C		
SCD52		Precision Grade		GCr15	SUJ2		
SCD56				9Cr18Mo	SUS440C		—
SCD57							Hard Chrome Plating,Plating Hardness HV850~,Plating Thickness 3~5μm

Processing according to drawings



- 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 Code	Dg6		L 1 mm Inc.	M Selection	C
SCD02 SCD06 SCD07 SCD22	6	-0.004 -0.012	15~600	3	0.5
	8	-0.005 -0.014	15~800	3 4 5	
	10			3 4 5 6	
	12	-0.006 -0.017	15~1000	4 5 6 8	
	13			4 5 6 8	
	15		20~1000	4 5 6 8 10	
	16		20~1200	4 5 6 8 10	
	18			4 5 6 8 10 12	
	20	-0.007 -0.020	25~1200	4 5 6 8 10 12	
	25			4 5 6 8 10 12 16	
	30		30~1500	4 5 6 8 10 12 16 20	1.0
	35	-0.009 -0.025		8 10 12 16 20 24	
	40		40~1500	10 12 16 20 24 30	
	50		60~1500	12 16 20 24 30	

Precision Grade

Part Number Code	Dg6		L 1 mm Inc.	M Selection	C
SCD52 SCD56 SCD57	6	-0.004 -0.012	20~300	3	0.5
	8	-0.005 -0.014		3 4 5	
	10			3 4 5 6	
	12	-0.006 -0.017	20~350	4 5 6 8	
	13			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	-0.007 -0.020	25~450	4 5 6 8 10 12 16	1.0
	30			4 5 6 8 10 12 16 20	

Please order as shown

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

SCD02—D6—L20—M3

Optional Processing

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

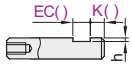
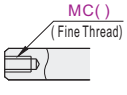
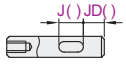
SCD02—D6—L20—M3—LC

Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

Code	Spec.		Code	Spec.	
LC	**L Dimension Tolerance Change**	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.	EC( )	**Set Screw Flat at One Location** 	Ordering Code EC10-K8 1 mm Increment Only applicable to ordinary grade.
MC( )	**Change to Fine Tapped Thread** 	Ordering Code MC14	JD( )	**Add Keyway at One Location** 	Ordering Code JD10-J10 1 mm Increment When JD = 0 , see the right figure. Only applicable to D=12, 16, 20, 25 and 30. Keyway details refer to P10. Only applicable to ordinary grade.

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	

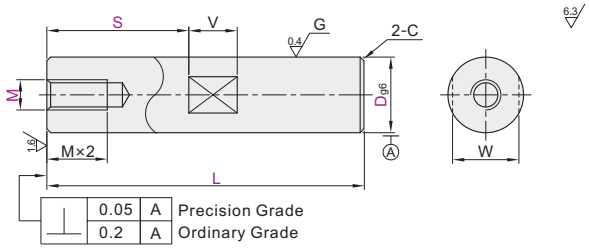
- In selection, M must be changed to MC.
- In selection, M and MC must be the same size.

D	h
6~18	1
20~40	2
50	3

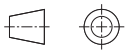
- When selecting multiple Optional Processing, the distance between machined areas should be greater than 2 mm.
- Optional Processing may reduce hardness.

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 P10 Quench Hardness GCr15 HRC56~ S45C HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness HV850~,Plating Thickness 3~5μm
SCE06	SCE36		9Cr18Mo	SUS440C		—
SCE07	SCE37					Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm
SCE22	—		45	S45C		

Processing according to drawings



! 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 Code	Dg6		L 1mm Increment	M Selection	Wrench Flats Dimensions S	W	V	C
SCE02 SCE06 SCE07 SCE22	6	-0.004 -0.012	15~600	3	! According to the use of Request for designation S size. ! 1 mm Increment ! Wrench Flats Dimensions refer to the product introduction of shafts.	5		
	8	-0.005 -0.014	15~800	3 4 5		7	8	
	10			3 4 5 6		8		
	12		15~1000	4 5 6 8		10		0.5
	13	-0.006 -0.017	20~1000	4 5 6 8		11		
	15			4 5 6 8 10		13	10	
	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	-0.007 -0.020	30~1200	4 5 6 8 10 12 16		22		
	30		30~1500	6 8 10 12 16 20		27	15	1.0
	35			8 10 12 16 20 24		30		
	40	-0.009 -0.025	40~1500	10 12 16 20 24 30		36	20	
	50		60~1500	12 16 20 24 30		41		

Precision Grade

Part Number Code	Dg6		L 1mm Increment	M Selection	Wrench Flats Dimensions S	W	V	C
SCE32 SCE36 SCE37	6	-0.004 -0.012	20~300	3	! According to the use of Request for designation S size. ! 1 mm Increment ! Wrench Flats Dimensions refer to the product introduction of shafts.	5		
	8	-0.005 -0.014		3 4 5		7	8	
	10			3 4 5 6		8		
	12		20~350	4 5 6 8		10		0.5
	13	-0.006 -0.017		4 5 6 8		11		
	15			4 5 6 8 10		13	10	
	16			4 5 6 8 10		14		
	18			4 5 6 8 10 12		16		
	20			4 5 6 8 10 12		17		
	25	-0.007 -0.020	25~450	4 5 6 8 10 12 16		22		1.0
	30			6 8 10 12 16 20		27	15	

Please order as shown

Part Number Code	D	L	M	S
SCE02	6	15~800	3	According to the use of Request for designation S size
SCE06	8	15~800	3 4 5	

SCE02—D6—L80—M3—S20

Optional processing

Part Number Code	D	L	M	S	Optional Processing Code
SCE02	6	15~800	3	According to the use of Request for designation S size	MC( )...
SCE06	8	15~800	3 4 5		

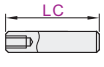
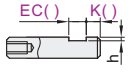
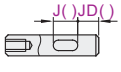
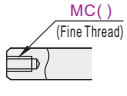
SCE02—D6—L80—M3—S20—LC

Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

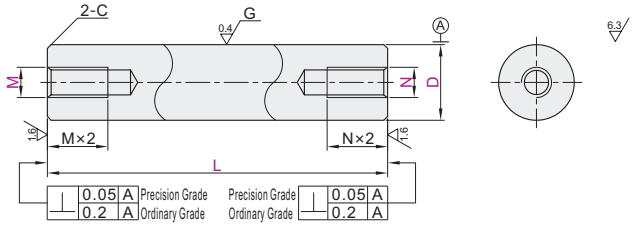
Code	Spec.		Code	Spec.	
LC	**Alteration to L Dimension Tolerance** 	Ordering Code LC ! 0.1 mm Increment ! When L<300, L±0.03; When 300≤L<600, L±0.05; When L≥600, L±0.1. ! L>300 ' s Precision Grade is not applicable.	EC( )	**Set Screw Flat at One Location** 	Ordering Code EC10-K8 ! 1 mm Increment D / h: 6~18 / 1; 20~40 / 2; 50 / 3
JD( )	**Add Keyway at One Location** 	Ordering Code JD10-J10 ! 1 mm Increment ! When JD = 0 , see the above figure. ! Only applicable to D=12, 16, 20, 25 and 30. ! Keyway details refer to P10.	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 ! In selection, M must be changed to MC. ! In selection, M and MC must be the same size.

Standard

Both Ends Tapped(Ordinary Grade/Precision Grade)

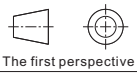
Code	Type	Accuracy Grade	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SCJ02	Standard	Ordinary Grade	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~ S45C HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness Hv850~,Plating Thickness 3~5μm
SCJ06				9Cr18Mo	SUS440C		—
SCJ07							Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm
SCJ22				45	S45C		
SCJ52		Precision Grade		GCr15	SUJ2		
SCJ56				9Cr18Mo	SUS440C		—
SCJ57							Hard Chrome Plating,Plating Hardness Hv850~,Plating Thickness 3~5μm

Processing according to drawings



! 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 Code	Dg6		L 1mm Inc.	M·N Selection	C
	6	-0.004 -0.012	15~600	3	0.5
	8	-0.005 -0.014	15~800	3 4 5	
	10			3 4 5 6	
	12	-0.006 -0.017	15~1000	4 5 6 8	
	13			4 5 6 8	
SCJ02	15		20~1000	4 5 6 8 10	
SCJ06	16		20~1200	4 5 6 8 10	
SCJ07	18			4 5 6 8 10 12	
SCJ22	20	-0.007 -0.020	25~1200	4 5 6 8 10 12	1.0
	25			4 5 6 8 10 12 16	
	30		30~1500	4 5 6 8 10 12 16 20	
	35	-0.009 -0.025		4 5 6 8 10 12 16 20 24	
	40			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 Code	Dg6		L 1mm Inc.	M·N Selection	C
	6	-0.004 -0.012	20~300	3	0.2
	8	-0.005 -0.014		3 4 5	
	10			3 4 5 6	
	12	-0.006 -0.017	20~350	4 5 6 8	
SCJ52	13			4 5 6 8	
SCJ56	15			4 5 6 8 10	
SCJ57	16			4 5 6 8 10	
	18			4 5 6 8 10 12	
	20			4 5 6 8 10 12	
	25	-0.007 -0.020	25~450	4 5 6 8 10 12 16	
	30			4 5 6 8 10 12 16 20	

Please order as shown

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

SCJ02—D6—L80—M3—N3

Optional Processing

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

SCJ02—D6—L80—M3—N3—LC

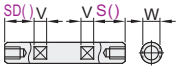
Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

Code	Spec.
SD( )	**Wrench Flats at Two Locations**



Ordering Code SD12-S8

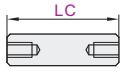
! 1mm Increment

! Application Notes: D≥5

D	W	V
6	5	9
8	7	
10	8	11
12	10	
13	11	
15	13	
16	14	
18	16	
20	17	
25	22	16
30	27	
35	30	
40	36	21
50	41	

! Orientation between wrench flats is not coplanar.

Code	Spec.
LC	**Alteration to L Dimension Tolerance**



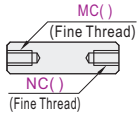
Ordering Code LC

! 0.1mm Increment

! When L<300, $L_{\pm0.03}$;
When 300≤L<600, $L_{\pm0.05}$;
When L≥600, $L_{\pm0.1}$.

! L>300 's Precision Grade is not applicable.

Code	Spec.
MC( ) NC( )	**Change to Fine Tapped Thread**



Ordering Code MC12

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	—	10	12	16	20
50		—	12	16	20
Pitch	1.0	1.25	1.5		

! In selection, M(N) must be changed to MC(NC).

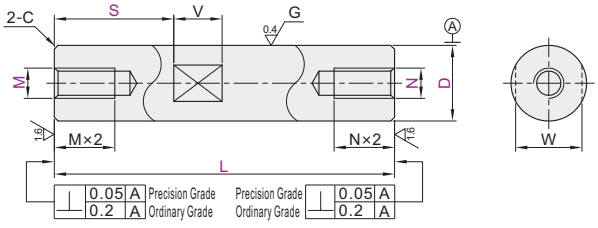
! In selection, M(N) and MC(NC) must be the same size.

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

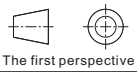
! Optional Processing may reduce hardness.

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 P10 Quench Hardness GCr15 HRC56~ S45C HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness HV850~,Plating Thickness 3~5μm
SCK06	SCK36		9Cr18Mo	SUS440C		—
SCK07	SCK37					Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm
SCK22	—		45	S45C		

Processing according to drawings



! 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 Code	Dg6		L 1mm Inc.	M·N Selection	Wrench Flats Dimensions S	W	V	C
SCK02 SCK06 SCK07 SCK22	6	-0.004 -0.012	15~600	3	! According to the use of Request for designation S size. ! 1 mm Increment ! Wrench Flats Dimensions refer to the product introduction of shafts.	5		0.5
	8	-0.005 -0.014	15~800	3 4 5		7	8	
	10			3 4 5 6		8		
	12		15~1000	4 5 6 8		10		
	13	-0.006 -0.017	20~1000	4 5 6 8		11		
	15			4 5 6 8 10		13		
	16			4 5 6 8 10		14	10	
	18		25~1200	4 5 6 8 10 12		16		
	20	-0.007 -0.020		4 5 6 8 10 12		17		
	25		30~1200	4 5 6 8 10 12 16		22		
	30		30~1500	4 5 6 8 10 12 16 20		27	15	1.0
	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	20	
	50			4 5 6 8 10 12 16 20 24 30		41		

Precision Grade

Part Number Code	Dg6		L 1mm Inc.	M·N Selection	Wrench Flats Dimensions S	W	V	C
SCK32 SCK36 SCK37	6	-0.004 -0.012	20~300	3	! According to the use of Request for designation S size. ! 1 mm Increment ! Wrench Flats Dimensions refer to the product introduction of shafts.	5		0.2
	8	-0.005 -0.014		3 4 5		7	8	
	10			3 4 5 6		8		
	12		20~350	4 5 6 8		10		
	13	-0.006 -0.017		4 5 6 8		11		
	15			4 5 6 8 10		13		
	16			4 5 6 8 10		14	10	
	18			4 5 6 8 10 12		16		
	20		25~450	4 5 6 8 10 12		17		
	25	-0.007 -0.020		4 5 6 8 10 12 16		22		
	30			6 8 10 12 16 20		27	15	

Please order as shown

Ordinary Grade

Part Number Code	D	L	M·N	S
SCK02	6	15≤D00	3	According to the use of Request for designation S size
SCK06	8	15~800	3 4 5	

SCK02—D6—L85—M3—N3—S20

Optional Processing

Part Number Code	D	L	M·N	S	Optional Processing Code
SCK02	6	15≤D00	3	According to the use of Request for designation S size	LC MC( ) NC( )
SCK06	8	15~800	3 4 5		

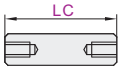
SCK02—D6—L85—M3—N3—S20—LC

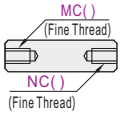
Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

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

Code	Spec.	
MC( ) NC( )	**Change to Fine Tapped Thread** 	Ordering Code MC12

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	—	10	12	16	20
50		—	12	16	20
Pitch	1.0	1.25	1.5		

! In selection, M(N) must be changed to MC(NC).
! In selection, M(N) and MC(NC) must be the same size.

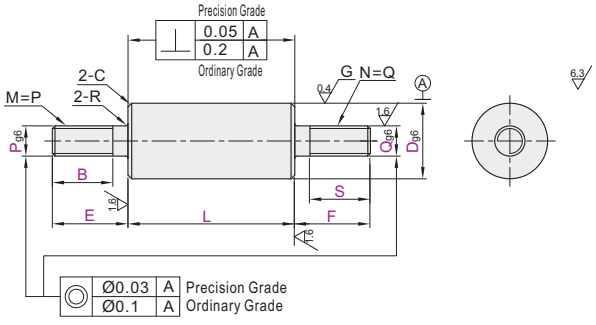
Standard

Both Ends Threaded(Ordinary Grade/Precision Grade)

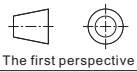
Standard		D Tol.	Material		Hardness	Surface Treatment
Ordinary Grade	Precision Grade		GB	Equiv.		
SEP02	SEP32	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm
SEP06	SEP36		9Cr18Mo	SUS440C		—
SEP07	SEP37					Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm

Processing according to drawings

Note: when B•S=0, there is no external thread.



- 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).



The first perspective

Ordinary Grade

Part Number Code	Dg6		1 mm Increment L	E·F	B·S	P·Q Selection	R	C
SEP02 SEP06 SEP07	6	-0.004 -0.012	20~600	E=2~P×5 F=2~Q×5	According to the use of Request for designation B·S size. Note: when B·S=0, there is no external thread.	3 4 5	0.3	0.5
	8	-0.005 -0.014	20~800			3 4 5 6		
	10					4 5 6 8		
	12	-0.006 -0.017	20~1000			5 6 8 10 12		
	13					5 6 8 10 12		
	15					5 6 8 10 12		
	16					5 6 8 10 12 16		
	18		20~1200			6 8 10 12 16		
	20	-0.007 -0.020				8 10 12 16		
	25					8 10 12 16 20 24		1.0
	30		20~1500			8 10 12 16 20 24		
	35	-0.009 -0.025				10 12 16 20 24 30	0.5	
	40					12 16 20 24 30		
	50					16 20 24 30		

Precision Grade

Part Number Code	Dg6		1 mm Increment L	E·F	B·S	P·Q Selection	R	C
SEP32 SEP36 SEP37	6	-0.004 -0.012	20~300	E=2~P×5 F=2~Q×5	According to the use of Request for designation B·S size. Note: when B·S=0, there is no external thread.	3 4	0.3	0.2
	8	-0.005 -0.014				3 4 5 6		
	10					4 5 6 8		
	12	-0.006 -0.017	20~350			5 6 8 10		
	13					5 6 8 10		
	15					5 6 8 10 12		
	16					5 6 8 10 12		
	18					5 6 8 10 12 16		
	20	-0.007 -0.020	25~450			6 8 10 12 16		
	25					8 10 12 16 20		
	30					8 10 12 16 20 24		

Please order as shown

Ordinary Grade

Part Number Code	D	L	E·F	B·S	P·Q
SEP02	6	20~600	E=2~P×5	According to the use of Request for designation B·S size	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 Code	D	L	E·F	B·S	P·Q	Optional Processing Code
SEP02	6	20~600	E=2~P×5	According to the use of Request for designation B·S size	3 4 5	SC( )
SEP06	8	20~800	F=2~Q×5		3 4 5 6	

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

Discount price

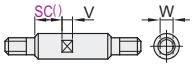
Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

Code	Spec.
SC( )	**Wrench Flats at One Location** Ordering Code SC5 1 mm Increment

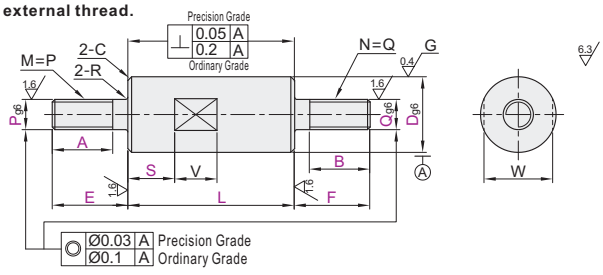
D	W	V
8	7	9
10	8	
12	10	
16	14	11
20	17	
30	27	16



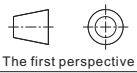
with Wrench Flats		D Tol.	Material		Hardness	Surface Treatment
Ordinary Grade	Precision Grade		GB	Equiv.		
SER02	SER32	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm
SER06	SER36		9Cr18Mo	SUS440C		—
SER07	SER37					Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm

Processing according to drawings

Note: when A•B=0, there is no external thread.



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).


The first perspective

Ordinary Grade

Part Number Code	Dg6		1 mm Increment L	E·F	A·B	P·Q Selection	Wrench Flats Dimensions S	W	V	R	C
SER02 SER06 SER07	6	-0.004 -0.012	20~600			3 4 5		5			
	8	-0.005 -0.014	20~800			3 4 5 6		7	8		
	10					4 5 6 8		8			
	12		20~1000		According to the use of Request for designation A·B size. Note: when A·B=0, there is no external thread.	5 6 8 10	According to the use of Request for designation S size. 1 mm Increment Wrench Flats Dimensions refer to the product introduction of shafts.	10			0.5
	13	-0.006 -0.017				5 6 8 10 12		11			
	15					5 6 8 10 12		13		0.3	
	16		20~1200	E=2~P×5 F=2~Q×5		5 6 8 10 12		14	10		
	18					5 6 8 10 12 16		16			
	20					6 8 10 12 16		17			
	25	-0.007 -0.020				8 10 12 16 20 24		22			
	30		20~1500			8 10 12 16 20 24		27	15		1.0
	35					10 12 16 20 24 30		30			
	40	-0.009 -0.025				12 16 20 24 30		36	20	0.5	
	50					16 20 24 30		41			

Precision Grade

Part Number Code	Dg6		1 mm Increment L	E·F	A·B	P·Q Selection	Wrench Flats Dimensions S	W	V	R	C
SER32 SER36 SER37	6	-0.004 -0.012	20~300			3 4		5			
	8	-0.005 -0.014				3 4 5 6		7	8		
	10					4 5 6 8		8			
	12				According to the use of Request for designation A·B size. Note: when A·B=0, there is no external thread.	5 6 8 10	According to the use of Request for designation S size. 1 mm Increment Wrench Flats Dimensions refer to the product introduction of shafts.	10			
	13		20~350			5 6 8 10		11			
	15	-0.006 -0.017		E=2~P×5 F=2~Q×5		5 6 8 10 12		13		0.3	0.2
	16					5 6 8 10 12		14	10		
	18					5 6 8 10 12 16		16			
	20					6 8 10 12 16		17			
	25	-0.007 -0.020	20~450			8 10 12 16 20		22			
	30					8 10 12 16 20		27	15		

Please order as shown

Ordinary Grade

Part Number Code	D	L	E·F	A·B	P·Q	S
SER02	8	20~800	E=2~P×5 F=2~Q×5	According to the use of Request for designation A·B size	3 4	According to the use of Request for designation S size
SER06	10				4 5	

SER02—D8—L80—E10—F10—A6—B6—P3—Q3—S10

Optional Processing

Part Number Code	D	L	E·F	A·B	P·Q	S	Optional Processing Code
SER02	8	20~800	E=2~P×5 F=2~Q×5	According to the use of Request for designation A·B size	3 4	According to the use of Request for designation S size	LC PC()·PD() QC()·QD()
SER06	10				4 5		

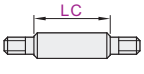
SER02—D8—L80—E10—F10—A6—B6—P3—Q3—S10—LC

Discount price

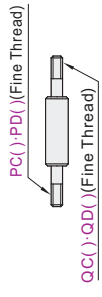
Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

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

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	Spec.	
PC( ) PD( ) QC( ) QD( )	**Change to Fine Thread** 	Ordering Code PC17 (PC·QC : the Fine Thread Pitch corresponds to the Bearing Nut). (PD·QD : the Fine Thread Pitch corresponds to the Cylinder).

D	PC·QC							PD·QD		
6	3	4 (5)								
8	3	4	5	6						
10	—	4	5	6	8					
12	—		5	6	8	10			10	
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 (17)			10	12 14
20	—	—		6	8	10 12 15 17			10	12 14 18
25	—	—		—	8	10 12 15 17 20			10	12 14 18
30	—	—		—	8	10 12 15 17 20		25	10	12 14 18
(35)	—	—		—		10 12 15 17 20		25 30	10	12 14 18
(40)	—	—		—		12 15 17 20		25 30	—	12 14 18
(50)	—	—		—		15 17 20		25 30	—	14 18
Pitch	0.35	0.5		0.75		1.0		1.5	1.25	1.5

In selection, P/Q must be changed to PC(PD) /QC(QD).
In selection, P/Q and PC(PD) /QC(QD) must be the same size.
Dimensions in () do not apply to Precision Grades.

Shafts

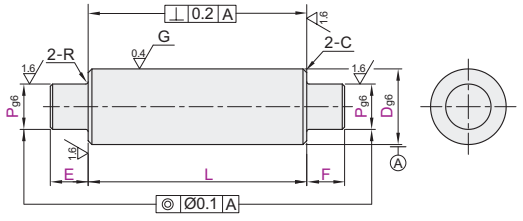
Both Ends Stepped
Both Ends Stepped and Tapped

Ordinary Grade/Precision Grade

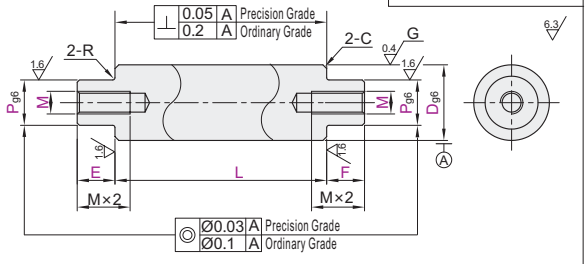
Both Ends Stepped	Both Ends Stepped and Tapped		D Tol.	Material		Hardness	Surface Treatment
Ordinary Grade	Ordinary Grade	Precision Grade		GB	Equiv.		
SHM02	SHN02	SHN32	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness HV850~,Plating Thickness 3~5μm
SHM06	SHN06	SHN36		9Cr18Mo	SUS440C		—
SHM07	SHN07	SHN37					Hard Chrome Plating,Plating Hardness HV850~,Plating Thickness 3~5μm

Processing according to drawings

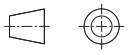
Both Ends Stepped
SHM02/06/07



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).



The first perspective

Both Ends Stepped(Ordinary Grade)

Part Number Code	Dg6		1 mm Increment L	E·F	P	R	C
SHM02 SHM06 SHM07	8	-0.005 -0.014	20~800		6		
	10				6~8		
	12	-0.006 -0.017			6~10		
	13		20~1000		6~11		0.5
	15				6~13		
	16		20~1200	E=2~P×4 F=2~P×4	6~14	0.3	
	18				8~16		
	20	-0.007 -0.020			8~17		
	25				8~22		
	30				9~27		1.0
	35		20~1500		9~32		
	40	-0.009 -0.025			11~37	0.5	
	50				11~47		

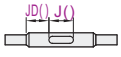
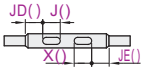
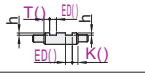
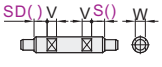
Both Ends Stepped and Tapped(Ordinary Grade)

Part Number Code	Dg6		1 mm Increment L	E·F	P	M Selection	R	C
SHN02 SHN06 SHN07	8	-0.005 -0.014	20~800		6	3		
	10				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 -0.017			6~13	3 4 5 6 8 10		
	16			E=2~P×4 F=2~P×4	6~14	3 4 5 6 8 10	0.3	
	18		20~1200		8~16	4 5 6 8 10 12		
	20				8~17	4 5 6 8 10 12		
	25	-0.007 -0.020			8~22	4 5 6 8 10 12 16		
	30				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 -0.025	20~1500		11~37	6 8 10 12 16 20 24 30	0.5	
	50				11~47	6 8 10 12 16 20 24 30		

Both Ends Stepped and Tapped(Precision Grade)

Part Number Code	Dg6		1 mm Increment L	E·F	P	M Selection	R	C
SHN32 SHN36 SHN37	8	-0.005 -0.014	20~300		6	3		
	10				6~8	3 4 5		
	12				6~10	3 4 5 6		
	13		20~350		6~11	3 4 5 6 8		0.5
	15	-0.006 -0.017		E=2~P×4 F=2~P×4	6~13	3 4 5 6 8 10	0.3	
	16				6~14	3 4 5 6 8 10		
	18				8~16	3 4 5 6 8 10 12		
	20		20~450		8~17	4 5 6 8 10 12		
	25	-0.007 -0.020			8~22	4 5 6 8 10 12 16		1.0
	30				9~27	5 6 8 10 12 16 20 24		

Optional Processing

Code	Spec.	
LC	**Alteration to L Dimension Tolerance**	Ordering Code LC 0.1 mm Increment When L<300, $L_{\pm0.03}$; When 300≤L<600, $L_{\pm0.05}$; When L≥600, $L_{\pm0.1}$.
JD( ) JE( )	**Add Keyway at One Location**  **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 P10.
EC( ) ED( )	**Set Screw Flat at One Location** **Set Screw Flats at Two Locations** 	Ordering Code EC10-K8 Ordering Code ED10-K8-T10 D / h 8~18 / 1 20~40 / 2 50 / 3
SD( )	**Wrench Flats at Two Locations** 	Ordering Code SD12-S8 1 mm Increment D / W / V 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 / 21 50 / 41

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

Please order as shown

Both Ends Stepped(Ordinary Grade)

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

SHM02—D8—L30—E10—F10—P6

Both Ends Stepped and Tapped(Ordinary Grade)

Part Number Code	D	L	E·F	P	M
SHM02	8	20~300	E=2~P×4 F=2~P×4	6	3
SHM06	10			6~8	3 4 5

SHN02—D8—L30—E10—F10—P6—M3

Optional Processing(Both Ends Stepped(Ordinary Grade))

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

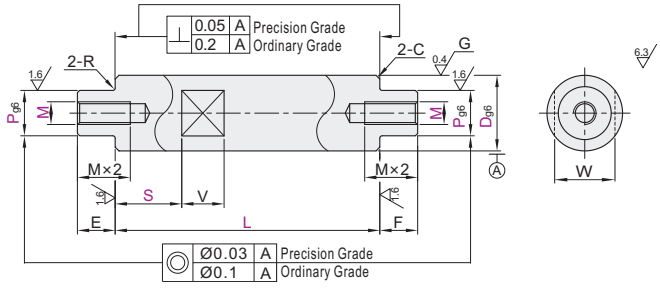
SHM02—D8—L30—E10—F10—P6—LC

Discount price

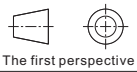
Per	1~4	5~
Price	100%	Additional quotation

Code	Type	Accuracy Grade	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SHP02	Both Ends Stepped and Tapped With Wrench Flats	Ordinary Grade	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~ 9Cr18Mo HRC54~	Hard Chrome Plating,Plating Hardness HV850~,Plating Thickness 3~5μm
SHP06				9Cr18Mo	SUS440C		—
SHP07							Hard Chrome Plating,Plating Hardness HV850~, Plating Thickness 3~5μm
SHP32		Precision Grade		GCr15	SUJ2		
SHP36				9Cr18Mo	SUS440C		—
SHP37							Hard Chrome Plating,Plating Hardness HV850~,Plating Thickness 3~5μm

Processing according to drawings



- 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.
- There are grinding grooves (1mm wide and 0.1mm deep) on the steps of the precision shaft.


The first perspective

Ordinary Grade

Part Number Code	Dg6		1 mm Increment L	E·F	P	M Selection	Wrench Flats Dimensions S	W	V	R	C
SHP02 SHP06 SHP07	8	-0.005 -0.014	20~800		6	3	According to the use of Request for designation S size. 1 mm Increment Wrench Flats Dimensions refer to the product introduction of shafts.	7	8	0.3	0.5
	10				6~8	3 4 5		8			
	12	-0.006 -0.017	20~1000		6~10	3 4 5 6		10	10		
	13				6~11	3 4 5 6 8		11			
	15				6~13	3 4 5 6 8 10		13			
	16		20~1200	E=2~P×4 F=2~P×4	6~14	3 4 5 6 8 10		14			
	18				8~16	4 5 6 8 10 12		16			
	20	-0.007 -0.020			8~17	4 5 6 8 10 12		17			
	25				8~22	4 5 6 8 10 12 16		22			
	30		20~1500		9~27	5 6 8 10 12 16 20 24		27	15		1.0
	35	-0.009 -0.025			9~32	5 6 8 10 12 16 20 24		30			
	40				11~37	6 8 10 12 16 20 24 30		36	20	0.5	
	50				11~47	6 8 10 12 16 20 24 30		41			

Precision Grade

Part Number Code	Dg6		1 mm Increment L	E·F	P	M Selection	Wrench Flats Dimensions S	W	V	R	C
SHP32 SHP36 SHP37	8	-0.005 -0.014	20~300		6	3	According to the use of Request for designation S size. 1 mm Increment Wrench Flats Dimensions refer to the product introduction of shafts.	7	8	0.3	0.5
	10				6~8	3 4 5		8			
	12	-0.006 -0.017	20~350		6~10	3 4 5 6		10	10		
	13				6~11	3 4 5 6 8		11			
	15			E=2~P×4 F=2~P×4	6~13	3 4 5 6 8 10		13			
	16				6~14	3 4 5 6 8 10		14			
	18				8~16	4 5 6 8 10 12		16			
	20	-0.007 -0.020			8~17	4 5 6 8 10 12		17			
	25		20~450		8~22	4 5 6 8 10 12 16		22			1.0
	30				9~27	5 6 8 10 12 16 20 24		27	15		

Please order as shown

Part Number Code	D	L	E·F	P	M	S
SHP02	8	20~300	E=2~P×4	6	3	According to the use of Request for designation S size
SHP06	10		F=2~P×4	6~8	3 4 5	

SHP02—D8—L50—E10—F10—P6—M3—S15

Discount price

Per	1~4	5~
Price	100%	Additional quotation

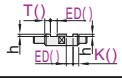
Delivery 4

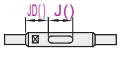
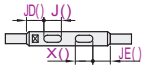
Optional Processing

Part Number Code	D	L	E·F	P	M	S	Optional Processing code
SHP02	8	20~300	E=2~P×4	6	3	According to the use of Request for designation S size	EC( ) ED( )
SHP06	10		F=2~P×4	6~8	3 4 5		JD( ) JE( )

SHP02—D8—L50—E10—F10—P6—M3—S15—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; L>300' s precision grade is not applicable.
EC( ) ED( )	**Set Screw Flat at One Location** **Set Screw Flats at Two Locations** 	Ordering Code EC10-K8 Ordering Code ED10-K8-T10 Only applicable to Ordinary Grade. D / h: 8~18 / 1; 20~40 / 2; 50 / 3

Code	Spec.	
JD( ) JE( )	**Add keyway at One Location**  **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 P10. Only applicable to Ordinary Grade.

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

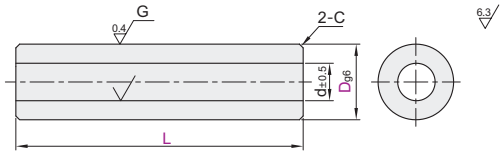
Hollow Shafts

Standard/One End Tapped
One End Tapped with Wrench Flats

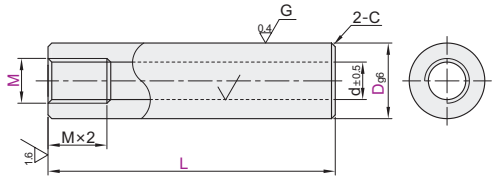
Code	Type	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SLD01	Standard	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5μm
SLD11	One End Tapped					
SLD21	One End Tapped with Wrench Flats					

Processing according to drawings

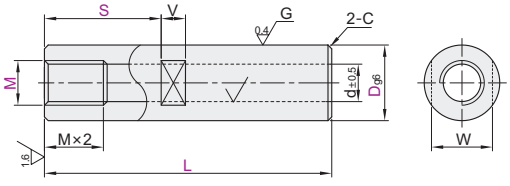
Standard
SLD01



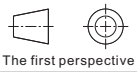
One End Tapped
SLD11



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	-0.006 -0.017	25~1200	8	0.5
	20			14	
	25	-0.007 -0.020	30~1200	15	1.0
	30		30~1500	17	
	35			19	
	40	-0.009 -0.025	45~1500	20	
	50		55~1500	26	

One End Tapped

Part Number Code	Dg6		L 1 mm Increment	M Selection	d	C
SLD11	16	-0.006 -0.017	25~1200	12 T2(RC1/4)	8	0.5
	20			16 T3(RC3/8)	14	
	25	-0.007 -0.020	30~1200	20	15	1.0
	30		30~1500		17	
	35			24	19	
	40	-0.009 -0.025	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	-0.006 -0.017	25~1200	12 T2(RC1/4)	According to the use of Request for designation S size. 1 mm Increment Wrench Flats Dimensions refer to the product introduction of shafts.	14	10	8	0.5
	20			16 T3(RC3/8)		17		14	
	25	-0.007 -0.020	30~1200	20		22	15	15	1.0
	30		30~1500			27		17	
	35			24		30		19	
	40	-0.009 -0.025	45~1500	24 30		36	20	20	
	50		55~1500	30		41		26	

Please order as shown

Standard

Part Number Code	D	L
SLD01	TB 20	25~1200

SLD01 — D16 — L80

One End Tapped

Part Number Code	D	L	M
SLD11	TB 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	TB 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	TB 20	25~1200	12 T2(RC1/4) 16 T3(RC3/8)	According to the use of Request for designation S size	LC RD()...

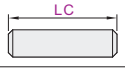
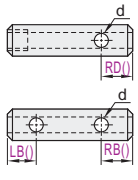
SLD21 — D16 — L80 — MT2 — S5 — LC

Discount price

Per	1~4	5~
Price	100%	Additional quotation

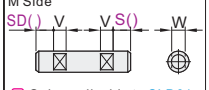
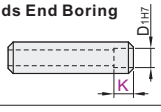
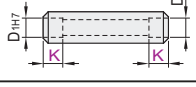
Delivery 4

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**  LB only applies to SLD01. Ordering Code One End:RD5; Ordering Code Both Ends:RB5-LB6; 1 mm Increment; Adds a lateral hole on one side; Orientation between two cross-drilled holes is random.

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**  Only applicable to SLD01. Ordering Code SD12-S8; 1 mm Increment
KD( )	**Adds End Boring**  Ordering Code KD-K5; 1 mm Increment
KE( )	**Adds Both Ends Boring**  Ordering Code KE-K10; 1 mm Increment; Only applicable to SLD01.

D	W	V
16	14	11
18	16	
20	17	
25	22	
30	27	16
35	30	
40	36	21
50	41	

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

Shafts

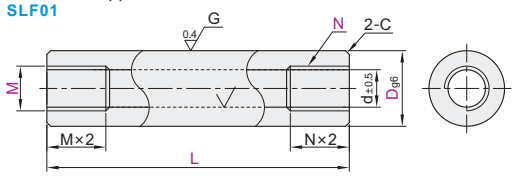
Hollow Shafts

Code	Type	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SLF01	Both Ends Tapped	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5μm
SLF11	Both Ends Tapped with Wrench Flats					
SLF21	One End Threaded					
SLF31	One End Threaded with Wrench Flats					

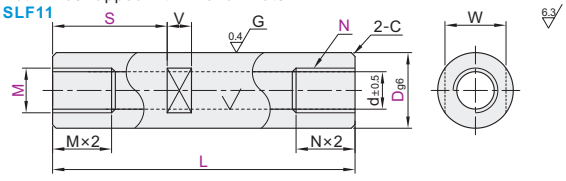
Processing according to drawings

- The inner part of Hollow, Tapped part and lateral holes are not chrome plated, which may cause rust.
- 15 mm 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.
- **Note: when A=0, there is no external thread.**

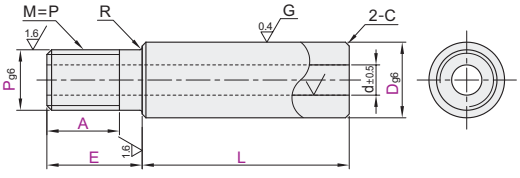
Both Ends Tapped
SLF01



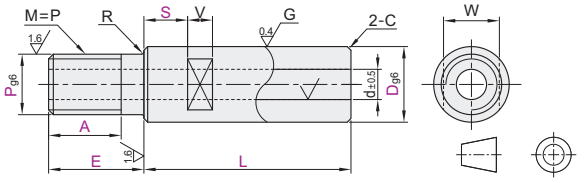
Both Ends Tapped with Wrench Flats
SLF11



One End Threaded
SLF21



One End Threaded with Wrench Flats
SLF31



The first perspective

Both Ends Tapped

Part Number Code	Dg6		L 1 mm Inc.	M·N Selection	d	C
SLF01	16	-0.006 -0.017	45~1200	12 T2(RC1/4)	8	0.5
	20		60~1200	16 T3(RC3/8)	14	
	25	-0.007 -0.020	75~1200	20	15	1.0
	30		75~1500		17	
	35		90~1500	24	19	
	40	-0.009 -0.025		24 30	20	
	50		115~1500	30	26	

Both Ends Tapped with Wrench Flats

Part Number Code	Dg6		L 1 mm Inc.	M·N Selection	Wrench Flats Dimensions S	W	V	d	C
SLF11	16	-0.006 -0.017	45~1200	12 T2(RC1/4)	! According to the use of Request for designation S size ! 1 mm Increment ! Wrench Flats Dimensions refer to the product introduction of shafts	14	10	8	0.5
	20		60~1200	16 T3(RC3/8)		17		14	
	25	-0.007 -0.020	75~1200	20		22	15	15	1.0
	30		75~1500			27		17	
	35		90~1500	24		30	20	19	
	40	-0.009 -0.025		24 30		36		20	
	50		115~1500	30		41		26	

One End Threaded

Part Number Code	Dg6		1 mm Increment L	E	A	P Selection	d	R	C
SLF21	16	-0.006 -0.017	20~1198	E=2~P×5	! According to the use of Request for designation A size. ! Note: when A=0, there is no external thread.	16	8	0.3	0.5
	20					20	14		
	25	-0.007 -0.020				24	15		1.0
	30		20~1498			24 30	17		
	35	-0.009 -0.025				30	19	0.5	
	40						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
SLF31	16	-0.006 -0.017	20~1198	E=2~P×5	! According to the use of Request for designation A size. ! Note: when A=0, there is no external thread.	16	! According to the use of Request for designation S size. ! 1 mm Increment ! Wrench Flats Dimensions refer to the product introduction of shafts.	14	10	8	0.3	0.5
	20					20		17		14		
	25	-0.007 -0.020				24		22		15		1.0
	30		20~1498			24 30		27	15	17		
	35	-0.009 -0.025				30		30		19	0.5	
	40							36	20	20		

Please order as shown

Both Ends Tapped

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

SLF01—D16—L100—M12—N12

Both Ends Tapped With Wrench Flats

Part Number Code	D	L	M·N	S
SLF11	16	45~1200	12 T2	According to the use of Request for designation S size
	20	60~1200	16 T3	

SLF11—D16—L100—M12—N12—S5

One End Threaded

Part Number Code	D	L	E	A	P
SLF21	16	20~1198	E=2~P×5	According to the use of Request for designation A size	16
	20				20

SLF21—D16—L100—E15—A10—P16

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( )

SLF01—D16—L100—M12—N12—LC

One End Threaded With Wrench Flats

Part Number Code	D	L	E	A	P	S
SLF31	16	20~1198	E=2~P×5	According to the use of Request for designation A size	16	According to the use of Request for designation S size
	20				20	

SLF31 — D16 — L60 — E15 — A10 — P16 — S5

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	According to the use of Request for designation S size	LC KD( )
	20	60~1200	16 T3		

SLF11—D16—L100—M12—N12—S5—LC

Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

Code	Spec.		Code	Spec.	
SD( )	**Wrench Flats at Two Locations** M Side SD( ) V V S( ) W	Ordering Code SD12-S8 ! 1 mm Increment ! Only applicable to SLF01.	LC	**Alteration to L Dimension Tolerance** LC	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.
			KD( )	**Adds End Boring** D H7 K	Ordering Code KD-K5 ! 1 mm Increment ! Only applicable to SLF21/31.

D	W	V
16	14	11
20	17	
25	22	16
30	27	
35	30	
40	36	21
50	41	

D	D1H7
16	12
20	16
25·30	20
35·40	24

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

Hollow Shafts

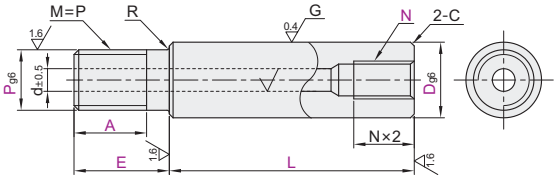
One End Threaded,One End Tapped/Both Ends Threaded
One End Stepped/One End Stepped,One End Tapped

Code	Type	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SLJ01	One End Threaded,One End Tapped	g6	GCr15	SUJ2	Induction Hardened Effective Hardened Depth refer to P10 Quench Hardness GCr15 HRC56~	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 3~5μm
SLL01	Both Ends Threaded					
SLM01	One End Stepped					
SLN01	One End Stepped,One End Tapped					

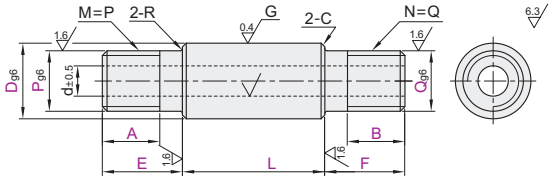
Processing according to drawings

- 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.
- **Note: when A=0 or A·B=0, there is no external thread.**

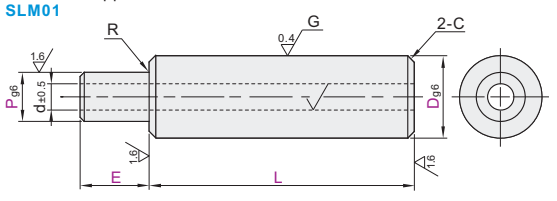
One End Threaded,One End Tapped
SLJ01



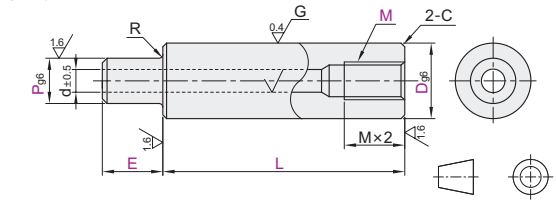
Both Ends Threaded
SLL01



One End Stepped
SLM01



One End Stepped,One End Tapped
SLN01



The first perspective

One End Threaded,One End Tapped

Part Number Code	Dg6	L	E	A	P Selection	N Selection	d	R	C
SLJ01	16 (-0.006 -0.017)	20~1200	E=2~P×5	According to the use of Request for designation A size. Note: when A=0, there is no external thread.	16	12 T2(RC1/4)	8	0.3	0.5
	20				20	16 T3(RC3/8)	14		
	25 (-0.007 -0.020)				24	20	15		
	30	20~1500			24 30		17		1.0
	35 (-0.009 -0.025)				30	24	19	0.5	
	40					24 30	20		

One End Stepped

Part Number Code	Dg6	L	E	P	d	R	C
SLM01	16 (-0.006 -0.017)	20~1200	E=2~P×3	13≤P<D	8	0.5	0.5
	20			16≤P<D	14		
	25 (-0.007 -0.020)			20≤P<D	15		
	30			22≤P<D	17		1.0
	35	20~1500		24≤P<D	19		
	40 (-0.009 -0.025)			25≤P<D	20	0.3	
	50			32≤P<D	26		

Both Ends Threaded

Part Number Code	Dg6	L	E·F	A·B	P·Q Selection	d	R	C
SLL01	16 (-0.006 -0.017)	20~1200	E=2~P×5 F=2~Q×5	According to the use of Request for designation A·B size. Note: when A·B=0, there is no external thread.	16	8	0.3	0.5
	20				20	14		
	25 (-0.007 -0.020)				24	15		
	30	20~1500			24 30	17		1.0
	35 (-0.009 -0.025)				30	19	0.5	
	40					20		

One End Stepped,One End Tapped

Part Number Code	Dg6	L	E	P	M Selection	d	R	C
SLN01	16 (-0.006 -0.017)	20~1200	E=2~P×3	13≤P<D	12 T2(RC1/4)	8	0.5	0.5
	20			16≤P<D	16 T3(RC3/8)	14		
	25 (-0.007 -0.020)			20≤P<D	20	15		
	30			22≤P<D		17		1.0
	35	20~1500		24≤P<D	24	19		
	40 (-0.009 -0.025)			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.

Please order as shown

One End Threaded,One End Tapped

Part Number Code	D	L	E	A	P	N
SLJ01	16 (20)	20~1200	E=2~P×5	According to the use of Request for designation A size	16 (20)	12 T2 16 (13)

SLJ01—D20—L30—E6—A4—P20—NT3

Both Ends Threaded

Part Number Code	D	L	E·F	A·B	P·Q
SLL01	16 (20)	20~1200	E=2~P×5 F=2~Q×5	According to the use of Request for designation A·B size	16 (20)

SLL01—D20—L300—E30—F30—A15—B15—P20—Q20

One End Stepped

Part Number Code	D	L	E	P
SLM01	16 (20)	20~1200	E=2~P×3	13≤P<D 16≤P<D

SLM01—D8—L80—E15—P14

Discount price

Per	1~4	5~
Price	100%	Additional quotation

One End Stepped,One End Tapped

Part Number Code	D	L	E	P	M Selection
SLN01	16 (20)	20~1200	E=2~P×3	13≤P<D 16≤P<D	12 T2 16 (13)

SLN01—D20—L30—E5—P16—MT3

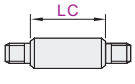
Optional Processing (One End Threaded,One End Tapped)

Part Number Code	D	L	E	A	P	N	Optional Processing Code
SLJ01	16 (20)	20~1200	E=2~P×5	According to the use of Request for designation A size	16 (20)	12 T2 16 (13)	SC( ) SD( )

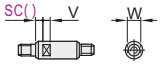
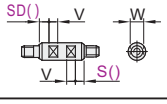
SLJ01—D20—L30—E6—A4—P20—NT3—LC

Delivery 4

Optional Processing

Code	Spec.	
LC	**Alteration to L Dimension Tolerance** 	Ordering Code LC 0.1 mm Increment When L<300, $L_{\pm0.03}$; When 300≤L<600, $L_{\pm0.05}$; When L≥600, $L_{\pm0.1}$.

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

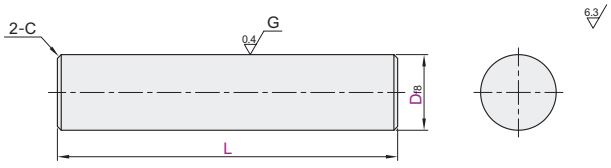
Code	Spec.	
SC( ) SD( )	**Wrench Flats at One Location**  **Wrench Flats at Two Locations** 	Ordering Code SC5 Ordering Code SD12-S8 1 mm Increment

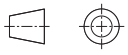
D	W	V
16	14	11
18	16	
20	17	
25	22	16
30	27	
35	30	
40	36	21

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 HV850~, Plating Thickness 10~15μm
SAD14			0Cr18Ni9	SUS304		

Processing according to drawings




The first perspective

Code	Part Number Df8		L 1 mm Increment	C
(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	
	18*		25~1200	
	20		25~1200	
	25	-0.020 -0.053	25~1200	
	30		30~1500	1.0
	35*			
	40*	-0.025 -0.064	40~1500	
	50*		60~1500	

Specifications with * do not apply to SAD14.

Please order as shown

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

SAD11—D6—L80

Optional Processing

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

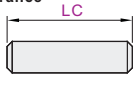
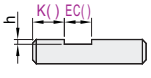
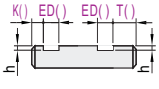
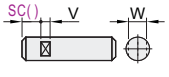
SAD11—D6—L80—SC4

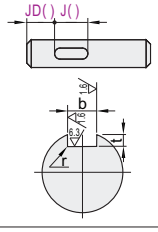
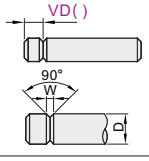
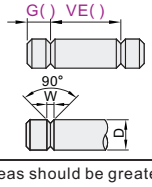
Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

Code	Spec.		
LC	**Alteration to L Dimension Tolerance** 	Ordering Code LC 0.1 mm Increment When L<300, $L_{\pm0.03}$; When 300≤L<600, $L_{\pm0.05}$; When L≥600, $L_{\pm0.1}$.	
EC( )	**Set Screw Flat at One Location** 	Ordering Code EC10-K8 1 mm Increment	D / h 6~18 / 1 20~40 / 2 50 / 3
ED( )	**Set Screw Flats at Two Locations** 	Ordering Code ED10-K8-T20 1 mm Increment	D / h 6~18 / 1 20~40 / 2 50 / 3
SC( )	**Wrench Flats at One Location** 	Ordering Code SC5 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 / 21 50 / 41 /

Code	Spec.		
JD( )	**Add Keyway at One Location** 	Ordering Code JD10-J10 1 mm Increment When JD = 0 , see the right figure. Only applicable to D=12, 16, 20, 25 and 30. Keyway details refer to P10.	
VD( )	**Adds V Groove at One Location** 	Ordering Code VD8 1 mm Increment	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 mm Increment	D / W 6·8 / 2 10~18 / 4 20~25 / 6 30~35 / 8 40~50 / 12

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

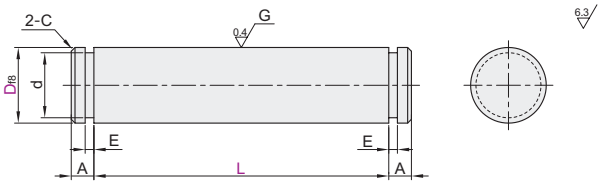
Shafts with Retaining Ring Grooves

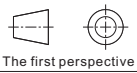
Straight Type(D Tol. f8)

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 HV850~, Plating Thickness 10~15μm

Processing according to drawings

Self-made





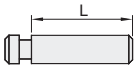
The first perspective

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

Part Number Code	Df8		L 1 mm Increment	A	E		d		Applicable Retaining Ring(2 pcs)	C
(D Tol. f8) SAE11	6	-0.010 -0.028	15~600	2	0.7	+0.1 0	5	+0.075 0	TBP12-5	0.5
	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	-0.016 -0.043	15~1000	3.5	1.15	+0.14 0	11.5	0 -0.11	TBP02-12	
	13		20~1000				12.4		TBP02-13	
	15		20~1200				14.3		TBP02-15	
	16						15.2		TBP02-16	
	18		25~1200				17		TBP02-18	
	20	-0.020 -0.053	30~1200	4.5	1.35		19	0 -0.21	TBP02-20	1.0
	25						23.9		TBP02-25	
	30				1.65		28.6		TBP02-30	

For Retaining Rings, Refer to P1061.

Optional Processing

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

Optional Processing may reduce hardness.

Please order as shown

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

SAE11—D6—L100

Optional Processing

Part Number Code	D	L	Optional Processing Code
SAE11	6	15~600	HC
	8	15~800	

SAE11—D6—L100—HC

Discount price

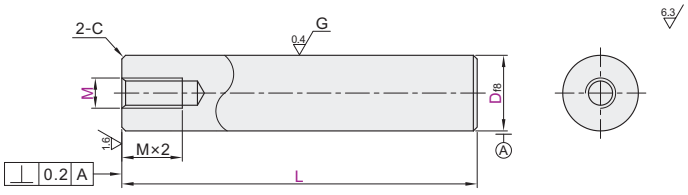
Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

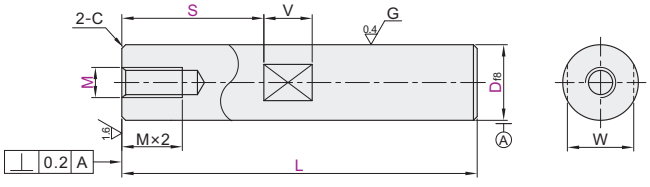
Standard	with Wrench Flats	Accuracy Grade	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SCD11	SCE11	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 10~15μm
SCD14	SCE14			0Cr18Ni9	SUS304		

Processing according to drawings

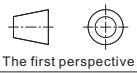
Standard
SCD11
SCD14



with Wrench Flats
SCE11
SCE14



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


The first perspective

Standard

Part Number Code	Df8		L 1 mm Inc.	M Selection	C
(D Tol. f8) SCD11 SCD14	6	-0.010 -0.028	15~600	3	
	8	-0.013 -0.035	15~800	3 4 5	
	10			3 4 5 6	
	12	-0.016 -0.043	15~1000	4 5 6 8	0.5
	13			4 5 6 8	
	15		20~1000	4 5 6 8 10	
	16		20~1200	4 5 6 8 10	
	18*		25~1200	4 5 6 8 10 12	
	20	-0.020 -0.053		4 5 6 8 10 12	
	25			4 5 6 8 10 12 16	
	30		30~1500	4 5 6 8 10 12 16 20	1.0
	35*	-0.025 -0.064		8 10 12 16 20 24	
	40*		40~1500	10 12 16 20 24 30	
	50*		60~1500	12 16 20 24 30	

! Specifications with * do not apply to SCD14.

with Wrench Flats

Part Number Code	Df8		L 1 mm Inc.	M Selection	Wrench Flats Dimensions S	W	V	C
(D Tol. f8) SCE11 SCE14	6	-0.010 -0.028	15~600	3	! According to the use of Request for designation S size. ! 1 mm Increment ! Wrench Flats Dimensions refer to the product introduction of shafts.	5		
	8	-0.013 -0.035	15~800	3 4 5		7	8	
	10			3 4 5 6		8		
	12	-0.016 -0.043	15~1000	4 5 6 8		10	10	0.5
	13			4 5 6 8		11		
	15		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		17		
	25	-0.020 -0.053	30~1200	4 5 6 8 10 12 16		22		
	30		30~1500	6 8 10 12 16 20		27	15	1.0
	35*			8 10 12 16 20 24		30		
	40*	-0.025 -0.064	40~1500	10 12 16 20 24 30		36	20	
	50*		60~1500	12 16 20 24 30		41		

! Specifications with * do not apply to SCE14.

Please order as shown

Standard

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

SCD11—D6—L80—M3

Optional Processing (Standard)

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

SCD11—D6—L80—M3—LC

Discount price

Per	1~4	5~
Price	100%	Additional quotation

with Wrench Flats

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

SCE11—D6—L80—M3—S20

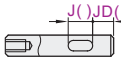
Optional Processing (with Wrench Flats)

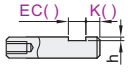
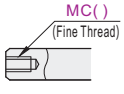
Part Number Code	D	L	M	S	Optional Processing Code
SCE11	6	15~600	3	According to the use of Request for designation S size	MC( )...
SCE14	8	15~800	3 4 5		

SCE11—D6—L80—M3—S20—LC

Delivery 4

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.
JD( )	**Add Keyway at One Location** 	Ordering Code JD10-J10 ! 1 mm Increment ! When JD = 0 , see the right figure. ! Only applicable to D=12, 16, 20, 25 and 30. ! Keyway details refer to P10.

Code	Spec.	
EC( )	**Set Screw Flat at One Location** 	Ordering Code EC10-K8 ! 1 mm Increment D / h: 6~18 / 1; 20~40 / 2; 50 / 3
MC( )	**Change to Fine Tapped Thread** 	Ordering Code MC14 ! In selection, M must be changed to MC. ! In selection, M and MC must be the same size.

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

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

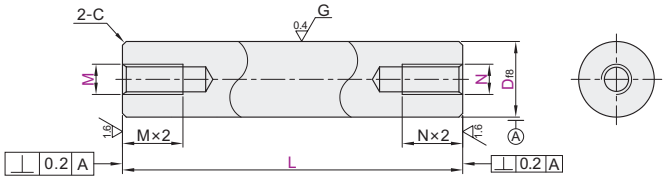
Standard/with Wrench Flats

Both Ends Tapped (D Tol. f8)

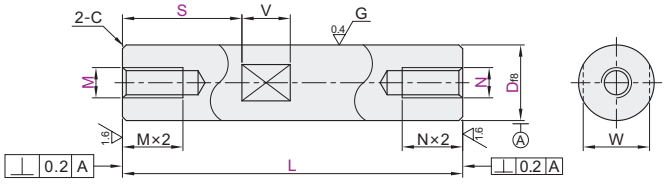
Standard	with Wrench Flats	Accuracy Grade	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SCJ11	SCK11	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 10~15μm
SCJ14	SCK14			0Cr18Ni9	SUS304		

Processing according to drawings

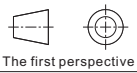
Standard
SCJ11
SCJ14



with Wrench Flats
SCK11
SCK14



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



The first perspective

Standard

Part Number Code	Df8		L 1 mm Inc.	M·N Selection	C
(D Tol. f8) SCJ11 SCJ14	6	-0.010 -0.028	15~600	3	0.5
	8	-0.013 -0.035	15~800	3 4 5	
	10			3 4 5 6	
	12	-0.016 -0.043	15~1000	4 5 6 8	
	13			4 5 6 8	
	15		20~1000	4 5 6 8 10	
	16		20~1200	4 5 6 8 10	
	18*	-0.020 -0.053	25~1200	4 5 6 8 10 12	
	20			4 5 6 8 10 12	
	25			4 5 6 8 10 12 16	1.0
	30	-0.025 -0.064	30~1500	4 5 6 8 10 12 16 20	
	35*			4 5 6 8 10 12 16 20 24	
	40*			4 5 6 8 10 12 16 20 24 30	
	50*			4 5 6 8 10 12 16 20 24 30	

Specifications with * do not apply to SCJ14.

with Wrench Flats

Part Number Code	Df8		L 1 mm Inc.	M·N Selection	Wrench Flats Dimensions S	W	V	C
(D Tol. f8) SCK11 SCK14	6	-0.010 -0.028	15~600	3	According to the use of Request for designation S size. 1 mm Increment Wrench Flats Dimensions refer to the product introduction of shafts.	5		0.5
	8	-0.013 -0.035	15~800	3 4 5		7	8	
	10			3 4 5 6		8		
	12	-0.016 -0.043	15~1000	4 5 6 8		10	10	
	13		20~1000	4 5 6 8		11		
	15			4 5 6 8 10		13		
	16			4 5 6 8 10		14		
	18*	-0.020 -0.053	25~1200	4 5 6 8 10 12		16		
	20			4 5 6 8 10 12		17		
	25		30~1200	4 5 6 8 10 12 16		22		
	30	-0.025 -0.064	30~1500	4 5 6 8 10 12 16 20		27	15	1.0
	35*			4 5 6 8 10 12 16 20 24		30		
	40*		50~1500	4 5 6 8 10 12 16 20 24 30		36	20	
	50*			4 5 6 8 10 12 16 20 24 30		41		

Specifications with * do not apply to SCK14.

Please order as shown

Standard

Part Number Code	D	L	M·N
SCJ11	6	15~800	3
SCJ14	8	15~800	3 4 5

SCJ11—D6—L80—M3—N3

with Wrench Flats

Part Number Code	D	L	M·N	S
SCK11	6	15~800	3	According to the use of Request for designation S size
SCK14	8	15~800	3 4 5	

SCK11—D6—L85—M3—N3—S20

Discount price

Per	1~4	5~
Price	100%	Additional quotation

Optional Processing(Standard)

Part Number Code	D	L	M·N	Optional Processing Code
SCJ11	6	15~800	3	SD( ) LC
SCJ14	8	15~800	3 4 5	MC( )·NC( )

SCJ11—D6—L80—M3— N3— LC

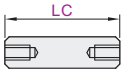
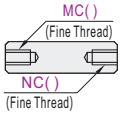
Optional Processing(with Wrench Flats)

Part Number Code	D	L	M·N	S	Optional Processing Code
SCK11	6	15~800	3	According to the use of Request for designation S size	LC MC( ) NC( )
SCK14	8	15~800	3 4 5		

SCK11—D6—L85—M3—N3— S20—LC

Delivery 4

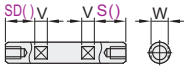
Optional Processing

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.
MC( ) NC( )	**Change to Fine Tapped Thread**  Ordering Code MC12

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	—	10	12 16 20
50	—	—	12 16 20
Pitch	1.0	1.25	1.5

In selection, M(N) must be changed to MC(NC).

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 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	21
50	41	

Only applicable to SCJ11/14.

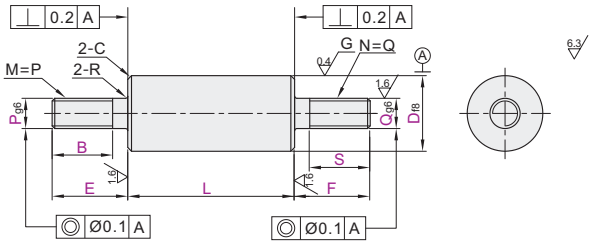
When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.

Optional processing may reduce hardness.

Code	Type	Accuracy Grade	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SEP11	Standard	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 10~15μm
SEP14				0Cr18Ni9	SUS304		

Note: when B·S=0, there is no external thread.

Processing according to drawings



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

The first perspective

Part Number Code	Df8		1 mm Increment L	E·F	B·S	P·Q Selection	R	C
(D Tol. f8) SEP11 SEP14	6	-0.010 -0.028	20~600		According to the use of Request for designation B·S size. Note: when B·S =0, there is no external thread.	3 4 5		
	8	-0.013 -0.035	20~800			3 4 5 6		
	10					4 5 6 8		
	12					5 6 8 10 12		0.5
	13		20~1000			5 6 8 10 12		
	15	-0.016 -0.043				5 6 8 10 12	0.3	
	16			E=2~P×5 F=2~Q×5		5 6 8 10 12 16		
	18*		20~1200			6 8 10 12 16		
	20					8 10 12 16		
	25	-0.020 -0.053				8 10 12 16 20 24		
	30					8 10 12 16 20 24		1.0
	35*		20~1500			10 12 16 20 24 30		
	40*	-0.025 -0.064				12 16 20 24 30	0.5	
	50*					16 20 24 30		

Specifications with * do not apply to SEP14.

Please order as shown

Part Number Code	D	L	E·F	B·S	P·Q
SEP11	6	20~600	E=2~P×5 F=2~Q×5	According to the use of Request for designation B·S size	3 4 5
SEP14	8	20~800			3 4 5 6

SEP11—D6—L200—E10—F10—B6—S6—P3—Q3

Optional Processing

Part Number Code	D	L	E·F	B·S	P·Q	Optional Processing Code
SEP11	6	20~600	E=2~P×5 F=2~Q×5	According to the use of Request for designation B·S size	3 4 5	PC( ) PS( )...
SEP14	8	20~800			3 4 5 6	

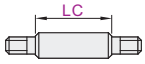
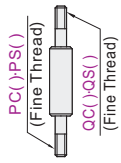
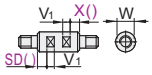
SEP11—D6—L200—E10—F10—B6—S6—P3—Q3—LC

Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

Optional Processing

Code	Spec.		Code	Spec.	
LC	**Alteration to L Dimension Tolerance** 	Ordering Code LC 0.1 mm Increment When L<200, $L_{\pm0.03}$; When 200≤L<500, $L_{\pm0.05}$; When L≥500, $L_{\pm0.1}$.	PC( ) PS( ) QC( ) QS( )	**Change to Fine Thread** 	Ordering Code PC17 (PC·QC : the Fine Thread Pitch corresponds to the Bearing Nut). (PS·QS : the Fine Thread Pitch corresponds to the Cylinder).
SD( )	**Wrench Flats at Two Locations** 	Ordering Code SD12-X8 1 mm Increment SD+X+V1×2<L SD=0 or SD≥1 X=0 or X≥1			

D	W	V	D	W	V
6	5	9	18	16	11
8	7		20	17	
10	8		25	22	
12	10	11	30	27	16
13	11		35	30	
15	13		40	36	21
16	14		50	41	

Orientation between wrench flats is not coplanar.

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
Pitch	0.35	0.5	0.75	1.0	1.5	1.25	1.5

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.

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

Optional processing may reduce hardness.

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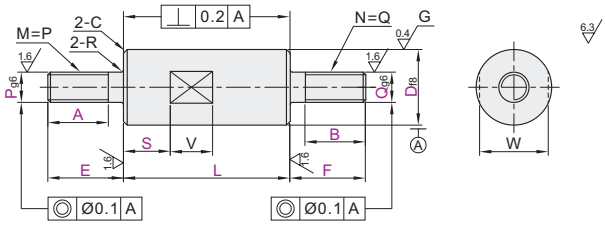
Both Ends Threaded with Wrench Flats
(D Tol. f8)

Code	Type	Accuracy Grade	D Tol.	Material GB	Material Equiv.	Hardness	Surface Treatment
SER11	Both Ends Threaded with Wrench Flats	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 10~15μm
SER14				0Cr18Ni9	SUS304		

Note: when A·B=0, there is no external thread.

Processing according to drawings



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

The first perspective

Part Number Code	D f8		L (1 mm Increment)	E·F	A·B	P·Q Selection	S (Wrench Flats Dimensions)	W	V	R	C
(D Tol. f8) SER11 SER14	6	-0.010 -0.028	20~600		According to the use of Request for designation A·B size. Note: when A·B=0, there is no external thread.	3 4 5	According to the use of Request for designation S size. 1 mm Increment. Wrench Flats Dimensions refer to the product introduction of shafts.	5			
	8	-0.013 -0.035	20~800			3 4 5 6		7	8		
	10					4 5 6 8		8			
	12	-0.016 -0.043	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		20~1200	E=2~P×5 F=2~Q×5		5 6 8 10 12		14	10		
	18*					5 6 8 10 12 16		16			
	20	-0.020 -0.053				6 8 10 12 16		17			
	25					8 10 12 16 20 24		22			
	30		20~1500			8 10 12 16 20 24		27	15		1.0
	35*	-0.025 -0.064				10 12 16 20 24 30		30			
	40*					12 16 20 24 30		36	20	0.5	
	50*					16 20 24 30		41			

Specifications with * do not apply to SER14.

Please order as shown

Part Number Code	D	L	E·F	A·B	P·Q	S
SER11	8	20~800	E=2~P×5 F=2~Q×5	According to the use of Request for designation A·B size	3 4 4 5	According to the use of Request for designation S size
SER14	10					

SER11—D8—L80—E10—F10—A6—B6—P3—Q3—S10

Optional Processing

Part Number Code	D	L	E·F	A·B	P·Q	S	Optional Processing Code
SER11	8	20~800	E=2~P×5 F=2~Q×5	According to the use of Request for designation A·B size	3 4 4 5	According to the use of Request for designation S size	PC( ) PS( ) QC( ) ...
SER14	10						

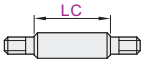
SER11—D8—L80—E10—F10—A6—B6—P3—Q3—S10— LC

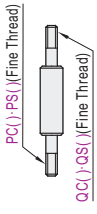
Discount price

Per	1~4	5~
Price	100%	Additional quotation

Delivery 4

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.

Code	Spec.
PC( ) PS( ) QC( ) QS( )	**Change to Fine Thread**  Ordering Code PC17; (PC·QC : the Fine Thread Pitch corresponds to the Bearing Nut). (PS·QS : the Fine Thread Pitch corresponds to the Cylinder).

D	PC·QC						PS·QS		
6	3	4	5						
8	3	4	5	6					
10	—	4	5	6	8				
12	—		5	6	8 10			10	
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 17			10	12 14
20	—		—	6	8 10 12 15 17			10	12 14 18
25	—		—	—	8 10 12 15 17 20			10	12 14 18
30	—		—	—	8 10 12 15 17 20	25		10	12 14 18
35	—		—	—	10 12 15 17 20	25 30		10	12 14 18
40	—		—	—	12 15 17 20	25 30		—	12 14 18
50	—		—	—	15 17 20	25 30		—	14 18
Pitch	0.35	0.5	0.75	1.0		1.5	1.25	1.5	

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.

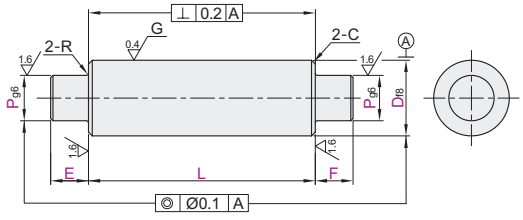
When selecting multiple optional processing, the distance between machined areas should be greater than 2mm.

Optional processing may reduce hardness.

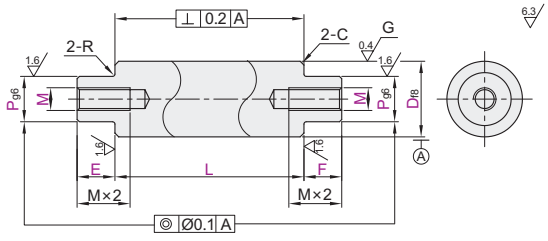
Both Ends Stepped	Both Ends Stepped and Tapped	Accuracy Grade	D Tol.	Material		Hardness	Surface Treatment
				GB	Equiv.		
SHM11	SHN11	Ordinary Grade	f8	45	S45C	—	Hard Chrome Plating, Plating Hardness HV850~, Plating Thickness 10~15μm

Processing according to drawings

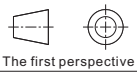
Both Ends Stepped
SHM11



Both Ends Stepped and Tapped
SHN11



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


The first perspective

Both Ends Stepped

Part Number Code	Df8		1 mm Increment L	E·F	P	R	C
(D Tol. f8) SHM11	8	-0.013 -0.035	20~800		6		
	10				6~8		
	12				6~10		
	13		20~1000		6~11		0.5
	15	-0.016 -0.043			6~13	0.3	
	16				6~14		
	18		20~1200	E=2~P×4 F=2~P×4	8~16		
	20				8~17		
	25	-0.020 -0.053			8~22		
	30				9~27		1.0
	35		20~1500		9~32		
	40	-0.025 -0.064			11~37	0.5	
	50				11~47		

Both Ends Stepped and Tapped

Part Number Code	Df8		1 mm Increment L	E·F	P	M Selection	R	C
(D Tol. f8) SHN11	8	-0.013 -0.035	20~800		6	3		
	10				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 -0.043			6~13	3 4 5 6 8 10	0.3	
	16				6~14	3 4 5 6 8 10		
	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 -0.053			8~22	4 5 6 8 10 12 16		
	30				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 -0.064			11~37	6 8 10 12 16 20 24 30	0.5	
	50				11~47	6 8 10 12 16 20 24 30		

Please order as shown

Both Ends Stepped

Part Number Code	D	L	E·F	P
SHM11	D	20~800	E=2~P×4 F=2~P×4	6
	10			6~8

SHM11—D8—L30—E10—F10—P6

Both Ends Stepped and Tapped

Part Number Code	D	L	E·F	P	M
SHN11	D	20~800	E=2~P×4 F=2~P×4	6	3
	10			6~8	3 4 5

SHN11—D8—L30—E10—F10—P6—M3

Optional Processing(Both Ends Stepped)

Part Number Code	D	L	E·F	P	Optional Processing Code
SHM11	D	20~800	E=2~P×4 F=2~P×4	6	JD()·JE() SD() EC()·ED() LC
	10			6~8	

SHM11—D8—L30—E10—F10—P6—LC

Discount price

Per	1~4	5~
Price	100%	Additional quotation

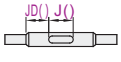
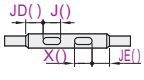
Both Ends Stepped and Tapped

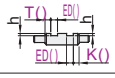
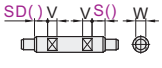
Part Number Code	D	L	E·F	P	M	Optional Processing Code
SHN11	D	20~800	E=2~P×4 F=2~P×4	6	3	JD()·JE() SD() EC()·ED() LC
	10			6~8	3 4 5	

SHN11—D8—L30—E10—F10—P6—M3—LC

Delivery 4

Optional Processing

Code	Spec.	
LC	**Alteration to L Dimension Tolerance**	Ordering Code LC 0.1 mm Increment When L<300, $L_{\pm0.03}$; When 300≤L<600, $L_{\pm0.05}$; When L≥600, $L_{\pm0.1}$.
JD() JE()	**Add keyway at One Location**  **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. Application Notes:D12,D16, D20,D25,D30. Keyway details refer to P10. Only applicable to SHM11.

Code	Spec.	
EC() ED()	**Set Screw Flat at One Location** **Set Screw Flats at Two Locations** 	Ordering Code EC10-K8 Ordering Code ED10-K8-T10 1 mm Increment D / h: 8~18 / 1; 20~40 / 2; 50 / 3
SD()	**Wrench Flats at Two Locations**  Only applicable to SHM11.	Ordering Code SD12-S8 1 mm Increment D / W / V: 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 / 21; 50 / 41

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