

Shafts

One End Tapered, One End Tapped / One End Stepped and Tapped / One End Threaded

One End Tapered, One End Tapped



RoHS 10

Type	D Tol. g6	D Tol. h5	Material	Hardness	Surface Treatment
SFTF	SFLU	EN 1.3505 Equiv.	Effective Hardened Depth of Induction Hardening $\geq$ P.112		
SSFTF	SSFLU	EN 1.4125 Equiv.			
PSFTF	PSFLU	EN 1.3505 Equiv.	EN 1.3505 Equiv. 58HRC~		Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More ~
PSSFTF	PSSFLU	EN 1.4125 Equiv.	EN 1.4125 Equiv. 56HRC~		

No Surface Treatment

Hardness of J+10 area will be lower due to annealing required for machining.
Case hardening and plating layers do not remain on the tapered area.
L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness $\geq$ P.111
Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm).

One End Tapered, One End Stepped and Tapped



RoHS 10

Type	D Tol. g6	D Tol. h5	Material	Hardness	Surface Treatment
SFTG	SFJU	EN 1.3505 Equiv.	Effective Hardened Depth of Induction Hardening $\geq$ P.112		
SSFTG	SSFJU	EN 1.4125 Equiv.			
PSFTG	PSFJU	EN 1.3505 Equiv.	EN 1.3505 Equiv. 58HRC~		Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More ~
PSSFTG	PSSFJU	EN 1.4125 Equiv.	EN 1.4125 Equiv. 56HRC~		

No Surface Treatment

Hardness of J+10 area will be lower due to annealing required for machining.
Case hardening and plating layers do not remain on the tapered area.
L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness $\geq$ P.111
Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm).

One End Tapered, One End Threaded



RoHS 10

Type	D Tol. g6	D Tol. h5	Material	Hardness	Surface Treatment
SFTN	SFKU	EN 1.3505 Equiv.	Effective Hardened Depth of Induction Hardening $\geq$ P.112		
SSFTN	SSFKU	EN 1.4125 Equiv.			
PSFTN	PSFKU	EN 1.3505 Equiv.	EN 1.3505 Equiv. 58HRC~		Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More ~
PSSFTN	PSSFKU	EN 1.4125 Equiv.	EN 1.4125 Equiv. 56HRC~		

No Surface Treatment

Hardness of J+10 area will be lower due to annealing required for machining.
Case hardening and plating layers do not remain on the tapered area.
L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness $\geq$ P.111
Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm).

One End Tapered, One End Tapped

Part Number	D	1mm Increment	M (Coarse) Selection	C
Type	D	L	J	
SFTF	SFLU	25~200	5~7	3
SSFTF	SSFLU	25~200	5~10	3 4 5
PSFTF	PSFLU	30~200	5~14	3 4 5 6
PSSFTF	PSSFLU	40~300	5~18	4 5 6 8
		40~300	5~20	4 5 6 8
		50~300	10~24	4 5 6 8
		50~500	10~25	4 5 6 8 10
		60~500	10~28	4 5 6 8 10 12
		60~500	10~32	4 5 6 8 10 12
				1.0 or Less

L requires L-J $\geq$ 20.

One End Tapered, One End Stepped and Tapped

Part Number	D	1mm Increment	M (Coarse) Selection	(Y) Max.	R	C
Type	D	L	F	P	J	
SFTG	SFJU	25~198	6	5~10	3	200
SSFTG	SSFJU	30~198	6~8	5~14	3 4 5	200
PSFTG	PSFJU	40~298	6~10	5~18	3 4 5 6	300
PSSFTG	PSSFJU	40~298	6~11	5~20	3 4 5 6 8	300
		50~298	6~13	10~24	3 4 5 6 8 10	300
		50~498	6~14	10~25	3 4 5 6 8 10	500
		60~498	8~16	10~28	4 5 6 8 10 12	500
		60~498	8~17	10~32	4 5 6 8 10 12	500
						1.0 or Less

P dimensions require M+3 $\leq$ P. L requires L-J $\geq$ 20.

One End Tapered, One End Threaded

Part Number	D	1mm Increment	P Selection	1mm Increment	(Y) Max.	R	C
Type	D	L	F	B	J		
SFTN	SFKU	25~198	B $\leq$ F-2	5~7	200		
SSFTN	SSFKU	30~198	(When P $\leq$ 6)	5~10	200		
PSFTN	PSFKU	40~298	B $\leq$ F-3	5~14	200		
PSSFTN	PSSFKU	40~298	(When P=8, 10)	5~18	300		
		50~298	B $\leq$ F-5	5~20	300		
		50~498	(When P $\geq$ 12)	10~24	300		
		60~498	B=0	10~25	500		
		60~498	(W/o Threads)	10~28	500		
		60~498		10~32	500		1.0 or Less

When D=P, specify F=B as B dimensions. However, L and F dimensions have manufacturing priority and B dimension of the product will be F - (Pitchx2).

Thread machining will not be applied when B=0 is specified. L requires L-J $\geq$ 20. B $\geq$ Pitchx3 is required.



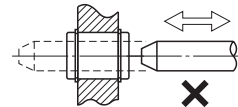
Ordering Example
Part Number - L - J - M
SFTF20 - 350 - J15 - M6

One End Tapered, One End Stepped and Tapped

Part Number - L - F - P - J - M
SFTG20 - 350 - F25 - P16 - J10 - M8

One End Tapered, One End Threaded

Part Number - L - F - B - P - J
SFTN20 - 350 - F40 - B30 - P10 - J10



Not suitable for usage requiring frequent insertions with Linear Bushings.
(Linear bushing damages may result.)

One End Tapered, One End Tapped

Part Number	D	Unit Price
Type	D	Min. L-50 L51-100 L101-150 L151-200 L201-300 L301-400 L401-500
SFTF	6	
SFLU	8, 10	
	12, 13	
	15	
	16	
	18, 20	
	6, 8, 10	
	12, 13	
	15	
	16	
	18, 20	

One End Tapered, One End Stepped and Tapped

Part Number	D	Unit Price
Type	D	Min. L-50 L51-100 L101-150 L151-200 L201-300 L301-400 L401-498
SFTG	8, 10	
SFJU	12	
	13	
	15	
	16	
	18, 20	
	8, 10	
	12, 13	
	15	
	16	
	18, 20	

One End Tapered, One End Threaded

Part Number	D	Unit Price
Type	D	Min. L-50 L51-100 L101-150 L151-200 L201-300 L301-400 L401-498
SFTN	6, 8, 10	
SFKU	12	
	13	
	15	
	16	
	18, 20	
	6, 8, 10	
	12, 13	
	15	
	16	
	18, 20	

Part Number	D	Unit Price
Type	D	Min. L-50 L51-100 L101-150 L151-200 L201-300 L301-400 L401-500
PSFTF	8, 10	
PSFLU	12, 13	
	15	
	16	
	18, 20	
	6, 8, 10	
	12, 13	
	15	
	16	
	18, 20	

Part Number	D	Unit Price
Type	D	Min. L-50 L51-100 L101-150 L151-200 L201-300 L301-400 L401-498
PSFTG	8, 10	
PSFJU	12, 13	
	15	
	16	
	18, 20	
	8, 10	
	12, 13	
	15	
	16	
	18, 20	

Part Number	D	Unit Price
Type	D	Min. L-50 L51-100 L101-150 L151-200 L201-300 L301-400 L401-498
PSFTN	6, 8, 10	
PSFKU	12, 13	
	15	
	16	
	18, 20	
	6, 8, 10	
	12, 13	
	15	
	16	
	18, 20	



One End Tapered, One End Tapped

Part Number - L - J - M - (LKC, SC)
SFTF20 - 350 - J15 - M6 - LKC

One End Tapered, One End Stepped and Tapped

Part Number - L - F - P - J - M - (SC)
SFTG20 - 350 - F25 - P16 - J10 - M8 - SC5

One End Tapered, One End Threaded

Part Number - L - F - B - P - J - (SC)
SFTN20 - 350 - F40 - B30 - P10 - J10 - SC5

Alterations	Alteration to L dimension tolerance	Wrench Flats																														
Code	LKC	SC																														
Spec.	Changes L tolerance. Ordering Code LKC L<200 $\rightarrow$ L $\pm$ 0.03 200 $\leq$ L<500 $\rightarrow$ L $\pm$ 0.05 L=500 $\rightarrow$ L $\pm$ 0.1 L dimensions can be specified in 0.1mm increment for LKC. Not applicable to D=P. Not Applicable to One End Stepped and Tapped One End Threaded Type.	Adds wrench flats. Ordering Code SC5 SC=1mm Increment SC+ ϕ 1 $\leq$ L-J SC=0 <table><tr><th>D</th><th>W</th><th>ϕ1</th></tr><tr><td>6</td><td>5</td><td></td></tr><tr><td>8</td><td>7</td><td></td></tr><tr><td>10</td><td>8</td><td>8</td></tr><tr><td>12</td><td>10</td><td></td></tr><tr><td>13</td><td>11</td><td></td></tr><tr><td>15</td><td>13</td><td></td></tr><tr><td>16</td><td>14</td><td>10</td></tr><tr><td>18</td><td>16</td><td></td></tr><tr><td>20</td><td>17</td><td></td></tr></table>	D	W	ϕ 1	6	5		8	7		10	8	8	12	10		13	11		15	13		16	14	10	18	16		20	17	
D	W	ϕ 1																														
6	5																															
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12	10																															
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15	13																															
16	14	10																														
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Alterations may lower hardness. See P.112