

Shafts

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

One End Tapered, One End Tapped

Type		Material	Hardness	Surface Treatment
D Tol. g6	D Tol. h5			
SFTF	SFLU	SUJ2 Equivalent	Effective Hardened Depth of Induction Hardening P112	-
SSFTF	SSFLU	SUS440C or 13Cr stainless	SUJ2 Equivalent 58HRC~	Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More ~
PSFTF	PSFLU	SUJ2 Equivalent	SUJ2 Equivalent 58HRC~	
PSSFTF	PSSFLU	SUS440C or 13Cr stainless	SUS440C or 13Cr stainless 56HRC~	

D Tol.			D Tol.		
D	g6	h5	D	g6	h5
6	-0.004 -0.012	0 -0.005	12	-0.006 -0.017	0 -0.008
8	-0.005	0	15	-0.007 -0.020	0 -0.009
10	-0.014	0	16		
			18		
			20		

$\sqrt[3]{\left(\frac{15}{\sqrt{3}} \sqrt{\frac{14}{3}} \sqrt{\frac{6}{3}}\right)}$
 • 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 **P111**
 • Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm).

One End Tapered, One End Stepped and Tapped

Type		Material	Hardness	Surface Treatment
D Tol. g6	D Tol. h5			
SFTG	SFJU	SUJ2 Equivalent	Effective Hardened Depth of Induction Hardening P112	-
SSFTG	SSFJU	SUS440C or 13Cr stainless	SUJ2 Equivalent 58HRC~	Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More ~
PSFTG	PSFJU	SUJ2 Equivalent	SUJ2 Equivalent 58HRC~	
PSSFTG	PSSFJU	SUS440C or 13Cr stainless	SUS440C or 13Cr stainless 56HRC~	

D Tol.			D Tol.		
D	g6	h5	D	g6	h5
6	-0.004 -0.012	0 -0.005	12	-0.006 -0.017	0 -0.008
8	-0.005	0	15	-0.007 -0.020	0 -0.009
10	-0.014	0	16		
			18		
			20		

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 • 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 **P111**
 • Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm).

One End Tapered, One End Threaded

Type		Material	Hardness	Surface Treatment
D Tol. g6	D Tol. h5			
SFTN	SFKU	SUJ2 Equivalent	Effective Hardened Depth of Induction Hardening P112	-
SSFTN	SSFKU	SUS440C or 13Cr stainless	SUJ2 Equivalent 58HRC~	Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More ~
PSFTN	PSFKU	SUJ2 Equivalent	SUJ2 Equivalent 58HRC~	
PSSFTN	PSSFKU	SUS440C or 13Cr stainless	SUS440C or 13Cr stainless 56HRC~	

D Tol.			D Tol.		
D	g6	h5	D	g6	h5
6	-0.004 -0.012	0 -0.005	12	-0.006 -0.017	0 -0.008
8	-0.005	0	15	-0.007 -0.020	0 -0.009
10	-0.014	0	16		
			18		
			20		

$\sqrt[3]{\left(\frac{15}{\sqrt{3}} \sqrt{\frac{14}{3}} \sqrt{\frac{6}{3}}\right)}$
 • 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 **P111**
 • Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm).

One End Tapered, One End Tapped

Part Number Type	D	1mm Increment			M (Coarse) Selection	C
		L	J	J		
(D Tolerance g6) (D Tolerance h5) SFTF SFLU SSFTF SSFLU PSFTF PSFLU PSSFTF PSSFLU	6	25~200	5~7	3	0.5 or Less	
	8	25~200	5~10	3 4 5		
	10	30~200	5~14	3 4 5 6		
	12	40~300	5~18	4 5 6 8		
	13	40~300	5~20	4 5 6 8		
	15	50~300	10~24	4 5 6 8		
	16	50~500	10~25	4 5 6 8 10		
	18	60~500	10~28	4 5 6 8 10 12		
	20	60~500	10~32	4 5 6 8 10 12		
				1.0 or Less		

One End Tapered, One End Stepped and Tapped

Part Number Type	D	L	1mm Increment			M (Coarse) Selection	(Y) Max.	R	C
			F	P	J				
(D Tolerance g6) (D Tolerance h5) SFTG SFJU SSFTG SSFJU PSFTG PSFJU PSSFTG PSSFJU	8	25~198	2≤F≤P×4	6	5~10	3	200	0.3 or Less	0.5 or Less
	10	30~198		6~8	5~14	3 4 5	200		
	12	40~298		6~10	5~18	3 4 5 6	300		
	13	40~298		6~11	5~20	3 4 5 6 8	300		
	15	50~298		6~13	10~24	3 4 5 6 8 10	300		
	16	50~498		6~14	10~25	3 4 5 6 8 10	500		
	18	60~498		8~16	10~28	4 5 6 8 10 12	500		
	20	60~498		8~17	10~32	4 5 6 8 10 12	500		
							1.0 or Less		

One End Tapered, One End Threaded

Part Number Type	D	L	1mm Increment		P Selection	1mm Increment J	(Y) Max.	R	C
			F	B					
(D Tolerance g6) (D Tolerance h5) SFTN SFKU SSFTN SSFKU PSFTN PSFKU PSSFTN PSSFKU	6	25~198	2≤F≤P×5	B≤F-2 (When P=8, 10) B≤F-3 (When P=8, 10) B≤F-5 (When P≥12) B=0 (W/o Threads)	3 4 5 6	5~7	200	0.3 or Less	0.5 or Less
	8	25~198			3 4 5 6 8	5~10	200		
	10	30~198			4 5 6 8 10	5~14	200		
	12	40~298			5 6 8 10 12	5~18	300		
	13	40~298			5 6 8 10 12	5~20	300		
	15	50~298			5 6 8 10 12	10~24	300		
	16	50~498			5 6 8 10 12 16	10~25	500		
	18	60~498			5 6 8 10 12 16	10~28	500		
	20	60~498			5 6 8 10 12 16 20	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 - (Pitch×2).

• Thread machining will not be applied when B=0 is specified. • L requires L-J≥20. • B=Pitch×3 is required.