


Full Length Hardness Guaranteed Shafts

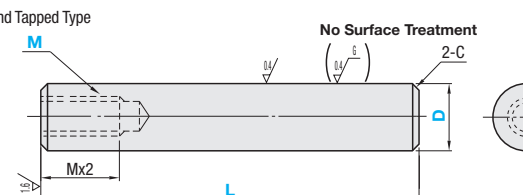
One End / Both Ends Tapped, Short

Features: Other shaft products may suffer from lowered hardness due to annealing required for tapping. The "Full Length Hardness Guaranteed" shafts maintain the case hardness over the entire length, well suited for short stroke applications.

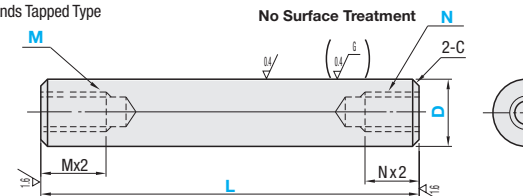


Type	D Tol.	Material	Hardness	Surface Treatment	D Tol.
One End Tapped	g6	EN 1.3505 Equiv.	Effective Hardened Depth of Induction Hardening P112 EN 1.3505 Equiv. 58HRC~ EN 1.4125 Equiv. 56HRC~	LTBC Plating	6
Both Ends Tapped					8
SFAT SFAT					10
SSFAT SSFAW					12
RSFAT RSFAW	13				15
					16
					18
					20

One End Tapped Type



Both Ends Tapped Type



RoHS10

Features of LTBC Plating **P128**
 L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness **P111**

Part Number Type	D	L specified in 1mm Increment	M (Coarse), N (Coarse) Selection					C	
One End Tapped SFAT SSFAT RSFAT	Both Ends Tapped SFAW SSFAW RSFAW	6	20~150	3					0.5 or Less
		8	20~150	3	4	5			
		10	20~150	3	4	5	6	8	
		12	20~150	4	5	6	8		
		13	25~150	4	5	6	8		
		15	25~150	4	5	6	8	10	
		16	30~150	4	5	6	8	10	
		18	30~150	4	5	6	8	10	
		20	30~150	4	5	6	8	10	
					4	5	6	8	

L requires Mx2+Nx2≤L.
 When Mx2.5+4+Nx2.5+4≥L, tap pilot holes may go through.

Ordering Example

Part Number - L - M - N

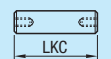
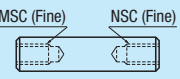
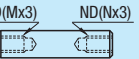
SFAT20 - 80 - M6 - N10

SSFAW15 - 100 - M6 - N10

Alterations

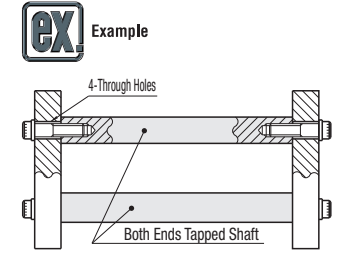
Part Number - L - M (MSC, MD) - N (NSC, ND) - (LKC)

SSFAW16 - 120 - MSC8 - NSC10

Alterations	Code	Spec.	Alterations	Code	Spec.
	LKC	L Dimension Tolerance Change (Precision) [Ordering Code] LKC L dimensions can be specified in 0.1mm increment for LKC. L<150 → L±0.03		MSC NSC	Change to Fine Tapped Thread Applicable to D=12 or more [Ordering Code] MSC14 (M is changed to MSC) NSC14 (N is changed to NSC)
	MD ND	Change the effective tap depth to M(N)x3. [Ordering Code] MD6/ND6 (M is changed to MD, N is changed to ND) [Application Notes] Only applicable to D=6~30, M=6~20 One End Tapped: MDx3.5+4≥L Both Ends Tapped: MDx3.5+4+NDx3.5+4≥L			M(N) dimensions are equal to MSC (NSC).

Part Number Type	D	Unit Price					
		Min. L ~ 40	L41-60	L61-80	L81-100	L101-125	L126-150
SFAT	6						
	8						
	10						
	12						
	13						
	15, 16, 18, 20						
SSFAW	6						
	8						
	10						
	12						
	13						
	15, 16, 18, 20						
RSFAW	6						
	8						
	10						
	12						
	13						
	15, 16, 18, 20						

Part Number Type	D	Unit Price					
		Min. L ~ 40	L41-60	L61-80	L81-100	L101-125	L126-150
SSFAW	6						
	8, 10						
	12, 13						
	15, 16						
	18, 20						
	6						
RSFAW	8						
	10						
	12						
	13						
	15						
	16						
18							
20							



As Full Length Hardness Guaranteed Shafts cause no hardness loss, they are well suited for short stroke sliding.

Features of LTBC Plating

LTBC Plating (1μ ~ 2μ thickness) applied on shafts has highly anti-rusting effect with thin black film. Even hairpin-shaped bending won't cause cracks. Plating won't be flaked by repeat bending. Shaft O.D. tolerance remains g6 after low temp. black chrome plating is applied. Works well with linear bushings and suitable for places where rusting is to be avoided. Suitable for places where light reflections are undesirable, when used in combination with LTBC plated linear bushing.



Ordering Example See each product page for details.

Alterations See each product page for details.

Sliding Test Conditions
 Linear Bushings: LMUR12
 Shafts: RSFJ12
 50km sliding test was conducted on Linear Bushings under 412N load.

LTBC plated Shafts (Regular Products):

Material	Applicable Shaft Diameter	Applicable Shaft Length
EN 1.3505 Equiv.	Ø3~Ø30	Up to 500

High Precision Linear Shafts:

Material	Applicable Shaft Diameter	Applicable Shaft Length
EN 1.3505 Equiv.	Ø4~Ø30	Up to 448
EN 1.4125 Equiv.		

Full Length Hardness Guaranteed Shafts:

Material	Applicable Shaft Diameter	Applicable Shaft Length
EN 1.3505 Equiv.	Ø6~Ø20	Up to 150

(Note 1) Wiping LTBC plated products with solvents may result in loss of color but its anti-rust property will be unaffected. Color will settle over a month and become resistant to discoloration.
 (Note 2) Tapped threads will not be coated with LTBC Plating.
 (Note 3) Low temp. black chrome plated shafts may have centering holes on the ends for surface treatment.