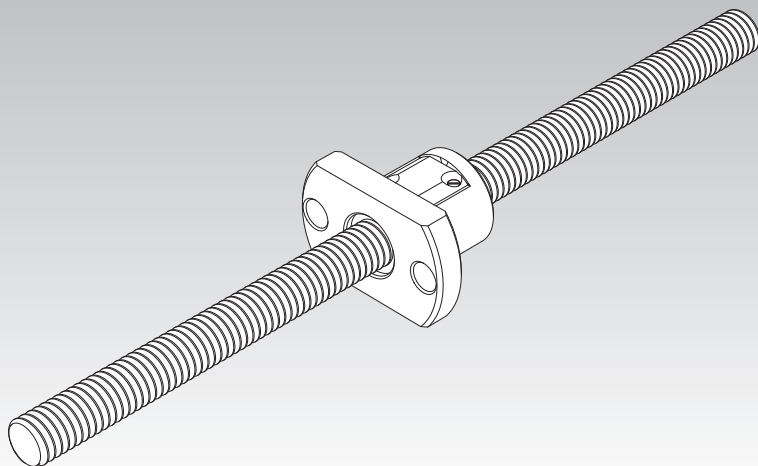


# Standard Unfinished Shaft Ends Rolled Ball Screw

Model MTF



<b>Point of Selection</b>	<b>A15-8</b>
<b>Options</b>	<b>A15-352</b>
<b>Model No.</b>	<b>A15-369</b>
<b>Precautions on Use</b>	<b>A15-374</b>
<b>Accessories for Lubrication</b>	<b>A24-1</b>
<b>Mounting Procedure and Maintenance</b>	<b>B15-104</b>
Accuracy of the Mounting Surface	<b>A15-14</b>
DN Value	<b>A15-33</b>
Support Unit	<b>A15-316</b>
Recommended Shapes of Shaft Ends	<b>A15-324</b>

## Structure and Features

The use of a guide plate system provides a compact design with a round outer diameter for the nut. The screw shaft is roll-molded with a high degree of precision to ensure smooth operation.

### [Achieves Lead Angle Accuracy of Class C7]

The high-precision roll molding provides normal grade ( $\pm 0.1/300$  mm) or C7 grade ( $\pm 0.05/300$  mm) error in the amount of movement. The axial clearance is also small at 0.05 mm, allowing the product to be used in a wide range of applications.

### [Quick delivery, low cost]

Because they are mass-produced in set lengths, screw shafts can be supplied at highly affordable prices. And because they are held in stock as shaft-nut combinations, they can be delivered quickly.

### [Simple shaft end machining]

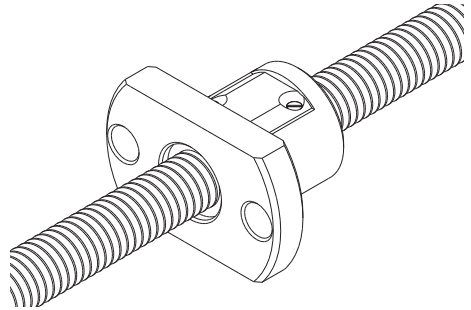
To facilitate additional machining of screw shaft ends, a section has been left unhardened. Use nut stroke ranges that are within the hardened area shown in the specification tables.

## Types and Features

### Model MTF

A miniature type with a screw shaft diameter of  $\phi 6$  to  $\phi 12$  mm and a lead of 1 to 2 mm.

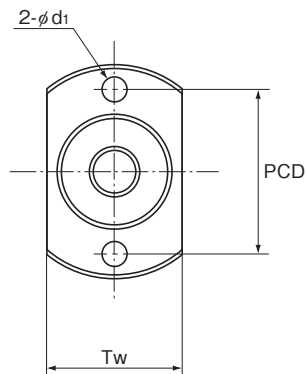
Specification Table  $\Rightarrow$  **A15-302**



# Unfinished Shaft Ends

## Rolled Ball Screw Model MTF

Screw shaft outer diameter	6, 8, 10, 12
Lead	1, 2



Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating		Rigidity K N/μm		
						Ca kN	Cca kN		Outer diameter D	Flange diameter D <sub>f</sub>
MTF 0601-3.7	6	1	6.15	5.3	1×3.7	0.7	1.2	70	13	30
MTF 0802-3.7	8	2	8.3	6.6	1×3.7	2.1	3.8	90	20	40
MTF 1002-3.7	10	2	10.3	8.6	1×3.7	2.3	4.8	110	23	43
MTF 1202-3.7	12	2	12.3	10.6	1×3.7	2.5	5.8	130	25	47

### Model number coding

**MTF 08 02 -3.7 +250L C7 T**

Model No.

Overall shaft length  
(in mm)

Symbol for ball screw shaft

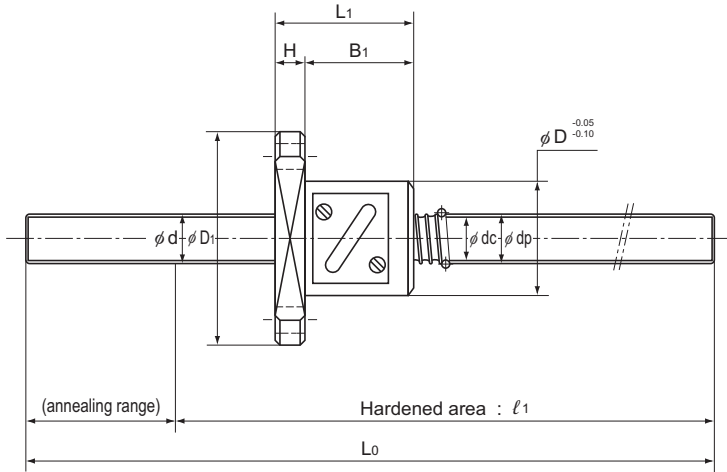
Screw shaft  
outer diameter  
(in mm)

Lead  
(in mm)

Accuracy symbol (No symbol for Normal Grade)

Note) Model MTF is only sold as sets (ball screw nut and screw shaft).  
Model MTF is applied only with anti-rust oil.

## Standard Unfinished Shaft Ends Rolled Ball Screw



Unit: mm

Nut dimensions							Axial clearance	Standard shaft length	$l_1$	Screw shaft inertial moment/mm kg·cm <sup>2</sup> /mm	Nut mass kg	Shaft mass kg/m
Overall length $L_1$	H	$B_1$	PCD	$d_1$	$T_w$							
21	5	16	21.5	3.4	17	0.05	150	100	$9.99 \times 10^{-6}$	0.03	0.19	
							250	200				
28	6	22	30	4.5	24	0.05	150	95	$3.16 \times 10^{-5}$	0.08	0.31	
							250	195				
28	6	22	33	4.5	27	0.05	200	140	$7.71 \times 10^{-5}$	0.1	0.52	
							300	240				
30	8	22	36	5.5	29	0.05	200	140	$1.6 \times 10^{-4}$	0.13	0.77	
							300	240				

Ball Screw