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 (±0.1/300 mm) or C7 grade (±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.

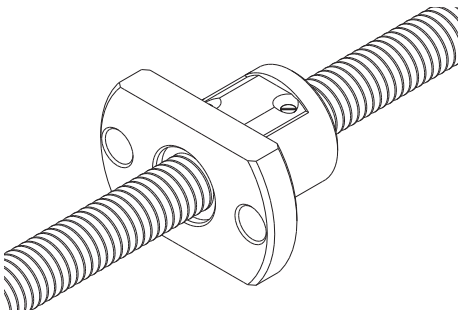
[Simple shaft end machining]
To facilitate additional machining of screw shaft ends, a section has been left unhardened. Use nut stroke ranges that are within the hardened area shown in the specification tables.

Types and Features

Model MTF

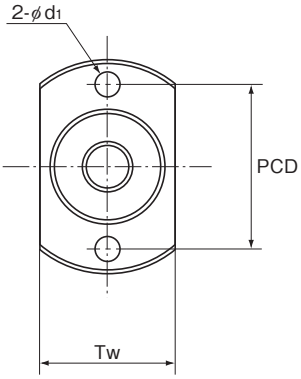
Specification Table⇒A15-302

A miniature type with a screw shaft diameter of ϕ6 to ϕ12 mm and a lead of 1 to 2 mm.



Unfinished Shaft Ends
Rolled Ball Screw Model MTF

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



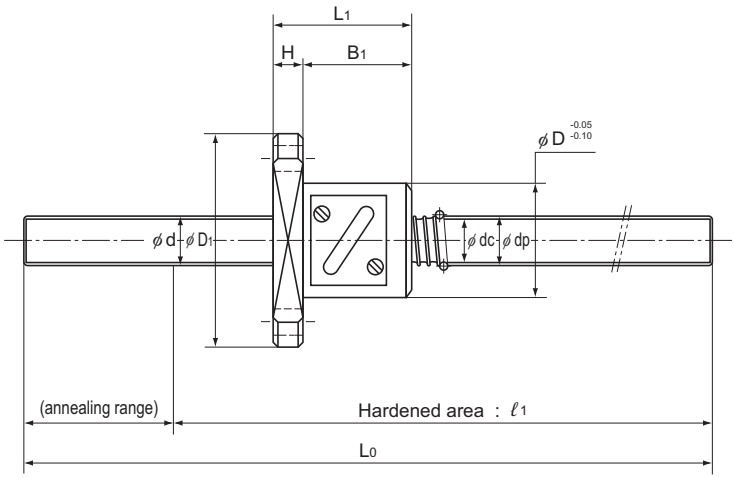
Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows×turns	Basic load rating Ca kN	Basic load rating C0a kN	Rigidity K N/μm	Outer diameter D	Flange diameter D1
MTF 0601-3.7	6	1	6.15	5.3	1×3.7	0.7	1.2	70	13	30
MTF 0802-3.7	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

- MTF: Model No.
- 08: Screw shaft outer diameter (in mm)
- 02: Lead (in mm)
- -3.7 +250L: Overall shaft length (in mm)
- C7: Accuracy symbol (No symbol for Normal Grade)
- T: Symbol for ball screw shaft

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



Unit: mm

Nut dimensions							Axial clearance	Standard shaft length	ℓ_1	Screw shaft inertial moment/mm	Nut mass	Shaft mass
	Overall length L_1	H	B_1	PCD	d_1	T_w				kg•cm²/mm	kg	kg/m
	21	5	16	21.5	3.4	17	0.05	150	100	9.99×10^{-5}	0.03	0.19
								250	200			
	28	6	22	30	4.5	24	0.05	150	95	3.16×10^{-5}	0.08	0.31
								250	195			
	28	6	22	33	4.5	27	0.05	200	140	7.71×10^{-5}	0.1	0.52
								300	240			
	30	8	22	36	5.5	29	0.05	200	140	1.6×10^{-4}	0.13	0.77
								300	240			

Options⇒A15-351