


Nuts for Lead Screws - RoHS Compliant

Flanged / Fine Pitch / Anti-Backlash

RoHS compliant Flanged Thread Lead Screw Nut. Delivered in the shortest lead-time.

Flanged

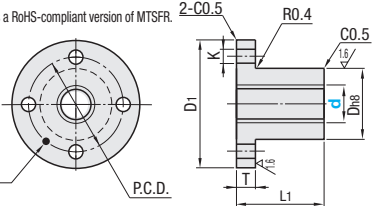


RoHS 10

MTRFR (Right-Hand Thread) ⚠ MTRFR is a RoHS-compliant version of MTSFR.

MTXFR (Fine Pitch Right-Hand Thread)

MTRFR has an identification mark.



$\frac{6.3}{\sqrt{1.6}}$

M Material: Brass


Part Number Type	d	Pitch P	D	L ₁	D ₁	T	P.C.D.	K	Allowable Dynamic Thrust (kN)	Mass (g)	Unit Price
											1 ~ 4 pc(s).
MTRFR	10	2	20	24	36	5	26	4.3	2.55	80	
	12		22	30	44		31		3.92	120	
	14	3	28	35	51	6	6.6	4.90	110		
	16		32	40	56			6.67	200		
	20	4	36	50	61	7	47	9.81	260		
	25		44	56	76			14.22	350		
MTXFR	28	5	32	40	56	6	38	9	17.95	630	
	32		44	56	76				21.08	580	
	16	2	28	35	51	6	42	6.6	6.78	190	
	20		32	40	56				10.1	250	

For Fine Pitch Right-Hand Thread, please see MTX□□ (P.801, 805~808).

For orders larger than indicated quantity, please request a quotation.

Ordering Example **Part Number**
MTRFR20

Anti-Backlash



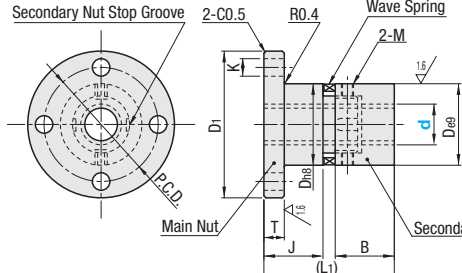
RoHS 10

MTBLR (Right-Hand Thread)

Main nut has 4 marks for confirmation of groove positioning.

Components

Part Name	Material	Quantity
Main Nut	Brass	1
Secondary Nut	Brass	1
Wave Spring	SWRH72B	1
Set Screw	SCM435	2



$\frac{6.3}{\sqrt{1.6}}$

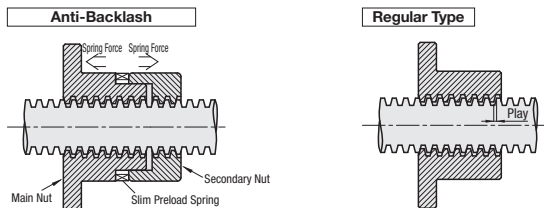
M Material: Brass

Part Number Type	d	Pitch P	D	D ₁	T	(L ₁)	J	B	P.C.D.	K	M	Allowable Dynamic Thrust (kN)	Mass (g)	Unit Price
														1 ~ 4 pc(s).
Round Flanged MTBLR	10	2	20	36	5	33	13	15	26	4.3	3	2.60	100	
	12		22	44		36.5	16.5	16	31	5.4		3.39	130	
	16	3	28	51	6	45	21	20	38	6.6	4	6.29	230	
	20		32	56		52	24	25	42			9.32	310	

For orders larger than indicated quantity, please request a quotation.

Ordering Example **Part Number**
MTBLR20

Features of Anti-Backlash



Anti-backlash can eliminate play between shaft and nut by spring force of slim preload spring installed between main nut and secondary nut. Even if there is abrasion, spring force controls backlash.

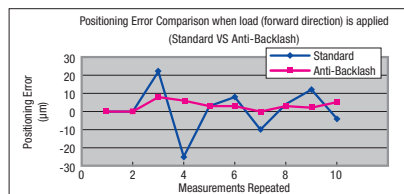
(Notes)The effects will vary depending on applied conditions (Load and Direction).

Regular Type has axial play of shaft and nut, and this causes backlash on reverse driving direction.

Installation of Anti-Backlash

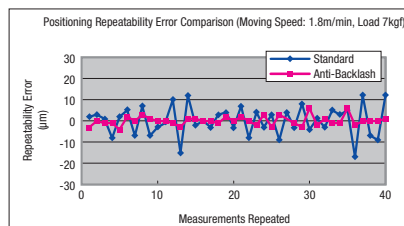
- Remove the tape that is temporarily holding the main and secondary nuts. In this condition, the main and secondary nuts are fixed by 2 set screws.
 - While the set screw is fixed, turn the shaft of lead screw as it is inserted.
 - After insertion of secondary nut, set screw is rotated approximately 45° to 90° to loosen. Clamping force between the main and secondary nuts is released and spring force works.
- ⚠ The mounted set screw must not protrude out from external diameter of secondary nut. In order to prevent dropout of set screw due to vibration and the like, insert to secondary nut part of housing.

① Positioning Error Comparison (Reference Value)



Controls the deterioration in precision of positioning caused by Moment of Inertia during shut-down of motion and driving fluctuation effect.

② Positioning Repeatability Error Comparison (Reference Value)



Anti-backlash design improves the system repeatability.

Test Conditions: Sample Nut: MTBLR16 Axis: MTSRG16-270 Travel Distance: 75mm