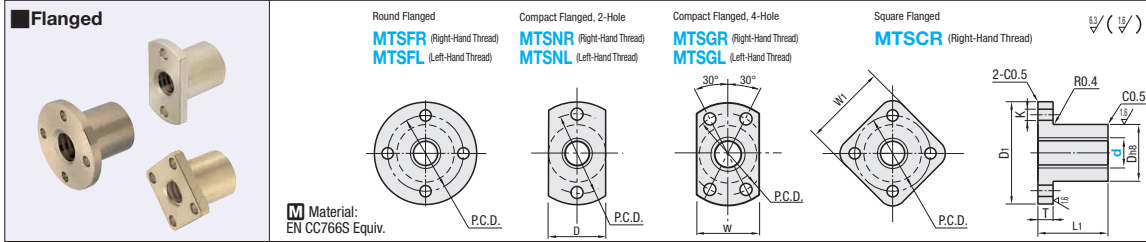


# Nuts for Lead Screws

Flanged / Compact, Flanged / Pilot / Tapped Holes / Slotted Holes

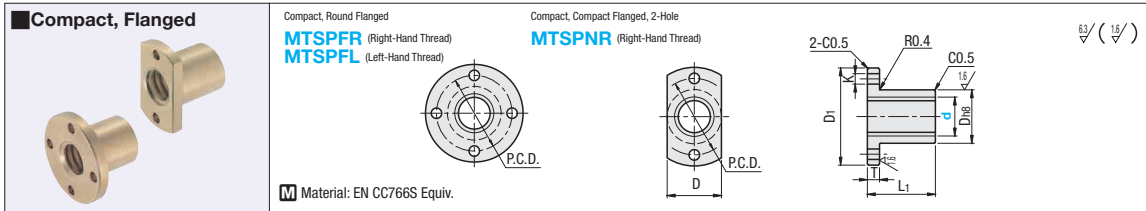


Selectable from Round Flanged, 2-Hole Compact Flanged, 4-Hole Compact Flanged, or Square Flanged Type.



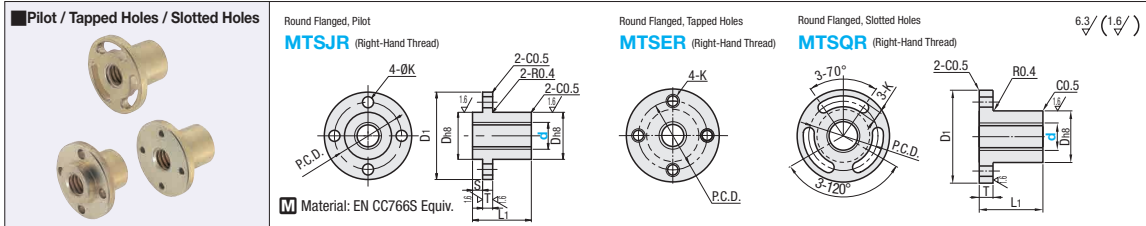
Part Number	Pitch P	D	L1	D1	T	P.C.D.	K	W	W1	Allowable Dynamic Thrust (kN)	Mass (g)				Unit Price				
											MTSFR	MTSNR	MTSGR	MTCR	MTSFR	MTSNR	MTSGR	MTCR	
Round Flanged MTSFR (Right-Hand Thread) MTSFL (Left-Hand Thread)	1.5	15	20	30	22	4.3	-	-	-	1.47	41	33	-	-	-	-	-	-	-
Compact Flanged, 2-Hole MTSNR (Right-Hand Thread) MTSNL (Left-Hand Thread)	2	22	30	44	5	31	5.4	24	33	4.90	110	85	86	91	-	-	-	-	-
Compact Flanged, 4-Hole MTSGR (Right-Hand Thread) MTSGL (Left-Hand Thread)	3	28	35	51	6	38	6.6	30	38	6.67	200	169	172	169	-	-	-	-	-
Square Flanged MTCR (Right-Hand Thread)	4	32	40	56	6	42	6.6	34	42	8.72	260	219	220	224	-	-	-	-	-
	5	36	50	61	7	47	9	40	47	12.36	410	357	364	366	-	-	-	-	-
	6	44	56	76	8	58	11	48	58	17.95	630	538	546	548	-	-	-	-	-
	8	52	60	84	8	66	-	56	-	21.08	580	490	498	498	-	-	-	-	-
	10	58	70	98	10	76	-	62	-	25.78	820	719	728	-	-	-	-	-	-
	11	62	80	109	10	85	-	72	-	33.83	1250	1034	1044	-	-	-	-	-	-
	12	68	80	109	10	85	-	72	-	40.31	1631	1350	1362	-	-	-	-	-	-

Compact in both length and diameter. Short mounting hole pitch contributes to space savings.



Part Number	Pitch P	D	L1	D1	T	P.C.D.	K	Allowable Dynamic Thrust (kN)	Mass (g)			Unit Price		
									MTSPFR(L)	MTSPNR	MTSPFL	MTSPFR	MTSPNR	MTSPFL
Round Flanged MTSPFR (Right-Hand Thread) MTSPFL (Left-Hand Thread)	2	16	19	32	4	24	3.3	2.02	39	-	-	-	-	-
Compact Flanged, 2-Hole MTSPNR (Right-Hand Thread)	3	22	28	40	5	29	4.3	3.14	59	-	-	-	-	-
	4	26	32	44	5	31	5.4	3.92	73	57	-	-	-	-
	5	28	32	44	5	35	6.6	5.34	89	73	-	-	-	-
	6	31	40	50	6	39	9.9	7.85	112	94	-	-	-	-
	8	34	45	58	7	42	11.38	9.89	174	143	-	-	-	-
	10	38	50	62	8	46	14.42	11.38	174	143	-	-	-	-
	12	45	60	76	10	53	16.94	14.42	213	170	-	-	-	-
	14	50	70	84	12	62	21.08	17.95	272	227	-	-	-	-

Pilot Type and Tapped Type are effective when used vertically on plates. The Slotted Hole Type can be used to perform fine adjustments during installation.



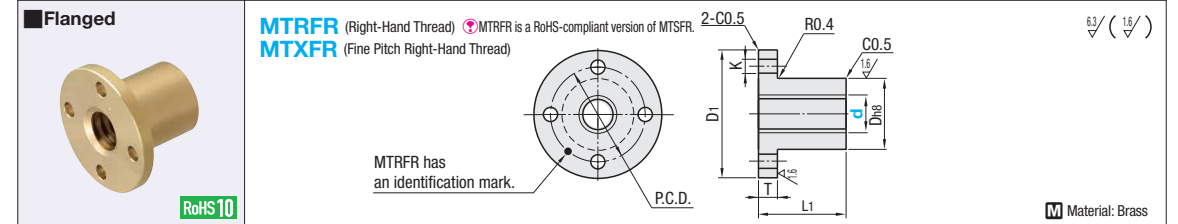
Part Number	Pitch P	D	L1	D1	T	S	P.C.D.	K	Allowable Dynamic Thrust (kN)	Mass (g)			Unit Price				
										MTSJR	MTSER	MTSQR	MTSJR	MTSER	MTSQR		
Pilot MTSJR (Only * marked sizes are available.)	3	22	30	44	5	5	33	31	5.4	M4	4.90	110	112	98	-	-	-
Tapped Holes MTSER	4	28	35	52	51	6	40	38	6.6	M5	6.67	204	204	178	-	-	-
Slotted Holes MTSQR	5	36	50	60	61	7	44	42	6.6	M6	9.81	260	264	236	-	-	-
	6	44	56	76	8	8	48	47	9.9	M6	12.36	404	414	378	-	-	-
	8	52	60	84	10	10	53	51	11.38	M8	14.22	344	354	318	-	-	-
	10	58	70	98	12	12	62	58	14.42	M8	17.95	645	570	-	-	-	-
	12	68	80	109	14	14	76	76	21.08	M10	21.08	595	520	-	-	-	-

Ordering Example: Part Number MTSGR16 MTSPFL25

# Nuts for Lead Screws - RoHS Compliant

Flanged / Fine Pitch / Anti-Backlash

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

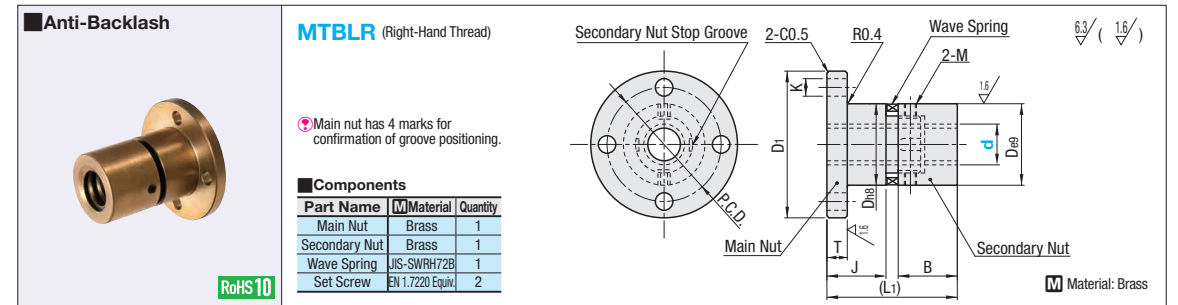


Part Number	Pitch P	D	L1	D1	T	P.C.D.	K	Allowable Dynamic Thrust (kN)	Mass (g)	Unit Price
MTRFR	2	20	24	36	5	26	4.3	2.55	80	1 ~ 4 pc(s)
	3	22	30	44	5	31	5.4	3.92	120	
	4	28	35	51	6	38	6.6	4.90	110	
	5	32	40	56	6	42	6.6	6.67	200	
	6	36	50	61	7	47	9.9	9.81	260	
	8	44	56	76	8	58	11.38	14.22	350	
MTXFR	2	28	35	51	6	38	6.6	17.95	630	
	4	32	40	56	6	42	6.6	21.08	580	

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



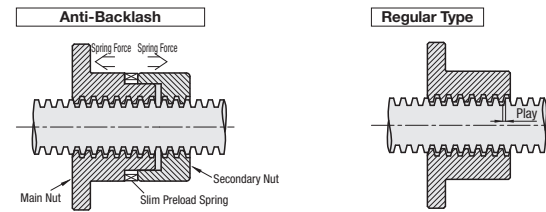
Part Name	Material	Quantity
Main Nut	Brass	1
Secondary Nut	Brass	1
Wave Spring	JIS-SWRH72B	1
Set Screw	EN 1.7220 Equiv.	2

Part Number	Pitch P	D	D1	T	(L1)	J	B	P.C.D.	K	M	Allowable Dynamic Thrust (kN)	Mass (g)	Unit Price
Round Flanged MTBLR	2	20	36	5	33	13	15	26	4.3	3	2.60	100	1 ~ 4 pc(s)
	3	22	44	5	36.5	16.5	16	31	5.4	3	3.39	130	
	4	28	51	6	45	21	20	38	6.6	4	6.29	230	
	6	32	56	6	52	24	25	42	9.9	4	9.32	310	

Ordering Example: Part Number MTBLR20

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

## Features of Anti-Backlash



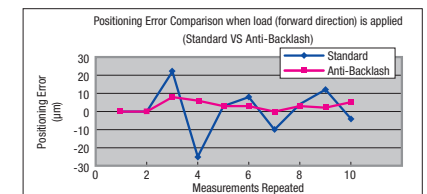
Anti-Backlash can eliminate play between shaft and nut by spring force of slim preload spring installed between main nut and secondary nut. Even if there is abrasion, spring force controls backlash.

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

## Installation of Anti-Backlash

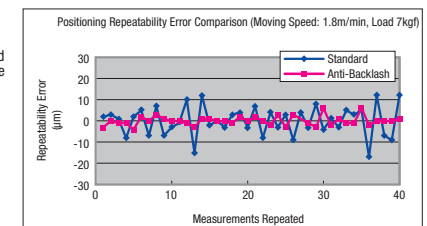
- Remove the tape that is temporarily holding the main and secondary nuts. In this condition, the main and secondary nuts are fixed by 2 set screws.
- While the set screw is fixed, turn the shaft of lead screw as it is inserted.
- After insertion of secondary nut, set screw is rotated approximately 45° 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.

## 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.

## Positioning Repeatability Error Comparison (Reference Value)



Anti-backlash design improves the system repeatability. Test Conditions: Sample Nut: MTBLR16 Axis: MTSRG16-270 Travel Distance: 75mm