

MTSM-T/MTSF-T

3-Piece, PTFE Lined



Rod Ends Industrial/ Commercial

Suitable for many higher precision motion control applications, the Tuthill MTSM-T/MTSF-T Series offers our most economical PTFE lined 3-piece rod end design. First, a metal spherical ball is swaged within a separate lined inner raceway that is machined flat and inserted into the body's bore, then permanently staked into place. This provides more surface contact and results in a much longer product life.

Permanently bonded PTFE liner minimizes wear between body and ball, adding to reduced maintenance and increasing rod end life. The ball is produced from bearing quality steel that is thru hardened and finish ground, adding to its precision fit and increased wear performance. The body and raceway components are produced from low carbon steel and are zinc plated for extended corrosion resistance. Its clear chromate finish is suited for high visibility/exposed surfaces requiring "aesthetically pleasing" bright metal finish. It can be used in a wide operating temperature range. Studded and right or left-handed thread versions are available.

The MTSM-T/MTSF-T Series is just one of many within our broad line of industrial/commercial rod ends. For full product line detail, contact us for a comprehensive catalog or visit www.tuthill.com and download individual product data sheets and other product information.



Description:

MTSM-T/MTSF-T
Industrial/Commercial Rod Ends
3-Piece, PTFE Lined

Applications:

Higher precision motion control devices/applications, including:

- Wide range of industrial equipment
- Racing

Features:

- 3-piece low carbon PTFE lined design
- Precision spherical bearing insert allows for optimum contact between the ball and race extending the product life
- Can be used in a wide range of temperatures:
-65° F — 250° F
(-54° C — 121° C)
- Offered in studded and right or left-handed versions
- Special custom alloy construction available
- Custom assemblies can be built to your specifications
- Meets SAE spec J1120

Other Related Products:

- MTSM/MTSF Industrial/Commercial, 3-Piece, Metal to Metal

MTSM-T/MTSF-T

3-Piece, PTFE Lined

Material

Ball

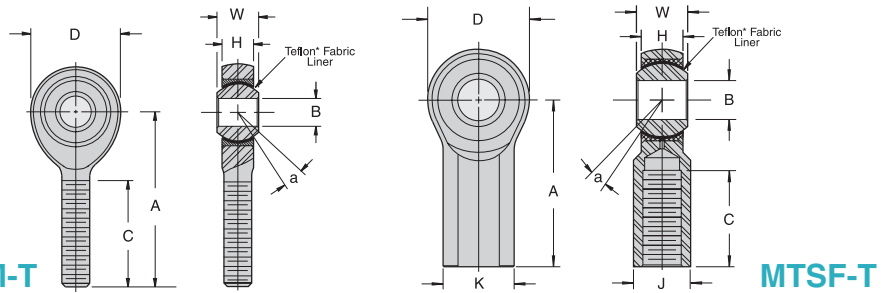
- 52100 Steel
- Rc 56 Min.
- Hard Chrome Plated

Body and Race

- Low Carbon Steel
- Zinc Plated, Clear Chromate Treated

Liner

- PTFE Fabric, Permanently Bonded to I.D.



MTSM-T CHART

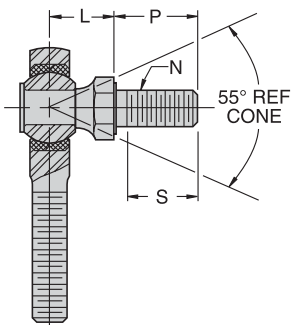
Part Number		B +.0025 -.0005	W +.000 -.005	H ±.015	A ±.015	D ±.010	REF	C +.062 -.031	UNF-3A	a°	Ultimate Radial Static Load Capacity (Pounds)	Approx. Weight (Pounds)
Right Hand	Left Hand	Ball Bore	Ball Width	Housing Width	Centerline Length	Head Diameter	Ball Diameter	Thread Length	Thread Size	Misalign Angle		
MTSM3T	MTSML3T	.1900	.312	.250	1.250	.625	.437	.750	10-32	13	1,169	.028
MTSM4T	MTSML4T	.2500	.375	.281	1.562	.750	.500	1.000	1/4-28	16	2,158	.043
MTSM5T	MTSML5T	.3125	.437	.344	1.875	.875	.625	1.250	5/16-24	14	2,784	.072
MTSM6T	MTSML6T	.3750	.500	.406	1.938	1.000	.719	1.250	3/8-24	12	3,915	.112
MTSM7T	MTSML7T	.4375	.562	.437	2.125	1.125	.812	1.375	7/16-20	14	4,218	.160
MTSM8T	MTSML8T	.5000	.625	.500	2.438	1.312	.937	1.500	1/2-20	12	6,660	.249
MTSM10T	MTSML10T	.6250	.750	.562	2.625	1.500	1.125	1.625	5/8-18	16	7,364	.382
MTSM12T	MTSML12T	.7500	.875	.687	2.875	1.750	1.312	1.750	3/4-16	14	11,518	.602

MTSF-T CHART

Part Number		B +.0025 -.0005	W +.000 -.005	H ±.015	A ±.015	D ±.010	K ±.010	J ±.010	REF	C +.062 -.031	UNF-2B	a°	Ultimate Radial Static Load Capacity (Pounds)	Approx. Weight (Pounds)
Right Hand	Left Hand	Ball Bore	Ball Width	Housing Width	Centerline Length	Head Diameter	Shank Diameter	Wrench Flat	Ball Diameter	Thread Length	Thread Size	Misalign Angle		
MTSF3T	MTSFL3T	.1900	.312	.250	1.062	.625	.406	.312	.437	.500	10-32	13	1,531	.038
MTSF4T	MTSFL4T	.2500	.375	.281	1.312	.750	.469	.375	.500	.687	1/4-28	16	2,539	.059
MTSF5T	MTSFL5T	.3125	.437	.344	1.375	.875	.500	.437	.625	.687	5/16-24	14	3,133	.092
MTSF6T	MTSFL6T	.3750	.500	.406	1.625	1.000	.687	.562	.719	.812	3/8-24	12	3,915	.152
MTSF7T	MTSFL7T	.4375	.562	.437	1.812	1.125	.750	.625	.812	.937	7/16-20	14	4,218	.198
MTSF8T	MTSFL8T	.5000	.625	.500	2.125	1.312	.875	.750	.937	1.062	1/2-20	12	6,660	.329
MTSF10T	MTSFL10T	.6250	.750	.562	2.500	1.500	1.000	.875	1.125	1.375	5/8-18	16	7,364	.477
MTSF12T	MTSFL12T	.7500	.875	.687	2.875	1.750	1.125	1.000	1.312	1.562	3/4-16	14	11,518	.723

Chart Notes: 1. This series is also available in a studded configuration. Specify by adding "S" to suffix. Example: MTSM10S

Studded Dimensions



Rod End Bore Size	L REF	P ± .030	S Min. Thread Length	N Thread Size UNF-2A
3/16"	.437	.438	.375	10-32
1/4"	.469	.563	.500	1/4-28
5/16"	.531	.688	.594	5/16-24
3/8"	.625	.875	.781	3/8-24
7/16"	.844	1.062	.937	7/16-20
1/2"	.875	1.125	1.000	1/2-20
5/8"	1.000	1.125	1.000	5/8-18
3/4"	1.187	1.812	1.625	3/4-16

Product Selector Guide

- Rod Ends — Industrial/Commercial
- Rod Ends — Precision/Heavy Duty
- Spherical Bearings
- Ball Joints
- Swivels
- Clevises/Safety Fasteners/Pins

Linking Motion & Control...
The Tuthill Solution



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• Please refer to the Warning statement and appropriate installation usage information in the Tuthill Technical/Application Data brochure
• For application assistance/technical questions, please contact (titech@tuthill.com) or phone (260-749-5105)