# Super Smart Ball Bushing\* Bearings (6-track) Inch & ISO Metric

Cost effective, smooth operating solution for your linear motion needs that lasts up to 2 times longer than Super Ball Bushing\* type linear bearings





#### Thomson Super Smart Ball Bushing bearings (6-track) offer:

- Up to 2 times longer travel life compared to an equal size Super Ball Bushing type bearing
- Longer lasting precision fit-up compared to Super Ball Bushing type bearings
- Reduced maintenance as a result of double lip integral wipers that keep dirt out and lubrication in
- Smooth operation as a result of self-aligning bearing plates

- An optional corrosion resistant version for harsh environments
- A coefficient of friction as low as 0.001 eliminates stick-slip
- Travel speeds up to 10 ft/s (3 m/s)
- Availability in 5/8" to 1-1/2" and 16mm to 40mm bearing bore diameters

Attention: Thomson Linear Ball Bushing\* bearings are precision components. To preserve bearing warranty you must use the specified Thomson 60 Case\* LinearRace\* (shafting).

All Thomson Industries manufacturing locations are ISO 9000 certified and operate to QS-9000 standards General Motors Supplier of the Year 1995 & 1996



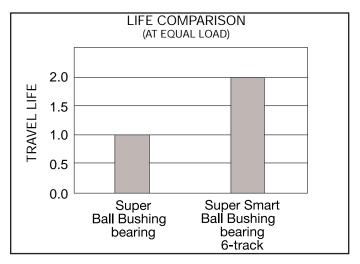


## Super Smart Ball Bushing\* bearings (6-track)

A patented breakthrough in linear motion technology.

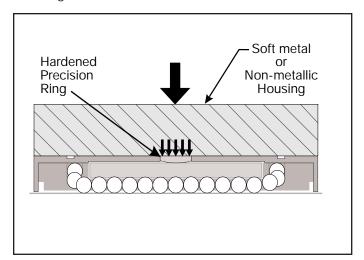
#### **Longer Bearing Life**

6-track Super Smart Ball Bushing bearings provide up to 2 times longer travel life compared to an equal size Super Ball Bushing type linear bearing. Longer life means less downtime, resulting in greater productivity.



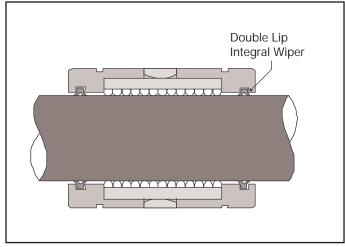
#### **Longer Lasting Precision Fit-up**

Super Smart Ball Bushing bearings maintain fit-up over a longer period of time than Super Ball Bushing type bearings. The hardened precision ring is the key to this achievement. It spreads, over a large area, the load that is transmitted to the housing. This minimizes any embedding of the bearing into its housing.



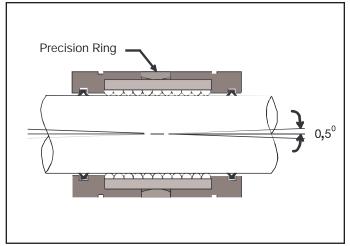
#### **Reduced Maintenance**

Super Smart Ball Bushing bearings are available with double lip integral wipers that reduce maintenance. The outward facing lip keeps dirt out while the inward facing lip keeps lubrication in.



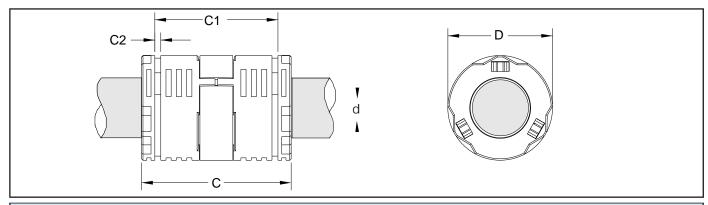
#### **Smooth Operation**

Super Smart Ball Bushing bearings are designed to allow the bearing plates to rock 0.5° about the hardened precision ring. This self-alignment assures smooth ball entry and exit into and out of the load zone eliminating binding and chatter that is associated with non-self-aligning linear bearings.





### Super Smart Ball Bushing\* bearings (6-track)



INCH										
	Dimensions (inch)									
Without Integral Wipers	With One Integral Wiper	With Two Integral Wipers	Nominal LinearRace Dia. d	C max.	C1	C2 min.	Housing Bore Dia. D	Number of Ball Tracks	Mass (lb)	Dynamic Load Rating <sup>(1)</sup> W (lbf)
SS6U 10 SS6U 12 SS6U 16 SS6U 20 SS6U 24	SS6U 10 W SS6U 12 W SS6U 16 W SS6U 20 W SS6U 24 W	SS6U 10 WW SS6U 12 WW SS6U 16 WW SS6U 20 WW SS6U 24 WW	5/8 3/4 1 1 1/4 1 1/2	1.500 1.625 2.250 2.625 3.000	1.125/1.095 1.285/1.255 1.901/1.871 2.031/1.991 2.442/2.402	0.55 0.55 0.68 0.68 0.86	1.1255/1.1250 1.2505/1.2500 1.5630/1.5625 2.0010/2.0000 2.3760/2.3750	6 6 6 6	.094 .125 .219 .310 .615	375 750 1250 1540 2575

<sup>(1)</sup> For a rated travel life of 2,000,000 inches. The load capacity is valid for a load applied at 90°with the ball tracks oriented as shown in the polar graph below. If the load is applied in another direction, the appropriate correction factor, K<sub>O</sub> should be applied to the load capacity.

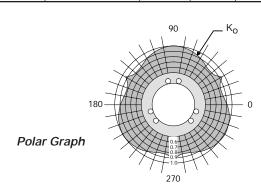
For corrosion resistant bearings, add the suffix "-CR" to the part number. Also, reduce the above load ratings by 30%. For additional technical information, contact 1-800-554-8466 to obtain a copy of our Advanced Linear Motion Technology Guide.

METRIC										
	Dimensions (mm)									
Without Integral Wipers	With One Integral Wiper	With Two Integral Wipers	Nominal LinearRace Dia. d	C h14 <sup>(2)</sup>	C1 H13 <sup>(2)</sup>	C2 min.	Housing Bore Dia. D H6 or H7 <sup>(2)</sup>	Number of Ball Tracks	Mass (kg)	Dynamic Load Rating <sup>(1)</sup> W (N)
SS6E M16 SS6E M20 SS6E M25 SS6E M30 SS6E M40	SS6E M16 W SS6E M20 W SS6E M25 W SS6E M30 W SS6E M40 W	SS6E M16 WW SS6E M20 WW SS6E M25 WW SS6E M30 WW SS6E M40 WW	16 20 25 30 40	36 45 58 68 80	24,6 31,2 43,7 51,7 60,3	1,30 1,60 1,85 1,85 2,15	26 32 40 47 62	6 6 6 6	.043 .057 .100 .141 .280	1320 2640 4435 5450 9100

- (1) For a rated travel life of 100Km. The load capacity is valid for a load applied at 90° with the ball tracks oriented as shown in the polar graph. If the load is applied in another direction, the appropriate correction factor, K<sub>O</sub> should be applied to the load capacity.
- For numerical tolerance information, refer to the Advanced Linear Motion Metric Products Catalog.

For corrosion resistant bearings, add the suffix "-CR" to the part number. Also, reduce the above load ratings by 30%.

For additional technical information, call 1-800-554-8466 to obtain a copy of our Advanced Linear Motion Metric Products Catalog.



It is the responsibility of the product user to determine the suitability of Thomson components for a specific application. Defective products will be replaced without charge if promptly returned. No liability will be assumed beyond such replacement.



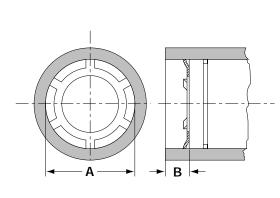


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#### **Accessories**

#### Internal Retaining Rings for Super Smart Ball Bushing\* Linear Bearings (6-Track)

Push-in internal retaining rings are for use with Super Smart Ball Bushing linear bearings (6-Track). Each retaining ring is installed inside the housing bore at each end of the bearing.



Part Number	Use with Super Smart Ball Bushing bearing Part Numbers	Nominal LinearRace Dia. (inch)	Nominal Housing Bore A (inch)	Minimum End Space Req'd B (inch)
PR625	SS6U10	5/8	1.125	.080
PR750	SS6U12	3/4	1.250	.080
PR1000	SS6U16	1	1.563	.080
PR1250	SS6U20	1-1/4	2.000	.080
PR1500	SS6U24	1-1/2	2.375	.100

Part Number	Use with Super Smart Ball Bushing bearing Part Numbers	Nominal LinearRace Dia. (mm)	Nominal Housing Bore A (mm)	Minimum End Space Req'd B (mm)
PR M16	SS6E M16	16	26	2,0
PR M20	SS6E M20	20	32	2,0
PR M25	SS6E M25	25	40	2,0
PR M30	SS6E M30	30	47	2,0
PR M40	SS6E M40	40	62	2,5

<sup>\*</sup>Trademark of Thomson Industries, Inc. THOMSON is registered in the U.S. Patent and Trademark Office and in other countries.

The specifications in this publication are believed to be accurate and reliable. However, it is the responsibility of the product user to determine the suitability of Thomson products for a specific application. While defective products will be replaced without charge if promptly returned, no liability is assumed beyond such replacement.

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