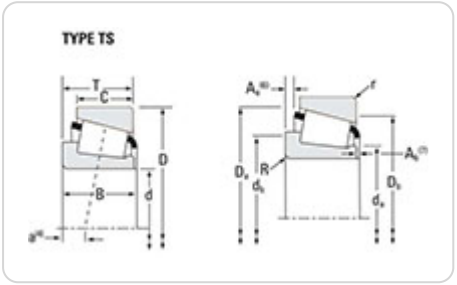
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Part Number 33016, Tapered Roller Bearings - TS (Tapered Single) Metric





Key Features

- Available in single, double and multi-row configurations, as well as proprietary sizes
- Designed in collaboration with OE engineers to design, engineer and test bearings for premium performance in many applications
- Power dense designs allow for heavier loads and can help extend bearing life
- Optimized internal geometry lowers torque and operating temperatures to extend lubrication system life

- Can be designed to withstand high-corrosive, high-temperature and vacuum or low-lubrication environments with proprietary enhancements

Key Dimensions

Cone Part Number	X33016M
Cup Part Number	Y33016M
Bore (d)	80 mm 3.1496 in
O.D. (D)	125 mm 4.9213 in
Width (T)	36 mm 1.4173 in
Dynamic Radial Load Rating - 1M Revs (C1) [1]	210000 N 47100 lbf
Dynamic Radial Load Rating - 90M Revs (C90) [2]	54300 N 12200 lbf
e Factor [3]	0.28
K Factor [4]	2.1
Series	33016
Y Factor [5]	2.16

Other Dimensions

Inner Ring Width (B)	36 mm 1.4173 in
Outer Ring Width (C)	29.5 mm 1.1614 in
Effective Center Location[6]	-10.2 mm -0.4 in
Max Shaft Fillet Radius[7]	1.5 mm 0.060 in
Max Housing Fillet Radius[8]	1.5 mm 0.06 in
Shaft Backing Shoulder Diameter - Frontface (da)	88 mm 3.46 in
Shaft Backing Shoulder Diameter - Backface (db)	90 mm 3.54 in
Housing Backing Shoulder Diameter - Frontface (Da)	120 mm 4.72 in
Housing Backing Shoulder Diameter - Backface (Db)	115 mm 4.53 in
Cage Location Relative to Backface (Aa)	0.8 mm 0.03 in
Cage Location Relative to Frontface (Ab)	3.6 mm 0.14 in
Weight	1.61 Kg 3.56 lb

Ratings

Dynamic Axial Rating - 90M Revs (Ca90)[9]	25900 N 5820 lbf
Static Radial Load Rating (C0)	315000 N 70900 lbf

Factors

G1 Factor	139.4
G2 Factor	49.4
Geometry Factor (Cg)[10]	0.0769

[1] Based on 1 x 10^6 revolutions L_{10} life, for the ISO life calculation method.

[2] Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

[3] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

[4] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

[5] These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

[6] Negative value indicates effective center inside cone backface.

[7] These maximum fillet radii will be cleared by the bearing corners.

[8] These maximum fillet radii will be cleared by the bearing corners.

[9] Based on 90 x 10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

[10] Geometry constant for Lubrication Life Adjustment Factor a3l.