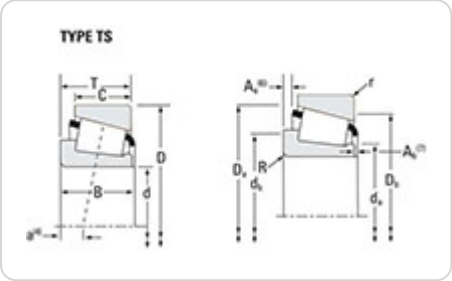
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com (mailto:CustomerCAD@timken.com) • **Web site:** www.timken.com (http://www.timken.com)

Part Number 30318, 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	X30318M
Cup Part Number	Y30318M
Bore (d)	90 mm 3.5433 in
O.D. (D)	190 mm 7.4803 in
Width (T)	46.5 mm 1.8307 in
Dynamic Radial Load Rating - 1M Revs (C1) [1]	406000 N 91300 lbf
Dynamic Radial Load Rating - 90M Revs (C90) [2]	105000 N 23700 lbf
e Factor [3]	0.35
K Factor [4]	1.69
Series	30318
Y Factor [5]	1.74

Other Dimensions

Inner Ring Width (B)	43 mm 1.6929 in
Outer Ring Width (C)	36 mm 1.4173 in
Effective Center Location[6]	-9.4 mm -0.37 in
Max Shaft Fillet Radius[7]	4 mm 0.157 in
Max Housing Fillet Radius[8]	3 mm 0.118 in
Shaft Backing Shoulder Diameter - Frontface (da)	105 mm 4.13 in
Shaft Backing Shoulder Diameter - Backface (db)	112 mm 4.41 in
Housing Backing Shoulder Diameter - Frontface (Da)	176 mm 6.93 in
Housing Backing Shoulder Diameter - Backface (Db)	173 mm 6.81 in
Cage Location Relative to Backface (Aa)	3.8 mm 0.15 in
Cage Location Relative to Frontface (Ab)	6.4 mm 0.25 in
Weight	5.56 Kg 12.25 lb

Ratings

Dynamic Axial Rating - 90M Revs (Ca90)[9]	62200 N 14000 lbf
Static Radial Load Rating (C0)	429000 N 96500 lbf

Factors

G1 Factor	176.8
G2 Factor	31.8
Geometry Factor (Cg)[10]	0.0882

[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.