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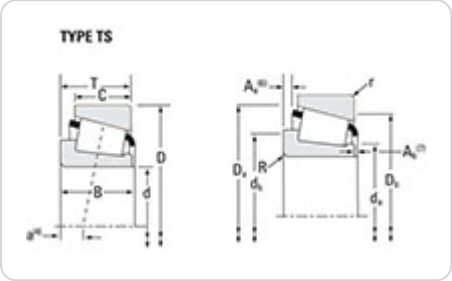
# Part Number 32021X, Tapered Roller Bearings - TS (Tapered Single) Metric






## 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** | X32021XM |
| **Cup Part Number** | Y32021XM |
| **Bore (d)** | 105.000 mm<br>4.1339 in |
| **O.D. (D)** | 160.000 mm<br>6.2992 in |
| **Width (T)** | 35.000 mm<br>1.3780 in |
| **Dynamic Radial Load Rating - 1M Revs (C1)** [1] | 269000 N<br>60500 lbf |
| **Dynamic Radial Load Rating - 90M Revs (C90)** [2] | 69800 N<br>15700 lbf |
| **e Factor** [3] | 0.44 |
| **K Factor** [4] | 1.31 |
| **Series** | 32021XM |
| **Y Factor** [5] | 1.35 |

# Other Dimensions

| | |
|---|---|
| **Inner Ring Width (B)** | 35.000 mm<br>1.3780 in |
| **Outer Ring Width (C)** | 26.000 mm<br>1.0236 in |
| **Effective Center Location**[6] | -0.3 mm<br>-0.01 in |
| **Max Shaft Fillet Radius**[7] | 2.540 mm<br>0.10 in |
| **Max Housing Fillet Radius**[8] | 2.03 mm<br>0.08 in |
| **Shaft Backing Shoulder Diameter - Frontface (da)** | 113 mm<br>4.45 in |
| **Shaft Backing Shoulder Diameter - Backface (db)** | 119 mm<br>4.69 in |
| **Housing Backing Shoulder Diameter - Frontface (Da)** | 154.43 mm<br>6.08 in |
| **Housing Backing Shoulder Diameter - Backface (Db)** | 147.07 mm<br>5.79 in |
| **Cage Location Relative to Backface (Aa)** | 2.8 mm<br>0.11 in |
| **Cage Location Relative to Frontface (Ab)** | 3.3 mm<br>0.13 in |
| **Weight** | 2.4 Kg<br>5.3 lb |

# Ratings

| | |
|---|---|
| **Dynamic Axial Rating - 90M Revs (Ca90)**[9] | 53100 N<br>11900 lbf |
| **Static Radial Load Rating (C0)** | 339000 N<br>76200 lbf |

# Factors

| | |
|---|---|
| **G1 Factor** | 176.5 |
| **G2 Factor** | 50.7 |
| **Geometry Factor (Cg)**[10] | 0.0963 |

[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.