



The Timken Company

4500 Mt Pleasant St. NW

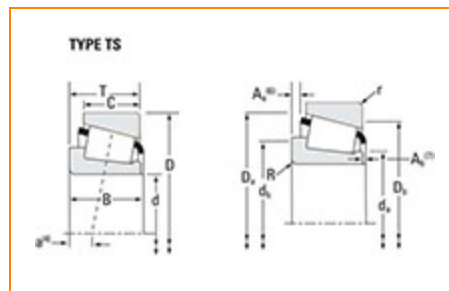
N. Canton, OH 44720

Phone: (234) 262-3000

E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Part Number 32232, Tapered Roller Bearings - TS (Tapered Single) Metric

This is the most basic and most widely used type of tapered roller bearing. It consists of two main separable parts: the cone (inner ring) assembly and the cup (outer ring). It is typically mounted in opposing pairs on a shaft.



[Specifications](#) | [Dimensions](#) | [Abutment and Fillet Dimensions](#) | [Basic Load Ratings](#) | [Factors](#)

Specifications

| | |
|------------------|--------------------|
| Series | 32232 |
| Cone Part Number | X32232 |
| Cup Part Number | Y32232 |
| Design Units | METRIC |
| Bearing Weight | 23.4 Kg 51.6 lb |
| Cage Type | Stamped Steel |

Dimensions

| | |
|----------|---------------------|
| d - Bore | 160 mm 6.2992 in |
|----------|---------------------|

| | |
|-------------------------------|------------------------|
| D - Cup Outer Diameter | 290 mm 11.4173 in |
| B - Cone Width | 80 mm 3.1496 in |
| C - Cup Width | 67.000 mm 2.6378 in |
| T - Bearing Width | 84.000 mm 3.3071 in |

Abutment and Fillet Dimensions

| | |
|--|-----------------------|
| R - Cone Backface "To Clear" Radius¹ | 4.060 mm 0.16 in |
| r - Cup Backface "To Clear" Radius² | 3.05 mm 0.12 in |
| da - Cone Frontface Backing Diameter | 184.91 mm 7.28 in |
| db - Cone Backface Backing Diameter | 197.10 mm 7.76 in |
| Da - Cup Frontface Backing Diameter | 274.80 mm 10.82 in |
| Db - Cup Backface Backing Diameter | 261.11 mm 10.28 in |
| Ab - Cage-Cone Frontface Clearance | 6.6 mm 0.26 in |
| Aa - Cage-Cone Backface Clearance | 8.4 mm 0.33 in |
| a - Effective Center Location³ | -12.7 mm -0.5 in |

Basic Load Ratings

| | |
|---|-------------------------|
| C₉₀ - Dynamic Radial Rating (90 million revolutions)⁴ | 264000 N 59400 lbf |
| C₁ - Dynamic Radial Rating (1 million revolutions)⁵ | 1020000 N 229000 lbf |
| C₀ - Static Radial Rating | 1630000 N 366000 lbf |
| C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶ | 197000 N 44200 lbf |

Factors

| | |
|--|-------|
| K - Factor⁷ | 1.34 |
| e - ISO Factor⁸ | 0.44 |
| Y - ISO Factor⁹ | 1.38 |
| G₁ - Heat Generation Factor (Roller-Raceway) | 766.7 |
| G₂ - Heat Generation Factor (Rib-Roller End) | 69.4 |
| C_g - Geometry Factor¹⁰ | 0.131 |

¹ These maximum fillet radii will be cleared by the bearing corners.

² These maximum fillet radii will be cleared by the bearing corners.

³ Negative value indicates effective center inside cone backface.

⁴ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values.

⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

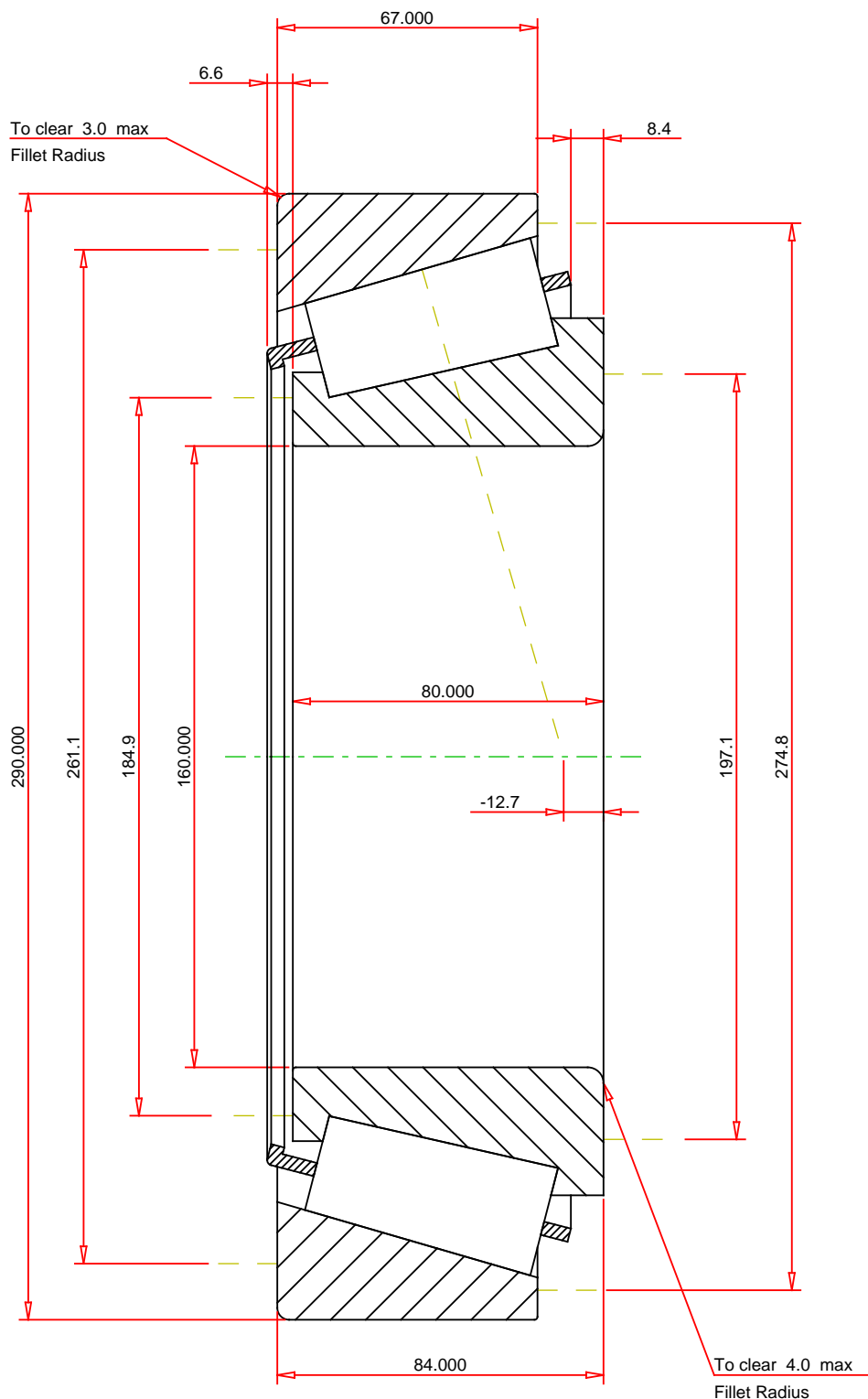
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

⁷ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁸ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

⁹ These factors apply for both inch and metric calculations. Consult your Timken representative for instruction on use.

¹⁰ Geometry constant for Lubrication Life Adjustment Factor a_3 .



METRIC UNITS

| | |
|---------------------------|----------|
| ISO Factor - e | 0.44 |
| ISO Factor - Y | 1.38 |
| Bearing Weight | 23.4 kg |
| Number of Rollers Per Row | 21 |
| Effective Center Location | -12.7 mm |

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

X32232 - Y32232
TS BEARING ASSEMBLY

| | | |
|------------------------------|---------|---|
| K Factor | 1.34 | |
| Dynamic Radial Rating - C90 | 264000 | N |
| Dynamic Thrust Rating - Ca90 | 197000 | N |
| Static Radial Rating - C0 | 1630000 | N |
| Dynamic Radial Rating - C1 | 1020000 | N |

Every reasonable effort has been made to ensure the accuracy of the information contained in this writing, but no liability is accepted for errors, omissions or for any other reason.

FOR DISCUSSION ONLY