



The Timken Company

4500 Mt Pleasant St. NW

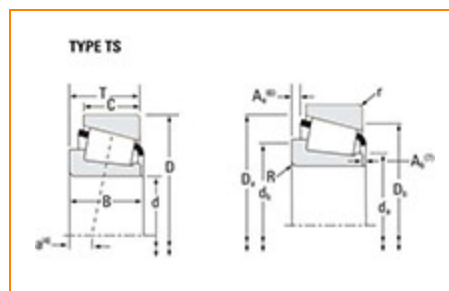
N. Canton, OH 44720

Phone: (234) 262-3000

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

Part Number 44162 - 44348, Tapered Roller Bearings - TS (Tapered Single) Imperial

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.



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Specifications

Series	44000
Cone Part Number	44162
Cup Part Number	44348
Design Units	Imperial
Bearing Weight	0.70 Kg 1.500 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	41.275 mm 1.6250 in
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D - Cup Outer Diameter	88.501 mm 3.4843 in
B - Cone Width	23.698 mm 0.9330 in
C - Cup Width	17.463 mm 0.6875 in
T - Bearing Width	25.400 mm 1.0000 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	2.290 mm 0.09 in
r - Cup Backface "To Clear" Radius²	1.52 mm 0.06 in
da - Cone Frontface Backing Diameter	50.8 mm 2 in
db - Cone Backface Backing Diameter	56.90 mm 2.24 in
Da - Cup Frontface Backing Diameter	84.10 mm 3.34 in
Db - Cup Backface Backing Diameter	74.93 mm 2.95 in
Ab - Cage-Cone Frontface Clearance	3.8 mm 0.15 in
Aa - Cage-Cone Backface Clearance	3 mm 0.12 in
a - Effective Center Location³	2.3 mm 0.09 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	5810 lbf 25900 N
C1 - Dynamic Radial Rating (1 million revolutions)⁵	22400 lbf 99800 N
C0 - Static Radial Rating	19900 lbf 88600 N
C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	7770 lbf 34600 N

Factors

K - Factor⁷	0.75
e - ISO Factor⁸	0.78
Y - ISO Factor⁹	0.77
G1 - Heat Generation Factor (Roller-Raceway)	22.9
G2 - Heat Generation Factor (Rib-Roller End)	8.71
Cg - Geometry Factor¹⁰	0.0899

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.

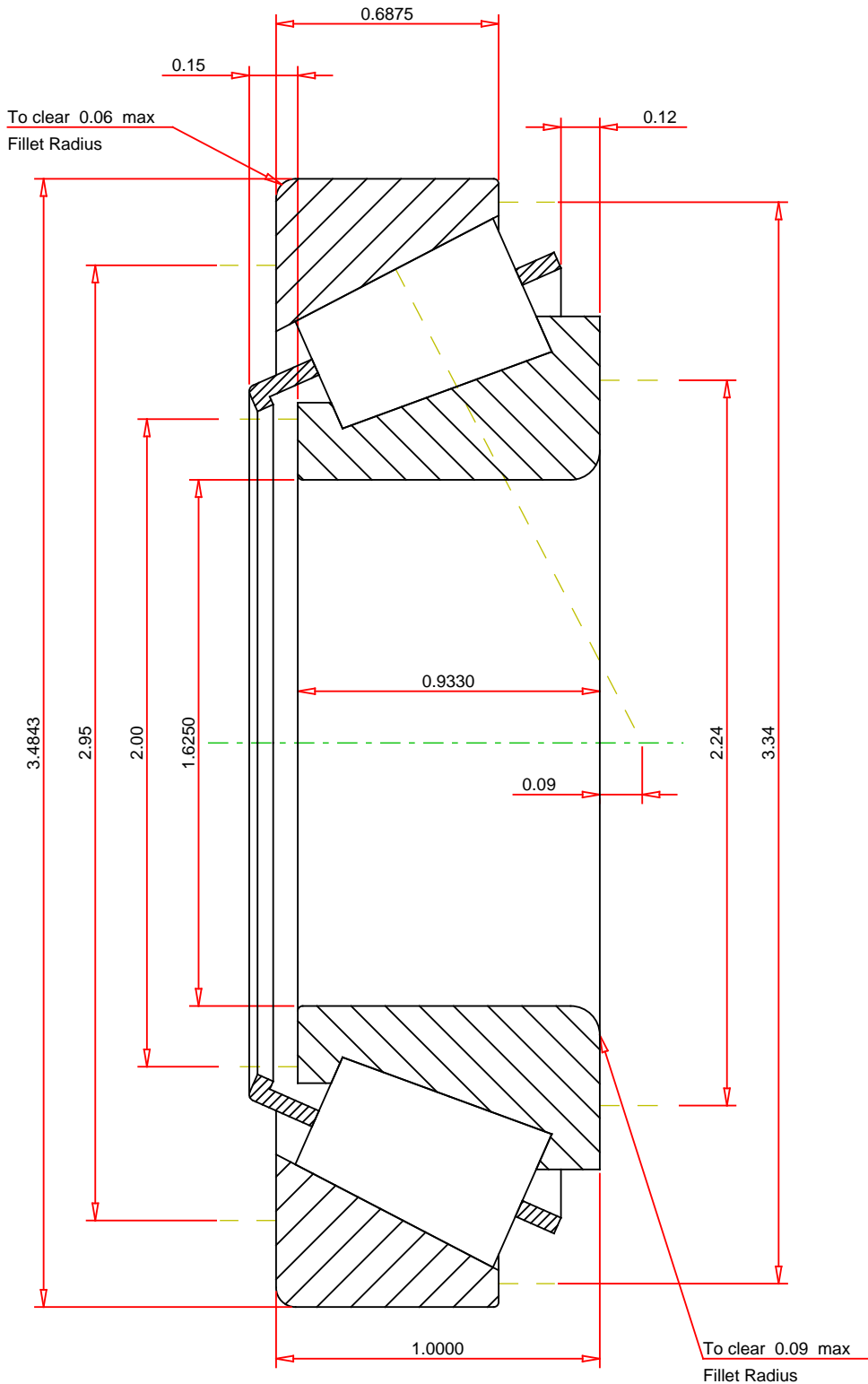
⁶ Based on 90×10^6 revolutions L_{10} life, for The Timken Company life calculation method. C_{90} and C_{a90} are radial and thrust values for a single-row, $C_{90(2)}$ is the two-row radial value.

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 .



IMPERIAL UNITS

ISO Factor - e 0.78
 ISO Factor - Y 0.77
 Bearing Weight 1.5 lb
 Number of Rollers Per Row 15
 Effective Center Location 0.09 inch

TIMKEN®

THE TIMKEN COMPANY
 NORTH CANTON, OHIO USA

44162 - 44348
 TS BEARING ASSEMBLY

K Factor 0.75
 Dynamic Radial Rating - C90 5810 lbf
 Dynamic Thrust Rating - Ca90 7770 lbf
 Static Radial Rating - C0 19900 lbf
 Dynamic Radial Rating - C1 22400 lbf

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