


The Timken Company

4500 Mt Pleasant St. NW

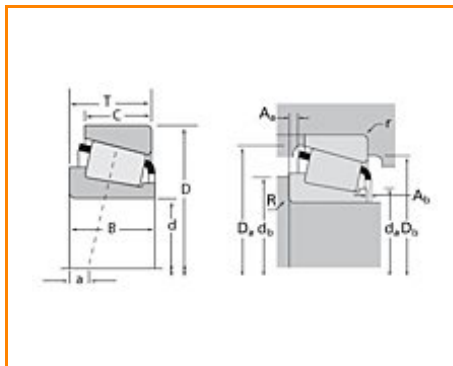
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Timken Part Number 16150 - 16283, Tapered Roller Bearings - TS (Tapered Single) Imperial

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	16000
Cone Part Number	16150
Cup Part Number	16283
Design Units	Imperial
Bearing Weight	0.400 Kg 0.90 lb
Cage Type	Stamped Steel

Dimensions

d - Bore	38.1 mm 1.5 in
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D - Cup Outer Diameter	72.238 mm 2.8440 in
B - Cone Width	20.638 mm 0.8125 in
C - Cup Width	19.050 mm 0.7500 in
T - Bearing Width	23.813 mm 0.9375 in

Abutment and Fillet Dimensions

R - Cone Backface "To Clear" Radius¹	3.560 mm 0.14 in
r - Cup Backface "To Clear" Radius²	2.29 mm 0.090 in
da - Cone Frontface Backing Diameter	42.93 mm 1.69 in
db - Cone Backface Backing Diameter	49.53 mm 1.95 in
Da - Cup Frontface Backing Diameter	67.10 mm 2.68 in
Db - Cup Backface Backing Diameter	60.96 mm 2.40 in
Ab - Cage-Cone Frontface Clearance	1.8 mm 0.07 in
Aa - Cage-Cone Backface Clearance	0.5 mm 0.02 in
a - Effective Center Location³	-4.10 mm -0.16 in

Basic Load Ratings

C90 - Dynamic Radial Rating (90 million revolutions)⁴	14700 N 3300 lbf
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C1 - Dynamic Radial Rating (1 million revolutions)⁵	56600 N 12700 lbf
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C0 - Static Radial Rating	65800 N 14800 lbf
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C_{a90} - Dynamic Thrust Rating (90 million revolutions)⁶	10100 N 2270 lbf
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Factors

K - Factor⁷	1.45
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e - ISO Factor⁸	0.40
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Y - ISO Factor⁹	1.49
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G1 - Heat Generation Factor (Roller-Raceway)	20.3
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G2 - Heat Generation Factor (Rib-Roller End)	10.6
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Cg - Geometry Factor	0.0707
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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.

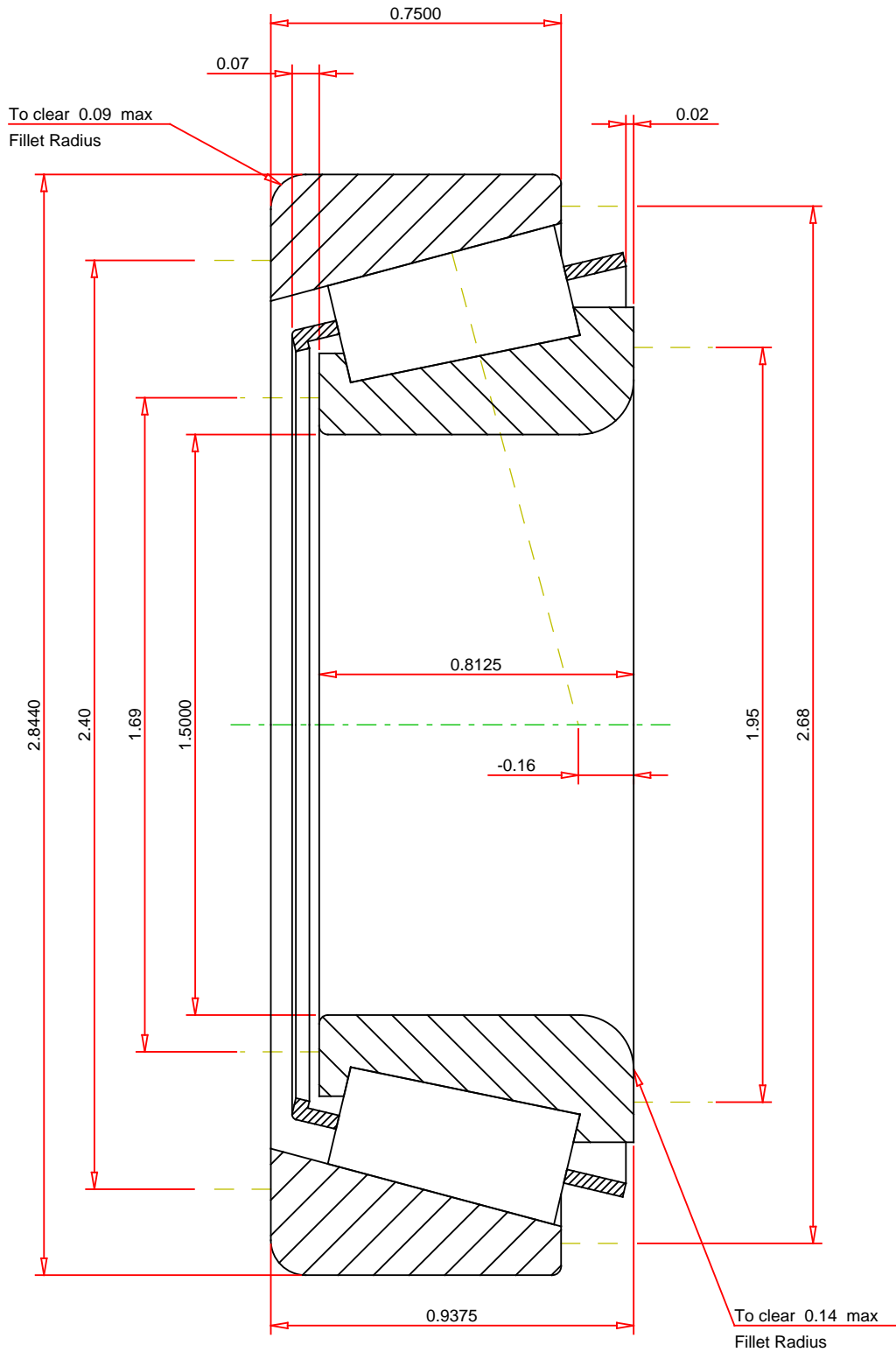
⁵ Based on 1×10^6 revolutions L_{10} life, for the ISO life calculation method.

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.



IMPERIAL UNITS

<div>ISO Factor - e0.4</div> <div>ISO Factor - Y1.49</div> <div>Bearing Weight0.9 lb</div> <div>Number of Rollers Per Row18</div> <div>Effective Center Location-0.16 inch</div>		<div>TIMKEN®</div> <div>THE TIMKEN COMPANY</div> <div>NORTH CANTON, OHIO USA</div>		<div>16150 - 16283</div> <div>TS BEARING ASSEMBLY</div>	
				<div>K Factor1.45</div> <div>Dynamic Radial Rating - C9014700 lbf</div> <div>Dynamic Thrust Rating - Ca9010100 lbf</div> <div>Static Radial Rating - C065800 lbf</div> <div>Dynamic Radial Rating - C156600 lbf</div>	