


**The Timken Company**

4500 Mt Pleasant St. NW

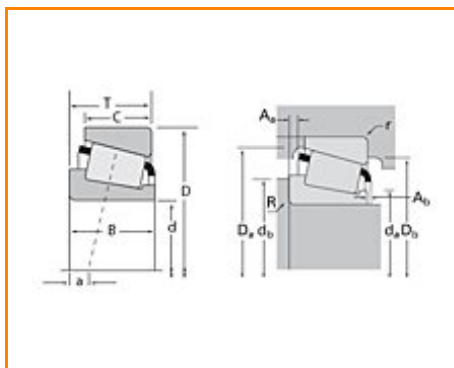
N. Canton, OH 44720

**Phone:** (234) 262-3000

**E-Mail:** [CustomerCAD@timken.com](mailto:CustomerCAD@timken.com) • **Web site:** [www.timken.com](http://www.timken.com)

## Timken Part Number 4375 - 4320, 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.



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

### Specifications

<b>Series</b>	4300
<b>Cone Part Number</b>	4375
<b>Cup Part Number</b>	4320
<b>Design Units</b>	Imperial
<b>Bearing Weight</b>	1.200 Kg 2.70 lb
<b>Cage Type</b>	Stamped Steel

### Dimensions

<b>d - Bore</b>	38.1 mm 1.5 in
-----------------	-------------------

<b>D - Cup Outer Diameter</b>	88.501 mm 3.4843 in
<b>B - Cone Width</b>	40.386 mm 1.5900 in
<b>C - Cup Width</b>	33.338 mm 1.3125 in
<b>T - Bearing Width</b>	39.690 mm 1.5626 in

## Abutment and Fillet Dimensions

<b>R - Cone Backface "To Clear" Radius<sup>1</sup></b>	1.520 mm 0.06 in
<b>r - Cup Backface "To Clear" Radius<sup>2</sup></b>	3.30 mm 0.130 in
<b>da - Cone Frontface Backing Diameter</b>	51.05 mm 2.01 in
<b>db - Cone Backface Backing Diameter</b>	53.09 mm 2.09 in
<b>Da - Cup Frontface Backing Diameter</b>	84.10 mm 3.34 in
<b>Db - Cup Backface Backing Diameter</b>	75.95 mm 2.99 in
<b>Ab - Cage-Cone Frontface Clearance</b>	1.5 mm 0.06 in
<b>Aa - Cage-Cone Backface Clearance</b>	1.5 mm 0.06 in
<b>a - Effective Center Location<sup>3</sup></b>	-15 mm -0.59 in

## Basic Load Ratings

<b>C90 - Dynamic Radial Rating (90 million revolutions)<sup>4</sup></b>	51500 N 11600 lbf
---	----------------------

<b>C1 - Dynamic Radial Rating (1 million revolutions)<sup>5</sup></b>	199000 N 44700 lbf
---	-----------------------

<b>C0 - Static Radial Rating</b>	204000 N 45900 lbf
----------------------------------	-----------------------

<b>C<sub>a90</sub> - Dynamic Thrust Rating (90 million revolutions)<sup>6</sup></b>	25100 N 5640 lbf
---	---------------------

## Factors

<b>K - Factor<sup>7</sup></b>	2.05
-------------------------------	------

<b>e - ISO Factor<sup>8</sup></b>	0.28
-----------------------------------	------

<b>Y - ISO Factor<sup>9</sup></b>	2.11
-----------------------------------	------

<b>G1 - Heat Generation Factor (Roller-Raceway)</b>	52.9
---	------

<b>G2 - Heat Generation Factor (Rib-Roller End)</b>	14.3
---	------

<b>Cg - Geometry Factor</b>	0.0872
-----------------------------	--------

<sup>1</sup> These maximum fillet radii will be cleared by the bearing corners.

<sup>2</sup> These maximum fillet radii will be cleared by the bearing corners.

<sup>3</sup> Negative value indicates effective center inside cone backface.

<sup>4</sup> Based on  $90 \times 10^6$  revolutions  $L_{10}$  life, for The Timken Company life calculation method.  $C_{90}$  and  $C_{a90}$  are radial and thrust values.

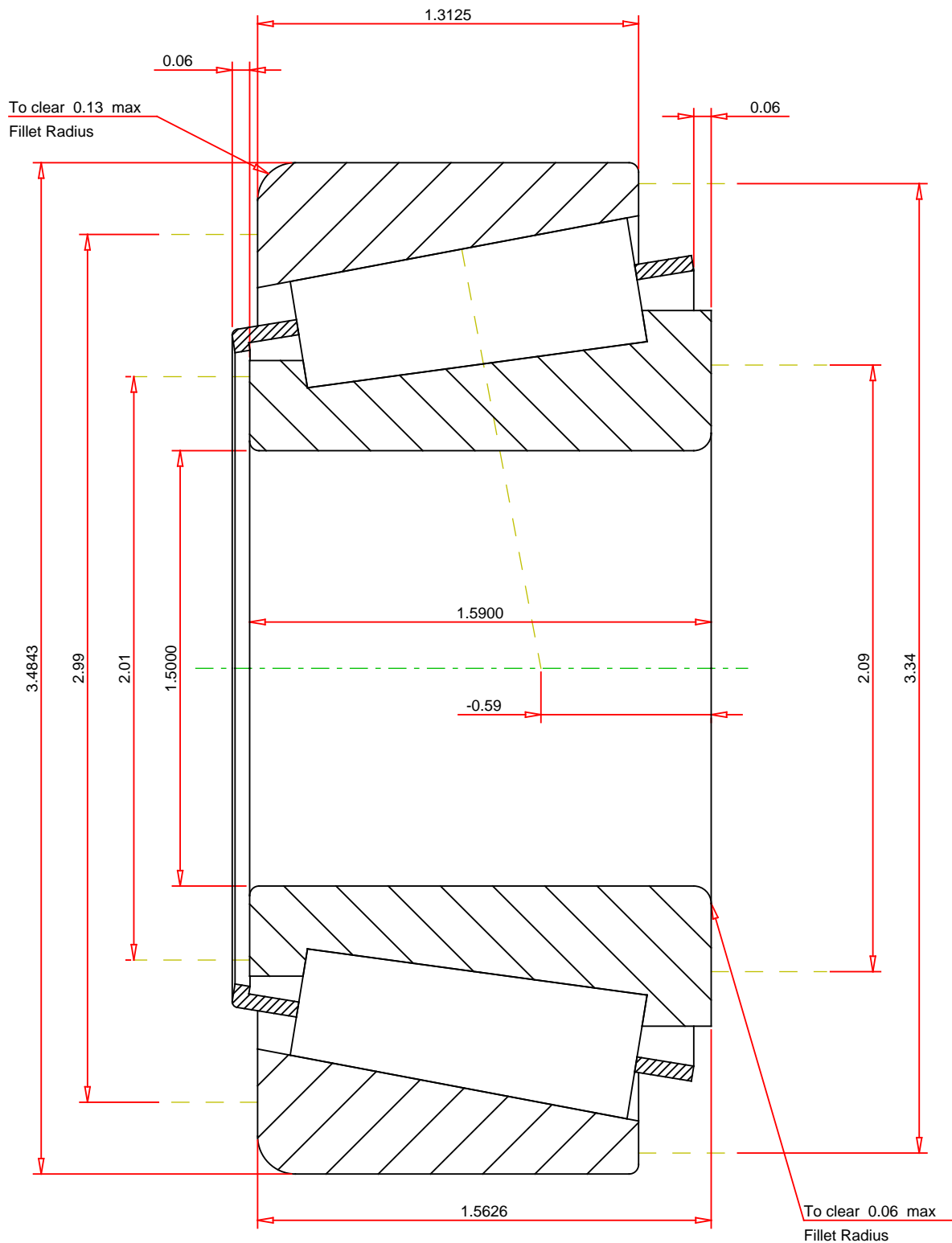
<sup>5</sup> Based on  $1 \times 10^6$  revolutions  $L_{10}$  life, for the ISO life calculation method.

<sup>6</sup> Based on  $90 \times 10^6$  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.

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

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

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



## IMPERIAL UNITS

ISO Factor - e 0.28  
ISO Factor - Y 2.11  
Bearing Weight 2.7 lb  
Number of Rollers Per Row 15  
Effective Center Location -0.59 inch

**TIMKEN®**

**THE TIMKEN COMPANY**  
NORTH CANTON, OHIO USA

**4375 - 4320**  
**TS BEARING ASSEMBLY**

K Factor	2.05
Dynamic Radial Rating - C90	51500 lbf
Dynamic Thrust Rating - Ca90	25100 lbf
Static Radial Rating - C0	204000 lbf
Dynamic Radial Rating - C1	199000 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**