


**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)

## Part Number 305K, Fafnir® Deep Groove Ball Bearings (9100K, 200K, 300K)

Radial ball bearings consist of an inner and outer ring with a cage containing a complement of precision balls. The standard Conrad-type bearing has a deep-groove construction capable of handling radial and axial loads from either direction in versatile designs that permit relatively high-speed operation.

In addition to standard single-row deep groove bearings, Timken offers special designs, including a maximum capacity series and an extra large (XLS) radial series bearing.

Size range: 3 mm


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### Specifications

<b>Design Units</b>	Metric
<b>d - Bore</b>	25 mm
<b>Ball Type</b>	STEEL
<b>Manufacturing Part Number</b>	305K Z6 FS50000

### Dimensions



<b>D - Outer Diameter</b>	62 mm 2.441 in
<b>Bearing Width</b>	17 mm 0.6693 in

## Basic Load Ratings

<b>Ce - Dynamic Radial Rating<sup>1</sup></b>	26200 N 5890 lbf
<b>C0 - Static Radial Rating</b>	12144 N 2730 lbf

## Factors

<b>Limiting Speed (Grease)</b>	6900 rpm
<b>Limiting Speed (Oil)</b>	8050 rpm

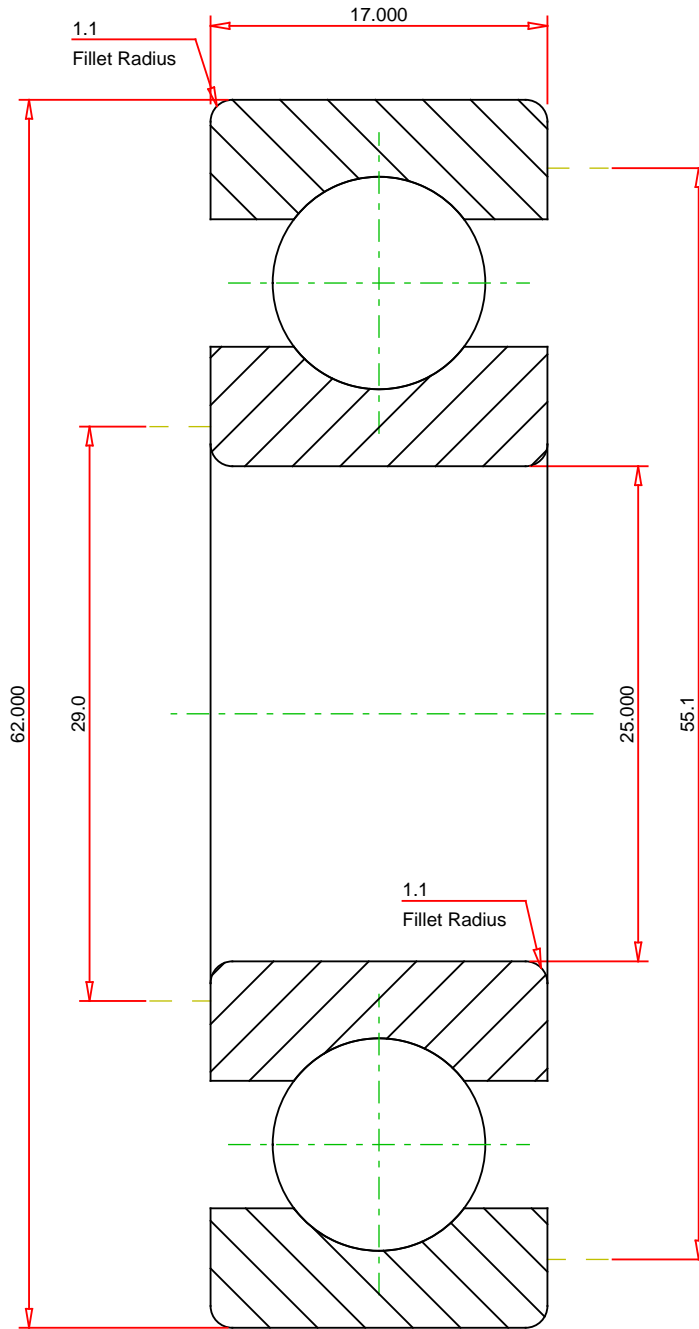
## Abutment and Fillet Dimensions

<b>R - Inner Ring "To Clear" Radius<sup>2</sup></b>	1.1 mm 0.043 in
<b>r - Outer Ring "To Clear" Radius<sup>3</sup></b>	1.1 mm 0.043 in
<b>da - Inner Ring Backing Diameter</b>	29.00 mm 1.140 in
<b>Da - Outer Ring Backing Diameter</b>	55.10 mm 2.1700 in

<sup>1</sup> Based on  $10^6$  revolutions of calculated fatigue life.

<sup>2</sup> Maximum housing fillet radius that bearing corners will clear.

<sup>3</sup> Maximum shaft fillet radius that bearing corners will clear.



METRIC UNITS

Number of Balls Per Row 7  
 Bearing Weight 0.236 kg

**TIMKEN**®

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 NORTH CANTON, OHIO USA

**305K**  
 Fafnir® Deep Groove Ball Bearings (9100K, 200K, 300K)

Dynamic Radial Rating 26200 N  
 Static Radial Rating 12144 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**