**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

# Timken Part Number MM309K, Fafnir® Spindle Deep Grove 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

more



Specifications | Dimensions | Basic Load Ratings | Factors | Abutment and Fillet Dimensions

## Specifications

| | |
|---|---|
| **Design Units** | METRIC |
| **Ball Type** | Steel |
| **Cage Type** | CR - Phenolic Inner Land Riding Cage |
| **Bearing Weight** | 0.807 Kg<br>1.78 lb |
| **Precision Class** | ISO P4S (ABEC 7/9) |

## Dimensions

| | |
|---|---|
| **d - Bore** | 45.000 mm<br>1.7717 in |
| **D - Outer Diameter** | 100.000 mm<br>3.9370 in |
| **Bearing Width** | 25.000 mm<br>0.9843 in |
| **do - Ball Diameter** | 17.462500 mm<br>0.687500 in |

## Basic Load Ratings

| | |
|---|---|
| **Ce - Dynamic Radial Rating[1]** | 58500 N<br>13200 lbf |
| **C0 - Static Radial Rating** | 31700 N<br>7120 lbf |

## Factors

| | |
|---|---|
| **Limiting Speed (Grease)** | 15200 rpm |
| **Limiting Speed (Oil)** | 30400 rpm |

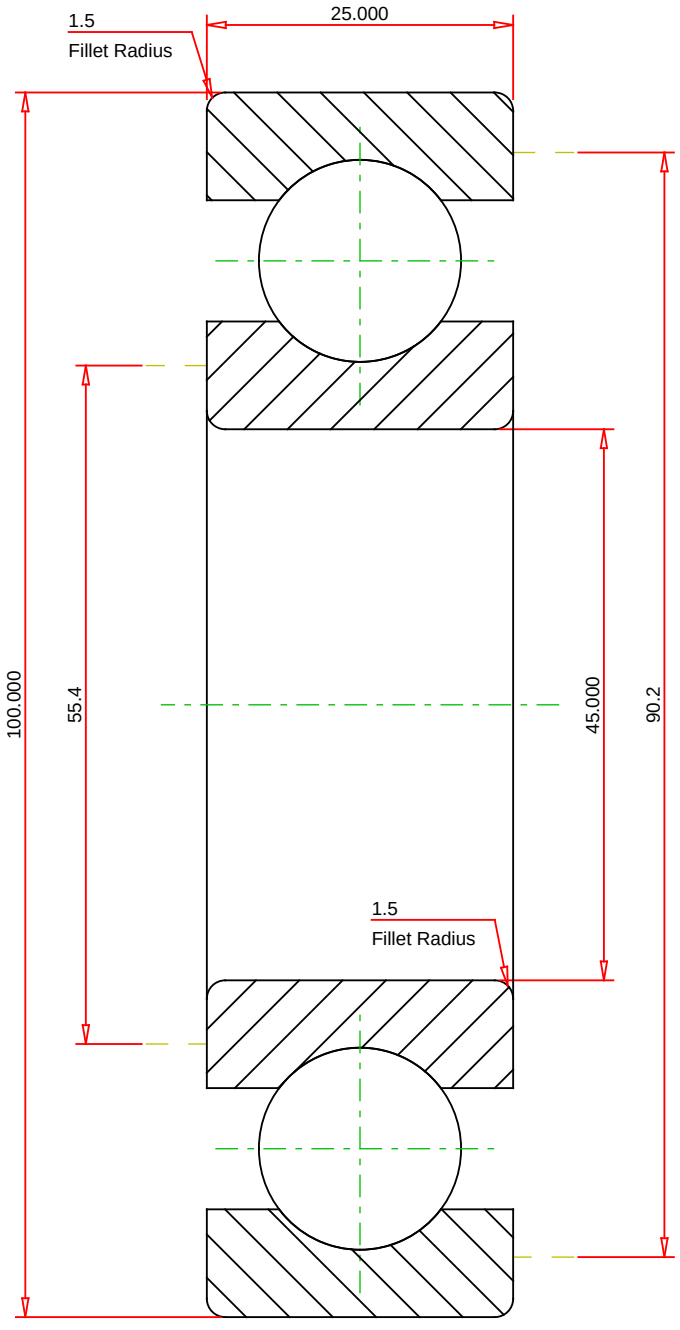
## Abutment and Fillet Dimensions

| | |
|---|---|
| **R - Inner Ring "To Clear" Radius[2]** | 1.500 mm<br>0.059 in |
| **r - Outer Ring "To Clear" Radius[3]** | 1.500 mm<br>0.059 in |
| **da - Inner Ring Backing Diameter** | 55.400 mm<br>2.180 in |
| **Da - Outer Ring Backing Diameter** | 90.200 mm<br>3.550 in |

[1] Based on $10^6$ revolutions of calculated fatigue life.

[2] Maximum housing fillet radius that bearing corners will clear.

[3] Maximum shaft fillet radius that bearing corners will clear.




METRIC UNITS

| | | |
|---|---|---|
| Number of Balls Per Row | 8 | |
| Bearing Weight | 0.807 | kg |

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

# MM309K

Fafnir® Spindle Deep Grove Ball Bearings (9100K, 200K, 300K)

| | | |
|---|---|---|
| Dynamic Radial Rating | 58500 | N |
| | | N |
| Static Radial Rating | 31700 | 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.

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