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## Part Number 208K, 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            |                 |
|---------------------------|-----------------|
| Design Units              | Metric          |
| d - Bore                  | 40 mm           |
| Ball Type                 | STEEL           |
| Manufacturing Part Number | 208K Z3 FS50000 |

| Dimensions |  |
|------------|--|
|            |  |



|                           |                    |
|---------------------------|--------------------|
| <b>D - Outer Diameter</b> | 80 mm<br>3.15 in   |
| <b>Bearing Width</b>      | 18 mm<br>0.7087 in |

## Basic Load Ratings

|                                               |                     |
|-----------------------------------------------|---------------------|
| <b>Ce - Dynamic Radial Rating<sup>1</sup></b> | 36164 N<br>8130 lbf |
| <b>C0 - Static Radial Rating</b>              | 19839 N<br>4460 lbf |

## Factors

|                                |          |
|--------------------------------|----------|
| <b>Limiting Speed (Grease)</b> | 5000 rpm |
| <b>Limiting Speed (Oil)</b>    | 5830 rpm |

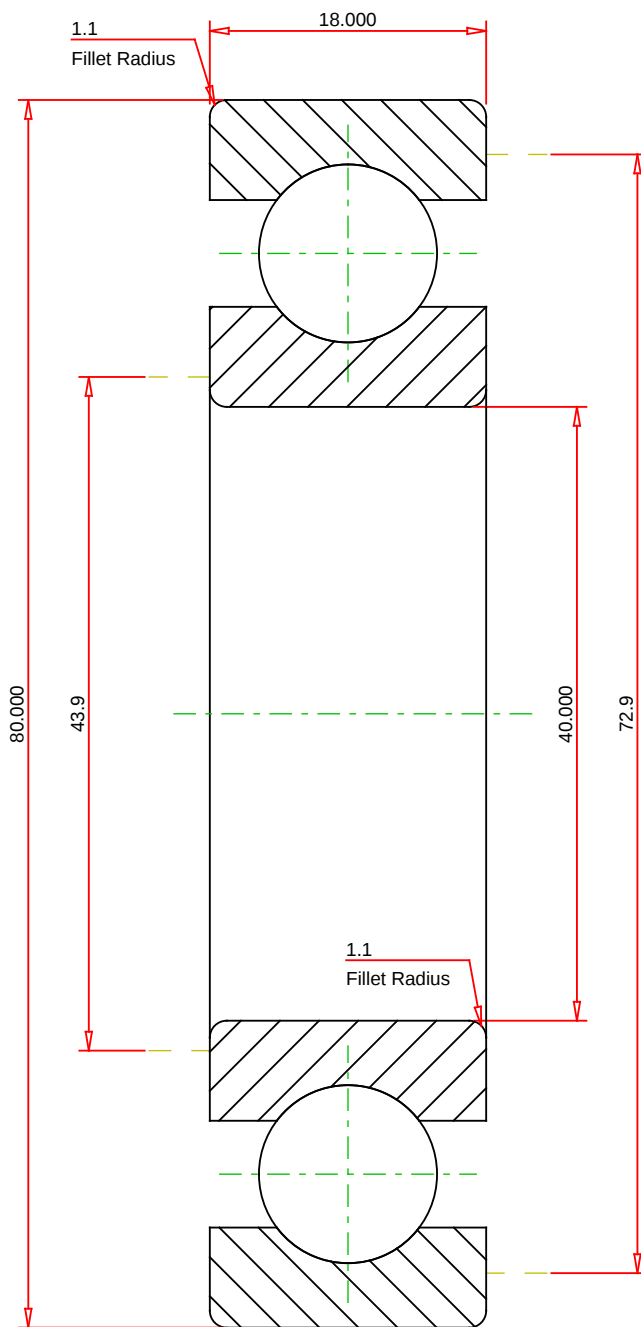
## Abutment and Fillet Dimensions

|                                                     |                       |
|-----------------------------------------------------|-----------------------|
| <b>R - Inner Ring "To Clear" Radius<sup>2</sup></b> | 1.1 mm<br>0.043 in    |
| <b>r - Outer Ring "To Clear" Radius<sup>3</sup></b> | 1.1 mm<br>0.043 in    |
| <b>da - Inner Ring Backing Diameter</b>             | 43.90 mm<br>1.7300 in |
| <b>Da - Outer Ring Backing Diameter</b>             | 72.90 mm<br>2.8700 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<br>Bearing Weight | 9<br>0.376 kg | <div>TIMKEN®</div>                                       |  | 208K<br>Fafnir® Deep Groove Ball Bearings (9100K, 200K, 300K) |         |
|                                           |               | <div>THE TIMKEN COMPANY<br/>NORTH CANTON, OHIO USA</div> |  | Dynamic Radial Rating                                         | 36164 N |
|                                           |               |                                                          |  | Static Radial Rating                                          | 19839 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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