


**The Timken Company**

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## Part Number S8K, Fafnir® Miniature Ball Bearings (S..K)

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>	Imperial
<b>Ball Type</b>	STEEL
<b>Manufacturing Part Number</b>	S8K Z1 FS50000

### Dimensions

<b>d - Bore</b>	3/4 in
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**D - Outer Diameter** 1.6250 in  
41.275 mm

**Bearing Width** 0.3125 in  
7.938 mm

## Basic Load Ratings

**C0 - Static Radial Rating** 1120 lbf  
4982 N

**Ce - Dynamic Radial Rating** 2340 lbf  
10409 N

## Factors

**Limiting Speed (Grease)** 6770 rpm

**Limiting Speed (Oil)** 7900 rpm

## Abutment and Fillet Dimensions

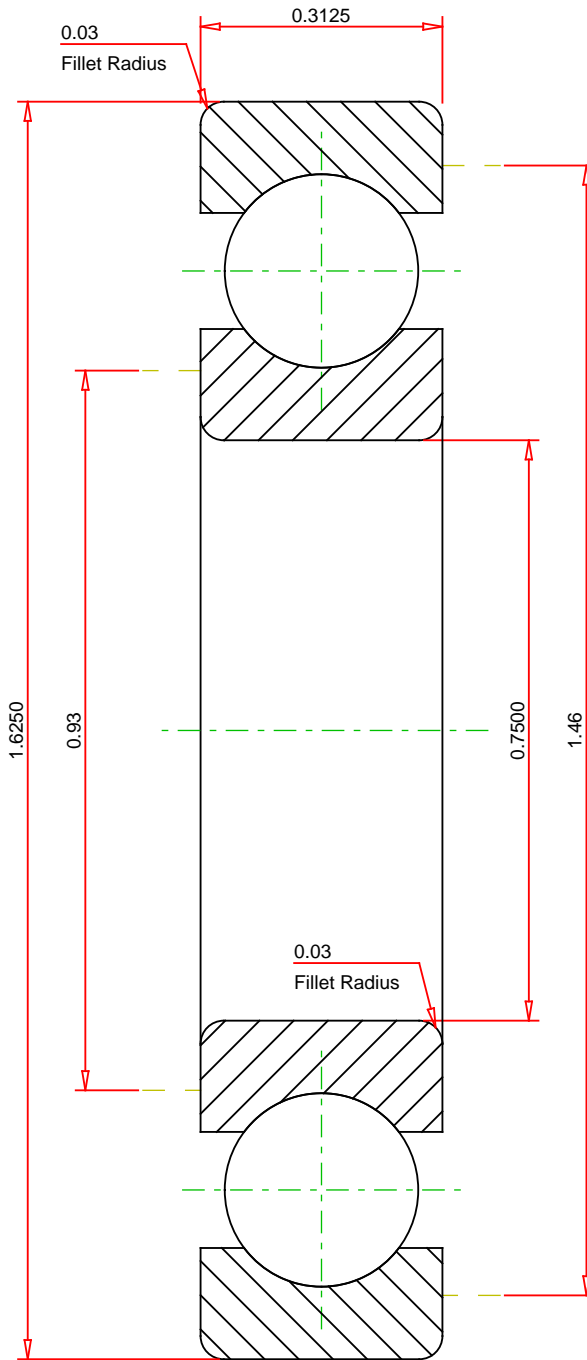
**R - Inner Ring "To Clear" Radius** 0.03 in  
0.8 mm

**r - Outer Ring "To Clear" Radius<sup>1</sup>** 0.03 in  
0.800 mm

**da - Inner Ring Backing Diameter** 0.930 in  
23.60 mm

**Da - Outer Ring Backing Diameter** 1.4600 in  
37.10 mm

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



IMPERIAL UNITS

Number of Balls Per Row	9
Bearing Weight	0.10 lb

**TIMKEN**®

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NORTH CANTON, OHIO USA

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Dynamic Radial Rating	2340 lbf
Static Radial Rating	1120 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**