


**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 S8KD, 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>	S8KD Z1 FS50000;

### Dimensions

<b>d - Bore</b>	3/4 in
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<b>D - Outer Diameter</b>	1.6250 in 41.28 mm
<b>Bearing Width</b>	0.3125 in 7.94 mm

## Basic Load Ratings

<b>C0 - Static Radial Rating</b>	1220 lbf 5440 N
<b>Ce - Dynamic Radial Rating</b>	2550 lbf 11300 N

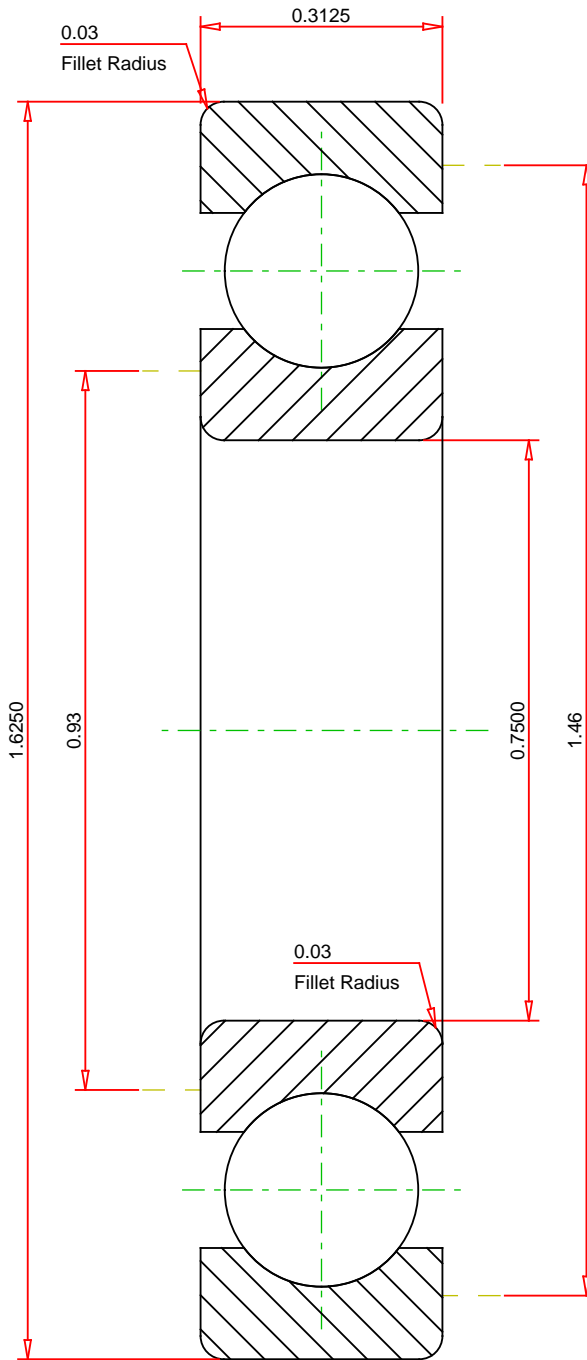
## Factors

<b>Limiting Speed (Grease)</b>	9677 rpm
<b>Limiting Speed (Oil)</b>	11290 rpm

## Abutment and Fillet Dimensions

<b>R - Inner Ring "To Clear" Radius</b>	0.03 in 0.8 mm
<b>r - Outer Ring "To Clear" Radius<sup>1</sup></b>	0.03 in 0.800 mm
<b>da - Inner Ring Backing Diameter</b>	0.9291 in 23.60 mm
<b>Da - Outer Ring Backing Diameter</b>	1.4606 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

**S8KD**  
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Dynamic Radial Rating	2550 lbf
Static Radial Rating	1220 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**