


The Timken Company

4500 Mt Pleasant St. NW

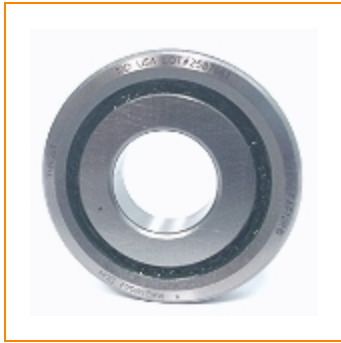
N. Canton, OH 44720

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Part Number MM50BS90 SUM, Fafnir® Single Row Ball Screw Support Bearings (MM-BS)

Timken® angular contact ball bearings are designed for combination radial and axial loading. Single-row bearings have high thrust capacity in one direction. Some single-row bearings are specifically designed for duplex mounting in sets for maximum performance.



[Specifications](#) | [Dimensions](#) | [Basic Load Ratings](#) | [Factors](#) | [Abutment and Fillet Dimensions](#)

Specifications

| | |
|----------------------------------|--------------------------------------|
| Manufacturing Part Number | MM50BS90SUM |
| Rows per Set | Single |
| Design Units | Metric |
| d - Bore | 50 mm |
| Ball Type | STEEL |
| Cage Type | CR - Phenolic Outer Land Riding Cage |

Dimensions

| | |
|---------------------------|--------------------|
| D - Outer Diameter | 90 mm 3.5433 in |
| Bearing Width | 15 mm 0.5906 in |



| | |
|--------------------|--------------------|
| Total Width | 15 mm 0.5906 in |
|--------------------|--------------------|

| | |
|----------------------|-----|
| Contact Angle | 60° |
|----------------------|-----|

Basic Load Ratings

| | |
|--|----------------------|
| C0 - Static Radial Rating (per row) | 60900 N 13700 lbf |
|--|----------------------|

| | |
|---|---------------------|
| Ce - Dynamic Radial Rating (per row) | 41400 N 9310 lbf |
|---|---------------------|

| | |
|---|---------------------|
| C1 ISO - Dynamic Radial Rating (per row) | 37300 N 8390 lbf |
|---|---------------------|

Factors

| | |
|--|----------|
| Limiting Speed (Grease) (per row) | 2200 rpm |
|--|----------|

| | |
|-----------------------------|----------|
| Limiting Speed (Oil) | 4400 rpm |
|-----------------------------|----------|

Abutment and Fillet Dimensions

| | |
|---|--------------------|
| R - Inner Ring "To Clear" Radius¹ | 0.8 mm 0.031 in |
|---|--------------------|

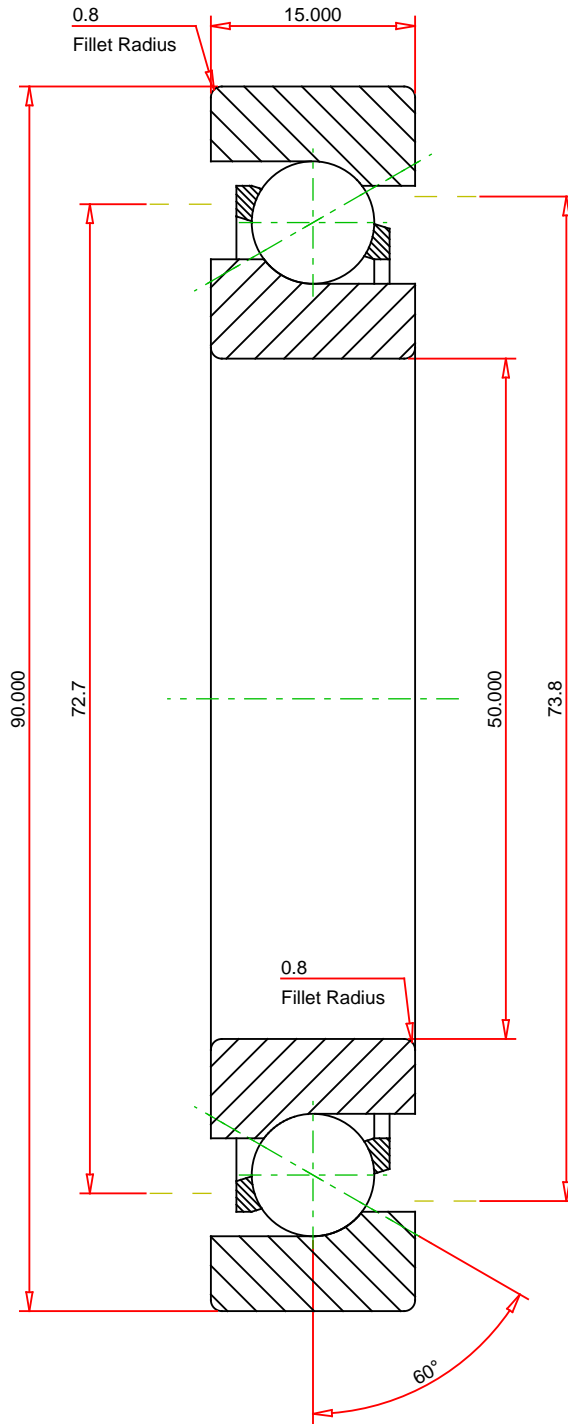
| | |
|---|----------------------|
| r - Outer Ring "To Clear" Radius² | 0.800 mm 0.031 in |
|---|----------------------|

| | |
|---|-----------------------|
| da - Inner Ring Backing Diameter | 72.695 mm 2.862 in |
|---|-----------------------|

| | |
|---|------------------------|
| Da - Outer Ring Backing Diameter | 73.823 mm 2.9064 in |
|---|------------------------|

¹ Maximum housing fillet radius that bearing corners will clear.

² Maximum shaft fillet radius that bearing corners will clear.



METRIC UNITS

| | |
|-------------------------|----------|
| Number of Balls Per Row | 24 |
| Bearing Weight | 0.410 kg |

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

MM50BS90 SUM
Fafnir® Single Row Ball Screw Support Bearings (MM-BS)

| | | |
|-----------------------|-------|---|
| Dynamic Radial Rating | 41400 | N |
| Static Radial Rating | 60900 | 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