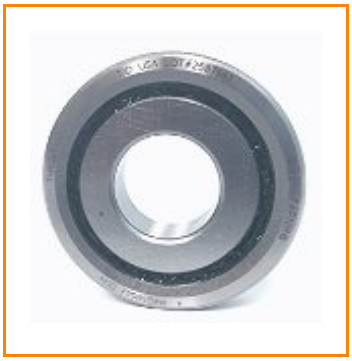
The Timken Company
4500 Mt Pleasant St. NW
N. Canton, OH 44720
Phone: (234) 262-3000
E-Mail: CustomerCAD@timken.com • **Web site:** www.timken.com

Timken Part Number MM50BS100, 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.



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

Dimensions

d - Bore	50.000 mm 19.6850 in
D - Outer Diameter	100.000 mm 39.3700 in
Bearing Width	22.500 mm 0.8858 in
Contact Angle	60 º
do - Ball Diameter	12.70000 mm 0.50000 in

Basic Load Ratings

C0 - Static Radial Rating	93400 N 21000 lbf
Ce - Dynamic Radial Rating[1]	71200 N 16010 lbf

Factors

Limiting Speed (Grease)	2000 rpm
Limiting Speed (Oil)	4000 rpm

Specifications

Ball Type	Steel
Cage Type	Nylon Ball Riding Cage
Bearing Weight	0.710 Kg 0.031 lb
Design Units	METRIC

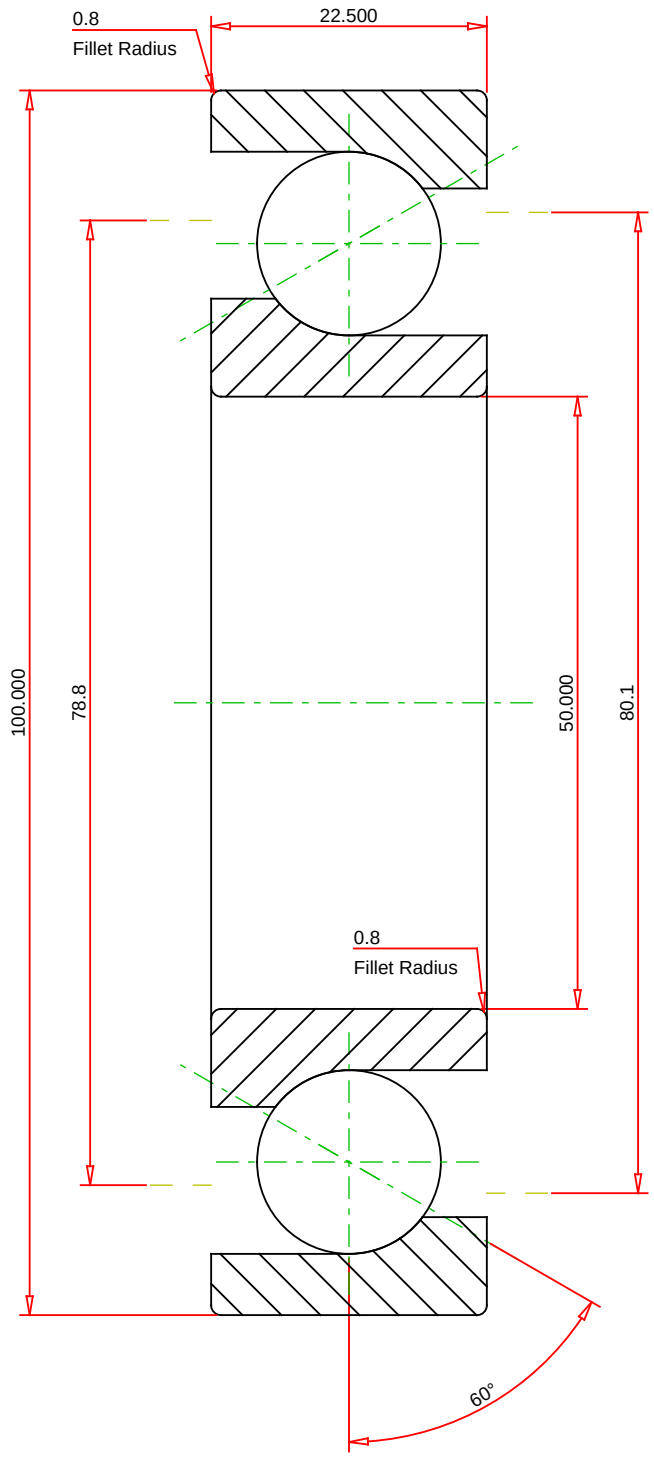
Abutment and Fillet Dimensions

R - Inner Ring "To Clear" Radius[2]	0.800 mm 0.031 in
r - Outer Ring "To Clear" Radius[3]	0.800 mm 0.031 in
da - Inner Ring Backing Diameter	78.776 mm 3.1014 in
Da - Outer Ring Backing Diameter	80.089 mm 3.1531 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	18	
Bearing Weight	0.710	kg

TIMKEN®

THE TIMKEN COMPANY
NORTH CANTON, OHIO USA

MM50BS100

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

Dynamic Radial Rating	71200	N
Static Radial Rating	93400	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