

Product Reference Guide



INA USA CORPORATION



PRODUCT REFERENCE GUIDE

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FOREWORD

This publication was designed to serve as a quick reference to the standard product series offered by INA USA Corporation (INA) for its domestic market. The guide provides a current overview of INA products, including basic envelope dimensions and capacities, in one publication – it is not an engineering design guide intended to replace INA engineering catalogs. Consequently, the metric and inch conversions are listed to 3 decimal places for easy reference and rapid identification of correct replacement part(s), not 4 decimal places as necessary for quality control purposes.

This publication can be used to narrow the choices between the many different INA product lines and series for new designs. Detailed engineering information for new designs can be found in our traditional catalogs or by contacting the INA Engineering Department.

A significant portion of INA sales are special production sizes. The identification of those parts is sometimes difficult since a comprehensive listing is beyond the intent of this publication. Special part numbers take as many different forms as the series listed here, but the basic system is to use sequential numbers for each new design. Usually the prefix is F or FC but can include VH, INA or the bearing type such as NA. INA maintains a technical help desk to identify sizes not known or to match competitors' parts.

The toll free 800 numbers listed will give you access to INA Customer Service representatives. These representatives can tap into INA Worldwide resources to provide the bearings you need.

Storage Life

Lubricants age naturally due to environmental influences. It is therefore the user's responsibility to follow the directions given by the lubricant manufacturer.

The greases used in INA rolling bearings have a mineral oil base and experience shows that they can be stored for up to 3 years without deteriorating providing the following important conditions are met.

- Closed storage room
- Temperature between 0°C and 40°C
- Relative atmospheric humidity 65% or less
- Security from chemical agents (vapors, gases, fluids)
- Sealed rolling bearings

The frictional torque can be considerably higher after longer storage periods than in freshly greased bearings and the lubricity of the grease can also have deteriorated.

INA bearings have many optional features available including:

- ISO series of bearings generally include the standard clearance options CN, C2, C3 and C4.
- ISO bearing series include PN, P6 and P5 precision classes.

- Corrotect™ plating is available for most bearing designs. Corrotect is a patented process for zinc-iron and zinc-iron-cobalt plating in a thin layer which can be applied to standard components. The protection exceeds stainless steel and the cost is half. Add suffix RR.
- All sealed bearings are supplied pregreased. In most cases the standard lubricant is Shell Alvania 2 or equivalent. Other greases are available, some at extra cost.
- Unsealed bearings may not be greased when shipped.
- Speed limits as published, are based on oil lubrication for open bearings or grease lubrication for sealed bearings. The speed limits are calculated based on a nominal load and heat balance equation. Higher speeds may be allowed depending on the application.
- Dynamic capacities are published based on INA standard usage of ISO and ABMA formulas. New life theory threshold values are published in other INA publications.
- Life calculations and evaluations can be made from INA engineering based catalogs which are available from your INA Sales Representative.
- Other features are available based on current production volumes including heat stabilization of the rings, matched bearing sets, with oil holes and grooves, etc.

ABMA American Bearing Manufacturers Association

ASTM American Society Of Testing And Materials

DIN Deutsches Institut für Normung e.V.

ISO International Standards Organization

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PRODUCT REFERENCE GUIDE

CD-ROM VERSION

JUNE 2000

THE ADOBE ACROBAT® READER

This catalog has been developed for use with the Adobe Acrobat® Reader, which you are now using. If you are unfamiliar with its use, use the Help menu.

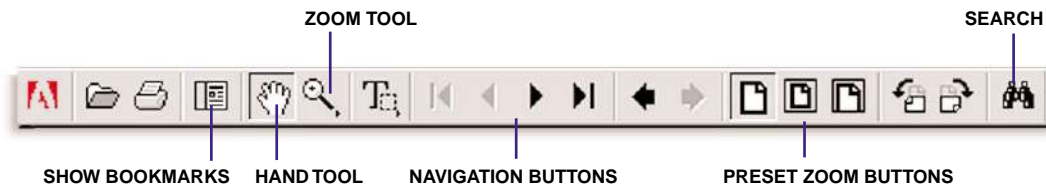
Adobe also offers full support at its Web site located at www.adobe.com.

A toll free support line is also available and can be found at that site.

These usage instructions have been made available to help you get started quickly if you are unfamiliar with the Adobe Acrobat® Reader.

USAGE INSTRUCTIONS

THE ADOBE ACROBAT READER TOOLBAR (VERSION 4.05)



You can see the function of each button on the real toolbar (at the top of your screen) by positioning your mouse cursor over any button and momentarily pausing.

NAVIGATION: MOVING THRU PAGES

To move immediately to the Table Of Contents, click [HERE](#). From any page, you may advance to the next page (or previous page) by using the navigation keys (arrows) located on the toolbar at the top of your screen. From the Table Of Contents, you may immediately jump to any bearing section by clicking on the *colored horizontal bar* of the section you want to move to. This will take you immediately to the Section Contents of the bearing category selected. You may return to the Section Contents while within any section by clicking on the colored vertical bar located on the extreme right and left sides of each page. (The colored vertical bar on the Section Contents will take you back to the Table Of Contents at the beginning of the book.)

You may also move to any specific page by using the Index. Click on the Bearing Series, Description or page number to move to the respective page.

When viewing a page up close, or when viewing a table spread across 2 pages, use the Hand Tool on the toolbar to scroll across the page.

ENLARGING THE PAGE: THE ZOOM TOOL

The Zoom tool button on the toolbar above enables you to zoom in anywhere on the page to improve readability. You may do this in one of two ways:

- Click the tool then position your mouse on the part of the page you want to enlarge and click.
- Click the tool then drag your mouse to form a box over the area you wish to enlarge.

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USAGE INSTRUCTIONS CONTINUED

You can return to the normal page view by:

- Selecting VIEW from the menu at the top of your screen and select FIT PAGE.
- Clicking one of the preset zoom buttons on right side of toolbar.

SCROLLING: THE HAND TOOL

Use the hand tool button located on the toolbar above to scroll across a page in any direction. You will find this a convenient way to read the page after you have zoomed in.

SEARCHING

You may locate a specific item through the use of the search tool located on the toolbar (button with the binocular icon). You can search for any string (part numbers, titles, series, etc). If the string is found, you will be taken immediately to the specific page on which it was found. When entering a part number, do not include the suffix and be sure to include any space characters that might be part of the number. If you're not sure of the complete part number, you may enter just the prefix or the first few characters that you are sure of.

USING THE VIEW MENU

You should use the View Menu located at the top of your screen to set the default view of your document. You may toggle the "Bookmarks & Page" (located at the bottom of the menu) to display a listing of the 11 different bearing sections of the catalog. Once displayed, you can quickly jump to a different section by clicking it with your mouse. If you don't need this feature, toggle it off by removing the check-mark in the menu — this will allow additional width for your displayed page.

PRINTING

You may print this page (or any page or series of pages) from the File/Print menu above.

VIEWING SPECIAL NOTES

If you see a small yellow page-icon on any page, double-click it to view a note that has been inserted. This note may contain special information pertaining to a part number, availability or other important information.

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