Kilian
Precision
Machined Bearings

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</table>
INTRODUCTION
Some applications in equipment such as conveyor rollers, drawer slides, door tracks and others may permit the use of bearings of less than ABEC-1 quality. For these lighter duty applications the Torrington Company supplies low cost precision machined ball bearings.

These bearings feature one-piece outers thus eliminating any possibility of the outer raceway spreading or splitting. Rings and balls of precision machined bearings are appropriately heat treated.

Bearings are available with parts coated for corrosion resistance as well as appearance. These include; zinc, cadmium, black oxide, nickel and chrome. In conditions of high humidity, stainless steel balls should be considered. Material variations for bearing parts such as nylon and stainless steel can be supplied to accommodate particular applications.

To obtain bearings with the above described variations plus other special bearing configurations, consult the Torrington Company sales engineers for details.

CB14 Series
The Fafnir CB14 series* is designed to meet the speed and reliability requirements of driven conveyor rolls and significantly reduce the noise level of the system in which they are installed.

CB14 bearings are precision machined from hardened steel and feature a flanged O.D. for easier mounting in the tube. Both rings are a one-piece construction. Use of a nylon ball retainer makes the bearing capable of reliable operation up to 2000 R.P.M., higher than full type standard bearings. CB14 bearings utilize unique nylon adapters pressed into the bore of the bearing with an hexagonal bore to accommodate standard \( \frac{3}{16} \)" hex shafting. The adapter is flanged and serves as a bearing shield. Both the nylon retainer and the adapter help reduce noise levels of conveyor systems. The retainer prevents balls from cascading and contacting each other while the adapter eliminates metal-to-metal contact between the bearing and the shaft, deadening the noise normally transmitted to the conveyor frame.

The conveyor roll bearing series is designed with the same interior system and ball cage for all sizes. Static \( (C_o) \) and Dynamic Load \( (C_E) \) ratings apply to all sizes shown. Life calculations based on these ratings should be performed according to page E50 of the Engineering section.

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To order, specify Bearing Number. Example: CB14-1.

<table>
<thead>
<tr>
<th>Bearing Number</th>
<th>Hex Bore B</th>
<th>Outside Diameter D</th>
<th>Flange A</th>
<th>Width W</th>
<th>E Width</th>
<th>C</th>
<th>R Manufacturer’s Part No. Interchange (1)</th>
<th>Static Load Rating ( C_o )</th>
<th>Extended Dynamic Load Rating ( C_E )</th>
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(1) Applies to Bore and O.D. only
*U.S. Patent #3897986.
Single Row Ball Bearings

- Full complement of balls
- Zinc plated races
- Pre-lubricated
- Thrust rating in either direction is 50% of the listed radial rating
- The sum of the radial and thrust loads should not exceed the listed load rating
- On all standard single row bearings the inner and outer ring faces are flush. When sufficient quantities permit, shoulders on one or both sides of the inner rings and variations from standard bore may be specified.
- These bearings are designed for light loads and speeds up to 1200 RPM

<table>
<thead>
<tr>
<th>Bearing Number</th>
<th>Bore B (in. mm)</th>
<th>Outside Diameter D (in. mm)</th>
<th>Width W (in. mm)</th>
<th>Balls</th>
<th>Radial Load Rating at 600 RPM (1)</th>
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<td>tolerance ±0.005 0.000</td>
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<td>¼</td>
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(1) LOAD RATING FACTORS
Radial load ratings given in the tabular data in this catalog are based on a speed of 600 RPM. For radial load ratings at speeds other than 600 RPM, multiply the listed capacity by the appropriate factor listed in Table 1.

<table>
<thead>
<tr>
<th>Speed (RPM)</th>
<th>Factor</th>
</tr>
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<tr>
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<tr>
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</tr>
<tr>
<td>1200</td>
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Double Row Ball Bearings

- Full complement of double ball rows
- Zinc plated races
- Pre-lubricated
- Thrust rating in either direction is 33% of the listed radial rating
- The sum of the radial and thrust loads should not exceed the listed load rating
- These bearings are designed for light loads and speeds up to 1200 RPM

<table>
<thead>
<tr>
<th>Bearing Number</th>
<th>Bore B</th>
<th>Outside Diameter D</th>
<th>Width W₁</th>
<th>Width W₂</th>
<th>Balls</th>
<th>Radial Load Rating at 600 RPM (1)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>in.</td>
<td>mm</td>
<td>in.</td>
<td>mm</td>
<td>No.</td>
<td>Size</td>
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<tr>
<td></td>
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<td>tolerance</td>
<td>tolerance</td>
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(1) LOAD RATING FACTORS
Radial load ratings given in the tabular data in this catalog are based on a speed of 600 RPM. For radial load ratings at speeds other than 600 RPM, multiply the listed capacity by the appropriate factor listed in Table 1.

<table>
<thead>
<tr>
<th>Speed (RPM)</th>
<th>Factor</th>
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<tr>
<td>1000</td>
<td>.7</td>
</tr>
<tr>
<td>1200</td>
<td>.6</td>
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</table>
Flange Type
Ball Bearings

- Mount directly into wheel hubs, pulleys and conveyor rollers
- Full complement of balls
- Zinc plated races
- Pre-lubricated
- Thrust rating in either direction is 50% of the listed radial rating
- The sum of the radial and thrust loads should not exceed the listed load rating
- All flanges are ¼"
- These bearings are designed for light loads and speeds up to 1200 RPM

<table>
<thead>
<tr>
<th>Bearing Number</th>
<th>Bore D</th>
<th>Outside Diameter D</th>
<th>Width W₁</th>
<th>Width W₂</th>
<th>E</th>
<th>Balls</th>
<th>Radial Load Rating at 600 RPM(1)</th>
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<td>in.</td>
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</table>

(1) LOAD RATING FACTORS
Radial load ratings given in the tabular data in this catalog are based on a speed of 600 RPM. For radial load ratings at speeds other than 600 RPM, multiply the listed capacity by the appropriate factor listed in Table 1.