SKF inch linear bearings

**LBXR**
Closed bearing with steel sleeve. Available with steel or resin retainers. A stainless steel version with a resin retainer is also available. Sizes range from 1/8” to 4”.

Available with or without seals integral to the bearing.*

**LBXR/AJ style**
Bearing with steel sleeve and slot for adjustment of preload. Available as standard with resin retainer or stainless steel with resin retainer. Sizes range from 1/4” to 2”.

Available with or without seals integral to the bearing.*

**LBXT style**
Open bearing with steel sleeve for use with shaft on supports. Available as standard with resin retainer or stainless steel resin retainer. Sizes range from 1/2” to 2”.

Available with or without seals integral to the bearing.*

**LBXD/LBXF style**
Self-aligning bearing with resin retainer. Allows for 1° of misalignment of the bearing. Closed style available in sizes 3/16” to 2”. Open style available in sizes 1/2” to 2”.

Available with or without seals integral to the bearing.*

**LUXD style**
Self-aligning LBXD style bearing mounted in an anodized aluminum housing. Available in sizes 1/4” to 2”. Comes standard with grease fitting hole, integral seals, and retaining clips for easy replacement of bearing.

Available with or without seals integral to the bearing.*

**LUXD/AJ style**
Self-aligning LBXD style bearing mounted in an adjustable anodized aluminum housing. This unit allows for adjustment of clearance. Available in sizes 1/4” to 2”. Comes standard with grease fitting hole, integral seals, and retaining clips for easy replacement.

Available with or without seals integral to the bearing.*

**LUXF style**
Self-aligning LBXF style bearing mounted in an aluminum housing. Available in sizes 1/4” to 2”. Comes standard with grease fitting hole and integral seals.

Available with or without seals integral to the bearing.*

**LTXD**
Two self-aligning LBXD style bearings mounted in an anodized aluminum housing. Available in sizes 1/4” to 1-1/2”. Comes standard with grease fitting hole, integral seals, and retaining clips for easy replacement of bearings.

Available with or without seals integral to the bearing.*

**LTXD/AJ style**
Two self-aligning LBXD style bearings mounted in an adjustable anodized aluminum housing. This unit allows for adjustment of clearance. Available in sizes 1/4” to 1-1/2”. Comes standard with grease fitting hole, integral seals, and retaining clips for easy replacement of bearings.

Available with or without seals integral to the bearing.*

**LTXF style**
The self-aligning LBXF style bearings mounted in an aluminum housing. Available in sizes 1/4” to 1-1/2”. Comes standard with grease fitting hole and integral seals.

Available with or without seals integral to the bearing.*

*Seals do not add length to the bearing.
SKF inch shafting

**LJX**
Carbon steel shafting available in sizes 1/4” to 2”.

**LJXR**
420 stainless steel shafting available in sizes 1/4” to 2”.

**LJXH**
Chrome plated shafting available in sizes 1/4” to 2”.

**LSXB shaft support rail**
Aluminum support rail for use with predrilled and tapped shafting and open style bearings. Comes in lengths of 24” long, in sizes 1/2” to 2”.

**LSXBL low shaft support rail**
AISI C-1018 steel support rail for use with predrilled and tapped shafting and open style bearings. Comes in lengths of 48” long, in sizes 1/2” to 2”.

**LSXS shaft end support**
Supports blocks for use on ends of shafting. Available in sizes 1/4” to 2”.

**Technical data**

**Temperature**
The normal operating temperature range for the SKF linear ball bearings is from 20° – 80° C (68° – 176° F). The LBXR series with the steel retainer has an operating temperature range from 20° – 110° C (68° – 230° F).

**Fit**
The recommended tolerance for the housing bore is H7.

**Length tolerances of shafting**
Shafting is stocked in lengths up to 20 ft. and is supplied to required lengths per the following chart:

<table>
<thead>
<tr>
<th>diameter</th>
<th>length</th>
<th>36”</th>
<th>length &gt; 36”</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 2”</td>
<td></td>
<td>1/32”</td>
<td>1/16”</td>
</tr>
<tr>
<td>2” or larger</td>
<td></td>
<td>1/16”</td>
<td>1/8”</td>
</tr>
</tbody>
</table>

Special length tolerances are available upon request for all diameters.

**Life calculations**
The basic dynamic load rating C is used for the life calculations of linear ball bearings running under load. This gives the load which allows a rating life of 50km, without changing its magnitude and direction. The rating life can be obtained from the following equation:

\[
L = \left( \frac{C}{P} \right)^3 \times 50
\]

Where the stroke length and frequency are constant, it is often easier to calculate the basic rating life in hours of operation using the following equation:

\[
L_n = \frac{L \times 10^3}{2 \times s \times n \times 60}
\]

Where:
- \(L\) = travel life (km)  
- \(C\) = basic dynamic load rating (N)  
- \(P\) = load (N)  
- \(L_n\) = nominal life in hours of operation  
- \(s\) = stroke length (m)  
- \(n\) = frequency of stroke per minute (cpm)
Quick-ship – Easy Serve Program from SKF®

Precision ground shaft

Class “L” precision ground shaft from 1/4" to 2"

- Same day shipment 1-10 pieces (Order received by 12:00N EST)
- 1-2 Day shipment 11-20 pieces
- No set-up fee
- Two regional cut centers to choose from
- Metric shafting (10 – 50mm diameter) in stock
- Ask your SKF representative about our OEM shaft stocking program

<table>
<thead>
<tr>
<th>SHAFT DIAMETER</th>
<th>AISI 1055 Steel SKF P/N</th>
<th>Stainless Steel SKF P/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 1/4&quot;</td>
<td>LJX 4 x ****</td>
<td>LJXR 4 x ****</td>
</tr>
<tr>
<td>6 3/8&quot;</td>
<td>LJX 6 x ****</td>
<td>LJXR 6 x ****</td>
</tr>
<tr>
<td>8 1/2&quot;</td>
<td>LJX 8 x ****</td>
<td>LJXR 8 x ****</td>
</tr>
<tr>
<td>10 5/8&quot;</td>
<td>LJX 10 x ****</td>
<td>LJXR 10 x ****</td>
</tr>
<tr>
<td>12 3/4&quot;</td>
<td>LJX 12 x ****</td>
<td>LJXR 12 x ****</td>
</tr>
<tr>
<td>16 1&quot;</td>
<td>LJX 16 x ****</td>
<td>LJXR 16 x ****</td>
</tr>
<tr>
<td>20 1-1/4&quot;</td>
<td>LJX 20 x ****</td>
<td>LJXR 20 x ****</td>
</tr>
<tr>
<td>24 1-1/2&quot;</td>
<td>LJX 24 x ****</td>
<td>LJXR 24 x ****</td>
</tr>
<tr>
<td>32 2&quot;</td>
<td>LJX 32 x ****</td>
<td>LJXR 32 x ****</td>
</tr>
</tbody>
</table>

**** Please indicate length in inches.

Toll free 1-800-541-3624
Fax 610-861-3737

For more information on the complete line of products, contact your SKF Representative, call us at 800-541-3624 or visit us at www.skfusa.com/inchlinearballbearings

Add one day for truck shipment (Weight or length restrictions may apply)
Valid for shaft cut to length, machined shaft upon request
Stainless steel and chrome-plated shaft available
Easy Serve delivery program available for profile rail guide series
Complete ball screw and spindle rebuilding capabilities