



SKF Inch Linear Bearing Series



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

SHAFT DIAMETER	AISI 1055 Steel SKF P/N	Stainless Steel SKF P/N
4 1/4"	LJX 4 x ****	LJXR 4 x ****
6 3/8"	LJX 6 x ****	LJXR 6 x ****
8 1/2"	LJX 8 x ****	LJXR 8 x ****
10 5/8"	LJX 10 x ****	LJXR 10 x ****
12 3/4"	LJX 12 x ****	LJXR 12 x ****
16 1"	LJX 16 x ****	LJXR 16 x ****
20 1-1/4"	LJX 20 x ****	LJXR 20 x ****
24 1-1/2"	LJX 24 x ****	LJXR 24 x ****
32 2"	LJX 32 x ****	LJXR 32 x ****

**** Please indicate length in inches.

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

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

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

SKF inch linear bearing series

SKF®, the world's leading supplier of ball and roller bearings, is also a major player in the worldwide linear motion market. We offer a complete range of linear motion products that includes ball and roller screws, linear actuators, profile rails (square rail) and precision rail products. In addition, we offer a complete line of metric and inch linear ball bearings and shafting.

The following information highlights SKF's new line of inch series linear ball bearings, housings, shafting and accessories. Our goal is to offer the market a full line of high-quality linear motion products so that SKF will be the primary source for solutions to all of your linear motion needs.

If you have any questions or comments, please call our toll free number at 1 (800) 541-3624. Our engineers will be happy to assist you with any of your technical questions or provide immediate interchanges. In addition, our customer service department is ready to help you with any questions concerning price and delivery.



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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".



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;

diameter	length 36"	length > 36"
less than 2"	1/32"	1/16"
2" or larger	1/16"	1/8"

Special length tolerances are available upon request for all diameters.

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".



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:

$$L = \left(\frac{C}{P}\right)^3 \cdot 50$$

L=travel life (km)

C=basic dynamic load rating (N)

P=load (N)

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:

$$L_n = \frac{L \cdot 10^3}{2 \cdot s \cdot n \cdot 60}$$

L_n=nominal life in hours of operation

L=travel life (km)

s=stroke length (m)

n=frequency of stroke per minute (cpm)

LBXR type

Standard type

This type is an inch dimension series mainly used in the U.S.

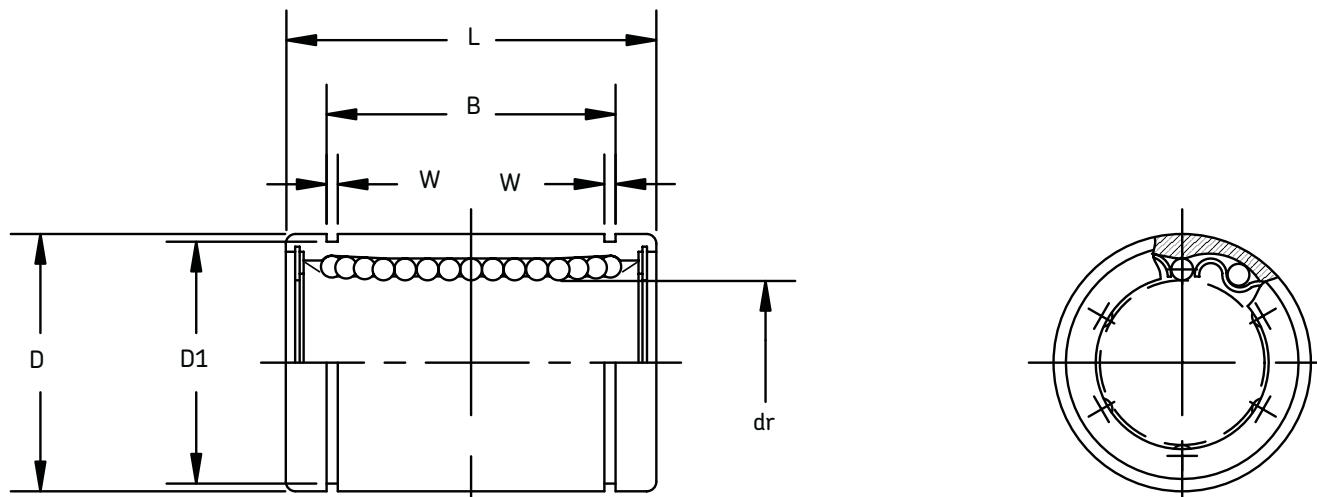
LBXR	16	G	- 2LS / HV6	
type	size			stainless steel
retainer material blank = steel G = resin		seal blank = without seal 2LS = seals on both sides		



part number			number of ball circuits	nominal shaft diameter inch	dr		D	
standard		stainless steel						
steel retainer	resin retainer	resin retainer			inch	mm	tolerance inch/ μ m	inch
-	-	LBXR 2G/HV6	4	1/8	.1250 3.175	0 -0.00035	.3125 7.938	0 -0.00040
-	-	LBXR 3G/HV6		3/16	.1875 4.763		.3750 9.525	0 -0.0009
LBXR 4	LBXR 4G	LBXR 4G/HV6	3*	1/4	.2500 6.350	0 -0.00040	.5000 12.700	0 -0.00045 -11
LBXR 6	LBXR 6G	LBXR 6G/HV6	4	3/8	.3750 9.525		.6250 15.875	0
LBXR 8	LBXR 8G	LBXR 8G/HV6	4	1/2	.5000 12.700		.8750 22.225	-0.00050 0 -13
LBXR 10	LBXR 10G	LBXR 10G/HV6	4	5/8	.625 15.875		1.1250 28.575	0
LBXR 12	LBXR 12G	LBXR 12G/HV6	5	3/4	.7500 19.050	0 -0.00040	1.2500 31.750	0 -0.00065
LBXR 16	LBXR 16G	LBXR 16G/HV	6	1	1.0000 25.400		1.5625 39.688	0 -0.0016
LBXR 20	LBXR 20G	LBXR 20G/HV6	6	1-1/4	1.2500 31.750		2.0000 50.800	0 -0.00075
LBXR 24	LBXR 24G	LBXR 24G/HV6	6	1-1/2	1.5000 38.100	0 -0.00050 -12	2.3750 60.325	0 -0.0019
LBXR 32	LBXR 32G	LBXR 32G/HV6	6	2	2.0000 50.800		3.0000 76.200	0
LBXR 40	-	-	6	2-1/2	2.5000 63.500		3.7500 95.250	-0.00090 0 -22
LBXR 48	-	-	6	3	3.0000 76.200	0 -0.00060 -15	4.50000 114.300	0
LBXR 64	-	-	6	4	4.0000 101.600	0 -0.00080 -20	6.0000 152.400	0 -0.0100 -25

*4 rows for resin retainer type.

LXR type



nominal shaft diameter inch	major dimension					eccentricity inch/μm	radial clearance (maximum) inch/μm	basic load rating		mass lbs.		
	L		B		W inch mm	D ₁ inch mm		dynamic C lbs	static C ₀ lbs			
	inch mm	tolerance inch/mm	inch mm	tolerance inch/mm								
1/8	.5000 12.700		.3681 9.35		.0280 0.710	.2902 7.370	.0003 8	-.0001 -2	13	17	0.006	
3/16	.5625 14.275		.4311 10.95		.0280 0.710	.3520 8.940		-.0001 -3	20	24	0.008	
1/4	.7500 19.050	0	.5110 12.98		.0390 0.992	.4687 11.906		-.0001 -4	46	59	0.021	
3/8	.8750 22.225	0	.6358 16.15		.0390 0.992	.5880 14.935		-.0001 -5	50	70	0.033	
1/2	1.2500 31.750	-0.008	.9625 24.46		.0459 1.168	.8209 20.853		-.0001 -6	114	176	0.093	
5/8	1.5000 38.100	0	1.1039 28.04		.0559 1.422	1.0590 26.899		-.0001 -7	173	265	0.187	
3/4	1.6250 41.275	-0.2	1.1657 29.61		.0559 1.422	1.1760 29.870		-.0002 -8	193	307	0.229	
1	2.2500 57.150		1.7547 44.57		.0679 1.727	1.4687 37.306		-.0002 -9	220	352	0.485	
1-1/4	2.6250 66.675	0	2.0047 50.92		.0679 1.727	1.8859 47.904	.0008 20	-.0003 -10	352	615	1.025	
1-1/2	3.0000 76.200	0	2.4118 61.26		.0859 2.184	2.2389 56.870		-.0003 -11	490	903	1.587	
2	4.0000 101.600	-0.12	3.1917 81.07		.1029 2.616	2.8379 72.085		-.0005 -12	858	1,784	2.888	
2-1/2	5.0000 127.000	0	3.9760 100.99		.1200 3.048	3.5519 90.220		-.0010 -13	1,056	2,247	5.732	
3	6.0000 152.400	0	4.726 120.04		.1200 3.048	4.3100 109.474	.0012 30	-.0008 -14	1,651	3,595	9.656	
4	8.0000 203.200	-0.4	6.258 158.95	0	.1389 3.530	5.745 145.923		-.0008 -15	3,168	7,820	22.487	

1kg=2.205lbs

LBXR/AJ type

Clearance adjustable type

This type is an inch dimension series mainly used in the U.S.

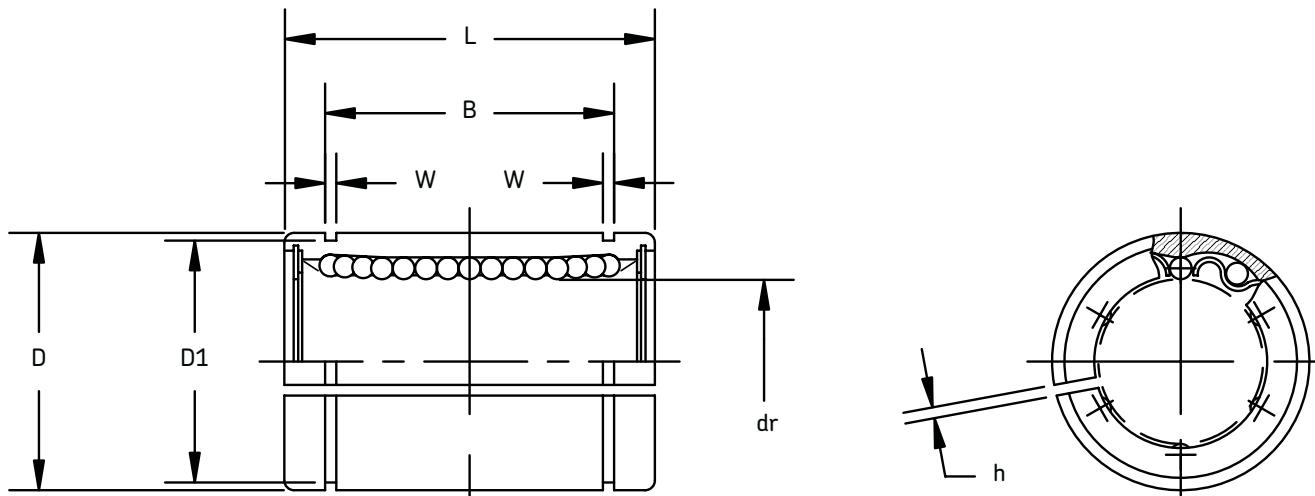
LBXR	16	G	- 2LS	/ AJ	HV6
type		stainless steel			
size		clearance-adjustable type			
retainer material G = resin		seal blank = without seal 2LS = seals on both sides			



part number		number of ball circuits	nominal shaft diameter inch	dr		D	
standard	stainless steel			inch	tolerance inch/ μ m	inch	tolerance inch/ μ m
resin retainer	resin retainer			mm		mm	
LBXR4G/AJ	LBXR4G/AJHV6	4	.2500 6.350			.5000 12.700	-.00040 -11
LBXR6G/AJ	LBXR6G/AJHV6	4	.3750 9.525	0		.6250 15.875	0
LBXR8G/AJ	LBXR8G/AJHV6	4	.5000 12.700	0		.8750 22.225	-.00050 0
LBXR10G/AJ	LBXR10G/AJHV6	4	.625 15.875	-9		1.1250 28.575	-13
LBXR12G/AJ	LBXR12G/AJHV6	5	.7500 19.050	0		1.2500 31.750	0
LBXR16G/AJ	LBXR16G/AJHV6	6	1.0000 25.400	0		1.5625 39.688	0
LBXR20G/AJ	LBXR20G/AJHV6	6	1.2500 31.750	-10		2.0000 50.800	-0.00075 0
LBXR24G/AJ	LBXR24G/AJHV6	6	1.5000 38.100	0		2.3750 60.325	0 -19
LBXR32G/AJ	LBXR32G/AJHV6	6	2.0000 50.800	-12		3.0000 76.200	-.00090 0 -22

* Accuracy is measured prior to machining clearance slot.

LBXR/AJ type



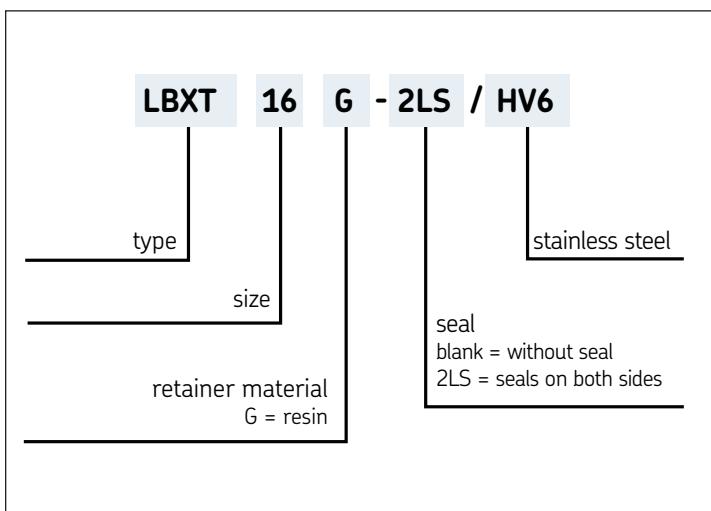
nominal shaft diameter inch	major dimension						h inch/mm	eccentricity inch/ μ m	radial clearance (maximum) inch/ μ m	basic load rating		mass lbs.		
	L		B		W inch/mm	D ₁ inch/mm				dynamic C lbs	static Co lbs			
	inch mm	tolerance inch/mm	inch mm	tolerance inch/mm										
1/4	.7500 19.050		.5100 12.98		.0390 0.992	.4687 11.906	.04 1	.0005 12	-.0001 -3	46	60	0.017		
3/8	.8750 22.225	0	.6358 12.15	0	.0390 0.992	.5880 14.935	.04 1			50	70	0.030		
1/2	1.2500 31.750	-0.008 0 -0.2	.9625 24.46	0 -0.2	.0459 1.168	.8209 20.853	.06 1.5	.0005 12	-.0001 -4	114	176	0.090		
5/8	1.5000 38.100		1.1039 28.04		.0559 1.422	1.0590 26.899	.06 1.5			173	265	0.183		
3/4	1.6250 41.275		1.1657 29.61		.0559 1.422	1.1760 29.870	.06 1.5	.0006 15	-.0002 -6	193	307	0.225		
1	2.2500 57.150		1.7547 44.57		.0679 1.727	1.4687 37.306	.06 1.5			220	352	0.481		
1-1/4	2.6250 66.675	0 -0.12	2.0047 50.92	0 -0.12	.0679 1.727	1.8859 47.904	.10 2.5	.0008 20	-.0003 -8	352	615	1.003		
1-1/2	3.0000 76.200	0 -0.3	2.4118 61.26	0 -0.3	.0859 2.184	2.2389 56.870	.12 3			490	903	1.565		
2	4.0000 101.600		3.1917 81.07		.1029 2.616	2.8379 72.085	.12 3	.0010 25	-.0005 -13	858	1,784	2.844		

1kg=2.205lbs

LBXT type

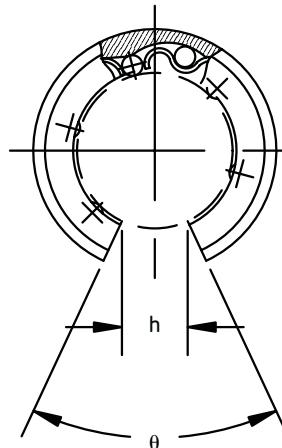
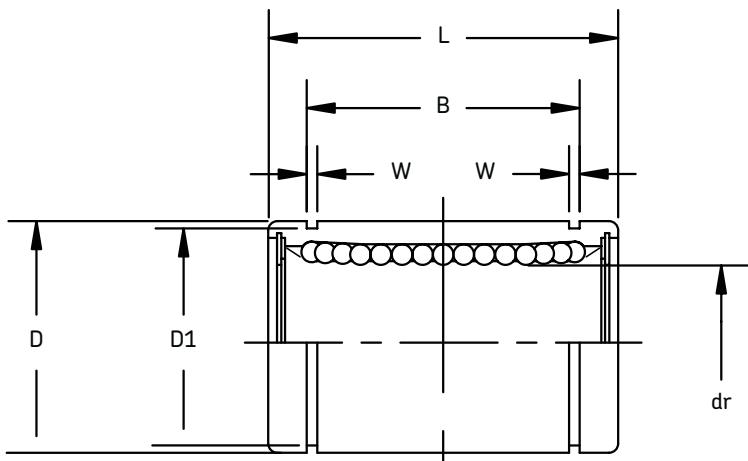
Open type

This type is an inch dimension series mainly used in the U.S.



part number		number of ball circuits	nominal shaft diameter inch				
standard	stainless steel			dr		D	
resin retainer	resin retainer			inch mm	tolerance inc / μ m	inch mm	tolerance inch/ μ m
LBXT8G	LBXT8G/HV6	3	1/2	.5000 12.700	0 -.00040	.8750 22.225	0 -.00050
LBXT10G	LBXT10G/HV6			.625 15.875		1.1250 28.575	-13 0 -.00065
LBXT12G	LBXT12G/HV6	4	3/4	.7500 19.050	0 -.00040 0	1.2500 31.750	0 -16
LBXT16G	LBXT16G/HV6	5	1	1.0000 25.400		1.5625 39.688	0 -.00075
LBXT20G	LBXT20G/HV6	5	1-1/4	1.2500 31.750		2.0000 50.800	0 -19
LBXT24G	LBXT24G/HV6	5	1-1/2	1.5000 38.100	0 -.00050 0 -12	2.3750 60.325	0 -.00090
LBXT32G	LBXT32G/HV6	5	2	2.0000 50.800		3.0000 76.200	0 -22

LBXT type



nominal shaft diameter inch	major dimension							eccentricity inch/mm	radial clearance (maximum) inch/ μ m	basic load rating		mass lbs.			
	L		B		W inch mm	D ₁ inch mm	h inch/ μ m			dynamic C lbs	static Co lbs				
	inch mm	tolerance inch/mm	inch mm	tolerance inch/mm											
1/2	1.2500 31.750		.9625 24.46		.0459 1.168	.8209 20.853	.34 7.9375	80°	.0005 12	-.0001 -4	114	176	0.071		
5/8	1.5000 38.100	0 -.008	1.1039 28.04	0 0	.0559 1.422	1.0590 26.899	.375 9.5250	80°			173	265	0.141		
3/4	1.62504 1.275	-0.2 1.1657 29.61			.0559 1.422	1.1760 29.870	.4375 11.1125	60°	.0006 15	-.0002 -6	193	307	0.190		
1	2.2500 57.150		1.7547 44.57		.0679 1.727	1.4687 37.306	.5625 14.2875	50°			220	352	0.419		
1-1/4	2.6250 66.675	0 -0.12	2.0047 50.92	0 0.12	.0679 1.727	1.8859 47.904	.625 15.875	50°	.0008 20	-.0003 -8	352	615	0.860		
1-1/2	3.0000 76.200	0 -0.3	2.4118 61.26	0 -0.3	.859 2.184	2.2389 56.870	.75 19.05	50°			490	903	1.345		
2	4.0000 101.600		3.1917 81.07		.1029 2.616	2.8379 72.085	1.0 25.40	50°	.0010 25	-.0005 -13	858	1,784	2.469		

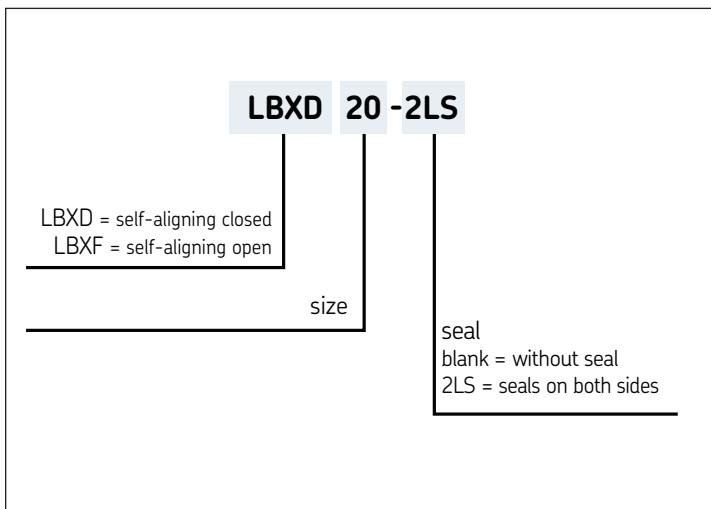
* Accuracy is measured prior to machining clearance slot.

1kg ≈ 2.205 lbs

LBXD/LBXF type

Self-aligning inch type

This type is an inch dimension series mainly used in the U.S.

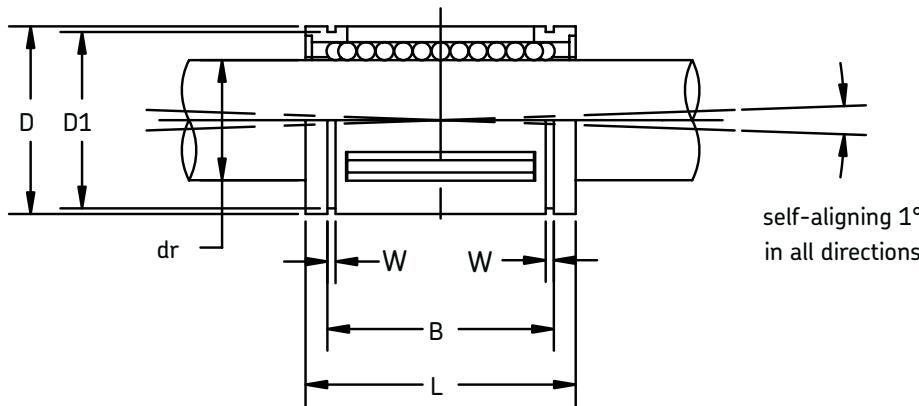
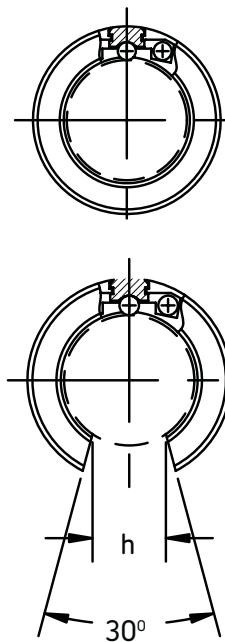


part number						nominal shaft dimensions inch	major dimensions				
closed type			open type				dr		D inch	L inch	
	no. of ball circuits	mass lbs		no. of ball circuits	mass lbs		inch	tolerance* inch			
LBXD3	4	.004	-	-	-	3/16	.1875	.0005 ⁰	.3750	.562	
LBXD4	4	.009	-	-	-		.2500		.5000	.750	
LBXD6	4	.014	-	-	-		.3750		.6250	.875	
LBXD8	4	.043	LBXF8	3	.033		.5000		.8750	1.250	
LBXD10	5	.103	LBXF10	4	.083		.6250		1.1250	1.500	
LBXD12	6	.123	LBXF12	5	.102		.7500		1.2500	1.625	
LBXD16	6	.265	LBXF16	5	.220		1		1.5625	2.250	
LBXD20	6	.485	LBXF20	5	.419		1-1/4		2.0000	2.625	
LBXD24	6	.750	LBXF24	5	.639	1-1/2	1.2500	.0006 ⁰	2.3750	3.000	
LBXD32	6	1.411	LBXF32	5	1.168		2		0/-0.0008	4.000	

*Based on nominal housing bore.

The LBXD/LBXF linear bearings can be prelubricated as per customer requirements for 500+ pieces.

LBXD/LBXF type



nominal shaft diameter inch	major dimension					basic load rating	
	B		W inch mm	D ₁ inch mm	open type h inch	dynamic C lbs	static Co lbs
	inch mm	tolerance inch/mm					
3/16	-	-	-	-	-	35	47
1/4	.515	0 -.015	.0390	.4687	-	60	80
3/8	.703		.0390	.5880	-	95	120
1/2	1.032	0 -.020	.0459	.8209	.313	230	290
5/8	1.112		.0559	1.0590	.375	400	500
3/4	1.272		.0559	1.1760	.438	470	590
1	1.886		.0679	1.4687	.563	850	1,060
1-1/4	2.011	0/-0.025	.0679	1.8859	.625	1,230	1,530
1-1/2	2.422	0/-0.030	.0859	2.2389	.750	1,480	1,850
2	3.206	0/-0.040	.1029	2.8379	1.000	2,430	3,040

1 inch=25.4mm

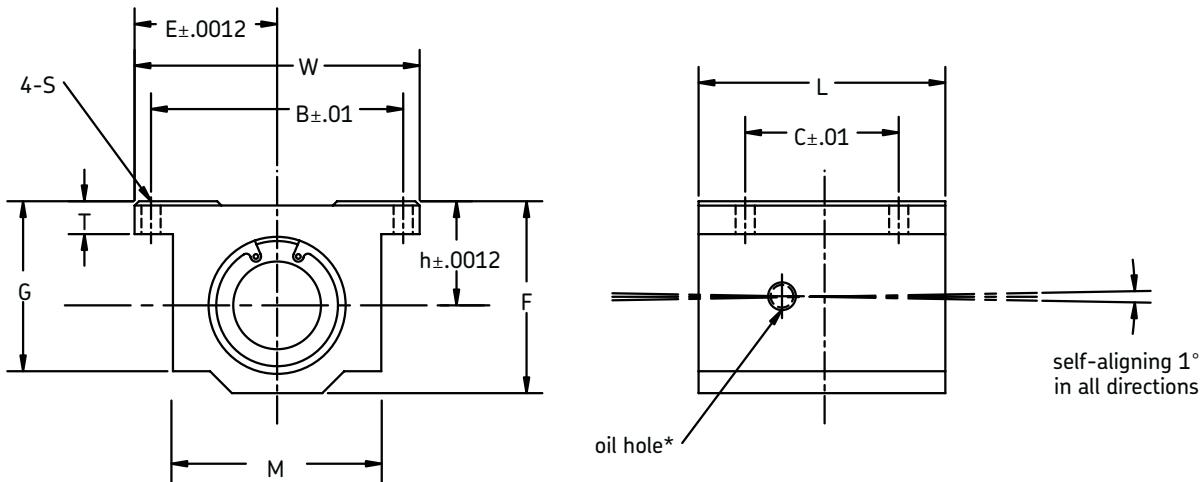
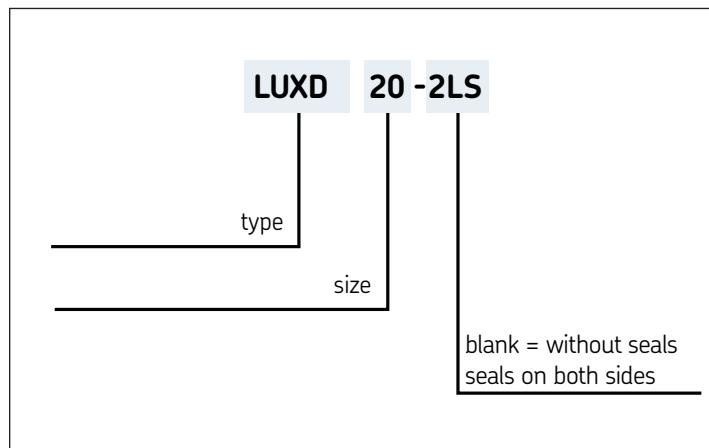
1lbs=0.454kg

1 lbs=4.448N

LUXD type

Block type

This type is an inch dimension series mainly used in the U.S.



part number	nominal shaft diameter inch	major dimensions								mounting dimensions			basic load rating		mass
		h inch	E inch	W inch	L inch	F inch	T inch	G inch	M inch	B inch	C inch	S inch	C lbs.	Co lbs	
													dynamic	static	
LUXD4-2LS	1/4	.4370	.8125	1.625	1.188	.813	.188	.750	1.000	1.312	.750	.156	60	80	.090
LUXD6-2LS	3/8	.5000	.8750	1.750	1.313	.938	.188	.875	1.125	1.437	.875	.156	95	120	.120
LUXD8-2LS	1/2	.6870	1.0000	2.000	1.688	1.250	.250	1.125	1.375	1.688	1.000	.156	230	290	.248
LUXD10-2LS	5/8	.8750	1.2500	2.500	1.938	1.625	.281	1.437	1.750	2.125	1.125	.188	400	500	.465
LUXD12-2LS	3/4	.9370	1.3750	2.750	2.063	1.750	.313	1.563	1.875	2.375	1.250	.188	470	590	.553
LUXD16-2LS	1	1.1870	1.6250	3.250	2.813	2.188	.375	1.938	2.375	2.875	1.750	.219	850	1060	1.200
LUXD20-2LS	1-1/4	1.5000	2.0000	4.000	3.625	2.813	.438	2.500	3.000	3.500	2.000	.219	1230	1530	2.380
LUXD24-2LS	1-1/2	1.7500	2.3750	4.750	4.000	3.250	.500	2.875	3.500	4.125	2.500	.281	1480	1850	3.460
LUXD32-2LS	2	2.1250	3.0000	6.000	5.000	4.063	.625	3.625	4.500	5.250	3.250	.406	2430	3040	6.830

* Provided with push-in oil fitting for 1/4" to 1/2" sizes. Sizes from 5/8" to 2" offer a 1/4-28 tapped hole with a plug for adding a fitting if desired.

1 inch=25.4mm

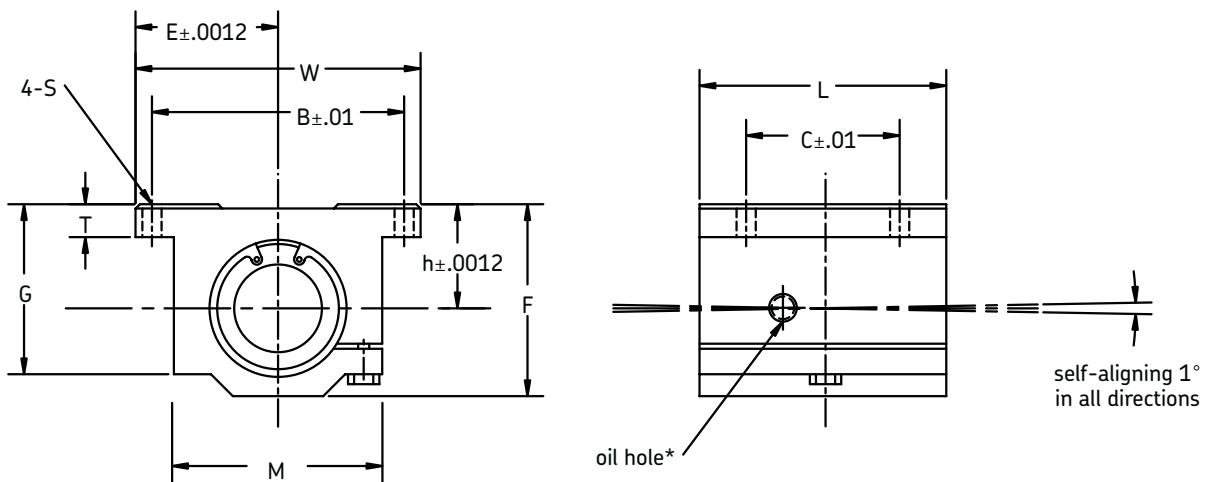
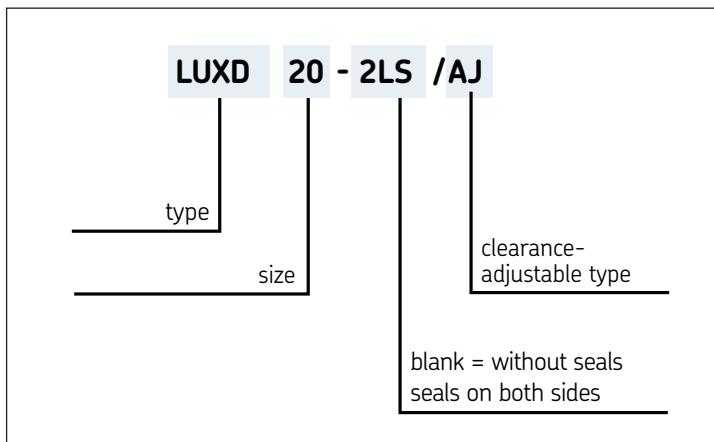
1 lbs≈0.454kg

1 lbs≈4.448N

LUXD/AJ type

Clearance adjustable block type

This type is an inch dimension series mainly used in the U.S.



part number	nominal shaft diameter inch	major dimensions									mounting dimensions			basic load rating		mass lbs.
		h inch	E inch	W inch	L inch	F inch	T inch	G inch	M inch	B inch	C inch	S inch	C lbs.	Co lbs		
LUXD4-2LS/AJ	1/4	.4370	.8125	1.625	1.188	.813	.188	.750	1.000	1.312	.750	.156	60	80	.090	
LUXD6-2LS/AJ	3/8	.5000	.8750	1.750	1.313	.938	.188	.875	1.125	1.437	.875	.156	95	120	.120	
LUXD8-2LS/AJ	1/2	.6870	1.0000	2.000	1.688	1.250	.250	1.125	1.375	1.688	1.000	.156	230	290	.248	
LUXD10-2LS/AJ	5/8	.8750	1.2500	2.500	1.938	1.625	.281	1.437	1.750	2.125	1.125	.188	400	500	.465	
LUXD12-2LS/AJ	3/4	.9370	1.3750	2.750	2.063	1.750	.313	1.563	1.875	2.375	1.250	.188	470	590	.553	
LUXD16-2LS/AJ	1	1.1870	1.6250	3.250	2.813	2.188	.375	1.938	2.375	2.875	1.750	.219	850	1060	1.200	
LUXD20-2LS/AJ	1-1/4	1.5000	2.0000	4.000	3.625	2.813	.438	2.500	3.000	3.500	2.000	.219	1230	1530	2.380	
LUXD24-2LS/AJ	1-1/2	1.7500	2.3750	4.750	4.000	3.250	.500	2.875	3.500	4.125	2.500	.281	1480	1850	3.460	
LUXD32-2LS/AJ	2	2.1250	3.0000	6.000	5.000	4.063	.625	3.625	4.500	5.250	3.250	.406	2430	3040	6.830	

* Provided with push-in oil fitting for 1/4" to 1/2" sizes. Sizes from 5/8" to 2" offer a 1/4-28 tapped hole with a plug for adding a fitting if desired.
1 inch=25.4mm

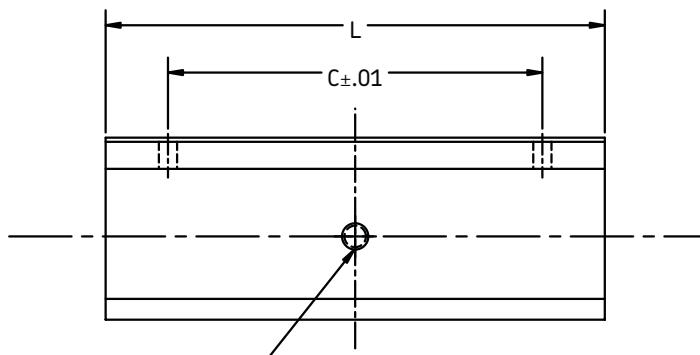
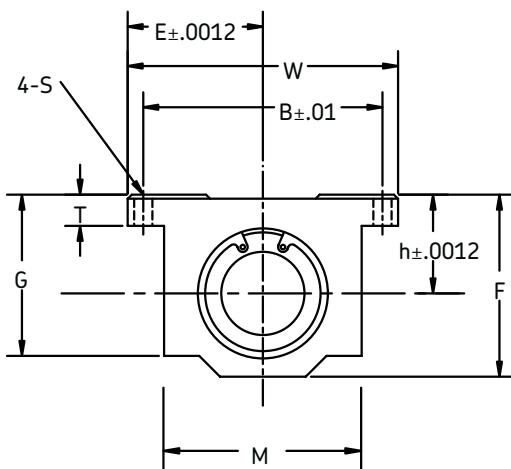
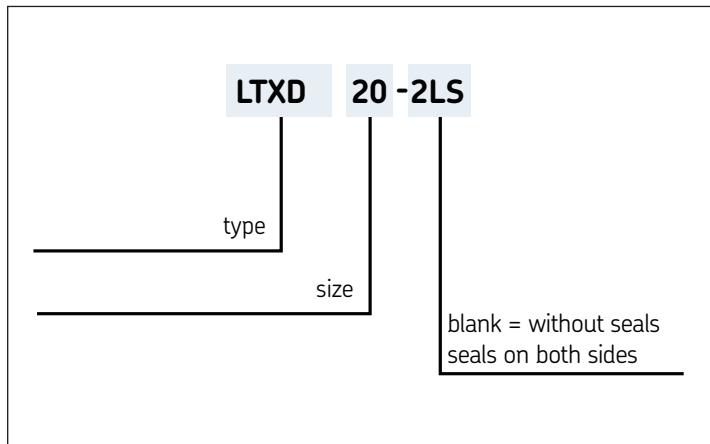
1lb≈0.454kg

1 lbs≈4.448N

LTXD type

Tandem block type

This type is an inch dimension series mainly used in the U.S.



part number	nominal shaft diameter	major dimensions									mounting dimensions			basic load rating		mass
		h	E	W	L	F	T	G	M	B	C	S	C	Co		
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs	lbs.	
LTXD4-2LS	1/4	.4370	.8125	1.625	2.500	.813	.188	.750	1.000	1.312	2.000	.156	96	160	.190	
LTXD6-2LS	3/8	.5000	.8750	1.750	2.750	.938	.188	.875	1.125	1.437	2.250	.156	150	240	.250	
LTXD8-2LS	1/2	.6870	1.0000	2.000	3.500	1.250	.250	1.125	1.375	1.688	2.500	.156	370	580	.510	
LTXD10-2LS	5/8	.8750	1.2500	2.500	4.000	1.625	.281	1.437	1.750	2.125	3.000	.188	640	1000	1.000	
LTXD12-2LS	3/4	.9370	1.3750	2.750	4.500	1.750	.313	1.563	1.875	2.375	3.500	.188	750	1180	1.200	
LTXD16-2LS	1	1.1870	1.6250	3.250	6.000	2.188	.375	1.938	2.375	2.875	4.500	.219	1360	2120	2.400	
LTXD20-2LS	1-1/4	1.5000	2.0000	4.000	7.500	2.813	.438	2.500	3.000	3.500	5.500	.219	1970	3060	5.000	
LTXD24-2LS	1-1/2	1.7500	2.3750	4.750	9.000	3.250	.500	2.875	3.500	4.125	6.500	.281	2370	3700	7.800	

* Provided with push-in oil fitting for 1/4" to 1/2" sizes. Sizes from 5/8" to 2" offer a 1/4-28 tapped hole with a plug for adding a fitting if desired.
1 inch=25.4mm

1 inch = 25.4 mm

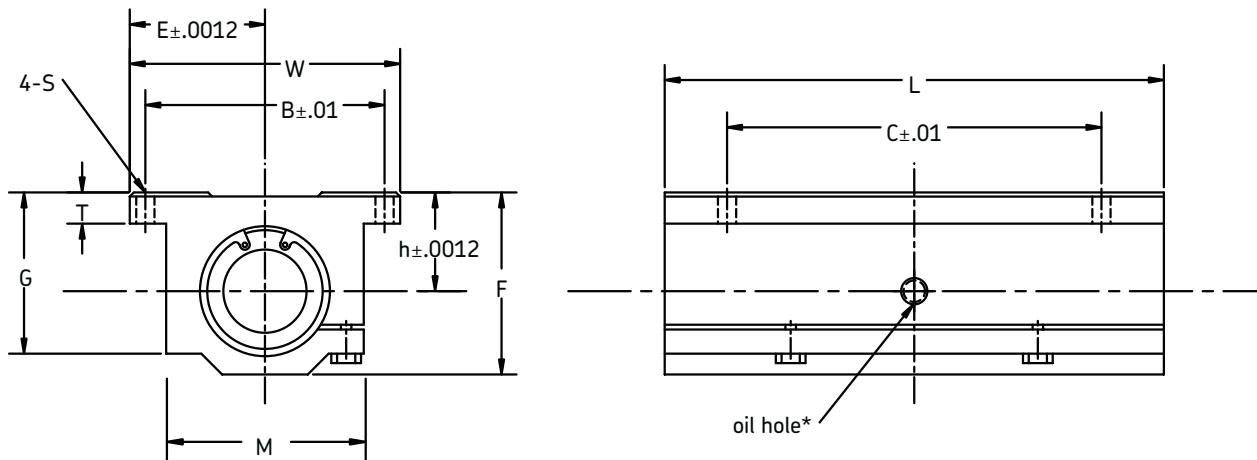
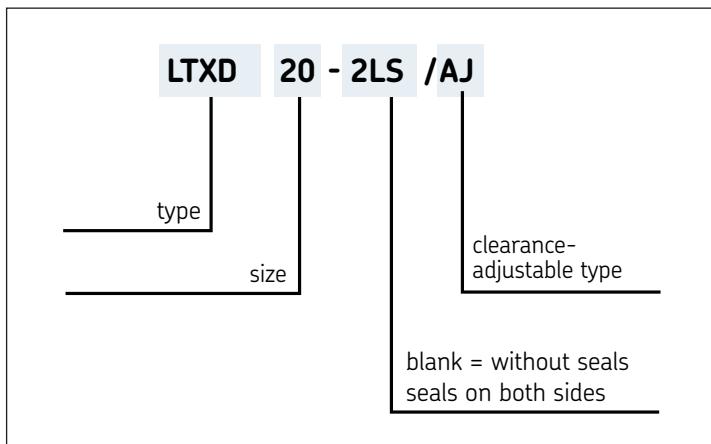
1lb≈0.454kg

$$1 \text{ lbs} \doteq 4.448 \text{ N}$$

LTXD/AJ type

Clearance adjustable tandem block type

This type is an inch dimension series mainly used in the U.S.



part number	nominal shaft diameter	major dimensions								mounting dimensions			basic load rating		mass
		h	E	W	L	F	T	G	M	B	C	S	dynamic	static	
													lbs.	lbs.	
LTXD4-2LS/AJ	1/4	.4370	.8125	1.625	2.500	.813	.188	.750	1.000	1.312	2.000	.156	96	160	.190
LTXD6-2LS/AJ	3/8	.5000	.8750	1.750	2.750	.938	.188	.875	1.125	1.437	2.250	.156	150	240	.250
LTXD8-2LS/AJ	1/2	.6870	1.0000	2.000	3.500	1.250	.250	1.125	1.375	1.688	2.500	.156	370	580	.510
LTXD10-2LS/AJ	5/8	.8750	1.2500	2.500	4.000	1.625	.281	1.437	1.750	2.125	3.000	.188	640	1000	1.000
LTXD12-2LS/AJ	3/4	.9370	1.3750	2.750	4.500	1.750	.313	1.563	1.875	2.375	3.500	.188	750	1180	1.200
LTXD16-2LS/AJ	1	1.1870	1.6250	3.250	6.000	2.188	.375	1.938	2.375	2.875	4.500	.219	1360	2120	2.400
LTXD20-2LS/AJ	1-1/4	1.5000	2.0000	4.000	7.500	2.813	.438	2.500	3.000	3.500	5.500	.219	1970	3060	5.000
LTXD24-2LS/AJ	1-1/2	1.7500	2.3750	4.750	9.000	3.250	.500	2.875	3.500	4.125	6.500	.281	2370	3700	7.800

* Provided with push-in oil fitting for 1/4" to 1/2" sizes. Sizes from 5/8" to 2" offer a 1/4-28 tapped hole with a plug for adding a fitting if desired.

1 inch=25.4mm

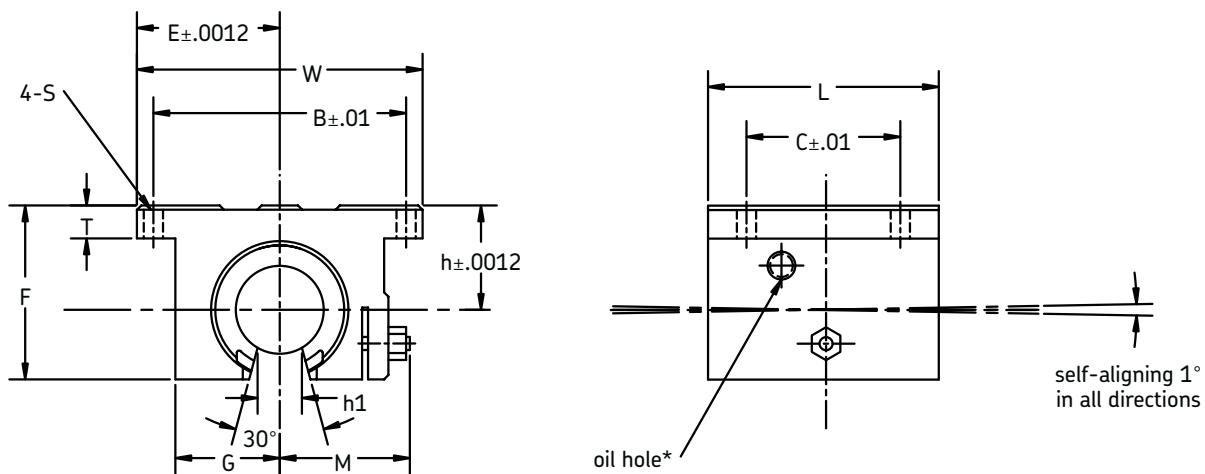
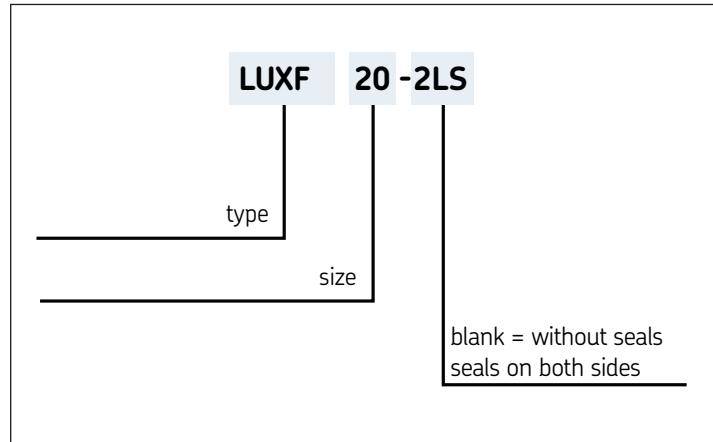
1lbs≈0.454kg

1 lbs≈4.448N

LUXF type

Open block type

This type is an inch dimension series mainly used in the U.S.



part number	nominal shaft diameter inch	major dimensions										mounting dimensions			basic load rating		mass lbs.
		h	E	W	L	F	T	G	M	h1	B	C	S	C	Co		
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs		
LUXF8-2LS	1/2	.6870	1.000	2.000	1.500	1.100	.250	.688	.98	.260	1.688	1.000	.156	230	290	.188	
LUXF10-2LS	5/8	.8750	1.2500	2.500	1.750	1.405	.281	.875	1.15	.319	2.125	1.125	.188	400	500	.365	
LUXF12-2LS	3/4	.9370	1.3750	2.750	1.875	1.535	.315	.937	1.23	.386	2.375	1.250	.188	470	590	.452	
LUXF16-2LS	1	1.1870	1.6250	3.250	2.625	1.975	.375	1.188	1.48	.512	2.875	1.750	.218	850	1060	1.010	
LUXF20-2LS	1-1/4	1.5000	2.0000	4.000	3.375	2.485	.437	1.500	1.88	.569	3.500	2.000	.218	1230	1530	1.980	
LUXF24-2LS	1-1/2	1.7500	2.3750	4.750	3.750	2.910	.500	1.750	2.12	.681	4.125	2.500	.281	1480	1850	2.950	
LUXF32-2LS	2	2.1250	3.0000	6.000	4.750	3.660	.625	2.250	2.70	.933	5.250	3.250	.406	2430	3040	5.840	

* Provided with push-in oil fitting for 1/4" to 1/2" sizes. Sizes from 5/8" to 2" offer a 1/4-28 tapped hole with a plug for adding a fitting if desired.

1 inch=25.4mm

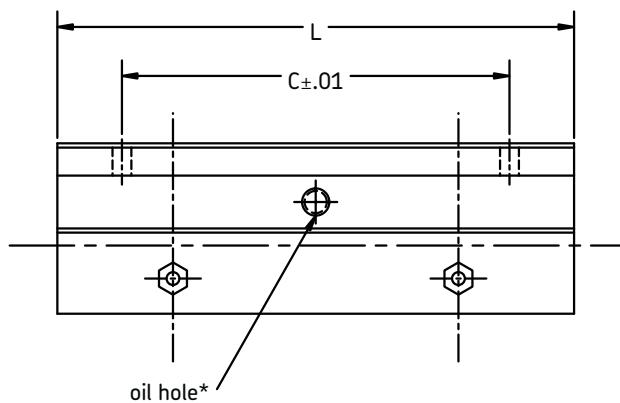
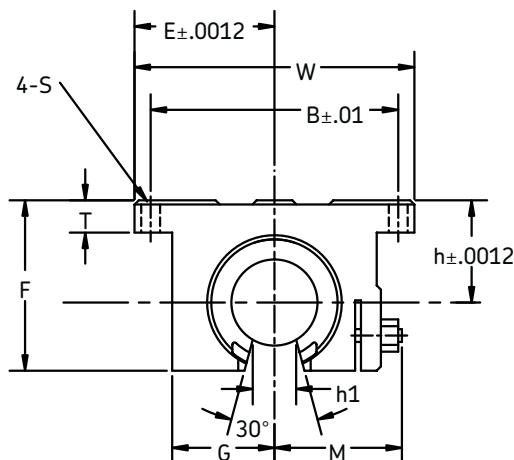
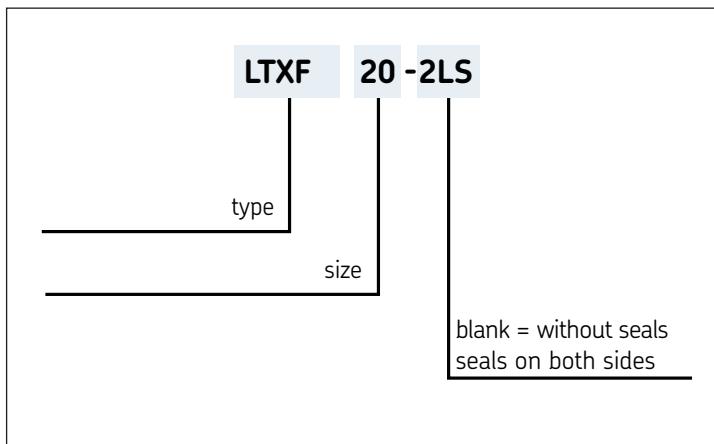
1lbs≈0.454kg

1 lbs≈4.448N

LTXF type

Tandem open block type

This type is an inch dimension series mainly used in the U.S.



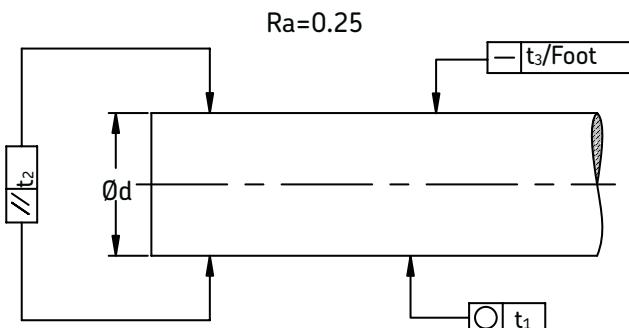
part number	nominal shaft diameter inch	major dimensions										mounting dimensions			basic load rating		mass lbs.
		h inch	E inch	W inch	L inch	F inch	T inch	G inch	M inch	h1 inch	B inch	C inch	S inch	C lbs.	Co lbs		
LTXF8-2LS	1/2	.6870	1.000	2.000	3.500	1.100	.250	.688	.98	.260	1.688	2.500	.156	370	580	.400	
LTXF10-2LS	5/8	.8750	1.2500	2.500	4.000	1.405	.281	.875	1.15	.319	2.125	3.000	.188	640	1000	.800	
LTXF12-2LS	3/4	.9370	1.3750	2.750	4.500	1.535	.315	.937	1.23	.386	2.375	3.500	.188	750	1180	1.000	
LTXF16-2LS	1	1.1870	1.6250	3.250	6.000	1.975	.375	1.188	1.48	.512	2.875	4.500	.218	1360	2120	2.000	
LTXF20-2LS	1-1/4	1.5000	2.0000	4.000	7.500	2.485	.437	1.500	1.88	.569	3.500	5.500	.218	1970	3060	4.200	
LTXF24-2LS	1-1/2	1.7500	2.3750	4.750	9.000	2.910	.500	1.750	2.12	.681	4.125	6.500	.281	2370	3700	6.700	

* Provided with push-in oil fitting for 1/4" to 1/2" sizes. Sizes from 5/8" to 2" offer a 1/4-28 tapped hole with a plug for adding a fitting if desired.
1 inch=25.4mm

1 lbs≈0.454kg

1 lbs≈4.448N

Inch shafting



shaft type	size	class	ESSC
LJX	4 x length	CS	ESSC 1
LJX = Steel LJXR = Stainless steel LJXH = Chrome plated LJXT = Hollow shaft			
4 = 1/4" 6 = 3/8" 8 = 1/2" 10 = 5/8" 12 = 3/4" 16 = 1" 20 = 1-1/4" 24 = 1-1/2" 32 = 2"			
length in inches			
CS = class S blank = class L CN = class N CD = class D			

Inch shafting from SKF® is manufactured in a variety of types and sizes to suit particular applications.

Material

We offer precision hardened and ground carbon steel shafting (material Ck55, AISI 1055), as well as chrome plated and 420C stainless steel shafting.

Hardness

The shaft surface hardness is from 60 to 64 HRc for the carbon steel shafting, and 50 to 55 HRc for the stainless steel shafting. Please see chart below for hardening depth.

Tolerances

We offer Class L and Class S as a standard, but can also supply Class N and Class D on special requests.

Accessories

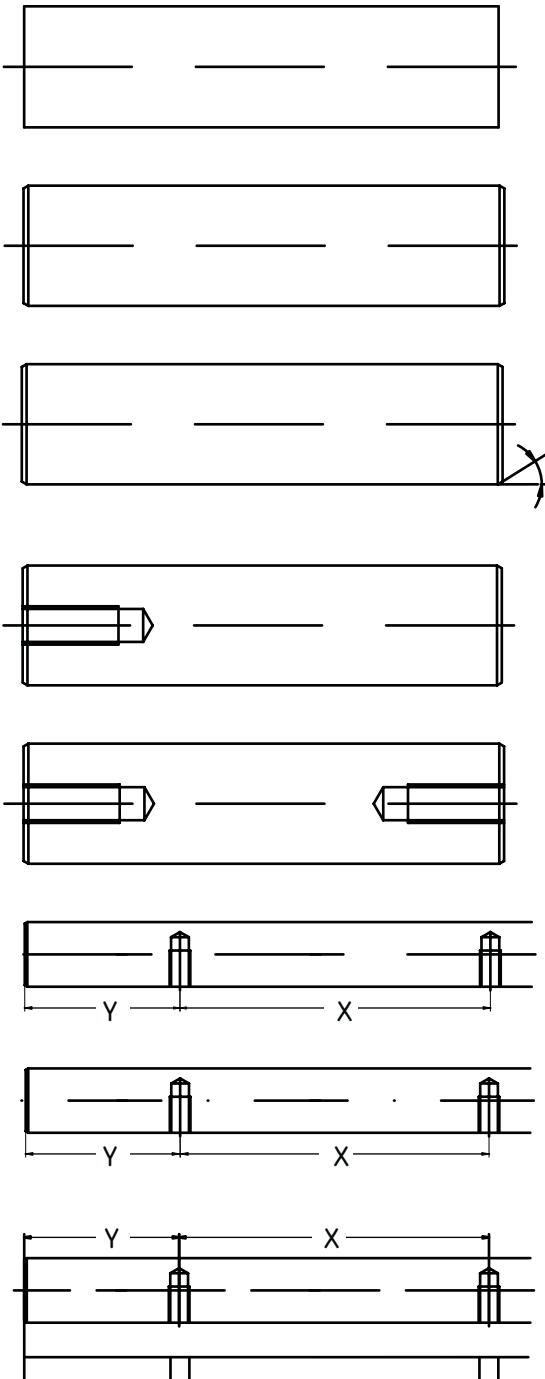
A standard range of shaft support rails and shaft support blocks are available. We also offer custom machining of shafts to your specifications.

Designations

When ordering, please specify requirements in accordance with the chart at top right.

part number prefix	shaft diameter d		hardening depth Rht (max) DIN6773	tolerance class "L"	tolerance class "S"	tolerance class "N"	standard tolerance ISO h6	weight per inch length	roundness (circular) t1	parallelism t2	straightness t3
	inch	mm									
LJX 4	1/4	6.350	0.032	.2495/.2490	.2485/.2490	.2498/.2500	0 -0.00035	0.014	0.00016	0.00020	0.0036
LJX 6	3/8	9.525	0.039	.3745/.3740	.3735/.3740	.3748/.3750	0 -0.00035	0.031	0.00016	0.00024	0.0036
LJX 8	1/2	12.700	0.051	.4995/.4990	.4985/.4990	.4998/.5000	0 -0.00047	0.055	0.00020	0.00032	0.0024
LJX 10	5/8	15.875	0.051	.6245/.6240	.6235/.6240	.6248/.6250	0 -0.00047	0.087	0.00020	0.00032	0.0024
LJX 12	3/4	19.050	0.063	.7495/.7490	.7485/.7490	.7498/.7500	0 -0.00050	0.125	0.00024	0.00035	0.0024
LJX 16	1	25.400	0.071	.9995/.9990	.9985/.9990	.9998/1.0000	0 -0.00050	0.222	0.00024	0.00035	0.0012
LJX 20	1-1/4	31.750	0.079	1.2495/1.2490	1.2485/1.2490	1.2498/1.2500	0 -0.00063	0.348	0.00028	0.00043	0.0012
LJX 24	1-1/2	38.100	0.098	1.4994/1.4989	1.4984/1.4989	1.4997/1.5000	0 -0.00063	0.501	0.00028	0.00043	0.0012
LJX 32	2	20.800	0.118	1.9994/1.9987	1.9980/1.9987	1.9997/2.0000	0 -0.00075	0.891	0.00028	0.00043	0.0012

ESSC inch shafting standard



ESSC 1

Cut with no chamfer, deburr only.

ESSC 2

Cut with hand chamfer. If no specification is given, this is the standard.

ESSC

Cut with chamfer according to customer drawing.

ESSC 4

Cut with chamfer and one axial hole. Please specify thread size and depth.

ESSC 5

Cut with chamfer and two axial holes. Please specify thread size and depth.

ESSC 6

Cut and chamfer as ESSC 2 with radial holes per table below.

ESSC 7

As ESSC 6, but with radial holes, and X and Y according to customer drawing.

ESSC 8

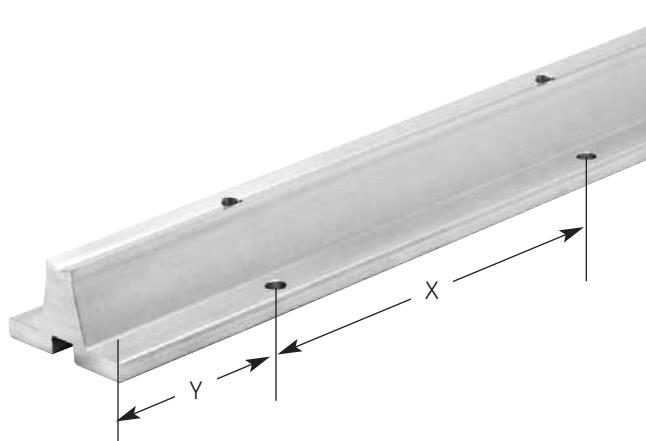
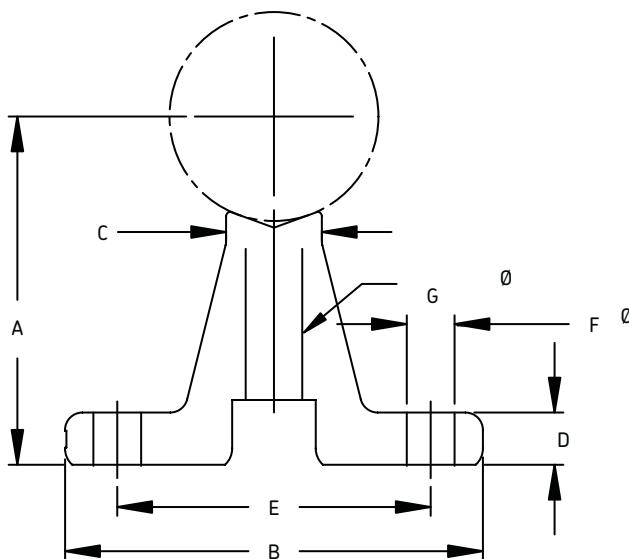
As ESSC 6, shaft mounted on LSXB shaft support.

nom. dia.	diameter tolerance	max. one piece length	"X" hole spacing ± 0.015 (non-cumulative)	tap size (to center of shaft)
1/2	.4990/.4995	181	4	6-32
5/8	.6240/.6245	181	4	8-32
3/4	.7490/.7495	181	6	10-32
1	.9990/.9995	181	6	1/4-20
1-1/4	1.2490/1.2495	181	6	5/16-18
1-1/2	1.4989/1.4994	181	8	3/8-16
2	1.9987/1.9994	181	8	1/2-13

LSXB type

Shaft support rail

Inch series



Material: 6061 T6 aluminum

Standard length for all LSXB/LSXC shaft supports is 24"

dimensions in inches

part number	shaft diameter	A +/- .002	B	C	D	E	hole spacing		F		G		wt per 24" (lbs)
							Y	X	bolt	hole	bolt	hole	
LSXB 8	1/2	1.125	1-1/2	1/4	3/16	1	2	4	#6	.169	6-32X7/8	.169	1.2
LSXB 10	5/8	1.125	1-5/8	5/16	1/4	1-1/8	2	4	#8	.193	8-32X7/8	.193	1.5
LSXB 12	3/4	1.500	1-3/4	3/8	1/4	1-1/4	3	6	#10	.221	10-32X1-1/4	.221	2.0
LSXB 16	1	1.750	2-1/8	1/2	1/4	1-1/2	3	6	1/4	.281	1/4-20X1-1/2	.281	2.6
LSXB 20	1-1/4	2.125	2-1/2	9/16	5/16	1-7/8	3	6	5/16	.343	5/16-18X1-3/4	.343	3.5
LSXB 24	1-1/2	2.500	3	11/16	3/8	2-1/4	4	8	5/16	.343	3/8-16X2	.406	5.1
LSXB 32	2	3.250	3-3/4	7/8	1/2	2-3/4	4	8	3/8	.406	1/2-13X2-1/2	.531	8.2

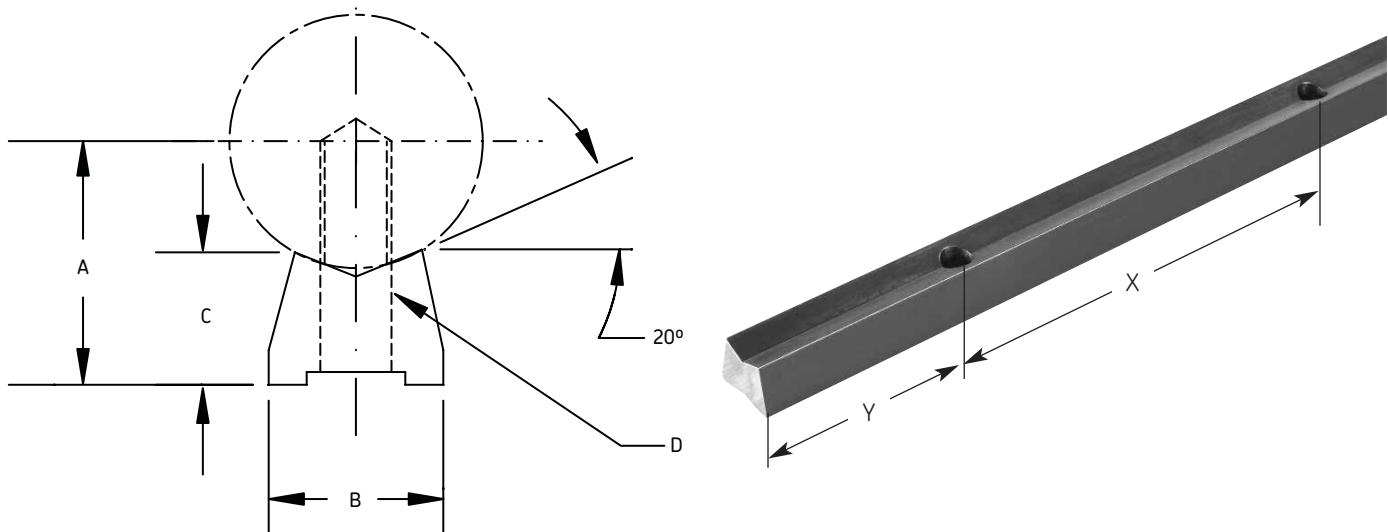
All sizes available without pre-drilled mounting holes. Specify part number as LSXC ## when ordering.

Complete shaft-rail assemblies are also available as well as custom drilling and lengths. Please send drawing for quotation on custom configurations.

LSXBL type

Low shaft support rail

Inch series



Material: AISI C-1018 steel

Standard length for all LSXBL/LSXCL shaft supports is 48"

dimensions in inches

part number	shaft diameter	A .002	B .005	C (ref)	D		hole spacing		wt. per 48" (lbs.)
					bolt	hole	Y	X	
LSXBL 8	.500	.562	.370	.341	6-32	.169	2	4	1.32
LSXBL 10	.625	.687	.450	.412	8-32	.193	2	4	1.95
LSXBL 12	.750	.750	.510	.420	10-32	.221	3	6	2.25
LSXBL 16	1.000	1.000	.690	.560	1/4-20	.281	3	6	4.25
LSXBL 20	1.250	1.187	.780	.626	5/16-18	.343	3	6	5.08
LSXBL 24	1.500	1.375	.930	.703	3/8-16	.406	4	8	6.72
LSXBL 32	2.000	1.750	1.180	.845	1/2-13	.17/32	4	8	11.00

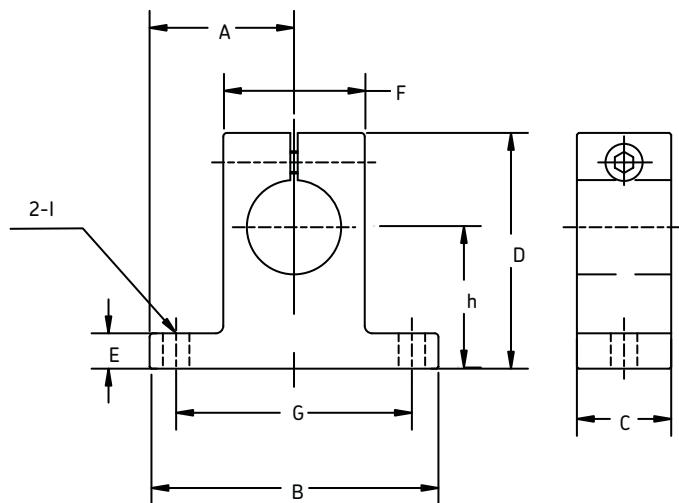
All sizes available without pre-drilled mounting holes. Specify part number as LSXCL## when ordering.

Complete shaft-rail assemblies are also available as well as custom drilling and lengths. Please send drawing for quotation on custom configurations.

LSXS type

Shaft end support

Inch series



Material: Aluminum alloy

dimensions in inches

part number	shaft diameter	h $+- .001$	A	B	C	D	E	F	G $+- .01$	I	bolt	mass (lbs)
LSXS 4	1/4	.6875	.7500	1.500	.500	1.063	.250	.500	1.125	.156	# 6	.033
LSXS 6	3/8	.7500	.8125	1.625	.563	1.187	.250	.688	1.250	.156	# 6	.046
LSXS 8	1/2	1.0000	1.0000	2.000	.625	1.625	.250	.875	1.500	.188	# 8	.077
LSXS 10	5/8	1.0000	1.2500	2.500	.688	1.750	.313	1.000	1.875	.218	# 10	.115
LSXS 12	3/4	1.2500	1.2500	2.500	.750	2.063	.313	1.250	2.000	.218	# 10	.163
LSXS 16	1	1.5000	1.5315	3.063	1.000	2.500	.375	1.500	2.500	.281	1/4	.300
LSXS 20	1-1/4	1.7500	1.8750	3.750	1.125	3.000	.438	2.000	3.000	.346	5/16	.560
LSXS 24	1-1/2	2.0000	2.1875	4.375	1.250	3.437	.500	2.250	3.500	.346	5/16	.750
LSXS 32	2	2.5000	2.7500	5.500	1.500	4.375	.625	3.000	4.500	.406	3/8	1.477

Linear bearing interchange

Contact SKF for LSR interchanges and availability.

SKF designation	THOMSON designation	SKF designation	THOMSON designation	SKF designation	THOMSON designation				
inch standard									
LBXR 4 or LBXR 4 G	A-4812	Stainless steel type with resin retainer Closed type		LTXD 4-2LS	TWN-4				
LBXR 6 or LBXR 6 G	A-61014	LBXR 4 G/HV6	A-4812-SS	LTXD 6-2LS	TWN-6				
LBXR 8 or LBXR 8 G	A-81420	LBXR 6 G/HV6	A-61014-SS	LTXD 8-2LS	TWN-8				
LBXR 10 or LBXR 10 G	A-101824	LBXR 8 G/HV6	A-81420-SS	LTXD 10-2LS	TWN-10				
LBXR 12 or LBXR 12 G	A-122026	LBXR 10 G/HV6	A-101824-SS	LTXD 12-2LS	TWN-12				
LBXR 16 or LBXR 16 G	A-162536	LBXR 12 G/HV6	A-122026-SS	LTXD 16-2LS	TWN-16				
LBXR 20 or LBXR 20 G	A-203242	LBXR 16 G/HV6	A-162536-SS	LTXD 20-2LS	TWN-20				
LBXR 24 or LBXR 24 G	A-243848			LTXD 24-2LS	TWN-24				
LBXR 32 or LBXR 32 G	A-324864								
LBXR 40	A-406080	Adjustable type							
LBXR 48	A-487296	LBXR 8 G/AJHV6	ADJ-81420-SS	Adjustable type					
LBXR 64	A-6496128	LBXR 10 G/AJHV6	ADJ-101824-SS	LTXD 4-2LS/AJ	TWN-4-ADJ				
Adjustable type									
LBXR 8 G/AJ	ADJ-81420	LBXR 12 G/AJHV6	ADJ-122026-SS	LTXD 6-2LS/AJ	TWN-6-ADJ				
LBXR 10 G/AJ	ADJ-101824	LBXR 16 G/AJHV6	ADJ-162536-SS	LTXD 8-2LS/AJ	TWN-8-ADJ				
LBXR 12 G/AJ	ADJ-122026			LTXD 10-2LS/AJ	TWN-10-ADJ				
LBXR 16 G/AJ	ADJ-162536			LTXD 12-2LS/AJ	TWN-12-ADJ				
LBXR 20 G/AJ	ADJ-203242			LTXD 16-2LS/AJ	TWN-16-ADJ				
LBXR 24 G/AJ	ADJ-243848			LTXD 20-2LS/AJ	TWN-20-ADJ				
LBXR 32 G/AJ	ADJ-324864			LTXD 24-2LS/AJ	TWN-24-ADJ				
Open type									
LBXT 8 G	OPN-81420	Inch series self-aligning units							
LBXT 10 G	OPN-101824	Block type							
LBXT 12 G	OPN-122026	LUXD 4-2LS	SPB-4	LTFX 8-2LS	TWN-8-OPN				
LBXT 16 G	OPN-162536	LUXD 6-2LS	SPB-6	LTFX 10-2LS	TWN-10-OPN				
LBXT 20 G	OPN-203242	LUXD 8-2LS	SPB-8	LTFX 12-2LS	TWN-12-OPN				
LBXT 24 G	OPN-243848	LUXD 10-2LS	SPB-10	LTFX 16-2LS	TWN-16-OPN				
LBXT 32 G	OPN-324864	LUXD 12-2LS	SPB-12	LTFX 20-2LS	TWN-20-OPN				
		LUXD 16-2LS	SPB-16	LTFX 24-2LS	TWN-24-OPN				
Self-aligning type									
Closed type									
LBXD 4	SUPER-4								
LBXD 6	SUPER-6								
LBXD 8	SUPER-8								
LBXD 10	SUPER-10								
LBXD 12	SUPER-12								
LBXD 16	SUPER-16								
LBXD 20	SUPER-20								
LBXD 24	SUPER-24								
LBXD 32	SUPER-32								
Open type									
LBXF 8	SUPER-8-OPN	Adjustable type							
LBXF 10	SUPER-10-OPN	LUXD 4-2LS/AJ	SPB-4-ADJ	End support blocks					
LBXF 12	SUPER-12-OPN	LUXD 6-2LS/AJ	SPB-6-ADJ	LSXS 4	SB-4				
LBXF 16	SUPER-16-OPN	LUXD 8-2LS/AJ	SPB-8-ADJ	LSXS 6	SB-6				
LBXF 20	SUPER-20-OPN	LUXD 10-2LS/AJ	SPB-10-ADJ	LSXS 8	SB-8				
LBXF 24	SUPER-24-OPN	LUXD 12-2LS/AJ	SPB-12-ADJ	LSXS 10	SB-10				
LBXF 32	SUPER-32-OPN	LUXD 16-2LS/AJ	SPB-16-ADJ	LSXS 12	SB-12				
LBXF 8-2LS	SUPER-8-OPN-DD	LUXD 20-2LS/AJ	SPB-20-ADJ	LSXS 16	SB-16				
LBXF 10-2LS	SUPER-10-OPN-DD	LUXD 24-2LS/AJ	SPB-24-ADJ	LSXS 20	SB-20				
LBXF 12-2LS	SUPER-12-OPN-DD	LUXD 32-2LS/AJ	SPB-32-ADJ	LSXS 24	SB-24				
LBXF 16-2LS	SUPER-16-OPN-DD			LSXS 32	SB-32				
LBXF 20-2LS	SUPER-20-OPN-DD								
LBXF 24-2LS	SUPER-24-OPN-DD								
LBXF 32-2LS	SUPER-32-OPN-DD								
Open type									
LUXF 8-2LS	SPB-8-OPN	Shaft support - predrilled							
LUXF 10-2LS	SPB-10-OPN	LUXF 8-2LS	SPB-8-OPN	LSXB 8	SR 8-PD				
LUXF 12-2LS	SPB-12-OPN	LUXF 10-2LS	SPB-10-OPN	LSXB 10	SR 10-PD				
LUXF 16-2LS	SPB-16-OPN	LUXF 12-2LS	SPB-12-OPN	LSXB 12	SR 12-PD				
LUXF 20-2LS	SPB-20-OPN	LUXF 16-2LS	SPB-16-OPN	LSXB 16	SR 16-PD				
LUXF 24-2LS	SPB-24-OPN	LUXF 20-2LS	SPB-20-OPN	LSXB 20	SR 20-PD				
LUXF 32-2LS	SPB-32-OPN	LUXF 24-2LS	SPB-24-OPN	LSXB 24	SR 24-PD				
		LUXF 32-2LS	SPB-32-OPN	LSXB 32	SR 32-PD				
Open type									
Shaft support - not drilled									
LSXC 8	SR8								
LSXC 10	SR10								
LSXC 12	SR12								
LSXC 16	SR16								
LSXC 20	SR20								
LSXC 24	SR24								
LSXC 32	SR32								

*Notes: 1) All the linear bearings are available with 2 integral seals. 2) Not all the linear bearings we offer are shown in this table. Please check catalog for all available sizes/options.

Notes:



SKF USA Inc

1530 Valley Center Parkway
Bethlehem, PA 18017-2266
800-541-3624
Fax 610-861-3737
www.skfusa.com/inchlinearballbearings

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