

SKF Inch Linear Bearing Series

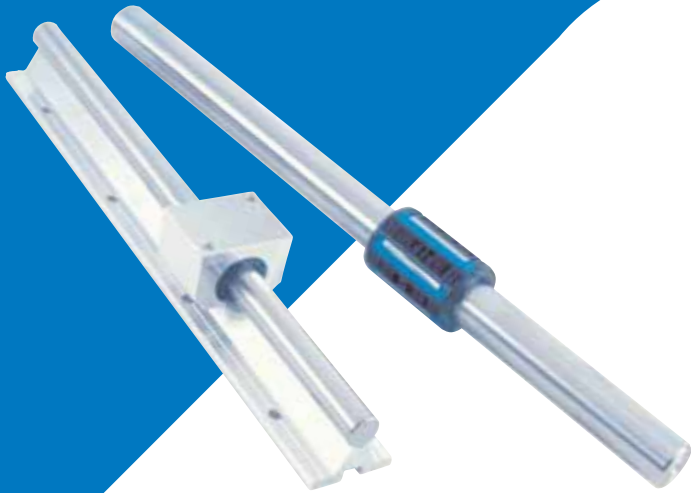


Quick-ship – Easy Serve Program from SKF®



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".



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;

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.

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)

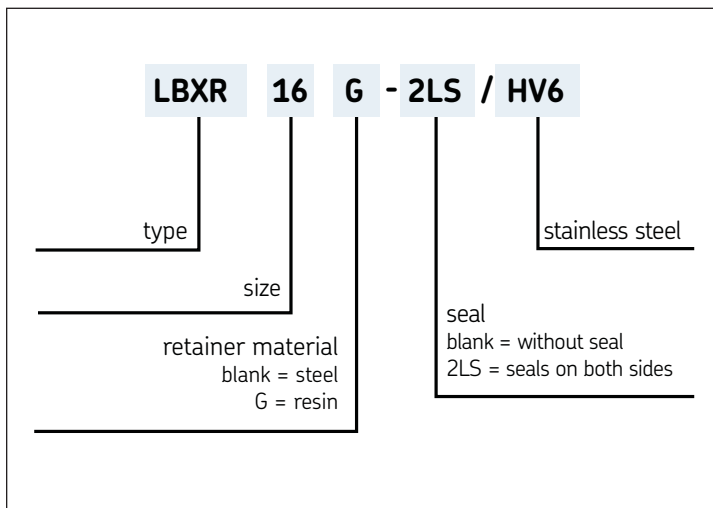
s=stroke length (m)

n=frequency of stroke per minute (cpm)

LBXR type

Standard type

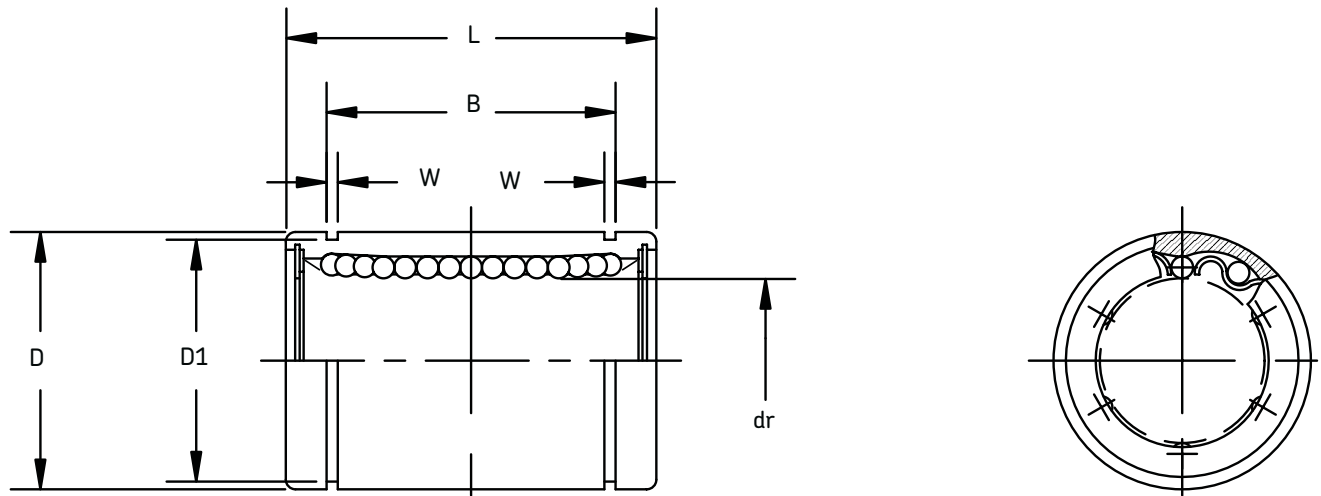
This type is an inch dimension series mainly used in the U.S.



part number			number of ball circuits	nominal shaft diameter inch	dr		D		
standard		stainless steel			inch	inch	tolerance inch/ μ m	inch	tolerance inch/ μ m
steel retainer	resin retainer	resin retainer							
-	-	LBXR 2G/HV6	4	1/8	.1250 3.175	0 -0.0035	.3125 7.938	0 -0.0040	
-	-	LBXR 3G/HV6	4	3/16	.1875 4.763	0 -8	.3750 9.525	0 -9	
LBXR 4	LBXR 4G	LBXR 4G/HV6	3*	1/4	.2500 6.350		.5000 12.700	0 -0.0045 -11	
LBXR 6	LBXR 6G	LBXR 6G/HV6	4	3/8	.3750 9.525	0 -0.0040	.6250 15.875	0	
LBXR 8	LBXR 8G	LBXR 8G/HV6	4	1/2	.5000 12.700	0 -9	.8750 22.225	-0.00050 0	
LBXR 10	LBXR 10G	LBXR 10G/HV6	4	5/8	.625 15.875		1.1250 28.575	-13	
LBXR 12	LBXR 12G	LBXR 12G/HV6	5	3/4	.7500 19.050	0 -0.0040	1.2500 31.750	0 -0.00065	
LBXR 16	LBXR 16G	LBXR 16G/HV	6	1	1.0000 25.400	0 -10	1.5625 39.688	0 -16	
LBXR 20	LBXR 20G	LBXR 20G/HV6	6	1-1/4	1.2500 31.750	0	2.0000 50.800	0 -0.00075	
LBXR 24	LBXR 24G	LBXR 24G/HV6	6	1-1/2	1.5000 38.100	-0.00050 0	2.3750 60.325	0 -19	
LBXR 32	LBXR 32G	LBXR 32G/HV6	6	2	2.0000 50.800	-12	3.0000 76.200	0	
LBXR 40	-	-	6	2-1/2	2.5000 63.500	0 -0.00060	3.7500 95.250	-0.00090 0	
LBXR 48	-	-	6	3	3.0000 76.200	0 -15	4.5000 114.300	0 -22	
LBXR 64	-	-	6	4	4.0000 101.600	0 -0.0080 -20	6.0000 152.400	0 -0.0100 -25	

*4 rows for resin retainer type.

LBXR type



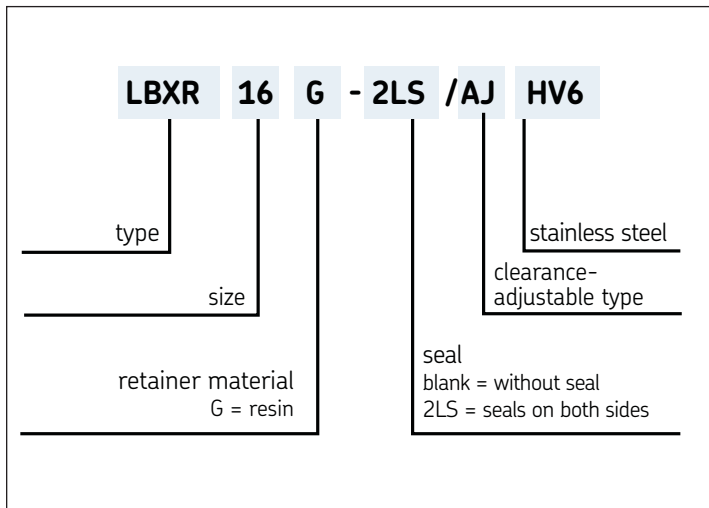
nominal shaft diameter inch	major dimension						eccentricity inch/ μ m	radial clearance (maximum) inch/ μ m	basic load rating		mass lbs.
	L		B		W	D ₁			dynamic C lbs	static C ₀ lbs	
	inch mm	tolerance inch/mm	inch mm	tolerance inch/mm							
1/8	.5000 12.700	0 -0.008 0 -0.2	.3681 9.35	0 -0.008 0 -0.2	.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			20	24	0.008
1/4	.7500 19.050		.5110 12.98		.0390 0.992	.4687 11.906	.0005 12	-.0001 -3	46	59	0.021
3/8	.8750 22.225		.6358 16.15		.0390 0.992	.5880 14.935			50	70	0.033
1/2	1.2500 31.750		.9625 24.46		.0459 1.168	.8209 20.853	.0006 15	-.0001 -4	114	176	0.093
5/8	1.5000 38.100		1.1039 28.04		.0559 1.422	1.0590 26.899			173	265	0.187
3/4	1.6250 41.275		1.1657 29.61		.0559 1.422	1.1760 29.870	.0008 20	-.0002 -6	193	307	0.229
1	2.2500 57.150	1.7547 44.57	.0679 1.727	1.4687 37.306	220	352			0.485		
1-1/4	2.6250 66.675	2.0047 50.92	.0679 1.727	1.8859 47.904	.0010 25	-.0003 -8	352	615	1.025		
1-1/2	3.0000 76.200	2.4118 61.26	.0859 2.184	2.2389 56.870			490	903	1.587		
2	4.0000 101.600	3.1917 81.07	.1029 2.616	2.8379 72.085	.0012 30	-.0005 -13	858	1,784	2.888		
2-1/2	5.0000 127.000	3.9760 100.99	.1200 3.048	3.5519 90.220			1,056	2,247	5.732		
3	6.0000 152.400	4.726 120.04	.1200 3.048	4.3100 109.474	.0012 30	-.0008 -20	1,651	3,595	9.656		
4	8.0000 203.200	6.258 158.95	.1389 3.530	5.745 145.923			3,168	7,820	22.487		

1kg \approx 2.205lbs

LBXR/AJ type

Clearance adjustable type

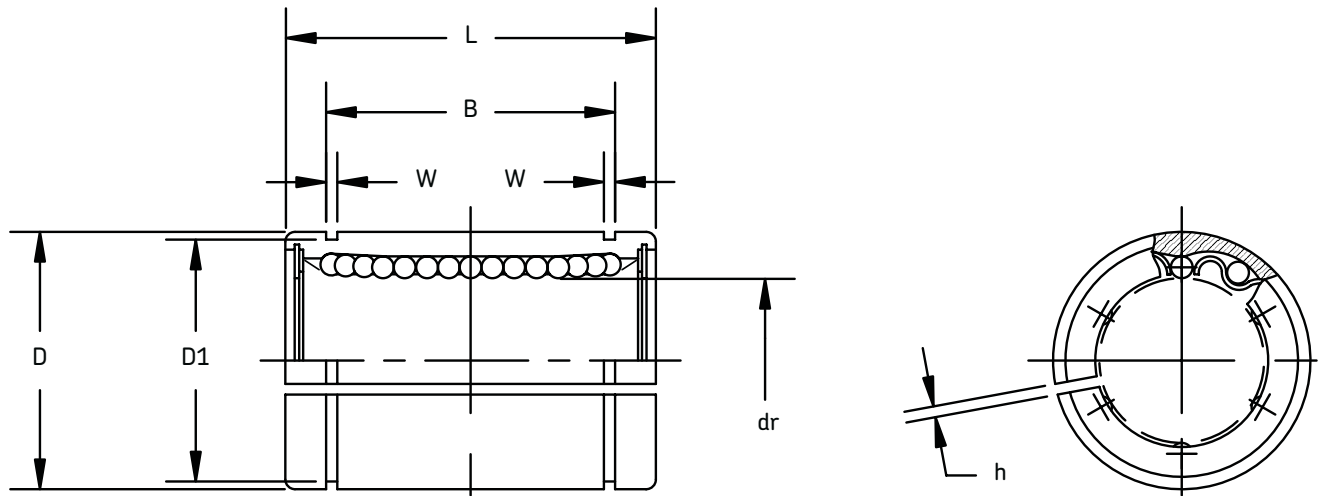
This type is an inch dimension series mainly used in the U.S.



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						
LBXR4G/AJ	LBXR4G/AJHV6	4	1/4	.2500 6.350	0 -.00040 0 -9	.5000 12.700	0 -11
LBXR6G/AJ	LBXR6G/AJHV6	4	3/8	.3750 9.525		0 -13	
LBXR8G/AJ	LBXR8G/AJHV6	4	1/2	5.000 12.700		0 -13	
LBXR10G/AJ	LBXR10G/AJHV6	4	5/8	.625 15.875		0 -13	
LBXR12G/AJ	LBXR12G/AJHV6	5	3/4	.7500 19.050	0 -10	1.2500 31.750	0 -16
LBXR16G/AJ	LBXR16G/AJHV6	6	1	1.0000 25.400	0 -12	1.5625 39.688	0 -19
LBXR20G/AJ	LBXR20G/AJHV6	6	1-1/4	1.2500 31.750	0 -12	2.0000 50.800	0 -22
LBXR24G/AJ	LBXR24G/AJHV6	6	1-1/2	1.5000 38.100	0 -12	2.3750 60.325	0 -22
LBXR32G/AJ	LBXR32G/AJHV6	6	2	2.0000 50.800	0 -12	3.0000 76.200	0 -22

* Accuracy is measured prior to machining clearance slot.

LBXR/AJ type



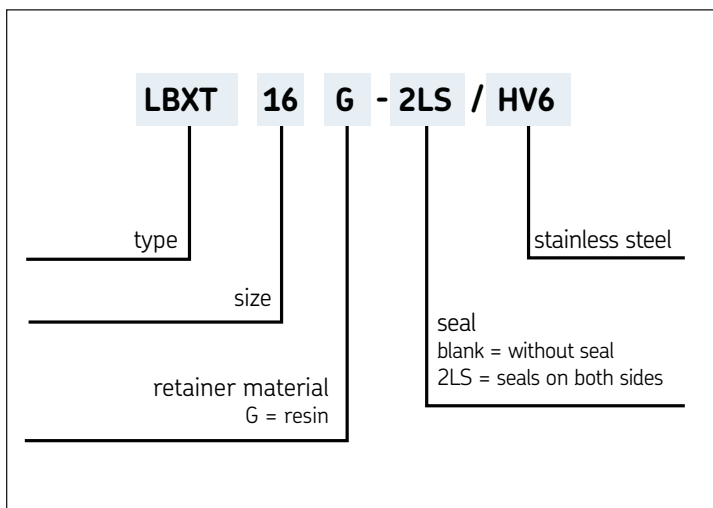
nominal shaft diameter inch	major dimension						h inch/mm	eccentricity inch/ μ m	radial clearance (maximum) inch/ μ m	basic load rating		mass lbs.
	L		B		W inch mm	D ₁ inch mm				dynamic C lbs	static C ₀ lbs	
	inch mm	tolerance inch/mm	inch mm	tolerance inch/mm								
1/4	.7500 19.050	0 -0.008 0 -0.2	.5100 12.98	0 -0.008 0 -0.2	.0390 0.992	.4687 11.906	.04 1	.0005 12	-.0001 -3	46	60	0.017
3/8	.8750 22.225		.6358 12.15		.0390 0.992	.5880 14.935	.04 1			50	70	0.030
1/2	1.2500 31.750		.9625 24.46		.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 -0.012 0 -0.3	2.0047 50.92	0 -0.012 0 -0.3	.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		2.4118 61.26		.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	858	1,784	2.844	

1kg \approx 2.205lbs

LBXT type

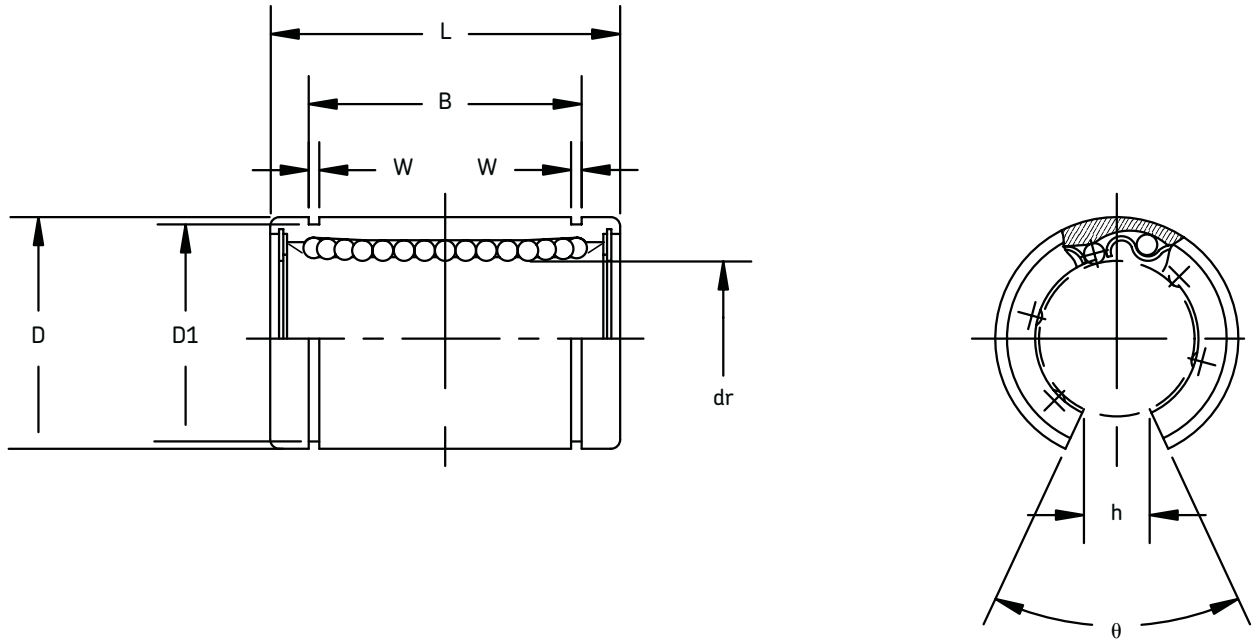
Open type

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



part number		number of ball circuits	nominal shaft diameter inch	dr		D	
standard	stainless steel			inch	tolerance inc / μm	inch	tolerance inch/μm
resin retainer	resin retainer						
LBXT8G	LBXT8G/HV6	3	1/2	.5000 12.700	0 -0.0040	.8750 22.225	0 -0.0050 0
LBXT10G	LBXT10G/HV6	3	5/8	.625 15.875	0 -9	1.1250 28.575	-13 0 -0.0065
LBXT12G	LBXT12G/HV6	4	3/4	.7500 19.050	0 -0.0040	1.2500 31.750	0 -16
LBXT16G	LBXT16G/HV6	5	1	1.0000 25.400	0 -10	1.5625 39.688	0 -0.0075
LBXT20G	LBXT20G/HV6	5	1-1/4	1.2500 31.750	0 -0.0050	2.0000 50.800	0 -19
LBXT24G	LBXT24G/HV6	5	1-1/2	1.5000 38.100	0 -12	2.3750 60.325	0 -0.0090
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	θ			dynamic C lbs	static C ₀ lbs	
	inch mm	tolerance inch/mm	inch mm	tolerance inch/mm									
1/2	1.2500 31.750	0 -0.08 0	.9625 24.46	0 -0.08 0	.0459 1.168	.8209 20.853	.34 7.9375	80°	.0005 12	-0.001 -4	114	176	0.071
5/8	1.5000 38.100		1.1039 28.04		.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	-0.2	.0559 1.422	1.1760 29.870	.4375 11.1125	60°	.0006 15	-0.002 -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	-0.003 -8	352	615	0.860
1-1/2	3.0000 76.200	0 -0.3	2.4118 61.26	0 -0.3	0.859 2.184	2.2389 56.870	.75 19.05	50°			490	903	1.345
2	4.0000 101.600	-0.3	3.1917 81.07	-0.3	.1029 2.616	2.8379 72.085	1.0 25.40	50°	.0010 25	-0.005 -13	858	1,784	2.469

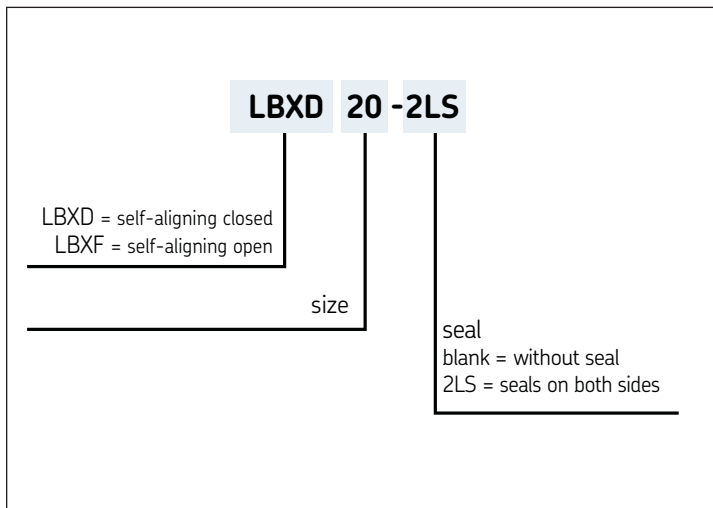
* Accuracy is measured prior to machining clearance slot.

1kg \approx 2.205lbs

LBXD/LBXF type

Self-aligning inch type

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



Closed
3/16" - 2"



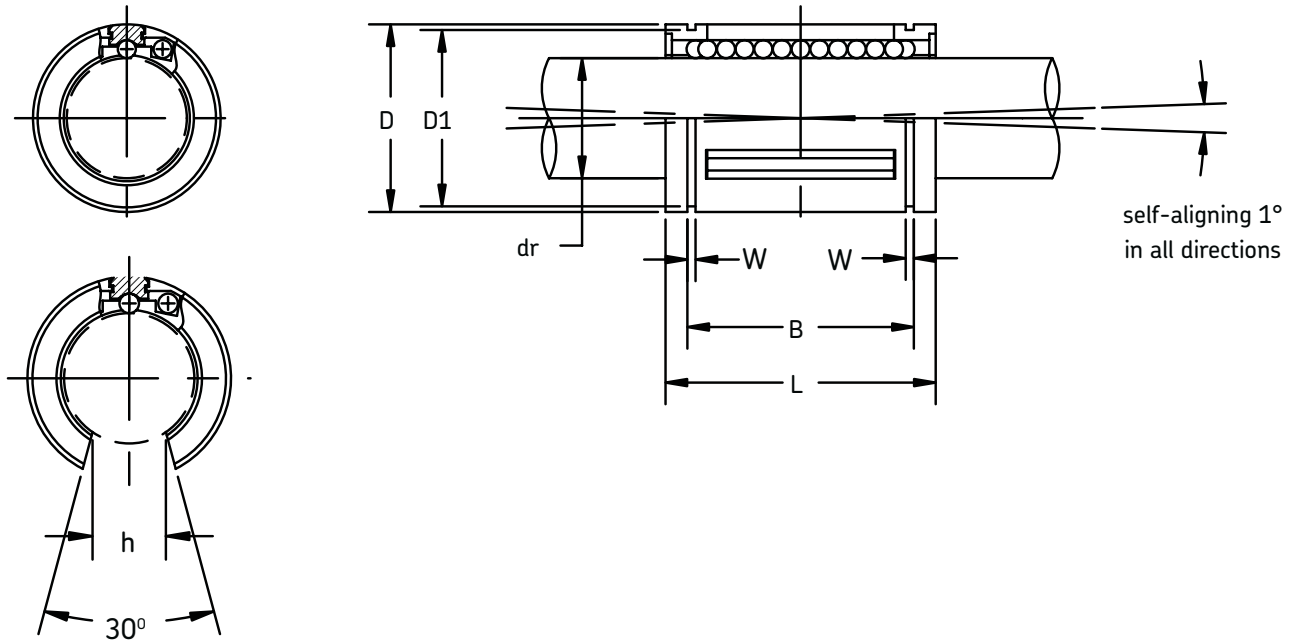
Open
1/2" - 2"

part number						nominal shaft dimensions inch	major dimensions				
closed type			open type				dr		D inch	L	
	no. of ball circuits	mass lbs		no. of ball circuits	mass lbs		inch	tolerance* inch		inch	tolerance inch
LBXD3	4	.004	-	-	-	3/16	.1875	0 -.0005	.3750	.562	.008
LBXD4	4	.009	-	-	-	1/4	.2500		.5000	.750	0 -.015
LBXD6	4	.014	-	-	-	3/8	.3750		.6250	.875	0 -.020
LBXD8	4	.043	LBXF8	3	.033	1/2	.5000		.8750	1.250	
LBXD10	5	.103	LBXF10	4	.083	5/8	.6250		1.1250	1.500	
LBXD12	6	.123	LBXF12	5	.102	3/4	.7500		1.2500	1.625	
LBXD16	6	.265	LBXF16	5	.220	1	1.0000		1.5625	2.250	
LBXD20	6	.485	LBXF20	5	.419	1-1/4	1.2500	0 -.0006	2.0000	2.625	0/-0.025
LBXD24	6	.750	LBXF24	5	.639	1-1/2	1.5000		2.3750	3.000	0/-0.030
LBXD32	6	1.411	LBXF32	5	1.168	2	2.0000		0/-0.0008	3.0000	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



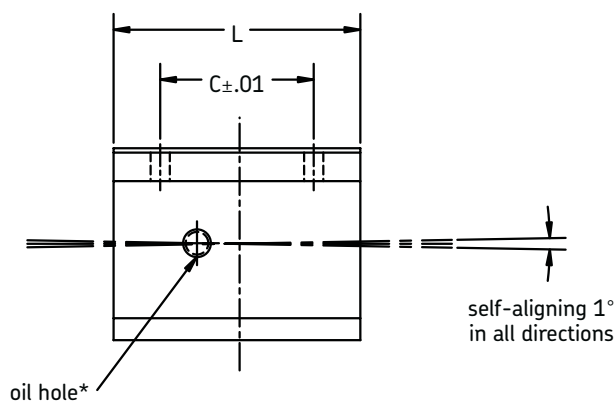
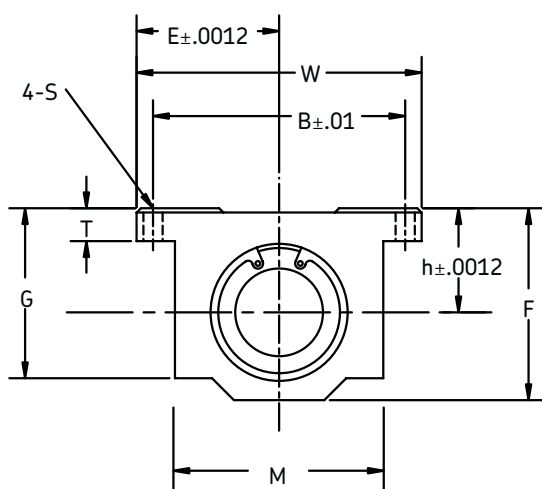
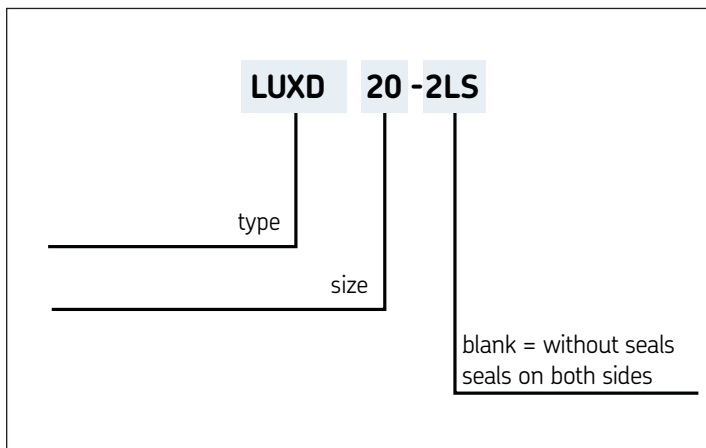
nominal shaft diameter inch	major dimension					basic load rating	
	B		W inch mm	D ₁ inch mm	open type	dynamic C lbs	static C ₀ lbs
	inch mm	tolerance inch/mm			h inch		
3/16	-	-	-	-	-	35	47
1/4	.515	0 -0.015	.0390	.4687	-	60	80
3/8	.703		.0390	.5880	-	95	120
1/2	1.032	0 -0.020	.0459	.8209	.313	230	290
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 lbs.
		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.	
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

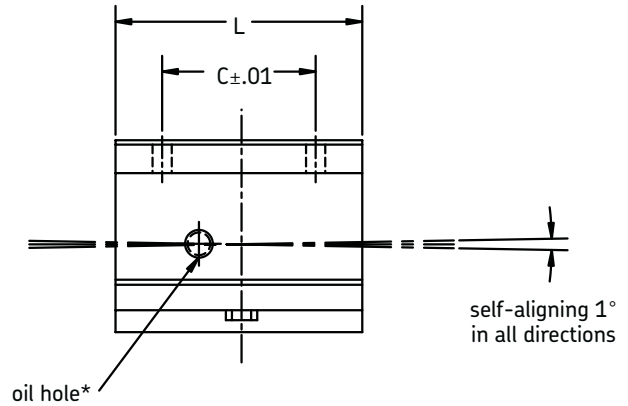
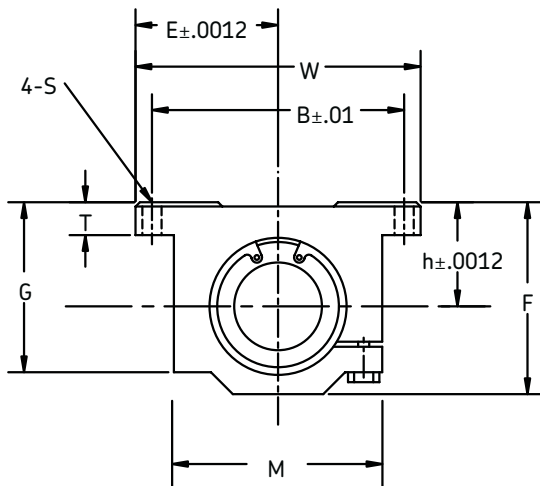
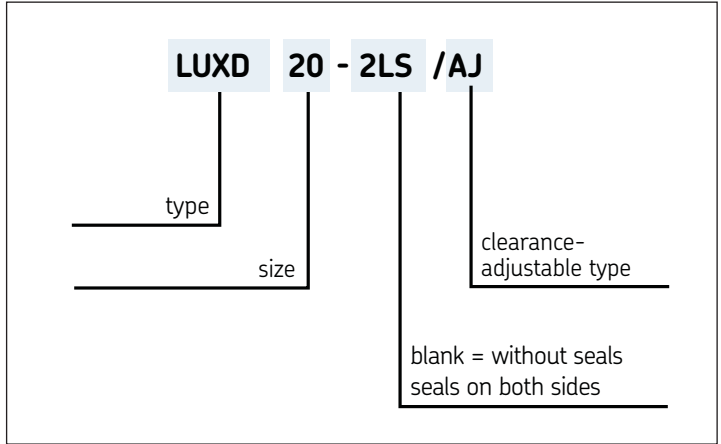
1lbs=0.454kg

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	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.	
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

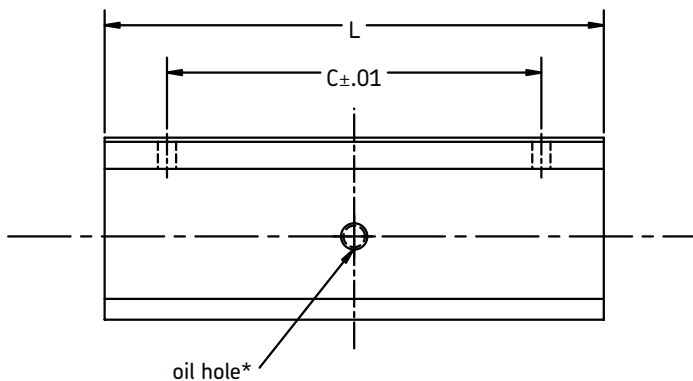
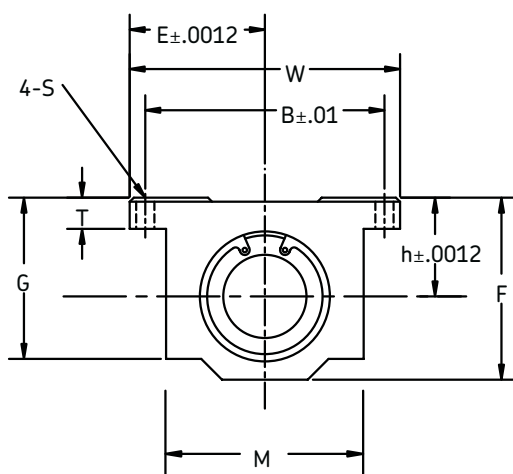
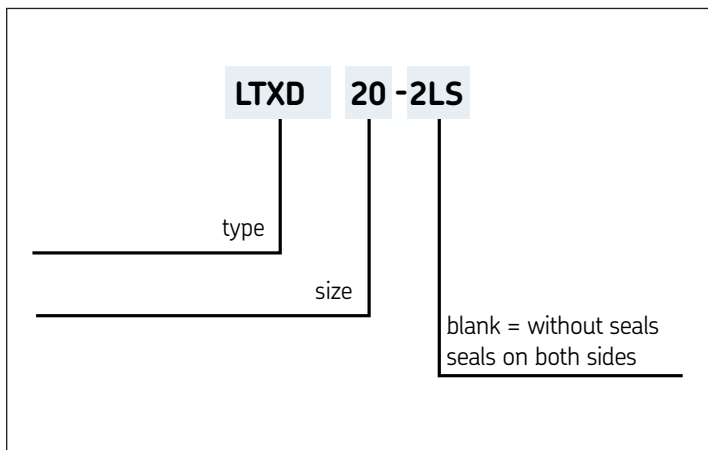
1lbs=0.454kg

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.	
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

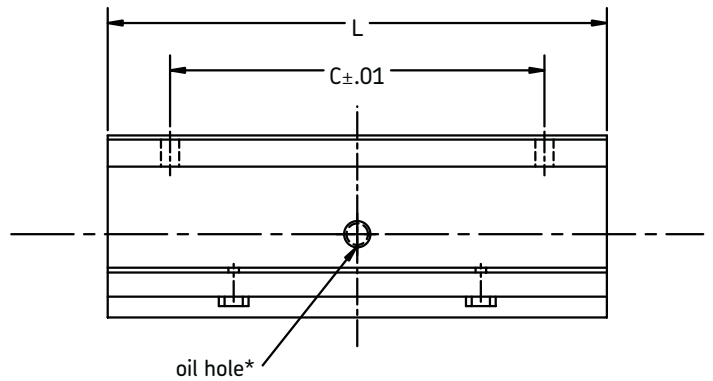
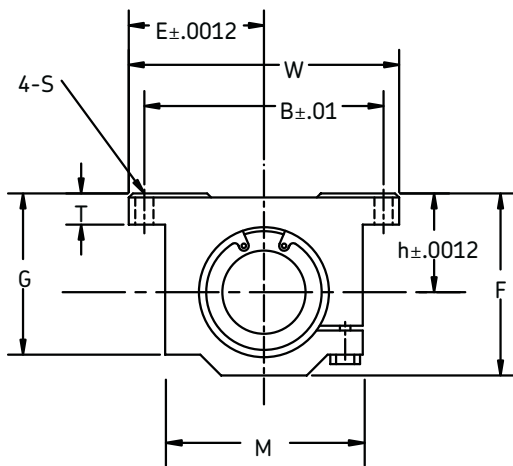
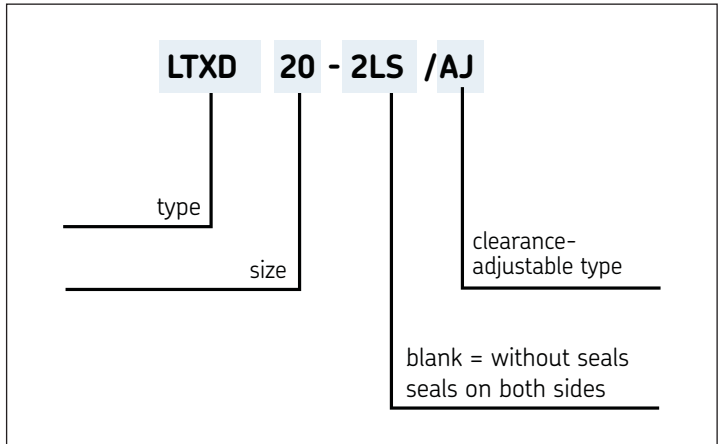
1lbs≈0.454kg

1 lbs≈4.448N

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 inch	major dimensions								mounting dimensions			basic load rating		mass lbs.
		h	E	W	L	F	T	G	M	B	C	S	dynamic C	static Co	
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	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

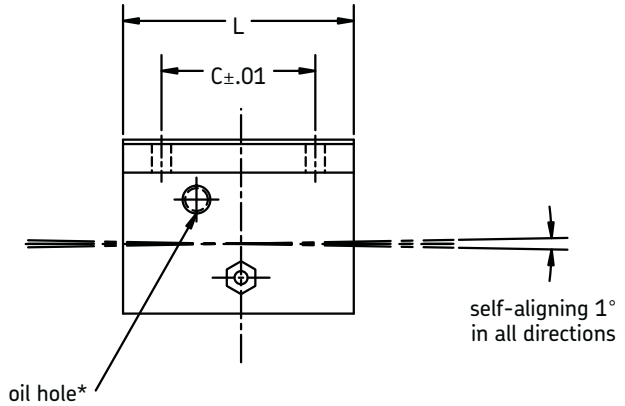
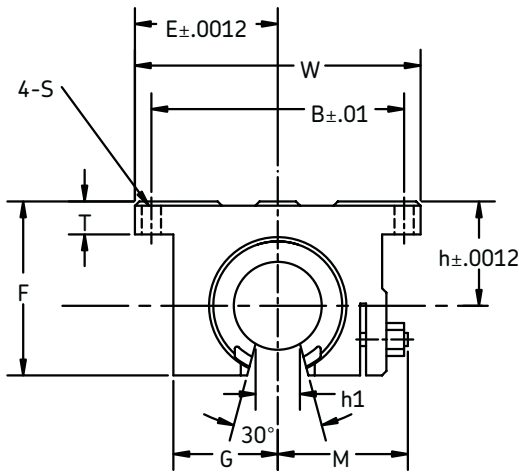
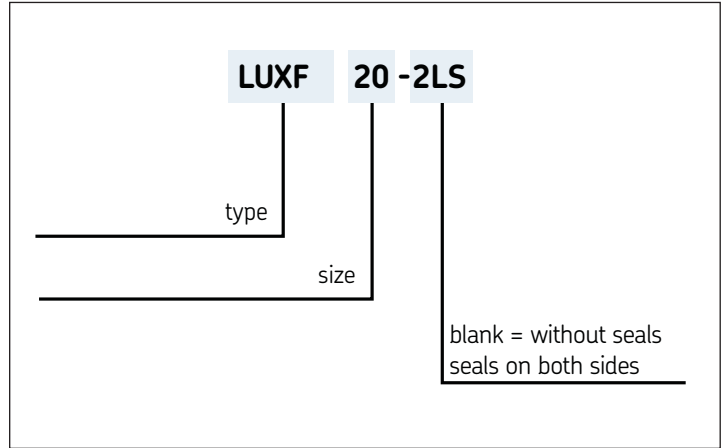
1lbs≈0.454kg

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	h ₁	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

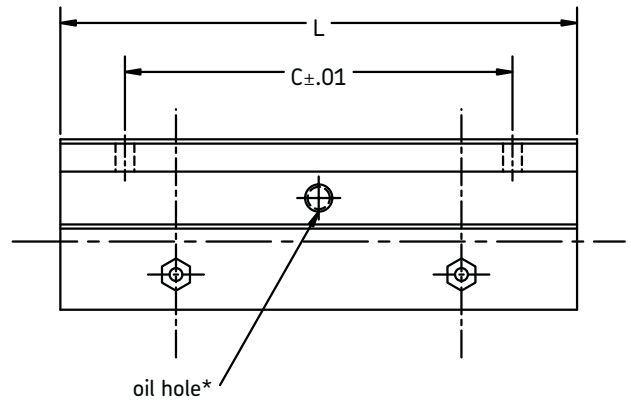
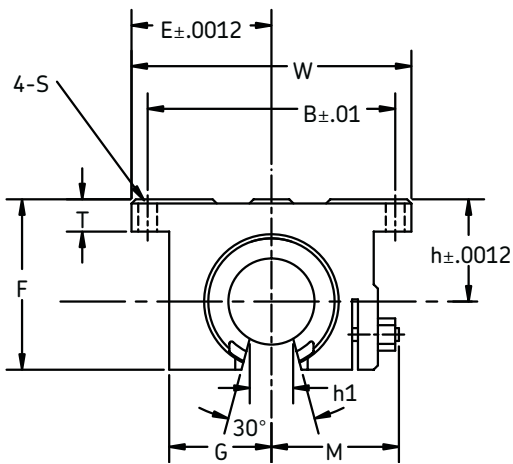
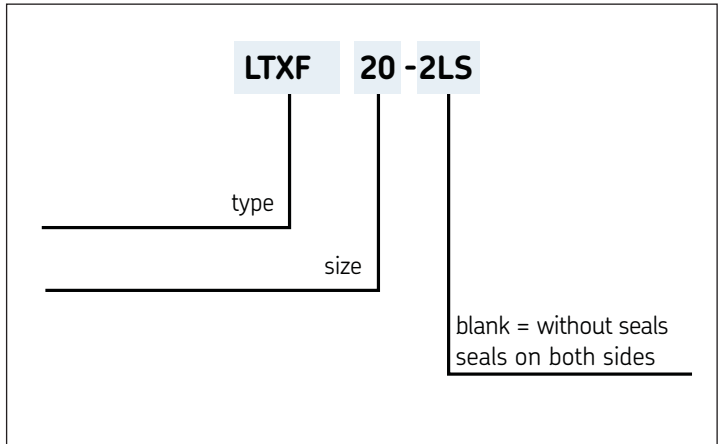
1lbs≈0.454kg

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	E	W	L	F	T	G	M	h ₁	B	C	S	C	Co	
		inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	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

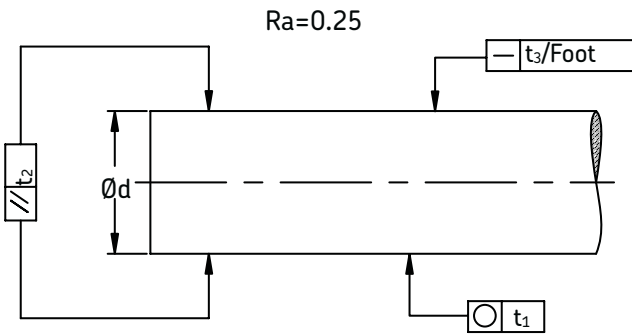
* Provided with push-in oil fitting for 1/4" to 1/2" sizes. Sizes from 5/8" to 2" offer a 1/4-28 tapped hole with a plug for adding a fitting if desired.

1 inch=25.4mm

1lbs≈0.454kg

1 lbs≈4.448N

Inch shafting



shaft type	size	class	ESSC
LJX	4 x length	CS	ESSC 1
LJX = Steel			ESSC 1 = cut
LJXR = Stainless steel			ESSC 2 = chamfered
LJXH = Chrome plated			ESSC 3 = chamfered to customers specs
LJXT = Hollow shaft			ESSC 4 = one axial hole
	4 = 1/4"		ESSC 5 = two axial holes
	6 = 3/8"		ESSC 6 = predrilled and tapped (PDT)
	8 = 1/2"		ESSC 7 = radial holes per customer print
	10 = 5/8"		ESSC 8 = PDT shaft mounted on shaft support
	12 = 3/4"		/D = per customer drawing
	16 = 1"		CS = class S
	20 = 1-1/4"		blank = class L
	24 = 1-1/2"		CN = class N
	32 = 2"		CD = class D

length in inches

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

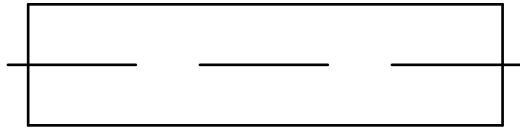
A standard range of shaft support rails and shaft support blocks are available. We also offer custom machining of shafts to your specifications.

Designations

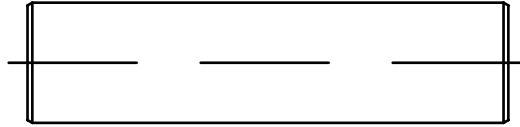
When ordering, please specify requirements in accordance with the chart at top right.

part number prefix	shaft diameter d		hardening depth R _{ht} (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 -.00035	0.014	0.00016	0.00020	0.0036
LJX 6	3/8	9.525	0.039	.3745/.3740	.3735/.3740	.3748/.3750	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 -.00047	0.055	0.00020	0.00032	0.0024
LJX 10	5/8	15.875	0.051	.6245/.6240	.6235/.6240	.6248/.6250	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 -.00050	0.125	0.00024	0.00035	0.0024
LJX 16	1	25.400	0.071	.9995/.9990	.9985/.9990	.9998/1.0000	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 -.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 -.00063	0.501	0.00028	0.00043	0.0012
LJX 32	2	50.800	0.118	1.9994/1.9987	1.9980/1.9987	1.9997/2.0000	0 -.00075	0.891	0.00028	0.00043	0.0012

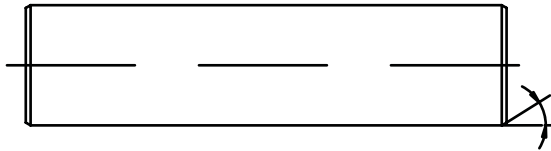
ESSC inch shafting standard



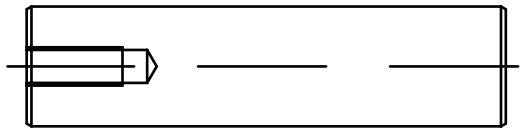
ESSC 1
Cut with no chamfer, deburr only.



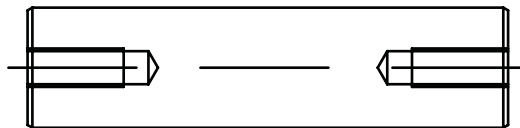
ESSC 2
Cut with hand chamfer. If no specification is given, this is the standard.



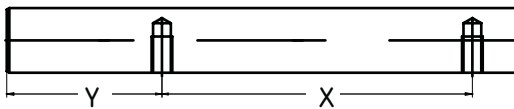
ESSC
Cut with chamfer according to customer drawing.



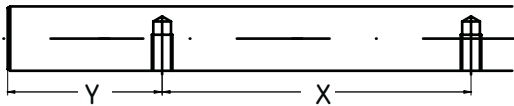
ESSC 4
Cut with chamfer and one axial hole. Please specify thread size and depth.



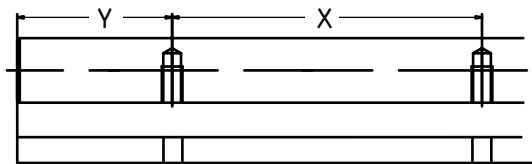
ESSC 5
Cut with chamfer and two axial holes. Please specify thread size and depth.



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.



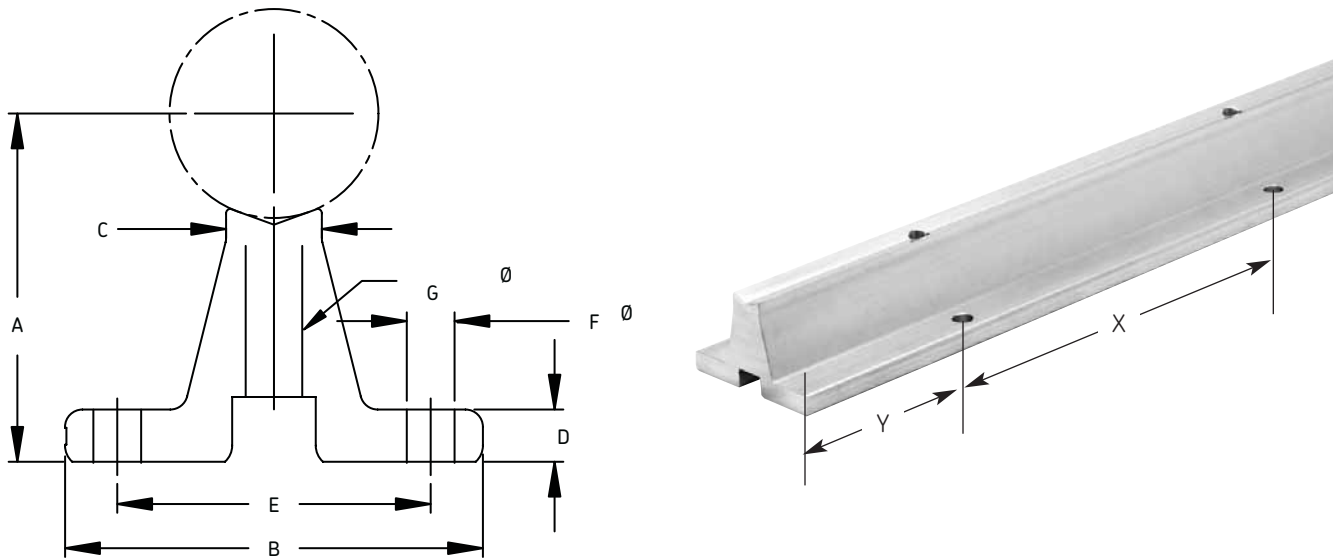
ESSC 8
As ESSC 6, shaft mounted on LSXB shaft support.

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

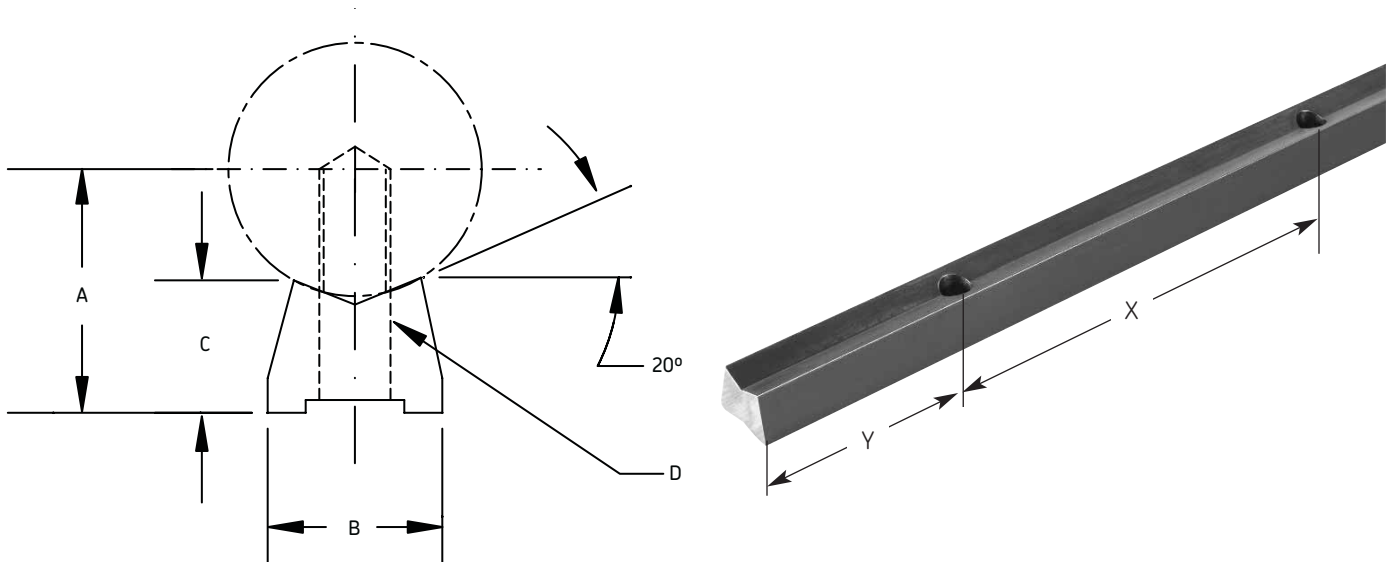
part number	shaft diameter	A +/- .002	B	C	D	E	hole spacing		F		G		wt. per 24" (lbs)
							Y	X	bolt	hole	bolt	hole	
LSXB 8	1/2	1.125	1-1/2	1/4	3/16	1	2	4	#6	.169	6-32X7/8	.169	1.2
LSXB 10	5/8	1.125	1-5/8	5/16	1/4	1-1/8	2	4	#8	.193	8-32X7/8	.193	1.5
LSXB 12	3/4	1.500	1-3/4	3/8	1/4	1-1/4	3	6	#10	.221	10-32X1-1/4	.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

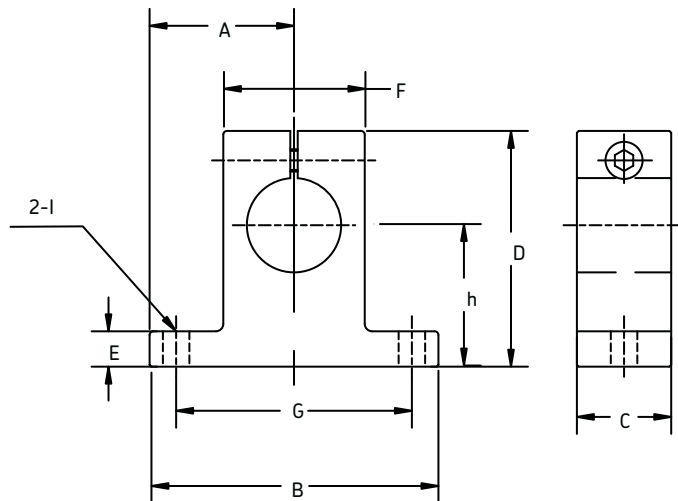
All sizes available without pre-drilled mounting holes. Specify part number as LSXCL## when ordering.

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
inch standard	
LBXR 4 or LBXR 4 G	A-4812
LBXR 6 or LBXR 6 G	A-61014
LBXR 8 or LBXR 8 G	A-81420
LBXR 10 or LBXR 10 G	A-101824
LBXR 12 or LBXR 12 G	A-122026
LBXR 16 or LBXR 16 G	A-162536
LBXR 20 or LBXR 20 G	A-203242
LBXR 24 or LBXR 24 G	A-243848
LBXR 32 or LBXR 32 G	A-324864
LBXR 40	A-406080
LBXR 48	A-487296
LBXR 64	A-6496128

Adjustable type	
LBXR 8 G/AJ	ADJ-81420
LBXR 10 G/AJ	ADJ-101824
LBXR 12 G/AJ	ADJ-122026
LBXR 16 G/AJ	ADJ-162536
LBXR 20 G/AJ	ADJ-203242
LBXR 24 G/AJ	ADJ-243848
LBXR 32 G/AJ	ADJ-324864

Open type	
LBXT 8 G	OPN-81420
LBXT 10 G	OPN-101824
LBXT 12 G	OPN-122026
LBXT 16 G	OPN-162536
LBXT 20 G	OPN-203242
LBXT 24 G	OPN-243848
LBXT 32 G	OPN-324864

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
LBXF 10	SUPER-10-OPN
LBXF 12	SUPER-12-OPN
LBXF 16	SUPER-16-OPN
LBXF 20	SUPER-20-OPN
LBXF 24	SUPER-24-OPN
LBXF 32	SUPER-32-OPN
LBXF 8-2LS	SUPER-8-OPN-DD
LBXF 10-2LS	SUPER-10-OPN-DD
LBXF 12-2LS	SUPER-12-OPN-DD
LBXF 16-2LS	SUPER-16-OPN-DD

SKF designation	THOMSON designation
Stainless steel type with resin retainer	
Closed type	
LBXR 4 G/HV6	A-4812-SS
LBXR 6 G/HV6	A-61014-SS
LBXR 8 G/HV6	A-81420-SS
LBXR 10 G/HV6	A-101824-SS
LBXR 12 G/HV6	A-122026-SS
LBXR 16 G/HV6	A-162536-SS

Adjustable type	
LBXR 8 G/AJHV6	ADJ-81420-SS
LBXR 10 G/AJHV6	ADJ-101824-SS
LBXR 12 G/AJHV6	ADJ-122026-SS
LBXR 16 G/AJHV6	ADJ-162536-SS

Open type	
LBXT 8 G/HV6	OPN-81420-SS
LBXT 10 G/HV6	OPN-101824-SS
LBXT 12 G/HV6	OPN-122026-SS
LBXT 16 G/HV6	OPN-162536-SS

Inch series self-aligning units	
Block type	
LUXD 4-2LS	SPB-4
LUXD 6-2LS	SPB-6
LUXD 8-2LS	SPB-8
LUXD 10-2LS	SPB-10
LUXD 12-2LS	SPB-12
LUXD 16-2LS	SPB-16
LUXD 20-2LS	SPB-20
LUXD 24-2LS	SPB-24
LUXD 32-2LS	SPB-32

Adjustable type	
LUXD 4-2LS/AJ	SPB-4-ADJ
LUXD 6-2LS/AJ	SPB-6-ADJ
LUXD 8-2LS/AJ	SPB-8-ADJ
LUXD 10-2LS/AJ	SPB-10-ADJ
LUXD 12-2LS/AJ	SPB-12-ADJ
LUXD 16-2LS/AJ	SPB-16-ADJ
LUXD 20-2LS/AJ	SPB-20-ADJ
LUXD 24-2LS/AJ	SPB-24-ADJ
LUXD 32-2LS/AJ	SPB-32-ADJ

Open type	
LUXF 8-2LS	SPB-8-OPN
LUXF 10-2LS	SPB-10-OPN
LUXF 12-2LS	SPB-12-OPN
LUXF 16-2LS	SPB-16-OPN
LUXF 20-2LS	SPB-20-OPN
LUXF 24-2LS	SPB-24-OPN
LUXF 32-2LS	SPB-32-OPN

SKF designation	THOMSON designation
Inch series self-aligning double wide units	
Block type	
LTXD 4-2LS	TWN-4
LTXD 6-2LS	TWN-6
LTXD 8-2LS	TWN-8
LTXD 10-2LS	TWN-10
LTXD 12-2LS	TWN-12
LTXD 16-2LS	TWN-16
LTXD 20-2LS	TWN-20
LTXD 24-2LS	TWN-24

Adjustable type	
LTXD 4-2LS/AJ	TWN-4-ADJ
LTXD 6-2LS/AJ	TWN-6-ADJ
LTXD 8-2LS/AJ	TWN-8-ADJ
LTXD 10-2LS/AJ	TWN-10-ADJ
LTXD 12-2LS/AJ	TWN-12-ADJ
LTXD 16-2LS/AJ	TWN-16-ADJ
LTXD 20-2LS/AJ	TWN-20-ADJ
LTXD 24-2LS/AJ	TWN-24-ADJ

Open type	
LTXF 8-2LS	TWN-8-OPN
LTXF 10-2LS	TWN-10-OPN
LTXF 12-2LS	TWN-12-OPN
LTXF 16-2LS	TWN-16-OPN
LTXF 20-2LS	TWN-20-OPN
LTXF 24-2LS	TWN-24-OPN

End support blocks	
LSXS 4	SB-4
LSXS 6	SB-6
LSXS 8	SB-8
LSXS 10	SB-10
LSXS 12	SB-12
LSXS 16	SB-16
LSXS 20	SB-20
LSXS 24	SB-24
LSXS 32	SB-32

Shaft support - predrilled	
LSXB 8	SR 8-PD
LSXB 10	SR 10-PD
LSXB 12	SR 12-PD
LSXB 16	SR 16-PD
LSXB 20	SR 20-PD
LSXB 24	SR 24-PD
LSXB 32	SR 32-PD

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:



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