


Linear Bushings with Grease Fitting / Mini-Flanged Linear Bushings

Double Tapped Hole (Space-Saving Design)

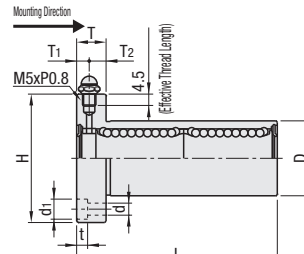
Feature: Easy maintenance with Grease Fitting for lubrication.



Grease Fitting

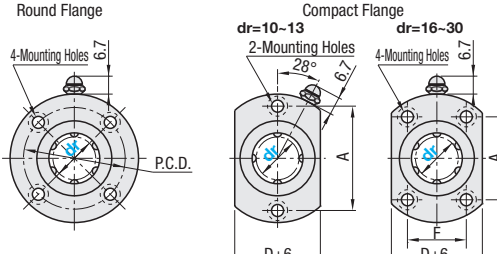
RoHS

Type	Outer Cylinder	Balls	Retainer	Ambient Operating Temp.	Accessories
Round Flange	Material: 52100 Bearing Steel	Material: 52100 Bearing Steel	Material: Plastic (Duracon M90)	-20~80°C	Seal Material: Nitrile Rubber (-20~120°C)
Compact Flange	Material: 52100 Bearing Steel	Material: 52100 Bearing Steel	Material: Plastic (Duracon M90)	-20~80°C	Seal Material: Nitrile Rubber (-20~120°C)



Mounting Direction

T1, T2, T, L, H, d1, d, F, A



Round Flange, Compact Flange

dr=10~13, dr=16~30

4-Mounting Holes, 2-Mounting Holes

P.C.D., D+6, F, A

Compared to Flanged Linear Bushings Double Standard Type, T and L dimensions are larger but mounting dimensions are same.

Part Number	Type	dr	Tolerance	D	Tolerance	L	Tolerance	H	T	T1	T2	d	d1	t	P.C.D.	F	A	Eccentricity	Perpendicularity	Rows of Balls	Basic Load Rating	Mass (g)
LHQRW	Round Flange	10	0	19	0	60	±0.3	40	11	4.6	6.4	4.5	7.5	4.1	29	-	29	0.015	0.015	4	588	1100
LHQRW	Round Flange	12	0	21	0	62	±0.3	42	11	4.6	6.4	4.5	7.5	4.1	29	-	29	0.015	0.015	4	657	1200
LHQRW	Round Flange	13	0	23	0	66	±0.3	43	11	4.6	6.4	4.5	7.5	4.1	29	-	29	0.015	0.015	4	813	1570
LHQRW	Round Flange	16	0	28	0	75	±0.3	48	13	5.7	7.3	5.5	9	5.1	33	22	31	0.020	0.020	5	1230	2350
LHQRW	Round Flange	20	0	32	0	85	±0.3	54	13	5.7	7.3	5.5	9	5.1	33	22	31	0.020	0.020	5	1400	2740
LHQRW	Round Flange	25	0	40	0	117	±0.3	62	13	5.5	7.5	5.5	9	5.1	33	22	31	0.020	0.020	5	1560	3140
LHQRW	Round Flange	30	0	45	0	128	±0.3	74	13	6.0	7.0	6.6	11	6.1	60	35	49	0.020	0.020	6	2490	5490


For Precautions for Use, see P266

After greasing, refuel grease by stroking bushings.

Perpendicularity of D to flange mounting surface

kgf=Nx0.101972

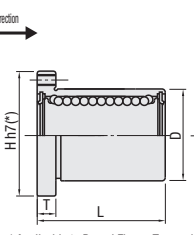
Feature: O.D. of these bushings is designed to be 5 to 8mm smaller than those of conventional flanged linear bushings to save space.



Mini-Flanged Linear Bushings

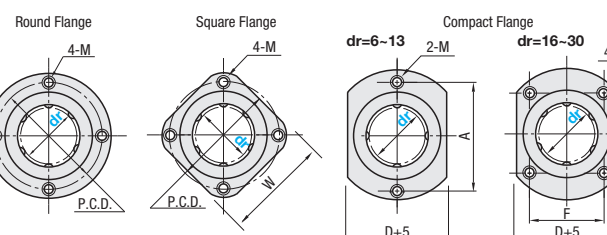
RoHS

Type	Outer Cylinder	Balls	Retainer	Ambient Operating Temp.	Accessories
Round Flange	Material: 52100 Bearing Steel	Material: 52100 Bearing Steel	Material: Plastic (Duracon M90)	-20~80°C	Seal Material: Nitrile Rubber (-20~120°C)
Compact Flange	Material: 52100 Bearing Steel	Material: 52100 Bearing Steel	Material: Plastic (Duracon M90)	-20~80°C	Seal Material: Nitrile Rubber (-20~120°C)



Mounting Direction

H/7, T, L, H, d1, d, F, A



Round Flange, Square Flange, Compact Flange

dr=6~13, dr=16~30

4-M, 2-M, 4-M

P.C.D., D+5, F, A

* Applicable to Round Flange Type only

Part Number	Type	dr	Tolerance	D	Tolerance	L	Tolerance	H	T	M	P.C.D.	W	F	A	Eccentricity	Perpendicularity	Rows of Balls	Basic Load Rating	Mass (g)
LHTR	Round Flange	6	0	12	0	19	±0.3	23	5	M3	17	18	-	17	0.012	0.012	4	206	265
LHTR	Round Flange	8	0	15	0	24	±0.3	27	5	M3	21	21	-	21	0.012	0.012	4	265	380
LHTR	Round Flange	10	0	19	0	29	±0.3	34	6	M4	26	26	-	26	0.012	0.012	4	372	549
LHTR	Round Flange	12	0	21	0	30	±0.3	37	6	M4	29	28	-	29	0.012	0.012	4	412	598
LHTR	Round Flange	13	0	23	0	32	±0.3	38	6	M4	30	30	-	30	0.012	0.012	4	510	784
LHTR	Round Flange	16	0	28	0	37	±0.3	43	8	M5	35	33	20	29	0.015	0.015	5	775	1180
LHTR	Round Flange	20	0	32	0	42	±0.3	48	8	M5	39	37	22	32	0.015	0.015	5	882	1370
LHTR	Round Flange	25	0	40	0	59	±0.3	56	8	M5	47	45	27	39	0.015	0.015	6	980	1570
LHTR	Round Flange	30	0	45	0	64	±0.3	66	10	M6	55	51	32	45	0.015	0.015	6	1570	2740

For Precautions for Use, see P266

Perpendicularity of D to flange mounting surface

kgf=Nx0.101972

Price Configure Online

dr	Unit Price					
	Grease Fitting		Mini-Flanged			
	Round Flange	Compact Flange	Round Flange	Square Flange	Compact Flange	
6	LHQRW	LHQCW	LHTR	LHTRF	LHTR	LHTRF
8						
10						
12						
13						
16						
20						
25						
30						

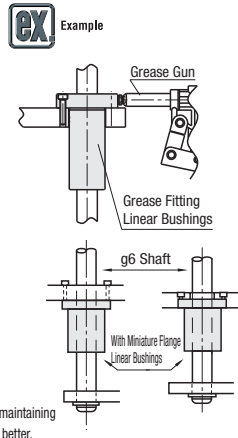
Ordering Example: LHQRW16, LHTR16, LHQRW10L, LHQRW10G, LHQCW10H

(L Type Greased), (G Type Greased), (H Type Greased)

Alternative grease types available. For Days to Ship, Price and Performance, see P266


Days to Ship Configure Online

[Strength of Mini-Flanged Linear Bushings] Housing strength test has proven that these bushings are as capable of maintaining strength under moment load as conventional flanged linear bushings, or better.



Height-Adjusting Spacers for Flanged Bushings / Spacers / Stoppers for Linear Bushings

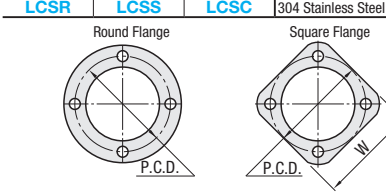
Feature: Bushing position can be adjusted in axial direction.



Height-Adjusting Spacers for Flanged Bushings

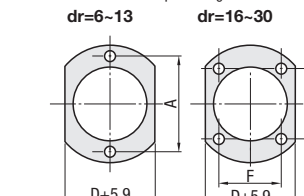
RoHS

Type	Material
Round Flange	304 Stainless Steel
Square Flange	304 Stainless Steel
Compact Flange	304 Stainless Steel



Round Flange, Square Flange

P.C.D., W, F, A



Compact Flange

dr=6~13, dr=16~30

D+5.9, F, A

Mounting Dimensions: A, T±0.1, H, D

Part Number	Type	dr	Tolerance	D	Tolerance	d	H	P.C.D.	W	F	A	Unit Price
LCSR	Round Flange	6	0	12.1	0	3.5	28	20	22	-	20	
LCSR	Round Flange	8	0	15.1	0	3.5	32	24	25	-	24	
LCSR	Round Flange	10	0	19.1	0	4.5	40	29	30	-	29	
LCSR	Round Flange	12	0	21.1	0	4.5	42	32	32	-	32	
LCSR	Round Flange	13	0	23.1	0	4.5	43	33	34	-	33	
LCSR	Round Flange	16	0	28.1	0	5.5	48	38	37	22	31	
LCSR	Round Flange	20	0	32.1	0	5.5	54	43	42	24	36	
LCSR	Round Flange	25	0	40.1	0	6.6	62	51	50	32	40	
LCSR	Round Flange	30	0	45.1	0	6.6	74	60	58	35	49	

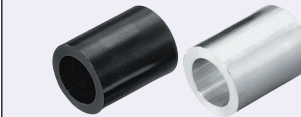
Linear Bushings Compact Type on P281, 282, and 284 are not applicable.

Ordering Example: LCSR12, LCSR25, LCSR30

Days to Ship Configure Online

Price Configure Online

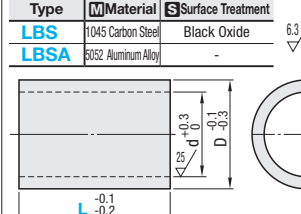
Feature: Spacers for Linear Bushing installation.



Spacers for Linear Bushings

RoHS

Type	Material	Surface Treatment
LBS	1045 Carbon Steel	Black Oxide
LBSA	6062 Aluminum Alloy	-



6.3 (25/6.3)

L, D, d, T, F, A


Part Number	Type	No.	L in mm	D	d	Min. L-40	L41-100	L101-150	Min. L-40	L41-100	L101-150
LBS	Round Flange	3	7	4	4	1-9 pcs	10-29	1-9 pcs	10-29	1-9 pcs	10-29
LBS	Round Flange	4	8	5	5	-	-	-	-	-	-
LBS	Round Flange	5	10	6	6	-	-	-	-	-	-
LBS	Round Flange	6	12	7	7	-	-	-	-	-	-
LBS	Round Flange	8	15	9	9	-	-	-	-	-	-
LBS	Round Flange	10	19	11	11	-	-	-	-	-	-
LBS	Round Flange	12	21	13	13	-	-	-	-	-	-
LBS	Round Flange	13	23	14	14	-	-	-	-	-	-
LBS	Round Flange	16	28	17	17	-	-	-	-	-	-
LBS	Round Flange	20	32	22	22	-	-	-	-	-	-
LBS	Round Flange	25	40	27	27	-	-	-	-	-	-
LBS	Round Flange	30	45	32	32	-	-	-	-	-	-
LBS	Round Flange	35	52	37	37	-	-	-	-	-	-
LBS	Round Flange	40	60	42	42	-	-	-	-	-	-
LBS	Round Flange	50	80	52	52	-	-	-	-	-	-

Linear Bushings - Compact P274 not compatible.

For orders larger than indicated quantity, please request a quotation.

Alteration	Code	Spec.	Price Adder
Oil Groove Machining	MC	Oil groove is added.	
		No. A B d1	
		3, 4 1.5 0.3 1	
		5-8 2.5 0.5 2	
		10-50 5 1 3	

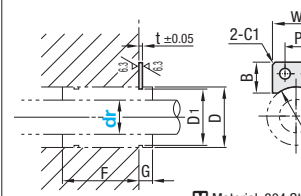
Feature: Retaining Plates for Linear Bushing installation.



Stoppers for Linear Bushings

RoHS

Type	Material
LMST	304 Stainless Steel



LMST

W, H, B, t, d, P, h, D, F, G

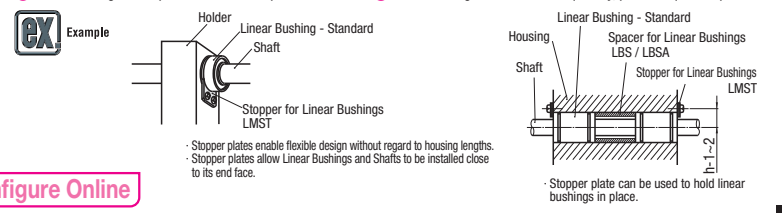
Ordering Example: LMST16

Days to Ship Configure Online

Part Number	Type	dr	D1	W	H	B	t	d	P	h	D	F	G	Mass (g)	Unit Price	Days to Ship
LMST	Round Flange	5	9.6	14	13	12	1.0	6	9	10	11.5	3.5	1.0			
LMST	Round Flange	6	11.5	14	13	12	1.0	6	10	12	15.15	3.85	1.0			
LMST	Round Flange	8	14.3	16	15	15	1.2	8	12	15	19.65	4.35	1.1			
LMST	Round Flange	10	18	18	13	13	1.2	8	14	19	24.2	4.8	1.1			
LMST	Round Flange	12	20	19	12.5	12.5	1.2	8	15	21	25.2	5.8	1.1			
LMST	Round Flange	13	22	20	12	12	1.2	8	16	23	26.2	6.85	1.1			
LMST	Round Flange	16	27	25	15.5	15.5	1.5	10	20	28	30.15	7.35	2.5			
LMST	Round Flange	20	30.5	27	15	15	1.5	10	22	32	34.65	7.35	2.5			
LMST	Round Flange	25	38	31	14.5	14.5	1.5	10	26	40	48.15	10.85	2.5			
LMST	Round Flange	30	43	34	14.5	14.5	1.5	10	29	45	52.4	11.6	2.5			

Linear Bushings - Compact P274 not compatible.

For orders larger than indicated quantity, please request a quotation.



Stopper plates enable flexible design without regard to housing lengths. Stopper plates allow Linear Bushings and Shafts to be installed close to its end face.

Stopper plate can be used to hold linear bushings in place.