

# Linear Bushings with Grease Fitting / Mini-Flanged Linear Bushings

- Double - - Female Threaded Hole Type (For Space-Saving) -

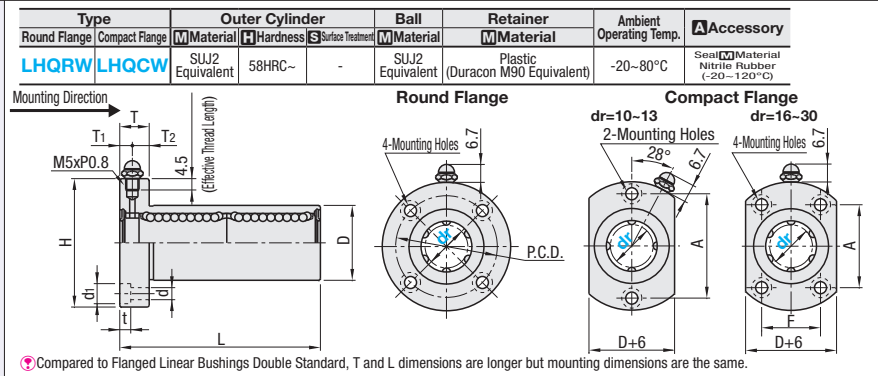


Features: Easy maintenance with Grease Fitting for lubrication.

CAD Data Folder Name: 04\_Linear Bushings\_and\_Ball\_Splines

Ordering Example	Part Number
	LHQRW16
	LHTR16

## Linear Bushings with Grease Fitting

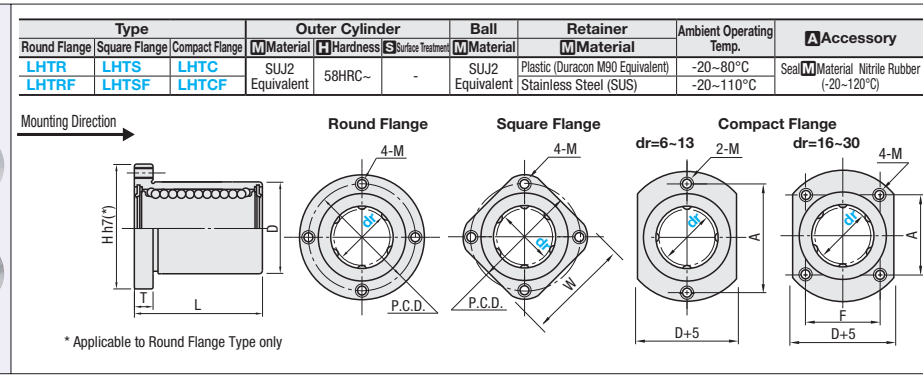


Part Number Type	dr	Tolerance	D Tolerance	L Tolerance	H	T	T1	T2	d	d1	t	P.C.D.	F	A	Eccentricity	Perpendicularity	Rows of Balls	Basic Load Rating			Mass (g)	
																		C (Dynamic)	N (Co)	(Static)	N	Round Flange
LHQRW	10	0	19	60	40							29	-	29	0.015	0.015	4	588	1100	7.24	139	120
LHQCW	12	-0.010	21	62	42	11	4.6	6.4	4.5	7.5	4.1	32	-	32	0.015	0.015	5	657	1200	10.9	154	134
	13	-0.010	23	66	43							33	-	33	0.015	0.015	6	813	1570	11.6	175	157
	16	0	28	75	48		4.7	6.3				38	22	31	0.020	0.020	5	1230	2350	19.7	245	225
	20	0	32	85	54		5.7	7.3				43	24	36	0.020	0.020	6	1400	2740	26.8	318	290
	25	-0.012	40	117	62	13	5.5	7.5	5.5	9	5.1	51	32	40	0.020	0.020	6	1560	3140	43.4	626	594
	30	-0.012	45	128	74		6.0	7.0	6.6	11	6.1	60	35	49	0.020	0.020	6	2490	5490	82.8	758	705

\* For Precautions for Use, refer to P.221. \* After greasing, refuel grease by stroking bushings. \* Perpendicularity of D to flange mounting surface kgf=Nx0.101972

Features: O.D. of these bushings is designed to be 5 to 8mm smaller than those of standard Flanged Linear Bushings to save space.

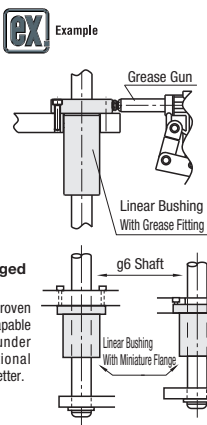
## Mini-Flanged Linear Bushings



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)	
															C (Dynamic)	N (Co)	(Static)	N	Round Flange
LHTR	6	0	12	19	23	5	M3	17	18	-	17	0.012	0.012	4	206	265	19	15	17
LHTRF	8	0	15	-0.013	24			21	21	-	21	0.012	0.012	4	265	380	30	25	27
LHTRF	10	0	19	-0.016	29			26	26	-	26	0.012	0.012	4	372	549	61	50	53
LHTRF	12	-0.009	21	-0.016	30			29	28	-	29	0.012	0.012	4	412	598	66	52	57
LHTRF	13	-0.009	23	-0.016	32			30	30	-	30	0.012	0.012	4	510	784	78	66	70
LHTRF	16	0	28	-0.016	37			35	33	20	29	0.015	0.015	5	775	1180	108	90	99
LHTRF	20	0	32	-0.019	42			39	37	22	32	0.015	0.015	5	882	1370	159	130	145
LHTRF	25	-0.010	40	-0.019	56			47	45	27	39	0.015	0.015	6	980	1570	314	283	298
LHTRF	30	-0.010	45	-0.019	64			55	51	32	45	0.015	0.015	6	1570	2740	417	350	380

\* For Precautions for Use, refer to P.221. \* Perpendicularity of D to flange mounting surface kgf=Nx0.101972

	Standard	3 Days
	Stock	
	7 Days	Express B
	Stock	



[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.

# Spacers / Stoppers for Linear Bushings

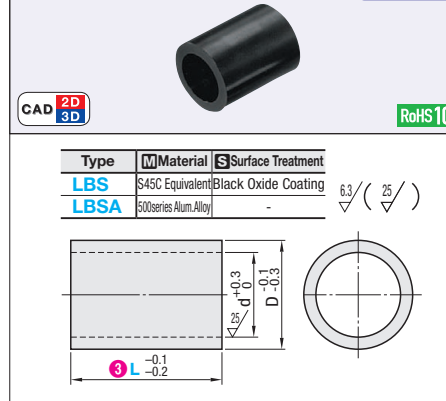


CAD Data Folder Name: 04\_Linear Bushings\_and\_Ball\_Splines

When ordering, select Part Number and Values from Selection Steps 1~3

Ordering Example	Part Number (1 Type-2 No.)	-	3 L
	LBS3	-	10

## Spacers for Linear Bushings

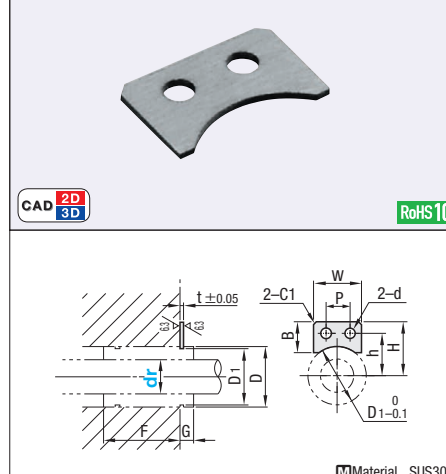


	3 Days*
	Order Quantity: Standard Service Regular Quantity Large Quantity
	Quantity: 1-30 31- To be quoted
	Days to ship: Standard To be quoted

Features: Holding Plates for installation of Linear Bushing on Housings.

Ordering Example	Part Number (Type-dr)
	LMST16

## Stoppers for Linear Bushings



	Stock
	Order Quantity: Standard Service Regular Quantity Large Quantity
	Quantity: 1-50 51- To be quoted
	Days to ship: Standard To be quoted

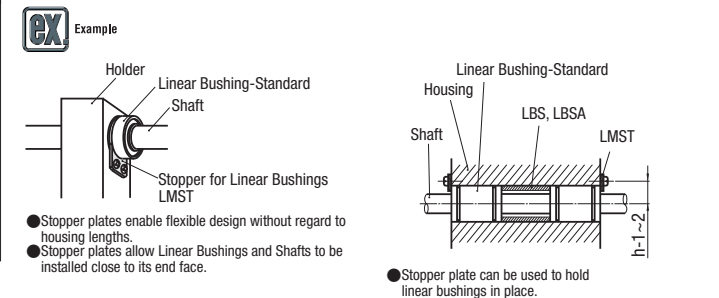
Part Number 1 Type	2 No.	3 L Configurable 1mm Increment	D	d
	3	5-40	7	4
	4		8	5
	5	5-50	10	6
	6		12	7
	8		15	9
	10		19	11
	12		21	13
	13	10-100	23	14
	16		28	17
	20		32	22
	25		40	27
	30		45	32
	35	10-150	52	37
	40		60	42
	50		80	52

\* Not applicable to Linear Bushings - Compact P.228.

Alteration	Code	Spec.
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

Part Number Type	dr	External Dimensions					Mounting Hole Dimensions			Reference Dimensions			Mass (g)
		D1	W	H	B	t	d	P	h	D	F	G	
LMST	5	9.6	14	13	12	1.0	3.4	6	9	10	11.5	3.5	1.0
	6	11.5	14	13	12	1.0			10	12	15.15	3.85	
	8	14.3	16	15	15	1.2			12	15	19.65	4.35	
	10	18	18	18	18	1.2			14	19	24.2	4.8	
	12	20	19	12.5	12.5	1.2			15	21	25.2	4.8	
	13	22	20	12	12	1.5	4.5	10	16	23	26.2	5.8	2.5
	16	27	25	15.5	15.5	1.5			20	28	30.15	6.85	
	20	30.5	27	15	15	1.5			22	32	34.65	7.35	
	25	38	31	14.5	14.5	1.5			26	40	48.15	10.85	
	30	43	34	14.5	14.5	1.5			29	45	52.4	11.6	

\* Not applicable to Linear Bushings - Compact P.228.



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.