

HEPCO- ASK

B A L L B U S H I N G U N I T S



HEPCO-ASK

BALL BUSHING UNITS

Hepco has distributed ASK's linear motion products exclusively for over 20 years. The current range continues ASK's tradition of offering designers and engineers the highest quality linear bearings - standard linear ball bushings are complemented by

a wide variety of flanged units and housings for ease of installation. The combination of the best application advice from Hepco's Technical Sales Team and the wide ASK range means Customer requirements are met exactly.

BALL BUSHINGS

A quality range of precision bearings with plastic retainers. A very competitively priced product with no sacrifice to quality. Also includes a range of 'long series' ball bushings with extra rigidity.



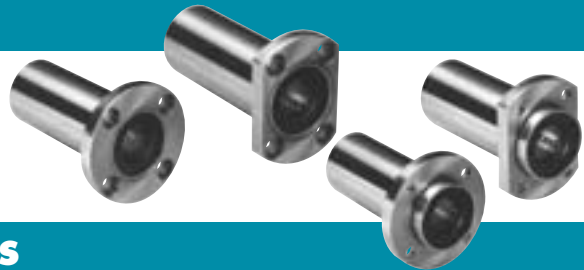
NF SERIES

A compact ball bushing with integral outer case and flange. This product with its machined datum face offers the designer a unique compact and very simple solution for mounting a datum platform perpendicular to the direction of travel.



NF LONG SERIES

A very versatile range of products. Two flange profiles and two methods of location. In addition the longer bearing length gives much greater rigidity and load capacity.



LCF-B FLANGED HOUSINGS

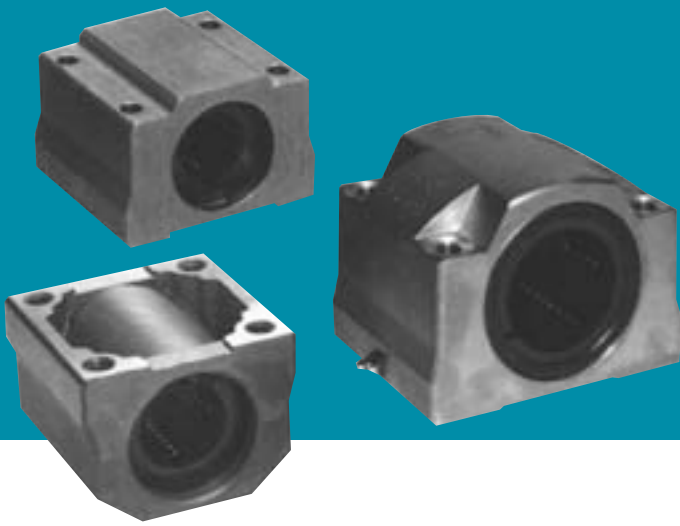
For more arduous applications than the NF long type product the use of the LCF flanged housing is recommended. With a longer distance between the two separate internal ball bushings this product offers even greater rigidity and load carrying capacity. Location on both sides of a spigot flange are offered, as is the capability to connect to a central lubrication system.



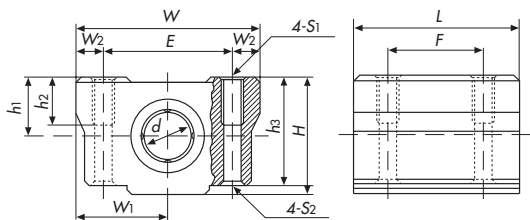
LC HOUSINGS

For applications where the datum face is required to be mounted in the same plane as the direction of travel the LC housing offers the designer a very effective 'off the shelf' solution. The simple 'four' fixing hole arrangement with machined datum faces also offers the ability of fixation from either side.

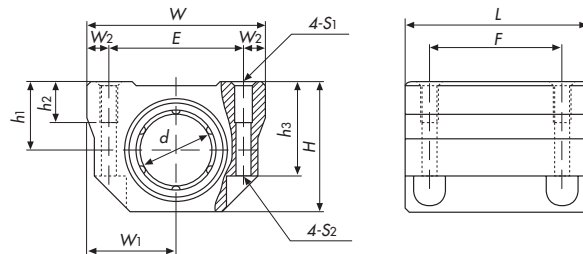




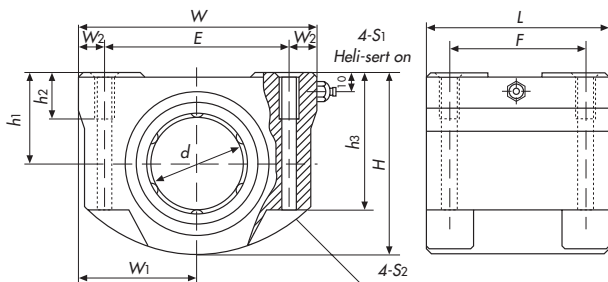
- Lightweight aluminium housing
- 4 fixing holes allow simple mounting to plate
- Can be fixed from either side



LC-8VUU-12VUU



LC-12VUU-30VUU



LC-40VUU Note: Grease nipple attached (A-PT 1/8)

Reference Number	Main Dimensions												Weight (kg)	Basic Load Capacity		
	d	h ₁ ±0.02	W	E ±0.1	W ₁ ±0.02	W ₂	h ₂	h ₃	H	L	F	S ₁		S ₂	C (kgf)	C (kgf)
LC-8VUU	8	11	34	24	17	5	8	20	22	30	18	M4	3.4	0.040	27	23
LC-10VUU	10	13	40	28	20	6	12	23.5	26	36	21	M5	4.3	0.069	38	43
LC-12VUU	12	15	43	30.5	21.5	6.25	10	21	29	39	26	M5	4.3	0.10	42	44
LC-16VUU	16	19	50	36	25	7	12	28	37	49	34	M5	4.3	0.18	79	72
LC-20VUU	20	21	54	40	27	7	12	32	41	55	40	M6	5.1	0.23	88	103
LC-25VUU	25	26	76	54	38	11	18	37	51	73	50	M8	6.9	0.53	104	200
LC-30VUU	30	30	78	58	39	10	18	43	57	80	58	M8	6.9	0.63	148	255
LC-40VUU	40	40	110	80	55	15	20	60	78	80	60	M10	9	1.54	280	443

Note: All LC Series units are supplied with seals both ends.

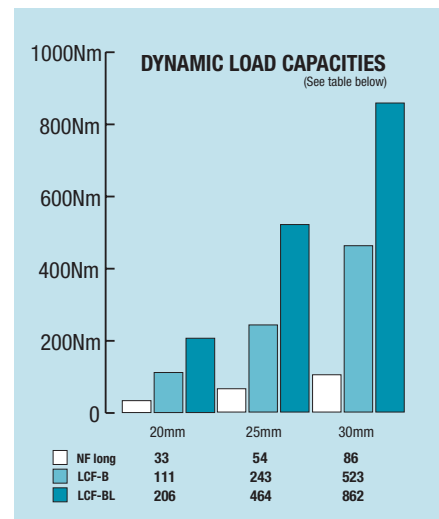
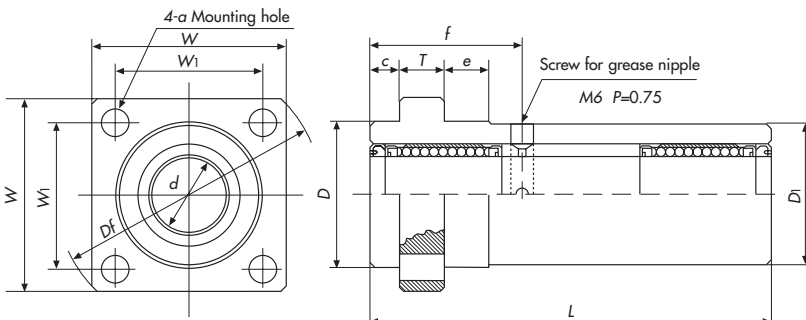
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BALL BUSHING UNITS WITH FLANGE

LCF-B-BL SERIES



- Ideal for arduous applications
- Connections for (manual or automatic) lubrication
- Greater rigidity
- High load / moment load capacity
- Location diameter on both sides of spigot



Reference Number	Main Dimensions												Number of Ball Circuits	Weight (kg)	Basic Load Capacity		Moment Load Capacity	
	d	$\frac{D}{h7}$	$\frac{L}{-0.3}$	D_f	W	T	W_1	a	$\frac{c}{-0.3}$	e	f	D_1			C (kgf)	C_0 (kgf)	Dyn Nm	Stat Nm
LCF-12BUU	12	26	72	48	36	8	26	6	8	8	36	25	5	0.25	123	90	46	34
LCF-16BUU	16	32	76	58	45	10	32	7	8	10	38	31	5	0.38	166	130	65	51
LCF-20BUU	20	40	82	73	53	12	40	7	8	12	41	39	6	0.65	257	158	111	68
LCF-25BUU	25	45	102	83	62	12	45	9	12	12	51	44	6	0.88	459	278	243	147
LCF-30BUU	30	52	122	94	69	15	52	9	12	15	61	51	6	1.36	721	394	523	286
LCF-40BUU	40	65	144	112	82	15	65	9	12	15	72	64	6	2.12	1131	652	820	473
LCF-16BLUU	16	32	100	58	45	10	32	7	8	10	38	31	5	0.45	166	130	104	82
LCF-20BLUU	20	40	120	73	53	12	40	7	8	12	41	39	6	0.85	257	158	206	126
LCF-25BLUU	25	45	150	83	62	12	45	9	12	12	51	44	6	1.15	464	278	464	278
LCF-30BLUU	30	52	180	94	69	15	52	9	12	15	61	51	6	1.77	721	394	862	471
LCF-40BLUU	40	65	240	112	82	15	65	9	12	15	72	64	6	3.15	1131	652	1973	1137

Note: 1 To the axis, the concentricity of outer surface of the case and squareness of mounting face of the flange are below 0.025 respectively.

2 The shaft tolerance of h7 for normal clearance and h6, h5 for tight clearance are advisable.

3 All mounted with specific seals at two ends.

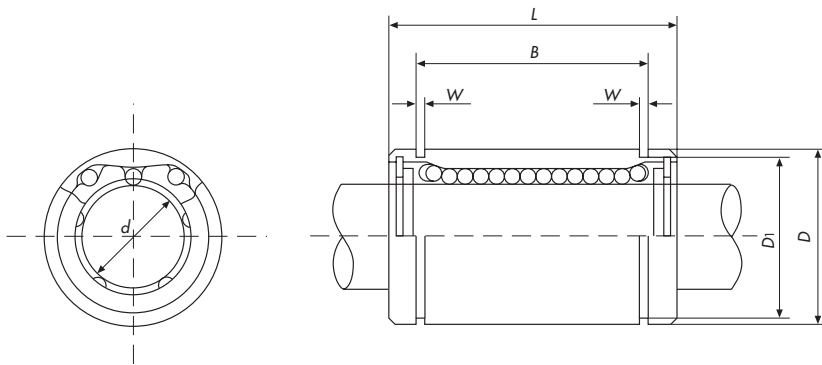
BALL BUSHINGS

L SERIES

NL SERIES



- Plastic retainers for quiet operation
- Metric dimensions for European market
- NL long series for greater rigidity



L SERIES

Reference Number		Inside Diameter		Outside Diameter		Length		Setting Groove			Number of Ball Circuits	Weight (kg)	Basic Load Capacity		
	With two seals	<i>d</i>	Tolerance	<i>D</i>	Tolerance	<i>L</i>	Tolerance	<i>B</i>	Tolerance	<i>W</i>			<i>D</i> ₁	<i>C</i> (kgf)	<i>C</i> ₀ (kgf)
L-6V	L-6VUU	6	+0.008 0	12	0	19	0	13.5	0	1.15	11.5	4	0.007	21	13
L-8V	L-8VUU	8		16	-0.008	25		16.5		1.15	15.2	4	0.014	27	23
L-10V	L-10VUU	10		19	0	29		21.9		1.35	18.0	4	0.030	38	43
L-12V	L-12VUU	12	+0.009 -0.001	22	0	32	-0.2	22.9	0	1.35	21.0	4	0.032	42	44
L-16V	L-16VUU	16		26	0	36		25		1.35	24.9	5	0.054	60	66
L-20V	L-20VUU	20		32	0	45		31.5		1.65	30.3	5	0.090	88	103
L-25V	L-25VUU	25	+0.011 -0.001	40	0	58	0	44.1	0	1.90	38.0	6	0.212	104	200
L-30V	L-30VUU	30		47	0	68		52.1		1.90	45.5	6	0.330	148	255
L-40V	L-40VUU	40		62	0	80		60.7		2.20	59.0	6	0.780	280	443

NL SERIES

Reference Number		Inside Diameter		Outside Diameter		Length		Setting Groove			Number of Ball Circuits	Weight Capacity (kg)	Basic Load		
	With two seals	<i>d</i>	Tolerance	<i>D</i>	Tolerance	<i>L</i>	Tolerance	<i>B</i>	Tolerance	<i>W</i>			<i>D</i> ₁	<i>C</i> (kgf)	<i>C</i> ₀ (kgf)
NL-8V	NL-8VUU	8	0	15	0	45	0	35	0	1.10	14.3	4	0.028	45	64
NL-10V	NL-10VUU	10		19		55		44		1.35	18	4	0.060	63	86
NL-12V	NL-12VUU	12		21		57		46		1.65	20	4	0.064	70	88
NL-16V	NL-16VUU	16		28		70		53			27	4	0.140	125	158
NL-20V	NL-20VUU	20	0	32	0	80	0	61	0	1.90	30.5	5	0.180	148	206
NL-25V	NL-25VUU	25		40		112		82			38	6	0.424	174	400
NL-30V	NL-30VUU	30		45		123		89			43	6	0.480	247	510

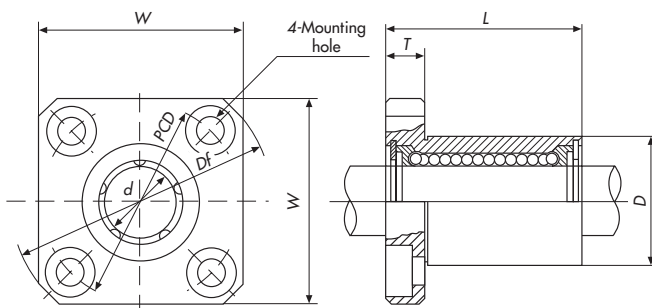
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BALL BUSHING UNITS WITH FLANGE

NF SERIES



- Compact bushing with integral outer case
- Machined datum for end face mounting
- Outer location diameter



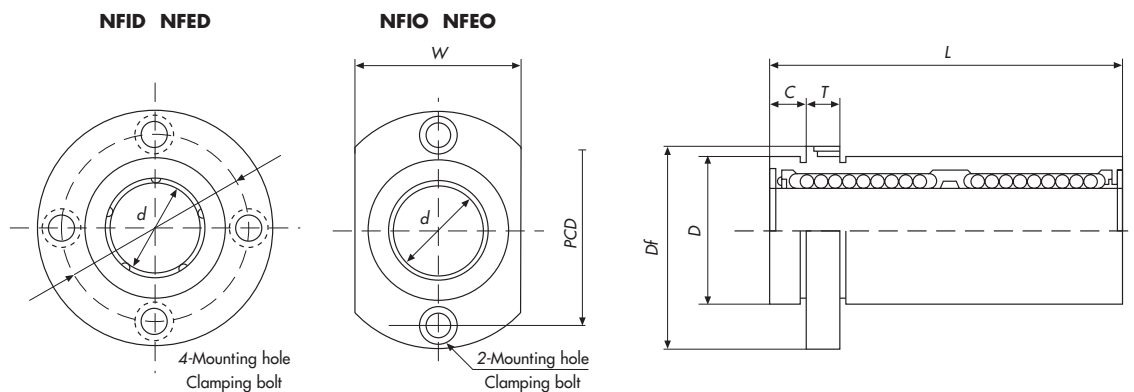
Reference Number	Main Dimensions										Number of Ball Circuits	Weight (kg)	Basic Load Capacity	
	d	Tolerance	D h1	L	Tolerance	Df	W	T	PCD	Clamping Bolt			C (kgf)	Co (kgf)
NF-8VUU	8	0 -0.009	16	24	0 -0.2	32	25	5	24	M3	4	0.04	27	23
NF-10VUU	10		19	29		39	30	6	29	M4	4	0.06	38	43
NF-12VUU	12		22	30		42	32	6	32	M4	4	0.08	42	44
NF-16VUU	16		26	36		46	35	6	36	M4	5	0.10	60	66
NF-20VUU	20	0 -0.010	32	42	0 -0.3	54	42	8	43	M5	5	0.18	88	103
NF-25VUU	25		40	58		62	50	8	51	M5	6	0.30	102	200
NF-30VUU	30	47	64	76	60	10	62	M6	6	0.55	148	255		
NF-35VUU	35	0	52	70	82	64	10	67	M6	6	0.59	167	314	
NF-40VUU	40	-0.012	60	80	96	75	13	78	M8	6	1.21	280	443	

Note: The squareness of datum face of the flange to axis: below 0.012 for $\phi 8 \sim \phi 16$.
below 0.015 for $\phi 20 \sim \phi 30$ below 0.020 for $\phi 35 \sim \phi 40$.

BALL BUSHING UNITS WITH FLANGE NF LONG SERIES



- Longer series than NF type
- Spigot type for end location and mounting
- Oval flange where space is a premium
- Long series for greater rigidity



SPIGOT TYPE

Reference Number	Main Dimensions												Weight (kg)	Basic Load Capacity		Moment Load Capacity	
	d	Tolerance	D	Tolerance	L	Tolerance	Df	T	C	W	PCD	Clamping Bolt		C (kgf)	Co (kgf)	Dyn Nm	Stat Nm
NFID-8VLUU	8	0	15	0	45	0	32	5	5	N/A	24	M3	0.048	45	32	6	4
NFIO-8VLUU										21							
NFID-10VLUU	10	-0.010	19	0	55	-0.3	40	6	6	N/A	29	M4	0.088	63	60	10	9
NFIO-10VLUU										25							
NFID-12VLUU	12	-0.016	21	0	57	-0.3	42	6	6	N/A	32	M4	0.093	70	86	11	12
NFIO-12VLUU										27							
NFID-16VLUU	16		28		70		48	6	6	N/A	38	M4	0.170	125	152	26	31
NFID-20VLUU	20		32		80		54	8	8	N/A	43	M5	0.247	148	206	33	46
NFID-25VLUU	25	0	40	0	112	0	62	8	8	N/A	51	M5	0.502	174	386	54	120
NFID-30VLUU	30	-0.012	45	-0.019	123	-0.4	74	10	10	N/A	60	M6	0.631	247	452	86	157

END FLANGE TYPE

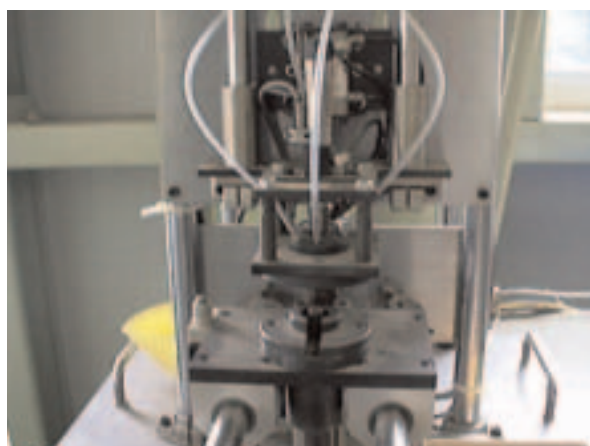
Reference Number	Main Dimensions												Weight (kg)	Basic Load Capacity		Moment Load Capacity	
	d	Tolerance	D	Tolerance	L	Tolerance	Df	T	C	W	PCD	Clamping Bolt		C (kgf)	Co (kgf)	Dyn Nm	Stat Nm
NFED-8VLUU	8	0	15	0	45	0	32	5	0	N/A	24	M3	0.048	45	32	6	4
NFEO-8VLUU										21							
NFED-10VLUU	10	-0.010	19	0	55	-0.3	40	6	0	N/A	29	M4	0.088	63	60	10	9
NFEO-10VLUU										25							
NFED-12VLUU	12	-0.016	21	0	57	-0.3	42	6	0	N/A	32	M4	0.093	70	86	11	12
NFEO-12VLUU										27							
NFED-16VLUU	16		28		70		48	6	0	N/A	38	M4	0.170	125	152	26	31
NFED-20VLUU	20		32		80		54	8	0	N/A	43	M5	0.247	148	206	33	46
NFED-25VLUU	25	0	40	0	112	0	62	8	0	N/A	51	M5	0.502	174	386	54	120
NFED-30VLUU	30	-0.012	45	-0.019	123	-0.4	74	10	0	N/A	60	M6	0.631	247	452	86	157

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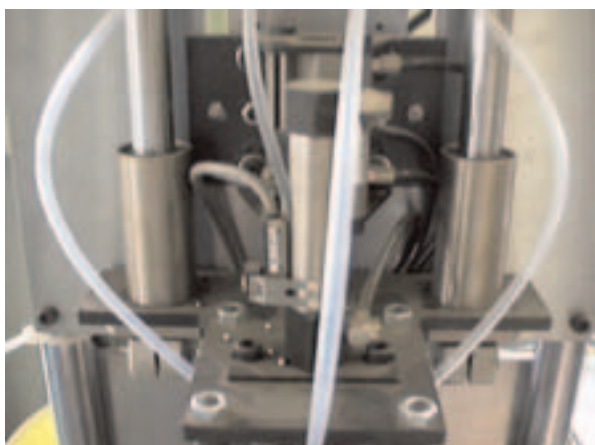
APPLICATION EXAMPLES



NF LONG (SPIGOT FLANGE)



LC ALUMINIUM HOUSING



NF LONG (END FLANGE)



LCB-B TYPE

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