

pacific simplicity™

HepcoMotion®

THE TOUGHEST LINEAR/ROTARY BEARING



**Interchangeable with Metric/Inch
Ball Bushings**

Self-Lubricating

Temperature range -240° to +260°C

HEPCO®

www.HepcoMotion.com

Why use Pacific Simplicity?

Self lubrication

Advancing Technology: Self-lubricating liner bearings require no additional external lubrication.

Simple Design: There is no metal-to-metal contact, due to the Frelon™ liner, ensuring quiet, smooth running.



Zero maintenance

Trouble free: Unaffected by dirt and contamination, the bearings' close fit and wiping action clean the shaft, while the harder particles become embedded in the liner, eliminating shaft damage.

Chemically inert: Frelon™ liners also have almost universal chemical resistance, the anodised aluminium shell ensures there is no rusting or corrosion of the bearing.

Resilient

Resists shock loads: Excellent shock loads and vibration absorption is a benefit, and all this without damage to other components.

Tolerates temperature extremes: Even extreme temperatures of between -240°C and $+260^{\circ}\text{C}$ pose no operating problems for any bearing in this Frelon™ Gold range.

Efficient

Cost effective: Pacific Frelon™ bearings offer great value for money, having a far greater life expectancy than traditional ball bushings, whilst also being less expensive to purchase.

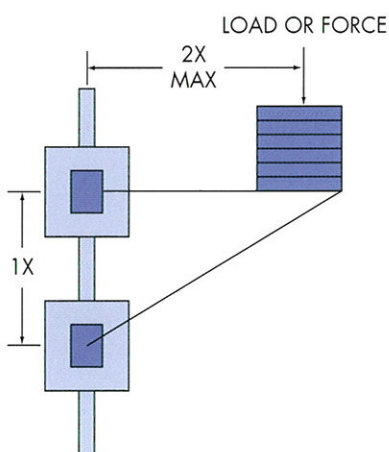
Load capacity: Frelon™ Gold bearings have up to 20x the load capacity of an equivalent size ball bushing.

Interchangeability

Simplicity: A single bearing has the ability to carry out both linear and rotary motion, expanding utilisation possibilities.

As is to be expected, high levels of compatibility with current ball-bushing units are offered throughout this Pacific range, easily able to directly replace other bearings.

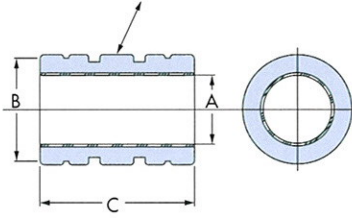
Cantilevered loads



Whether for horizontal or vertical motion it is important that the correct bearing spacing to load position is observed. This will normally be within the 2:1 guidelines as shown below. This ratio is a result of the action of the forces and is applicable to any size of load for a proposed system. Do not exceed the 2:1 ratio otherwise binding will occur.

Closed Metric Bushing

Standard Outside Diameter (FMC-xx)

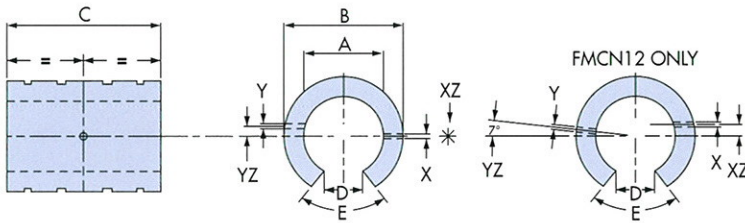


Part	Nominal size mm	A - bearing I.D.		B - O.D.		C-length Min	
		Min	Max	Min	Max (h7)	Min	Max
FMC5	5	5.06	5.078	11.982	12	21.746	22
FMC8	8	8.063	8.085	15.982	16	24.746	25
FMC10	10	10.063	10.085	18.979	19	28.746	29
FMC12	12	12.066	12.093	21.979	22	31.746	32
FMC16	16	16.066	16.093	25.979	26	35.746	36
FMC20	20	20.096	20.129	31.975	32	44.746	45
FMC25	25	25.096	25.129	39.975	40	57.746	58
FMC30	30	30.096	30.129	46.975	47	67.746	68

Part	Effective surface area (cm ²)	Max. static load (kg)	Max PV (m/min*kg/sp.cm)	Max speed (m/min)		Weight Kg
				dry	lubricated	
FMC5	1.1	232	430	91	250	0.004
FMC8	2	420	430	91	250	0.009
FMC10	2.9	610	430	91	250	0.014
FMC12	3.8	806	430	91	250	0.017
FMC16	5.8	1210	430	91	250	0.028
FMC20	9	1890	430	91	250	0.054
FMC25	14.5	3046	430	91	250	0.109
FMC30	20.4	4284	430	91	250	0.176



Open Metric Bushing



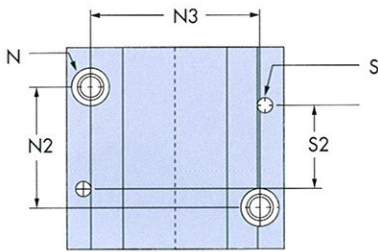
Part	Nominal Size mm	A - bearing I.D.		B - O.D.		C - length Min	
		Min	Max	Min	Max (h7)	Min	Max
FMCN 12	12	12.066	12.093	21.979	22	31.746	32
FMCN 16	16	16.066	16.093	25.979	26	35.746	36
FMCN 20	20	20.096	20.129	31.975	32	44.746	45
FMCN 25	25	25.096	25.129	39.975	40	57.746	58
FMCN 30	30	30.096	30.129	46.975	47	67.746	68

Part	D - Slot Width (mm)	E - Slot Angle	X-Ret Hole dia.	XZ-Ret Hole loc.	Y-Ret Hole dia.	YZ-Ret Hole loc.	Max. speed (m/min)		Max static Load (kg)	Weight (kg)
							dry	Lubricated		
FMCN 12	7.6	78°	3	1.35	3	7	91	250	806	0.0156
FMCN 16	10.4	78°	2.2	0	3	0	91	250	1210	0.0213
FMCN 20	10.8	60°	2.2	0	3	0	91	250	1890	0.0439
FMCN 25	13.2	60°	3	0	3	-1.51	91	250	3046	0.0893
FMCN 30	14.2	72°	3	0	3	2	91	250	4284	0.146

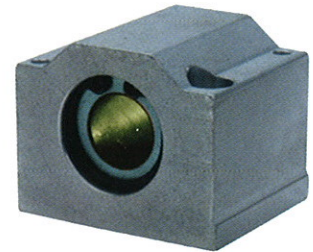
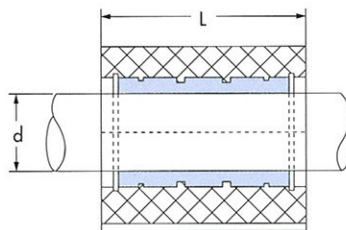
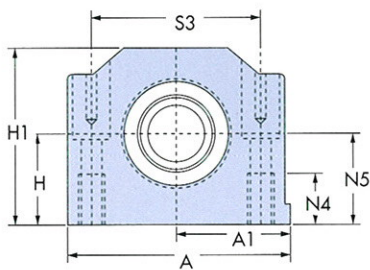


*Other Bearing options available:- European Metric, Japanese Metric, Inch series.

Metric Pillow Blocks - Closed including bushing



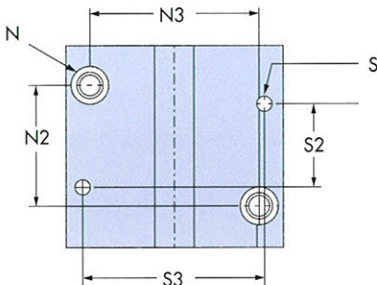
Part	d Nom. I.D min	H Centreline +/- .015	H1 Height	A Width	A1 +/- .013	L Length
PM8C	8	15	28	35	17.5	32
PM10C	10	16	31.5	40	20	36
PM12C	12	18	35	43	21.5	39
PM16C	16	22	42	53	26.5	43
PM20C	20	25	50	60	30	54
PM25C	25	30	60	78	39	67
PM30C	30	35	71	87	43.5	79



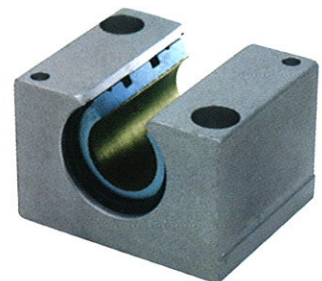
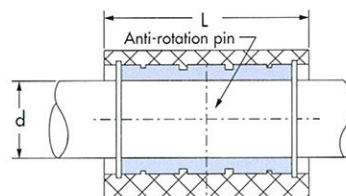
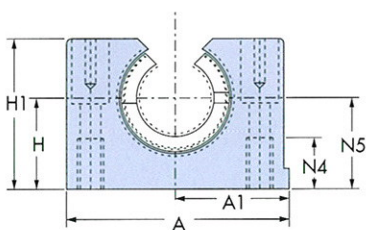
Part	N BOLT	N2	N3	N4	N5	S	S2	S3	Max. Static Load (kg)
PM8C	M4	20+/- .15	25+/- .15	9	14.5	N/A	N/A	N/A	N/A
PM10C	M5	20+/- .15	29+/- .15	11	15	4	29	31	610
PM12C	M5	23+/- .15	32+/- .15	11	16.5	4	32	34	806
PM16C	M6	26+/- .15	40+/- .15	13	21	4	35	42	1210
PM20C	M8	32+/- .15	45+/- .15	18	24	5	45	50	1890
PM25C	M10	40+/- .15	60+/- .15	22	29	6	20	64	3046
PM30C	M10	45+/- .15	68+/- .15	22	34	6	30	72	4284

Note: (1) Standard pillowblock includes self aligning housing and compensated bearing.

Metric Pillow Blocks - Open including bushing



Part	d Nom. I.D min	H Centreline +/- .015	H1 Height	A Width	A1 +/- .013	L Length
PMN12C	12	18	28	43	21.5	39
PMN16C	16	22	35	53	26.5	43
PMN20C	20	25	42	60	30	54
PMN25C	25	30	51	78	39	67
PMN30C	30	35	60	87	43.5	79



Part	N Bolt	N2	N3	N4	N5	S	S2	S3	Max. Static Load (kg)
PMN12C	M5	23+/- .15	32+/- .15	11	16.5	4	32	34	806
PMN16C	M6	26+/- .15	40+/- .15	13	21	4	35	42	1210
PMN20C	M8	32+/- .15	45+/- .15	18	24	5	45	50	1890
PMN25C	M10	40+/- .15	60+/- .15	22	29	6	20	64	3046
PMN30C	M10	45+/- .15	68+/- .15	22	34	6	30	72	4284

Note: (1) Standard pillowblock includes self aligning housing and compensated bearing.

Thin Walled Bearing

Part	Nominal Size (mm)	A - bearing I.D.		B - O.D. (h7)		C - length min	
		Min	Max	Min	Max	Min	Max
FMTC 08	8	8.063	8.085	14.982	15	23.746	24
FMTC 10	10	10.063	10.085	16.982	17	25.746	26
FMTC 12	12	12.066	12.093	18.979	19	27.746	28
FMTC 16	16	16.066	16.093	23.979	24	29.746	30
FMTC 20	20	20.096	20.129	27.979	28	29.746	30
FMTC 25	25	25.096	25.129	34.975	35	39.746	40
FMTC 30	30	30.090	30.129	39.975	40	49.746	50

Part	Max speed (m/min)		Effective Surface Area (sq. cm)	Max. static Load (kg)	Bearing Weight (kg)
	Dry	Lubricated			
FMTC 08	91	250	1.9	404	0.007
FMTC 10	91	250	2.6	546	0.008
FMTC 12	91	250	3.4	706	0.011
FMTC 16	91	250	4.8	1008	0.018
FMTC 20	91	250	6.0	1260	0.022
FMTC 25	91	250	10.0	2100	0.043
FMTC 30	91	250	15.0	3150	0.065



Bearing Shaft Compatibility

Liner	Hard & Ground Steel		Soft Stainless 300 Series	Feathershaft Or Aluminium	Chrome Plated
	Carbon CK 53	Stainless 400 Series			
Frelon Gold	✓	x	x	✓	x
Frelon J	x	✓	✓	✓	x



To get the best performance from your Pacific bearings we suggest the use of Hepco's linear shafting, hardened and ground to RC60 (other options available). Surface finish. .20-.40µm.

Bearing Liner Compatibility

Liner	Heat (Up to +260C)	Cold (Down to -240C)	Crud			Washdown	Corrosive Chemicals	Vacuum/ Clean Room
			Metal	Stone	Dust			
Frelon Gold	✓	✓	✓	✓	✓	x	x	✓
Frelon J	✓	✓	✓	✓	✓	✓	✓	✓



Alternative Liners



'J' - Liner

The high speed and load benefits of the Hepco-Pacific Frelon™ Gold liner are readily apparent but for the most extreme environments of wash-downs and corrosion the 'J'-Liner is readily available. Designed to run on all stainless steel or aluminium shafts these virtually chemically inert bearings are available at no extra cost.

Alternative Bearing Products



Flanged Housings

Hepco-Pacific Flanged bearings are available either with single or double flanges. These bearings can be either face or end mounted eliminating the need for a precision pilot. With this simplified installation process an improved final alignment of the shaft is combined with a bearing that cannot catastrophically fail.



Sleeve Bearings

Sleeve bearings are an ideal solution for low to moderate speed linear/rotary applications. These bearings combine all of the Simplicity benefits such as self-lubrication, contamination and shock load tolerance ideal for idle rollers, conveyors and packaging machinery.



Square Bearings

Square bearings are utilised in tough applications where alignment is difficult and space is critical. The Simplicity benefits of contamination tolerance, self lubrication and high load capacity are combined with the radial integrity on a single shaft eliminating costly and bulky.

Complementary Linear Products



Shaft

To make the most of your Hepco-Pacific Simplicity bearings we offer high load/ rigidity support rails, light and strong tubular or aluminium options, stainless steel in 400 or 300 Series. All of these options are available in random lengths or machined to your exacting specifications.



Hardened Crown Track Rollers

The Hardened Crown Track Roller is an inexpensive linear motion solution providing low friction, smooth operation and a high load capacity. This simple bearing and rail system combines precision with wide operating tolerances suitable for use in applications such as door/guarding systems and conveyors.

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