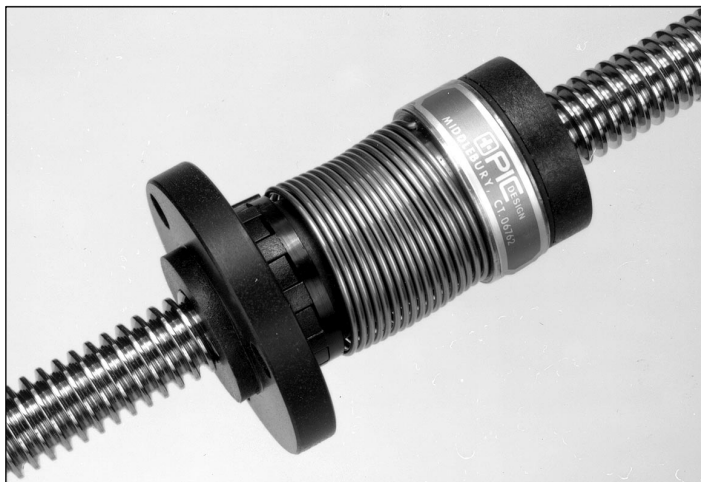


PV STYLE LEAD SCREW NUTS

For Use With PS Series Lead Screws



PV style anti-backlash nuts provide a maximum load carrying capability and the lightest axial and radial stiffness of all PIC anti-backlash nuts. They are designed for smooth, quiet operation and long life, made possible by a patented axial take-up mechanism. Because this series is designed to operate with higher loads, operation is only possible with $\frac{1}{2}$ " and $\frac{3}{4}$ " diameter lead screws.

NUT SPECIFICATIONS

Material: Polyacetal with lubricating additive

Tensile Strength: 9,700 PSI at 73°F

Shear Strength: 9,500 PSI at 73°F

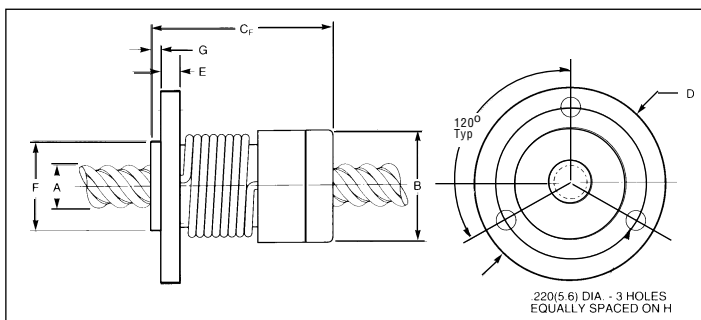
SYSTEM (NUT AND LEAD SCREW) SPECIFICATIONS

Temperature Range: 32°F to 200°F

Coefficient of Friction: .08 Static to .15 Dynamic

Coefficient of Thermal Expansion: 6×10^{-5} in./in./°F

Screw Dia.	Lead (in. or mm)	Drag Torque	Design Load	Part No.
$\frac{1}{2}$	0.050	2-6 oz.-in. (.01 - .04NM)	150 lbs. (68kg)	PV8005N
	0.100			PV8010N
	0.200			PV8020N
	0.500			PV8050N
	1.000			PV8100N
$\frac{3}{4}$	1.000	3-7 oz.-in. (.02 - .05NM)	350 lbs. (159kg)	PV12100N
	2.000			PV12200N



INTEGRALLY MOLDED FLANGE MOUNT

PV Standard Mounting Dimensions

Series	Screw Dia. A		Nut Dia. B		Nut Length CF		Flange Dia. D		Flange Width E		Pilot Dia. F		Pilot Depth G		Bolt Circle Dia. H	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
PV8000	$\frac{1}{2}$	(12.70)	1.12	(28.45)	2.3	(58.42)	1.75	(44.45)	.23	(5.84)	.93	(23.63)	.12	(3.05)	1.406	(35.71)
PV12000	$\frac{3}{4}$	(19.05)	1.62	(41.15)	2.8	(71.12)	2.38	(60.45)	.31	(7.87)	—	—	—	—	2.00	(50.80)

Please Contact PIC For Optional Mounting Threads Or Special Configuration Requirements.

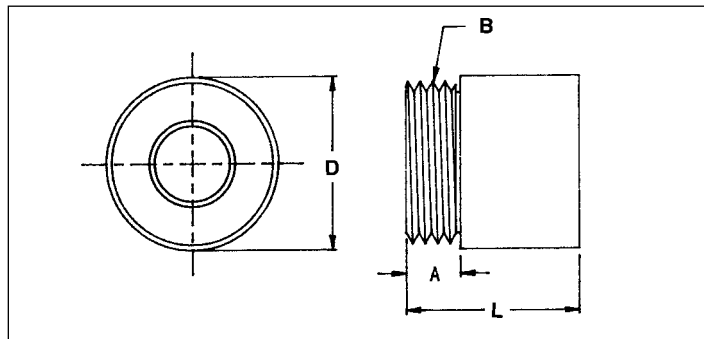
ACME LEAD SCREW POWER NUTS

Inch and Metric



Features:

- Tensile strength (at break) 5900 PSI
- Elongation (at break) 19%
- Flexural yield strength 8000 PSI
- Compressive strength 9500 PSI
- Coefficient of friction:
 - static (40 psi) = .08
 - dynamic (40 psi / 50 fpm) = .12
- Coefficient of linear thermal expansion 5.2×10^{-5} in./in./°F
- Limiting PV (1" dia shaft, 100 FPM) 16000 PSI-FPM



Specifications:

Hardness: Durometer Shore D 75

Temperature Range: Min. 32°F, Max. 180°F

Max. Speed (Unlubricated): 200 ft/min

Material: Turcite X (Acetal - Teflon and Silicon filled)

Note:

It is recommended that dynamic loads not exceed 25% of the static load rating. Factors such as speed, duty cycle, eccentric cantilever loading and temperature can adversely effect load ratings.

1) Torque values to raise 1 lb. also apply to anti-backlash nuts for load torque calculations.

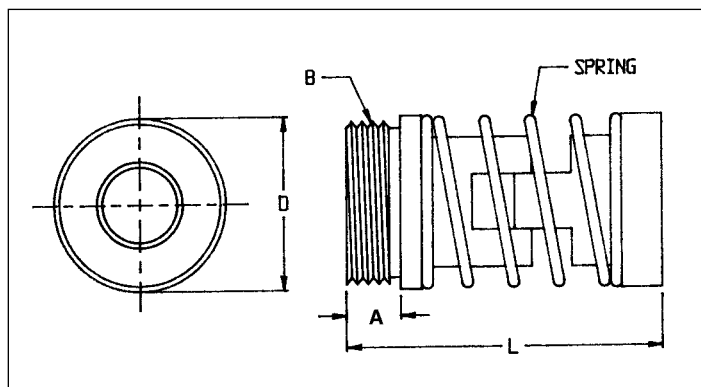
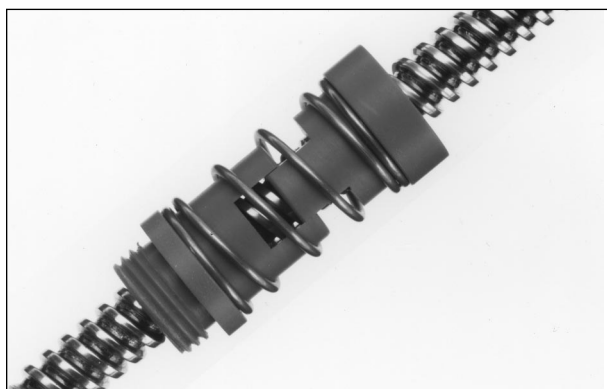
2) Torque values are for nut & screw only, drag, bearing mounting & drive component inefficiencies need to be considered when determining total necessary torque

For Mounting Flange, See Page 3-13

Major Dia. (in.)	Lead (in.)	Powernut Dimensions (in.)				Flange No.	Max. Static Load	Torque To Raise 1 lb. Load (Oz. - In.)	Part No.
		D	L	A	B				
3/16	0.050	0.62	0.62	3/16	9/16 - 18	FL-3	150 lbs.	0.40	ANR11-1820
1/4	0.050 0.0625	0.62	0.62	3/16	9/16 - 18	FL-3	200 lbs.	0.40 0.42	ANR11-2520 ANR11-2516
5/16	0.500	0.75	0.75	1/4	5/8 - 18	FL-1	250 lbs.	1.8	ANR14-3108
3/8	0.050 0.0625 0.100 0.125 0.200 0.250 0.500 1.000 1.250	0.75	0.75	1/4	5/8 - 18	FL-1	350 lbs.	0.60 0.58 0.64 0.70 0.92 1.1 1.8 3.5 4.2	ANR11-3720 ANR11-3716 ANR11-3710 ANR11-3708 ANR12-3710 ANR12-3708 ANR14-3708 ANR15-3705 ANR15-3704
7/16	0.250 0.500	1.00	1.00	5/16	15/16 - 16	FL-2	800 lbs.	1.1 1.9	ANR12-4308 ANR14-4308
1/2	0.100 0.200	1.00	1.00	5/16	15/16 - 16	FL-2	800 lbs.	0.80 1.1	ANR11-5010 ANR12-5010
5/8	0.100 0.125 0.200	1.00	1.00	5/16	15/16 - 16	FL-2	800 lbs.	0.80 1.0 1.1	ANR11-6210 ANR11-6208 ANR12-6210
Major Dia. (mm.)	Lead (mm.)	Powernut Dimensions (mm)				Flange No.	Max. Static Load	Torque To Raise 1 kg. Load (NM)	Part No.
		D	L	A	B				
4.0	1.0	15	20	5.0	M12 x 1.5	FLM-1	60 kg	.004	ANR11-041m
8.0	2.0	15	20	5.0	M12 x 1.5	FLM-1	100 kg	.009	ANR11-082m
10.0	2.0	25	25	6.4	M20 x 1.5	FLM-2	160 kg	.013	ANR11-102m
10.0	6.0	25	25	6.4	M20 x 1.5	FLM-2	160 kg	.012	ANR14-101m
14.0	4.0	25	25	6.4	M20 x 1.5	FLM-2	350 kg	.015	ANR11-144m

ACME LEAD SCREW ANTI-BACKLASH STYLE NUTS

Inch and Metric



Preload may be increased slightly by adding a SHIM behind the spring, or decreased by repositioning one-half of the nut assembly away from the opposite half. Lubrication is recommended for continuous duty and high speed applications. It is recommended that drive motors be selected with at least 50% additional torque to handle other system inefficiencies.

Specifications:

Temperature Range: Min. 32°F, Max. 180°F

Material: Nut-Turcite X (Acetal - Teflon and Silicone filled)

Spring-300 Series Stainless Steel

For Mounting Flange, See Page 3-13

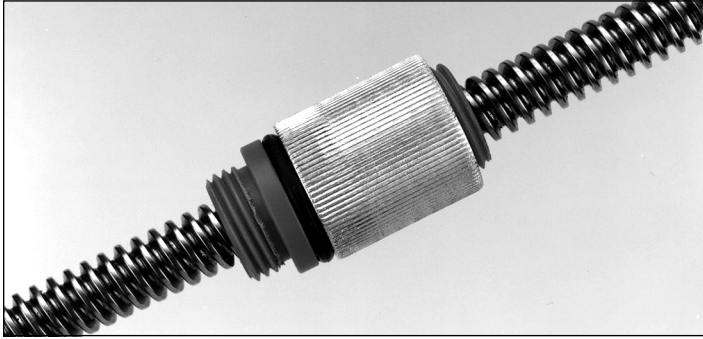
Major Dia. (in.)	Lead (in.)	AB Nut Dimensions (in.)					Max. Flange No.	Max. Preload (lbs.)	Max Load For Zero Backlash (lbs.)	Torque* (Oz. - in.)	Part No.
		D	L		A	B					
			Max.	Min.							
3/16	0.050	0.62	1.34	1.12	3/16	9/16 - 18	FL-3	5.25	5	6.7	ANR21-1820
1/4	0.050 0.0625	0.62	1.34	1.12	3/16	9/16 - 18	FL-3	5.25	5	6.7 6.1	ANR21-2520 ANR21-2516
5/16	0.500	0.75	1.7	1.4	1/4	5/8 - 18	FL-1	5.25	5	10.9	ANR24-3108
3/8	0.050 0.0625 0.100 0.125 0.200 0.250 0.500 1.000 1.250	0.75	1.7	1.4	1/4	5/8 - 18	FL-1	5.25	5	11.0 8.5 7.0 7.0 7.3 8.0 11.2 19.4 23.1	ANR21-3720 ANR21-3716 ANR21-3710 ANR21-3708 ANR22-3710 ANR22-3708 ANR24-3708 ANR25-3705 ANR25-3704
7/16	0.250 0.500	1.00	2.00	1.7	5/16	15/16 - 16	FL-2	11.55	11	18.6 25.3	ANR22-4308 ANR24-4308
1/2	0.100 0.200	1.00	2.00	1.7	5/16	15/16 - 16	FL-2	11.55	11	19.3 19.1	ANR21-5010 ANR22-5010
5/8	0.100 0.125 0.200	1.00	2.00	1.7	5/16	5/16 - 16	FL-2	11.55	11	22.8 21.9 21.8	ANR21-6210 ANR21-6208 ANR22-6210
Major Dia. (mm)	Lead (mm)	AB Nut Dimensions (mm)					Flange No.	Max. Preload (Kg)	Max Load For Zero Backlash (Kg)	Torque* (NM)	Part No.
		D	L		A	B					
			Max.	Min.							
4.0	1.0	15	30	25	5.0	M12 x 1.5	FLM-1	2.4	2.3	.093	ANR21-041m
8.0	2.0	15	30	25	5.0	M12 x 1.5	FLM-1	2.4	2.3	.124	ANR21-082m
10.0	2.0	25	50	43	6.4	M20 x 1.5	FLM-2	5.2	5.0	.280	ANR21-102m
10.0	6.0	25	50	43	6.4	M20 x 1.5	FLM-2	5.2	5.0	.275	ANR24-101m
14.0	4.0	25	50	43	6.4	M20 x 1.5	FLM-2	5.2	5.0	.295	ANR21-144m

*Torque figures are based on three factors: load, preload, and efficiency.

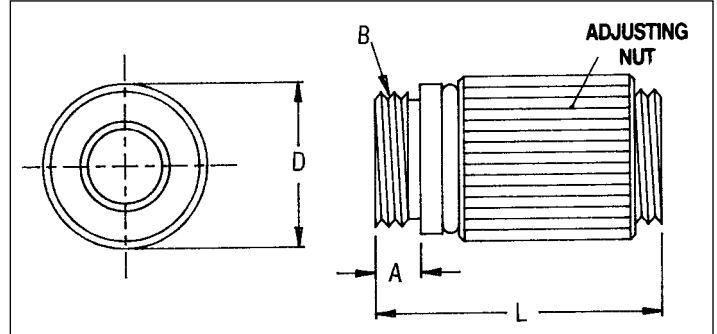
ANR STYLE ADJUSTABLE COMPLIANT NUTS

Inch and Metric

For Use With ACME Lead Screws



Easily adjusted by turning adjusting nut for desired preload.



Material:

Nut: Turcite X

Sleeve: Aluminum

"O" Ring: Buna N

Specifications:

Temperature Range: Min. 32°F, Max. 180°F

Max. Speed (Unlubricated): 200 ft/min

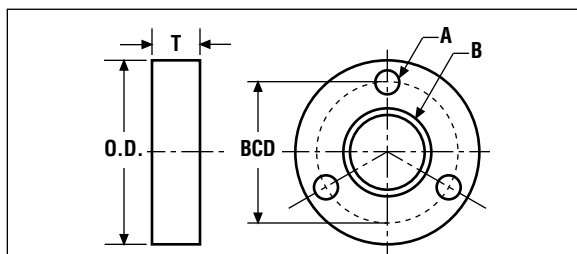
Material: Turcite X (Acetal - Teflon and Silicon filled)

For Mounting Flange, See Page 3-13

Screw Dia. (in.)	Lead (in.)	Adjustable Nut Dimensions (in.)					Flange No.	Max. Dynamic Load (lbs.)	Torque To Raise 1 lb. Load (oz.- in.)	Part No.
		D	L		A	B				
			Max.	Min.						
3/16	0.050	0.62	1.34	1.12	3/16	9/16 - 18	FL-3	35	.40	ANR31-1820
1/4	0.050 0.0625	0.62	1.34	1.17	3/16	9/16 - 18	FL-3	45	.40 .42	ANR31-2520 ANR31-2516
5/16	0.500	0.75	1.70	1.40	1/4	5/8 - 18	FL-1	60	1.8	ANR34-3108
3/8	0.050	0.75	1.70	1.40	1/4	5/8 - 18	FL-1	85	.60	ANR31-3720
	0.0625								.58	ANR31-3716
	0.100								.64	ANR31-3710
	0.125								.70	ANR31-3708
	0.200								.92	ANR32-3710
	0.250								1.1	ANR32-3708
	0.500								1.8	ANR34-3708
	1.000								3.5	ANR35-3705
	1.250								4.2	ANR35-3704
7/16	0.250 0.500	1.00	2.00	1.70	5/16	15/16 - 16	FL-2	130	1.1 1.9	ANR32-4308 ANR34-4308
1/2	0.100 0.200	1.00	2.00	1.70	5/16	15/16 - 16	FL-2	130	.80 1.1	ANR31-5010 ANR32-5010
5/8	0.100 0.125 0.200	1.00	2.00	1.70	5/16	15/16 - 16	FL-2	130	.80 1.0 1.1	ANR31-6210 ANR31-6208 ANR32-6210
Screw Dia. (mm)	Lead (mm)	Adjustable Nut Dimensions (mm)					Flange No.	Max. Dynamic Load (Kg)	Torque To Raise 1 kg (NM)	Part No.
		D	L		A	B				
			Max.	Min.						
4.0	1.0	15	30	25	5.0	M12 x 1.5	FLM-1	15	.004	ANR31-041m
8.0	2.0	15	30	25	5.0	M12 x 1.5	FLM-1	25	.009	ANR31-082m
10.0	2.0	25	50	43	6.4	M20 x 1.5	FLM-2	40	.013	ANR31-102m
10.0	6.0	25	50	43	6.4	M20 x 1.5	FLM-2	40	.012	ANR34-101m
14.0	4.0	25	50	43	6.4	M20 x 1.5	FLM-2	80	.015	ANR31-144m

STANDARD MOUNTING FLANGES

Inch and Metric



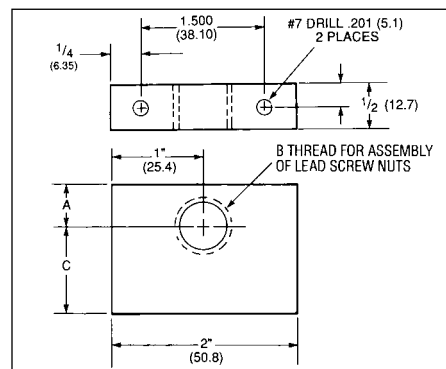
Flange Dimensions					Part Number
O.D.	T	A	BCD	B (thread)	
1.62	1/4	.177	1.25	5/8 - 18	FL-1
2.00	5/16	.266	1.50	15/16 - 16	FL-2
1.25	3/16	.140	1.00	9/16 - 18	FL-3
30	5.0	3.5	22	M12 x 1.5	FLM-1*
40	6.5	3.5	32	M20 x 1.5	FLM-2*

*Sizes in mm.

Material: Aluminum

Finish: Black Anodized

Flanges should be pinned or bonded to the nut to prevent disassembly during operation. Flanges do not have a Set Screw which could deform a nut and possibly cause binding.

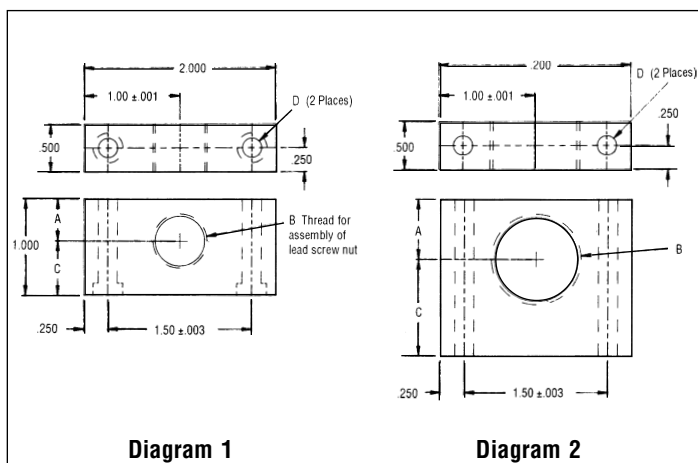


Material: Aluminum Alloy (6061)

Finish: Black Anodized

Inch Sizes			
A ±.002	B Thread	C ±.002	Part No.
.375	5/8 - 18	.625	LMB-1
.562	15/16 - 16	.812	LMB-2
.375	9/16 - 18	.625	LMB-3
Metric Sizes			
9.53	M12 x 1.5	15.88	LMB-1M
14.27	M20 x 1.5	20.62	LMB-2M

FLANGE ADAPTOR

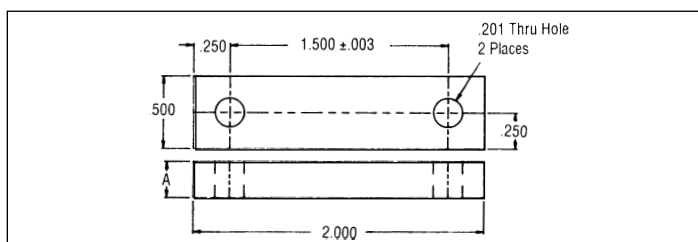


Part No.	Diagram	A	B	C ±.001	D		
					Thru Dia.	C' Bore Dia.	Depth Dia.
LMB-4	1	0.437	9/16 - 18	0.563	0.201	0.312	0.125
LMB-6	2	0.625	5/8 - 18	0.762	0.201	—	—
LMB-8	2	0.625	15/16 - 16	1	0.201	—	—
LMB-10	2	1.062	15/16 - 16	1.625	0.201	—	—

Material: Aluminum Alloy (6061)

Finish: Black Anodized

FLANGE SPACER



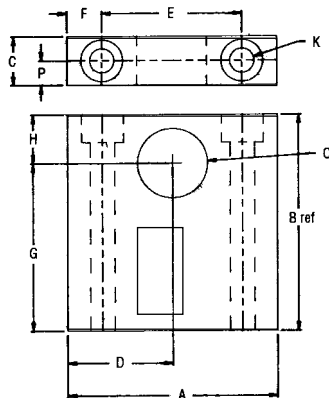
Dimension A ±.002	Part Number
.075	SMB-1
.125	SMB-2
.137	SMB-3
1.187	SMB-4
.125	SMB-6
.250	SMB-8
.375	SMB-10
.500	SMB-12

Material: Aluminum Alloy (6061)

Finish: Black Anodized

BEARING HOUSING BLOCKS

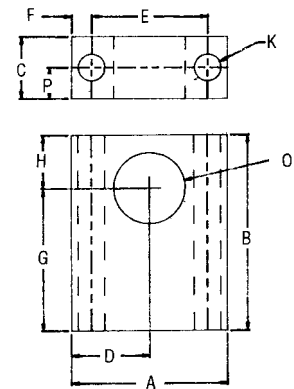
Diagram 1



Material: Aluminum
Finish: Black Anodized

Note:
See section 6 for alternate bearing housings

Diagram 2



Part No.	Diagram	A	B ref.	C	D ±.001	E ±.001	F	G ±.001	H	K			O	P	Screws
										Thru Dia.	C'Bore Dia.	Depth Dia.			
S12-4	1	0.938	1.000	0.375	0.469	0.625	0.156	0.688	0.312	0.156	0.250	0.141	0.375	0.188	#6
S12-6	2	1.094	1.375	0.438	0.547	0.813	0.140	1.000	0.375	0.188	—	—	0.500	0.219	#8
S12-8	1	1.875	1.938	0.438	0.938	1.250	0.313	1.500	0.438	0.218	0.375	0.250	0.625	0.219	#10
S12-10	1	2.375	2.750	0.625	1.188	1.625	0.375	2.000	0.750	0.339	0.500	0.500	0.875	0.313	5/16

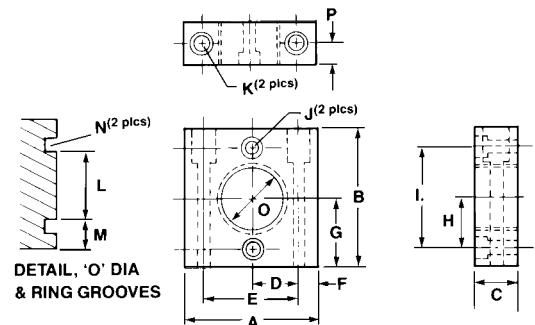
UNIVERSAL BEARING HOUSING BLOCKS

Inch and Metric



Material: Aluminum
Finish: Black Anodized

Note:
See section 6 for alternate bearing housings



Inch Sizes

Part Number	A	B	C	D ±.003	E ±.003	F	G ±.001	H ±.003	I ±.003	J			K			L *	M	N		O ±.0003 -.000	P	Screws Socket Head	
										Thru Dia.	C'Bore		Thru Dia.	C'Bore				Dia. ±.002	Wide +.003 -.000			J	K
											Dia.	Deep		Dia.	Deep								
S10-06	2	2	.500	.625	1.250	.38	1.000	.625	1.250	.170	.281	.156	.187	.313	.75	.191	.15	.397	.029	.3749	.25	#6	#8
S10-08	2	2	.500	.625	1.250	.38	1.000	.625	1.250	.170	.281	.156	.187	.313	.75	.236	.13	.530	.039	.4999	.25	#6	#8
S10-10	2 1/4	2 1/4	.625	.781	1.562	.34	1.125	.781	1.562	.187	.313	.187	.210	.375	.75	.241	.19	.665	.039	.6249	.31	#8	#10
S10-14	2 1/4	2 1/4	.625	.781	1.562	.34	1.125	.781	1.562	.187	.313	.187	.210	.375	.75	.346	.14	.931	.046	.8749	.31	#8	#10

Metric Sizes

Part Number	A	B	C	D ±.08	E ±.08	F	G ±.03	H ±.08	I ±.08	J			K			L *	M	N		O + .005 - .003	P	Screws Socket Head	
										Thru Dia.	C'Bore		Thru Dia.	C'Bore				Dia. ±.11	Wide (min.)			J	K
											Dia.	Deep		Dia.	Deep								
MS10-10	50.8	50.8	12.7	15.88	31.75	9.6	25.40	15.88	31.75	3.8	6.5	4.0	4.75	8.25	19.0	5.0	3.85	10.4	1.1	10	6.4	M3	M4
MS10-13	50.8	50.8	12.7	15.88	31.75	9.6	25.40	15.88	31.75	3.8	6.5	4.0	4.75	8.25	19.0	6.0	3.35	13.6	1.1	13	6.4	M3	M4
MS10-19	57.2	57.2	15.88	19.84	39.67	8.6	28.53	19.84	39.67	4.75	8.25	4.7	5.80	9.75	19.0	7.5	4.20	20.0	1.1	19	7.9	M4	M5
MS10-22	57.2	57.2	15.88	19.84	39.67	8.6	28.58	19.84	39.67	4.75	8.25	4.7	5.80	9.75	19.0	9.0	3.44	23.0	1.1	22	7.9	M4	M5

* Includes space for outer race preload spacers.