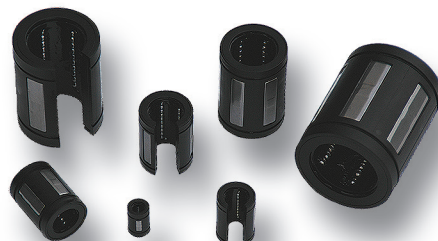
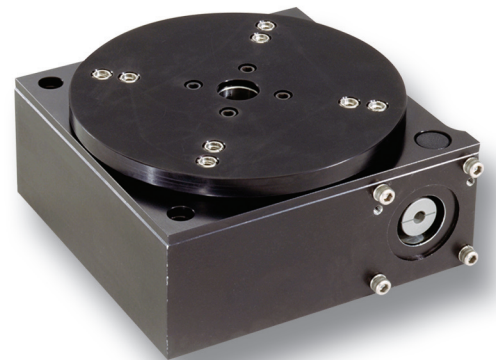
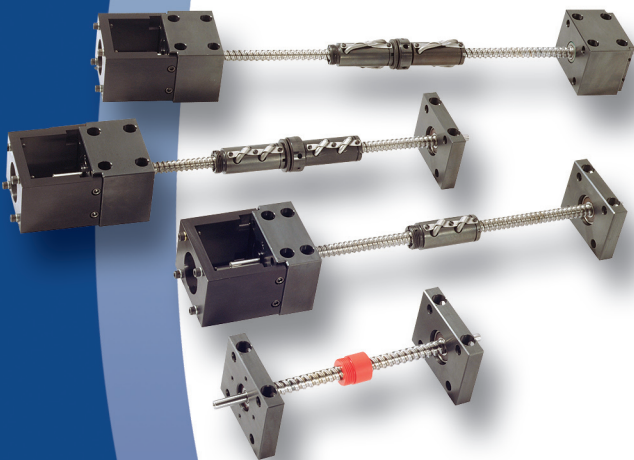
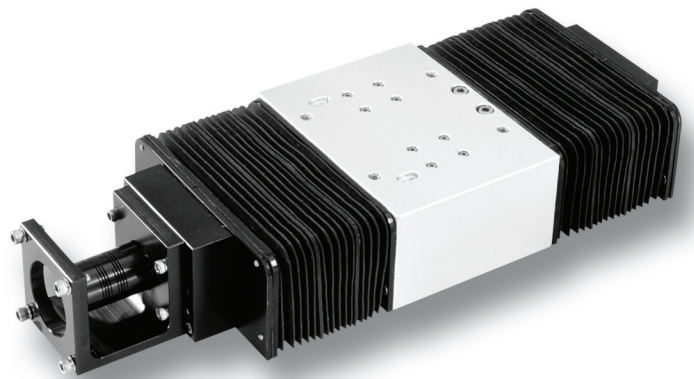
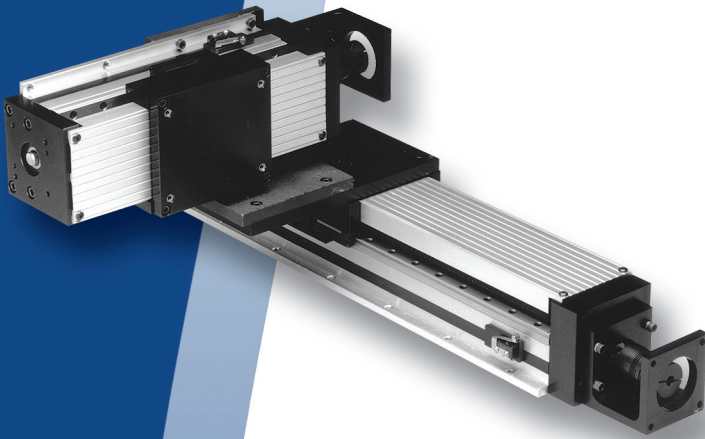


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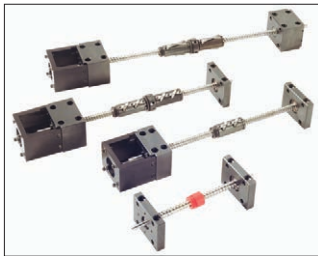
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## Mechanical Components



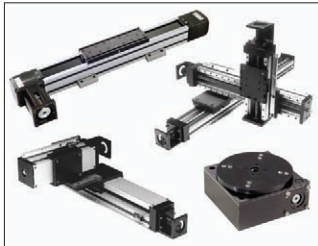
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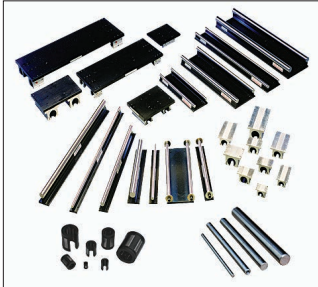
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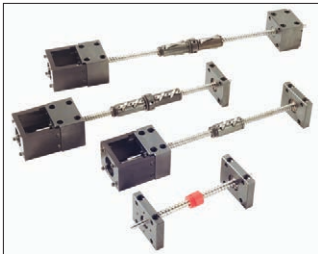
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**Standard Positioning Components**



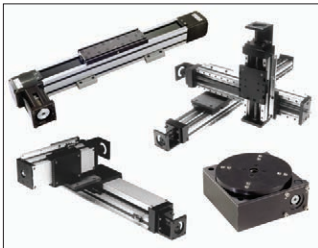
**LINTECH** manufactures a wide range of standard round rail positioning components. The products available include: cut to length precision hardened steel shafting, shaft supports, shaft assemblies, linear bearings, pillow blocks, and carriage assemblies in both inch and metric versions. The wide array of options include: chrome plated shafts, shaft machining per the user print, all steel bearings, and bearing locks. Three different profile linear bearing versions are also available in various sizes.

**Standard Ball Screw Assemblies**



**LINTECH** manufactures a wide range of standard ball screw assemblies. These assemblies allow the user to get a complete, ready to mount ball screw system with end supports and nut flanges. The 3 different ball screw thread accuracy grades are rolled, precision rolled, and precision ground. The support housings are made of precision machined steel and are available in 5 configurations: simple-simple, fixed (low thrust)-simple, fixed (high thrust)-simple, rigid-simple, and rigid-rigid. There are several inch & metric screw diameter and leads available, along with motor mounts, brakes, and encoder options.

**Standard Positioning Systems**



**LINTECH** manufactures a wide range of standard linear and rotary positioning systems. There are 9 screw driven linear slide systems, 5 belt driven linear slide systems, and 2 worm gear driven rotary positioning systems. Each system has a different load capacity, envelope size, and numerous options available to make a standard system into a semi-custom.

**Custom Components and Systems**

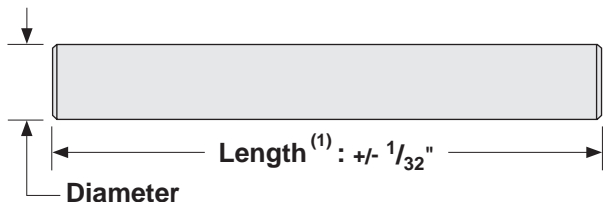


**LINTECH** has the ability to make alterations to any of its standard products. These changes include special lengths, special platings, unique materials, rail & screw covers or special lubricants for different environments. **LINTECH** also has the ability to start from scratch and build one of a kind custom mechanical positioning systems. Common system configurations include master-slave gantries, multi-axis configurations, wide base systems, long travel lengths, heavier load capacities, high speeds, etc.. Custom systems can be provide with stress relieved steel bases, flexible aluminum bases, or precision granite bases.



## Dimensions & Specifications: SL, SS & SN Shafting

Model Number	Nominal Shaft Diameter (inches)	Maximum Length				Shaft Weight (lbs/in)	
		SL (inches)	SS (inches)	SN (inches)	-SS (inches)		
Sx4	0.250	96	144	96	144	96	0.014
Sx6	0.375	172	154	172	154	172	0.031
Sx8	0.500	184	154	184	154	184	0.055
Sx10	0.625	184	154	184	154	184	0.086
Sx12	0.750	184	154	184	154	184	0.125
Sx16	1.000	184	154	184	154	184	0.222
Sx20	1.250	184	154	184	154	184	0.348
Sx24	1.500	184	154	184	154	184	0.500
Sx32	2.000	184	154	184	154	184	0.890



(1) Length tolerance for 2" diameter shafting is +/- 1/16 inches. Tighter tolerance available. Contact the factory.

## Specifications: SL, SS & SN Shafting

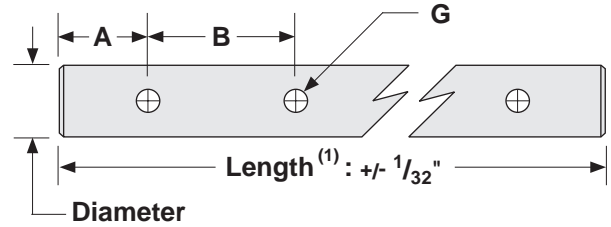
Shaft Straightness	0.001/0.002 in/ft, cumulative																																																						
Shaft Type	1060 Steel or 440C Stainless steel (only with L & S tolerance)																																																						
Shaft Roundness	0.000080 inches																																																						
Shaft Chamfer	For 0.25 - 0.75 inch dia. : 0.03 inch x 45°, For 1.00 - 2.00 inch dia. : 0.06 inch x 45°																																																						
Surface Finish	8 - 12 R <sub>a</sub> microinch																																																						
Diameter Tolerance					<table border="1"> <thead> <tr> <th>Nominal Shaft Diameter (inches)</th> <th>SL Diameter Tolerance (inches)</th> <th>SS Diameter Tolerance (inches)</th> <th>SN Diameter Tolerance (inches)</th> <th>Minimum Hardness Depth (inches)</th> </tr> </thead> <tbody> <tr> <td>0.250</td> <td>.2495 / .2490</td> <td>.2490 / .2485</td> <td>.2500 / .2498</td> <td>0.040</td> </tr> <tr> <td>0.375</td> <td>.3745 / .3740</td> <td>.3740 / .3735</td> <td>.3750 / .3748</td> <td>0.040</td> </tr> <tr> <td>0.500</td> <td>.4995 / .4990</td> <td>.4990 / .4985</td> <td>.5000 / .4998</td> <td>0.040</td> </tr> <tr> <td>0.625</td> <td>.6245 / .6240</td> <td>.6240 / .6235</td> <td>.6250 / .6248</td> <td>0.040</td> </tr> <tr> <td>0.750</td> <td>.7495 / .7490</td> <td>.7490 / .7485</td> <td>.7500 / .7498</td> <td>0.060</td> </tr> <tr> <td>1.000</td> <td>.9995 / .9990</td> <td>.9990 / .9985</td> <td>1.0000 / .9998</td> <td>0.080</td> </tr> <tr> <td>1.250</td> <td>1.2495 / 1.2490</td> <td>1.2490 / 1.2485</td> <td>1.2500 / 1.2498</td> <td>0.080</td> </tr> <tr> <td>1.500</td> <td>1.4994 / 1.4989</td> <td>1.4989 / 1.4984</td> <td>1.5000 / 1.4997</td> <td>0.080</td> </tr> <tr> <td>2.000</td> <td>1.9994 / 1.9987</td> <td>1.9987 / 1.9980</td> <td>2.0000 / 1.9997</td> <td>0.100</td> </tr> </tbody> </table>	Nominal Shaft Diameter (inches)	SL Diameter Tolerance (inches)	SS Diameter Tolerance (inches)	SN Diameter Tolerance (inches)	Minimum Hardness Depth (inches)	0.250	.2495 / .2490	.2490 / .2485	.2500 / .2498	0.040	0.375	.3745 / .3740	.3740 / .3735	.3750 / .3748	0.040	0.500	.4995 / .4990	.4990 / .4985	.5000 / .4998	0.040	0.625	.6245 / .6240	.6240 / .6235	.6250 / .6248	0.040	0.750	.7495 / .7490	.7490 / .7485	.7500 / .7498	0.060	1.000	.9995 / .9990	.9990 / .9985	1.0000 / .9998	0.080	1.250	1.2495 / 1.2490	1.2490 / 1.2485	1.2500 / 1.2498	0.080	1.500	1.4994 / 1.4989	1.4989 / 1.4984	1.5000 / 1.4997	0.080	2.000	1.9994 / 1.9987	1.9987 / 1.9980	2.0000 / 1.9997	0.100
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2.000	1.9994 / 1.9987	1.9987 / 1.9980	2.0000 / 1.9997	0.100																																																			





### Dimensions & Specifications: **SL-PD** Shafting

Model Number	Nominal Shaft Diameter (inches)	Maximum Length (inches)		Pre-Drilled Holes (inches)			Shaft Weight (lbs/in)
		-SS		A	B	G	
SL8-PD	0.500	172	154	2.00	4.00	#6-32	0.055
SL10-PD	0.625	184	154	2.00	4.00	#8-32	0.086
SL12-PD	0.750	184	154	3.00	6.00	#10-32	0.125
SL16-PD	1.000	184	154	3.00	6.00	1/4-20	0.222
SL20-PD	1.250	184	154	3.00	6.00	5/16-18	0.348
SL24-PD	1.500	184	154	4.00	8.00	3/8-16	0.500
SL32-PD	2.000	184	154	4.00	8.00	1/2-13	0.890



(1) Length tolerance for 2" diameter shafting is +/- 1/16 inches. Tighter tolerance available. Contact the factory.



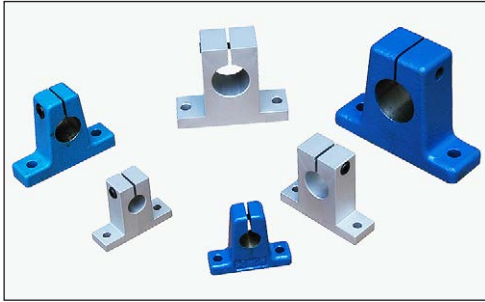
## Specifications: SM Metric Shafting

<b>Shaft Straightness</b>	0,0254/0,0508 mm/300 mm - cumulative		
<b>Shaft Type</b>	1060 Steel		
<b>Shaft Roundness</b>	0,0020 mm		
<b>Shaft Chamfer</b>	For 8 - 20 mm dia. : 0,762 mm x 45°, For 25 - 50 mm dia. : 1,524 mm inch x 45°		
<b>Surface Finish</b>	8 - 12 R <sub>a</sub> microinch		
<b>Diameter Tolerance</b>	Nominal Shaft Diameter (mm)	Diameter Tolerance (mm)	Minimum Hardness Depth (mm)
<b>Hardness Depth</b>			
	8	8,00 / 7,99	1,02
	10	10,00 / 9,99	1,02
	12	12,00 / 11,99	1,52
	16	16,00 / 15,99	1,52
	20	20,00 / 19,99	1,52
	25	25,00 / 24,99	2,03
	30	30,00 / 29,99	2,03
	40	40,00 / 39,99	2,03
	50	50,00 / 49,98	2,54

## Dimensions & Specifications: SM Metric Shafting

Model Number	Nominal Shaft Diameter (mm)	Maximum Length inches (mm)	Shaft Weight (lbs/in)
SM8	8	172 (4368,8)	0.022
SM10	10	172 (4368,8)	0.038
SM12	12	184 (4673,6)	0.050
SM16	16	184 (4673,6)	0.088
SM20	20	184 (4673,6)	0.138
SM25	25	184 (4673,6)	0.216
SM30	30	184 (4673,6)	0.311
SM40	40	184 (4673,6)	0.553
SM50	50	184 (4673,6)	0.864

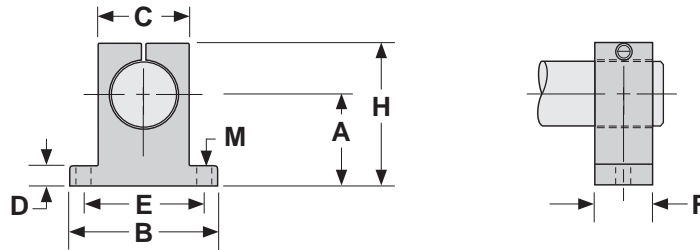
(1) Tighter tolerance available. Contact the factory.



### Dimensions & Specifications: ES-A End Support Block

Model Number	Nominal Shaft Diameter (inches)	Dimensions (inches)									Support Weight (lbs)
		A +/- .001	B	C	D	E +/- .010	F	H	M		
									hole	bolt size	
ES8-A	0.500	1.000	2.000	0.875	.250	1.500	0.625	1.625	.188	#8	.08
ES10-A	0.625	1.000	2.500	1.250	.313	1.750	0.688	1.875	.218	#10	.11
ES12-A	0.750	1.250	2.500	1.250	.313	2.000	0.750	2.063	.218	#10	.16
ES16-A	1.000	1.500	3.063	1.500	.375	2.500	1.000	2.500	.281	1/4	.30
ES20-A	1.250	1.750	3.750	2.000	.438	3.000	1.125	3.000	.346	5/16	.53
ES24-A	1.500	2.000	4.375	2.250	.500	3.500	1.250	3.437	.346	5/16	.73
ES32-A	2.000	2.500	5.500	3.000	.625	4.500	1.500	4.500	.406	3/8	1.40

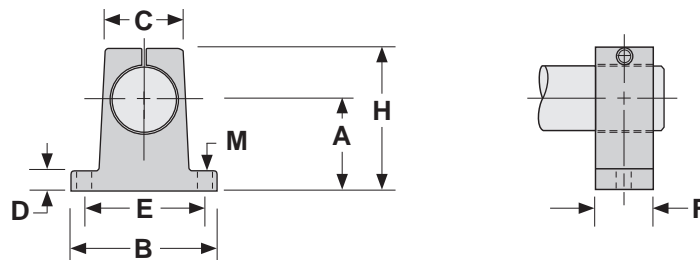
Material:  
6061-T6 aluminum  
Natural Finish

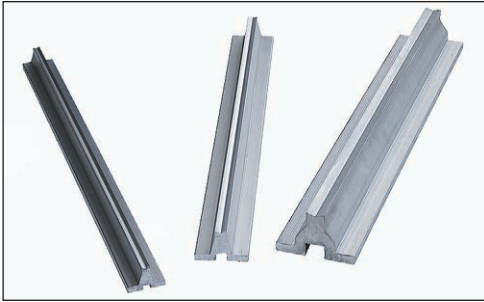


### Dimensions & Specifications: ES-S End Support Block

Model Number	Nominal Shaft Diameter (inches)	Dimensions (inches)									Support Weight (lbs)
		A +/- .001	B	C	D	E +/- .010	F	H	M		
									hole	bolt size	
ES8-S	0.500	1.000	2.000	0.750	.250	1.500	0.625	1.625	.218	#10	.28
ES10-S	0.625	1.000	2.500	0.875	.312	1.875	0.750	1.750	.218	#10	.36
ES12-S	0.750	1.250	2.750	1.000	.375	2.000	0.750	2.125	.281	1/4	.53
ES16-S	1.000	1.500	3.312	1.375	.375	2.500	1.000	2.625	.281	1/4	1.00
ES20-S	1.250	1.750	4.000	1.750	.438	3.000	1.250	3.000	.343	5/16	2.10
ES24-S	1.500	2.000	4.750	2.000	.500	3.500	1.250	3.500	.343	5/16	2.80
ES32-S	2.000	2.500	6.000	2.625	.625	4.500	1.500	4.500	.406	3/8	5.10

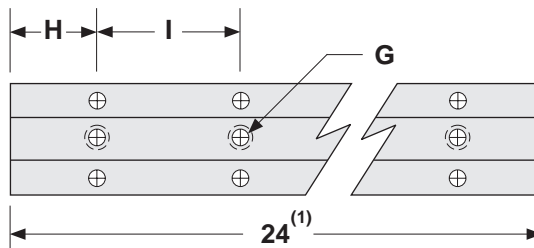
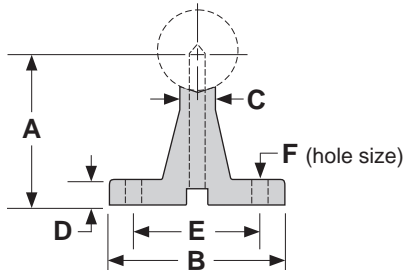
Material:  
C1045 steel  
Blue Enamel





## Dimensions & Specifications: ARS-PD Shaft Support

Model Number		Nominal Shaft Diameter (inches)	Dimensions (inches)									Support Weight (lbs/in)
Without Holes	With Predrilled Holes		A +/- .002	B	C	D	E +/- .010	F hole	G bolt size	H	I	
ARS8	ARS8-PD	0.500	1.125	1.500	.250	.187	1.000	.169	#6-32 x 0.87	2.00	4.00	.050
ARS10	ARS10-PD	0.625	1.125	1.625	.312	.250	1.125	.193	#8-32 x 0.87	2.00	4.00	.063
ARS12	ARS12-PD	0.750	1.500	1.750	.375	.250	1.250	.221	#10-32 x 1.25	3.00	6.00	.083
ARS16	ARS16-PD	1.000	1.750	2.125	.500	.250	1.500	.281	1/4-20 x 1.50	3.00	6.00	.108
ARS20	ARS20-PD	1.250	2.125	2.500	.562	.312	1.875	.343	5/16-18 x 1.75	3.00	6.00	.146
ARS24	ARS24-PD	1.500	2.500	3.000	.687	.375	2.250	.406	3/8-16 x 2.00	4.00	8.00	.213
ARS32	ARS32-PD	2.000	3.250	3.750	.875	.500	2.750	.531	1/2-13 x 3.25	4.00	8.00	.342



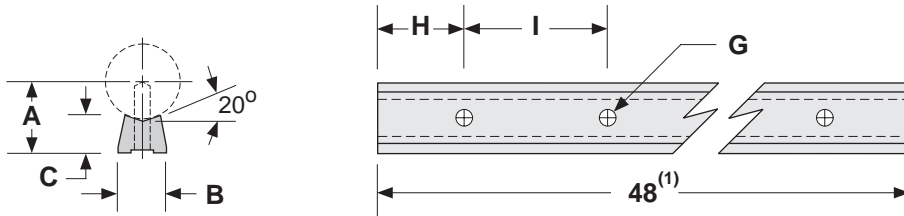
(1) Shorter lengths available. Contact the factory.





## Dimensions & Specifications: LSRS-PD Shaft Support

Model Number		Nominal Shaft Diameter (inches)	Dimensions (inches)							Support Weight (lbs/in)
Without Holes	With Predrilled Holes		A +/- .002	B	C	G		H	I	
						hole	bolt size			
LSRS8	LSRS8-PD	0.500	0.562	0.37	.341	.169	#6-32	2.00	4.00	.028
LSRS10	LSRS10-PD	0.625	0.687	0.45	.412	.193	#8-32	2.00	4.00	.041
LSRS12	LSRS12-PD	0.750	0.750	0.51	.420	.221	#10-32	3.00	6.00	.047
LSRS16	LSRS16-PD	1.000	1.000	0.69	.560	.281	1/4-20	3.00	6.00	.089
LSRS20	LSRS20-PD	1.250	1.187	0.78	.626	.343	5/16-18	3.00	6.00	.106
LSRS24	LSRS24-PD	1.500	1.375	0.93	.703	.406	3/8-16	4.00	8.00	.140
LSRS32	LSRS32-PD	2.000	1.750	1.18	.845	.531	1/2-13	4.00	8.00	.230



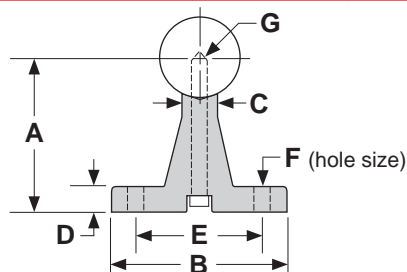
(1) Shorter lengths available. Contact the factory.



### Specifications: SA Shaft Assemblies

<b>Support Type &amp; Finish</b>	Precision Machined 6061-T6 Aluminum, Black Anodized																								
<b>Shaft Straightness</b>	0.001/0.002 in/ft, cumulative																								
<b>Shaft Type</b>	<b>SL</b> - 1060 Steel or 440C Stainless steel																								
<b>Shaft Roundness</b>	0.000080 inches																								
<b>Shaft Chamfer</b>	For 0.50 - 0.75 inch dia. : 0.03 inch x 45°, For 1.00 - 2.00 inch dia. : 0.06 inch x 45°																								
<b>Surface Finish</b>	8 - 12 R <sub>a</sub> microinch																								
<b>Diameter Tolerance</b>	<table border="1"> <thead> <tr> <th>Nominal Shaft Diameter (inches)</th> <th>Shaft Diameter Tolerance (inches)</th> <th>Minimum Hardness Depth (inches)</th> </tr> </thead> <tbody> <tr> <td>0.500</td> <td>.4995 / .4990</td> <td>0.040</td> </tr> <tr> <td>0.625</td> <td>.6245 / .6240</td> <td>0.040</td> </tr> <tr> <td>0.750</td> <td>.7495 / .7490</td> <td>0.060</td> </tr> <tr> <td>1.000</td> <td>.9995 / .9990</td> <td>0.080</td> </tr> <tr> <td>1.250</td> <td>1.2495 / 1.2490</td> <td>0.080</td> </tr> <tr> <td>1.500</td> <td>1.4994 / 1.4989</td> <td>0.080</td> </tr> <tr> <td>2.000</td> <td>1.9994 / 1.9987</td> <td>0.100</td> </tr> </tbody> </table>	Nominal Shaft Diameter (inches)	Shaft Diameter Tolerance (inches)	Minimum Hardness Depth (inches)	0.500	.4995 / .4990	0.040	0.625	.6245 / .6240	0.040	0.750	.7495 / .7490	0.060	1.000	.9995 / .9990	0.080	1.250	1.2495 / 1.2490	0.080	1.500	1.4994 / 1.4989	0.080	2.000	1.9994 / 1.9987	0.100
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2.000	1.9994 / 1.9987	0.100																							
<b>Hardness Depth</b>																									

Model Number	Nominal Shaft Diameter (inches)	Dimensions (inches)						
		A +/- .002	B	C	D	E +/- .010	F hole	G bolt size
SA8	0.500	1.125	1.500	.250	.187	1.000	.169	#6-32
SA10	0.625	1.125	1.625	.312	.250	1.125	.193	#8-32
SA12	0.750	1.500	1.750	.375	.250	1.250	.221	#10-32
SA16	1.000	1.750	2.125	.500	.250	1.500	.281	1/4-20
SA20	1.250	2.125	2.500	.562	.312	1.875	.281	1/4-20
SA24	1.500	2.500	3.000	.687	.375	2.250	.343	5/16-18
SA32	2.000	3.250	3.750	.875	.500	2.750	.406	3/8-16



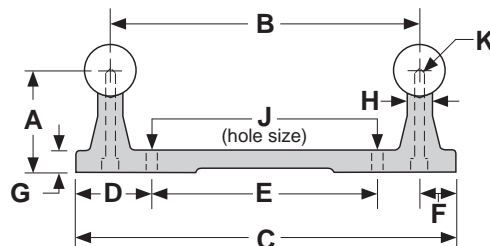
Standard lengths to 16 feet (192 inches). Longer lengths available - Contact Factory.



### Specifications: TRSA TWIN RAIL® Shaft Assemblies

<b>Support Type &amp; Finish</b>	Precision Machined 6061-T6 Aluminum, Black Anodized																								
<b>Shaft Straightness</b>	0.001/0.002 in/ft, cumulative																								
<b>Shaft Parallelism</b>	+/- 0.002 in overall																								
<b>Shaft Type</b>	<b>SL</b> - 1060 Steel or 440C Stainless steel																								
<b>Shaft Roundness</b>	0.000080 inches																								
<b>Shaft Chamfer</b>	For 0.50 - 0.75 inch dia. : 0.03 inch x 45°, For 1.00 - 2.00 inch dia. : 0.06 inch x 45°																								
<b>Surface Finish</b>	8 - 12 R <sub>a</sub> microinch																								
<b>Diameter Tolerance</b>	<table border="1"> <thead> <tr> <th>Nominal Shaft Diameter (inches)</th> <th>Shaft Diameter Tolerance (inches)</th> <th>Minimum Hardness Depth (inches)</th> </tr> </thead> <tbody> <tr><td>0.500</td><td>.4995 / .4990</td><td>0.040</td></tr> <tr><td>0.625</td><td>.6245 / .6240</td><td>0.040</td></tr> <tr><td>0.750</td><td>.7495 / .7490</td><td>0.060</td></tr> <tr><td>1.000</td><td>.9995 / .9990</td><td>0.080</td></tr> <tr><td>1.250</td><td>1.2495 / 1.2490</td><td>0.080</td></tr> <tr><td>1.500</td><td>1.4994 / 1.4989</td><td>0.080</td></tr> <tr><td>2.000</td><td>1.9994 / 1.9987</td><td>0.100</td></tr> </tbody> </table>	Nominal Shaft Diameter (inches)	Shaft Diameter Tolerance (inches)	Minimum Hardness Depth (inches)	0.500	.4995 / .4990	0.040	0.625	.6245 / .6240	0.040	0.750	.7495 / .7490	0.060	1.000	.9995 / .9990	0.080	1.250	1.2495 / 1.2490	0.080	1.500	1.4994 / 1.4989	0.080	2.000	1.9994 / 1.9987	0.100
Nominal Shaft Diameter (inches)		Shaft Diameter Tolerance (inches)	Minimum Hardness Depth (inches)																						
0.500		.4995 / .4990	0.040																						
0.625		.6245 / .6240	0.040																						
0.750		.7495 / .7490	0.060																						
1.000		.9995 / .9990	0.080																						
1.250		1.2495 / 1.2490	0.080																						
1.500		1.4994 / 1.4989	0.080																						
2.000		1.9994 / 1.9987	0.100																						
<b>Hardness Depth</b>																									

Model Number	Nominal Shaft Diameter (inches)	Dimensions (inches)										
		A +/- .002	B +/- .002	C	D	E +/- .010	F	G	H	J hole	K Bolt Size	L <sup>(2)</sup> Thread
TRSA8	0.500	1.125	3.000	3.750	0.875	2.000	.375	.312	.250	.169	#6-32	#10-32
TRSA10	0.625	1.125	3.750	4.625	1.000	2.625	.437	.312	.312	.193	#8-32	#10-32
TRSA12	0.750	1.500	4.500	5.500	1.125	3.250	.500	.312	.375	.221	#10-32	#10-32
TRSA16	1.000	1.750	5.250	6.375	1.312	3.750	.562	.312	.500	.281	1/4-20	#10-32
TRSA20	1.250	2.125	6.000	7.250	1.562	4.125	.625	.375	.562	.281	1/4-20	1/4-20
TRSA24	1.500	2.500	6.625	8.125	1.875	4.375	.750	.437	.687	.343	5/16-18	5/16-18
TRSA32	2.000	3.250	7.250	9.000	2.250	4.500	.875	.562	.875	.406	3/8-16	3/8-16



Standard lengths to 16 feet (192 inches). Longer lengths available - Contact Factory.

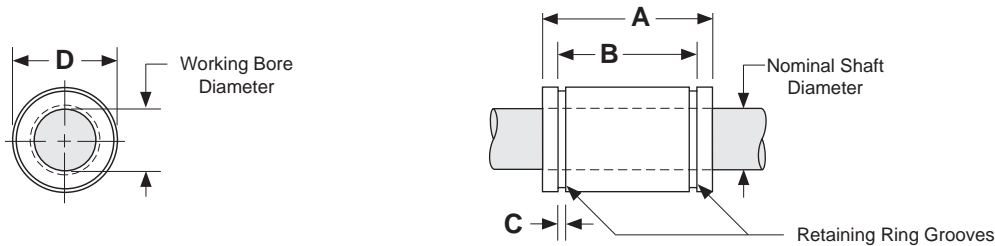


## Specifications: **LBCA** & **LBOA** Linear Bearings

<b>Operating Temperature</b> <b>Maximum Speed</b> <b>Bearing Seals</b> (optional) <b>Matching Shaft</b>	0° F to + 600° F ( <b>LBCA</b> series without seals)      0° F to + 185° F (all other models) 10 ft/second Internal Wiper Seals on both ends, Plastic Bearing Retainer Class S ( <b>SS</b> series), hardened & ground shafting (see pages 4 & 5)					
<b>Housing Tolerances</b> C = clearance	<b>LBCA</b> (closed style)			<b>LBOA</b> (open style)		
	Nominal Shaft Diameter	Recommended Housing Bore		Bearing and Shaft Fit-up	Nominal Shaft Diameter	Recommended Housing Bore before adjustment
	(inches)	Normal Fit (inches)	Press Fit (inches)	(inches)	(inches)	(inches)
	0.250	.5005 / .5000	.4995 / .4990	.0015C / .0005C		
	0.375	.6255 / .6250	.6245 / .6240	.0015C / .0005C		
	0.500	.8755 / .8750	.8745 / .8740	.0015C / .0005C	0.500	.8760 / .8740
	0.625	1.1255 / 1.1250	1.1245 / 1.1240	.0015C / .0005C	0.625	1.1260 / 1.1240
	0.750	1.2505 / 1.2500	1.2495 / 1.2490	.0015C / .0005C	0.750	1.2510 / 1.2490
	1.000	1.5630 / 1.5625	1.5620 / 1.5615	.0015C / .0005C	1.000	1.5635 / 1.5615
	1.250	2.0010 / 2.0000	1.9993 / 1.9983	.0015C / .0004C	1.250	2.0010 / 1.9990
	1.500	2.3760 / 2.3750	2.3743 / 2.3733	.0016C / .0005C	1.500	2.3760 / 2.3740
	2.000	3.0010 / 3.0000	2.9992 / 2.9982	.0020C / .0005C	2.000	3.0010 / 2.9990

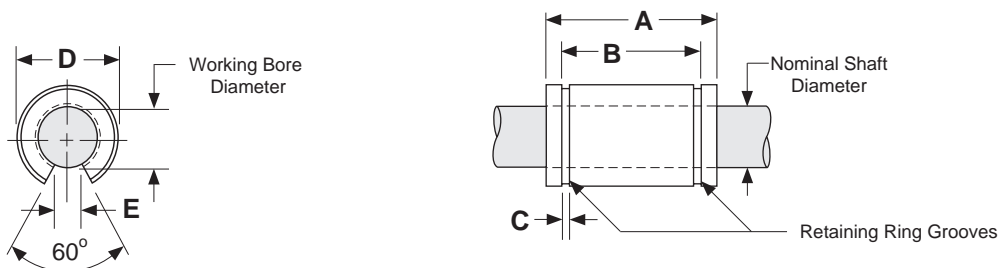
Dimensions & Specifications: **LBCA** Precision Linear Bearing (closed)

Model Number		Nominal Shaft Diameter (inches)	Working Bore Diameter (inches)	Dyn. <sup>(1)</sup> Load Capacity (lbs)	Dimensions (inches)				Bearing Weight (lbs)
Without Seals	With <sup>(2)</sup> Seals				A	B	C	D	
LBCA-4	LBCA-4-S	0.250	0.2500/0.2495	19	0.750/0.735	0.515/0.499	0.039	0.5000/0.4996	0.02
LBCA-6	LBCA-6-S	0.375	0.3750/0.3745	37	0.875/0.860	0.640/0.624	0.039	0.6250/0.6246	0.06
LBCA-8	LBCA-8-S	0.500	0.5000/0.4995	85	1.250/1.235	0.967/0.951	0.046	0.8750/0.8746	0.08
LBCA-10	LBCA-10-S	0.625	0.6250/0.6245	150	1.500/1.485	1.108/1.092	0.056	1.1250/1.1246	0.16
LBCA-12	LBCA-12-S	0.750	0.7500/0.7495	200	1.625/1.610	1.170/1.154	0.056	1.2500/1.2496	0.21
LBCA-16	LBCA-16-S	1.000	1.0000/0.9995	350	2.250/2.235	1.759/1.741	0.068	1.5625/1.5621	0.38
LBCA-20	LBCA-20-S	1.250	1.2500/1.2494	520	2.625/2.605	2.009/1.991	0.068	2.0000/1.9995	1.10
LBCA-24	LBCA-24-S	1.500	1.5000/1.4994	770	3.000/2.980	2.415/2.397	0.086	2.3750/2.3745	1.43
LBCA-32	LBCA-32-S	2.000	2.0000/1.9992	1,100	4.000/3.980	3.195/3.177	0.103	3.0000/2.9994	2.75



Dimensions & Specifications: **LBOA** Precision Linear Bearing (open)

Model Number		Nominal Shaft Diameter (inches)	Working Bore Diameter (inches)	Dyn. <sup>(1)</sup> Load Capacity (lbs)	Dimensions (inches)					Bearing Weight (lbs)
Without Seals	With <sup>(2)</sup> Seals				A	B	C	D	E min.	
LBOA-8	LBOA-8-S	0.500	0.5005/0.4995	60	1.250/1.235	0.967/0.951	0.046	0.8760/0.8746	0.31	0.07
LBOA-10	LBOA-10-S	0.625	0.6255/0.6245	105	1.500/1.485	1.108/1.092	0.056	1.1260/1.1240	0.38	0.11
LBOA-12	LBOA-12-S	0.750	0.7505/0.7495	140	1.625/1.610	1.170/1.154	0.056	1.2510/1.2490	0.44	0.17
LBOA-16	LBOA-16-S	1.000	1.0005/0.9995	240	2.250/2.235	1.759/1.741	0.068	1.5635/1.5615	0.56	0.32
LBOA-20	LBOA-20-S	1.250	1.2506/1.2494	400	2.625/2.605	2.009/1.991	0.068	2.0010/1.9990	0.63	0.90
LBOA-24	LBOA-24-S	1.500	1.5006/1.4994	600	3.000/2.980	2.415/2.397	0.086	2.3760/2.3740	0.75	1.12
LBOA-32	LBOA-32-S	2.000	2.0008/1.9992	860	4.000/3.980	3.195/3.177	0.103	3.0010/2.9990	1.00	2.16



Footnotes:

- (1) Rating based upon 2 million inches of travel with the load forces being applied downward on the linear bearing, while in a horizontal application and based upon 1060 steel shafting (Rockwell 60C).
- (2) The bearing retainer is plastic when the internal -S seal option is selected.



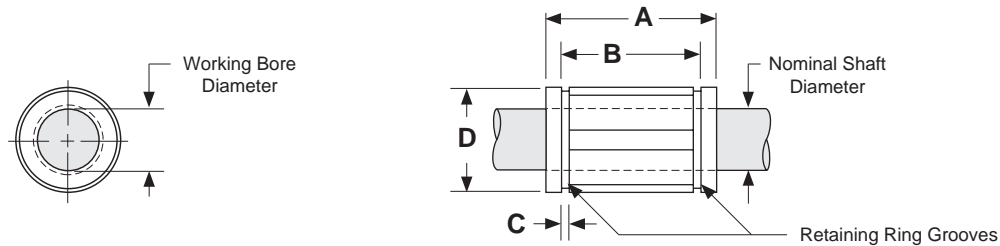


## Specifications: LBC & LBO Linear Bearings

<b>Operating Temperature</b> <b>Maximum Speed</b> <b>Bearing Seals</b> <b>Matching Shaft</b>	<p style="text-align: center;">0° F to + 185° F</p> <p style="text-align: center;">9 ft/second</p> <p style="text-align: center;">Optional Internal Wiper Seals on both ends</p> <p style="text-align: center;">Class L (<b>SL</b> series), hardened &amp; ground shafting (see pages 4 &amp; 5)</p>				
<b>Housing Tolerances</b> C = clearance P = preload	<b>Nominal Shaft Diameter</b> (inches)	<b>Recommended Housing Bore</b>		<b>Bearing and Shaft Fit-up<sup>(1)</sup></b> (before adjustment)	
		Fixed Housing (inches)	Adjustable Housing (inches)	Fixed Housing (inches)	Adjustable Housing (inches)
	0.250	.5005 / .5000	.5010 / .5000	.0015C / .0000	.002C / .0000
	0.375	.6255 / .6250	.6260 / .6250	.0015C / .0000	.002C / .0000
	0.500	.8755 / .8750	.8760 / .8750	.0015C / .0000	.002C / .0000
	0.625	1.1255 / 1.1250	1.1260 / 1.1250	.0015C / .0000	.002C / .0000
	0.750	1.2505 / 1.2500	1.2510 / 1.2500	.0015C / .0000	.002C / .0000
	1.000	1.5630 / 1.5625	1.5635 / 1.5625	.0015C / .0000	.002C / .0000
	1.250	2.0008 / 2.0000	2.0010 / 2.0000	.0018C / .0001P	.002C / .0000
1.500	2.3760 / 2.3750	2.3760 / 2.3750	.0021C / .0000	.0021C / .0000	
2.000	3.0010 / 3.0000	3.0010 / 3.0000	.0023C / .0002P	.0023C / .0002P	
<b>(1)</b> Adjustable Housing Diameter (before adjustment) for LBO-20 is .002C/.0001P.					

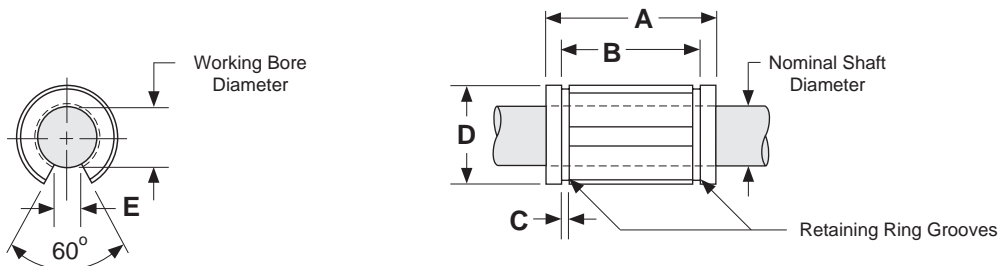
## Dimensions & Specifications: **LBC** Linear Bearing (closed)

Model Number		Nominal Shaft Diameter (inches)	Dyn. <sup>(1)</sup> Load Capacity (lbs)	Working Bore Diameter (inches)	Housing Bore <sup>(2)</sup> D (inches)	Dimensions (inches)			Bearing Weight (lbs)
Without Seals	With Seals					A	B	C	
LBC-4	LBC-4-S	0.250	60	0.2500/0.2495	0.5005/0.5000	0.750/0.735	0.511/0.501	0.039	0.01
LBC-6	LBC-6-S	0.375	105	0.3750/0.3745	0.6255/0.6250	0.875/0.860	0.699/0.689	0.039	0.02
LBC-8	LBC-8-S	0.500	265	0.5000/0.4995	0.8755/0.8750	1.250/1.230	1.032/1.012	0.050	0.04
LBC-10	LBC-10-S	0.625	420	0.6250/0.6245	1.1255/1.1250	1.500/1.480	1.105/1.095	0.056	0.10
LBC-12	LBC-12-S	0.750	640	0.7500/0.7495	1.2505/1.2500	1.625/1.605	1.270/1.250	0.056	0.14
LBC-16	LBC-16-S	1.000	1,045	1.0000/0.9995	1.5630/1.5625	2.250/2.230	1.884/1.864	0.068	0.25
LBC-20	LBC-20-S	1.250	1,585	1.2500/1.2494	2.0008/2.0000	2.625/2.600	2.004/1.984	0.068	0.45
LBC-24	LBC-24-S	1.500	1,930	1.5000/1.4994	2.3760/2.3750	3.000/2.970	2.410/2.390	0.086	0.85
LBC-32	not available	2.000	3,000	2.0000/1.9992	3.0010/3.0000	4.000/3.960	3.193/3.163	0.105	1.45



## Dimensions & Specifications: **LBO** Linear Bearing (open)

Model Number		Nominal Shaft Diameter (inches)	Dyn. <sup>(1)</sup> Load Capacity (lbs)	Working Bore Diameter (inches)	Housing Bore <sup>(2)</sup> D (inches)	Dimensions (inches)				Bearing Weight (lbs)
Without Seals	With Seals					A	B	C	E min.	
LBO-8	LBO-8-S	0.500	230	0.5000/0.4995	0.8755/0.8750	1.250/1.230	1.032/1.012	0.050	0.312	0.04
LBO-10	LBO-10-S	0.625	320	0.6250/0.6245	1.1255/1.1250	1.500/1.480	1.105/1.095	0.056	0.375	0.08
LBO-12	LBO-12-S	0.750	470	0.7500/0.7495	1.2505/1.2500	1.625/1.605	1.270/1.250	0.056	0.437	0.12
LBO-16	LBO-16-S	1.000	780	1.0000/0.9995	1.5630/1.5625	2.250/2.230	1.884/1.864	0.068	0.562	0.21
LBO-20	LBO-20-S	1.250	1,170	1.2500/1.2494	2.0008/2.0000	2.625/2.600	2.004/1.984	0.068	0.625	0.38
LBO-24	LBO-24-S	1.500	1,560	1.5000/1.4994	2.3760/2.3750	3.000/2.970	2.410/2.390	0.086	0.750	0.71
LBO-32	not available	2.000	2,350	2.0000/1.9992	3.0010/3.0000	4.000/3.960	3.193/3.163	0.105	1.000	1.20



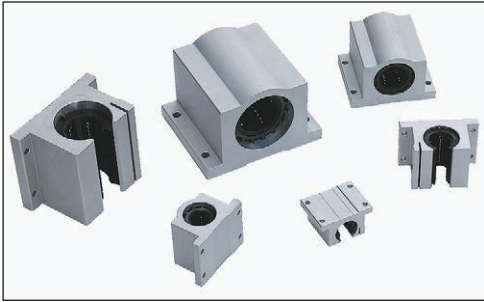
### Footnotes:

- (1) Rating based upon 2 million inches of travel with the load forces being applied downward on the linear bearing, while in a horizontal application, and based upon 1060 steel shafting (Rockwell 60C).
- (2) This specification is based upon the bearing being on the shaft.

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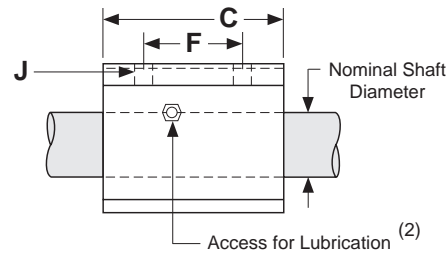
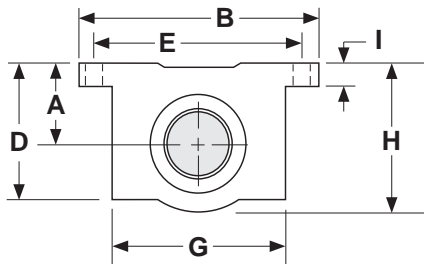


## Specifications: **SLBC** & **SLBO** Pillow Blocks

<b>Bearing Housing Type &amp; Finish</b>	Aluminum 6061-T6 Pillow Block, Natural Finish																	
<b>Bearing Seals</b>	Internal Wiper Seals on Both Ends																	
<b>Bearing Type - Internal</b>	<b>LBC</b> or <b>LBO</b> series																	
<b>Operating Temperature</b>	0° F to + 185° F																	
<b>Maximum Speed</b>	9 ft/second																	
<b>Matching Shaft</b>	Class L ( <b>SL</b> series), hardened & ground shafting (see pages 4 & 5)																	
<b>Diameter Tolerance</b>	<table border="1"> <thead> <tr> <th>Nominal Shaft Diameter (inches)</th> <th>Shaft Diameter Tolerance (inches)</th> </tr> </thead> <tbody> <tr> <td>0.500</td> <td>.4995 / .4990</td> </tr> <tr> <td>0.625</td> <td>.6245 / .6240</td> </tr> <tr> <td>0.750</td> <td>.7495 / .7490</td> </tr> <tr> <td>1.000</td> <td>.9995 / .9990</td> </tr> <tr> <td>1.250</td> <td>1.2495 / 1.2490</td> </tr> <tr> <td>1.500</td> <td>1.4994 / 1.4989</td> </tr> <tr> <td>2.000</td> <td>1.9994 / 1.9987</td> </tr> </tbody> </table>		Nominal Shaft Diameter (inches)	Shaft Diameter Tolerance (inches)	0.500	.4995 / .4990	0.625	.6245 / .6240	0.750	.7495 / .7490	1.000	.9995 / .9990	1.250	1.2495 / 1.2490	1.500	1.4994 / 1.4989	2.000	1.9994 / 1.9987
Nominal Shaft Diameter (inches)	Shaft Diameter Tolerance (inches)																	
0.500	.4995 / .4990																	
0.625	.6245 / .6240																	
0.750	.7495 / .7490																	
1.000	.9995 / .9990																	
1.250	1.2495 / 1.2490																	
1.500	1.4994 / 1.4989																	
2.000	1.9994 / 1.9987																	

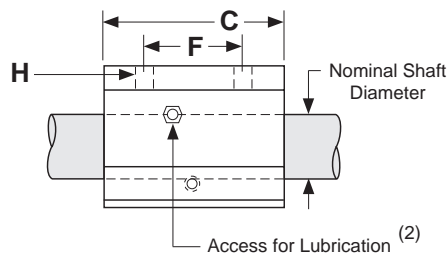
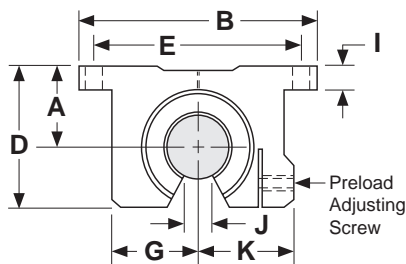
## Dimensions & Specifications: **SLBC** Single Linear Bearing Pillow Block (closed)

Model Number	Nominal Shaft Diameter (inches)	Dyn. Load Capacity (lbs)	Dimensions (inches)											Block Weight (lbs)
			A	B	C	D	E	F	G	H	J			
			+/- .003				+/- .010	+/- .010			hole	bolt		
SLBC-8	0.500	265	0.687	2.00	1.69	1.13	1.688	1.000	1.38	1.25	.25	.16	# 6	0.20
SLBC-10	0.625	420	0.875	2.50	1.94	1.44	2.125	1.125	1.75	1.63	.28	.19	# 8	0.50
SLBC-12	0.750	640	0.937	2.75	2.06	1.56	2.375	1.250	1.88	1.75	.31	.19	# 8	0.60
SLBC-16	1.000	1,045	1.187	3.25	2.81	1.94	2.875	1.750	2.38	2.19	.38	.22	#10	1.20
SLBC-20	1.250	1,585	1.500	4.00	3.63	2.50	3.500	2.000	3.00	2.81	.44	.22	#10	2.50
SLBC-24	1.500	1,930	1.750	4.75	4.00	2.88	4.125	2.500	3.50	3.25	.50	.28	1/4	3.80
SLBC-32	2.000	3,000	2.125	6.00	5.00	3.63	5.250	3.250	4.50	4.06	.63	.41	3/8	7.00



## Dimensions & Specifications: **SLBO** Single Linear Bearing Pillow Block (open)

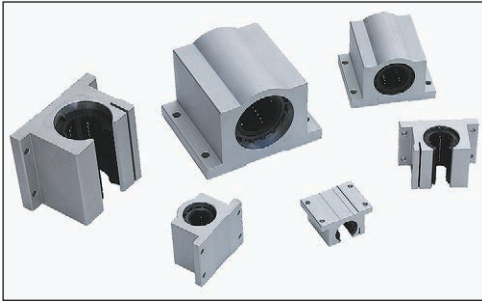
Model Number	Nominal Shaft Diameter (inches)	Dyn. Load Capacity (lbs)	Dimensions (inches)													Block Weight (lbs)
			A	B	C	D	E	F	G	H		I	J	K		
			+/- .003				+/- .010	+/- .010		hole	bolt		min.			
SLBO-8	0.500	230	0.687	2.00	1.50	1.13	1.688	1.000	0.69	.16	# 6	.25	0.31	0.75	0.20	
SLBO-10	0.625	320	0.875	2.50	1.75	1.44	2.125	1.125	0.88	.19	# 8	.28	0.37	0.94	0.40	
SLBO-12	0.750	470	0.937	2.75	1.88	1.56	2.375	1.250	0.94	.19	# 8	.31	0.43	1.00	0.50	
SLBO-16	1.000	780	1.187	3.25	2.63	2.00	2.875	1.750	1.19	.22	#10	.38	0.56	1.25	1.00	
SLBO-20	1.250	1,170	1.500	4.00	3.38	2.56	3.500	2.000	1.50	.22	#10	.44	0.62	1.63	2.10	
SLBO-24	1.500	1,560	1.750	4.75	3.75	2.94	4.125	2.500	1.75	.28	1/4	.50	0.75	1.88	3.20	
SLBO-32	2.000	2,350	2.125	6.00	4.75	3.63	5.250	3.250	2.25	.41	3/8	.63	1.00	2.44	6.00	



### Footnotes:

(1) Rating based upon 2 million inches of travel with the load forces being applied downward on the linear bearing, while in a horizontal application, and based upon 1060 steel shafting (Rockwell 60C).

(2) Size 0.500 has oil lubricant fitting. Sizes 0.625 and above have a 1/4-28 UNF straight thread access for lubrication.



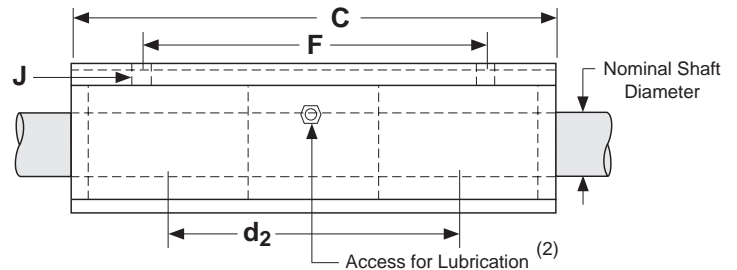
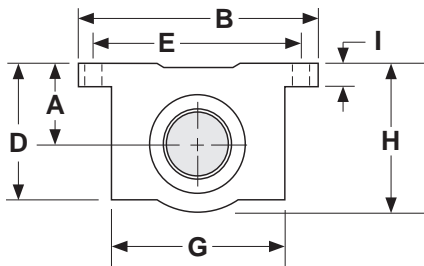
### Specifications: DLBC & DLBO Pillow Blocks

<b>Bearing Housing Type &amp; Finish</b>	Aluminum 6061-T6 Pillow Block, Natural Finish																	
<b>Bearing Seals</b>	Internal Wiper Seals on Both Ends																	
<b>Operating Temperature</b>	0° F to + 185° F																	
<b>Maximum Speed</b>	9 ft/second																	
<b>Matching Shaft</b>	Class L ( <b>SL</b> series), hardened & ground shafting (see pages 4 & 5)																	
<b>Diameter Tolerance</b>	<table border="1"> <thead> <tr> <th>Nominal Shaft Diameter (inches)</th> <th>Shaft Diameter Tolerance (inches)</th> </tr> </thead> <tbody> <tr> <td>0.500</td> <td>.4995 / .4990</td> </tr> <tr> <td>0.625</td> <td>.6245 / .6240</td> </tr> <tr> <td>0.750</td> <td>.7495 / .7490</td> </tr> <tr> <td>1.000</td> <td>.9995 / .9990</td> </tr> <tr> <td>1.250</td> <td>1.2495 / 1.2490</td> </tr> <tr> <td>1.500</td> <td>1.4994 / 1.4989</td> </tr> <tr> <td>2.000</td> <td>1.9994 / 1.9987</td> </tr> </tbody> </table>		Nominal Shaft Diameter (inches)	Shaft Diameter Tolerance (inches)	0.500	.4995 / .4990	0.625	.6245 / .6240	0.750	.7495 / .7490	1.000	.9995 / .9990	1.250	1.2495 / 1.2490	1.500	1.4994 / 1.4989	2.000	1.9994 / 1.9987
Nominal Shaft Diameter (inches)	Shaft Diameter Tolerance (inches)																	
0.500	.4995 / .4990																	
0.625	.6245 / .6240																	
0.750	.7495 / .7490																	
1.000	.9995 / .9990																	
1.250	1.2495 / 1.2490																	
1.500	1.4994 / 1.4989																	
2.000	1.9994 / 1.9987																	



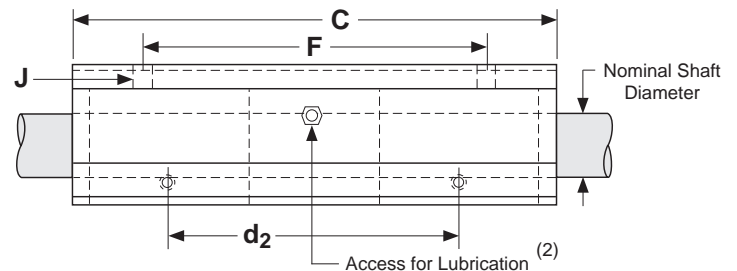
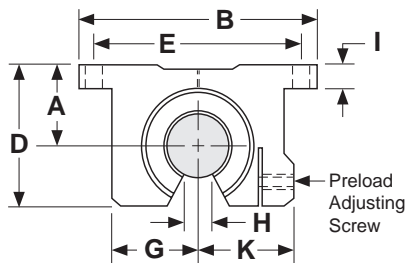
## Dimensions & Specifications: DLBC Double Linear Bearing Pillow Block (closed)

Model Number	Nominal Shaft Diameter (inches)	Dyn. Load Capacity (lbs)	Dimensions (inches)											Block Weight (lbs)	
			A	B	C	D	E	F	G	H	I	J			d <sub>2</sub> <sup>(3)</sup>
			+/- .003				+/- .010	+/- .010				hole	bolt		
DLBC-8	0.500	510	0.687	2.00	3.50	1.13	1.688	2.500	1.38	1.25	.25	.16	# 6	1.75	0.40
DLBC-10	0.625	900	0.875	2.50	4.00	1.44	2.125	3.000	1.75	1.63	.28	.19	# 8	2.00	1.00
DLBC-12	0.750	1,200	0.937	2.75	4.50	1.56	2.375	3.500	1.88	1.75	.31	.19	# 8	2.25	1.20
DLBC-16	1.000	2,100	1.187	3.25	6.00	1.94	2.875	4.500	2.38	2.19	.38	.22	#10	3.00	2.40
DLBC-20	1.250	3,000	1.500	4.00	7.50	2.50	3.500	5.500	3.00	2.81	.44	.22	#10	3.75	5.00
DLBC-24	1.500	4,000	1.750	4.75	9.00	2.88	4.125	6.500	3.50	3.25	.50	.28	1/4	4.50	7.80



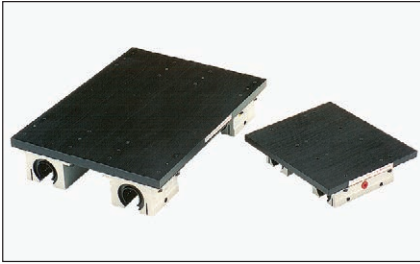
## Dimensions & Specifications: DLBO Double Linear Bearing Pillow Block (open)

Model Number	Nominal Shaft Diameter (inches)	Dyn. Load Capacity (lbs)	Dimensions (inches)													Block Weight (lbs)
			A	B	C	D	E	F	G	H	I	J		K	d <sub>2</sub> <sup>(3)</sup>	
			+/- .003				+/- .010	+/- .010		min.		hole	bolt			
DLBO-8	0.500	460	0.687	2.00	3.50	1.13	1.688	2.500	0.69	.31	.25	.16	# 6	0.75	1.75	0.40
DLBO-10	0.625	640	0.875	2.50	4.00	1.44	2.125	3.000	0.88	.37	.28	.19	# 8	0.94	2.00	0.80
DLBO-12	0.750	940	0.937	2.75	4.50	1.56	2.375	3.500	0.94	.43	.31	.19	# 8	1.00	2.25	1.00
DLBO-16	1.000	1,560	1.187	3.25	6.00	2.00	2.875	4.500	1.19	.56	.38	.22	#10	1.25	3.00	2.00
DLBO-20	1.250	2,340	1.500	4.00	7.50	2.56	3.500	5.500	1.50	.62	.44	.22	#10	1.63	3.75	4.20
DLBO-24	1.500	3,120	1.750	4.75	9.00	2.94	4.125	6.500	1.75	.75	.50	.28	1/4	1.88	4.50	6.70



### Footnotes:

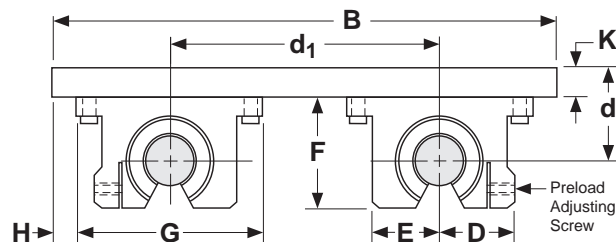
- (1) Rating based upon 2 million inches of travel with the load forces being applied downward on the linear bearing, while in a horizontal application, and based upon 1060 steel shafting (Rockwell 60C).
- (2) Size 0.500 has oil lubricant fitting. Sizes 0.625 and above have a 1/4-28 UNF straight thread access for lubrication.
- (3) This value is the center to center distance (spacing) of the bearings on a single shaft (d<sub>2</sub>).



### Specifications: **TRCA** TWIN RAIL® Carriage Assembly

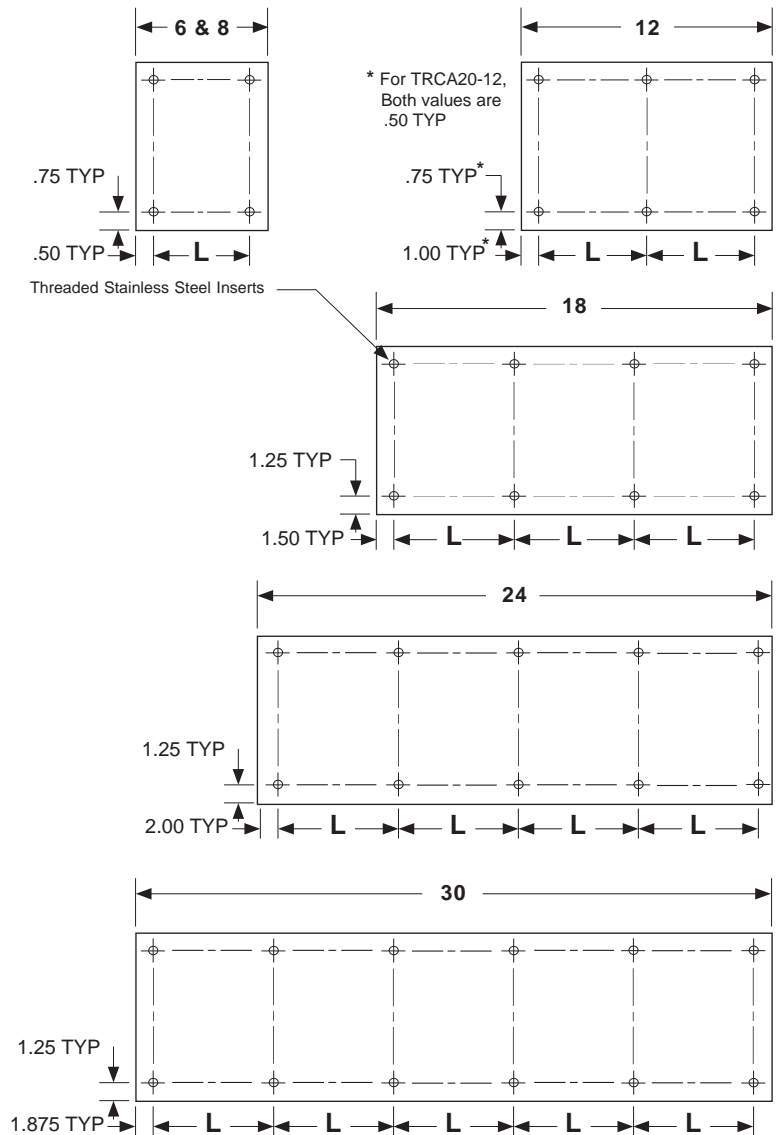
<b>Bearing Housing Type &amp; Finish</b>	Aluminum 6061-T6 Pillow Block, Natural Finish																
<b>Bearing Seals</b>	Internal Wiper Seals on Both Ends																
<b>Carriage Plate Type &amp; Finish</b>	Machined Aluminum 6061-T6 Plate, Black Anodized																
<b>Bearing Alignment on Plate</b>	+/- 0.001", Pillow Blocks Doweled to Carriage Plate																
<b>Operating Temperature</b>	0° F to + 185° F																
<b>Maximum Speed</b>	9 ft/second																
<b>Matching TWIN RAIL® Assembly</b>	<b>TRSA</b> series (see page 11)																
<b>Diameter Tolerance</b>	<table border="1"> <thead> <tr> <th>Nominal Shaft Diameter (inches)</th> <th>Shaft Diameter Tolerance (inches)</th> </tr> </thead> <tbody> <tr> <td>0.500</td> <td>.4995 / .4990</td> </tr> <tr> <td>0.625</td> <td>.6245 / .6240</td> </tr> <tr> <td>0.750</td> <td>.7495 / .7490</td> </tr> <tr> <td>1.000</td> <td>.9995 / .9990</td> </tr> <tr> <td>1.250</td> <td>1.2495 / 1.2490</td> </tr> <tr> <td>1.500</td> <td>1.4994 / 1.4989</td> </tr> <tr> <td>2.000</td> <td>1.9994 / 1.9987</td> </tr> </tbody> </table>	Nominal Shaft Diameter (inches)	Shaft Diameter Tolerance (inches)	0.500	.4995 / .4990	0.625	.6245 / .6240	0.750	.7495 / .7490	1.000	.9995 / .9990	1.250	1.2495 / 1.2490	1.500	1.4994 / 1.4989	2.000	1.9994 / 1.9987
Nominal Shaft Diameter (inches)	Shaft Diameter Tolerance (inches)																
0.500	.4995 / .4990																
0.625	.6245 / .6240																
0.750	.7495 / .7490																
1.000	.9995 / .9990																
1.250	1.2495 / 1.2490																
1.500	1.4994 / 1.4989																
2.000	1.9994 / 1.9987																

Model Number	Nominal Shaft Diameter (inches)	Dynamic Load Capacity (lbs)	Dimensions (inches)								
			B +/- .005	D	E	F	G	H	K	d <sub>r</sub>	d <sub>1</sub>
TRCA8	0.500	920	5.50	0.75	0.68	1.12	2.00	.25	0.375	1.062	3.00
TRCA10	0.625	1,280	6.75	0.93	0.87	1.43	2.50	.25	0.375	1.250	3.75
TRCA12	0.750	1,880	7.75	1.00	0.93	1.56	2.75	.25	0.500	1.437	4.50
TRCA16	1.000	3,120	9.00	1.25	1.18	2.00	3.25	.25	0.500	1.687	5.25
TRCA20	1.250	4,680	10.50	1.62	1.50	2.56	4.00	.25	0.750	2.250	6.00
TRCA24	1.500	6,240	12.00	1.87	1.75	2.93	4.75	.31	1.000	2.750	6.62
TRCA32	2.000	9,400	14.00	2.43	2.25	3.62	6.00	.37	1.250	3.375	7.25



## Dimensions & Specifications: TRCA-P Pre-Drilled Mounting Holes

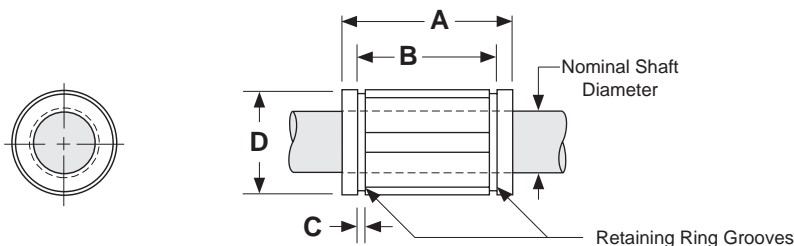
Model Number	Carriage Length (inches)	L (inches)	Threaded Insert Size
TRCA8-6-P	6.00	5.00	#10-32
TRCA8-12-P	12.00	5.00	#10-32
TRCA8-18-P	18.00	5.00	#10-32
TRCA10-6-P	6.00	5.00	#10-32
TRCA10-12-P	12.00	5.00	#10-32
TRCA10-18-P	18.00	5.50	#10-32
TRCA12-6-P	6.00	5.00	1/4-28
TRCA12-12-P	12.00	5.00	1/4-28
TRCA12-18-P	18.00	5.50	1/4-28
TRCA16-6-P	6.00	5.00	5/16-24
TRCA16-12-P	12.00	5.00	5/16-24
TRCA16-18-P	18.00	5.00	5/16-24
TRCA16-24-P	24.00	5.00	5/16-24
TRCA20-8-P	8.00	7.00	3/8-24
TRCA20-12-P	12.00	5.00	3/8-24
TRCA20-18-P	18.00	5.00	3/8-24
TRCA20-24-P	24.00	5.00	3/8-24
TRCA24-12-P	12.00	5.00	3/8-24
TRCA24-18-P	18.00	5.00	3/8-24
TRCA24-24-P	24.00	5.00	3/8-24
TRCA24-30-P	30.00	5.25	3/8-24
TRCA32-18-P	18.00	5.00	1/2-20
TRCA32-24-P	24.00	5.00	1/2-20
TRCA32-30-P	30.00	5.25	1/2-20





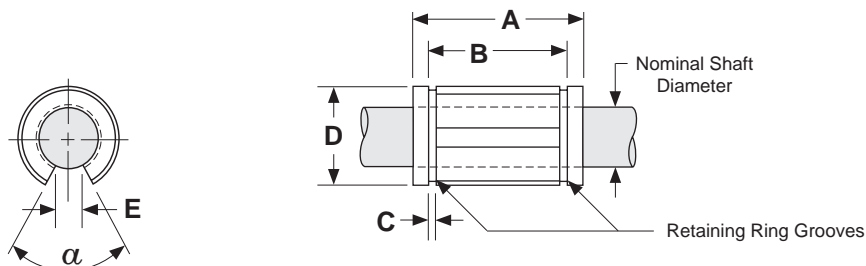
### Dimensions & Specifications: **LBCM** Linear Bearing Closed Metric (Asian Style)

Model Number		Nominal Shaft Diameter (mm)	Dynamic Load Capacity N (Kgf)	Housing Bore D (mm)	Dimensions (mm)			No. of Ball Tracks	Bearing Weight (kg)
Without Seals	With Seals				A	B	C		
LBCM-16	LBCM-16-S	16	1225 (119,9)	28	37	26,5	1,60	5	0,034
LBCM-20	LBCM-20-S	20	2303 (239,8)	32	42	30,5	1,60	6	0,058
LBCM-25	LBCM-25-S	25	4312 (459,6)	40	59	41,0	1,85	6	0,120
LBCM-30	LBCM-30-S	30	4802 (569,6)	45	64	44,5	1,85	6	0,148
LBCM-40	LBCM-40-S	40	9310 (949,3)	60	80	60,5	2,10	6	0,314



### Dimensions & Specifications: **LBOM** Linear Bearing Open Metric (Asian Style)

Model Number		Nominal Shaft Diameter (mm)	Dynamic Load Capacity N (Kgf)	Housing Bore D (mm)	Dimensions (mm)				Angle $\alpha$	No. of Ball Tracks	Bearing Weight (kg)
Without Seals	With Seals				A	B	C	E min.			
LBOM-16	LBOM-16-S	16	1372 (139,9)	28	37	26,5	1,60	11,0	60°	4	0,026
LBOM-20	LBOM-20-S	20	2332 (237,8)	32	42	30,5	1,60	11,0	60°	5	0,048
LBOM-25	LBOM-25-S	25	4351 (443,7)	40	59	41,0	1,85	12,5	60°	5	0,100
LBOM-30	LBOM-30-S	30	4851 (494,7)	45	64	44,5	1,85	15,0	60°	5	0,122
LBOM-40	LBOM-40-S	40	9408 (959,3)	60	80	60,5	2,15	20,0	60°	5	0,260



Sold & Serviced By:



Toll Free Phone (877) SERV098  
Toll Free Fax (877) SERV099  
www.electromate.com  
sales@electromate.com

(1) Rating based upon 50 km of travel with the load forces being applied downward on the linear bearing, while in a horizontal application, and based upon 1060 steel shafting (Rockwell 60C).

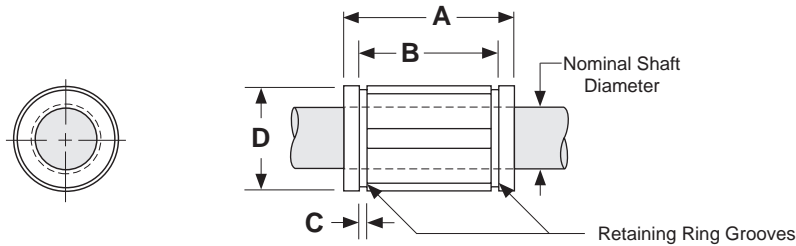
(2) This specification is based upon the bearing being on the shaft.

# Technical Reference - Self-Aligning Metric (European Style) - LBCME & LBOME Series



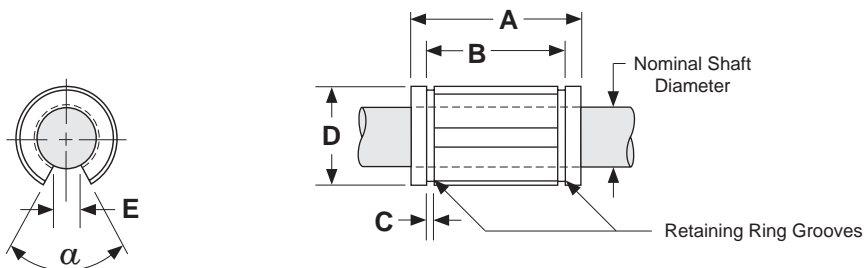
## Dimensions & Specifications: **LBCME** Linear Bearing Closed Metric (European Style)

Model Number		Nominal Shaft Diameter (mm)	Dynamic Load Capacity N (Kgf)	Housing Bore D (mm)	Dimensions (mm)			No. of Ball Tracks	Bearing Weight (kg)
Without Seals	With Seals				A	B	C		
LBCME-16	LBCME-16-S	16	1176 (119,9)	26	36	24,6	1,30	5	0,026
LBCME-20	LBCME-20-S	20	2352 (239,8)	32	45	31,2	1,60	6	0,060
LBCME-25	LBCME-25-S	25	4508 (459,6)	40	58	43,7	1,85	6	0,120
LBCME-30	LBCME-30-S	30	5586 (569,6)	47	68	51,7	1,85	6	0,184
LBCME-40	LBCME-40-S	40	9310 (949,3)	62	80	60,3	2,15	6	0,342
LBCME-50	LBCME-50-S	50	13720 (1399,0)	75	100	77,3	2,65	6	0,586



## Dimensions & Specifications: **LBOME** Linear Bearing Open Metric (European Style)

Model Number		Nominal Shaft Diameter (mm)	Dynamic Load Capacity N (Kgf)	Housing Bore D (mm)	Dimensions (mm)				Angle $\alpha$	No. of Ball Tracks	Bearing Weight (kg)
Without Seals	With Seals				A	B	C	E min.			
LBOME-16	LBOME-16-S	16	1332 (135,8)	26	36	24,6	1,30	9,0	68°	4	0,020
LBOME-20	LBOME-20-S	20	2371 (241,8)	32	45	31,2	1,60	9,0	55°	5	0,050
LBOME-25	LBOME-25-S	25	4557 (464,7)	40	58	43,7	1,85	11,5	57°	5	0,100
LBOME-30	LBOME-30-S	30	5644 (575,5)	47	68	51,7	1,85	14,0	57°	5	0,154
LBOME-40	LBOME-40-S	40	9398 (958,3)	62	80	60,3	2,15	19,5	56°	5	0,286
LBOME-50	LBOME-50-S	50	13857 (1413,0)	75	100	77,3	2,65	22,5	54°	5	0,486

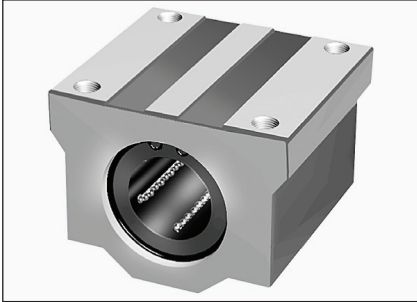


- (1) Rating based upon 50 km of travel with the load forces being applied downward on the linear bearing, while in a horizontal application, and based upon 1060 steel shafting (Rockwell 60C).  
 (2) This specification is based upon the bearing being on the shaft.



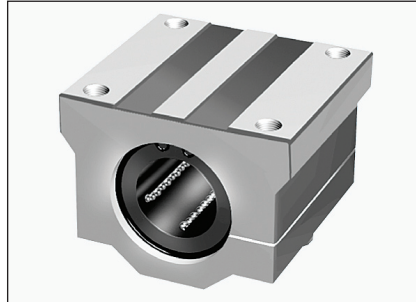
## SLBCM Series

Single Self-Aligning Closed



## SLBCM-A Series

Single Self-Aligning Closed Adjustable



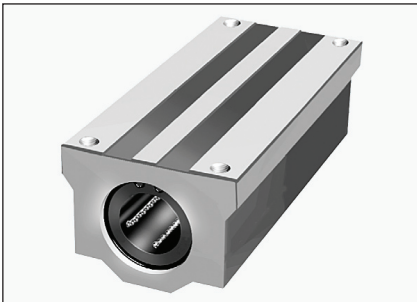
## SLBOM Series

Single Self-Aligning Open



## DLBCM Series

Double Self-Aligning Closed



## SLBCME Series

Single Self-Aligning Closed



## SLBCME-A Series

Single Self-Aligning Closed Adjustable



## SLBOME Series

Single Self-Aligning Open



## SLBOME-A Series

Single Self-Aligning Open Adjustable



## DLBCME Series

Double Self-Aligning Closed



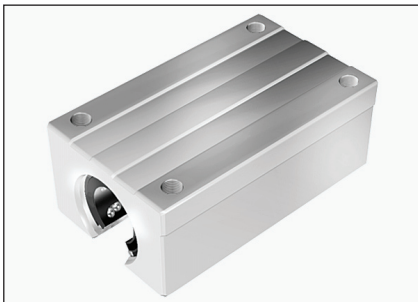
## DLBCME-A Series

Single Self-Aligning Closed Adjustable



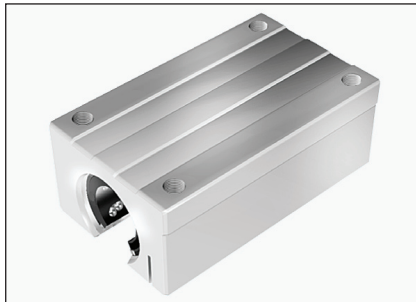
## DLBOME Series

Double Self-Aligning Open



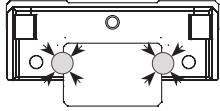
## DLBOME-A Series

Double Self-Aligning Open Adjustable



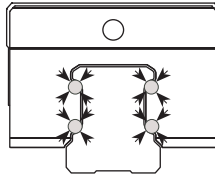
## Features

### MR series



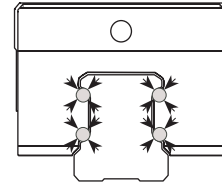
- \* Miniature Series
- \* 45° contact angle
- \* Drop in Replacement to Other Same Size Brands

### ARC series



- \* Standard Load Series
- \* 45° contact angle
- \* Drop in Replacement to Other Same Size Brands

### HRC series



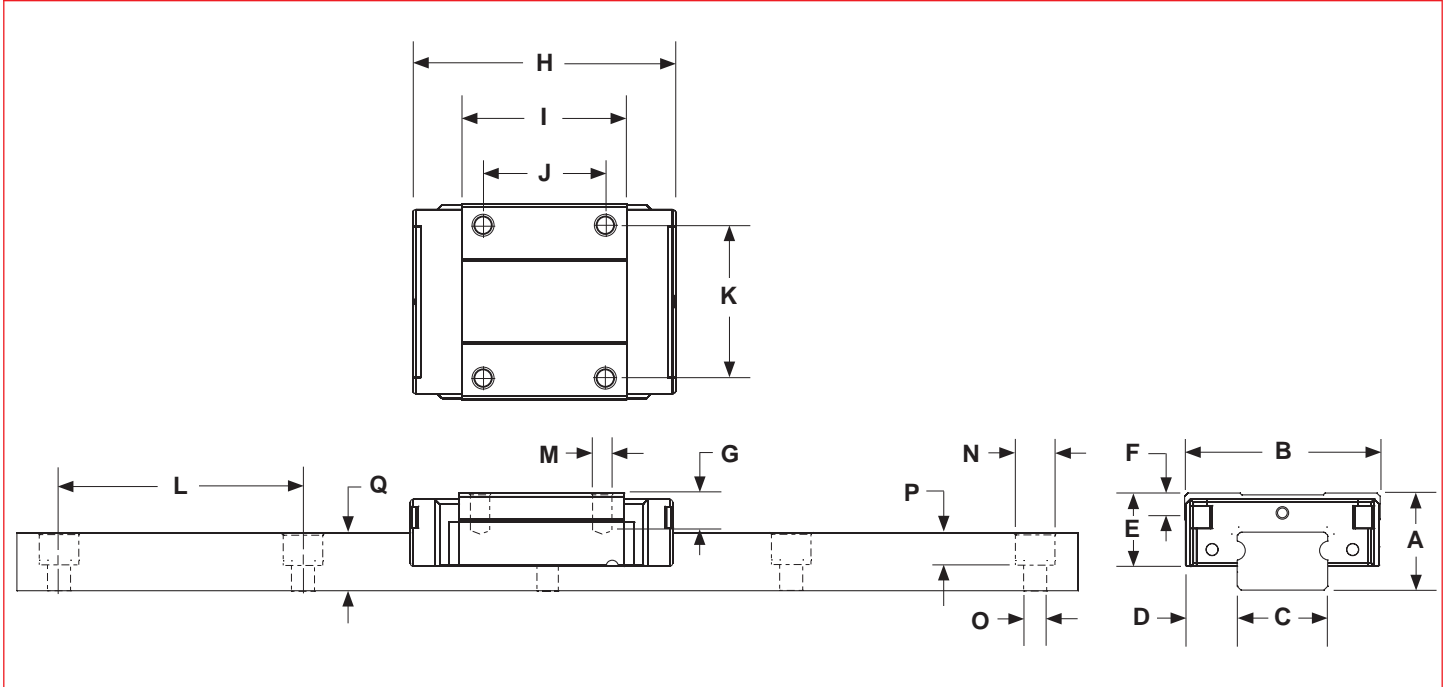
- \* Heavy Load Series
- \* 45° contact angle
- \* Drop in Replacement to Other Same Size Brands



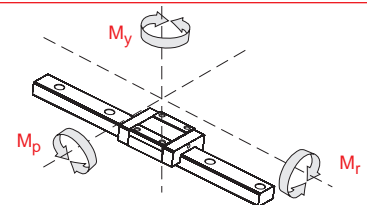
- \* Miniature Rail
- \* 2 rows of re-circulating balls
- \* Equal loading in all directions
- \* Dust proof design
- \* SS bearing, rail, and balls
- \* Self lube reservoir *standard*

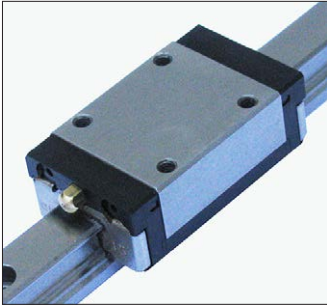
## Dimensions & Specifications:

Model Number	Dimensions (mm)														Block Weight (kg)	Rail Weight (kg/m)
	A	B	C	D	E	F	M x G	H	I	J	K	L	Q	N x O x P		
MR12	13	27	12	7.5	10	4.3	M3 x 3.5	35.4	22	15	20	25	7.5	6 x 3.5 x 4.5	0.034	0.602



Model Number	Dynamic Load Capacity (kN @ 50 km)	Static Load Capacity (kN)	Static Roll Moment $M_r$ (Nm)	Static Pitch & Yaw Moment $M_p$ & $M_y$ (Nm)
MR12	2.908	3.465	21.50	12.90

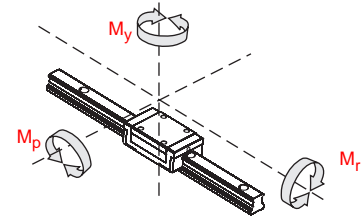




- \* Application Rail
- \* 4 rows of re-circulating balls
- \* Equal loading in all directions
- \* Dust proof design
- \* Alloy steel bearing, rail, and balls
- \* Self lube reservoir *optional*

## Load Capacities - ARC series

Model Number	Dynamic Load Capacity $C_{50}$ (kN @ 50 km)	Static Load Capacity $C_0$ (kN)	Static Roll Moment $M_r$ (Nm)	Static Roll Moment $M_p$ (Nm)	Static Roll Moment $M_y$ (Nm)
ARC 15 MS ARC 15 FS	9.7	12.1	100	50	50
ARC 15 MN ARC 15 FN	12.5	17.5	140	105	105
ARC 20 MS ARC 20 FS	15.7	19.3	205	100	100
ARC 20 MN ARC 20 FN	21.5	30.0	325	230	230
ARC 25 MS ARC 25 FS	22.9	27.3	350	160	160
ARC 25 MN ARC 25 FN	31.2	42.5	540	385	385
ARC 30 MS ARC 30 FS	29.3	33.1	520	230	230
ARC 30 MN ARC 30 FN	41.3	53.7	845	565	565
ARC 30 ML	49.9	70.2	1105	950	950
ARC 35 MN ARC 35 FN	57.8	82.9	1700	1080	1080
ARC 35 ML	68.9	106.5	2185	1755	1755
ARC 45 MN	89.8	122.1	3200	1910	1910
ARC 45 ML	112.8	169.1	4430	3460	3460





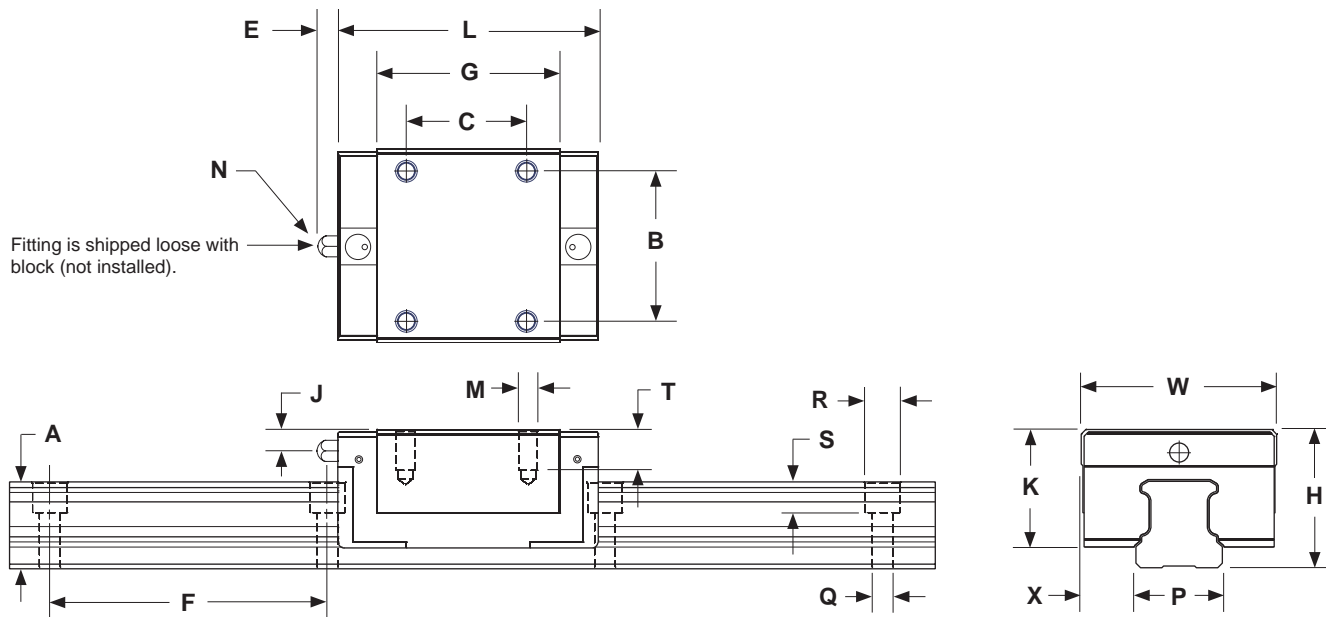
- \* Heavy Load Rail
- \* 4 rows of re-circulating balls
- \* Equal loading in all directions
- \* Dust proof design
- \* Alloy steel bearing, rail, and balls
- \* Self lube reservoir *optional*

## Load Capacities - HRC series

Model Number	Dynamic Load Capacity $C_{50}$ (kN @ 50 km)	Static Load Capacity $C_0$ (kN)	Static Roll Moment $M_r$ (Nm)	Static Roll Moment $M_p$ (Nm)	Static Roll Moment $M_y$ (Nm)	
HRC 15 MN HRC 15 FN	12.5	17.5	140	105	105	
HRC 20 MN HRC 20 FN	21.5	30.0	325	230	230	
HRC 20 ML HRC 20 FL	25.7	38.5	415	390	390	
HRC 25 MN HRC 25 FN	31.2	42.5	540	385	385	
HRC 25 ML HRC 25 FL	38.7	57.7	735	710	710	
HRC 30 MN HRC 30 FN	41.3	53.7	845	565	565	
HRC 30 ML HRC 30 FL	49.9	70.2	1105	950	950	
HRC 35 MN HRC 35 FN	57.8	82.9	1700	1080	1080	
HRC 35 ML HRC 35 FL	68.9	106.5	2185	1755	1755	
HRC 45 MN HRC 45 FN	89.8	122.1	3200	1910	1910	
HRC 45 ML HRC 45 FL	112.8	169.1	4430	3460	3460	

## Dimensions & Specifications

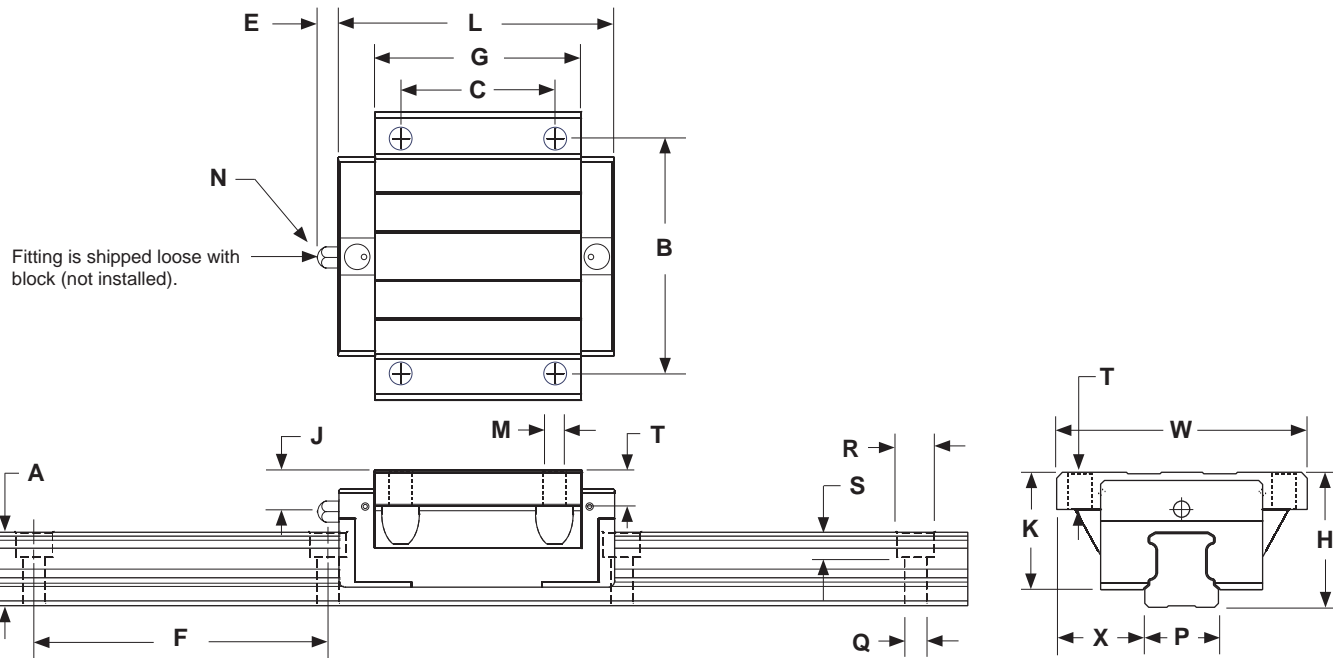
Model Number	Outline (mm)			Block Dimensions (mm)								Rail Dimensions (mm)					Weight	
	Height H	Width W	Length L	B	C	M x T	K	G	N	J	E	P	X	A	F	Q x R x S	Block (kg)	Rail (kg/m)
ARC 15 MS ARC 15 MN	24	34	41.2 55.5	26	- 26	M4 x 7	20.7	26.0 40.3	M3 x 6.5	4.5	3.5	15	9.5	15	60	4.5 x 7.5 x 5.3	0.10 0.14	1.29
ARC 20 MS ARC 20 MN	28	42	49.2 69.0	32	- 32	M5 x 7	23.0	32.2 52.0	M3 x 7.5	4	10	20	11	20	60	6 x 9.5 x 8.5	0.17 0.27	2.28
ARC 25 MS ARC 25 MN	33	48	57.4 81.2	35	- 35	M6 x 9	27.0	38.4 62.2	M6 x 7.5	5	12	23	12.5	23	60	7 x 11 x 9	0.30 0.42	3.02
ARC 30 MS ARC 30 MN ARC 30 ML	42	60	68.0 95.5 118.0	40	- 40 60	M8 x 10	35.2	44.0 71.5 94.0	M6 x 8.5	7.5	12	28	16	27	80	9 x 14 x 12	0.56 0.80 1.14	4.38
ARC 35 MN ARC 35 ML	48	70	111.2 136.6	50	50 72	M8 x 13	40.4	86.2 111.6	M6 x 10	8	12	34	18	32	80	9 x 14 x 12	1.12 1.54	6.79
ARC 45 MN ARC 45 ML	60	86	135.5 171.5	60	60 80	M10 x 17	50.7	102.5 138.5	PT1/8 x 12.5	11.1	14	45	20.5	39	105	14 x 20 x 17	2.12 3.16	10.53





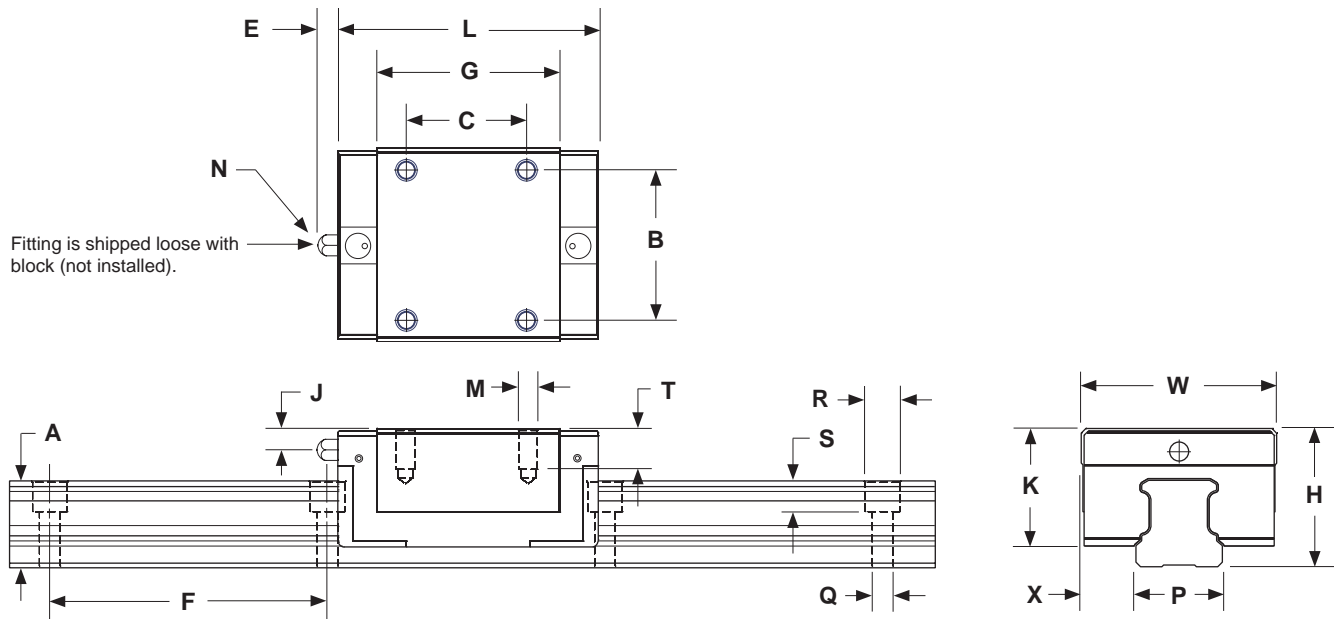
### Dimensions & Specifications

Model Number	Outline (mm)			Block Dimensions (mm)								Rail Dimensions (mm)					Weight	
	Height H	Width W	Length L	B	C	M x T	K	G	N	J	E	P	X	A	F	Q x R x S	Block (kg)	Rail (kg/m)
ARC 15 FS ARC 15 FN	24	52	41.2 55.5	41	- 26	M5 x 7	20.7	26.0 40.3	M3 x 6.5	4.5	3.5	15	18.5	15	60	4.5 x 7.5 x 5.3	0.12 0.18	1.29
ARC 20 FS ARC 20 FN	28	59	49.2 69.0	49	- 32	M6 x 10	23.0	32.2 52.0	M3 x 7.5	4	10	20	19.5	20	60	6 x 9.5 x 8.5	0.21 0.34	2.28
ARC 25 FS ARC 25 FN	33	73	57.4 81.2	60	- 35	M8 x 12	27.0	38.4 62.2	M6 x 7.5	5	12	23	25	23	60	7 x 11 x 9	0.35 0.53	3.02
ARC 30 FS ARC 30 FN	42	90	68.0 95.5	72	- 40	M10 x 15	35.2	44.0 71.5	M6 x 8.5	7.5	12	28	31	27	80	9 x 14 x 12	0.75 1.20	4.38
ARC 35 FN	48	100	111.2	82	50	M10 x 15	40.2	86.2	M6 x 10	8	12	34	33	32	80	9 x 14 x 12	1.58	6.79



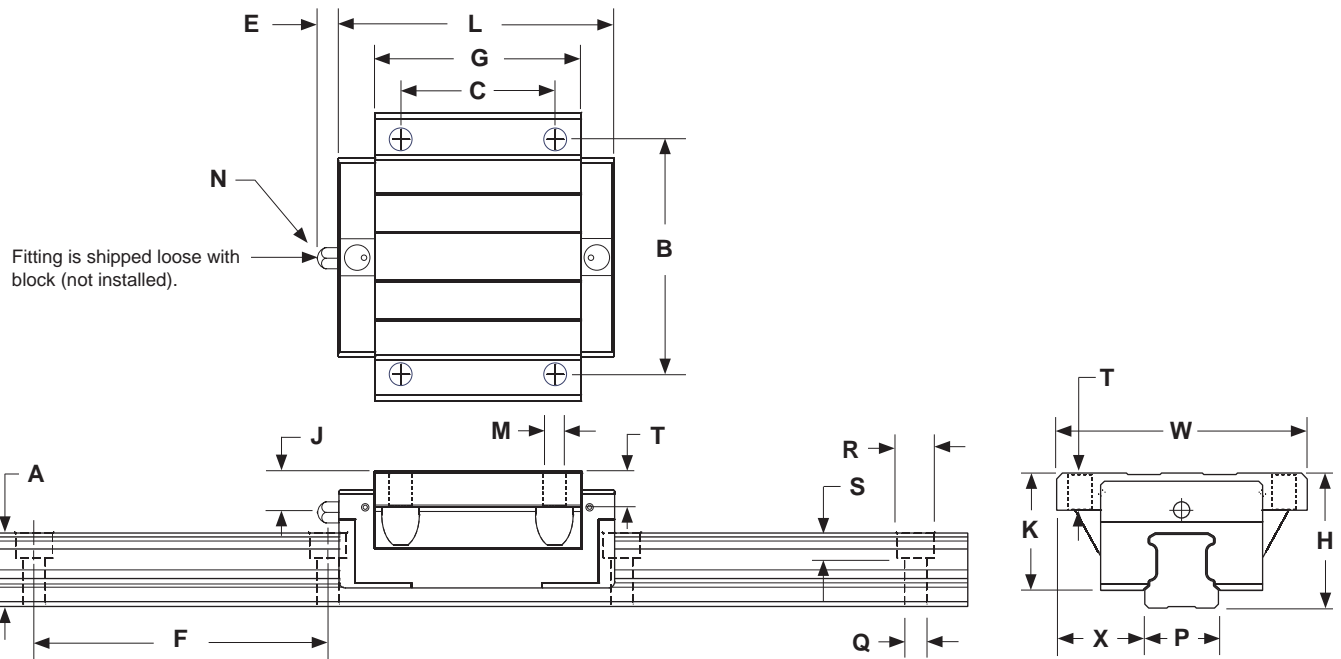
## Dimensions & Specifications

Model Number	Outline (mm)			Block Dimensions (mm)								Rail Dimensions (mm)						Weight	
	Height H	Width W	Length L	B	C	M x T	K	G	N	J	E	P	X	A	F	Q x R x S	Block (kg)	Rail (kg/m)	
HRC 15 MN	28	34	55.5	26	26	M4 x 7	24.7	40.3	M3 x 6.5	8.5	3.5	15	9.5	15	60	4.5 x 7.5 x 5.3	0.18	1.29	
HRC 20 MN	30	44	69.0	32	36	M5 x 8.5	25.0	52.0	M3 x 7.5	6	10	20	12	20	60	6 x 9.5 x 8.5	0.32	2.28	
HRC 20 ML			87.2														50		70.2
HRC 25 MN	40	48	81.2	35	35	M6 x 9	34.0	62.2	M6 x 7.5	12	12	23	12.5	23	60	7 x 11 x 9	0.58	3.02	
HRC 25 ML			105.0														50		86.0
HRC 30 MN	45	60	95.5	40	40	M8 x 12	38.4	71.5	M6 x 8.5	10.5	12	28	16	27	80	9 x 14 x 12	0.90	4.38	
HRC 30 ML			118.0														60		94.0
HRC 35 MN	55	70	111.2	50	50	M8 x 13	47.4	86.2	M6 x 10	15	12	34	18	32	80	9 x 14 x 12	1.43	6.79	
HRC 35 ML			136.6														72		111.6
HRC 45 MN	70	86	135.5	60	60	M10 x 20	60.7	102.5	PT1/8 x 12.5	21.1	14	45	20.5	39	105	14 x 20 x 17	2.79	10.53	
HRC 45 ML			171.5														80		138.5



## Dimensions & Specifications

Model Number	Outline (mm)			Block Dimensions (mm)								Rail Dimensions (mm)						Weight	
	Height H	Width W	Length L	B	C	M x T	K	G	N	J	E	P	X	A	F	Q x R x S	Block (kg)	Rail (kg/m)	
HRC 15 FL	24	47	55.5	38	30	M5 x 7	20.7	40.3	M3 x 6.5	4.5	3.5	15	16	15	60	4.5 x 7.5 x 5.3	0.18	1.29	
HRC 20 FN HRC 20 FL	30	63	69.0 87.2	53	40	M6 x 10	25.0	52.0 70.2	M3 x 7.5	6	10	20	21.5	20	60	6 x 9.5 x 8.5	0.40 0.51	2.28	
HRC 25 FN HRC 25 FL	36	70	81.2 105.0	57	45	M8 x 12	30.0	62.2 86.0	M6 x 7.5	8	12	23	23.5	23	60	7 x 11 x 9	0.63 0.87	3.02	
HRC 30 FN HRC 30 FL	42	90	95.5 118.0	72	52	M10 x 15	35.2	71.5 94.0	M6 x 8.5	7.5	12	28	31	27	80	9 x 14 x 12	1.11 1.39	4.38	
HRC 35 FN HRC 35 FL	48	100	111.2 136.6	82	62	M10 x 15	40.4	86.2 111.6	M6 x 10	8	12	34	33	32	80	9 x 14 x 12	1.55 2.00	6.79	
HRC 45 FN HRC 45 FL	60	120	135.5 171.5	100	80	M12 x 18	50.7	102.5 138.5	PT1/8 x 12.5	11.1	14	45	37.5	39	105	14 x 20 x 17	2.75 4.28	10.53	



## Features

### RS Series

- \* Rolled Ball Screw
- \* Tapped Ball Nut
- \* English Leads
- \* English Diameters
- \* Pre-loaded & Non-preloaded Nuts
- \* Simple, Fixed and Rigid Housings
- \* Available Screw Sizes

0.500 inch dia., 0.200 inch lead  
 0.500 inch dia., 0.500 inch lead  
 0.625 inch dia., 0.200 inch lead  
 0.625 inch dia., 1.000 inch lead  
 0.750 inch dia., 0.200 inch lead  
 0.750 inch dia., 0.500 inch lead  
 1.000 inch dia., 0.250 inch lead  
 1.000 inch dia., 0.500 inch lead  
 1.000 inch dia., 1.000 inch lead  
 1.500 inch dia., 0.250 inch lead  
 1.500 inch dia., 0.500 inch lead  
 1.500 inch dia., 1.000 inch lead  
 1.500 inch dia., 2.000 inch lead

### PS Series

- \* Precision Rolled Ball Screw
- \* Ground Ball Nut
- \* English & Metric Leads
- \* English & Metric Diameters
- \* Pre-loaded & Non-preloaded Nuts
- \* Simple, Fixed and Rigid Housings
- \* Available Screw Sizes

0.625 inch dia., 0.200 inch lead  
 0.750 inch dia., 0.200 inch lead  
 16 mm diameter, 5 mm lead  
 16 mm diameter, 10 mm lead  
 16 mm diameter, 16 mm lead  
 20 mm diameter, 5 mm lead  
 20 mm diameter, 20 mm lead

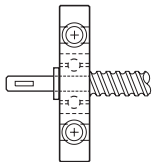
### GS Series

- \* Precision Ground Ball Screw
- \* Ground Ball Nut
- \* English & Metric Leads
- \* English & Metric Diameters
- \* Pre-loaded Nuts Only
- \* Simple, Fixed and Rigid Housings
- \* Available Screw Sizes

0.625 inch dia., 0.200 inch lead  
 0.750 inch dia., 0.200 inch lead  
 16 mm diameter, 5 mm lead  
 16 mm diameter, 16 mm lead  
 20 mm diameter, 5 mm lead  
 20 mm diameter, 20 mm lead

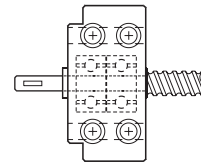
## Features

### Simple Support Housing



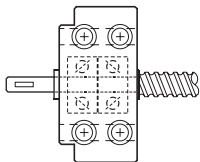
- \* All Steel Construction
- \* Black Oxide Finish
- \* 1 Sealed Radial Bearing
- \* No Lubrication Required
- \* Base or Face Mounted

### Fixed (LT) Support Housing



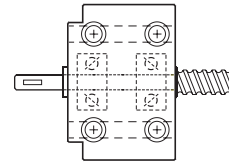
- \* All Steel Construction
- \* Black Oxide Finish
- \* 2 Back to Back Sealed Radial Bearings
- \* No Lubrication Required
- \* Lip Seals
- \* Base or Face Mounted
- \* Motor Mount Options

### Fixed (HT) Support Housing



- \* All Steel Construction
- \* Black Oxide Finish
- \* 2 Back to Back Angular Contact Bearings
- \* No Lubrication Required
- \* Lip Seals
- \* Base or Face Mounted
- \* Motor Mount Options

### Rigid Support Housing



- \* All Steel Construction
- \* Black Oxide Finish
- \* 2 Separated Angular Contact Bearings
- \* No Lubrication Required
- \* Lip Seals
- \* Base or Face Mounted
- \* Motor Mount Options

**Simple-Simple**



**Fixed-Simple**



**Rigid-Simple**



**Rigid-Rigid**



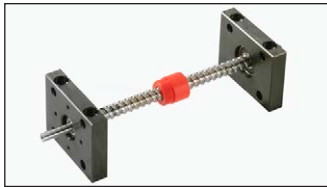
## Screw & Nut Specifications

Model Number	Nut Type	Lead Error inch/ft (mm/300 mm)	Screw Efficiency %	Backlash inches (mm)	Static Load lbs (kgf)	Dynamic Load 1 million inches lbs (kgf)	Dynamic Load 100 million inches lbs (kgf)
<b>RS050020</b> 0.500 inch dia. 0.200 inch lead	<i>Non-preloaded Ball</i>	< 0.003 (0,075)	90	< 0.008 (0,203)	9,400 (4263)	1,200 (544)	290 (131)
	<i>Preloaded Ball</i>	< 0.003 (0,075)	90	0	9,280 (4209)	1,080 (489)	261 (118)
	<i>Non-preloaded Turcite</i>	< 0.003 (0,075)	60	< 0.008 (0,203)	800 (362)	100 (45)	24 (11)
	<i>Preloaded Turcite</i>	< 0.003 (0,075)	60	0	720 (326)	90 (41)	21 (10)
<b>RS050050</b> 0.500 inch dia. 0.500 inch lead	<i>Non-preloaded Ball</i>	< 0.003 (0,075)	90	< 0.008 (0,203)	13,350 (6055)	2,200 (997)	530 (240)
	<i>Preloaded Ball</i>	< 0.003 (0,075)	90	0	13,130 (5955)	1,980 (898)	477 (216)
	<i>Non-preloaded Turcite</i>	< 0.003 (0,075)	60	< 0.008 (0,203)	800 (362)	100 (45)	24 (11)
	<i>Preloaded Turcite</i>	< 0.003 (0,075)	60	0	720 (326)	90 (41)	21 (10)

## Other Specifications

<b>Maximum Acceleration Rate</b>	<b>Ball nut:</b> 772 inches/sec <sup>2</sup> (19.6 m/sec <sup>2</sup> ) <b>Turcite nut:</b> 193 inches/sec <sup>2</sup> ( 4.9 m/sec <sup>2</sup> )
<b>Maximum Speed</b>	<b>Ball nut:</b> 3000 rpm <b>Turcite nut:</b> 1500 rpm
<b>Screw Material</b> <b>Screw Extensions</b>	Right Hand Thread, Case Hardened Rc 58 Steel Rolled Ball Screw 304 Woodruff Keyways on Extensions from Support Housings
<b>Maximum Screw Stock Length</b> <b>Screw Weight</b>	72 inches (1828 mm) 0.66 lbs/ft (9,82 g/cm)
<b>Support Housings</b> <b>Support Housing Features</b>	Steel with Black Oxide Finish, 45° Chamfer x .02 inch (0,50) all Straight Edges Base or Face Mount with Integral Seals
<b>Nut Flanges</b> <b>Nut Flange Features</b>	Steel with Black Oxide Finish English or Metric Load Mounting Interface

Simple-Simple



Fixed-Simple



Rigid-Simple



Rigid-Rigid



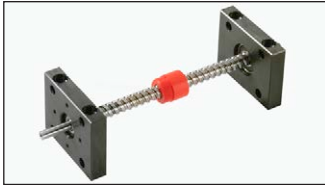
## Screw & Nut Specifications

Model Number	Nut Type	Lead Error inch/ft (mm/300 mm)	Screw Efficiency %	Backlash inches (mm)	Static Load lbs (kgf)	Dynamic Load 1 million inches lbs (kgf)	Dynamic Load 100 million inches lbs (kgf)
<b>RS062020</b> 0.625 inch dia. 0.200 inch lead	<i>Non-preloaded Ball</i>	< 0.003 (0,075)	90	< 0.008 (0,203)	7,450 (3379)	800 (363)	190 (86)
	<i>Preloaded Ball</i>	< 0.003 (0,075)	90	0	6,070 (2753)	720 (326)	171 (78)
	<i>Non-preloaded Turcite</i>	< 0.003 (0,075)	60	< 0.008 (0,203)	800 (362)	100 (45)	24 (11)
	<i>Preloaded Turcite</i>	< 0.003 (0,075)	60	0	720 (326)	90 (41)	21 (10)
<b>RS062100</b> 0.625 inch dia. 1.000 inch lead	<i>Non-preloaded Ball</i>	< 0.004 (0,099)	90	< 0.008 (0,203)	2,425 (1100)	590 (268)	140 (64)
	<i>Preloaded Ball</i>	< 0.004 (0,099)	90	0	2,425 (1100)	531 (241)	126 (57)
	<i>Non-preloaded Turcite</i>	< 0.004 (0,099)	60	< 0.008 (0,203)	800 (362)	100 (45)	24 (11)
	<i>Preloaded Turcite</i>	< 0.004 (0,099)	60	0	720 (326)	90 (41)	21 (10)

## Other Specifications

Maximum Acceleration Rate	<b>Ball nut:</b> 772 inches/sec <sup>2</sup> (19.6 m/sec <sup>2</sup> ) <b>Turcite nut:</b> 193 inches/sec <sup>2</sup> ( 4.9 m/sec <sup>2</sup> )
Maximum Speed	<b>Ball nut:</b> 3000 rpm <b>Turcite nut:</b> 1500 rpm
Screw Material	Right Hand Thread, Case Hardened Rc 58 Steel Rolled Ball Screw
Screw Extensions	304 Woodruff Keyways on Extensions from Support Housings
Maximum Screw Stock Length	72 inches (1828 mm)
Screw Weight	0.92 lbs/ft (13,7 g/cm)
Support Housings	Steel with Black Oxide Finish, 45° Chamfer x .02 inch (0,50) all Straight Edges
Support Housing Features	Base or Face Mount with Integral Seals
Nut Flanges	Steel with Black Oxide Finish
Nut Flange Features	English or Metric Load Mounting Interface

### Simple-Simple



### Fixed-Simple



### Rigid-Simple



### Rigid-Rigid



## Screw & Nut Specifications

Model Number	Nut Type	Lead Error inch/ft (mm/300 mm)	Screw Efficiency %	Backlash inches (mm)	Static Load lbs (kgf)	Dynamic Load 1 million inches lbs (kgf)	Dynamic Load 100 million inches lbs (kgf)
<b>RS075020</b> 0.750 inch dia. 0.200 inch lead	<i>Non-preloaded Ball</i>	< 0.003 (0,075)	90	< 0.008 (0,203)	18,800 (8527)	1,900 (862)	460 (208)
	<i>Preloaded Ball</i>	< 0.003 (0,075)	90	0	18,610 (8441)	1,710 (776)	414 (188)
	<i>Non-preloaded Turcite</i>	< 0.003 (0,075)	60	< 0.008 (0,203)	1,500 (680)	195 (88)	45 (20)
	<i>Preloaded Turcite</i>	< 0.003 (0,075)	60	0	1350 (612)	175 (79)	40 (18)
<b>RS075050</b> 0.750 inch dia. 0.500 inch lead	<i>Non-preloaded Ball</i>	< 0.003 (0,075)	90	< 0.008 (0,203)	24,200 (10977)	3,450 (1565)	820 (372)
	<i>Preloaded Ball</i>	< 0.003 (0,075)	90	0	23,855 (10820)	3,105 (1408)	738 (335)
	<i>Non-preloaded Turcite</i>	< 0.003 (0,075)	60	< 0.008 (0,203)	1,500 (680)	195 (88)	45 (20)
	<i>Preloaded Turcite</i>	< 0.003 (0,075)	60	0	1,350 (612)	175 (79)	40 (18)

## Other Specifications

<b>Maximum Acceleration Rate</b>	<b>Ball nut:</b> 772 inches/sec <sup>2</sup> (19.6 m/sec <sup>2</sup> ) <b>Turcite nut:</b> 193 inches/sec <sup>2</sup> ( 4.9 m/sec <sup>2</sup> )
<b>Maximum Speed</b>	<b>Ball nut:</b> 3000 rpm <b>Turcite nut:</b> 1500 rpm
<b>Screw Material</b> <b>Screw Extensions</b>	Right Hand Thread, Case Hardened Rc 58 Steel Rolled Ball Screw 304 Woodruff Keyways on Extensions from Support Housings
<b>Maximum Screw Stock Length</b> <b>Screw Weight</b>	72 inches (1828 mm) 1.42 lbs/ft (21,1 g/cm)
<b>Support Housings</b> <b>Support Housing Features</b>	Steel with Black Oxide Finish, 45° Chamfer x .02 inch (0,50) all Straight Edges Base or Face Mount with Integral Seals
<b>Nut Flanges</b> <b>Nut Flange Features</b>	Steel with Black Oxide Finish English or Metric Load Mounting Interface



Simple-Simple



Fixed-Simple



Rigid-Simple



Rigid-Rigid



## Screw & Nut Specifications

Model Number	Nut Type	Lead Error inch/ft (mm/300 mm)	Screw Efficiency %	Backlash inches (mm)	Static Load lbs (kgf)	Dynamic Load 1 million inches lbs (kgf)	Dynamic Load 100 million inches lbs (kgf)
<b>RS100025</b> 1.000 inch dia. 0.250 inch lead	<i>Non-preloaded Ball</i>	< 0.009 (0,229)	90	< 0.009 (0,229)	30,750 (13947)	3,350 (1519)	810 (367)
	<i>Preloaded Ball</i>	< 0.009 (0,229)	90	0	30,415 (13796)	3,015 (1367)	729 (330)
	<i>Non-preloaded Turcite</i>	< 0.009 (0,229)	60	< 0.009 (0,229)	1,500 (380)	195 (88)	45 (20)
	<i>Preloaded Turcite</i>	< 0.009 (0,229)	60	0	1,350 (612)	175 (79)	40 (18)
<b>RS100050</b> 1.000 inch dia. 0.500 inch lead	<i>Non-preloaded Ball</i>	< 0.009 (0,229)	90	< 0.009 (0,229)	32,300 (14650)	3,950 (1792)	970 (440)
	<i>Preloaded Ball</i>	< 0.009 (0,229)	90	0	31,905 (14471)	3,555 (1612)	873 (396)
	<i>Non-preloaded Turcite</i>	< 0.009 (0,229)	60	< 0.009 (0,229)	1,500 (680)	195 (88)	45 (20)
	<i>Preloaded Turcite</i>	< 0.009 (0,229)	60	0	1,350 (612)	175 (79)	40 (18)
<b>RS100100</b> 1.000 inch dia. 1.000 inch lead	<i>Non-preloaded Ball</i>	< 0.009 (0,229)	90	< 0.009 (0,229)	13,750 (6236)	2,250 (1020)	560 (254)
	<i>Preloaded Ball</i>	< 0.009 (0,229)	90	0	13,525 (6134)	2,025 (918)	504 (229)
	<i>Non-preloaded Turcite</i>	< 0.009 (0,229)	60	< 0.009 (0,229)	1,500 (680)	195 (88)	45 (20)
	<i>Preloaded Turcite</i>	< 0.009 (0,229)	60	0	1,350 (612)	175 (79)	40 (18)

## Other Specifications

Maximum Acceleration Rate	<b>Ball nut:</b> 772 inches/sec <sup>2</sup> (19.6 m/sec <sup>2</sup> ) <b>Turcite nut:</b> 193 inches/sec <sup>2</sup> ( 4.9 m/sec <sup>2</sup> )
Maximum Speed	<b>Ball nut:</b> 3000 rpm <b>Turcite nut:</b> 1500 rpm
Screw Material	Right Hand Thread, Case Hardened Rc 58 Steel Rolled Ball Screw
Screw Extensions	605 Woodruff Keyways on Extensions from Support Housings
Maximum Screw Stock Length	144 inches (3657 mm)
Screw Weight	2.23 lbs/ft (34,7 g/cm)
Support Housings	Steel with Black Oxide Finish, 45° Chamfer x .03 inch (0,76) all Straight Edges
Support Housing Features	Base or Face Mount with Integral Seals
Nut Flanges	Steel with Black Oxide Finish
Nut Flange Features	English or Metric Load Mounting Interface

**Simple-Simple**



**Fixed-Simple**



**Rigid-Simple**



**Rigid-Rigid**



## Screw & Nut Specifications

Model Number	Nut Type	Lead Error inch/ft (mm/300 mm)	Screw Efficiency %	Backlash inches (mm)	Static Load lbs (kgf)	Dynamic Load 1 million inches lbs (kgf)	Dynamic Load 100 million inches lbs (kgf)
<b>RS150025</b> 1.500 inch dia. 0.250 inch lead	<i>Non-preloaded Ball</i>	< 0.013 (0,330)	90	< 0.009 (0,229)	47,450 (21523)	4,050 (1837)	970 (440)
	<i>Preloaded Ball</i>	< 0.013 (0,330)	90	0	47,045 (21339)	3,645 (1653)	873 (396)
<b>RS150050</b> 1.500 inch dia. 0.500 inch lead	<i>Non-preloaded Ball</i>	< 0.013 (0,330)	90	< 0.009 (0,229)	102,300 (46402)	12,900 (5851)	3,100 (1406)
	<i>Preloaded Ball</i>	< 0.013 (0,330)	90	0	101,010 (45817)	11,610 (5266)	2,790 (1266)
<b>RS150100</b> 1.500 inch dia. 1.000 inch lead	<i>Non-preloaded Ball</i>	< 0.013 (0,330)	90	< 0.009 (0,229)	47,800 (21682)	8,250 (3742)	2,020 (916)
	<i>Preloaded Ball</i>	< 0.013 (0,330)	90	0	46,975 (21307)	7,425 (3368)	1,818 (825)
<b>RS150200</b> 1.500 inch dia. 2.000 inch lead	<i>Non-preloaded Ball</i>	< 0.013 (0,330)	90	< 0.009 (0,229)	31,250 (14175)	7,600 (3447)	1,850 (839)
	<i>Preloaded Ball</i>	< 0.013 (0,330)	90	0	28,240 (12809)	6,840 (3103)	1,665 (755)

## Other Specifications

<b>Maximum Acceleration Rate</b>	Ball nut: 772 inches/sec <sup>2</sup> (19.6 m/sec <sup>2</sup> )
<b>Maximum Speed</b>	Ball nut: 3000 rpm
<b>Screw Material</b>	Right Hand Thread, Case Hardened Rc 58 Steel Rolled Ball Screw
<b>Screw Extensions</b>	605 Woodruff Keyways on Extensions from Support Housings
<b>Maximum Screw Stock Length</b>	144 inches (3657 mm)
<b>Screw Weight</b>	5.58 lbs/ft (83,1 g/cm)
<b>Support Housings</b>	Steel with Black Oxide Finish, 45° Chamfer x .03 inch (0,76) all Straight Edges
<b>Support Housing Features</b>	Base or Face Mount with Integral Seals
<b>Nut Flanges</b>	Steel with Black Oxide Finish
<b>Nut Flange Features</b>	English or Metric Load Mounting Interface

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## Screw & Nut Specifications

Model Number	Nut Type	Lead Error inch/ft (mm/300 mm)	Screw Efficiency %	Backlash inches (mm)	Static Load lbs (kgf)	Dynamic Load 1 million inches lbs (kgf)	Dynamic Load 100 million inches lbs (kgf)
<b>PS0620Z0</b> 0.625 inch dia. 0.200 inch lead	<i>Non-preloaded Ball</i>	< 0.002 (0,050)	90	< 0.003 (0,076)	2,700 (1224)	876 (397)	190 (86)
	<i>Preloaded Ball</i>	< 0.002 (0,050)	90	0	2,430 (1102)	788 (357)	171 (78)
<b>PS16M05M</b> 16 mm dia. 5 mm lead	<i>Non-preloaded Ball</i>	< 0.002 (0,050)	90	< 0.003 (0,076)	2,700 (1224)	876 (397)	190 (86)
	<i>Preloaded Ball</i>	< 0.002 (0,050)	90	0	2,430 (1102)	788 (357)	171 (78)
<b>PS16M10M</b> 16 mm dia. 10 mm lead	<i>Non-preloaded Ball</i>	< 0.002 (0,050)	90	< 0.003 (0,076)	2,630 (1192)	1,080 (489)	235 (106)
	<i>Preloaded Ball</i>	< 0.002 (0,050)	90	0	2,365 (1072)	972 (440)	211 (95)
<b>PS16M16M</b> 16 mm dia. 16 mm lead	<i>Non-preloaded Ball</i>	< 0.002 (0,050)	90	< 0.003 (0,076)	1,620 (734)	819 (371)	179 (81)
	<i>Preloaded Ball</i>	< 0.002 (0,050)	90	0	1,455 (659)	737 (334)	161 (73)

## Other Specifications

<b>Maximum Acceleration Rate</b>	Ball nut: 772 inches/sec <sup>2</sup> (19.6 m/sec <sup>2</sup> )
<b>Maximum Speed</b>	Ball nut: 3000 rpm
<b>Screw Material</b>	Right Hand Thread, Case Hardened Rc 58 Steel Rolled Ball Screw
<b>Screw Extensions</b>	304 Woodruff Keyways on Extensions from Support Housings
<b>Maximum Screw Stock Length</b>	78.74 inches (2000 mm)
<b>Screw Weight</b>	0.87 lbs/ft (13,0 g/cm)
<b>Support Housings</b>	Steel with Black Oxide Finish, 45° Chamfer x .02 inch (0,50) all Straight Edges
<b>Support Housing Features</b>	Base or Face Mount with Integral Seals
<b>Nut Flanges</b>	Steel with Black Oxide Finish
<b>Nut Flange Features</b>	English or Metric Load Mounting Interface

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## Screw & Nut Specifications

Model Number	Nut Type	Lead Error inch/ft (mm/300 mm)	Screw Efficiency %	Backlash inches (mm)	Static Load lbs (kgf)	Dynamic Load 1 million inches lbs (kgf)	Dynamic Load 100 million inches lbs (kgf)
<b>PS075020</b> 0.750 inch dia. 0.200 inch lead	<i>Non-preloaded Ball</i>	< 0.002 (0,050)	90	< 0.003 (0,076)	3,360 (1524)	964 (437)	210 (95)
	<i>Preloaded Ball</i>	< 0.002 (0,050)	90	0	3,025 (1372)	867 (393)	189 (86)
<b>PS20M05M</b> 20 mm dia. 5 mm lead	<i>Non-preloaded Ball</i>	< 0.002 (0,050)	90	< 0.003 (0,076)	3,990 (1809)	1,070 (485)	234 (106)
	<i>Preloaded Ball</i>	< 0.002 (0,050)	90	0	3,590 (1628)	960 (435)	210 (95)
<b>PS20M20M</b> 20 mm dia. 20 mm lead	<i>Non-preloaded Ball</i>	< 0.002 (0,050)	90	< 0.003 (0,076)	3,505 (1589)	1,293 (586)	283 (128)
	<i>Preloaded Ball</i>	< 0.002 (0,050)	90	0	3,150 (1428)	1,160 (526)	255 (116)

## Other Specifications

<b>Maximum Acceleration Rate</b>	Ball nut: 772 inches/sec <sup>2</sup> (19,6 m/sec <sup>2</sup> )
<b>Maximum Speed</b>	Ball nut: 3000 rpm
<b>Screw Material</b>	Right Hand Thread, Case Hardened Rc 58 Steel Precision Rolled Ball Screw
<b>Screw Extensions</b>	304 Woodruff Keyways on Extensions from Support Housings
<b>Maximum Screw Stock Length</b>	118.11 inches (3000 mm)
<b>Screw Weight</b>	1.35 lbs/ft (20,1 g/cm)
<b>Support Housings</b>	Steel with Black Oxide Finish, 45° Chamfer x .02 inch (0,50) all Straight Edges
<b>Support Housing Features</b>	Base or Face Mount with Integral Seals
<b>Nut Flanges</b>	Steel with Black Oxide Finish
<b>Nut Flange Features</b>	English or Metric Load Mounting Interface

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## Screw & Nut Specifications

Model Number	Nut Type	Lead Error inch/ft (mm/300 mm)	Screw Efficiency %	Backlash inches (mm)	Static Load lbs (kgf)	Dynamic Load 1 million inches lbs (kgf)	Dynamic Load 100 million inches lbs (kgf)
<b>GS062020</b> 0.625 inch dia. 0.200 inch lead	<i>Preloaded Ball</i>	< 0.0005 (0,012)	90	0	3,080 (1397)	987 (447)	216 (97)
<b>GS16M05M</b> 16 mm dia. 5 mm lead	<i>Preloaded Ball</i>	< 0.0005 (0,012)	90	0	3,080 (1397)	987 (447)	216 (97)
<b>GS16M16M</b> 16 mm dia. 16 mm lead	<i>Preloaded Ball</i>	< 0.0005 (0,012)	90	0	1,800 (816)	910 (816)	199 (90)

## Other Specifications

<b>Maximum Acceleration Rate</b>	Ball nut: 772 inches/sec <sup>2</sup> (19,6 m/sec <sup>2</sup> )
<b>Maximum Speed</b>	Ball nut: 3000 rpm
<b>Screw Material</b>	Right Hand Thread, Case Hardened Rc 58 Steel Precision Rolled Ball Screw
<b>Screw Extensions</b>	304 Woodruff Keyways on Extensions from Support Housings
<b>Maximum Screw Stock Length</b>	45.27 inches (1150 mm)
<b>Screw Weight</b>	0.87 lbs/ft (13,0 g/cm)
<b>Support Housings</b>	Steel with Black Oxide Finish, 45° Chamfer x .02 inch (0,50) all Straight Edges
<b>Support Housing Features</b>	Base or Face Mount with Integral Seals
<b>Nut Flanges</b>	Steel with Black Oxide Finish
<b>Nut Flange Features</b>	English or Metric Load Mounting Interface

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## Screw & Nut Specifications

Model Number	Nut Type	Lead Error inch/ft (mm/300 mm)	Screw Efficiency %	Backlash inches (mm)	Static Load lbs (kgf)	Dynamic Load 1 million inches lbs (kgf)	Dynamic Load 100 million inches lbs (kgf)
<b>GS075020</b> 0.750 inch dia. 0.200 inch lead	<i>Preloaded Ball</i>	< 0.0005 (0,012)	90	0	3,990 (1809)	1,070 (485)	234 (106)
<b>GS20M05M</b> 20 mm dia. 5 mm lead	<i>Preloaded Ball</i>	< 0.0005 (0,012)	90	0	3,990 (1809)	1,070 (485)	234 (106)
<b>GS20M20M</b> 20 mm dia. 20 mm lead	<i>Preloaded Ball</i>	< 0.0005 (0,012)	90	0	3,505 (1589)	1,293 (586)	283 (128)

## Other Specifications

<b>Maximum Acceleration Rate</b>	Ball nut: 772 inches/sec <sup>2</sup> (19,6 m/sec <sup>2</sup> )
<b>Maximum Speed</b>	Ball nut: 3000 rpm
<b>Screw Material</b>	Right Hand Thread, Case Hardened Rc 58 Steel Precision Rolled Ball Screw
<b>Screw Extensions</b>	304 Woodruff Keyways on Extensions from Support Housings
<b>Maximum Screw Stock Length</b>	64.95 inches (1650 mm)
<b>Screw Weight</b>	1.35 lbs/ft (20,1 g/cm)
<b>Support Housings</b>	Steel with Black Oxide Finish, 45° Chamfer x .02 inch (0,50) all Straight Edges
<b>Support Housing Features</b>	Base or Face Mount with Integral Seals
<b>Nut Flanges</b>	Steel with Black Oxide Finish
<b>Nut Flange Features</b>	English or Metric Load Mounting Interface

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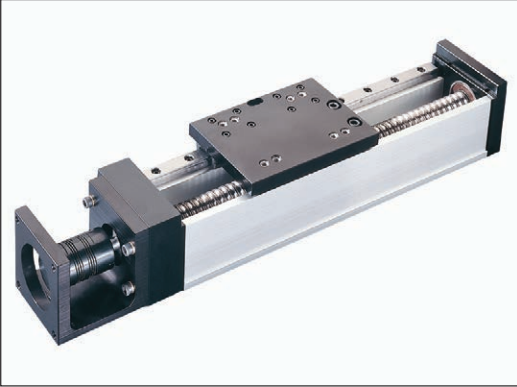
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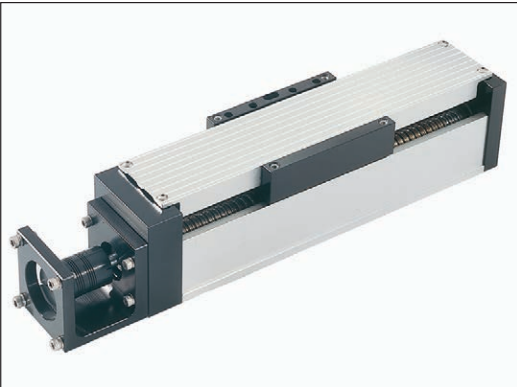
## Standard Features

- ❑ Compact 2.875 inches (73 mm) wide by 2.375 inches (60 mm) tall
- ❑ Travel lengths from 2 inches (50 mm) to 60 inches (1520 mm)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ 0° F to +185° F (-18° C to +85° C) operating temperature
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design
- ❑ 1 rail, 1 or 2 bearing carriages

## 130-CP0 series



## 130-CP1 series



## 130-CP2 series



## Options

- ❑ Chrome plated linear bearings, rails and screws
- ❑ AUTOCAD® drawings available via the internet
- ❑ End of travel (EOT) and home switches wired
- ❑ Adapter brackets for non-NEMA motors
- ❑ Linear and rotary incremental encoders
- ❑ NEMA 23 & 34 motor wrap packages
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Carriage adapter plates
- ❑ Vertical angle brackets
- ❑ Turcite nut options
- ❑ Motor couplings
- ❑ Cover plates
- ❑ Hand crank

## ❑ Ball screws:

Rolled - Non-preloaded & Preloaded Nuts:

0.625 inch diameter, 0.200 inch lead

\* 0.500 inch diameter, 0.500 inch lead

0.625 inch diameter, 1.000 inch lead

Precision - Non-preloaded & Preloaded Nuts:

0.625 inch diameter, 0.200 inch lead

16 mm diameter, 5 mm lead

\* 16 mm diameter, 10 mm lead

\* 16 mm diameter, 16 mm lead

Ground - Preloaded Nuts Only:

0.625 inch diameter, 0.200 inch lead

16 mm diameter, 5 mm lead

16 mm diameter, 16 mm lead

\* (Reduction of travel with preloaded nut)

## ❑ Acme screws:

Rolled - Non-preloaded & Preloaded Nuts:

0.625 inch diameter, 0.100 inch lead

0.625 inch diameter, 0.200 inch lead

16 mm diameter, 4 mm lead

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## Specifications

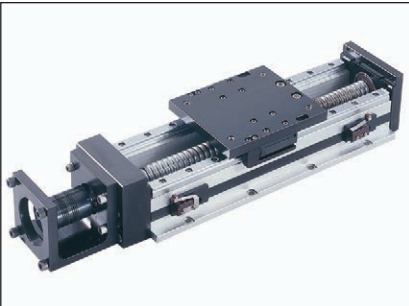
Load Capacities		One (1) Bearing Carriage	Two (2) Bearing Carriage
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	100 lbs ( 45 kg)	200 lbs ( 90 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	27 lbs ( 12 kg)	54 lbs ( 24 kg)
<b>Static Horizontal</b>		200 lbs ( 90 kg)	400 lbs (180 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	8 ft-lbs ( 11 N-m)	16 ft-lbs ( 22 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	2 ft-lbs ( 3 N-m)	4 ft-lbs ( 5 N-m)
<b>Static Roll Moment</b>		14 ft-lbs ( 19 N-m)	28 ft-lbs ( 38 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	4 ft-lbs ( 5,4 N-m)	15 ft-lbs ( 20 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	1 ft-lbs ( 1,5 N-m)	4 ft-lbs ( 5 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		8 ft-lbs ( 10 N-m)	30 ft-lbs ( 40 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	100 lbs ( 45 kg)	100 lbs ( 45 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	27 lbs ( 12 kg)	27 lbs ( 12 kg)
<b>Each Bearing Static Load Capacity</b>		200 lbs ( 90 kg)	200 lbs ( 90 kg)
<b>Thrust Force Capacity</b>	10 million screw revolutions	665 lbs (302 kg)	665 lbs (302 kg)
<b>Thrust Force Capacity</b>	500 million screw revolutions	180 lbs ( 82 kg)	180 lbs ( 82 kg)
<b>Maximum Acceleration</b>		50 in/sec <sup>2</sup> (1,3 m/sec <sup>2</sup> )	150 in/sec <sup>2</sup> (3,8 m/sec <sup>2</sup> )
<b>d<sub>2</sub></b>	Center to center distance (spacing) of each bearing on a single rail	-	2.088 in (53,0 mm)
<b>d<sub>r</sub></b>	CP0 version Center distance of the bearing to top of carriage plate surface	0.750 in (19,1 mm)	0.750 in (19,1 mm)
<b>d<sub>r</sub></b>	CP1 version Center distance of the bearing to top of carriage plate surface	1.375 in (34,9 mm)	1.375 in (34,9 mm)

Other	For One (1) & Two (2) Bearing Carriages
<b>Table Material</b>	Base, Carriage, End Plates, & Cover Plate option - 6061 anodized aluminum
<b>Linear Rail Material</b>	Stainless Steel
<b>Screw Material</b>	Acme Screw - Stainless Steel
<b>Screw Material</b>	Rolled Ball, Precision Ball, & Ground Ball - Case Hardened Steel
<b>Unidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0002 in (5 microns) - depends on selected screw
<b>Bidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0082 in (208 microns) - depends on selected screw
<b>Straightness</b>	< 0.00013 in/in (< 3,30 microns/25mm)
<b>Flatness</b>	< 0.00013 in/in (< 3,30 microns/25mm)
<b>Orthogonality</b> (multi-axis systems)	< 30 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, Motor Wraps, and Hand Crank Option
<b>Coupling</b>	Three (3) different styles available

## Standard Features

- ❑ Compact 3.50 inches (89 mm) wide by 2.375 inches (60 mm) tall - 100 series
- ❑ Compact 5.25 inches (133 mm) wide by 2.375 inches (60 mm) tall - 110 series
- ❑ Travel lengths from 2 inches (50 mm) to 60 inches (1520 mm)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ 0° F to +185° F (-18° C to +85° C) operating temperature
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design
- ❑ 2 rails, 2 or 4 bearing carriages

## 100-CP0 series



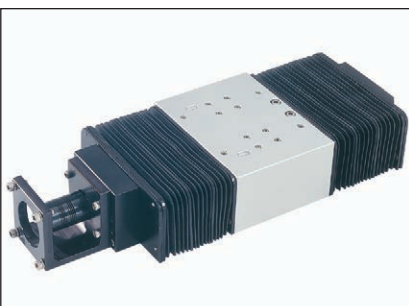
## 100-CP1 series



## 100-CP2 series



## 110-WC1 series



## Options

- ❑ Chrome plated linear bearings, rails and screws
- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Linear and rotary incremental encoders
- ❑ NEMA 23 & 34 motor wrap packages
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Carriage adapter plates
- ❑ Vertical angle bracket
- ❑ Turcite nut option
- ❑ Motor couplings
- ❑ Cover plates
- ❑ Waycovers
- ❑ Hand crank

## ❑ Ball screws:

## Rolled - Non-preloaded &amp; Preloaded Nuts:

- 0.625 inch diameter, 0.200 inch lead
- \* 0.500 inch diameter, 0.500 inch lead
- 0.625 inch diameter, 1.000 inch lead

## Precision - Non-preloaded &amp; Preloaded Nuts:

- 0.625 inch diameter, 0.200 inch lead
- 16 mm diameter, 5 mm lead
- \* 16 mm diameter, 10 mm lead
- \* 16 mm diameter, 16 mm lead

## Ground - Preloaded Nuts Only:

- 0.625 inch diameter, 0.200 inch lead
- 16 mm diameter, 5 mm lead
- 16 mm diameter, 16 mm lead

\* (Reduction of travel with preloaded nut)

## ❑ Acme screws:

## Rolled - Non-preloaded &amp; Preloaded Nuts:

- 0.625 inch diameter, 0.100 inch lead
- 0.625 inch diameter, 0.200 inch lead
- 16 mm diameter, 4 mm lead

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## Specifications

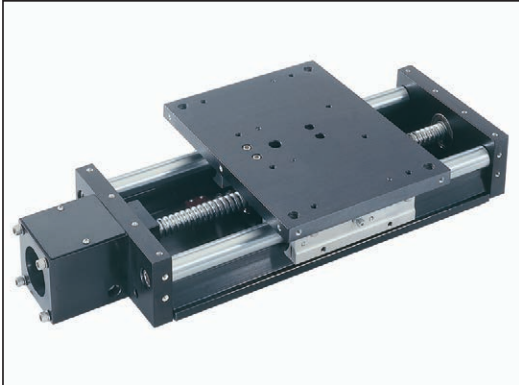
Load Capacities		Two (2) Bearing Carriage		Four (4) Bearing Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	1,550 lbs	( 703 kg)	3,100 lbs	( 1406 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	415 lbs	( 188 kg)	840 lbs	( 381 kg)
<b>Static Horizontal</b>		2,360 lbs	( 1070 kg)	4,720 lbs	( 2140 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	140 ft-lbs	( 190 N-m)	280 ft-lbs	( 379 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	37 ft-lbs	( 50 N-m)	75 ft-lbs	( 101 N-m)
<b>Static Roll Moment</b>		210 ft-lbs	( 285 N-m)	425 ft-lbs	( 576 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	18 ft-lbs	( 24 N-m)	240 ft-lbs	( 325 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	5 ft-lbs	( 7 N-m)	65 ft-lbs	( 88 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		30 ft-lbs	( 41 N-m)	365 ft-lbs	( 495 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	775 lbs	( 351 kg)	775 lbs	( 351 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	208 lbs	( 94 kg)	208 lbs	( 94 kg)
<b>Each Bearing Static Load Capacity</b>		1,180 lbs	( 535 kg)	1,180 lbs	( 535 kg)
<b>Thrust Force Capacity</b>	10 million screw revolutions	665 lbs	( 302 kg)	665 lbs	( 302 kg)
<b>Thrust Force Capacity</b>	500 million screw revolutions	180 lbs	( 82 kg)	180 lbs	( 82 kg)
<b>Maximum Acceleration</b>		386 in/sec <sup>2</sup>	( 9,8 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup>	( 19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	2.375 in	( 60,3 mm)	2.375 in	( 60,3 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail	-		2.088 in	( 53,0 mm)
<b>d<sub>r</sub></b>	CP0 version Center distance of the bearing to top of carriage plate surface	.750 in	( 19,1 mm)	.750 in	( 19,1 mm)
<b>d<sub>r</sub></b>	CP1 version Center distance of the bearing to top of carriage plate surface	1.375 in	( 34,9 mm)	1.375 in	( 34,9 mm)

Other	For Two (2) & Four (4) Bearing Carriages
<b>Table Material</b>	Base, Carriage, End Plates, & Cover Plate option - 6061 anodized aluminum
<b>Linear Rail Material</b>	Stainless Steel
<b>Screw Material</b>	Acme Screw - Stainless Steel
<b>Screw Material</b>	Rolled Ball, Precision Ball, & Ground Ball - Case Hardened Steel
<b>Unidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0002 in (5 microns) - depends on selected screw
<b>Bidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0082 in (208 microns) - depends on selected screw
<b>Straightness</b>	< 0.00013 in/in (< 3,30 microns/25mm)
<b>Flatness</b>	< 0.00013 in/in (< 3,30 microns/25mm)
<b>Orthogonality</b> (multi-axis systems)	< 30 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, Motor Wraps, and Hand Crank Option
<b>Coupling</b>	Three (3) different styles available
<b>Waycover Material</b> (110 series)	Hypilon Polyester Bellows firmly mounted to carriage & end plates

## Standard Features

- ❑ Compact 8.0 inches (203 mm) wide by 2.930 inches (74 mm) tall
- ❑ Travel lengths from 6 inches (150 mm) to 60 inches (1520 mm)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ 0° F to +185° F (-18° C to +85° C) operating temperature
- ❑ 2 rail, 4 bearing, 6 & 12 inch long carriages
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground round rail design

## 90-WC0 series



## 90-WC1 series



## Options

- ❑ Chrome plated linear bearings, rails and screws
- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Linear and rotary incremental encoders
- ❑ NEMA 23 & 34 motor wrap packages
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Vertical angle bracket
- ❑ Turcite nut option
- ❑ Motor couplings
- ❑ Hand crank
- ❑ Ball screws:

Rolled - Non-preloaded & Preloaded Nuts:

0.625 inch diameter, 0.200 inch lead  
 0.625 inch diameter, 1.000 inch lead  
 0.750 inch diameter, 0.200 inch lead  
 0.750 inch diameter, 0.500 inch lead  
 1.000 inch diameter, 0.250 inch lead  
 1.000 inch diameter, 0.500 inch lead  
 1.000 inch diameter, 1.000 inch lead

Precision - Non-preloaded & Preloaded Nuts:

0.625 inch diameter, 0.200 inch lead  
 16 mm diameter, 5 mm lead  
 16 mm diameter, 10 mm lead  
 16 mm diameter, 16 mm lead  
 0.750 inch diameter, 0.200 inch lead  
 20 mm diameter, 5 mm lead  
 20 mm diameter, 20 mm lead

Ground - Preloaded Nuts Only:

0.625 inch diameter, 0.200 inch lead  
 16 mm diameter, 5 mm lead  
 16 mm diameter, 16 mm lead

- ❑ Acme screws:

Rolled - Non-preloaded & Preloaded Nuts:

0.625 inch diameter, 0.100 inch lead  
 0.625 inch diameter, 0.200 inch lead

Sold & Serviced By:

 **ELECTROMATE**

Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

## Specifications

Load Capacities		6 inch (4 bearing) Carriage		12 inch (4 bearing) Carriage	
<b>Dynamic Horizontal</b> <sup>(1)</sup>	2 million inches (50 km) of travel	3,300 lbs	( 1496 kg)	3,300 lbs	( 1496 kg)
<b>Dynamic Horizontal</b> <sup>(1)</sup>	100 million inches (2540 km) of travel	885 lbs	( 401 kg)	885 lbs	( 401 kg)
<b>Static Horizontal</b> <sup>(1)</sup>		5,000 lbs	( 2268 kg)	5,000 lbs	( 2268 kg)
<b>Dynamic Roll Moment</b> <sup>(1)</sup>	2 million inches (50 km) of travel	380 ft-lbs	( 515 N-m)	380 ft-lbs	( 515 N-m)
<b>Dynamic Roll Moment</b> <sup>(1)</sup>	100 million inches (2540 km) of travel	102 ft-lbs	( 138 N-m)	102 ft-lbs	( 138 N-m)
<b>Static Roll Moment</b> <sup>(1)</sup>		575 ft-lbs	( 780 N-m)	575 ft-lbs	( 780 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b> <sup>(1)</sup>	2 million inches (50 km) of travel	150 ft-lbs	( 203 N-m)	525 ft-lbs	( 712 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b> <sup>(1)</sup>	100 million inches (2540 km) of travel	41 ft-lbs	( 55 N-m)	141 ft-lbs	( 191 N-m)
<b>Static Pitch &amp; Yaw Moment</b> <sup>(1)</sup>		225 ft-lbs	( 305 N-m)	790 ft-lbs	( 1071 N-m)
<b>Each Bearing Dyn. Cap.</b> <sup>(1)</sup>	2 million inches (50 km) of travel	825 lbs	( 374 kg)	825 lbs	( 374 kg)
<b>Each Bearing Dyn. Cap.</b> <sup>(1)Å</sup>	100 million inches (2540 km) of travel	222 lbs	( 100 kg)	222 lbs	( 100 kg)
<b>Each Bearing Static Load Capacity</b> <sup>(1)</sup>		1,250 lbs	( 567 kg)	1,250 lbs	( 567 kg)
<b>Thrust Force Capacity</b>	10 million screw revolutions	895 lbs	( 406 kg)	895 lbs	( 406 kg)
<b>Thrust Force Capacity</b>	500 million screw revolutions	240 lbs	( 109 kg)	240 lbs	( 109 kg)
<b>Maximum Acceleration</b>		772 in/sec <sup>2</sup>	( 19,6 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup>	( 19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	4.500 in	(114,3 mm)	4.500 in	(114,3 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail	2.500 in	( 63,5 mm)	8.620 in	(218,9 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.437 in	( 36,5 mm)	1.437 in	( 36,5 mm)

Other	For Six (6) & Twelve (12) Inch Carriages
<b>Table Material</b>	Base, Carriage & End Plates - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Screw Material</b>	Acme Screw - Stainless Steel
<b>Screw Material</b>	Rolled Ball, Precision Ball, & Ground Ball - Case Hardened Steel
<b>Unidirectional Repeatability</b>	+/- 0.0002 in (5 microns)
<b>Bidirectional Repeatability</b>	+/- 0.0002 in (5 microns) to +/- 0.0092 in (234 microns) - depends on selected screw
<b>Straightness</b>	< 0.00016 in/in (< 4,06 microns/25mm)
<b>Flatness</b>	< 0.00016 in/in (< 4,06 microns/25mm)
<b>Orthogonality</b> (multi-axis systems)	< 30 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, Motor Wraps, and Hand Crank Option
<b>Coupling</b>	Three (3) different styles available
<b>Waycover Material</b>	Hypilon Polyester Bellows firmly mounted to carriage & end plates

### Footnotes:

(1) Derate value by 50 % when load is applied to the open end of the bearing (such as in moment loads and inverted configurations).



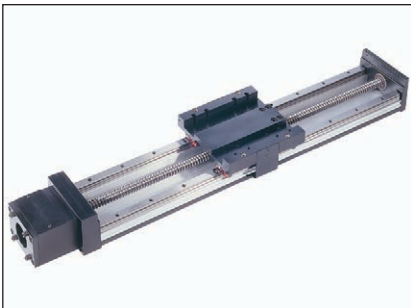
## Standard Features

- ❑ Compact 5.50 inches (139,7 mm) wide by 2.953 inches (75 mm) tall - 160 series
- ❑ Compact 6.00 inches (152,4 mm) wide by 2.953 inches (75 mm) tall - 170 series
- ❑ T-slot or threaded stainless steel inserts in carriage for load mounting
- ❑ Travel lengths from 6 inches (150 mm) to 60 inches (1520 mm)
- ❑ 0° F to +185° F (-18° C to +85° C) operating temperature
- ❑ 2 rails, 2 or 4 bearing, 6 inch long carriage
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design

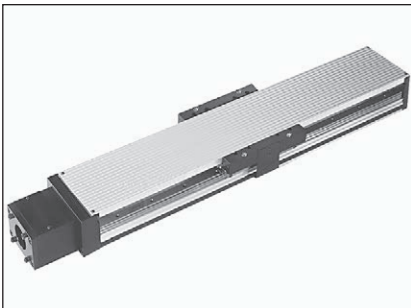
### 160-CP0 series



### 170-CP0 series



### 170-CP1 series



### 170-CP2 series



## Options

- ❑ Chrome plated linear bearings, rails and screws
- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Linear and rotary incremental encoders
- ❑ NEMA 23 & 34 motor wrap packages
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Turcite nut option
- ❑ Ball screws:

#### Rolled - Non-preloaded & Preloaded Nuts:

- 0.625 inch diameter, 0.200 inch lead
- 0.625 inch diameter, 1.000 inch lead
- 0.750 inch diameter, 0.200 inch lead
- 0.750 inch diameter, 0.500 inch lead

#### Precision - Non-preloaded & Preloaded Nuts:

- 0.625 inch diameter, 0.200 inch lead
- 16 mm diameter, 5 mm lead
- 16 mm diameter, 10 mm lead
- 16 mm diameter, 16 mm lead
- 0.750 inch diameter, 0.200 inch lead
- 20 mm diameter, 5 mm lead
- 20 mm diameter, 20 mm lead

#### Ground - Preloaded Nuts Only:

- 0.625 inch diameter, 0.200 inch lead
- 0.625 inch diameter, 0.500 inch lead

- ❑ Acme screws:

#### Rolled - Non-preloaded & Preloaded Nuts:

- 0.625 inch diameter, 0.100 inch lead
- 0.625 inch diameter, 0.200 inch lead

### 170-WC1 series



## Specifications

Load Capacities		Two (2) Bearing Carriage		Four (4) Bearing Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	3,890 lbs	( 1765 kgf)	7,780 lbs	( 3530 kgf)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	1,045 lbs	( 474 kgf)	2,090 lbs	( 948 kgf)
<b>Static Horizontal</b>		5,830 lbs	( 2645 kgf)	11,660 lbs	( 5290 kgf)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	510 ft-lbs	( 690 N-m)	1,025 ft-lbs	( 1390 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	137 ft-lbs	( 185 N-m)	275 ft-lbs	( 370 N-m)
<b>Static Roll Moment</b>		915 ft-lbs	( 1240 N-m)	1,830 ft-lbs	( 2480 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	71 ft-lbs	( 96 N-m)	930 ft-lbs	( 1260 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	19 ft-lbs	( 26 N-m)	250 ft-lbs	( 339 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		126 ft-lbs	( 170 N-m)	1,670 ft-lbs	( 2260 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	1,945 lbs	( 882 kgf)	1,945 lbs	( 882 kgf)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	525 lbs	( 238 kgf)	525 lbs	( 238 kgf)
<b>Each Bearing Static Load Capacity</b>		2,910 lbs	( 1320 kgf)	2,910 lbs	( 1320 kgf)
<b>Thrust Force Capacity</b>	10 million screw revolutions	895 lbs	( 406 kgf)	895 lbs	( 406 kgf)
<b>Thrust Force Capacity</b>	500 million screw revolutions	240 lbs	( 109 kgf)	240 lbs	( 109 kgf)
<b>Maximum Acceleration</b>		386 in/sec <sup>2</sup>	( 9,8 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup>	( 19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	3.660 in	( 92,96 mm)	3.660 in	( 92,96 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail		-	3.290 in	( 83,57 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.320 in	( 33,53 mm)	1.320 in	( 33,53 mm)

Other	For Two (2) & Four (4) Bearing Carriages
<b>Table Material</b>	Base, Carriage, End Plates & Cover Plate Option - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Screw Material</b>	Acme Screw - Stainless Steel
<b>Screw Material</b>	Rolled Ball, Precision Ball, & Ground Ball - Case Hardened Steel
<b>Unidirectional Repeatability</b>	+/- 0.0002 in (5 microns)
<b>Bidirectional Repeatability</b>	+/- 0.0002 in (5 microns) to +/- 0.0082 in (208 microns) - depends on selected screw
<b>Straightness</b>	< 0.00016 in/in (< 4,06 microns/25mm)
<b>Flatness</b>	< 0.00016 in/in (< 4,06 microns/25mm)
<b>Orthogonality</b> (multi-axis systems)	< 30 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, Motor Wraps, and Hand Crank Option
<b>Coupling</b>	Three (3) different styles available
<b>Waycover Material</b>	Hypilon Polyester Bellows mounted to carriage & end plates



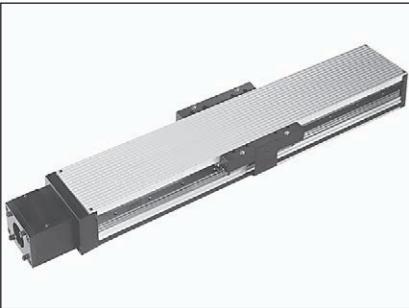
## Standard Features

- ❑ Compact 6.00 inches (152,4 mm) wide by 2.953 inches (75 mm) tall
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ Travel lengths from 6 inches (150 mm) to 60 inches (1520 mm)
- ❑ 0° F to +185° F (-18° C to +85° C) operating temperature
- ❑ 2 rails, 4 or 6 bearing, 12 inch long carriage
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design

## 170-CP0 series



## 170-CP1 series



## 170-CP2 series



## 170-WC1 series



## Options

- ❑ Chrome plated linear bearings, rails and screws
- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Linear and rotary incremental encoders
- ❑ NEMA 23 & 34 motor wrap packages
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Turcite nut option
- ❑ Ball screws:

Rolled - Non-preloaded & Preloaded Nuts:

- 0.625 inch diameter, 0.200 inch lead
- 0.625 inch diameter, 1.000 inch lead
- 0.750 inch diameter, 0.200 inch lead
- 0.750 inch diameter, 0.500 inch lead

Precision - Non-preloaded & Preloaded Nuts:

- 0.625 inch diameter, 0.200 inch lead
- 16 mm diameter, 5 mm lead
- 16 mm diameter, 10 mm lead
- 16 mm diameter, 16 mm lead
- 0.750 inch diameter, 0.200 inch lead
- 20 mm diameter, 5 mm lead
- 20 mm diameter, 20 mm lead

Ground - Preloaded Nuts Only:

- 0.625 inch diameter, 0.200 inch lead
- 0.625 inch diameter, 0.500 inch lead

- ❑ Acme screws:

Rolled - Non-preloaded & Preloaded Nuts:

- 0.625 inch diameter, 0.100 inch lead
- 0.625 inch diameter, 0.200 inch lead

## Specifications

Load Capacities		Four (4) Bearing Carriage	Six (6) Bearing Carriage
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	7,780 lbs ( 3530 kgf)	11,660 lbs ( 5280 kgf)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	2,090 lbs ( 948 kgf)	3,135 lbs ( 1420 kgf)
<b>Static Horizontal</b>		11,660 lbs ( 5290 kgf)	17,500 lbs ( 7930 kgf)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	1,025 ft-lbs ( 1390 N-m)	1,540 ft-lbs ( 2085 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	275 ft-lbs ( 370 N-m)	410 ft-lbs ( 555 N-m)
<b>Static Roll Moment</b>		1,830 ft-lbs ( 2480 N-m)	2,750 ft-lbs ( 3725 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	2,160 ft-lbs ( 2925 N-m)	2,235 ft-lbs ( 3030 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	580 ft-lbs ( 785 N-m)	600 ft-lbs ( 810 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		3,860 ft-lbs ( 5230 N-m)	3,980 ft-lbs ( 5395 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	1,945 lbs ( 882 kgf)	1,945 lbs ( 882 kgf)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	525 lbs ( 238 kgf)	525 lbs ( 238 kgf)
<b>Each Bearing Static Load Capacity</b>		2,910 lbs ( 1320 kgf)	2,910 lbs ( 1320 kgf)
<b>Thrust Force Capacity</b>	10 million screw revolutions	895 lbs ( 406 kgf)	895 lbs ( 406 kgf)
<b>Thrust Force Capacity</b>	500 million screw revolutions	240 lbs ( 109 kgf)	240 lbs ( 109 kgf)
<b>Maximum Acceleration</b>		772 in/sec <sup>2</sup> ( 19,6 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup> ( 19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	3.660 in ( 92,96 mm)	3.660 in ( 92,96 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail	9.290 in ( 235,97 mm)	4.645 in ( 117,98 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.320 in ( 33,53 mm)	1.320 in ( 33,53 mm)

Other	For Four (4) & Six (6) Bearing Carriages
<b>Table Material</b>	Base, Carriage, End Plates & Cover Plate Option - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Screw Material</b>	Acme Screw - Stainless Steel
<b>Screw Material</b>	Rolled Ball, Precision Ball, & Ground Ball - Case Hardened Steel
<b>Unidirectional Repeatability</b>	+/- 0.0002 in (5 microns)
<b>Bidirectional Repeatability</b>	+/- 0.0002 in (5 microns) to +/- 0.0082 in (208 microns) - depends on selected screw
<b>Straightness</b>	< 0.00016 in/in (< 4,06 microns/25mm)
<b>Flatness</b>	< 0.00016 in/in (< 4,06 microns/25mm)
<b>Orthogonality</b> (multi-axis systems)	< 30 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, Motor Wraps, and Hand Crank Option
<b>Coupling</b>	Three (3) different styles available
<b>Waycover Material</b>	Hypilon Polyester Bellows mounted to carriage & end plates

## Standard Features

- ❑ Compact 6.750 inches (171 mm) wide by 2.625 inches (67 mm) tall
- ❑ Travel lengths from 6 inches (150 mm) to 62 inches (1570 mm)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ 0° F to +185° F (-18° C to +85° C) operating temperature
- ❑ 2 rail, 2 & 4 bearing, 4 & 8 inch long carriages
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design

## 150-WC0 series



## 150-WC1 series



## Options

- ❑ Chrome plated linear bearings, rails and screws
- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Linear and rotary incremental encoders
- ❑ NEMA 23 & 34 motor wrap packages
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Vertical angle bracket
- ❑ Turcite nut option
- ❑ Motor couplings
- ❑ Hand crank
- ❑ Ball screws:

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 Rolled - Non-preloaded & Preloaded Nuts:

- 0.625 inch diameter, 0.200 inch lead
- 0.625 inch diameter, 1.000 inch lead
- 0.750 inch diameter, 0.200 inch lead
- 0.750 inch diameter, 0.500 inch lead

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 Precision - Non-preloaded & Preloaded Nuts:

- 0.625 inch diameter, 0.200 inch lead
- 16 mm diameter, 5 mm lead
- 16 mm diameter, 10 mm lead
- 16 mm diameter, 16 mm lead
- 0.750 inch diameter, 0.200 inch lead
- 20 mm diameter, 5 mm lead
- 20 mm diameter, 20 mm lead

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 Ground - Preloaded Nuts Only:

- 0.625 inch diameter, 0.200 inch lead
- 16 mm diameter, 5 mm lead
- 16 mm diameter, 16 mm lead
- 0.750 inch diameter, 0.200 inch lead
- 0.750 inch diameter, 0.500 inch lead

- ❑ Acme screws:

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 Rolled - Non-preloaded & Preloaded Nuts:

- 0.625 inch diameter, 0.100 inch lead
- 0.625 inch diameter, 0.200 inch lead

Sold &amp; Serviced By:

Toll Free Phone (877) SERV098  
 Toll Free Fax (877) SERV099  
[www.electromate.com](http://www.electromate.com)  
[sales@electromate.com](mailto:sales@electromate.com)

## Specifications

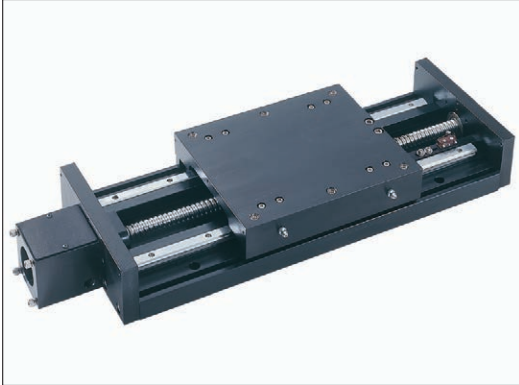
Load Capacities		4 inch (2 bearing) Carriage		8 inch (4 bearing) Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	1,900 lbs	( 862 kg)	3,800 lbs	( 1724 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	510 lbs	( 231 kg)	1,020 lbs	( 463 kg)
<b>Static Horizontal</b>		3,400 lbs	( 1542 kg)	6,800 lbs	( 3084 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	285 ft-lbs	( 386 N-m)	575 ft-lbs	( 780 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	77 ft-lbs	( 104 N-m)	155 ft-lbs	( 210 N-m)
<b>Static Roll Moment</b>		515 ft-lbs	( 698 N-m)	1,030 ft-lbs	( 1396 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	56 ft-lbs	( 76 N-m)	700 ft-lbs	( 949 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	15 ft-lbs	( 20 N-m)	190 ft-lbs	( 258 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		100 ft-lbs	( 136 N-m)	1,255 ft-lbs	( 1702 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	950 lbs	( 431 kg)	950 lbs	( 431 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	255 lbs	( 115 kg)	255 lbs	( 115 kg)
<b>Each Bearing Static Load Capacity</b>		1,700 lbs	( 771 kg)	1,700 lbs	( 771 kg)
<b>Thrust Force Capacity</b>	10 million screw revolutions	895 lbs	( 406 kg)	895 lbs	( 406 kg)
<b>Thrust Force Capacity</b>	500 million screw revolutions	240 lbs	( 109 kg)	240 lbs	( 109 kg)
<b>Maximum Acceleration</b>		386 in/sec <sup>2</sup>	( 9,8 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup>	( 19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	4.300 in	(109,2 mm)	4.300 in	(109,2 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail		-	4.900 in	(124,5 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.250 in	( 31,8 mm)	1.250 in	( 31,8 mm)

Other	For 4 inch (2 bearing) & 8 inch (4 bearing) Carriages
<b>Table Material</b>	Base, Carriage, & End Plates - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Screw Material</b>	Acme Screw - Stainless Steel
<b>Screw Material</b>	Rolled Ball, Precision Ball, & Ground Ball - Case Hardened Steel
<b>Unidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0002 in (5 microns) - depends on selected screw
<b>Bidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0082 in (208 microns) - depends on selected screw
<b>Straightness</b>	< 0.00004 in/in (< 1,02 microns/25mm)
<b>Flatness</b>	< 0.00004 in/in (< 1,02 microns/25mm)
<b>Orthogonality</b> (multi-axis systems)	< 15 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, Motor Wraps, and Hand Crank Option
<b>Coupling</b>	Three (3) different styles available
<b>Waycover Material</b>	Hypilon Polyester Bellows firmly mounted to carriage & end plates

## Standard Features

- ❑ Compact 8.500 inches (216 mm) wide by 3.750 inches (95 mm) tall
- ❑ Travel lengths from 6 inches (150 mm) to 55 inches (1395 mm)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ 0° F to +185° F (-18° C to +85° C) operating temperature
- ❑ 2 rail, 2 & 4 bearing, 6 & 12 inch long carriages
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design

## 200-WC0 series



## 200-WC1 series



## Options

- ❑ Chrome plated linear bearings, rails and screws
- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Linear and rotary incremental encoders
- ❑ NEMA 23 & 34 motor wrap packages
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Vertical angle bracket
- ❑ Turcite nut option
- ❑ Motor couplings
- ❑ Hand crank
- ❑ Ball screws:

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 Rolled - Non-preloaded & Preloaded Nuts:

- 0.750 inch diameter, 0.200 inch lead
- 0.750 inch diameter, 0.500 inch lead

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 Precision - Non-preloaded & Preloaded Nuts:

- 0.750 inch diameter, 0.200 inch lead
- 20 mm diameter, 5 mm lead
- 20 mm diameter, 20 mm lead

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 Ground - Preloaded Nuts Only:

- 0.750 inch diameter, 0.200 inch lead
- 20 mm diameter, 5 mm lead
- 20 mm diameter, 20 mm lead

- ❑ Acme screws:

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 Rolled - Non-preloaded & Preloaded Nuts:

- 0.750 inch diameter, 0.100 inch lead
- 0.750 inch diameter, 0.200 inch lead

## Specifications

Load Capacities		6 inch (2 bearing) Carriage		12 inch (4 bearing) Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	4,400 lbs	( 1996 kg)	8,800 lbs	( 3992 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	1,180 lbs	( 535 kg)	2,360 lbs	( 1070 kg)
<b>Static Horizontal</b>		7,600 lbs	( 3447 kg)	15,200 lbs	( 6895 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	790 ft-lbs	( 1071 N-m)	1,580 ft-lbs	( 2142 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	210 ft-lbs	( 285 N-m)	425 ft-lbs	( 576 N-m)
<b>Static Roll Moment</b>		1,365 ft-lbs	( 1851 N-m)	2,730 ft-lbs	( 3701 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	175 ft-lbs	( 237 N-m)	2,485 ft-lbs	( 3369 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	47 ft-lbs	( 64 N-m)	670 ft-lbs	( 908 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		300 ft-lbs	( 407 N-m)	4,300 ft-lbs	( 5830 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	2,200 lbs	( 998 kg)	2,200 lbs	( 998 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	590 lbs	( 265 kg)	590 lbs	( 265 kg)
<b>Each Bearing Static Load Capacity</b>		3,800 lbs	( 1724 kg)	3,800 lbs	( 1724 kg)
<b>Thrust Force Capacity</b>	10 million screw revolutions	1,050 lbs	( 476 kg)	1,050 lbs	( 476 kg)
<b>Thrust Force Capacity</b>	500 million screw revolutions	270 lbs	( 122 kg)	270 lbs	( 122 kg)
<b>Maximum Acceleration</b>		386 in/sec <sup>2</sup>	( 9,8 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup>	( 19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	5.280 in	(134,1 mm)	5.280 in	(134,1 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail		-	7.870 in	(199,9 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.900 in	( 48,3 mm)	1.900 in	( 48,3 mm)

Other	For 6 inch (2 bearing) & 12 inch (4 bearing) Carriages
<b>Table Material</b>	Base, Carriage, & End Plates - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Screw Material</b>	Acme Screw - Stainless Steel
<b>Screw Material</b>	Rolled Ball, Precision Ball, & Ground Ball - Case Hardened Steel
<b>Unidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0002 in (5 microns) - depends on selected screw
<b>Bidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0082 in (208 microns) - depends on selected screw
<b>Straightness</b>	< 0.00004 in/in (< 1,02 microns/25mm)
<b>Flatness</b>	< 0.00004 in/in (< 1,02 microns/25mm)
<b>Orthogonality</b> (multi-axis systems)	< 15 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, Motor Wraps, and Hand Crank Option
<b>Coupling</b>	Three (3) different styles available
<b>Waycover Material</b>	Hypilon Polyester Bellows firmly mounted to carriage & end plates



## Standard Features

- ❑ Compact 10.0 inches (254 mm) wide by 4.875 inches (124 mm) tall
- ❑ Travel lengths from 6 inches (150 mm) to 56 inches (1420 mm)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ 0° F to +185° F (-18° C to +85° C) operating temperature
- ❑ 2 rail, 2 & 4 bearing, 6 & 12 inch long carriages
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design

## 250-WC0 series



## 250-WC1 series



## Options

- ❑ Chrome plated linear bearings, rails and screws
- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Linear and rotary incremental encoders
- ❑ NEMA 34 & 42 motor wrap packages
- ❑ NEMA 42 adapter bracket
- ❑ Power-off electric brakes
- ❑ Vertical angle bracket
- ❑ Turcite nut option
- ❑ Motor couplings

## ❑ Ball screws:

## Rolled - Non-preloaded &amp; Preloaded Nuts:

- 1.000 inch diameter, 0.250 inch lead
- 1.000 inch diameter, 0.500 inch lead
- 1.000 inch diameter, 1.000 inch lead

## Precision - Non-preloaded &amp; Preloaded Nuts:

- 1.000 inch diameter, 0.200 inch lead
- 25 mm diameter, 10 mm lead
- 25 mm diameter, 25 mm lead

## Ground - Preloaded Nuts Only:

- 1.000 inch diameter, 0.200 inch lead
- 1.000 inch diameter, 0.500 inch lead
- 25 mm diameter, 25 mm lead

## ❑ Acme screws:

## Rolled - Non-preloaded &amp; Preloaded Nuts:

- 1.000 inch diameter, 0.100 inch lead
- 1.000 inch diameter, 0.200 inch lead



## Specifications

Load Capacities		6 inch (2 bearing) Carriage		12 inch (4 bearing) Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	8,300 lbs	( 3765 kg)	16,600 lbs	( 7530 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	2,225 lbs	( 1009 kg)	4,455 lbs	( 2020 kg)
<b>Static Horizontal</b>		13,600 lbs	( 6169 kg)	27,200 lbs	(12338 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	1,655 ft-lbs	( 2244 N-m)	3,310 ft-lbs	( 4488 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	445 ft-lbs	( 603 N-m)	895 ft-lbs	( 1213 N-m)
<b>Static Roll Moment</b>		2,715 ft-lbs	( 3681 N-m)	5,425 ft-lbs	( 7355 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	455 ft-lbs	( 617 N-m)	3,930 ft-lbs	( 5328 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	121 ft-lbs	( 164 N-m)	1,065 ft-lbs	( 1444 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		635 ft-lbs	( 861 N-m)	6,450 ft-lbs	( 8745 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	4,150 lbs	( 1882 kg)	4,150 lbs	( 1882 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	1,115 lbs	( 505 kg)	1,115 lbs	( 505 kg)
<b>Each Bearing Static Load Capacity</b>		6,800 lbs	( 3084 kg)	6,800 lbs	( 3084 kg)
<b>Thrust Force Capacity</b>	10 million screw revolutions	1,685 lbs	( 764 kg)	1,685 lbs	( 764 kg)
<b>Thrust Force Capacity</b>	500 million screw revolutions	455 lbs	( 206 kg)	455 lbs	( 206 kg)
<b>Maximum Acceleration</b>		386 in/sec <sup>2</sup>	( 9,8 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup>	( 19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	6.000 in	(152,4 mm)	6.000 in	(152,4 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail		-	6.730 in	(170,9 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	2.180 in	( 55,4 mm)	2.180 in	( 55,4 mm)

Other	For 6 inch (2 bearing) & 12 inch (4 bearing) Carriages
<b>Table Material</b>	Base, Carriage, & End Plates - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Screw Material</b>	Acme Screw - Stainless Steel
<b>Screw Material</b>	Rolled Ball, Precision Ball, & Ground Ball - Case Hardened Steel
<b>Unidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0002 in (5 microns) - depends on selected screw
<b>Bidirectional Repeatability</b>	+/- 0.0001 in (2,5 microns) to +/- 0.0092 in (234 microns) - depends on selected screw
<b>Straightness</b>	< 0.00004 in/in (< 1,02 microns/25mm)
<b>Flatness</b>	< 0.00004 in/in (< 1,02 microns/25mm)
<b>Orthogonality</b> (multi-axis systems)	< 15 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Motor Mount</b>	NEMA 34 & 42 Mounts, Metric Mounts, Motor Wraps, and Hand Crank Option
<b>Coupling</b>	Three (3) different styles available
<b>Waycover Material</b>	Hypilon Polyester Bellows firmly mounted to carriage & end plates

## Standard Features

- ❑ Compact 2.875 inches (73 mm) wide by 3.000 inches (76 mm) tall
- ❑ Travel lengths from 4 inches (100 mm) to 10 feet (3,0 meters)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ Polyurethane belt with high strength steel tension members
- ❑ 0° F to +176° F (-18° C to +80° C) operating temperature
- ❑ Single screw belt tensioning with self locking thread
- ❑ Dynamic Load Capacity to 200 lbs (90 kg)
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design
- ❑ 1 rail, 1 or 2 bearing carriages

## 140-CP0 series



## Options

- ❑ AUTOCAD® drawings available via the internet
- ❑ End of travel (EOT) and home switches wired
- ❑ Adapter brackets for non-NEMA motors
- ❑ Chrome plated linear bearings & rails
- ❑ Rotary incremental encoders
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Carriage adapter plates
- ❑ Vertical angle bracket
- ❑ Motor couplings

## 140-CP1 series



## 140-CP2 series



Sold &amp; Serviced By:



Toll Free Phone (877) SERV098

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sales@electromate.com

## Specifications

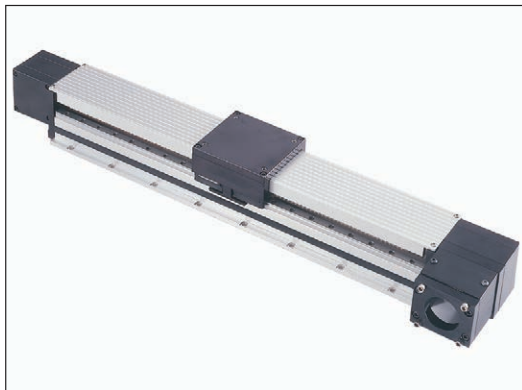
Load Capacities		One (1) Bearing Carriage	Two (2) Bearing Carriage
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	100 lbs ( 45 kg)	200 lbs ( 90 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	27 lbs ( 12 kg)	54 lbs ( 24 kg)
<b>Static Horizontal</b>		200 lbs ( 90 kg)	400 lbs ( 180 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	8 ft-lbs ( 11 N-m)	16 ft-lbs ( 22 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	2 ft-lbs ( 3 N-m)	4 ft-lbs ( 6 N-m)
<b>Static Roll Moment</b>		14 ft-lbs ( 19 N-m)	28 ft-lbs ( 38 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	4 ft-lbs ( 5,4 N-m)	15 ft-lbs ( 20 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	1 ft-lbs ( 1,9 N-m)	4 ft-lbs ( 6 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		8 ft-lbs ( 10 N-m)	30 ft-lbs ( 40 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	100 lbs ( 45 kg)	100 lbs ( 45 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	27 lbs ( 12 kg)	27 lbs ( 12 kg)
<b>Each Bearing Static Load Capacity</b>		200 lbs ( 90 kg)	200 lbs ( 90 kg)
<b>Maximum Belt Tensile Force</b>		250 lbs ( 113 kg)	250 lbs ( 113 kg)
<b>Maximum Carriage Thrust Force</b>		115 lbs ( 52 kg)	115 lbs ( 52 kg)
<b>Maximum Speed</b>		78 in/sec ( 2 m/sec )	78 in/sec ( 2 m/sec )
<b>Maximum Acceleration</b>		193 in/sec <sup>2</sup> ( 4,9 m/sec <sup>2</sup> )	386 in/sec <sup>2</sup> ( 9,8 m/sec <sup>2</sup> )
<b>d<sub>2</sub></b>	Center to center distance (spacing) of each bearing on a single rail	-	2.088 in ( 53,0 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.375 in ( 34,9 mm)	1.375 in ( 34,9 mm)

Other	For One (1) & Two (2) Bearing Carriages
<b>Table Material</b>	Base, Carriage, End Plates, & Cover Plate - 6061 anodized aluminum
<b>Linear Rail Material</b>	Stainless Steel
<b>Belt Properties</b>	Black, 16 mm wide, Polyurethane, Steel reinforced belt
<b>Drive Pulley Weight</b>	0.21 lbs ( 0,10 kg)
<b>Drive Pulley Diameter</b>	1.128 in ( 28,65 mm)
<b>Drive Lead</b>	3.543 in ( 90,00 mm)
<b>Belt Stretch - x Load (lbs or N)</b>	0.00025 in/ft per lbs ( 0,00476 mm/m per N)
<b>Unidirectional Repeatability</b>	+/- 0.001 in (+/- 0,0254 mm)
<b>Bidirectional Repeatability</b>	+/- 0.004 in (+/- 0,1016 mm)
<b>Position Accuracy (Belt)</b>	< 0.005 in/ft (< 0,127 mm/300mm)
<b>Orthogonality (multi-axis systems)</b>	< 30 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Breakaway Torque</b>	< 40 oz-in (0,282 N-m)
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, and Gearheads
<b>Coupling</b>	Two (2) different styles available

## Standard Features

- ❑ Compact 3.500 inches (89 mm) wide by 3.000 inches (76 mm) tall
- ❑ Travel lengths from 4 inches (100 mm) to 10 feet (3,0 meters)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ Polyurethane belt with high strength steel tension members
- ❑ 0° F to +176° F (-18° C to +80° C) operating temperature
- ❑ Single screw belt tensioning with self locking thread
- ❑ Dynamic Load Capacity to 3,100 lbs (1406 kg)
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design
- ❑ 2 rails, 2 or 4 bearing carriages

## 120 series



## Options

- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Chrome plated linear bearings & rails
- ❑ Rotary incremental encoders
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Carriage adapter plates
- ❑ Vertical angle bracket
- ❑ Motor couplings

## Specifications

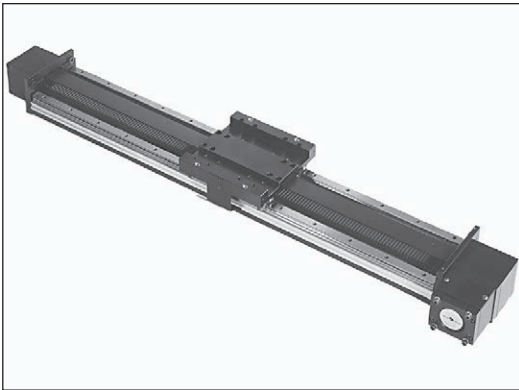
Load Capacities		Two (2) Bearing Carriage		Four (4) Bearing Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	1,550 lbs	( 703 kg)	3,100 lbs	( 1406 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	415 lbs	( 188 kg)	840 lbs	( 381 kg)
<b>Static Horizontal</b>		2,360 lbs	( 1070 kg)	4,720 lbs	( 2140 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	140 ft-lbs	( 190 N-m)	280 ft-lbs	( 379 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	37 ft-lbs	( 50 N-m)	75 ft-lbs	( 101 N-m)
<b>Static Roll Moment</b>		210 ft-lbs	( 285 N-m)	425 ft-lbs	( 576 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	18 ft-lbs	( 24 N-m)	240 ft-lbs	( 325 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	5 ft-lbs	( 7 N-m)	65 ft-lbs	( 88 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		30 ft-lbs	( 41 N-m)	365 ft-lbs	( 495 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	775 lbs	( 351 kg)	775 lbs	( 351 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	208 lbs	( 94 kg)	208 lbs	( 94 kg)
<b>Each Bearing Static Load Capacity</b>		1,180 lbs	( 535 kg)	1,180 lbs	( 535 kg)
<b>Maximum Belt Tensile Force</b>		250 lbs	( 113 kg)	250 lbs	( 113 kg)
<b>Maximum Carriage Thrust Force</b>		115 lbs	( 52 kg)	115 lbs	( 52 kg)
<b>Maximum Speed</b>		118 in/sec	( 3 m/sec)	118 in/sec	( 3 m/sec)
<b>Maximum Acceleration</b>		386 in/sec <sup>2</sup>	( 9,8 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup>	( 19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	2.375 in	( 60,3 mm)	2.375 in	( 60,3 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail		-	2.088 in	( 53,0 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.375 in	( 34,9 mm)	1.375 in	( 34,9 mm)

Other	For Two (2) & Four (4) Bearing Carriages
<b>Table Material</b>	Base, Carriage, End Plates, & Cover Plate - 6061 anodized aluminum
<b>Linear Rail Material</b>	Stainless Steel
<b>Belt Properties</b>	Black, 16 mm wide, Polyurethane, Steel reinforced belt
<b>Drive Pulley Weight</b>	0.21 lbs ( 0,10 kg)
<b>Drive Pulley Diameter</b>	1.128 in ( 28,65 mm)
<b>Drive Lead</b>	3.543 in ( 90,00 mm)
<b>Belt Stretch - x Load (lbs or N)</b>	0.00025 in/ft per lbs ( 0,00476 mm/m per N)
<b>Unidirectional Repeatability</b>	+/- 0.001 in (+/- 0,0254 mm)
<b>Bidirectional Repeatability</b>	+/- 0.004 in (+/- 0,1016 mm)
<b>Position Accuracy (Belt)</b>	< 0.005 in/ft (< 0,127 mm/300mm)
<b>Orthogonality (multi-axis systems)</b>	< 30 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Breakaway Torque</b>	< 60 oz-in (0,424 N-m)
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, and Gearheads
<b>Coupling</b>	Two (2) different styles available

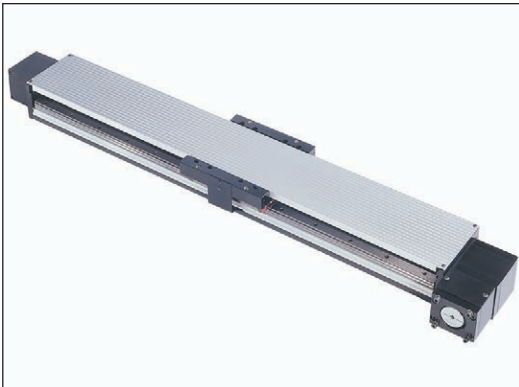
## Standard Features

- ❑ Compact 6.0 inches (152 mm) wide by 2.953 inches (75 mm) tall
- ❑ Travel lengths from 6 inches (150 mm) to 108 inches (2740 meters)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ Polyurethane belt with high strength steel tension members
- ❑ 0° F to +176° F (-18° C to +80° C) operating temperature
- ❑ Single screw belt tensioning with self locking thread
- ❑ Dynamic Load Capacity to 5,600 lbs (2540 kg)
- ❑ 2 rails, 2 or 4 bearing, 6 inch long carriage
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design

## 180-CP0 series



## 180-CP1 series



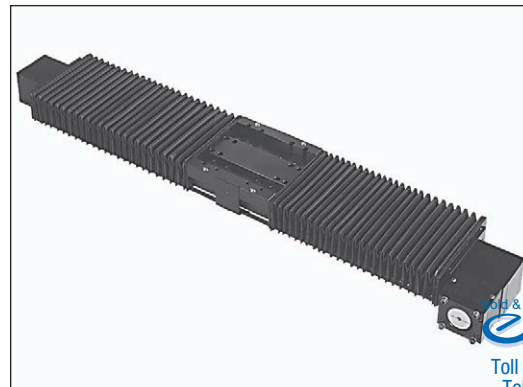
## 180-CP2 series



## Options

- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Chrome plated linear bearings & rails
- ❑ Rotary incremental encoders
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Carriage adapter plates
- ❑ Planetary gearheads
- ❑ Motor couplings

## 180-WC1 series



Sold &amp; Serviced By:



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## Specifications

Load Capacities		Two (2) Bearing Carriage		Four (4) Bearing Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	3,890 lbs	( 1765 kg)	7,780 lbs	( 3530 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	1,045 lbs	( 474 kg)	2,090 lbs	( 948 kg)
<b>Static Horizontal</b>		5,830 lbs	( 2645 kg)	11,660 lbs	( 5290 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	510 ft-lbs	( 690 N-m)	1,025 ft-lbs	( 1390 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	137 ft-lbs	( 185 N-m)	275 ft-lbs	( 370 N-m)
<b>Static Roll Moment</b>		915 ft-lbs	( 1240 N-m)	1,830 ft-lbs	( 2480 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	71 ft-lbs	( 96 N-m)	930 ft-lbs	( 1260 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	19 ft-lbs	( 26 N-m)	250 ft-lbs	( 339 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		126 ft-lbs	( 170 N-m)	1,670 ft-lbs	( 2260 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	1,945 lbs	( 882 kg)	1,945 lbs	( 882 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	525 lbs	( 238 kg)	525 lbs	( 238 kg)
<b>Each Bearing Static Load Capacity</b>		2,910 lbs	( 1320 kg)	2,910 lbs	( 1320 kg)
<b>Maximum Belt Tensile Force</b>		350 lbs	( 159 kg)	350 lbs	( 159 kg)
<b>Maximum Carriage Thrust Force</b>		230 lbs	( 104 kg)	230 lbs	( 104 kg)
<b>Maximum Speed</b>		118 in/sec	( 3 m/sec)	118 in/sec	( 3 m/sec)
<b>Maximum Acceleration</b>		386 in/sec <sup>2</sup>	( 9,8 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup>	( 19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	3.660 in	( 92,96 mm)	3.660 in	( 92,96 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail		-	3.290 in	( 83,57 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.320 in	( 33,53 mm)	1.320 in	( 33,53 mm)

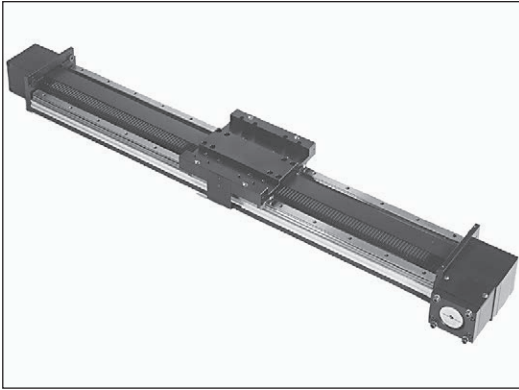
Other	For Two (2) & Four (4) Bearing Carriages
<b>Table Material</b>	Base, Carriage, End Plates, & Cover Plate - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Belt Properties</b>	Black, 32 mm wide, Polyurethane, Steel reinforced belt
<b>Drive Pulley Weight</b>	0.39 lbs ( 0,18 kg)
<b>Drive Pulley Diameter</b>	1.128 in ( 28,65 mm)
<b>Drive Lead</b>	3.543 in ( 90,00 mm)
<b>Belt Stretch - x Load (lbs or N)</b>	0.00011 in/ft per lbs ( 0,00212 mm/m per N)
<b>Unidirectional Repeatability</b>	+/- 0.001 in (+/- 0,0254 mm)
<b>Bidirectional Repeatability</b>	+/- 0.004 in (+/- 0,1016 mm)
<b>Position Accuracy (Belt)</b>	< 0.005 in/ft (< 0,127 mm/300mm)
<b>Orthogonality (multi-axis systems)</b>	< 30 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Breakaway Torque</b>	< 75 oz-in (0,530 N-m)
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, and Gearheads
<b>Coupling</b>	Two (2) different styles available
<b>Waycover Material</b>	Hypilon Polyester Bellows mounted to carriage & end plates



## Standard Features

- ❑ Compact 6.0 inches (152 mm) wide by 2.953 inches (75 mm) tall
- ❑ Travel lengths from 6 inches (150 mm) to 108 inches (2740 meters)
- ❑ Threaded stainless steel inserts in carriage for load mounting
- ❑ Polyurethane belt with high strength steel tension members
- ❑ 0° F to +176° F (-18° C to +80° C) operating temperature
- ❑ Single screw belt tensioning with self locking thread
- ❑ Dynamic Load Capacity to 5,600 lbs (2540 kg)
- ❑ 2 rails, 4 or 6 bearing, 12 inch long carriage
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design

## 180-CP0 series



## Options

- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Adapter brackets for non-NEMA motors
- ❑ Chrome plated linear bearings & rails
- ❑ Rotary incremental encoders
- ❑ NEMA 34 adapter bracket
- ❑ Power-off electric brakes
- ❑ Carriage adapter plates
- ❑ Planetary gearheads
- ❑ Motor couplings

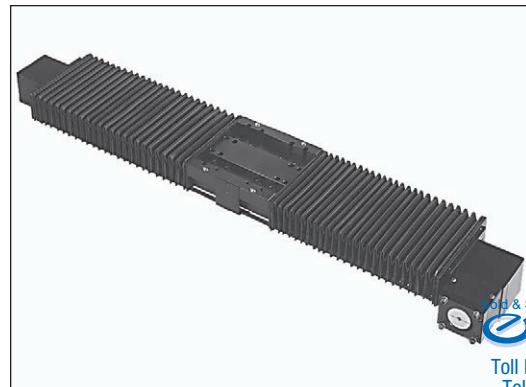
## 180-CP1 series



## 180-CP2 series



## 180-WC1 series



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## Specifications

Load Capacities		Four (4) Bearing Carriage		Six (6) Bearing Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	7,780 lbs	( 3530 kgf)	11,660 lbs	( 5280 kgf)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	2,090 lbs	( 948 kgf)	3,135 lbs	( 1420 kgf)
<b>Static Horizontal</b>		11,660 lbs	( 5290 kgf)	17,500 lbs	( 7930 kgf)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	1,025 ft-lbs	( 1390 N-m)	1,540 ft-lbs	( 2085 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	275 ft-lbs	( 370 N-m)	410 ft-lbs	( 555 N-m)
<b>Static Roll Moment</b>		1,830 ft-lbs	( 2480 N-m)	2,750 ft-lbs	( 3725 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	2,160 ft-lbs	( 2925 N-m)	2,235 ft-lbs	( 3030 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	580 ft-lbs	( 785 N-m)	600 ft-lbs	( 810 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		3,860 ft-lbs	( 5230 N-m)	3,980 ft-lbs	( 5395 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	1,945 lbs	( 882 kgf)	1,945 lbs	( 882 kgf)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	525 lbs	( 238 kgf)	525 lbs	( 238 kgf)
<b>Each Bearing Static Load Capacity</b>		2,910 lbs	( 1320 kgf)	2,910 lbs	( 1320 kgf)
<b>Maximum Belt Tensile Force</b>		350 lbs	( 159 kg)	350 lbs	( 159 kg)
<b>Maximum Carriage Thrust Force</b>		230 lbs	( 104 kg)	230 lbs	( 104 kg)
<b>Maximum Speed</b>		118 in/sec	( 3 m/sec)	118 in/sec	( 3 m/sec)
<b>Maximum Acceleration</b>		772 in/sec <sup>2</sup>	(19,6 m/sec <sup>2</sup> )	772 in/sec <sup>2</sup>	(19,6 m/sec <sup>2</sup> )
<b>d<sub>1</sub></b>	Center to center distance (spread) between the two rails	3.660 in	( 92,96 mm)	3.660 in	( 92,96 mm)
<b>d<sub>2</sub></b>	Center to center distance (spacing) of the bearings on a single rail	9.290 in	(235,97 mm)	4.645 in	(117,98 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.320 in	( 33,53 mm)	1.320 in	( 33,53 mm)

Other	For Four (4) & Six (6) Bearing Carriages
<b>Table Material</b>	Base, Carriage, End Plates, & Cover Plate - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Belt Properties</b>	Black, 32 mm wide, Polyurethane, Steel reinforced belt
<b>Drive Pulley Weight</b>	0.39 lbs ( 0,18 kg)
<b>Drive Pulley Diameter</b>	1.128 in ( 28,65 mm)
<b>Drive Lead</b>	3.543 in ( 90,00 mm)
<b>Belt Stretch - x Load (lbs or N)</b>	0.00011 in/ft per lbs ( 0,00212 mm/m per N)
<b>Unidirectional Repeatability</b>	+/- 0.001 in (+/- 0,0254 mm)
<b>Bidirectional Repeatability</b>	+/- 0.004 in (+/- 0,1016 mm)
<b>Position Accuracy (Belt)</b>	< 0.010 in/ft (< 0,254 mm/300mm)
<b>Orthogonality (multi-axis systems)</b>	< 30 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Breakaway Torque</b>	< 75 oz-in (0,530 N-m)
<b>Motor Mount</b>	NEMA 23 & 34 Mounts, Metric Mounts, and Gearheads
<b>Coupling</b>	Two (2) different styles available
<b>Waycover Material</b>	Hypilon Polyester Bellows mounted to carriage & end plates

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## Standard Features

- ❑ 10.236 inches (260 mm) long carriage with two M5 slots for load mounting
- ❑ Compact 3.15 inches (80 mm) wide by 3.937 inches (100 mm) tall
- ❑ Travel lengths from 12 inches (300 mm) to 30 feet (9,1 meters)
- ❑ Rigid belt driven design with fully enclosed aluminum housing
- ❑ 0° F to +176° F (-18° C to +80° C) operating temperature
- ❑ Two screw belt tensioning with self locking threads
- ❑ Dynamic Load Capacity to 10,500 lbs (4763 kg)
- ❑ Recirculating linear ball bearing system
- ❑ Precision ground square rail design
- ❑ 1 rail with 2 bearing carriages

## 550 series (553 carriage)



- ❑ Two bearing carriage
- ❑ 10,500 lbs (4763 kg) dynamic load capacity
- ❑ 410 ft-lbs (556 N-m) dynamic roll moment
- ❑ Less expensive than the 555 carriage
- ❑ Large moment load capability

## Options

- ❑ Angle brackets for multiple axis configurations
- ❑ End of travel (EOT) and home switches wired
- ❑ CAD drawings available via the internet
- ❑ Chrome plated linear bearings and rails
- ❑ Motor mounts for non-NEMA motors
- ❑ NEMA 34 & 42 motor mounts
- ❑ Rotary incremental encoders
- ❑ Power-off electric brakes
- ❑ Base mounting brackets
- ❑ Carriage adapter plates
- ❑ Planetary gearheads
- ❑ Motor couplings

## 550 series (554 carriage)



- ❑ Two bearing carriage
- ❑ 10,500 lbs (4763 kg) dynamic load capacity
- ❑ 410 ft-lbs (556 N-m) dynamic roll moment
- ❑ Self lubricating linear bearings
- ❑ Large moment load capability

## 550 series (555 carriage)



- ❑ Two bearing carriage
- ❑ 9,120 lbs (4136 kg) dynamic load capacity
- ❑ 172 ft-lbs (233 N-m) dynamic roll moment
- ❑ Less audible noise than the 553 or 554 series
- ❑ Smoother than the 553 or 554 carriage
- ❑ Unique linear bearing design

## Specifications

Load Capacities		553 & 554 Carriages		555 Carriage	
<b>Dynamic Horizontal</b>	2 million inches (50 km) of travel	10,500 lbs	( 4763 kg)	9,120 lbs	( 4136 kg)
<b>Dynamic Horizontal</b>	100 million inches (2540 km) of travel	2,820 lbs	( 1270 kg)	2,450 lbs	( 1111 kg)
<b>Static Horizontal</b>		15,400 lbs	( 6985 kg)	14,700 lbs	( 6668 kg)
<b>Dynamic Roll Moment</b>	2 million inches (50 km) of travel	410 ft-lbs	( 556 N-m)	172 ft-lbs	( 233 N-m)
<b>Dynamic Roll Moment</b>	100 million inches (2540 km) of travel	111 ft-lbs	( 150 N-m)	47 ft-lbs	( 64 N-m)
<b>Static Roll Moment</b>		650 ft-lbs	( 881 N-m)	285 ft-lbs	( 386 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	2 million inches (50 km) of travel	1,215 ft-lbs	( 1647 N-m)	510 ft-lbs	( 690 N-m)
<b>Dyn. Pitch &amp; Yaw Moment</b>	100 million inches (2540 km) of travel	330 ft-lbs	( 447 N-m)	138 ft-lbs	( 187 N-m)
<b>Static Pitch &amp; Yaw Moment</b>		1,775 ft-lbs	( 2406 N-m)	845 ft-lbs	( 1145 N-m)
<b>Each Bearing Dyn. Capacity</b>	2 million inches (50 km) of travel	5,250 lbs	( 2381 kg)	4,560 lbs	( 2068 kg)
<b>Each Bearing Dyn. Capacity</b>	100 million inches (2540 km) of travel	1,410 lbs	( 639 kg)	1,225 lbs	( 555 kg)
<b>Each Bearing Static Load Capacity</b>		7,700 lbs	( 3493 kg)	7,350 lbs	( 3334 kg)
<b>Maximum Belt Tensile Force</b>		675 lbs	( 306 kg)	675 lbs	( 306 kg)
<b>Maximum Carriage Thrust Force</b>		475 lbs	( 215 kg)	475 lbs	( 215 kg)
<b>Maximum Speed</b>		118 in/sec	( 3 m/sec)	197 in/sec	( 5 m/sec)
<b>Maximum Acceleration</b>		1,930 in/sec <sup>2</sup>	( 49,0 m/sec <sup>2</sup> )	1,930 in/sec <sup>2</sup>	( 49,0 m/sec <sup>2</sup> )
<b>d<sub>2</sub></b>	Center to center distance (spacing) of each bearing on a single rail	3.876 in	( 98,4 mm)	3.876 in	( 98,4 mm)
<b>d<sub>r</sub></b>	Center distance of the bearing to top of carriage plate surface	1.508 in	( 38,3 mm)	1.626 in	( 41,3 mm)

Other	553, 554 & 555 Carriages
<b>Table Material</b>	Base Extrusion, Carriage, & End Plates - 6061 anodized aluminum
<b>Linear Rail Material</b>	Case Hardened Steel
<b>Belt Properties</b>	Black, 50 mm wide, Polyurethane, Steel reinforced belt
<b>Drive Pulley Weight</b>	1.500 lbs ( 0,68 kg)
<b>Drive Pulley Diameter</b>	2.569 in ( 65,25 mm)
<b>Drive Lead</b>	8.071 in ( 205,00 mm)
<b>Belt Stretch - x Load (lbs or N)</b>	0.00006 in/ft per lbs ( 0,00114 mm/m per N)
<b>Unidirectional Repeatability</b>	+/- 0.001 in (+/- 0,0254 mm)
<b>Bidirectional Repeatability</b>	+/- 0.004 in (+/- 0,1016 mm)
<b>Position Accuracy (Belt)</b>	< 0.010 in/ft (< 0,254 mm/300mm)
<b>Orthogonality (multi-axis systems)</b>	< 60 arc-seconds
<b>Friction Coefficient</b>	< 0.01
<b>Breakaway Torque</b>	< 16 lb-in (1,808 N-m)
<b>Motor Mount</b>	NEMA 34 & 42 Mounts, Metric Mounts, and Gearheads
<b>Coupling</b>	Two (2) different styles available

### Standard Features - 300 series

- ❑ Worm gear drive
- ❑ NEMA 23 & 34 motor mounts
- ❑ Standard & Precision versions
- ❑ 45, 90, & 180:1 gear reductions
- ❑ Load capacity to 225 lbs (102 kg)
- ❑ 30 revs/sec maximum input speed
- ❑ 10 arc-sec unidirectional repeatability
- ❑ 6, 8, 10, & 12 inch table top diameters
- ❑ CAD drawings available via the internet
- ❑ 0.75 inch (19 mm) diameter through hole
- ❑ English & Metric inserts for load mounting

### Standard Features - 400 series

- ❑ Worm gear drive
- ❑ NEMA 34 motor mount
- ❑ Standard & Precision versions
- ❑ English inserts for load mounting
- ❑ 9 revs/sec maximum input speed
- ❑ Load capacity to 1,000 lbs (453 kg)
- ❑ 12 arc-sec unidirectional repeatability
- ❑ 5.48 inch (139 mm) table top diameter
- ❑ CAD drawings available via the internet
- ❑ 4.5 inch (114 mm) diameter through hole
- ❑ 30, 90, 180, 270, & 360:1 gear reductions

### 300 series



### 400 series



## Specifications

Load Capacities	300 series <sup>(1)</sup>	400 series <sup>(1)</sup>
<b>Dynamic Horizontal</b> (1 million revs)	225 lbs ( 102 kg)	1000 lbs ( 453 kg)
<b>Dynamic Inverted</b> (1 million revs)	100 lbs ( 45 kg)	1000 lbs ( 453 kg)
<b>Static Horizontal</b>	250 lbs ( 113 kg)	1000 lbs ( 453 kg)
<b>Dynamic Moment</b> (1 million revs)	20 ft-lbs ( 27 N-m)	225 ft-lbs ( 305 N-m)
<b>Static Moment</b>	25 ft-lbs ( 34 N-m)	250 ft-lbs ( 339 N-m)
<b>Maximum Input Speed</b>	30 rev/sec	9 rev/sec
<b>Maximum Input Acceleration</b>	75 rev/sec <sup>2</sup>	50 rev/sec <sup>2</sup>

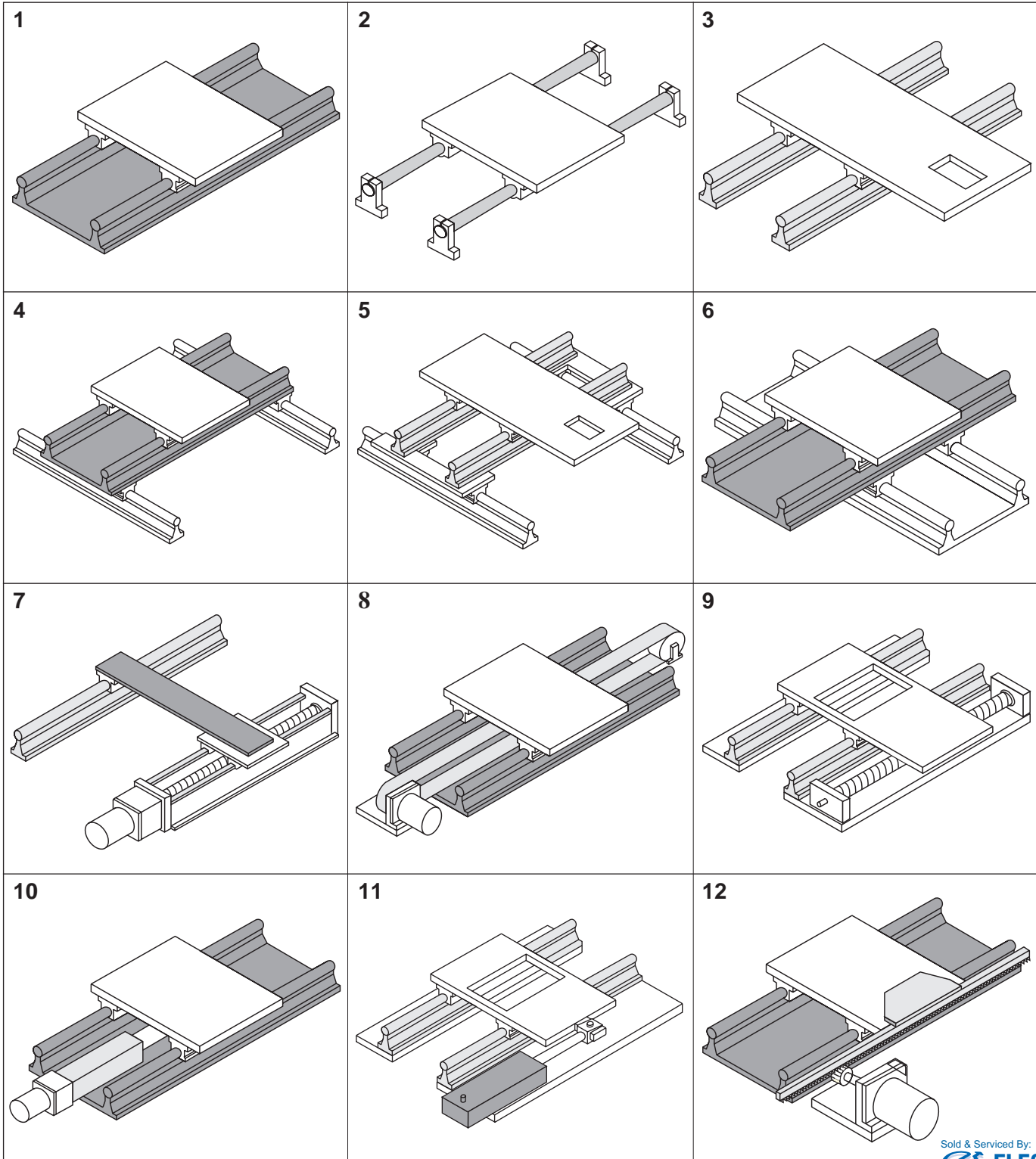
Other	300 series	400 series
<b>Table Material</b>	Base & Table Top - 6061 black anodized aluminum	
<b>Worm Wheel Type</b>	Bronze (AGMA - class 10)	
<b>Worm Gear Type</b>	Steel (AGMA - class 10)	
<b>Duty Cycle</b>	60 %	
(gear ratio)	45:1	90:1
<b>Maximum Table Top Speed</b>	40 rpm	20 rpm
<b>Worm Gear Efficiency</b>	50 %	60 %
<b>Worm Gear Inertia</b> (oz-in <sup>2</sup> )	0.03	0.03
<b>Accuracy</b>	< 150 arc-sec	< 180 arc-sec
<b>Unidirectional Repeatability</b>	< 10 arc-sec	< 12 arc-sec
<b>Bidirectional Repeatability</b>	< 40 arc-sec	< 42 arc-sec
<b>Backlash</b>	< 30 arc-sec	< 30 arc-sec
<b>Runout (vertical runout)</b>	Standard < 0.003 in (0,076 mm) <sup>(2)</sup> Precision < 0.001 in (0,025 mm) <sup>(2)</sup>	< 0.002 in (0,05 mm) <sup>(3)</sup>
<b>Concentricity (radial runout)</b>	Standard < 0.003 in (0,076 mm) <sup>(4)</sup> Precision < 0.001 in (0,025 mm) <sup>(4)</sup>	< 0.002 in (0,05 mm) <sup>(5)</sup>
<b>Wobble (axis runout)</b>	Standard < 80 arc-sec <sup>(6)</sup> Precision < 40 arc-sec <sup>(6)</sup>	< 60 arc-sec <sup>(6)</sup>
<b>Breakaway Torque</b>	< 20 oz-in (0,141 N-m)	< 60 oz-in (0,424 N-m)

### Footnotes:

- (1) Dynamic load capacities & life are limited by the stresses exerted upon the worm gear assembly.
- (2) Measured at 6 inches (152,4 mm) from table top center. Total indicator runout.
- (3) Measured at 5.5 inches (139,7 mm) from table top center. Total indicator runout.
- (4) Measured at 0.75 inches (19,1 mm) from table top center. Total indicator runout.
- (5) Measured at 4.5 inches (114,3 mm) from table top center. Total indicator runout.
- (6) Based on the centerline of the table top.

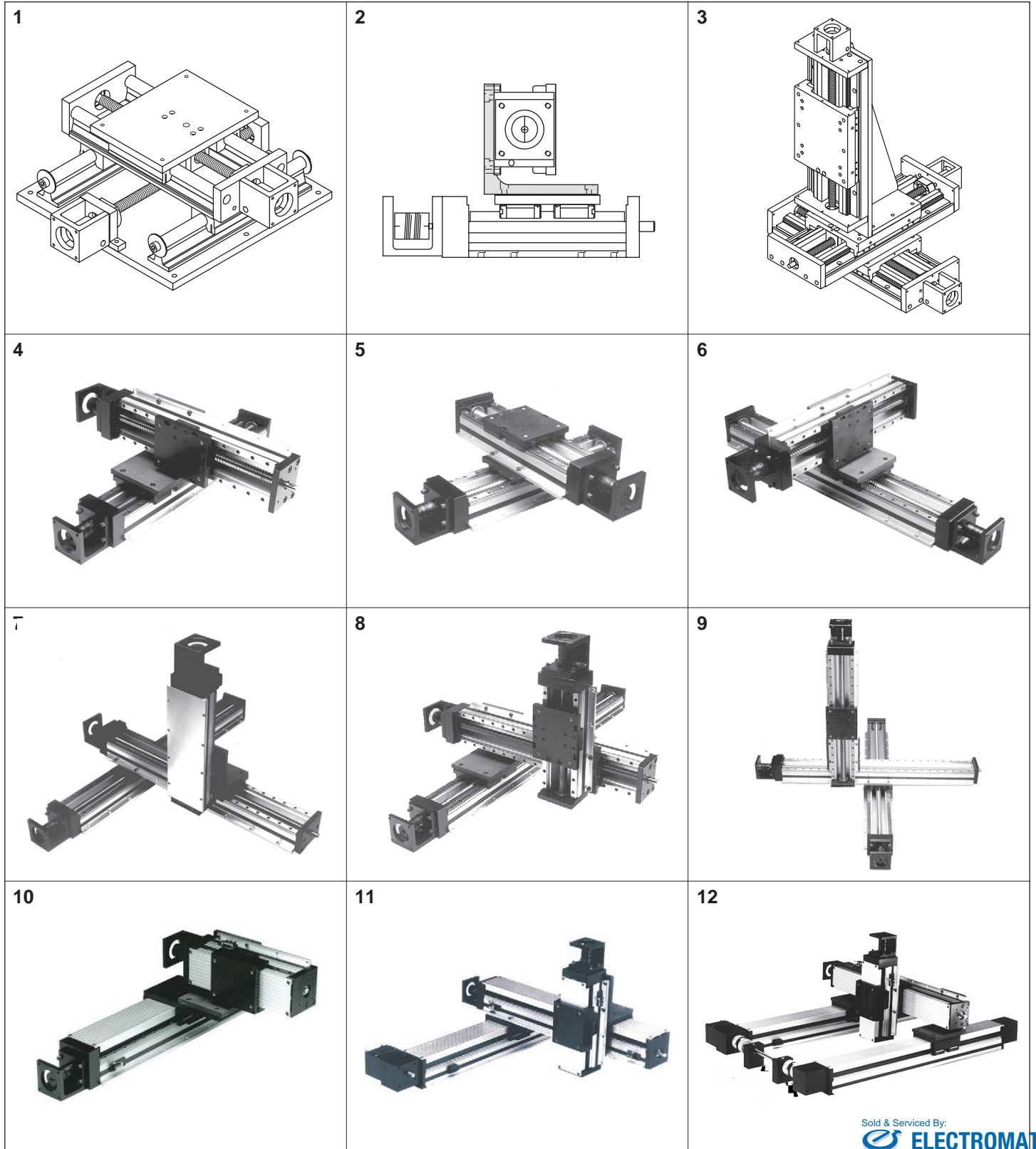


*LINTECH* shafts, shaft assemblies, linear bearings, pillow blocks and carriage assemblies are used in many different applications requiring mechanical motion. These components are utilized with air cylinders, hydraulic actuators, lead screws, rack & pinion systems, belt & pulleys, chain & sprockets, as well as in manual positioning systems. *LINTECH* individual shafts or SA shaft assemblies, along with individual linear bearings or pillow blocks, are typically used when a designer wishes to spread apart the shafts or SA shaft assemblies and make a custom carriage assembly. The TRSA shaft assemblies and TRCA carriage assemblies are utilized together when ease of installation is of essence.





*LINTECH* can provide adapter plates and vertical brackets, to facilitate the construction of X-Y, X-Z, and X-Y-Z multi-axis configurations. There are hundreds of possible configurations available. See below for some of the more common systems. *LINTECH* has experience dealing with multiple axis configurations. Sometimes different standard table series can be mounted to form a custom system. Other times, a custom assembly can be created. Contact *LINTECH* for more information.



## Custom Systems

**LINTECH** has been manufacturing custom positioning assemblies and systems for use in a wide variety of applications for over 30 years. Some of these custom systems have been simple modifications of carriage assemblies, special base mounting hole patterns, nonstandard travel lengths, specific motor mount brackets, or different accessories such as couplings, encoders, or waycovers.

Other more involved custom systems have been:

- \* 30 x 30 x 30 foot X-Y-Z inspection stations
- \* 60 foot part placement machines
- \* 5,000 pound load capacity assembly stations.
- \* vacuum or wash down rated
- \* 9 axis special assembly machines

All of these custom systems were successful by following a simple approach.

Review, fill out, and provide all the information on the application guide shown on the next page. Providing us with all, or as much detail up front, can lead to the successful completion of a custom system. Then submit this information to **LINTECH** and we will review the data, to see if it is within our capabilities to manufacture.

Some of the more important information to provide us follows:

**Budget** will become extremely important in our evaluation process with you. With our many years of experience building custom systems we will be able to determine if the required performance you are seeking is possible within your budget.

**Accuracy or Repeatability** will make a big difference in the cost of a custom system. The accuracy of 0.0002 inches over 48 inches of travel will cost a whole lot more than a repeatability of 0.0002 inches over the same 48 inches of travel.

**Load Weight** will have an impact on the linear bearing, drive assembly, and structure that we would design for the custom system. Providing a realistic estimated of load weight (along with any other potential external forces), without too much of a safety factor will help select the proper custom positioning components. We will use the proper safety factors based on your application details.

**Required System Life** will also affect the selection of the proper components for the system.

**Systems Speeds** may affect the cost of a custom system if larger, more expensive components are required to meet the application needs. Providing us with a realistic target speed helps create a successful custom system.

**Application Sketch** (or diagram) can help minimize the time for us to respond to your request.

**Other Details** such as waycovers, motor mounts, or carriage size may not seem like key items to mention. However, providing us with as much information on the application requirements will lead to the successful completion of a custom system.

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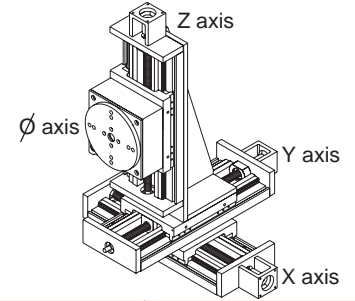
# Design Considerations

# Application Guide

Name \_\_\_\_\_ Date \_\_\_\_\_

Company \_\_\_\_\_ State \_\_\_\_\_

Phone (\_\_\_\_) \_\_\_\_\_ Email \_\_\_\_\_



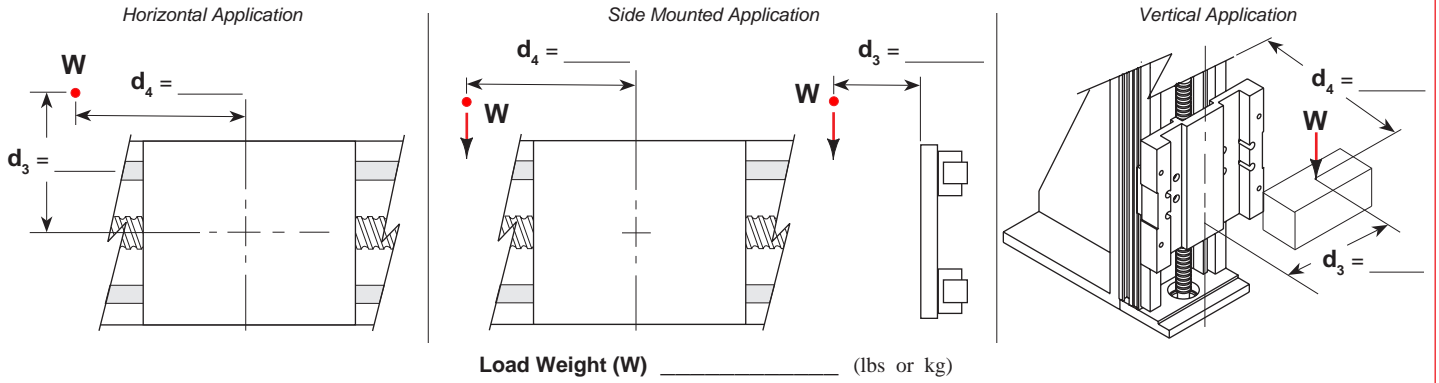
**System Requirements** \_\_\_\_\_ **Budget** (per system) \_\_\_\_\_

Axis	X	Y	Z	Ø	Axis	X	Y	Z	Ø
<b>Load Dimensions</b> length x width (in or mm)					<b>Maximum Accel</b> (in/sec <sup>2</sup> or m/sec <sup>2</sup> )				
<b>Load Weight</b> (lbs or kg)					<b>Duty Cycle</b> (%)				
<b>Travel Length</b> (in or mm)					<b>Table Life</b> (millions of inches or Km)				
<b>Repeatability</b> (in or mm)					<b>Motor Frame Size</b> (NEMA 23, 34, 42, other)				
<b>Accuracy</b> (Overall - in or mm)					<b>Limit Switch Type</b> (mech, reed, hall, prox)				
<b>Maximum Speed</b> (in/sec or mm/sec)					<b>Waycovers</b> (Yes or No)				
<b>Most Difficult Move Profile</b>	Distance (in or mm)				<b>Encoder</b> (linear, rotary, & resolution)				
	Time (sec)					<b>Power-off Brake</b> (Yes or No)			

**Special Requirements**

High Temperature   
  Clean Room   
  Maximum Smoothness   
  Motor Wrap  
 Vacuum Rated   
  High Moisture   
  Low Audible Noise   
  Other (explain below)

## Moment Loads



## Application Details