

Specifications

Load Capacities		One (1) Bearing Carriage	Two (2) Bearing Carriage
Dynamic Horizontal	2 million inches (50 km) of travel	100 lbs (45 kg)	200 lbs (90 kg)
Dynamic Horizontal	100 million inches (2540 km) of travel	27 lbs (12 kg)	54 lbs (24 kg)
Static Horizontal		200 lbs (90 kg)	400 lbs (180 kg)
Dynamic Roll Moment	2 million inches (50 km) of travel	8 ft-lbs (11 N-m)	16 ft-lbs (22 N-m)
Dynamic Roll Moment	100 million inches (2540 km) of travel	2 ft-lbs (3 N-m)	4 ft-lbs (5 N-m)
Static Roll Moment		14 ft-lbs (19 N-m)	28 ft-lbs (38 N-m)
Dyn. Pitch & Yaw Moment	2 million inches (50 km) of travel	4 ft-lbs (5,4 N-m)	15 ft-lbs (20 N-m)
Dyn. Pitch & Yaw Moment	100 million inches (2540 km) of travel	1 ft-lbs (1,5 N-m)	4 ft-lbs (5 N-m)
Static Pitch & Yaw Moment		8 ft-lbs (10 N-m)	30 ft-lbs (40 N-m)
Each Bearing Dyn. Capacity	2 million inches (50 km) of travel	100 lbs (45 kg)	100 lbs (45 kg)
Each Bearing Dyn. Capacity	100 million inches (2540 km) of travel	27 lbs (12 kg)	27 lbs (12 kg)
Each Bearing Static Load Capacity		200 lbs (90 kg)	200 lbs (90 kg)
Thrust Force Capacity	10 million screw revolutions	665 lbs (302 kg)	665 lbs (302 kg)
Thrust Force Capacity	500 million screw revolutions	180 lbs (82 kg)	180 lbs (82 kg)
Maximum Acceleration		50 in/sec ² (1,3 m/sec ²)	150 in/sec ² (3,8 m/sec ²)
d₂	Center to center distance (spacing) of each bearing on a single rail	-	2.088 in (53,0 mm)
d_r	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)
d_r	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
Table Material	Base, Carriage, End Plates, & Cover Plate option - 6061 anodized aluminum
Linear Rail Material	Stainless Steel
Screw Material (see pages B-14 to B-19)	Acme Screw - Stainless Steel
Screw Material (see pages B-14 to B-19)	Rolled Ball, Precision Ball, & Ground Ball - Case Hardened Steel
Unidirectional Repeatability	+/- 0.0001 in (2,5 microns) to +/- 0.0002 in (5 microns) - depends on selected screw
Bidirectional Repeatability	+/- 0.0001 in (2,5 microns) to +/- 0.0082 in (208 microns) - depends on selected screw
Straightness	< 0.00013 in/in (< 3,30 microns/25mm)
Flatness	< 0.00013 in/in (< 3,30 microns/25mm)
Orthogonality (multi-axis systems)	< 30 arc-seconds
Friction Coefficient	< 0.01
Motor Mount	NEMA 23 & 34 Mounts, Metric Mounts, Motor Wraps, and Hand Crank Option
Coupling	Three (3) different styles available