

11 - **4** - **4** - **01** - **WC1** - **1** - **S114** - **M02** - **C145** - **L01** - **E00** - **B00**

Table Series

Number of Bearings

- 2 - 2 bearing per carriage
- 4 - 4 bearings per carriage

Carriage Length

- 4 - 4 inches

Travel Length (see page C-14)

- 01 - 1 to 45 inches

Waycovers

- WC1 - with waycovers

Carriage Inserts (see pages C-15)

- 1 - English mount
- 2 - Metric mount

Screw Options (see pages C-18 to C-23)

Rolled ball screws

- S001 - .500 x .500 NPL
- S002 - .500 x .500 PL
- S003 - .500 x .500 NPL(T)
- S004 - .500 x .500 PL(T)
- S005 - .625 x .200 NPL
- S006 - .625 x .200 PL
- S007 - .625 x .200 NPL(T)
- S008 - .625 x .200 PL(T)
- S009 - .625 x 1.000 NPL
- S010 - .625 x 1.000 PL
- S011 - .625 x 1.000 NPL(T)
- S012 - .625 x 1.000 PL(T)

Precision ball screws

- S114 - .625 x .200 NPL
- S115 - .625 x .200 PL
- S116 - 16 x 5 NPL
- S117 - 16 x 5 PL
- S118 - 16 x 10 NPL
- S119 - 16 x 10 PL
- S120 - 16 x 16 NPL
- S121 - 16 x 16 PL
- S999 - other

Ground ball screws

- S212 - .625 x .200 PL
- S213 - .625 x .500 PL
- S214 - 16 x 5 PL
- S215 - 16 x 16 PL

Rolled acme screws

- S300 - .625 x .100 NPL
- S301 - .625 x .100 PL
- S302 - .625 x .200 NPL
- S303 - .625 x .200 PL
- S304 - 16 x 4 NPL
- S305 - 16 x 4 PL

Motor Mount (see pages C-15, C-48 & C-49)

- M00 - none
- M01 - hand crank
- M20 to M98 - see Website
- M99 - other
- M02 - NEMA 23 mount (E)
- M03 - NEMA 23 mount (M)
- M04 - NEMA 34 mount (E)
- M05 - NEMA 34 mount (M)
- M06 - NEMA 23 (RH) wrap
- M07 - NEMA 23 (LH) wrap
- M08 - NEMA 34 (RH) wrap
- M09 - NEMA 34 (LH) wrap

Coupling Options (see pages C-42 to C-43)

- C000 - none
- C999 - other
- C020 to C031 - C100
- C040 to C071 - C125
- C125 to C138 - H100
- C145 to C186 - H131
- C187 to C242 - H163
- C400 to C417 - G100
- C425 to C466 - G126
- C470 to C522 - G158

Limit & Home Switches (see pages C-39 to C-41)

- | | | | | | | |
|-------------------|---------------------|------------|------|------|------------|------------|
| L00 - no switches | | Mechanical | Reed | Hall | Prox (NPN) | Prox (PNP) |
| L99 - other | EOT & home switches | L01 | L04 | L07 | L10 | L13 |
| | EOT switches only | L02 | L05 | L08 | L11 | L14 |
| | home switch only | L03 | L06 | L09 | L12 | L15 |

Encoder Options (see page C-51)

- E00 - none
- E01 - rotary (500 lines/rev)
- E02 - rotary (1000 lines/rev)
- E03 - rotary (1270 lines/rev)
- E10 - linear (2500 lines/inch)
- E11 - linear (250 lines/mm)
- E99 - other

Power-off Brakes (see page C-50)

- B00 - none
- B01 - 24 VDC
- B02 - 90 VDC
- B99 - other

- (E) - English Interface
- (LH) - Left Hand
- (M) - Metric Interface
- (NPL) - Non Preloaded
- (PL) - Preloaded
- (RH) - Right Hand
- (T) - Turcite Nut

Specifications subject to change without notice

Specifications

Load Capacities		Two (2) Bearing Carriage		Four (4) Bearing Carriage	
Dynamic Horizontal	2 million inches (50 km) of travel	1,550 lbs	(703 kg)	3,100 lbs	(1406 kg)
Dynamic Horizontal	100 million inches (2540 km) of travel	415 lbs	(188 kg)	840 lbs	(381 kg)
Static Horizontal		2,360 lbs	(1070 kg)	4,720 lbs	(2140 kg)
Dynamic Roll Moment	2 million inches (50 km) of travel	140 ft-lbs	(190 N-m)	280 ft-lbs	(379 N-m)
Dynamic Roll Moment	100 million inches (2540 km) of travel	37 ft-lbs	(50 N-m)	75 ft-lbs	(101 N-m)
Static Roll Moment		210 ft-lbs	(285 N-m)	425 ft-lbs	(576 N-m)
Dyn. Pitch & Yaw Moment	2 million inches (50 km) of travel	18 ft-lbs	(24 N-m)	240 ft-lbs	(325 N-m)
Dyn. Pitch & Yaw Moment	100 million inches (2540 km) of travel	5 ft-lbs	(7 N-m)	65 ft-lbs	(88 N-m)
Static Pitch & Yaw Moment		30 ft-lbs	(41 N-m)	365 ft-lbs	(495 N-m)
Each Bearing Dyn. Capacity	2 million inches (50 km) of travel	775 lbs	(351 kg)	775 lbs	(351 kg)
Each Bearing Dyn. Capacity	100 million inches (2540 km) of travel	208 lbs	(94 kg)	208 lbs	(94 kg)
Each Bearing Static Load Capacity		1,180 lbs	(535 kg)	1,180 lbs	(535 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		386 in/sec ²	(9,8 m/sec ²)	772 in/sec ²	(19,6 m/sec ²)
d₁	Center to center distance (spread) between the two rails	2.375 in	(60,3 mm)	2.375 in	(60,3 mm)
d₂	Center to center distance (spacing) of the bearings on a single rail	-		2.088 in	(53,0 mm)
d_r	Center distance of the bearing to top of carriage plate surface	.750 in	(19,1 mm)	.750 in	(19,1 mm)

Other	For Two (2) & Four (4) Bearing Carriages
Table Material	Base, Carriage, End Plates, & Cover Plate option - 6061 anodized aluminum
Linear Rail Material	Stainless Steel
Screw Material (see pages C-18 to C-23)	Acme Screw - Stainless Steel
Screw Material (see pages C-18 to C-23)	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
Waycover Material	Hypilon Polyester Bellows firmly mounted to carriage & end plates

Dimensions & Specifications

- With Waycovers -

Model Number	Travel Length inches (mm)	Table Dimensions inches (mm)		Mounting Dimensions inches (mm)				Screw Length inches (mm)	Table ⁽¹⁾ Weight lbs (kg)
		A	B	C	D	E	M		
11x401-WC1	1.000 (25)	6.250 (158,7)	9.875 (250,8)	0.500 (12,7)	1.250 (31,7)	1	8	9.25 (235)	6.3 (2,9)
11x402-WC1	2.500 (63)	8.250 (203,2)	11.875 (301,6)	0.250 (6,3)	2.500 (63,5)	1	8	11.25 (286)	7.3 (3,3)
11x404-WC1	4.000 (100)	10.250 (260,3)	13.875 (352,4)	1.250 (31,7)	2.500 (63,5)	1	8	13.25 (337)	8.2 (3,7)
11x405-WC1	5.500 (139)	12.250 (311,1)	15.875 (403,2)	0.250 (6,3)	2.000 (50,8)	3	12	15.25 (387)	9.2 (4,2)
11x408-WC1	8.500 (215)	16.250 (412,7)	19.875 (504,8)	0.250 (6,3)	1.500 (38,1)	5	16	19.25 (489)	11.1 (5,0)
11x411-WC1	11.500 (292)	20.250 (514,3)	23.875 (606,4)	1.250 (31,7)	2.500 (63,5)	5	16	23.25 (591)	13.0 (5,9)
11x414-WC1	14.375 (365)	24.250 (615,9)	27.875 (708,0)	0.750 (19,0)	2.500 (63,5)	7	20	27.25 (692)	14.9 (6,8)
11x417-WC1	17.375 (441)	28.250 (717,5)	31.875 (809,6)	0.250 (6,3)	2.500 (63,5)	9	24	31.25 (794)	16.9 (7,7)
11x422-WC1	22.000 (558)	34.250 (869,9)	37.875 (962,0)	0.750 (19,0)	2.500 (63,5)	11	28	37.25 (946)	19.8 (9,0)
11x428-WC1	28.000 (711)	40.250 (1022,3)	43.875 (1114,4)	1.250 (31,7)	2.500 (63,5)	13	32	43.25 (1099)	22.6 (10,2)
11x431-WC1	31.750 (806)	46.250 (1174,7)	49.875 (1266,8)	1.750 (44,4)	2.500 (63,5)	15	36	49.25 (1251)	25.5 (11,6)
11x436-WC1	36.375 (923)	52.250 (1327,1)	55.875 (1419,2)	2.250 (57,1)	2.500 (63,5)	17	40	55.25 (1403)	28.4 (12,9)
11x440-WC1	40.750 (1035)	58.250 (1479,5)	61.875 (1571,6)	0.250 (6,3)	2.500 (63,5)	21	48	61.25 (1556)	31.3 (14,2)
11x445-WC1	45.500 (1155)	64.250 (1631,9)	67.875 (1724,0)	0.750 (19,0)	2.500 (63,5)	23	52	67.25 (1708)	34.1 (15,5)

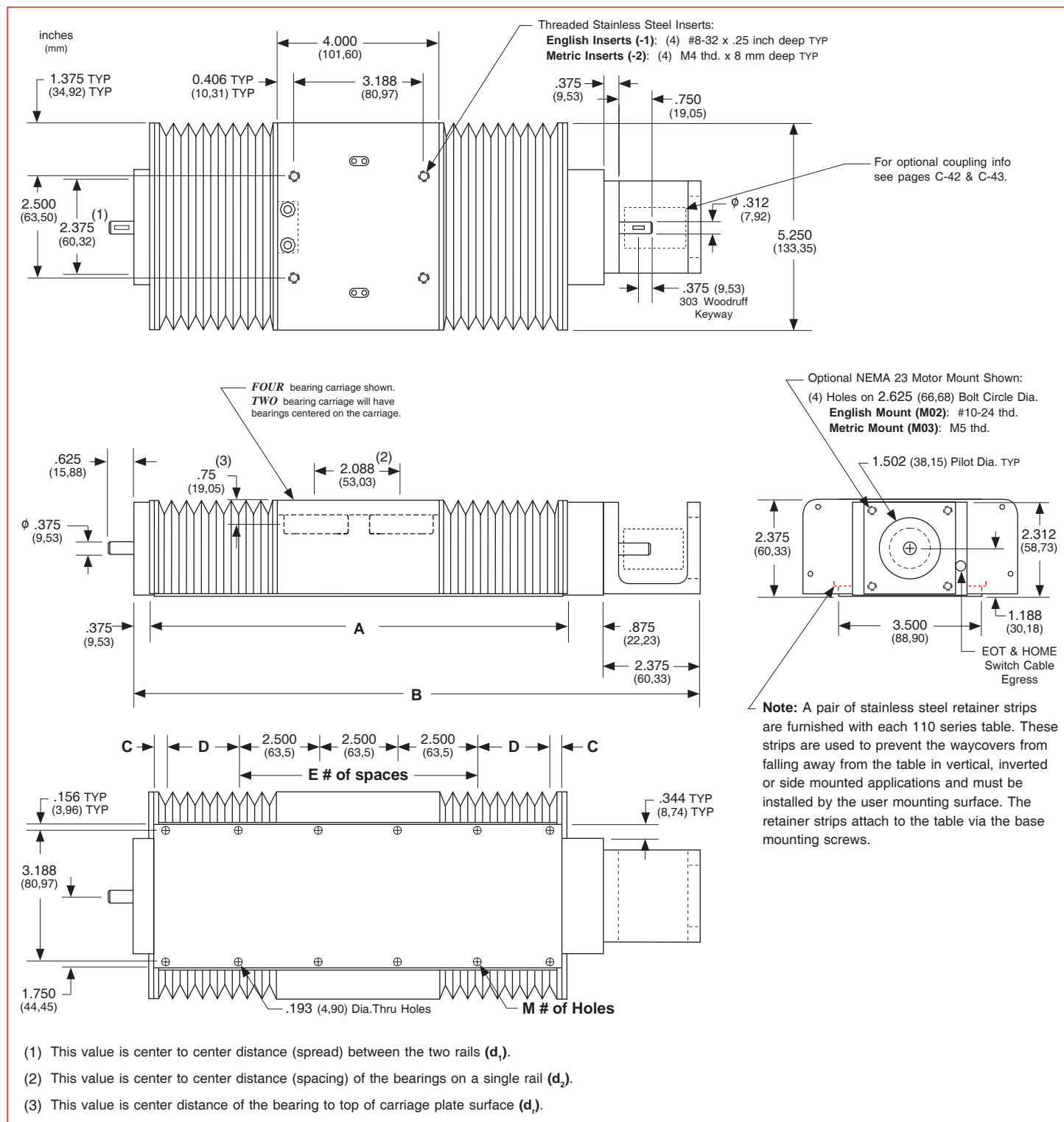
- └ x = 2; Carriage has 2 bearings; Carriage weight = 1.8 lbs. (0,82 kg)
- └ x = 4; Carriage has 4 bearings; Carriage weight = 2.0 lbs. (0,91 kg)

Footnotes:

(1) Weight shown is with a 0.625 inch (16 mm) diameter screw, a 2 bearing carriage [1.8 lbs (0,82 kg)], a NEMA 23 motor mount [0.34 lbs (0,16 kg)], and a C100 style [0.09 lbs (0,04 kg)] coupling. When using a 0.500 inch diameter screw subtract 0.022 lbs per inch (0,00039 kg per mm) of screw length for a given model number. When using a 4 bearing carriage add 0.2 lbs (0,09 kg) to each value.

Dimensions

- With Waycovers -



Note: Any 100, 110, 120 or 130 series table can be mounted on top of any second 100, 110, 120 series table by the user, in order to create X-Y multiple axis configurations. The 100-CP1, 100-CP2, or 120 series tables require one of the *Carriage Adapter Plate* options. The carriage's threaded stainless steel insert hole pattern exactly matches the base mounting hole pattern on each table, therefore no extra adapter bracket or machining is required. However a precision square tool, or micrometer depth gauge, is required in order to obtain an orthogonality between the two tables of < 30 arc-seconds. The table base, carriage top & carriage sides are all precision machined. *LINTECH's* 100 series, 4 bearing carriage, should be used for the bottom axis in a multiple axes application for better system rigidity, performance, and life.