

**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

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>	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
<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> (see pages C-18 to C-23)	Acme Screw - Stainless Steel
<b>Screw Material</b> (see pages C-18 to C-23)	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>	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 <sup>(1)</sup> Weight lbs (kg)
		A	B	C	D	E	M		
<b>11x401-WC1</b>	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)
<b>11x402-WC1</b>	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)
<b>11x404-WC1</b>	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)
<b>11x405-WC1</b>	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)
<b>11x408-WC1</b>	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)
<b>11x411-WC1</b>	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)
<b>11x414-WC1</b>	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)
<b>11x417-WC1</b>	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)
<b>11x422-WC1</b>	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)
<b>11x428-WC1</b>	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)
<b>11x431-WC1</b>	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)
<b>11x436-WC1</b>	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)
<b>11x440-WC1</b>	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)
<b>11x445-WC1</b>	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)

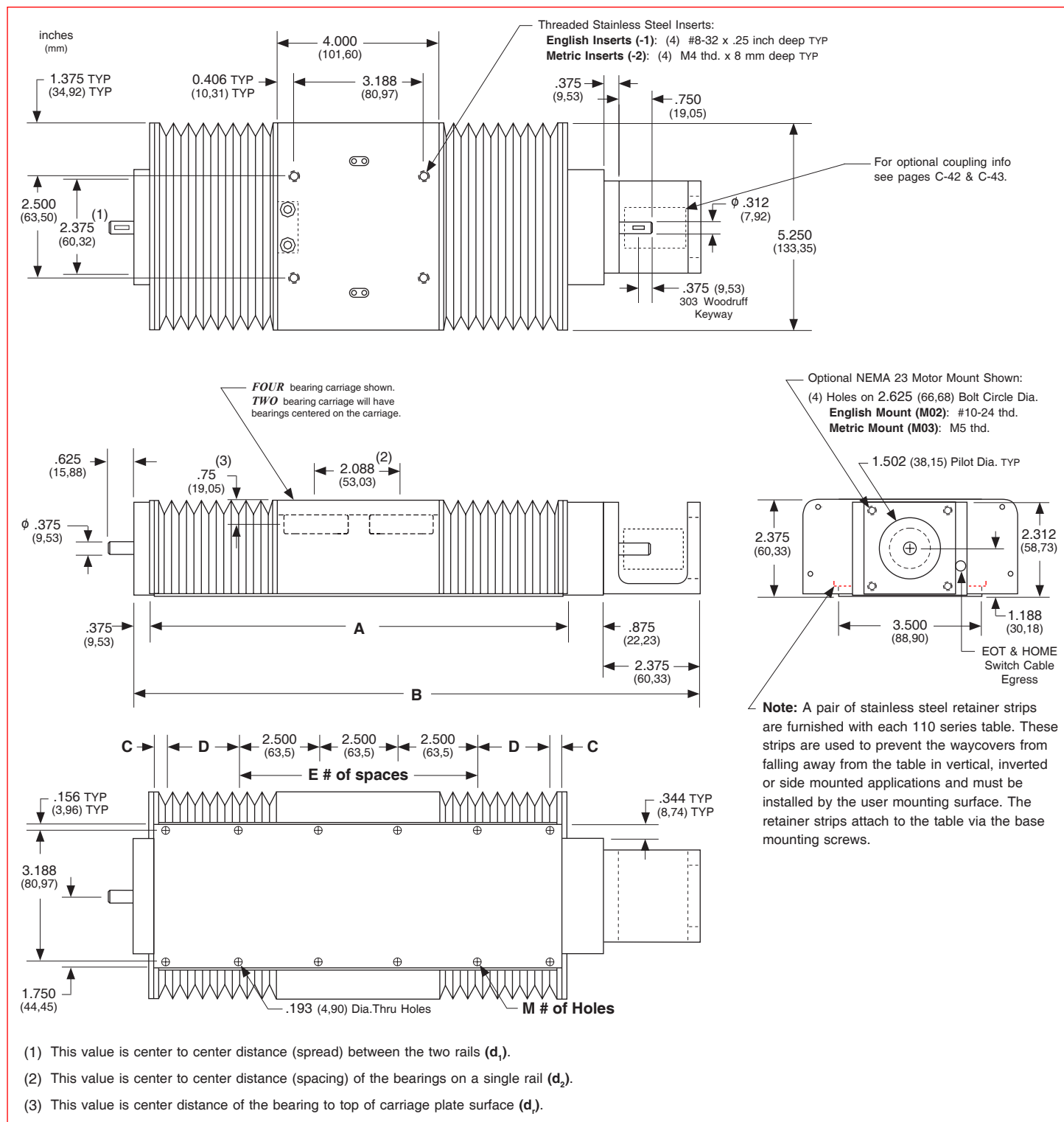
- └ x = 2; Carriage has 2 bearings; Carriage weight = 1.8 lbs. (0,82 kg)
- └ x = 4; Carriage has 4 bearings; Carriage weight = 2.0 lbs. (0,91 kg)

### 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.