

**10** **4** **4** **02** - **CP0** - **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 pages C-6, C-8 & C-10)

- 02** - 2 to 60 inches

**Cover Plate**

- CP0** - no cover plates
- CP1** - top cover plate only
- CP2** - top & side cover plates

**Carriage Inserts** (see pages C-7, C-9 & C-11)

- 1** - English mount
- 2** - Metric mount

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

<i>Rolled ball screws</i>	<i>Precision ball screws</i>	<i>Ground ball screws</i>
<b>S001</b> - .500 x .500 NPL	<b>S114</b> - .625 x .200 NPL	<b>S212</b> - .625 x .200 PL
<b>S002</b> - .500 x .500 PL	<b>S115</b> - .625 x .200 PL	<b>S213</b> - .625 x .500 PL
<b>S003</b> - .500 x .500 NPL(T)	<b>S116</b> - 16 x 5 NPL	<b>S214</b> - 16 x 5 PL
<b>S004</b> - .500 x .500 PL(T)	<b>S117</b> - 16 x 5 PL	<b>S215</b> - 16 x 16 PL
<b>S005</b> - .625 x .200 NPL	<b>S118</b> - 16 x 10 NPL	
<b>S006</b> - .625 x .200 PL	<b>S119</b> - 16 x 10 PL	<i>Rolled acme screws</i>
<b>S007</b> - .625 x .200 NPL(T)	<b>S120</b> - 16 x 16 NPL	<b>S300</b> - .625 x .100 NPL
<b>S008</b> - .625 x .200 PL(T)	<b>S121</b> - 16 x 16 PL	<b>S301</b> - .625 x .100 PL
<b>S009</b> - .625 x 1.000 NPL		<b>S302</b> - .625 x .200 NPL
<b>S010</b> - .625 x 1.000 PL		<b>S303</b> - .625 x .200 PL
<b>S011</b> - .625 x 1.000 NPL(T)		<b>S304</b> - 16 x 4 NPL
<b>S012</b> - .625 x 1.000 PL(T)	<b>S999</b> - other	<b>S305</b> - 16 x 4 PL

**Motor Mount** (see pages C-7, C-9, C-11, 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
- C020 to C031** - C100
- C125 to C138** - H100
- C400 to C417** - G100
- C999** - other
- C040 to C071** - C125
- C145 to C186** - H131
- C187 to C242** - H163
- C425 to C466** - G126
- C470 to C522** - G158

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

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

**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 (125 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	
<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> (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

## Dimensions & Specifications

- Without Cover Plates -

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>10x402-CP0</b>	2 (50)	6.0 (152,4)	9.875 (250,8)	0.500 (12,7)	1.250 (31,7)	1	8	9.25 (235)	5.1 (2,3)
<b>10x404-CP0</b>	4 (100)	8.0 (203,2)	11.875 (301,6)	0.250 (6,3)	2.500 (63,5)	1	8	11.25 (286)	5.9 (2,7)
<b>10x406-CP0</b>	6 (150)	10.0 (254,0)	13.875 (352,4)	1.250 (31,7)	2.500 (63,5)	1	8	13.25 (337)	6.7 (3,0)
<b>10x408-CP0</b>	8 (200)	12.0 (304,8)	15.875 (403,2)	0.250 (6,3)	2.000 (50,8)	3	12	15.25 (387)	7.5 (3,4)
<b>10x412-CP0</b>	12 (300)	16.0 (406,4)	19.875 (504,8)	0.250 (6,3)	1.500 (38,1)	5	16	19.25 (489)	9.1 (4,1)
<b>10x416-CP0</b>	16 (405)	20.0 (508,0)	23.875 (606,4)	1.250 (31,7)	2.500 (63,5)	5	16	23.25 (591)	10.7 (4,8)
<b>10x420-CP0</b>	20 (505)	24.0 (609,6)	27.875 (708,0)	0.750 (19,0)	2.500 (63,5)	7	20	27.25 (692)	12.3 (5,6)
<b>10x424-CP0</b>	24 (605)	28.0 (711,2)	31.875 (809,6)	0.250 (6,3)	2.500 (63,5)	9	24	31.25 (794)	13.9 (6,3)
<b>10x430-CP0</b>	30 (760)	34.0 (863,6)	37.875 (962,0)	0.750 (19,0)	2.500 (63,5)	11	28	37.25 (946)	16.3 (7,4)
<b>10x436-CP0</b>	36 (910)	40.0 (1016,0)	43.875 (1114,4)	1.250 (31,7)	2.500 (63,5)	13	32	43.25 (1099)	18.7 (8,5)
<b>10x442-CP0</b>	42 (1060)	46.0 (1168,4)	49.875 (1266,8)	1.750 (44,4)	2.500 (63,5)	15	36	49.25 (1251)	21.1 (9,6)
<b>10x448-CP0</b>	48 (1215)	52.0 (1320,8)	55.875 (1419,2)	2.250 (57,1)	2.500 (63,5)	17	40	55.25 (1403)	23.5 (10,6)
<b>10x454-CP0</b>	54 (1370)	58.0 (1473,2)	61.875 (1571,6)	0.250 (6,3)	2.500 (63,5)	21	48	61.25 (1556)	25.9 (11,4)
<b>10x460-CP0</b>	60 (1520)	64.0 (1625,6)	67.875 (1724,0)	0.750 (19,0)	2.500 (63,5)	23	52	67.25 (1708)	28.3 (12,8)

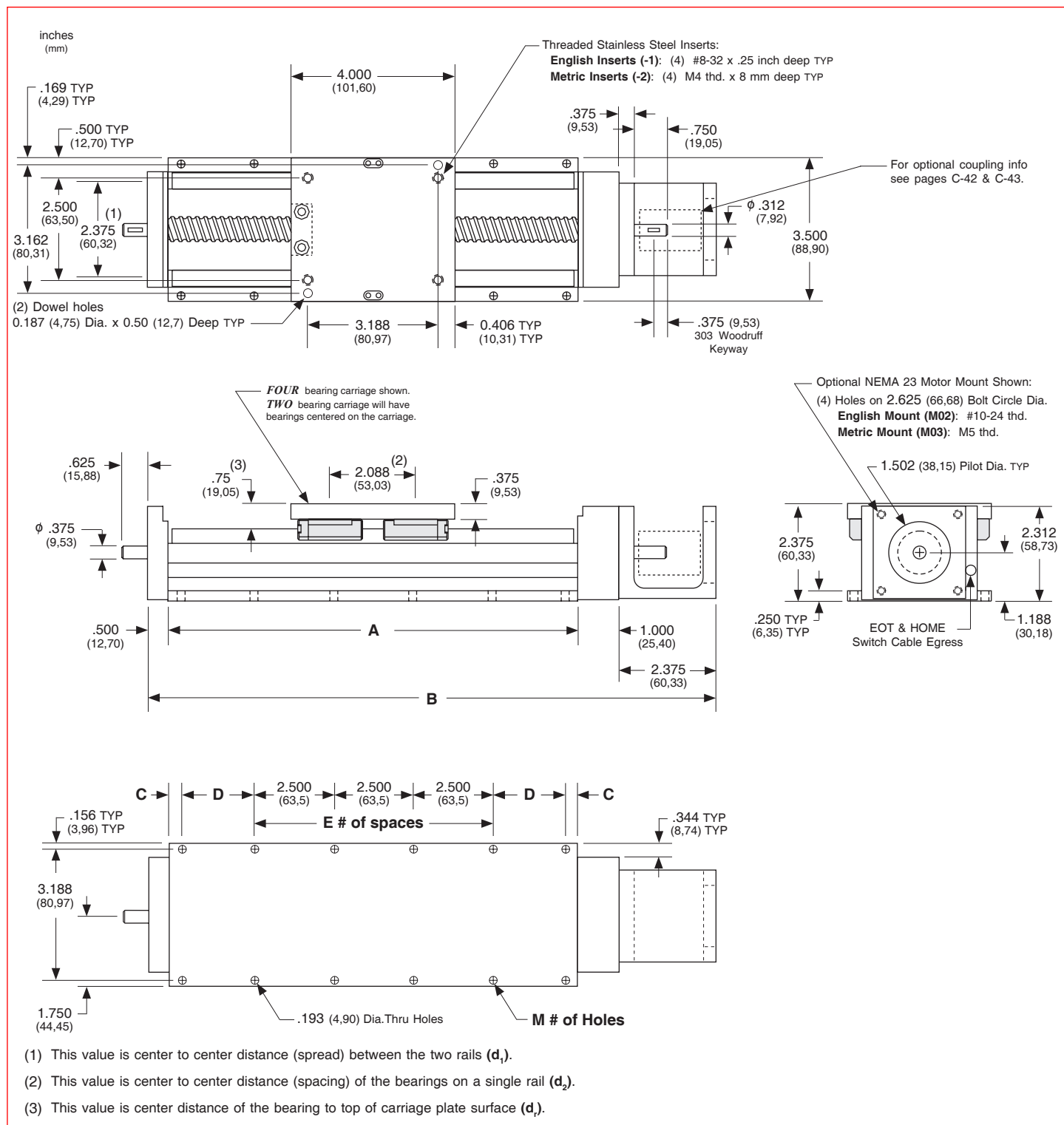
- └ x = 2; Carriage has 2 bearings; Carriage weight = 1.2 lbs. (0,54 kg)
- └ x = 4; Carriage has 4 bearings; Carriage weight = 1.4 lbs. (0,63 kg)

### Footnotes:

(1) Weight shown is with a 0.625 inch (16 mm) diameter screw, a 2 bearing carriage [1.2 lbs (0,54 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

### - Without Cover Plates -



**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.

## Dimensions & Specifications

- With Top Cover Plate Only -

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		
10x402-CP1	2 (50)	6.0 (152,4)	9.875 (250,8)	0.500 (12,7)	1.250 (31,7)	1	8	9.25 (235)	6.1 (2,8)
10x404-CP1	4 (100)	8.0 (203,2)	11.875 (301,6)	0.250 (6,3)	2.500 (63,5)	1	8	11.25 (286)	7.0 (3,2)
10x406-CP1	6 (150)	10.0 (254,0)	13.875 (352,4)	1.250 (31,7)	2.500 (63,5)	1	8	13.25 (337)	7.9 (3,6)
10x408-CP1	8 (200)	12.0 (304,8)	15.875 (403,2)	0.250 (6,3)	2.000 (50,8)	3	12	15.25 (387)	8.8 (4,0)
10x412-CP1	12 (300)	16.0 (406,4)	19.875 (504,8)	0.250 (6,3)	1.500 (38,1)	5	16	19.25 (489)	10.6 (4,8)
10x416-CP1	16 (405)	20.0 (508,0)	23.875 (606,4)	1.250 (31,7)	2.500 (63,5)	5	16	23.25 (591)	12.3 (5,6)
10x420-CP1	20 (505)	24.0 (609,6)	27.875 (708,0)	0.750 (19,0)	2.500 (63,5)	7	20	27.25 (692)	14.0 (6,3)
10x424-CP1	24 (605)	28.0 (711,2)	31.875 (809,6)	0.250 (6,3)	2.500 (63,5)	9	24	31.25 (794)	15.9 (7,2)
10x430-CP1	30 (760)	34.0 (863,6)	37.875 (962,0)	0.750 (19,0)	2.500 (63,5)	11	28	37.25 (946)	18.6 (8,4)
10x436-CP1	36 (910)	40.0 (1016,0)	43.875 (1114,4)	1.250 (31,7)	2.500 (63,5)	13	32	43.25 (1099)	21.3 (9,7)
10x442-CP1	42 (1060)	46.0 (1168,4)	49.875 (1266,8)	1.750 (44,4)	2.500 (63,5)	15	36	49.25 (1251)	24.0 (10,9)
10x448-CP1	48 (1215)	52.0 (1320,8)	55.875 (1419,2)	2.250 (57,1)	2.500 (63,5)	17	40	55.25 (1403)	26.7 (12,1)
10x454-CP1	54 (1370)	58.0 (1473,2)	61.875 (1571,6)	0.250 (6,3)	2.500 (63,5)	21	48	61.25 (1556)	29.4 (13,3)
10x460-CP1	60 (1520)	64.0 (1625,6)	67.875 (1724,0)	0.750 (19,0)	2.500 (63,5)	23	52	67.25 (1708)	32.1 (14,6)

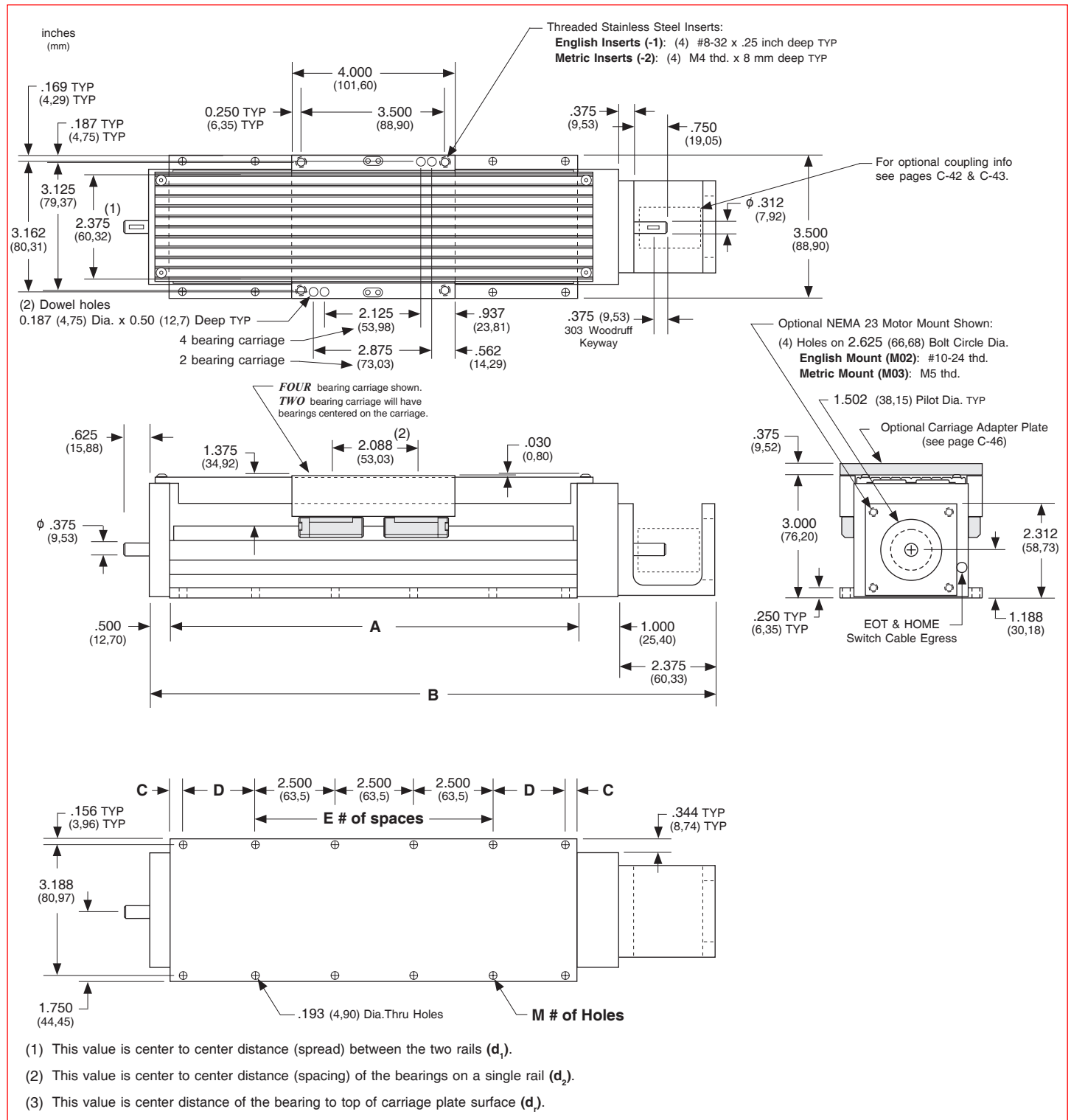
- x = 2; Carriage has 2 bearings; Carriage weight = 1.5 lbs. (0,68 kg)
- x = 4; Carriage has 4 bearings; Carriage weight = 1.7 lbs. (0,77 kg)

### Footnotes:

(1) Weight shown is with a 0.625 inch (16 mm) diameter screw, a 2 bearing carriage [1.5 lbs (0,68 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 Top Cover Plate Only -



**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.

## Dimensions & Specifications

- With Top & Side Cover Plates -

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		
<b>10x402-CP2</b>	2 (50)	6.0 (152,4)	9.875 (250,8)	0.500 (12,7)	1.250 (31,7)	1	8	9.25 (235)	6.4 (2,9)
<b>10x404-CP2</b>	4 (100)	8.0 (203,2)	11.875 (301,6)	0.250 (6,3)	2.500 (63,5)	1	8	11.25 (286)	7.3 (3,3)
<b>10x406-CP2</b>	6 (150)	10.0 (254,0)	13.875 (352,4)	1.250 (31,7)	2.500 (63,5)	1	8	13.25 (337)	8.3 (3,8)
<b>10x408-CP2</b>	8 (200)	12.0 (304,8)	15.875 (403,2)	0.250 (6,3)	2.000 (50,8)	3	12	15.25 (387)	9.2 (4,2)
<b>10x412-CP2</b>	12 (300)	16.0 (406,4)	19.875 (504,8)	0.250 (6,3)	1.500 (38,1)	5	16	19.25 (489)	11.1 (5,0)
<b>10x416-CP2</b>	16 (405)	20.0 (508,0)	23.875 (606,4)	1.250 (31,7)	2.500 (63,5)	5	16	23.25 (591)	13.0 (5,9)
<b>10x420-CP2</b>	20 (505)	24.0 (609,6)	27.875 (708,0)	0.750 (19,0)	2.500 (63,5)	7	20	27.25 (692)	14.8 (6,7)
<b>10x424-CP2</b>	24 (605)	28.0 (711,2)	31.875 (809,6)	0.250 (6,3)	2.500 (63,5)	9	24	31.25 (794)	16.8 (7,6)
<b>10x430-CP2</b>	30 (760)	34.0 (863,6)	37.875 (962,0)	0.750 (19,0)	2.500 (63,5)	11	28	37.25 (946)	19.6 (8,9)
<b>10x436-CP2</b>	36 (910)	40.0 (1016,0)	43.875 (1114,4)	1.250 (31,7)	2.500 (63,5)	13	32	43.25 (1099)	22.5 (10,2)
<b>10x442-CP2</b>	42 (1060)	46.0 (1168,4)	49.875 (1266,8)	1.750 (44,4)	2.500 (63,5)	15	36	49.25 (1251)	25.4 (11,5)
<b>10x448-CP2</b>	48 (1215)	52.0 (1320,8)	55.875 (1419,2)	2.250 (57,1)	2.500 (63,5)	17	40	55.25 (1403)	28.2 (12,8)
<b>10x454-CP2</b>	54 (1370)	58.0 (1473,2)	61.875 (1571,6)	0.250 (6,3)	2.500 (63,5)	21	48	61.25 (1556)	31.1 (14,1)
<b>10x460-CP2</b>	60 (1520)	64.0 (1625,6)	67.875 (1724,0)	0.750 (19,0)	2.500 (63,5)	23	52	67.25 (1708)	34.0 (15,4)

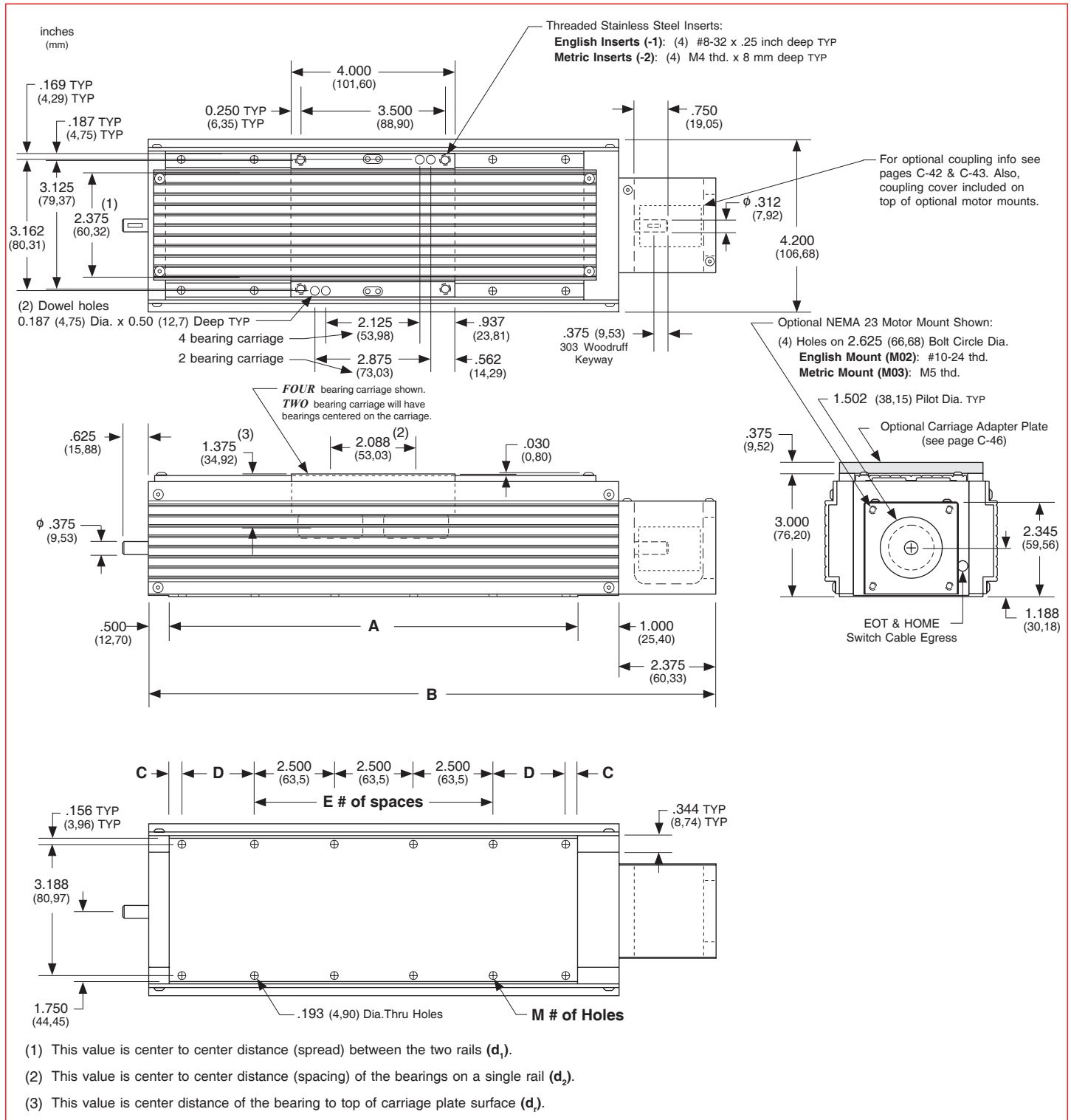
- x = 2; Carriage has 2 bearings; Carriage weight = 1.5 lbs. (0,68 kg)
- x = 4; Carriage has 4 bearings; Carriage weight = 1.7 lbs. (0,77 kg)

### Footnotes:

(1) Weight shown is with a 0.625 inch (16 mm) diameter screw, a 2 bearing carriage [1.5 lbs (0,68 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 Top & Side Cover Plates -



**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.