

**14** **2** **4** **004** - **CP1** - **1** - **D1** - **M02** - **C155** - **L04** - **E00** - **B00**

**Table Series**

**Number of Bearings**

- 1** - 1 bearing per carriage
- 2** - 2 bearings per carriage

**Carriage Length**

- 4** - 4 inches

**Travel Length** (see pages B-24, B-26 & B-28)

- 004** - 4 to 120 inches

**Cover Plate**

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

**Carriage Inserts** (see pages B-25, B-27 & B-29)

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

**Drive Shaft** (see pages B-25, B-27 & B-29)

- D1** - Right Hand single shaft
- D2** - Left Hand single shaft
- D3** - Right Hand thru shaft
- D4** - Left Hand thru shaft

**Motor Mount** (see pages B-25, B-27, B-29 & B-42)

- M00** - none
- M99** - other
- M02** - NEMA 23 mount (E)
- M03** - NEMA 23 mount (M)
- M04** - NEMA 34 mount (E)
- M05** - NEMA 34 mount (M)

**Coupling Options** (see pages B-38 & B-39)

- C000** - none
- C999** - none
- C130 to C134** - H100
- C155 to C164** - H131
- C190 to C200** - H163
- C407 to C413** - G100
- C435 to C444** - G126
- C470 to C480** - G158

**Limit & Home Switches** (see pages B-35 to B-37)

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

**Encoder Options** (see page B-45)

- E00** - none
- E01** - rotary (500 lines/rev)
- E02** - rotary (1000 lines/rev)
- E03** - rotary (1270 lines/rev)
- E99** - other

*note: When selecting any rotary encoder option, the Drive Shaft D3 or D4 above is required.*

**Power-off Brakes** (see page B-44)

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

*note: When selecting any brake option, the Drive Shaft D3 or D4 above is required.*

(E) - English Interface  
(M) - Metric Interface

## 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>	50 million inches (1270 km) of travel	34 lbs ( 15 kg)	68 lbs ( 30 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>	50 million inches (1270 km) of travel	3 ft-lbs ( 4 N-m)	5 ft-lbs ( 7 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>	50 million inches (1270 km) of travel	1 ft-lbs ( 1,9 N-m)	5 ft-lbs ( 7 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>	50 million inches (1270 km) of travel	34 lbs ( 15 kg)	34 lbs ( 15 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) <sup>(1)</sup></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>	< 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

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### Footnotes:

(1) Position accuracy varies based on belt stretch. The given rating is based upon a carriage speed of 5 inches/sec (127 mm/sec) and a no load condition.

## Dimensions & Specifications

- Without Cover Plates -

Model Number	Travel Length inches (mm)	Table Dimensions inches (mm)		Mounting Dimensions inches (mm)			Belt Weight ounces (gm)	Table Weight <sup>(1)</sup> lbs (kg)
		A	B	C	E	M		
14x4004-CP0	4 (100)	8.0 (203,2)	14.0 (355,6)	1.188 (30,2)	3	8	1.3 (36,8)	4.8 (2,2)
14x4006-CP0	6 (150)	10.0 (254,0)	16.0 (406,4)	0.313 (8,0)	5	12	1.5 (42,5)	5.3 (2,4)
14x4008-CP0	8 (200)	12.0 (304,8)	18.0 (457,2)	1.313 (33,4)	5	12	1.7 (48,2)	5.8 (2,6)
14x4012-CP0	12 (300)	16.0 (406,4)	22.0 (558,8)	1.438 (36,5)	7	16	2.1 (59,5)	6.3 (2,9)
14x4016-CP0	16 (405)	20.0 (508,0)	26.0 (660,4)	1.563 (39,7)	9	20	2.5 (70,9)	7.3 (3,3)
14x4020-CP0	20 (505)	24.0 (609,6)	30.0 (762,0)	1.688 (42,9)	11	24	2.9 (82,2)	8.3 (3,8)
14x4024-CP0	24 (605)	28.0 (711,2)	34.0 (863,6)	1.813 (46,1)	13	28	3.3 (93,6)	9.3 (4,2)
14x4030-CP0	30 (760)	34.0 (863,6)	40.0 (1016,0)	1.063 (27,0)	17	36	3.9 (110,6)	10.3 (4,7)
14x4036-CP0	36 (910)	40.0 (1016,0)	46.0 (1168,4)	0.313 (8,0)	21	44	4.5 (127,6)	11.8 (5,4)
14x4042-CP0	42 (1060)	46.0 (1168,4)	52.0 (1320,8)	1.438 (36,5)	23	48	5.1 (144,6)	13.3 (6,0)
14x4048-CP0	48 (1215)	52.0 (1320,8)	58.0 (1473,2)	0.688 (17,5)	27	56	5.7 (161,6)	14.8 (6,7)
14x4054-CP0	54 (1370)	58.0 (1473,2)	64.0 (1625,6)	1.813 (46,1)	29	60	6.3 (178,6)	16.3 (7,4)
14x4060-CP0	60 (1520)	64.0 (1625,6)	70.0 (1778,0)	1.063 (27,0)	33	68	6.9 (195,6)	17.8 (8,1)
14x4072-CP0	72 (1820)	76.0 (1930,4)	82.0 (2082,8)	0.500 (12,7)	39	80	8.1 (229,6)	20.8 (9,4)
14x4084-CP0	84 (2130)	88.0 (2235,2)	94.0 (2387,6)	0.875 (22,2)	45	92	9.3 (263,7)	23.8 (10,8)
14x4096-CP0	96 (2435)	100.0 (2540,0)	106.0 (2692,4)	0.313 (8,0)	51	104	10.5 (297,7)	26.8 (12,2)
14x4108-CP0	108 (2740)	112.0 (2844,8)	118.0 (2997,2)	0.688 (17,5)	57	116	11.7 (331,7)	29.8 (13,5)
14x4120-CP0	120 (3045)	124.0 (3149,6)	130.0 (3302,0)	1.063 (27,0)	63	128	12.9 (365,7)	32.8 (14,9)

- x = 1; Carriage has 1 bearing; Carriage weight = 1.4 lbs. (0,64 kg)
- x = 2; Carriage has 2 bearings; Carriage weight = 1.5 lbs. (0,68 kg)

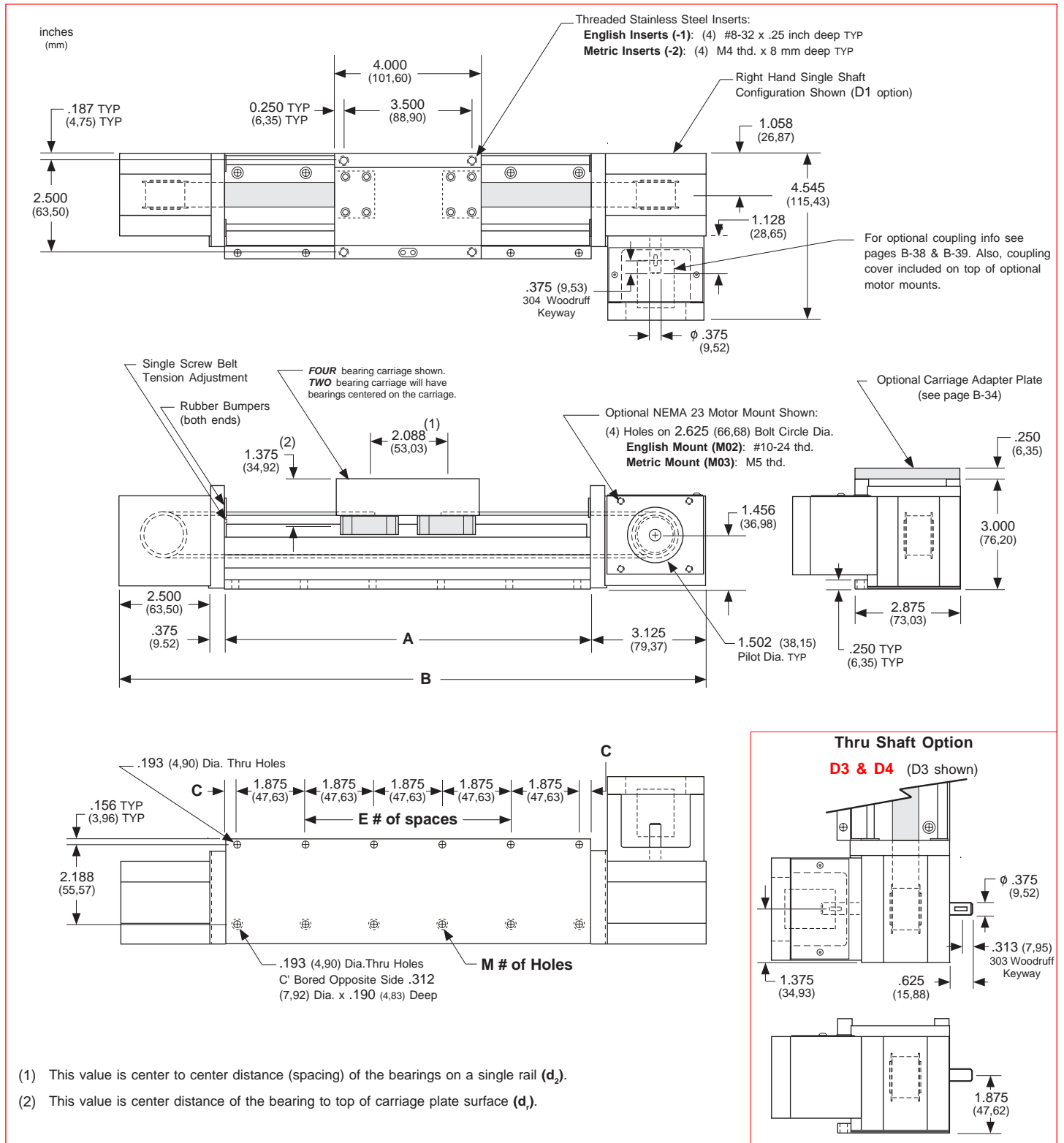
### Footnotes:

(1) Weight shown is with a 1 bearing carriage [1.4 lbs (0,64 kg)], a NEMA 23 motor mount [0.34 lbs (0,16 kg)], and a H100 style [0.08 lbs (0,04 kg)] coupling. When using a 2 bearing carriage add 0.1 lbs (0,04 kg) to each value.

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## Dimensions

### - Without Cover Plates -



**Note:** Any 130 or 140 series table can be mounted on top of a second 130 or 140 series table, in order to create X-Y multiple axis configurations. **LINTECH** recommends that a 2 bearing carriage be used for the bottom axis, and that the top axis should never extend out more than 18 inches in either direction, from the bottom axis carriage edge, without the use of a support bearing system on the outer edges of the top axis. The 130-CP1, 130-CP2 or 140 series requires a **Carriage Adapter Plate** option. The carriage's threaded stainless steel insert hole pattern exactly matches the base mounting hole pattern on each table, therefore no adapter bracket or extra 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 or 120 series tables 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)			Belt Weight ounces (gm)	Table Weight <sup>(1)</sup> lbs (kg)
		A	B	C	E	M		
<b>14x4004-CP1</b>	4 (100)	8.0 (203,2)	14.0 (355,6)	1.188 (30,2)	3	8	1.3 (36,8)	4.8 (2,2)
<b>14x4006-CP1</b>	6 (150)	10.0 (254,0)	16.0 (406,4)	0.313 (8,0)	5	12	1.5 (42,5)	5.3 (2,4)
<b>14x4008-CP1</b>	8 (200)	12.0 (304,8)	18.0 (457,2)	1.313 (33,4)	5	12	1.7 (48,2)	5.8 (2,6)
<b>14x4012-CP1</b>	12 (300)	16.0 (406,4)	22.0 (558,8)	1.438 (36,5)	7	16	2.1 (59,5)	6.3 (2,9)
<b>14x4016-CP1</b>	16 (405)	20.0 (508,0)	26.0 (660,4)	1.563 (39,7)	9	20	2.5 (70,9)	7.3 (3,3)
<b>14x4020-CP1</b>	20 (505)	24.0 (609,6)	30.0 (762,0)	1.688 (42,9)	11	24	2.9 (82,2)	8.3 (3,8)
<b>14x4024-CP1</b>	24 (605)	28.0 (711,2)	34.0 (863,6)	1.813 (46,1)	13	28	3.3 (93,6)	9.3 (4,2)
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<b>14x4036-CP1</b>	36 (910)	40.0 (1016,0)	46.0 (1168,4)	0.313 (8,0)	21	44	4.5 (127,6)	11.8 (5,4)
<b>14x4042-CP1</b>	42 (1060)	46.0 (1168,4)	52.0 (1320,8)	1.438 (36,5)	23	48	5.1 (144,6)	13.3 (6,0)
<b>14x4048-CP1</b>	48 (1215)	52.0 (1320,8)	58.0 (1473,2)	0.688 (17,5)	27	56	5.7 (161,6)	14.8 (6,7)
<b>14x4054-CP1</b>	54 (1370)	58.0 (1473,2)	64.0 (1625,6)	1.813 (46,1)	29	60	6.3 (178,6)	16.3 (7,4)
<b>14x4060-CP1</b>	60 (1520)	64.0 (1625,6)	70.0 (1778,0)	1.063 (27,0)	33	68	6.9 (195,6)	17.8 (8,1)

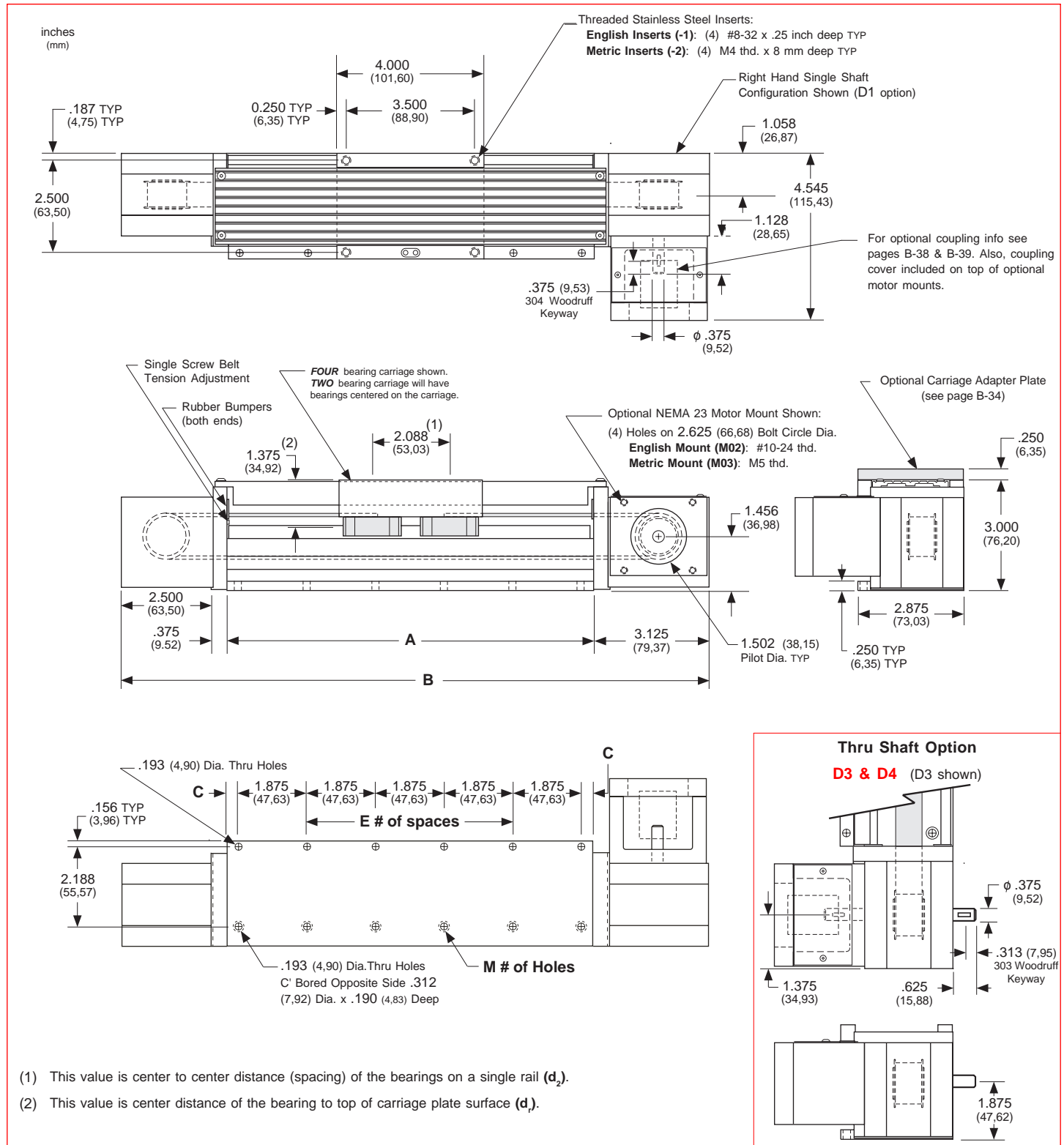
- x = 1; Carriage has 1 bearing; Carriage weight = 1.4 lbs. (0,64 kg)
- x = 2; Carriage has 2 bearings; Carriage weight = 1.5 lbs. (0,68 kg)

### Footnotes:

(1) Weight shown is with a 1 bearing carriage [1.4 lbs (0,64 kg)], a NEMA 23 motor mount [0.34 lbs (0,16 kg)], and a H100 style [0.08 lbs (0,04 kg)] coupling. When using a 2 bearing carriage add 0.1 lbs (0,04 kg) to each value.

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		A	B	C	E	M		
<b>14x4004-CP2</b>	4 (100)	8.0 (203,2)	14.0 (355,6)	1.188 (30,2)	3	8	1.3 (36,8)	5.0 (2,3)
<b>14x4006-CP2</b>	6 (150)	10.0 (254,0)	16.0 (406,4)	0.313 (8,0)	5	12	1.5 (42,5)	5.5 (2,5)
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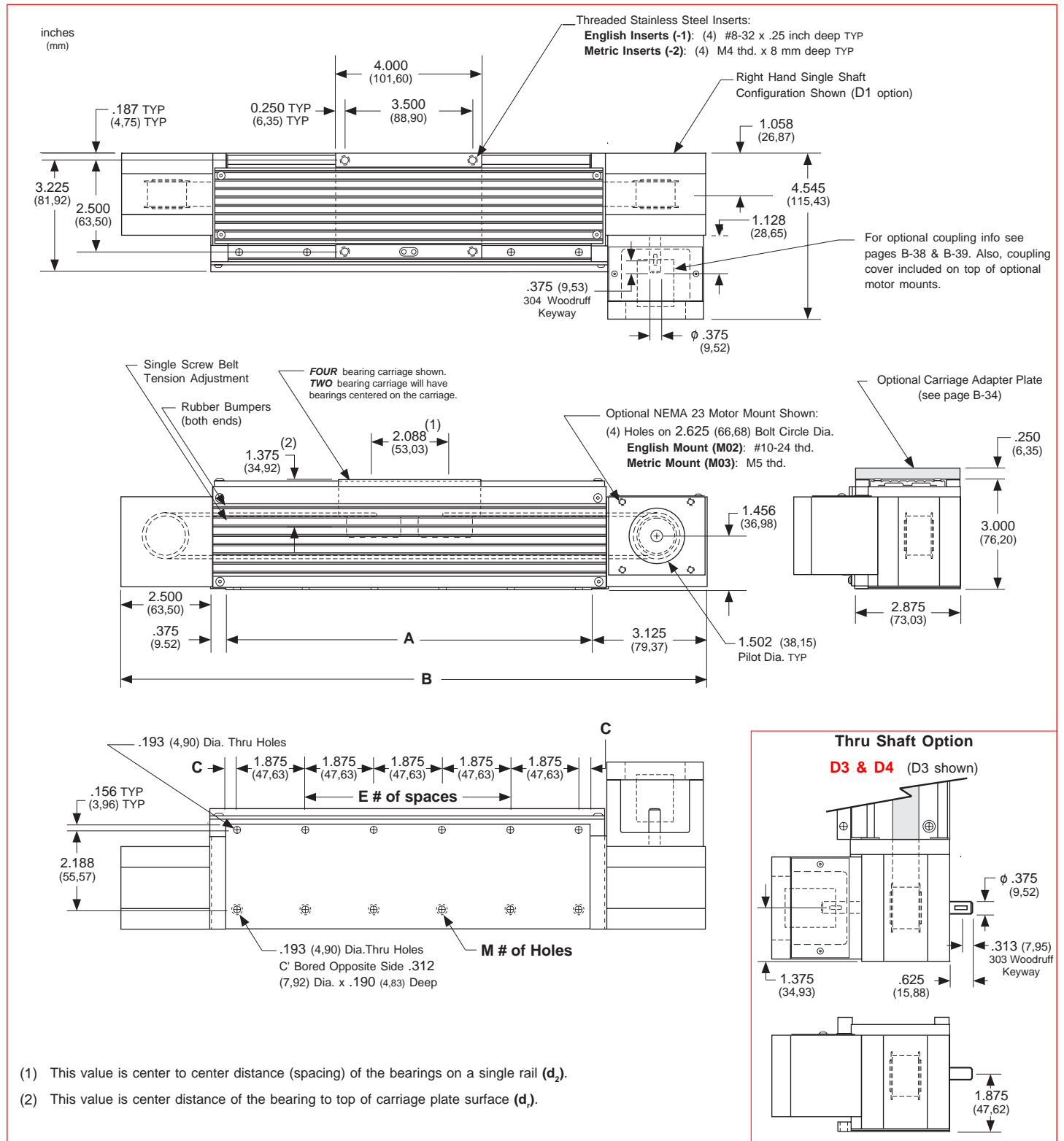
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