

TOLCO™ Fig. 4L - Longitudinal "In-Line" Sway Brace Attachment

Size Range: 2" (50mm) through 8" (200mm) IPS.

Material: Steel

Function: For bracing pipe against sway and seismic disturbance.

Approvals: Underwriters Laboratories Listed in the USA (UL) and Canada (cUL) 2 1/2" (65mm) through 8" (200mm) pipe. Approved by Factory Mutual Engineering (FM), 2 1/2" (65mm) through 8" (200mm) pipe.

Installation Instructions: Fig. 4L is the "braced pipe" attachment component of a longitudinal sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO structural attachment component to form a complete bracing assembly. NFPA 13 and/or OSHPD guidelines should be followed.

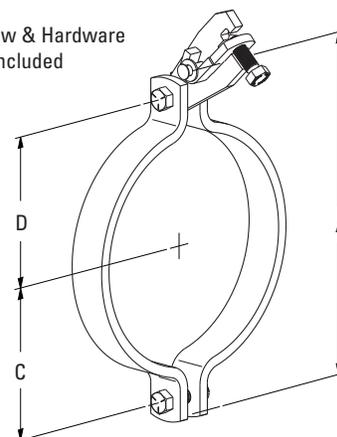
To Install: Place the Fig. 4L over the pipe to be braced and tighten bolts. Then engage "bracing pipe" into jaw opening and tighten set screw until head snaps off. Jaw attachment can pivot for adjustment to proper brace angle.

Finish: Plain. Contact customer service for alternative finishes and materials.

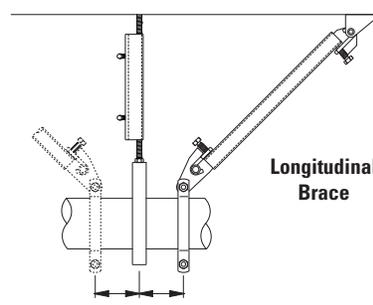
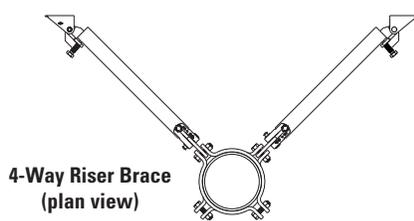
Order By: Figure number, pipe size and finish.



Set Screw & Hardware Included



Seismic Bracing



| Part No. | Pipe Size in. (mm) | A | | C | | D | | Bolt Size | Max. Horizontal Design Load (cULuc) | | Approx. Wt./100 lbs. (kg) |
|----------|-----------------------|---------|---------|--------|---------|----------|---------|-----------|-------------------------------------|--------|------------------------------|
| | | in. | (mm) | in. | (mm) | in. | (mm) | | lbs. | (kN) | |
| 4L-2 1/2 | 2 1/2" (65) | 6 7/16" | (163.5) | 2 1/2" | (63.5) | 2 3/4" | (69.8) | 1/2"-13 | 2015 | (8.96) | 253 (114.7) |
| 4L-3 | 3" (80) | 7" | (177.8) | 2 3/4" | (69.8) | 3 1/16" | (77.8) | 1/2"-13 | 2015 | (8.96) | 268 (121.5) |
| 4L-4 | 4" (100) | 8 1/2" | (215.9) | 3 3/8" | (85.7) | 3 11/16" | (93.7) | 1/2"-13 | 2015 | (8.96) | 348 (157.8) |
| 4L-5 | 5" (125) | 9 3/4" | (247.6) | 3 7/8" | (98.4) | 4 3/8" | (111.1) | 1/2"-13 | 2015 | (8.96) | 380 (172.3) |
| 4L-6 | 6" (150) | 11 1/2" | (292.1) | 5" | (127.0) | 5 1/8" | (130.2) | 1/2"-13 | 2015 | (8.96) | 640 (290.3) |
| 4L-8 | 8" (200) | 13 1/4" | (336.5) | 5 5/8" | (142.8) | 5 5/8" | (142.8) | 1/2"-13 | 2015 | (8.96) | 728 (330.2) |

| Part No. | Pipe Size in. (mm) | Max. Horizontal Design Load (cULuc) lbs./(kN) | Max. Horizontal Design Load (FM) | | | |
|----------|-----------------------|--|----------------------------------|---------------------|----------------------|----------------------|
| | | | 30-44° lbs./(kN) | 45-59° lbs./(kN) | 60°-74° lbs./(kN) | 75°-90° lbs./(kN) |
| 4L-2 1/2 | 2 1/2" (65) | 2015 (8.96) | 1030 (4.58) | 1180 (5.24) | 1420 (6.31) | 1590 (7.07) |
| 4L-3 | 3" (80) | 2015 (8.96) | 1030 (4.58) | 1180 (5.24) | 1420 (6.31) | 1590 (7.07) |
| 4L-4 | 4" (100) | 2015 (8.96) | 530 (2.36) | 730 (3.25) | 890 (3.96) | 990 (4.40) |
| 4L-5 | 5" (125) | 2015 (8.96) | 530 (2.36) | 730 (3.25) | 890 (3.96) | 990 (4.40) |
| 4L-6 | 6" (150) | 2015 (8.96) | 530 (2.36) | 730 (3.25) | 890 (3.96) | 990 (4.40) |
| 4L-8 | 8" (200) | 2015 (8.96) | 490 (2.18) | 680 (3.02) | 830 (3.69) | 930 (4.13) |

* The loads listed are axial loads on the brace. The horizontal load capacity, H, of the brace is: $H = F \times \sin \theta$, where θ the installation angle measured from the vertical. FM approved when used with 1", 1 1/4", 1 1/2" or 2" Sch. 40 brace pipe.

Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

Seismic Bracing

TOLCO™ Fig. 4LA - Longitudinal “In-Line” Sway Brace Attachment

Size Range: 1" (25mm) through 12" (300mm) IPS.

Material: Steel

Function: For bracing pipe against sway and seismic disturbance.

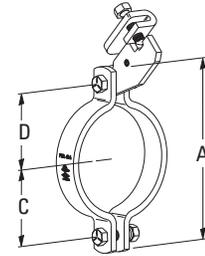
Approvals: Approved by Factory Mutual Engineering (FM), 1" (25mm) through 12" (300mm) pipe. Underwriters Laboratories Listed in the USA and Canada (cULus), 1" (25mm) through 10" (250mm) pipe. See allowable loads in charts on page 172.

Installation Instructions: Fig. 4LA can be used as the system attachment component of a longitudinal or lateral brace assembly. It is intended to be combined with the "bracing member" and TOLCO transitional attachment and structural attachment to form a complete bracing assembly. For fire sprinkler applications NFPA 13 guidelines should be followed.

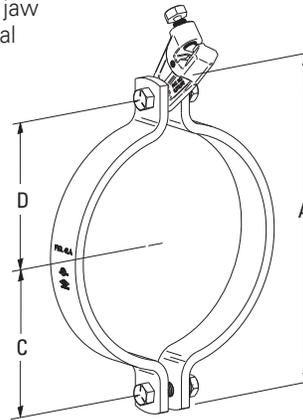
To Install: Place the Fig. 4LA pipe clamp component over the pipe to be braced and tighten down the break-off nuts until the hex head portion breaks off to verify correct installation torque. Next engage brace member (pipe or strut) with jaw component and tighten break-off head bolt until the hex head breaks off to verify correct installation torque. Pivot jaw for correct angle and attach to structure using TOLCO brand transitional attachment and structural attachment.

Finish: Plain or Electro-Galvanized. Contact customer service for alternative finishes and materials.

Order By: Figure number, pipe size and finish.



4LA-1 thru 4LA-4



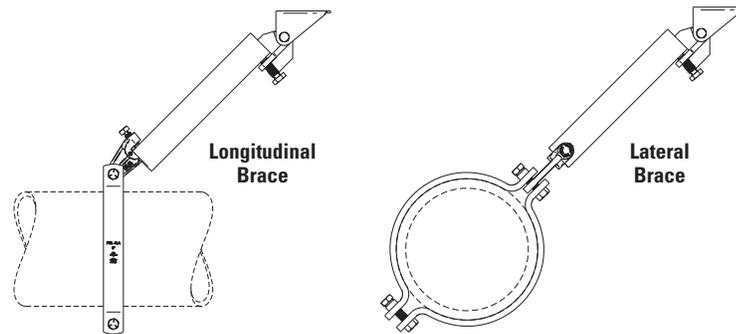
4LA-6 thru 4LA-12

| Part No. | Pipe Size | | A | | C | | D | | Approx. Wt./100 | | |
|-----------------------------------|---------------------------------|-------|------------------------------------|---------|----------------------------------|---------|-----------------------------------|---------|-----------------|------|---------|
| | in. | (mm) | in. | (mm) | in. | (mm) | in. | (mm) | lbs. | (kg) | |
| 4LA-1 | 1" | (25) | 3 ¹⁹ / ₃₂ " | (91.2) | 1 ⁵ / ₁₆ " | (33.5) | 1 ⁵ / ₁₆ " | (33.5) | 3/8"-16 | 119 | (54.0) |
| 4LA-1 ¹ / ₄ | 1 ¹ / ₄ " | (32) | 3 ²⁹ / ₃₂ " | (99.3) | 1 ³ / ₈ " | (35.3) | 1 ³ / ₈ " | (35.3) | 3/8"-16 | 123 | (55.8) |
| 4LA-1 ¹ / ₂ | 1 ¹ / ₂ " | (40) | 4 ⁵ / ₃₂ " | (105.7) | 1 ¹ / ₂ " | (38.5) | 1 ¹ / ₂ " | (38.5) | 3/8"-16 | 127 | (57.6) |
| 4LA-2 | 2" | (50) | 5 ¹¹ / ₃₂ " | (135.6) | 2 ¹ / ₃₂ " | (51.9) | 2 ¹ / ₁₆ " | (51.9) | 3/8"-16 | 142 | (64.4) |
| 4LA-2 ¹ / ₂ | 2 ¹ / ₂ " | (65) | 5 ²⁷ / ₃₂ " | (148.7) | 2 ⁵ / ₁₆ " | (58.5) | 2 ⁵ / ₁₆ " | (58.5) | 3/8"-16 | 173 | (78.5) |
| 4LA-3 | 3" | (80) | 6 ¹ / ₂ " | (164.9) | 2 ⁵ / ₈ " | (66.6) | 2 ⁵ / ₈ " | (66.6) | 3/8"-16 | 187 | (84.8) |
| 4LA-4 | 4" | (100) | 7 ¹⁷ / ₃₂ " | (191.3) | 3 ¹ / ₈ " | (79.5) | 3 ¹ / ₈ " | (79.5) | 3/8"-16 | 209 | (94.8) |
| 4LA-6 | 6" | (150) | 10 ⁵ / ₈ " | (269.9) | 4 ⁹ / ₁₆ " | (115.9) | 4 ⁹ / ₁₆ " | (115.9) | 1/2"-13 | 521 | (236.3) |
| 4LA-8 | 8" | (200) | 12 ¹³ / ₁₆ " | (325.5) | 5 ⁹ / ₁₆ " | (143.7) | 5 ²¹ / ₃₂ " | (143.7) | 1/2"-13 | 629 | (285.3) |
| 4LA-10 | 10" | (250) | 16 ¹ / ₂ " | (419.1) | 7 ¹ / ₄ " | (184.2) | 7 ¹ / ₄ " | (184.2) | 1/2"-13 | 1320 | (598.7) |
| 4LA-12 | 12" | (300) | 18 ¹ / ₂ " | (469.9) | 8 ¹ / ₄ " | (209.6) | 8 ¹ / ₄ " | (209.6) | 1/2"-13 | 1496 | (678.6) |

Eaton's B-Line series seismic bracing components are designed to be compatible only with other B-Line series bracing components, resulting in a listed seismic bracing assembly. Eaton B-Line Division warranty for seismic bracing components will be the warranty provided in Eaton B-Line Division standard terms and conditions of sale made available by Eaton, except that, in addition to the other exclusions from Eaton B-Line Division warranty, Eaton makes no warranty relating to B-Line series seismic bracing components that are combined with products not provided by Eaton.

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.

TOLCO™ Fig. 4LA - Longitudinal “In-Line” Sway Brace Attachment cont.



| Longitudinal Loads | | Max. Horizontal Design Load (FM) | | | | Max. Horizontal Design Load (UL) |
|--------------------|-----------------------|----------------------------------|----------------------|----------------------|----------------------|----------------------------------|
| Part No. | Pipe Size in. (mm) | 30°-44° lbs. (kN) | 45°-59° lbs. (kN) | 60°-74° lbs. (kN) | 75°-90° lbs. (kN) | |
| 4LA-1 | 1" (25) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | 1000 (4.45) |
| 4LA-1¼ | 1¼" (32) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | 1000 (4.45) |
| 4LA-1½ | 1½" (40) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | 1000 (4.45) |
| 4LA-2 | 2" (50) | 680 (3.02) | 860 (3.82) | 1030 (4.58) | 1150 (5.11) | 1000 (4.45) |
| 4LA-2½ | 2½" (65) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | 1000 (4.45) |
| 4LA-3 | 3" (80) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | 1000 (4.45) |
| 4LA-4 | 4" (100) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | 1000 (4.45) |
| 4LA-6 | 6" (150) | 1620 (7.20) | 2,260 (10.05) | 2010 (8.94) | 2220 (9.87) | 1600 (7.11) |
| 4LA-8 | 8" (200) | 1620 (7.20) | 1,660 (7.38) | 1570 (6.98) | 1740 (7.74) | 2015 (8.96) |
| 4LA-10 | 10" (250) | 1620 (7.20) | 1,660 (7.38) | 1570 (6.98) | 1740 (7.74) | NA (NA) |
| 4LA-12 | 12" (300) | 1620 (7.20) | 1,660 (7.38) | 1570 (6.98) | 1740 (7.74) | NA (NA) |

| Lateral Loads | | Max. Horizontal Design Load (FM) | | | | Max. Horizontal Design Load (UL) |
|---------------|-----------------------|----------------------------------|----------------------|----------------------|----------------------|----------------------------------|
| Part No. | Pipe Size in. (mm) | 30°-44° lbs. (kN) | 45°-59° lbs. (kN) | 60°-74° lbs. (kN) | 75°-90° lbs. (kN) | |
| 4LA-1 | 1" (25) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | NA (NA) |
| 4LA-1¼ | 1¼" (32) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | NA (NA) |
| 4LA-1½ | 1½" (40) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | NA (NA) |
| 4LA-2 | 2" (50) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | NA (NA) |
| 4LA-2½ | 2½" (65) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | NA (NA) |
| 4LA-3 | 3" (80) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | 1000 (4.45) |
| 4LA-4 | 4" (100) | 680 (3.02) | 970 (4.31) | 1190 (5.29) | 1320 (5.87) | 1000 (4.45) |
| 4LA-6 | 6" (150) | 1620 (7.20) | 2,300 (10.23) | 2820 (12.54) | 3140 (13.96) | 1600 (7.11) |
| 4LA-8 | 8" (200) | 1620 (7.20) | 2,300 (10.23) | 2820 (12.54) | 3140 (13.96) | 2015 (8.96) |
| 4LA-10 | 10" (250) | 1620 (7.20) | 2,300 (10.23) | 2820 (12.54) | 3140 (13.96) | NA (NA) |
| 4LA-12 | 12" (300) | 1620 (7.20) | 2,300 (10.23) | 2820 (12.54) | 3140 (13.96) | NA (NA) |

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