

## Fig. 4 - Standard Pipe Clamp

## Fig. 4F - Standard Pipe Clamp Felt Lined

## Fig. 4PVC - Standard Pipe Clamp PVC Coated

Component of State of California OSHPD Approved Seismic Restraints System


**Size Range** — (Fig. 4) Size 1/2" thru 30" pipe.

**Size Range** — (Fig. 4F) Size 1/2" thru 2 1/2" copper tubing

**Material** — Carbon Steel

**Function** — Recommended for the suspension of non-insulated pipe or insulated pipe with Fig. 220 shields. (Use Fig. 330 Weldless Eye Nut, Fig. 102 Eye Rod or Fig. 101 Welded Eye Rod.) Also recommended for attachment of sway bracing up to 3 1/2" pipe size, for larger pipe sizes use Fig. 4A. Fig. 4F and Fig. 4PVC are designed to reduce noise and vibration and/or prevent electrolysis.

**Approvals** — Underwriters' Laboratories Listed in the USA (**UL**), Canada (**cUL**) 1/2" - 8", and approved by Factory Mutual Engineering, 3/4" - 8". Federal Specification WW-H-171E, Type 4, 1 1/2" thru 24" and Manufacturers Standardization Society SP-69, Type 4. Included in our Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development (OSHPD). For additional load, spacing and placement information relating to OSHPD projects, please refer to the TOLCO Seismic Restraint Systems Guidelines.
**Note** — When the Fig. 4 is used as a sway brace, to ensure performance, the **UL Listing requires that it must be used with other TOLCO® brace products.**
**Maximum Temperature** — 750°F

**Finish** — Plain

**Note** — Available in Electro-Galvanized and HDG finish or Stainless Steel materials.

**Order By** — Figure number, pipe size and finish.

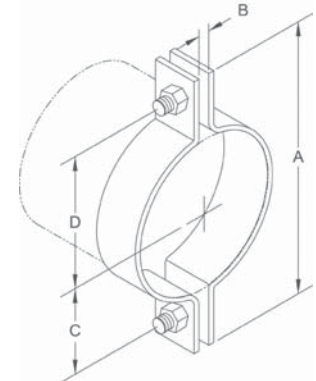
**Order Note** — When ordering Fig. 4F allow for 3/16" felt on each half of clamp.


Fig. 4

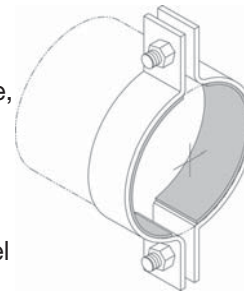


Fig. 4F

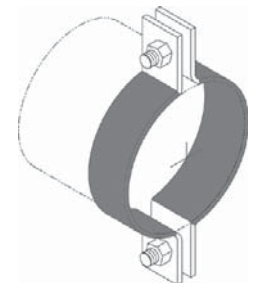


Fig. 4PVC

### Dimensions • Weights

Pipe Size	A	B	C	D	Bolt Size	Max. Design Load Lbs. For Service Temp.		Approx. Wt./100
						650°	750°F	
1/2	3 <sup>7</sup> / <sub>16</sub>	1/4	1 1/8	1 1/8	5/16	500	445	29
3/4	3 <sup>9</sup> / <sub>16</sub>	1/4	1 1/4	1 1/4	5/16	500	445	31
1	3 <sup>9</sup> / <sub>16</sub>	1/4	1 1/4	1 <sup>5</sup> / <sub>16</sub>	5/16	500	445	35
1 1/4	4 <sup>3</sup> / <sub>16</sub>	3/8	1 3/8	1 <sup>11</sup> / <sub>16</sub>	5/16	500	445	40
1 1/2	4 <sup>9</sup> / <sub>16</sub>	3/8	1 5/8	1 7/8	5/16	800	715	42
2*	5 <sup>9</sup> / <sub>16</sub>	3/8	2	2 1/4	3/8	1040	930	93
2 1/2*	6 <sup>7</sup> / <sub>16</sub>	3/8	2 1/2	2 3/4	1/2	1040	930	126
3*	7	3/8	2 3/4	3 1/16	1/2	1040	930	141
3 1/2*	7 <sup>11</sup> / <sub>16</sub>	3/8	3 1/8	3 3/8	1/2	1040	930	154
4	8 1/2	5/8	3 <sup>5</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>16</sub>	1/2	1040	930	229
5	9 3/4	3/4	3 7/8	4 3/8	5/8	1040	930	261
6	11 <sup>5</sup> / <sub>8</sub>	3/4	4 7/8	5 1/8	3/4	1615	1440	537
8	13 <sup>5</sup> / <sub>16</sub>	1	5 5/8	6	3/4	1615	1440	625
10	16 1/2	1	7 1/4	7 1/4	7/8	2490	2220	1378
12	18 1/2	1	8 1/4	8 1/4	7/8	2490	2220	1574
14	20	1 1/8	9	9	7/8	2490	2220	2103
16	23	1 1/8	10 1/4	10 1/4	7/8	2490	2220	2314
18	25 <sup>7</sup> / <sub>8</sub>	1 1/4	11 1/2	11 1/2	1	3060	2730	3276
20	28	1 3/8	12 1/2	12 1/2	1 1/8	3060	2730	3863
24	33 1/2	1 5/8	15 1/4	15 1/4	1 1/4	3060	2730	5222
30	41 <sup>7</sup> / <sub>8</sub>	2	19	19	1 3/4	3500	3360	10511

\*Meets UL 203A requirements for attachment of sway bracing. Horizontal design load for 1/2"-2" - 380#, 2 1/2" - 395#, 3" - 435#, 3 1/2" - 540#

## Fig. 4A - Pipe Clamp for Sway Bracing

**Size Range** — 4" thru 8" pipe. For sizes smaller than 4" use TOLCO® Fig. 4.

**Material** — Carbon Steel

**Function** — For bracing pipe against sway and seismic disturbance.

**Approvals** — Underwriters' Laboratories Listed in the USA (**UL**) and Canada (**cUL**) 4" thru 8". Included in our Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development (OSHPD).

**Installation Instructions** — The Fig. 4A is the "braced pipe" attachment component of a longitudinal, lateral or riser brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO transitional and structural attachment component(s) to form a complete bracing assembly. NFPA 13 and/or OSHPD guidelines should be followed.

**To Install** — Place the Fig. 4A over the pipe to be braced. Attach TOLCO transitional fitting, either Fig. 980, 910 or 909, to the clamp ears. Tighten bolts and nuts; torque requirement is a minimum of 50 ft. lbs. Transitional fitting attachment can pivot for adjustment to proper brace angle.

**Finish** — Plain

**Note** — Available in Electro-Galvanized and HDG finish or Stainless Steel materials.

**Order By** — Figure number, pipe size and finish

Component of State of California OSHPD Approved Seismic Restraints System

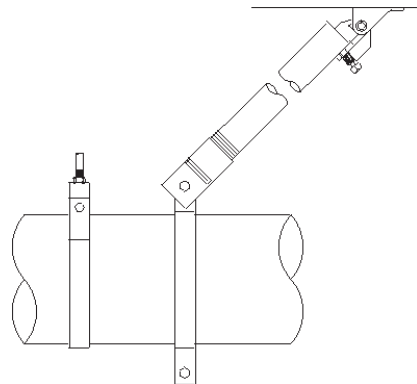
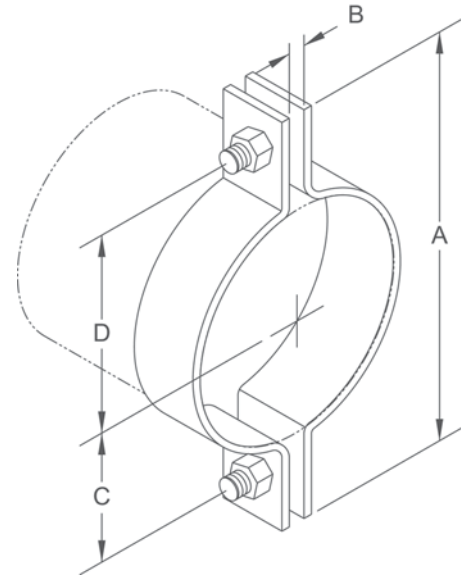


Fig. 4A - Longitudinal Brace

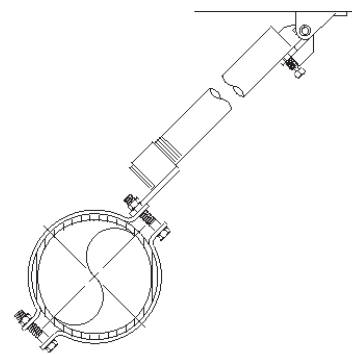


Fig. 4A - Lateral Brace

(UL Listed Up to 4" IPS)

TOLCO® brand bracing components are designed to be compatible **ONLY** with other TOLCO® brand bracing components, resulting in a Listed seismic bracing assembly. **DISCLAIMER** — NIBCO does **NOT** warrant against the failure of TOLCO® brand bracing components, in the instance that such TOLCO® brand bracing components are used in combination with products, parts or systems which are not manufactured or sold under the TOLCO® brand. NIBCO shall **NOT** be liable under any circumstance for any direct or indirect, incidental or consequential damages of any kind, including but not limited to loss of business or profit, where non-TOLCO brand bracing components have been, or are used.

### Dimensions • Weights

Pipe Sizes	A	B	C	D	Bolt Size	Max. Horizontal Design Load	Approx. Wt./100
4	8½	9/16	3⅞	3 <sup>11</sup> / <sub>16</sub>	1/2	2015	221
5	9¾	9/16	3⅞	4¾	1/2	2015	253
6	11½	5/8	5	5⅞	1/2	2015	513
8	13¼	3/4	6 <sup>11</sup> / <sub>16</sub>	6⅞	1/2	2015	601

## Fig. 4B - Pipe Clamp for Sway Bracing

Component of State of California OSHPD Approved Seismic Restraints System



**Size Range** — 3/4" thru 8" pipe.

**Material** — Carbon Steel

**Function** — For bracing pipe against sway and seismic disturbance.

**Features** — This product's design incorporates concentric loading of the "brace pipe", connection components and fasteners which is critical to the performance of seismic bracing assemblies.

**Approvals** — Underwriters Laboratories Listed in the USA (UL) and Canada (cUL). Included in our Seismic Restraints Catalog approved by the State of California Office of Statewide Health Planning and Development (OSHPD).

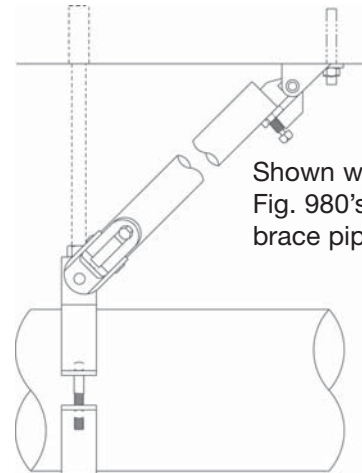
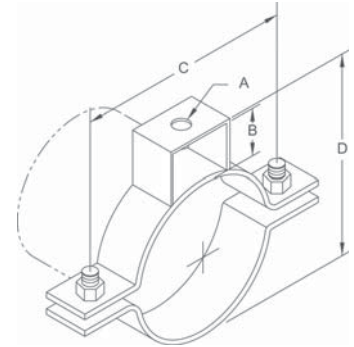
**Finish** — Plain

**Note** — Available in Electro-Galvanized and HDG finish or Stainless Steel materials.

**Order By** — Figure number, pipe size and finish.

**Installation Instructions** — The Fig. 4B is the "braced pipe" attachment component of a longitudinal or lateral sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO transitional and structural attachment component(s) to form a complete bracing assembly. NFPA 13 and/or OSHPD guidelines should be followed.

**To Install** — Place the Fig. 4B over the pipe to be braced. Attach other TOLCO transitional fitting, Fig. 909, 910 or 980. Tighten bolts and nuts. Transitional fitting attachment can pivot for adjustment to proper brace angle.



Shown with two TOLCO® Fig. 980's and Schedule 40 brace pipe.

Fig. 4B - Hanger/Longitudinal Brace

TOLCO® brand bracing components are designed to be compatible **ONLY** with other TOLCO® brand bracing components, resulting in a Listed seismic bracing assembly. **DISCLAIMER** — NIBCO does **NOT** warrant against the failure of TOLCO® brand bracing components, in the instance that such TOLCO® brand bracing components are used in combination with products, parts or systems which are not manufactured or sold under the TOLCO® brand. NIBCO shall **NOT** be liable under any circumstance for any direct or indirect, incidental or consequential damages of any kind, including but not limited to loss of business or profit, where non-TOLCO brand bracing components have been, or are used.

### Dimensions • Weights

Pipe Sizes	Rod Size A	B	C	D	Bolt Size	Max. Design Load Lbs.	Approx. Wt./100
3/4	3/8	1	27/8	25/8	5/16	330	56
1	3/8	1	31/4	215/16	5/16	330	60
1 1/4	3/8	1	39/16	31/4	5/16	330	74
1 1/2	3/8	1	313/16	37/16	5/16	330	79
2	3/8	1 1/2	51/8	45/8	5/16	440	156
2 1/2	1/2	1 3/4	55/8	53/8	3/8	440	176
3	1/2	1 7/8	63/4	61/8	3/8	660	198
3 1/2	1/2	2	71/4	63/4	3/8	660	219
4	5/8	2	85/8	71/4	1/2	800	288
5	5/8	2	97/8	85/16	5/8	980	390
6	3/4	2 1/8	1015/16	91/2	5/8	980	448
8	7/8	2 1/8	137/16	11 1/2	3/4	1200	691

## Fig. 4CI - A.W.W.A. Pipe Clamp

**Size Range** — 4" thru 24" pipe

**Material** — Carbon Steel

**Function** — Recommended for the suspension of flanged or bell and spigot A.W.W.A. cast iron or ductile iron pipe. The O.D. of the A.W.W.A. iron pipe is shown in the data table. Used with Fig. 330 Weldless Eye Nut, Fig. 102 Eye Rod or Fig. 101 Welded Eye Rod.

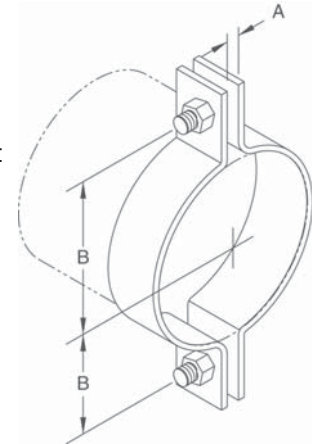
**Approvals** — Conforms to Federal Specification WW-H-171E, Type 4, and Manufacturers Standardization Society SP-69, Type 4.

**Maximum Temperature** — 650°F

**Finish** — Plain

**Note** — Available in Electro-Galvanized and HDG finish or Stainless Steel materials.

**Order By** — Figure number, pipe size and finish



### Dimensions • Weights

Pipe Sizes	Pipe O.D.	A	B	Bolt Size	Max. Rec. Load Lbs.	Approx. Wt./100
4	4.80	1 $\frac{1}{8}$	4 $\frac{1}{16}$	5/8	1400	860
6	6.90	1 $\frac{1}{8}$	5 $\frac{1}{16}$	5/8	1400	1060
8	9.05	1 $\frac{1}{8}$	6 $\frac{3}{16}$	5/8	1400	1230
10	11.10	1 $\frac{1}{8}$	7 $\frac{1}{4}$	5/8	1400	1430
12	13.20	1 $\frac{1}{8}$	8 $\frac{5}{16}$	5/8	1400	1630
14	15.30	1 $\frac{3}{4}$	9 $\frac{7}{8}$	3/4	2000	2300
16	17.40	1 $\frac{3}{4}$	11 $\frac{5}{16}$	7/8	2500	3725
18	19.50	1 $\frac{7}{8}$	12 $\frac{9}{16}$	1	3000	4200
20	21.60	2	13 $\frac{3}{8}$	1	3100	4575
24	25.80	2	16 $\frac{5}{16}$	1 $\frac{1}{4}$	4500	6400

## Fig. 4H - Heavy Duty Pipe Clamp

**Size Range** — 3" thru 24" pipe

**Material** — Carbon Steel

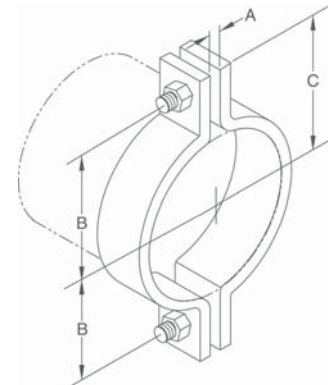
**Function** — Recommended for the suspension of heavy-duty pipe lines. (Use with Fig. 330 Weldless Eye Nut, Fig. 102 Eye Rod or Fig. 101 Welded Eye Rod).

**Approvals** — Conforms to Federal Specification WW-H-171E, Type 4, and Manufacturers Standardization Society SP-69, Type 4.

**Maximum Temperature** — 650°F

**Finish** — Plain

**Note** — Available in Electro-Galvanized and HDG finish or Stainless Steel materials.



### Dimensions • Weights

Pipe Sizes	A	B	C	Bolt Size	Max. Rec. Load Lbs. — Temps.	Approx. Wt./100
					650F 750°F	
3	1	3	4 $\frac{1}{8}$	3/4	3370 3005	498
4	1	3 $\frac{1}{16}$	4 $\frac{15}{16}$	7/8	3515 3135	634
5	1	4 $\frac{5}{16}$	5 $\frac{9}{16}$	7/8	3515 3135	714
6	1 $\frac{1}{8}$	5 $\frac{3}{16}$	6 $\frac{11}{16}$	1	4865 4340	1351
8	1 $\frac{1}{8}$	6 $\frac{1}{4}$	7 $\frac{3}{4}$	1	4865 4340	1573
10	1 $\frac{1}{4}$	7 $\frac{7}{8}$	9 $\frac{1}{2}$	1 $\frac{1}{4}$	6010 5360	2537
12	1 $\frac{5}{8}$	9 $\frac{1}{2}$	11 $\frac{5}{8}$	1 $\frac{1}{2}$	8675 7740	4300
14	1 $\frac{5}{8}$	10 $\frac{1}{8}$	12 $\frac{1}{4}$	1 $\frac{1}{2}$	9120 8135	5228
16	1 $\frac{5}{8}$	11 $\frac{3}{16}$	13 $\frac{9}{16}$	1 $\frac{1}{2}$	9120 8135	5657
18	1 $\frac{5}{8}$	12 $\frac{3}{16}$	14 $\frac{9}{16}$	1 $\frac{1}{2}$	9150 8160	6914
20	1 $\frac{5}{8}$	13 $\frac{9}{16}$	15 $\frac{7}{16}$	1 $\frac{1}{2}$	9150 8160	7468
24	1 $\frac{3}{4}$	15 $\frac{3}{8}$	17 $\frac{3}{4}$	1 $\frac{1}{2}$	9200 8205	12629

\* Consult factory for sizes larger than 24"  
 Based on the allowable stresses shown in the ANSI code for pressure piping.

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



**Size Range** — 2½" through 8" IPS.

**Material** — Carbon Steel

**Function** — For bracing pipe against sway and seismic disturbance.

**Approvals** — Underwriter's Laboratories Listed in the USA (**UL**) and Canada (**cUL**) 2½" - 8". Approved by Factory Mutual Engineering (**FM**), 2½" - 8" pipe.

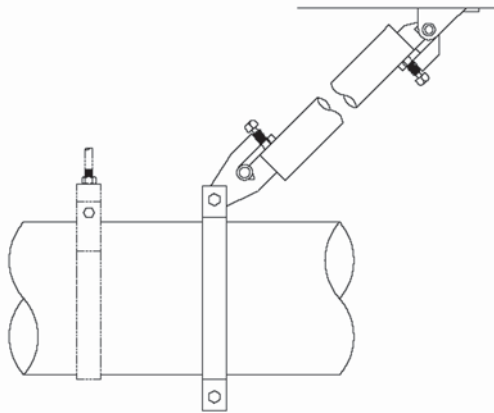
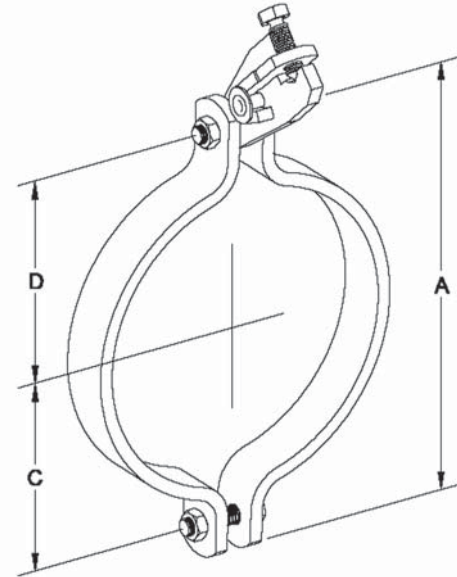
**Installation Instructions** — The Fig. 4L is the "braced pipe" attachment component of a longitudinal sway brace assembly. It is intended to be combined with the "bracing pipe" and TOLCO structural attachment component to form a complete bracing assembly. NFPA 13 and/or OSHPD guidelines should be followed.

**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 bolt until hex head snaps off. Jaw attachment can pivot for adjustment to proper brace angle.

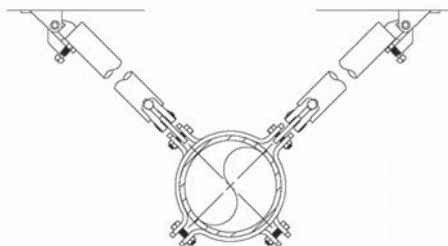
**Finish** — Plain

**Note** — Available in Electro-Galvanized and HDG finish.

**Order By** — Figure number, pipe size and finish.



Longitudinal Brace



4-Way Riser Brace  
(Plan view)

### Dimensions • Weights

Sizes	A	C	D	Bolt Size	Max. Rec. Load Lbs. (cULus)	*Max Design Load Lbs. (FM)	Approx. Wt./100
2½	6 <sup>7</sup> / <sub>16</sub>	2½	2¾	1/2	2015	3000	253
3	7	2¾	3 <sup>1</sup> / <sub>16</sub>	1/2	2015	1550	268
4	8½	3¾	3 <sup>1</sup> / <sub>16</sub>	1/2	2015	1550	348
5	9¾	3 <sup>7</sup> / <sub>8</sub>	4¾	1/2	2015	1450	380
6	11½	5	5¾	1/2	2015	1450	640
8	13¼	5¾	5¾	1/2	2015	1450	728

\* Load shown is allowable with brace installed, between 30° - 90°.

FM approved when used with 1", 1¼", 1½" or 2" Sch. 40 brace pipe.

TOLCO® brand bracing components are designed to be compatible **ONLY** with other TOLCO® brand bracing components, resulting in a Listed seismic bracing assembly. **DISCLAIMER** — NIBCO does **NOT** warrant against the failure of TOLCO® brand bracing components, in the instance that such TOLCO® brand bracing components are used in combination with products, parts or systems which are not manufactured or sold under the TOLCO® brand. NIBCO shall **NOT** be liable under any circumstance for any direct or indirect, incidental or consequential damages of any kind, including but not limited to loss of business or profit, where non-TOLCO brand bracing components have been, or are used.