

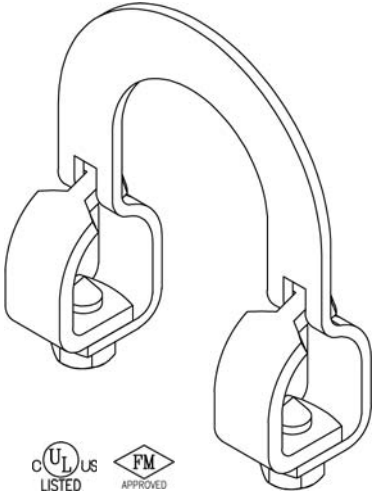


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# SEISMIC BRACING

**FIG. 015**

## LARGE SWAY BRACE PIPE ATTACHMENT



**Function:** Designed for bracing pipe against sway and seismic disturbance. The pipe attachment component of a sway brace system used in conjunction with a PHD Manufacturing structural attachment fitting, and joined together with a bracing pipe element forms a complete sway brace assembly. Sway brace assemblies are intended to be installed in accordance with NFPA 13 and the manufacturer's installation instructions.

**Size:** Pipe size 2<sup>1</sup>/<sub>2</sub>" thru 8".

**Material:** Carbon steel

**Finish:** Electro-galvanized

**Install:** Place over the pipe to be braced, adjust brace angle, and insert bracing pipe through opening leaving a minimum of 1" extending from attachment. Brace pipe can be installed on top or bottom of pipe to be braced but must be a minimum of 6" away from a pipe joint. Tighten two hex head cone point set bolts until heads bottom out on attachment, ensuring proper torque has been applied.

**Approvals:** Underwriters Laboratories listed for US and Canada (2<sup>1</sup>/<sub>2</sub>" thru 6" only) and Factory Mutual approved. Listed for use with NFPA and PHD sway brace components only.

**Ordering:** Specify figure number, brace pipe size, and sprinkler pipe size.

*NOTE: (This product is not compatible with metric pipe.) For metric piping see Fig. 010, Fig. 031, or Fig. 040.*

FM Maximum Design Load							
Brace: 1" Thru 2" SCH40 Pipe							
Pipe Size SCH 10, 40 & Flow Pipe	Brace Angle From Vertical (Degrees)	lbs.	kN	Wt. Each			
				1" Brace Pipe		1 <sup>1</sup> / <sub>4</sub> " Brace Pipe	
				lbs.	kg	lbs.	kg
2 <sup>1</sup> / <sub>2</sub>	30°-44°	1020	(4.53)	1.31	(0.59)	1.49	(0.68)
	45°-59°	1440	(6.40)	1.31	(0.59)	1.49	(0.68)
	60°-74°	1770	(7.87)	1.31	(0.59)	1.49	(0.68)
	75°-90°	1970	(8.76)	1.31	(0.59)	1.49	(0.68)
3	30°-44°	1080	(4.80)	1.40	(0.64)	1.57	(0.71)
	45°-59°	1530	(6.80)	1.40	(0.64)	1.57	(0.71)
	60°-74°	1870	(8.31)	1.40	(0.64)	1.57	(0.71)
	75°-90°	2090	(9.29)	1.40	(0.64)	1.57	(0.71)
4	30°-44°	1020	(4.53)	1.53	(0.69)	1.70	(0.77)
	45°-59°	1450	(6.44)	1.53	(0.69)	1.70	(0.77)
	60°-74°	1770	(7.87)	1.53	(0.69)	1.70	(0.77)
	75°-90°	1980	(8.80)	1.53	(0.69)	1.70	(0.77)
6	30°-44°	640	(2.84)	1.81	(0.82)	1.98	(0.90)
	45°-59°	900	(4.00)	1.81	(0.82)	1.98	(0.90)
	60°-74°	1110	(4.93)	1.81	(0.82)	1.98	(0.90)
	75°-90°	1240	(5.51)	1.81	(0.82)	1.98	(0.90)
8	30°-44°	570	(2.53)	2.07	(0.94)	2.24	(1.02)
	45°-59°	810	(3.60)	2.07	(0.94)	2.24	(1.02)
	60°-74°	990	(4.40)	2.07	(0.94)	2.24	(1.02)
	75°-90°	1100	(4.89)	2.07	(0.94)	2.24	(1.02)

UL Maximum Design Load		
Pipe Size SCH 10 & 40	lbs.	kN
2 <sup>1</sup> / <sub>2</sub>	1000	(4.45)
3	1000	(4.45)
4	1000	(4.45)
6	1600	(7.12)

Unless otherwise specified, all dimensions on drawings and in charts are in inches and dimensions shown in parentheses are in millimeters.

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PIPE GUIDES & SLIDES  
WALL BRACKETS  
PIPE SUPPORTS  
STRUCTURAL ATTACHMENTS  
SEISMIC BRACING

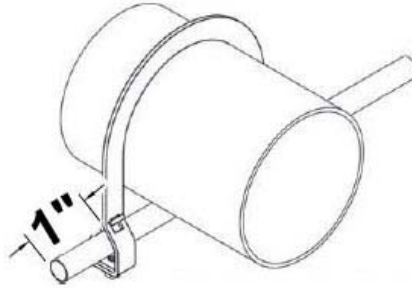


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**FIG. 015 LARGE SWAY BRACE PIPE ATTACHMENT**

- Pipe Braced:** 2 1/2", 3", 4", 6", 8"  
**Bracing:** 1" Or 1 1/4" SCH40 steel pipe  
**Function:** Designed for bracing pipe against sway and seismic disturbance. The pipe attachment component of a sway brace system used in conjunction with a PHD Manufacturing structural attachment fitting, and joined together with a bracing pipe element forms a complete sway brace assembly. Sway brace assemblies are intended to be installed in accordance with NFPA 13 and the manufacturer's installation instructions.  
**Approvals:** Underwriters Laboratories listed for US and Canada; Sizes 2 1/2" through 6" Factory Mutual approved; Sizes 2 1/2" through 8" Listed for use with NFPA and PHD sway brace components only  
**Material:** Low Carbon Steel  
**Installation:** Place over the pipe to be braced, adjust brace angle, and insert bracing pipe through opening leaving a minimum of 1" extending from attachment. Brace pipe can be installed on top or bottom of pipe to be braced but must be a minimum of 6" away from a pipe joint. Tighten two hex head cone point set bolts until heads bottom out on attachment, ensuring proper torque has been applied.  
**(This product is not compatible with metric pipe.)**



UL Maximum Design Loads				
Pipe Size	Pipe Schedule	Brace Size	Brace Schedule	lbs.
2 1/2	10 & 40	1 & 1 1/4	40	1000
3	10 & 40	1 & 1 1/4	40	1000
4	10 & 40	1 & 1 1/4	40	1000
6	10 & 40	1 & 1 1/4	40	1600

FM Approved Loads							
Orientation	Pipe Size	Pipe Schedule	Allowable Horizontal Capacity Per Installation Angle (lbs.)				Brace Member
			Brace Angle From Vertical				
			30°-44°	45°-59°	60°-74°	75°-90°	
Lateral	2 1/2	LW, 10, 40	1020	1440	1770	1970	1" or 1 1/4" Schedule 40 Pipe
Lateral	3	LW, 10, 40	1080	1530	1870	2090	1" or 1 1/4" Schedule 40 Pipe
Lateral	4	LW, 10, 40	1020	1450	1770	1980	1" or 1 1/4" Schedule 40 Pipe
Lateral	6	LW, 10, 40	640	900	1110	1240	1" or 1 1/4" Schedule 40 Pipe
Lateral	8	LW, 10, 40	570	810	990	1100	1" or 1 1/4" Schedule 40 Pipe

NOTE: LW above refers to FM Approved Lightwall pipe, commonly referred to as Schedule 7.