## **SWAY BRACE - SEISMIC**

# Fig. 770

### **Q Brace Clamp**

**Size Range:** Service Pipe: 1" through 6" Sch. 10 and Sch. 40 IPS UL and FM Approved Service Pipe: 1" through 6" Flow Pipe FM Approved

Brace Pipe: 1" or 11/4" Sch. 40 IPS

Material: Carbon steel

Finish: Brace Rod Plain or Galvanized, Channel bracket EG

**Service:** Used to rigidly brace piping systems subjected to sway and seismic disturbances. Pipe clamp component of Anvil's 700 series sway brace assembly. Primarily a lateral brace clamp and applicable as a riser/four way brace.

**Approvals:** UL and ULC Listed (UL 203A:2009), and FM Approved (FM 1950:2010). Complies with seismic bracing requirements of NFPA-13. Office of Statewide Health Planning and Development (OSHPD) State of California approved.

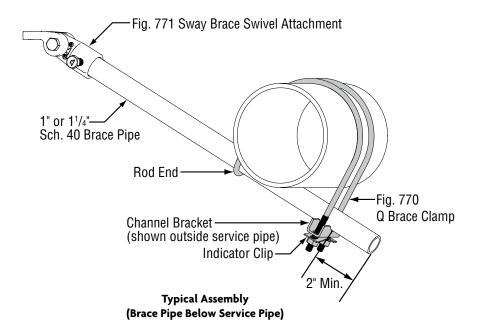
#### **Features:**

- Used to brace schedules 10 IPS, 40 IPS (UL and FM), and Sch. 7 IPS flow pipe (FM).
- Field adjustable design requires no threading of bracing pipe
- Can be used as a component of a four-way brace support
- Functions as a lateral brace application

#### **Installation Instructions:**

- Minimum brace pipe extension 2" beyond channel bracket or brace clamp rod end. Note: 6" sizes are supplied with retaining plate that assembles between sprinkler system pipe and brace pipe. Not required for FM applications.
- 2. The brace clamp channel bracket can be installed inside or outside the service pipe at the end of the brace pipe.
- 3. The Q brace clamp must be a minimum of 6" away from a pipe joint in order to not weaken the pipe joint.
- 4. Riser/4-way brace The Q brace clamps must be installed within 6" of each other.
- 5. Adjust brace angle as necessary.
- 6. Tighten hex nuts until spring indicating clip is completely flattened and the required torque of 14 Ft-Lbs is achieved. For sizes 2" 3", 4" x 1", 5" x 1", and 6" continue tightening to a torque of 16 Ft-Lbs.

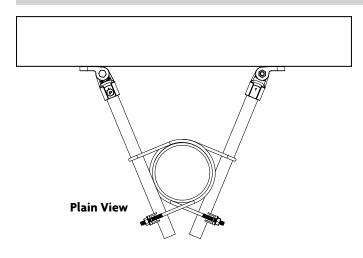
Ordering: Specify service pipe diameter, brace pipe diameter, figure number, name and finish.

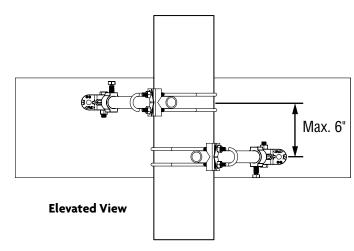




# Fig. 770

### Q Brace Clamp (cont.)





Riser/4-Way Brace Assembly

### FIG. 770 UL MAX LOAD: LOADS (LBS) • WEIGHT (LBS) • DIMENSIONS (IN)

LOADS (LDS) * WEIGHTI (LDS) * DIMILIASIONS (IIA)					
Service	UL Max Load	Weight			
Pipe Size	Sch. 10	1"	11/4"		
	Sch. 40	Brace Pipe	Brace Pipe		
1 (A, B)	1000	.82	.87		
11/4 (B)		.86	.90		
11/2 (B)		.90	.95		
2 (B)		.96	1.00		
21/2		1.02	1.06		
3		1.09	1.13		
4		1.23	1.26		
5	1600	1.32	Not Listed		
6	1000	1.49	1.53		

A - Schedule 40 only.

FIG. 770 FM MAX LOAD:						
LOADS (	(LBS)	• DIMENSIONS	IN	• ANGLES	(DEGREES)	

Service Pipe Size	Brace	FM Max Load** (Horizontal)		
(1" or 1 <sup>1</sup> / <sub>4</sub> " Brace Pipe)	Angle***	Sch. 10 Sch. 40	Flow Pipe	
4	30-44	1110	250	
	45-59	1500	360	
1	60-74	1900	440	
	75-90	2100	500	
	30-44	570	250	
41/	45-59	810	360	
11/4	60-74	1000	440	
	75-90	1100	500	
	30-44	570	250	
11/2	45-59	810	360	
1 '/2	60-74	1000	440	
	75-90	1100	500	
	30-44	570	250	
2	45-59	810	360	
2	60-74	1000	440	
	75-90	1100	500	
	30-44	570	250	
21/2	45-59	810	360	
Z'12	60-74	1000	440	
	75-90	1100	500	
	30-44	570	250	
2	45-59	810	360	
3	60-74	1000	440	
	75-90	1100	500	
	30-44	760	410	
4	45-59	1070	590	
4	60-74	1320	720	
	75-90	1470	800	
	30-44	760	410	
5	45-59	1070	590	
5	60-74	1320	720	
	75-90	1470	800	
	30-44	770	450	
6	45-59	1090	630	
O	60-74	1340	780	
	75-90	1490	870	

<sup>\*</sup> See FM Approval guide for approved flow pipe.

<sup>\*\*\*</sup> Brace Pipe Angles are determined from vertical.

FIG. 770: TORQUE VALUE (FT-LBS)				
Service Pipe Size	Torque Value			
1 thru 1 <sup>1</sup> / <sub>2</sub> , 4 x 1 <sup>1</sup> / <sub>4</sub> , 5 x 1 <sup>1</sup> / <sub>4</sub>	14			
2 thru 3, 4 x 1, 5 x 1, 6	16			

See page 14 for notes on sway brace-seismic components concerning – installation, performance and warranty.



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Technical

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B - UL Listed as a restraint and sway brace.

<sup>\*\*</sup> The allowable FM approved capacity of brace subassemblies have been determined by resolving the load rating to the horizontal direction and dividing by a safety factor of 1.5 to allow the values to be used directly for Allowable Stress Design. For Load Resistance Factor Design (LRFD) capacities, the above values will need to be multiplied by 1.5.