

## Fig. 778

### Bar Joist Beam Attachment

**Size Range:** Structural Steel: Minimum Thickness –  $\frac{1}{8}$ " (FM),  $\frac{3}{16}$ " (UL), Maximum Thickness –  $\frac{3}{4}$ "  
Service Pipe: 1" through 8"

**Material:** Ductile iron beam attachment, shear head bolts and hex head mounting bolt  
**Finish:** Plain or Galvanized

**Service:** Used to rigidly brace piping systems subjected to sway and seismic disturbances. Structural attachment component of Anvil's 700 series sway brace assembly. Recommended for use under roof installations with bar joist construction or for attachment to the top or bottom flange of structural steel beams. Can be utilized as a structural connection for either a lateral brace or a longitudinal 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:**

- Permits secure quick connection to structural members where drilling and/or welding of brace connection is not allowed or is not easily accomplished
- Shear head bolt design ensures that the proper installation torque is accomplished for a tight non-slip fit to the structural member.
- Bar joist beam attachment is designed for concentric loadings of seismic connections and fasteners.

**Installation Instructions:**

1. Place Fig. 778 on the structural steel beam. Steel member must fully engage throat of Fig. 778.
2. Tighten the set bolts equally and alternately until bolt heads shear off (30-40 Ft-Lbs).
3. Attach 700 Series Anvil Brace Fittings using the included  $\frac{1}{2}$ " mounting bolt and adjust orientation as needed for proper brace angle.

**Ordering:** Specify figure number, name and finish.

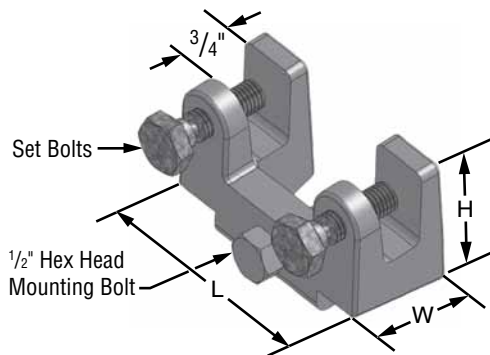
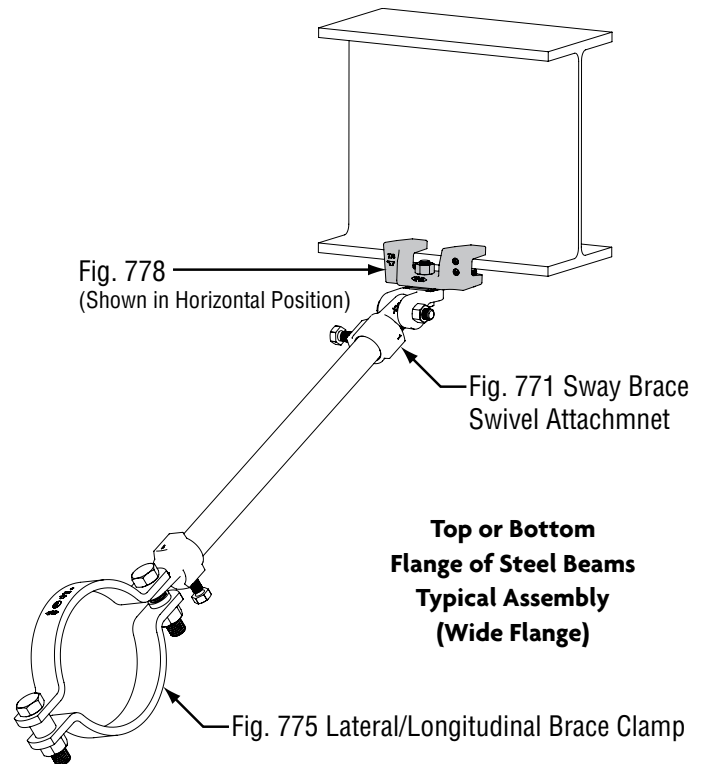
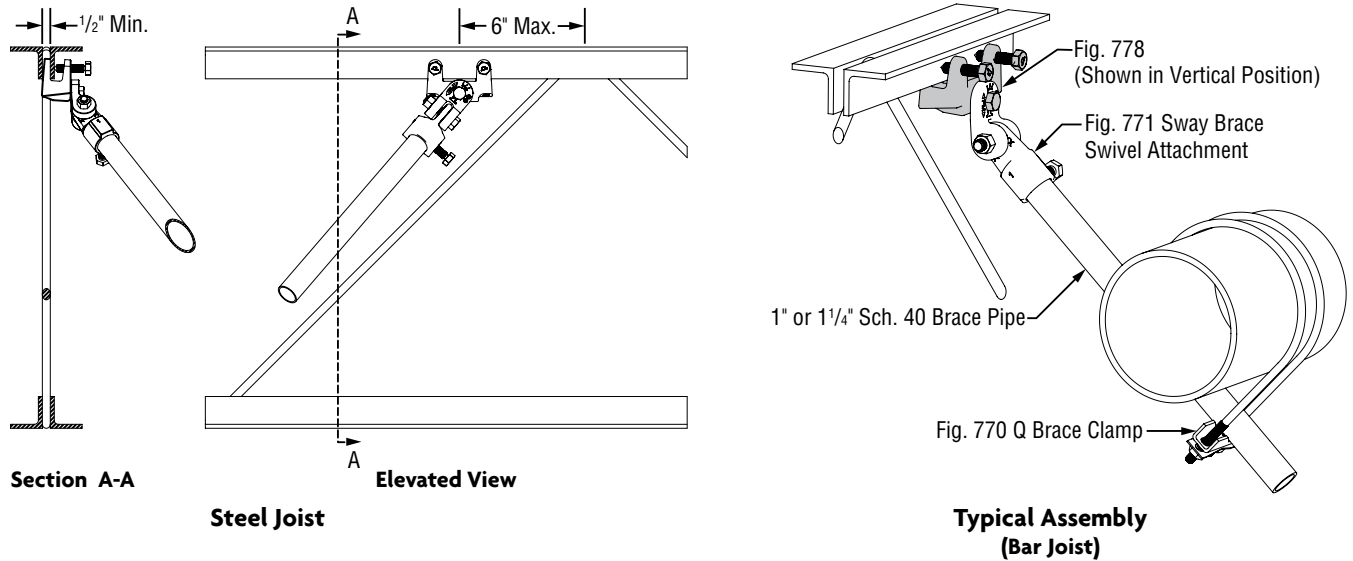


FIG. 778: WEIGHT (LBS) • DIMENSIONS (IN)			
H	L	W	Weight
2.63	4.13	2.25	2.58



## Fig. 778

### Bar Joist Beam Attachment (cont.)



**FIG. 778 UL MAX LOADS: LOADS (LBS) • DIMENSIONS (IN)**

Beam Flange Thickness	Perpendicluar to Beam	Parallel to Beam
3/16	1000	1000
1/4	1600	1600
1/2	2015	2015

**FIG. 778 FM MAX LOADS\*:  
LOADS (LBS) • DIMENSIONS (IN) • ANGLES (DEGREES)**

Beam Flange Thickness	Brace Angle**	Perpendicular to Beam	Parallel to Beam
1/8 - 3/4 Bar Joist (Vertical Position)	30-44	440	620
	45-59	740	880
	60-74	920	940
	75-90	1010	1050
1/8 - 3/4 Bar Joist and Wide Flange Beam (Horizontal Position)	30-44	380	370
	45-59	540	520
	60-74	660	640
	75-90	700	720

\* 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.  
 \*\* Brace Pipe Angles are determined from vertical.

**Structural Note:**

Steel Joist Manufacturers require that all seismic bracing connections be within 6" of the cord panel point. Installation of the Fig. 778 must be limited to the outer third sections of the joist span.

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

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