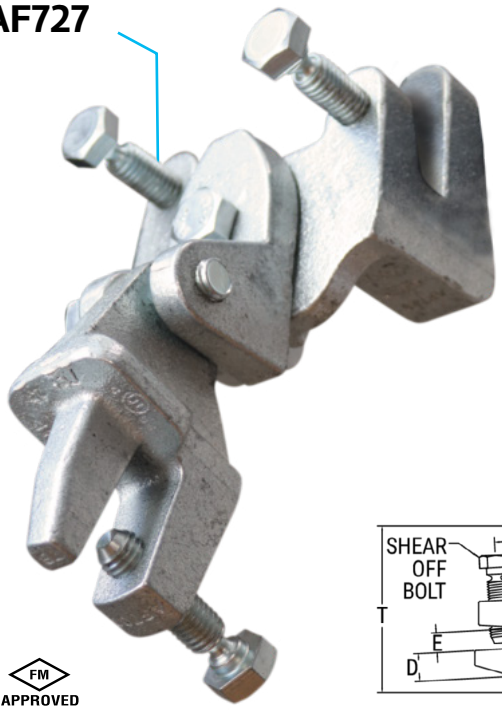
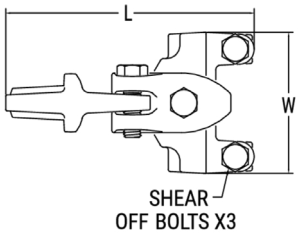
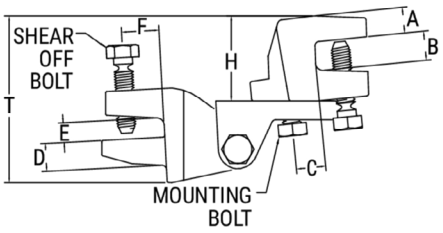
Universal Structural Attachment & Swivel
Fig. AF727

known as the
"Bear Claw™"







c UL us LISTED FM APPROVED

FIG. AF727: Dimensions and Weights

Mounting Bolt	A	B	D	E	F	T
	In./mm	In./mm	In./mm	In./mm	In./mm	In./mm
½"	0.78	0.75	0.74	0.56	0.97	5.13
	19.8	19.1	18.8	14.2	24.6	130.2

FIG. AF727: Dimensions and Weights (Continued)

Mounting Bolt	C	H	L	W	Weight
	In./mm	In./mm	In./mm	In./mm	lbs/kg
½"	0.80	2.31	7.06	4.22	5.53
	20.3	58.7	179.3	107.22	2.51

Notes:
ASC Engineered Solutions™ brand bracing components are designed to be compatible ONLY with other ASC Engineered Solutions brand bracing components, resulting in a Listed seismic bracing assembly. Updated UL listing information may be viewed at www.ul.com and updated FM approval information may be viewed at www.approvalguide.com.

Material Specifications

Size Range
Flange Thickness: up to ¾"
Brace Member: See Table

Material
Ductile Iron with Carbon Steel Hardware

Finish
☐ Plain ☐ Electro-Galvanized per ASTM B633

Service
A seismic structural attachment and swivel designed to attach steel I-beams, flanges, and joists to brace members. The AF727 rigidly braces piping systems subjected to horizontal and vertical seismic loads.

Approvals
cULus Listed (ANSI/UL 203a) & FM Approved (FM 1950-23). Complies with NFPA 13, ASCE 7, IBC, & MSS SP-127 bracing requirements.

Features
- Set screws provide visual indication that proper installation torque has been achieved
- Provides a fast "one-step" installation of structural attachment and swivel connection

Ordering
Specify figure number, finish, and description.

Disclaimer
ASC Engineered Solutions does not provide any warranties and specifically disclaims any liability whatsoever with respect to ASC Engineered Solutions bracing products and components that are used in combination with products, parts or systems not manufactured or sold by ASC Engineered Solutions. In no event shall ASC Engineered Solutions be liable for any incidental, direct, consequential, special or indirect damages or lost profits where non-ASC Engineered Solutions bracing components have been, or are used.

Seis Brace® Seismic Fire Protection Design Tool may be accessed at www.seisbrace.com

AFCON
An ASC Engineered Solution

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Universal Structural Attachment & Swivel
Fig. AF727

FIG. AF727 cULus Listing per ANSI/UL 203a (ASD)

Structure	Load Orientation	Horizontal Load Rating at Brace Angle			
		30°-44°	45°-59°	60°-90°	Listed
		Lbf/(kN)	Lbf/(kN)	Lbf/(kN)	Lbf/kN
Horizontal Steel Flange and Vertical Steel Flange	Parallel to Flange Perpendicular to Flange	942 (4.19)	1333 (5.93)	1632 (7.26)	1885 (8.38)

1) Brace Angles are determined from Vertical.
2) Listed load ratings reduced for angle ranges in accordance with NFPA 13-2019 Table 18.5.2.3.
3) Minimum safety factor of 2.2 in accordance with NFPA 13-2019 Section A.18.5.2.3.
4) Published Load is based on evaluation of the load capacity and deformation of the AFCON product only, capacity and deformation of structural members should be evaluated by the engineer of record.

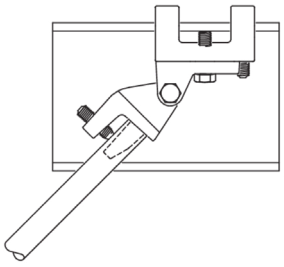
FIG. AF727 FM Approved (Listing) per FM 1950-23 (ASD)

Structure	Load Orientation	Flange Thickness	Horizontal Load Rating at Brace Angle			
			30°-44°	45°-59°	60°-74°	75°-90°
		In./mm	lbf/kN	lbf/kN	lbf/kN	lbf/kN
Horizontal Steel Flange	Parallel to Flange	0.125-0.750 3.18-19.05	450 2.00	780 3.46	790 3.51	870 3.86
	Perpendicular to Flange		700 3.11	1860 8.27	1700 7.56	1870 8.31
Vertical Steel Flange	Parallel to Flange		930 4.13	1320 5.87	1610 7.16	1800 8.00
	Perpendicular to Flange		1300 5.78	1020 4.53	710 3.15	780 3.46

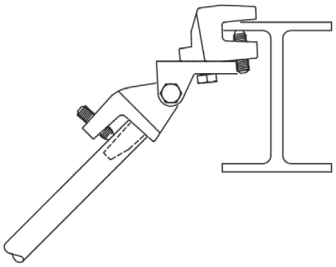
1) Brace Angles are determined from Vertical.
2) Listed load ratings reduced for angle ranges in accordance with NFPA 13-2019 Table 18.5.2.3.
3) Minimum safety factor of 2.2 in accordance with ANSI/FM 1950-23. Load ratings shown are Allowable Stress Design (ASD) values and require no further reduction for NFPA 13-2019 and later.
4) To convert to LRFD Load Ratings, ASD Load Ratings may be multiplied by a factor of 2.2.

FIG. AF727 FM Listed, Approved & Tested Brace Members

Brace Member	Sizes	Standards (or Equivalent)	UL	FM
Sch. 40 NPS Pipe	1", 1¼", 1½", 2"	ASTM A53, A106, A135, or A795	✓	✓
Sch. 40 Metric Pipe	DN25	KS S 3562	✓	✓
	DN32	EN10255H		✓
Metric Pipe	DN40	GB/T 3091		✓
	DN50	JIS G3454		✓

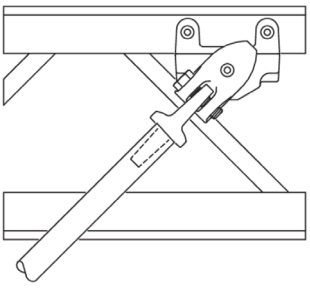


Horizontal Steel Flange (I-Beam)
Seismic Load Parallel to the Flange

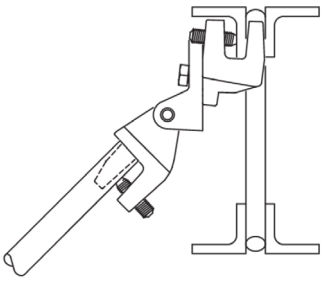


Horizontal Steel Flange (I-Beam)
Seismic Load Perpendicular to the Flange

Notes: Product can be connected to either the top or bottom flange in this application.



Vertical Steel Flange (Joist)
Seismic Load Parallel to the Flange



Vertical Steel Flange (Joist)
Seismic Load Perpendicular to the Flange

asc-es.com

Building Connections That Last™

Universal Structural Attachment & Swivel
Fig. AF727

Sway brace assemblies are intended to be installed in accordance with NFPA 13 and the manufacturer's installation instructions.

Method 1 – Connection to Brace Member First

1. Slide the brace member over the lower jaw until it contacts the back wall.
2. Hand tighten the set screw until it contacts the brace member. Continue to torque the set screw until the head breaks off.
3. Place the other end of the AF727 on a horizontal or vertical steel flange.
4. Hand tighten the set screws until they contact the flange. Continue to torque the set screws until the heads break off.
5. Ensure the brace angle is within the range specified.

Notes: The cross bolt should be hand tight. For visual inspection, at least one thread should be exposed.

Method 2 – Connection to Structure First

1. Attach the AF727 to a horizontal or vertical steel flange
2. Hand tighten the set screws until they contact the flange. Continue to torque the set screws until the heads break off.
3. Slide the brace member over the jaw on the other side of the AF727 until it contacts the back wall.
4. Hand tighten the set screw until it contacts the brace member. Continue to torque he set screw until the head breaks off.
5. Rotate the brace member until the brace angle is within the specified range.

Notes: The cross bolt should be hand tight. For visual inspection, at least one thread should be exposed.