AF727

Universal Structural Attachment & Swivel

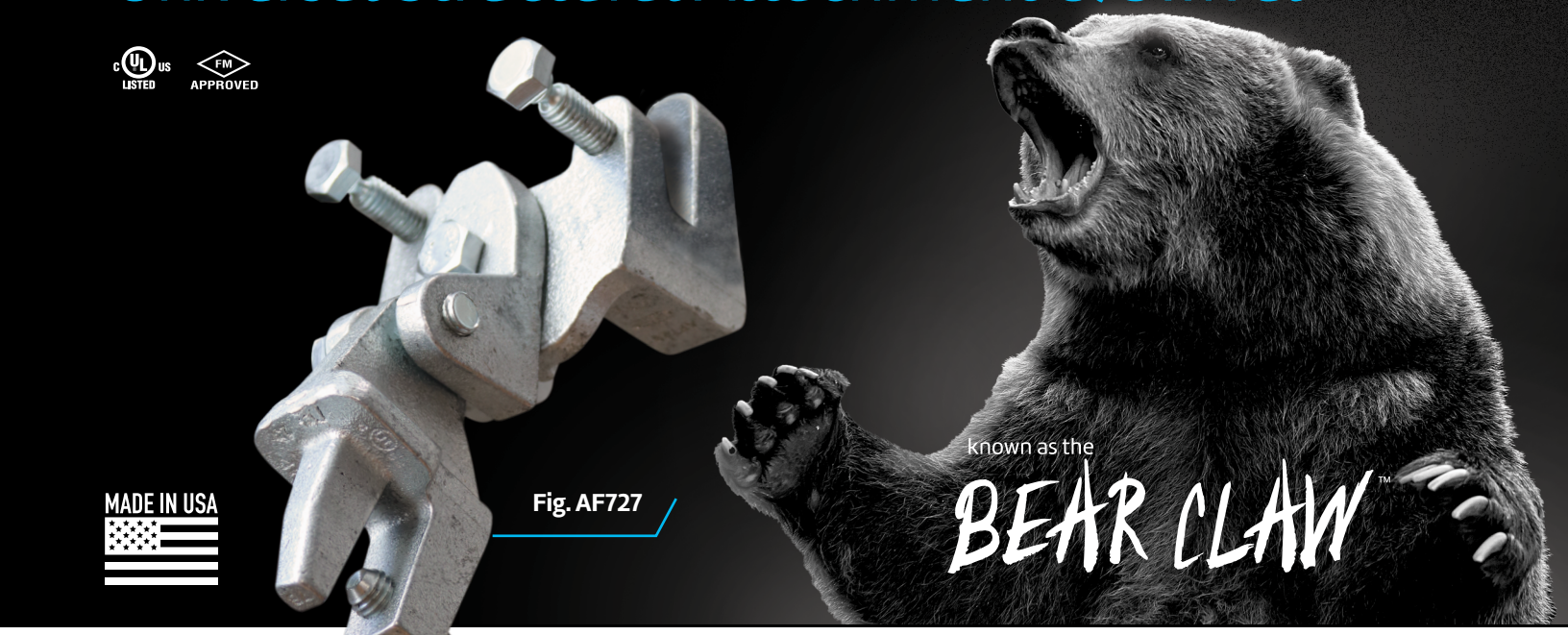

Fig. AF727

About the Product

Description

ASC Engineered Solutions AFCON® Figure AF727 "Bear Claw" is a universal structural attachment and swivel. It is designed to attach steel I-beams, flanges, and joists to brace members and rigidly braces piping systems subjected to horizontal and vertical seismic loads.

The AF727 is a time saving, innovative solution designed to install quickly and easily in one step – cutting typical structural brace attachment install time in HALF. It also saves assembly time, as the structural attachment and swivel component come pre-assembled for easy incorporation into a complete bracing system.

The AF727 is designed to fit beam thickness up to ¾" thick and it works with brace pipe from 1" though 2" size. This product is both UL Listed and FM Approved and ready for incorporation into your seismic bracing system design. ASC proudly manufactures the AF727 Bear Claw in the USA at our Columbia, PA foundry.

Using Seis Brace® 2.0, ASC's free seismic fire protection calculation software, enables spacing maximization and a reduction in material costs while ensuring NFPA 13 code compliance.

The Bear Claw can reduce your installation time by up to 50%. See how, scan the QR Code.

Features & Benefits

- Easy to install
- High load rating can reduce required number of brace locations.
- Saves both installation and assembly time
- Made in USA – meets buy American, Buy America, & AIS
- UL Listed & FM Approved
- High load capacity
- Visual verification of proper installation & torque
- Complies with NFPA 13, ASCE 7, IBC, & MSS SP- 127 bracing requirements

AFCON®
An ASC Engineered Solution

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Fig. AF727 Universal Structural Attachment & Swivel

known as the BEAR CLAW™

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 and 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 1950-13 (ASD)

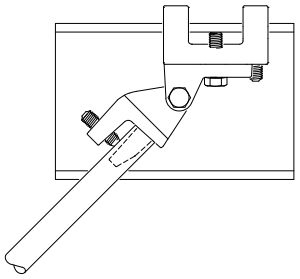
Structure	Load Orientation	Flange Thickness	Horizontal Load Rating at Brace Angle			
			30°-44°	45°-59°	60°-74°	75°-90°
		lbf/kN	In./mm	lbf/kN	lbf/kN	lbf/kN
Horizontal Steel Flange	Parallel to Flange	0.125-0.750 3.18-19.05	1280 5.69	1840 8.18	2210 9.83	2470 10.99
	Perpendicular to Flange		1570 6.98	1490 6.63	1040 4.63	1150 5.12
Vertical Steel Flange	Parallel to Flange		870 3.87	1440 6.41	1230 5.47	1360 6.05
	Perpendicular to Flange		1030 4.58	2260 10.05	2490 11.08	2750 12.23

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 1.5 in accordance with NFPA 13-2016 Section A.9.3.5.2.3. To convert the load ratings above to a safety factor of 2.2 per NFPA 13-2019 Section A.18.5.2.3, multiply load ratings by a factor of 0.68.
4) To convert to LRFD Load Ratings, ASD Load Ratings may be multiplied by a factor of 1.5.

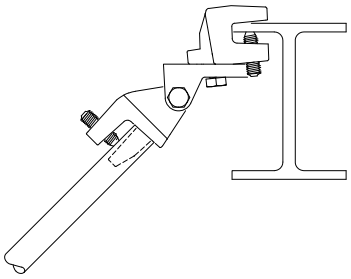
FIG. AF727 FM Listed, Approved & Tested Brace Members

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		✓

For more information about the AFCON® Fig. AF727, contact your ASC sales representative or visit asc-es.com.

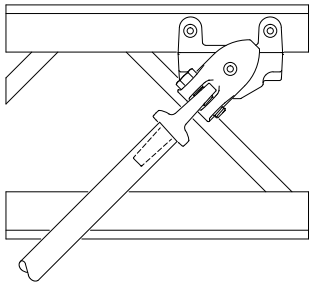


Horizontal Steel Flange (I-Beam)
Seismic Load Parallel to the Flange

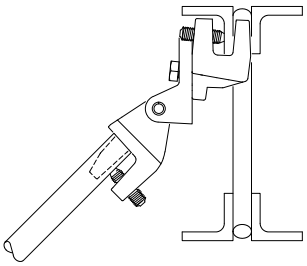


Horizontal Steel Flange (I-Beam)
Seismic Load Perpendicular to the Flange

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

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