

Anvil Shields allow for the support of insulated horizontal refrigeration, mechanical, and plumbing pipe and tube.

The Universal Shield allows for quick and easy installation to I-beams, steel angle, clevis hangers, and the floor through patented, interchangeable inserts.

Features and Benefits:

- Tool Free Installation
- -40°F to 178°F
- >40% faster to install than metal or standard plastic shields
- 80% faster to install than clamps and collars
- Non-adhesive surface allows for the linear expansion of thermal insulation and eliminates insulation tears.



Fig. 30 Universal Shield with Attachments

PROJECT INFORMATION		APPROVAL STAMP	
Project:		<input type="checkbox"/> Approved	
Address:		<input type="checkbox"/> Approved as noted	
Contractor:		<input type="checkbox"/> Not approved	
Engineer:		Remarks:	
Submittal Date:			
Notes 1:			
Notes 2:			

Strut Shield

Fig. 20

Size Range: Up to 8 1/4" O.D. Insulation

Material: UV Resistant Polypropylene Copolymer (Size F 20% Glass Filled)

Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)

Color: Black or White

Service: Support of insulated horizontal refrigeration, air conditioning, and plumbing pipe.

Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)

Installation: Clip directly on Anvil-Strut™ AS200 1 5/8" x 1 5/8" strut channel.

Ordering: Specify figure number, size, and color. Anvil Shields allow for the support of insulated horizontal refrigeration, air conditioning, and plumbing pipe and tube.

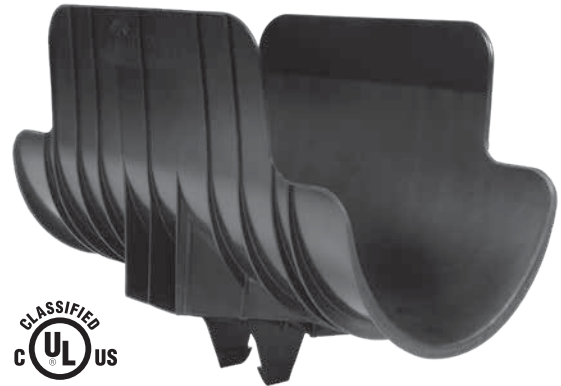


FIG. 20: DIMENSIONS (IN)

Size	A	B	C	D	E
A	2 1/4	4 9/16	1 1/16	12	1 5/8
B	3 1/4	5 9/16	1 9/16		
C	4 1/4	6 9/16	2 1/16		
D	5 1/4	7 9/16	2 9/16		
E	6 1/4	8 9/16	3 1/16		
F	8 1/4	11 1/16	4 1/4		

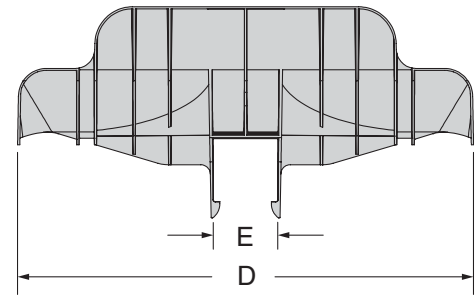
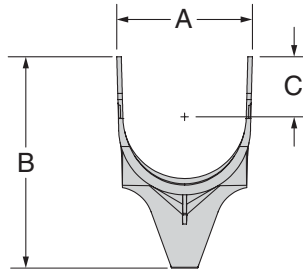


FIG. 20 SIZING TABLE FOR COPPER TUBE

CTS Tube	Tube O.D.	Insulation Thickness				
		1/2"	3/4"	1"	1 1/2"	2"
1/4"	0.375	A	A	B	C	D
3/8"	0.500					
1/2"	0.625					
5/8"	0.750					
3/4"	0.875					
1"	1.125	B	C	D	E	
1 1/4"	1.375					
1 1/2"	1.625	C	D	E	F	
2"	2.125	D	E	F		
2 1/2"	2.625	E	F			
3"	3.125	F				
4"	4.125					

FIG. 20 SIZING TABLE FOR NPS PIPE

NPS Pipe	Pipe O.D.	Insulation Thickness				
		1/2"	3/4"	1"	1 1/2"	2"
1/4"	0.504	A	A	B	C	D
3/8"	0.675					
1/2"	0.840					
3/4"	1.050					
1"	1.315	B	C	D	E	
1 1/4"	1.660					
1 1/2"	1.900					
2"	2.375	C	D	E	F	
2 1/2"	2.875					
3"	3.500	D	E	F		
3 1/2"	4.000					
4"	4.500	E	F			
5"	5.563					
6"	6.625	F				

The sizing chart above represents recommendations based on nominal insulation thicknesses and it does not include manufacturing tolerances for insulation, steel jacketing, or other factors which may influence the outer diameter of the insulation. To determine the best product for your application, please reference the Fig. 20's "A" dimension.

Fig. 21

Strut Shield Insulation Cover

Size Range: Up to 8¹/₄" O.D. Insulation

Material: UV Resistant Polypropylene

Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)

Color: Black or White

Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)

Installation:

- Cut to desired size.
- Place over insulation and line up mounting notches with Fig. 20.
- Secure insulation shield with tie wraps.

Ordering: Specify figure number, size, and color.

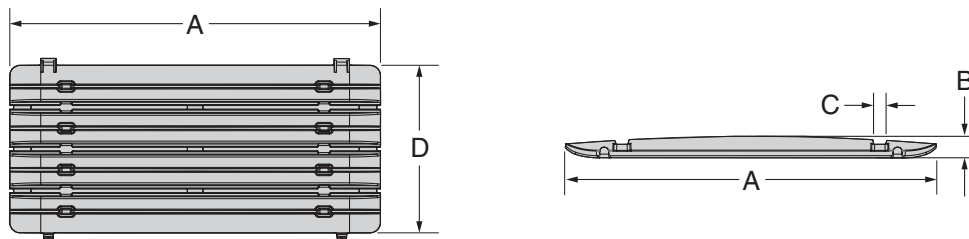


FIG. 21: DIMENSIONS (IN)

Size	A	B	C	D	Fig. 20 Size
A	12	1 ³ / ₁₆	7/ ₁₆	5 ⁷ / ₁₆	A to E
B				11 ¹ / ₁₆	F

Fig. 30

Universal Shield

Size Range: Up to 12⁵/₈" O.D. Insulation

Material: UV Resistant Polypropylene 20% Glass Filled

Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)

Color: Gray

Service: Support of insulated horizontal refrigeration, air conditioning, and plumbing pipe.

Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)

Installation: Install on Fig. 260 clevis hanger or clip into Fig. 32, 33, 34, 36, or 37. When installed with Fig. 260 clevis hanger secure with Fig. 31.

Ordering: Specify figure number and size.

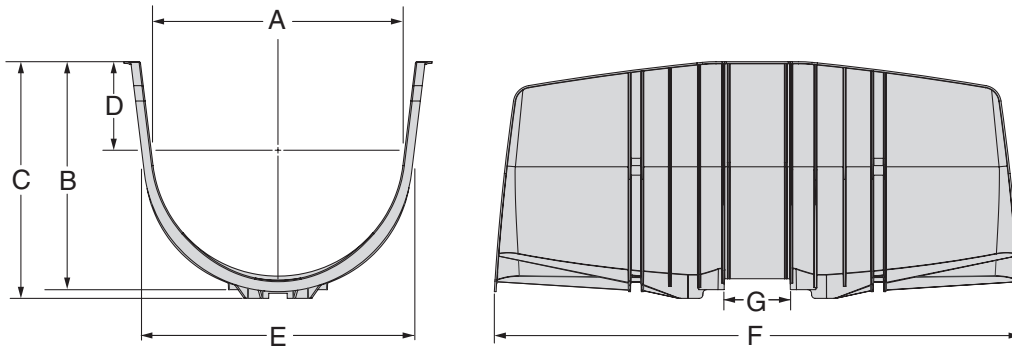
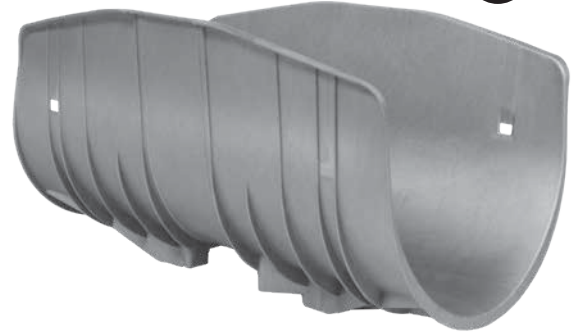


FIG. 30: DIMENSIONS (IN)

Size	A	B	C	D	E	F	G	Fig. 260 Size
A	2 ⁵ / ₁₆	1 ¹⁵ / ₁₆	2 ⁵ / ₁₆	3/ ₈	2 ⁷ / ₁₆	12	1 ³ / ₁₆	2
B	3 ⁷ / ₁₆	3 ³ / ₁₆	3 ⁹ / ₁₆	1 ¹ / ₁₆	3 ⁹ / ₁₆	12	1 ¹ / ₂	3
C	4 ¹ / ₂	3 ⁷ / ₈	4 ³ / ₁₆	1 ³ / ₁₆	4 ⁵ / ₈	12	1 ³ / ₄	4
D	5 ⁹ / ₁₆	4 ⁷ / ₈	5 ³ / ₁₆	1 ¹¹ / ₁₆	5 ³ / ₄	12	2 ¹ / ₁₆	5
E	6 ⁵ / ₈	5 ¹⁵ / ₁₆	6 ¹ / ₄	2 ³ / ₁₆	6 ³ / ₄	12	2 ¹ / ₁₆	6
F	8 ⁵ / ₈	7 ¹³ / ₁₆	8 ¹ / ₈	3 ¹ / ₁₆	8 ³ / ₄	18	2 ¹ / ₄	8
G	10 ⁵ / ₈			1 ³ / ₄	10 ⁹ / ₁₆	23		10
H	12 ⁵ / ₈	9 ³ / ₁₆	9 ¹ / ₂	2 ¹ / ₈	12 ¹ / ₂	23		12

FIG. 30 SIZING TABLE FOR COPPER TUBE

CTS Tube	Tube O.D.	Insulation Thickness				
		1/2"	3/4"	1"	1 1/2"	2"
1/4"	0.375	A	A	B	B	C
3/8"	0.500				C	D
1/2"	0.625		B	C	D	
5/8"	0.750		C	D	E	
3/4"	0.875		D	E	F	
1"	1.125	B	C	D	E	F
1 1/4"	1.375					
1 1/2"	1.625	C	D	E	F	
2"	2.125	D	E	F		
2 1/2"	2.625	E	F			
3"	3.125	F				
4"	4.125					

FIG. 30 SIZING TABLE FOR NPS PIPE

NPS Pipe	Pipe O.D.	Insulation Thickness				
		1/2"	3/4"	1"	1 1/2"	2"
1/4"	0.504	A	A	B	C	D
3/8"	0.675					
1/2"	0.840		B	C	D	
3/4"	1.050		C	D	E	
1"	1.315		D	E	F	
1 1/4"	1.660	B	C	D	E	F
1 1/2"	1.900					
2"	2.375	C	D	E	F	
2 1/2"	2.875	D	E	F		
3"	3.500	E	F			
3 1/2"	4.000	F				
4"	4.500					
5"	5.563					
6"	6.625					
8"	8.625					
10"	10.75					

The sizing chart above represents recommendations based on nominal insulation thicknesses and it does not include manufacturing tolerances for insulation, steel jacketing, or other factors which may influence the outer diameter of the insulation. To determine the best product for your application, please reference the Fig. 30's "A" dimension.

Fig. 31

Universal Shield Clevis Adapter

Size Range: From 2" through 12" Clevis (Fig. 260) when used with Fig. 30.
Material: UV Resistant Polypropylene 20% Glass Filled
Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)
Color: Gray
Service: Support of insulated horizontal refrigeration, air conditioning, and plumbing pipe when used with Fig. 30.
Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)
Installation: After installation of Fig. 30 with Fig 260 clevis hanger, clip into the bottom of the Fig. 30 in order to secure the Fig. 260.
Ordering: Specify figure number and size.

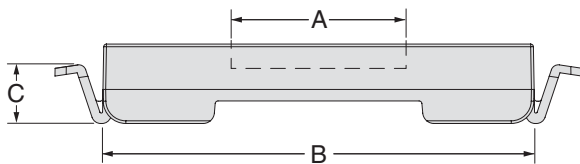
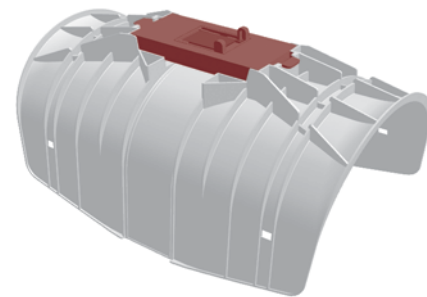


FIG. 31: DIMENSIONS (IN)		
A	B	C
1 ⁷ / ₈	4 ³ / ₄	7 ⁷ / ₈

Fig. 32

Universal Shield Strut Adapter

Size Range: 1³/₁₆", 1⁵/₈", 3¹/₄", 6¹/₂" x 1⁵/₈" strut channel
Material: UV Resistant Polypropylene 20% Glass Filled
Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)
Color: Gray
Service: Support of insulated horizontal refrigeration, air conditioning, and plumbing pipe when used with Fig. 30.
Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)
Installation: Clip into the Fig. 30 and then clip directly on appropriately sized Anvil-Strut™.
Ordering: Specify figure number and size.

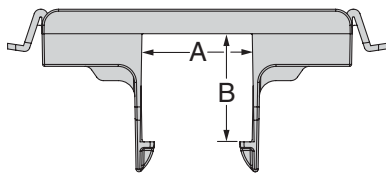
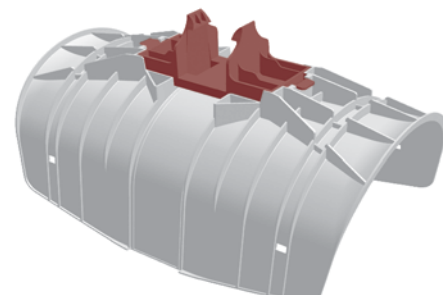
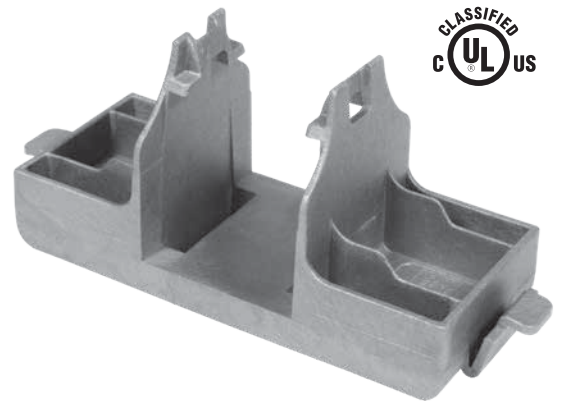


FIG. 32: DIMENSIONS (IN)		
Size	A	B
A	1 ⁵ / ₈	1 ³ / ₁₆
B		1 ⁵ / ₈
C		3 ¹ / ₄
D		6 ¹ / ₂

Fig. 33

Universal Shield Angle Adapter

Size Range: 1/2" to 2 5/8" Steel Angle
Material: UV Resistant Polypropylene 20% Glass Filled
Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)
Color: Gray
Service: Support of insulated horizontal refrigeration, air conditioning, and plumbing pipe when used with Fig. 30.
Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)
Installation: Clip into the Fig. 30 and then clip directly on steel angle or C-channel.
Ordering: Specify figure number

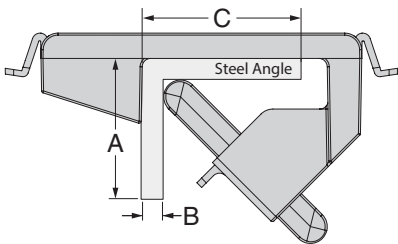


FIG. 33: DIMENSIONS (IN)					
A Min	A Max	B Min	B Max	C Min	C Max
1/2	2 5/8	1/8	5/8	1/2	2 5/8

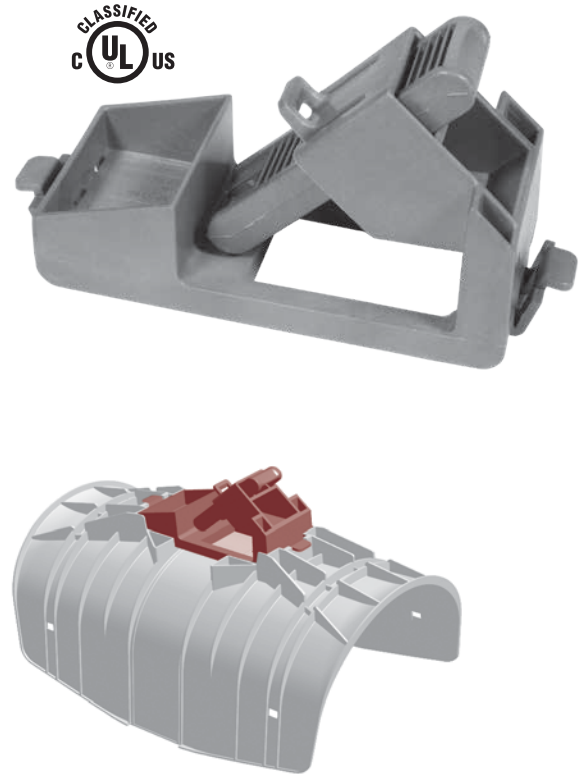


Fig. 34

Universal Shield Strut Stabilisator

Material: UV Resistant Polypropylene 20% Glass Filled
Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)
Color: Gray
Service: Support of insulated horizontal refrigeration, air conditioning, and plumbing pipe when used with Fig. 30 & Fig. 31.
Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)
Installation: Center under Fig. 30. Clip Fig. 31 over the Strut Stabilisator into the Fig. 30 in order to secure it.
Ordering: Specify figure number and size.

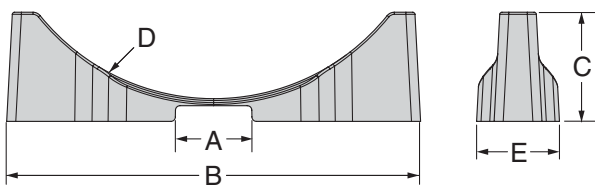


FIG. 34: DIMENSIONS (IN)						
Size	A	B	C	øD	E	Fig. 30 Size
G	2 1/8	10 5/16	3	10 1/4	2 1/4	G
H		11 3/8		12 1/4		H

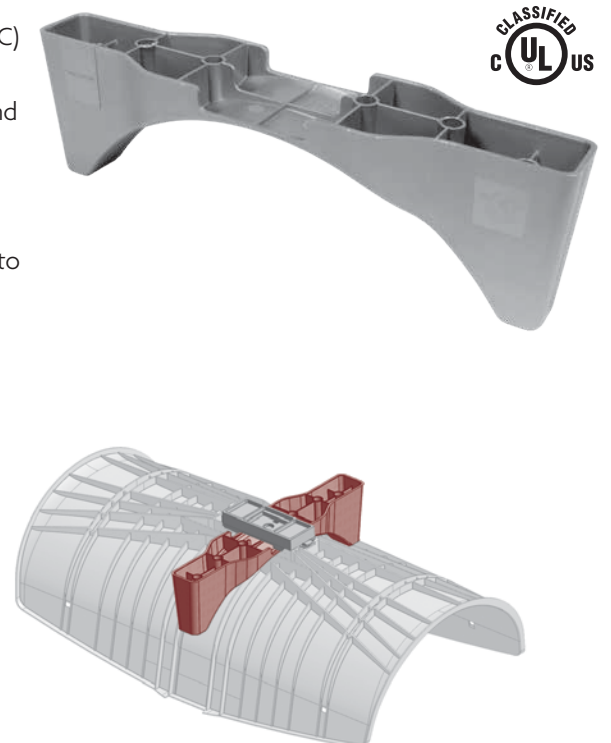


Fig. 35

Universal Shield Floor Adapter

Material: UV Resistant Polypropylene 20% Glass Filled
Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)
Color: Gray
Service: Support of insulated horizontal refrigeration, air conditioning, and plumbing pipe when used with Fig. 30, Fig. 31, and Fig. 34.
Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)
Installation: Center under Fig. 30 and Fig. 34. Clip Fig. 31 over the Floor Adapter into the Fig 30 in order to secure it.
Ordering: Specify figure number

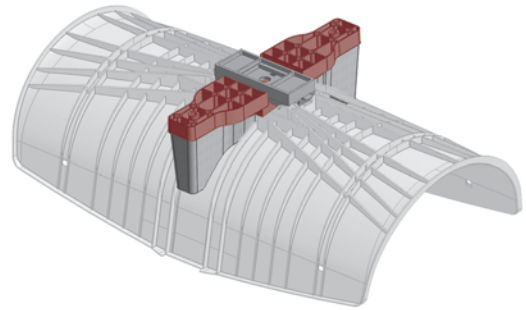
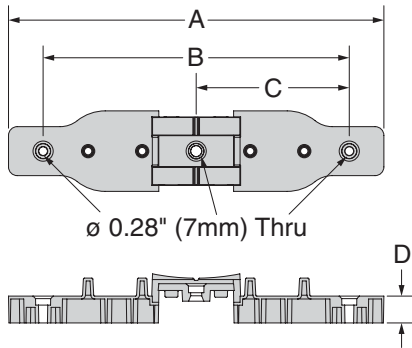
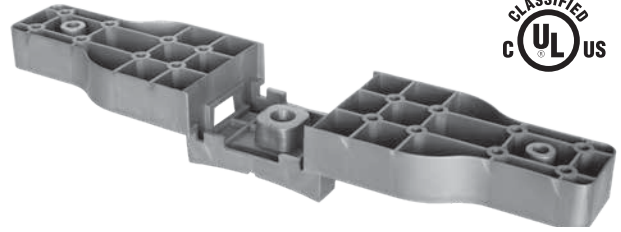


FIG. 35: DIMENSIONS (IN)

A	B	C	D
10 ⁷ / ₁₆	8 ¹ / ₂	4 ¹ / ₄	3 ³ / ₄

Fig. 36

Universal Shield I-Beam Adapter

Material: UV Resistant Polypropylene 20% Glass Filled
Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)
Color: Gray
Service: Support of insulated horizontal refrigeration, air conditioning, and plumbing pipe when used with Fig. 30
Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)
Installation: Clip into the Fig 30 and then clip directly on an I-Beam.
Ordering: Specify figure number

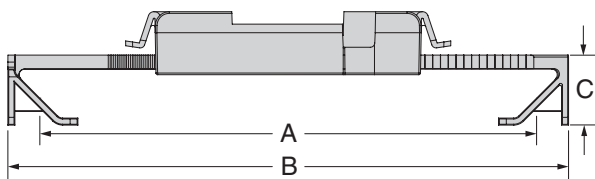
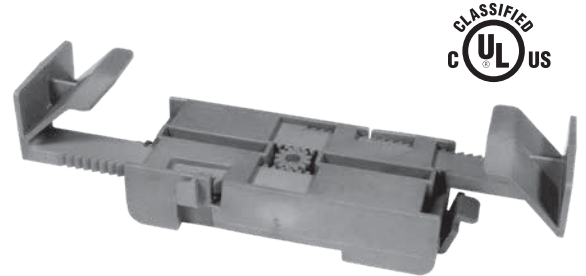


FIG. 36: DIMENSIONS (IN)

A Min	A Max	B Max	C
3 ¹ / ₂	8 ⁷ / ₈	10	3 ³ / ₄

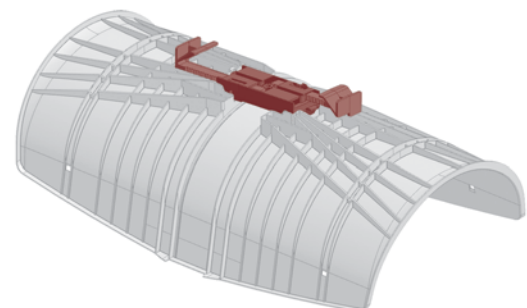


Fig. 37

Universal Shield Shock Detector

Size Range: 1.4G, 1.6G, 1.8G Downward Acceleration

Material: UV Resistant Polypropylene 20% Glass Filled. (Carbon Steel Flags)

Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)

Color: Gray

Service: Magnetic shock detection device provides a visual indication that the piping system has experienced accelerations of various magnitudes.

Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)

Ordering: Specify figure number

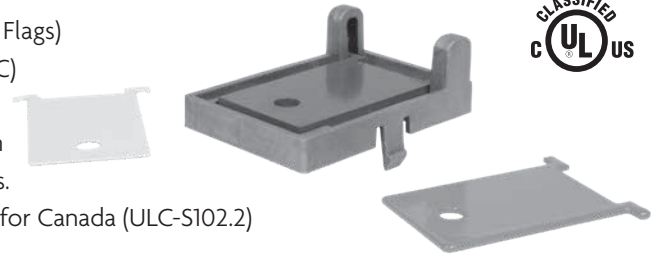


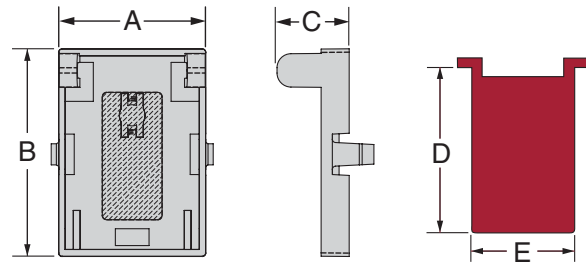
FIG. 37: FLAG COLOR AND DESIGNED ACCELERATION

Flag Color	Downward Allowable Acceleration
Yellow	1.8G
Orange	1.6G
Red	1.4G

Note: Each unit is supplied with all three interchangeable flags.

FIG. 37: DIMENSIONS (IN)

A	B	C	D	E
1 ⁵ / ₁₆	1 ⁷ / ₈	5 ⁵ / ₈	1 ⁷ / ₁₆	7 ⁷ / ₈

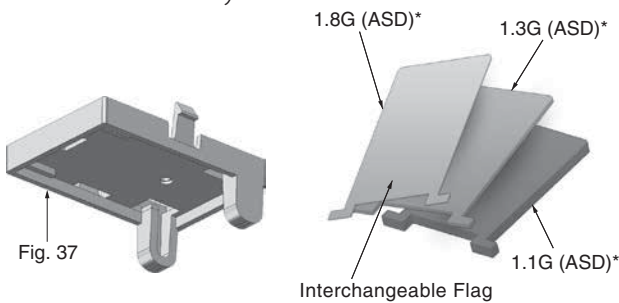


Installation:

STEP 1

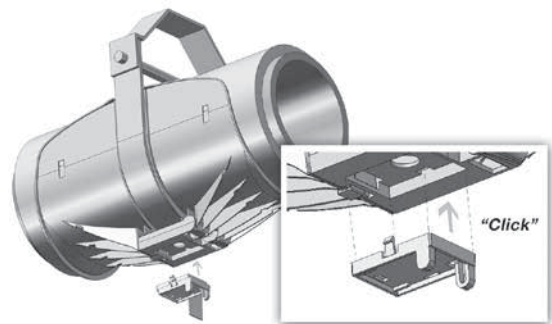
Required installation components

Each flag will trigger at a different shock intensity. Flags are easily interchangeable for different shock tolerance. Various flags thickness for different shock intensity.



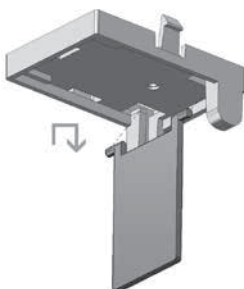
STEP 2

Clip Fig. 37 into Fig. 31 Universal Shield Clevis Adapter



STEP 3

Insert flag into Fig. 37



STEP 4

Move the flag in closed position

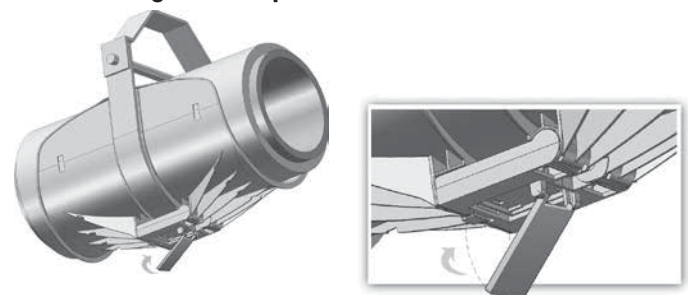


Fig. 38

Universal Shield Insulation Cover

Size Range: Up to 12⁵/₈" O.D. Insulation

Material: UV Resistant Polypropylene 20% Glass Filled

Temperature: Operating temperature between -40°F to 178°F (-40°C to 81°C)

Color: Gray

Approvals: UL classified for USA (UL-723 (ASTM E84)) and ULC listed for Canada (ULC-S102.2)

Installation:

- Cut to desired size.
- Place over insulation and line up mounting notches with Fig. 30.
- Secure insulation shield with tie wraps.

Ordering: Specify figure number and size.

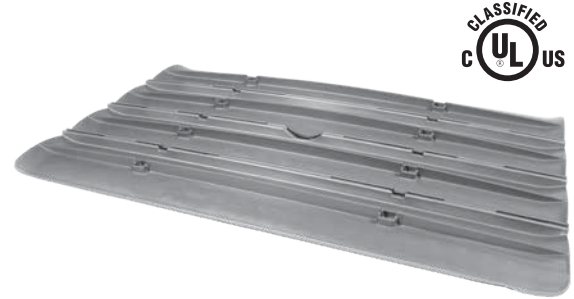


FIG. 38: DIMENSIONS (IN)					
Size	A	B	C	D	Fig. 30 Size
A	12	13/16	7/16	5 ⁷ / ₁₆	A to E
B	18	3/4		10 ¹³ / ₁₆	F to H

