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260 (ISS) Insulation Saddle System

BUILDING CONNECTIONS THAT LAST

CRUVLOK (EPF/RIVD) Catawissa () ANNLES CANVIL (BECK ANVIL-STRUT SEMINOLE

ANVIL PRODUCT LINE 260 (ISS) Insulation Saddle System

Engineers and contractors are specifying and installing the 260 ISS in their buildings, across the United States and Canada.

STEP 1





Notch to Fit Saddle



Slide Over Saddle

Easy Installation

The 260 ISS needs no wood blocks or shields because the pipe is installed on the saddle. After you ensure that the hanger load nut above the clevis is tightened securely, you will position the pipe on the saddle. Then, notch one section of the insulation to fit around the saddle. The notch should be deep enough to extend 1/8 to 1/4 beyond the saddle. Square cut the adjoining insulation section and butt the mating end to the notched section. Finish taping according to standard methods.

Adjustments without removal of the hanger, thus saving costs, may be made 7 /₈ through 2³/₈ according to the size of the clevis.

Chilled Water Testing

The Anvil 260 ISS was independently field-tested on chilled water systems with operating temperatures in the mid-40°F range, with relative humidity averaging above 85%. Each insulation joint followed standard insulation practices and was thus coated at the coped and flat edges with insulation mastic, and all seams were caulked with a basic silicon adhesive caulk. This procedure is standard for valves, unions, strainers, and suction diffusers. Upon completion of this extensive testing, each support and adjacent insulation was inspected and no evidence of moisture was present on the 260 ISS, the pipe, or the surrounding insulation.

Insulation R-Value

With the wood block and metal shield installation, insulation wrap, with an R-value of 4.3 per inch, is cut away to allow for the insertion of the wood block. The wood block typically has an R-value of 1.4 to .7 per inch, depending on the grade of wood block used. This effectively reduces the insulation value of the system to that of the wood block at best, or to a significantly less value if the insulation is not removed with care. If there are

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STEP 3



Square Cut Adjoining Insulation

gaps between the wood block and the insulation, the only thing between the temperature of the pipe and the outside air is the vapor barrier material and the metal shield.

By using the Anvil International Figure 260 ISS system, the insulation, having an R-value of 4.3, is cut away and replaced with the polymer V-Block component having an R-value of 5.0 to 8.7, depending on the size of hanger being used.

ASTM & UL Fire Ratings

The 260 ISS has been independently tested by ASTM and UL for flame spread index (FSI), smoke development (SD), and drip ratings. The product has been approved by both agencies and has qualified for an ASTM E84 Class 1 25/60 rating, as well as a UL E94 VO rating. These are the highest ratings for this type of product for either agency.

R

STEP 4

Finish Taping

Flammability Ratings

Authorities having jurisdiction usually refer to the following categories for flame spread index and smoke development:

- Dual Listed ASTM E84 & UL V-0
- Class 1 or Class A
- Flame spread index 0-25
- Smoke development 450 Maximum

ASTM E-84 testing performed by an independent testing group determined that the results for the Anvil 260 ISS met the criteria for a Class 1 25/60 rating for flame spread index and smoke development, which is in the highest class offered by ASTM.

ASTM UL-94 Flammability Rating: V-0. (A V-0 is defined by burning and self-extinguishes within 10 seconds on a vertical specimen, and no drips are allowed. The V-0 rating is the highest class offered by UL.)

Material Specifications



Service Application For the suspension of stationary insulated chilled or hot water pipelines

How to Size

Hanger must be selected from the sizing table according to pipe size and insulation thickness (see chart next page)

Maximum Temperature

40°F to 200°F

Size Range

2 through 16" clevis hanger with saddle assembly; ½ through 12 pipe diameter

Material

Carbon steel with high-impact glassreinforced polypropylene saddle and carbon steel pipe spacer

Finish

Plain or galvanized clevis hanger

Ordering

Specify size number, insulation thickness, figure number, and finish

ANVIL PRODUCT LINE **260 (ISS) Insulation Saddle System**

2 thru 16 Figure 260 ISS

Patent # 7,281,689



Fig. 260 (ISS) Insulation Saddle System Sizing Table

	Insulation Thickness							
Pipe Size	1⁄2"	3⁄4 "	1"	1 1⁄2	2"			
(Size Number)								
1/2	2	2	3	_	—			
3/4	2	3	3		—			
1	2	3	3		—			
1 1/2	3	4	4		—			
2	4	4	5		—			
21/2	5	5	5	6	8			
3	5	5	5	6	8			
31/2	5	6	6	8	8			
4	6	6	8	8	8			
5	8	8	8	10	10			
6	10	10	10	10	10			
8	12	12	12	12	12			
10	14	14	14	14	16			
12	16	16	16	16				

Fig. 260 (ISS) Insulation Saddle System Sizing Table

Copper	Insulation Thickness							
Tube Size	1⁄2"	3⁄4 "	1"	11⁄2	2"			
(Size Number)								
3/8	2	2	3	—	—			
1/2	2	2	3		—			
5/8	2	2	3		—			
3/4	2	2	3					
1	2	3	3		—			
1 1⁄4	3	3	3		—			
11/2	3	3	4		—			
2	4	4	4		—			
21/2	4	5	5	6	—			
3	5	5	5	6	8			
31/2	5	5	6	8	8			
4	6	6	8	8	8			
5	8	8	8	8	10			
6	8	10	10	10	10			
8	10	10	12	12	12			

Figure 260 ISS: Loads • Weights • Dimensions

260 ISS			Rod Size		**Rod Take	Adjust.		
Size Number	*Max Load	Weight	А	С	Out E	F	G	Х
2	550	0.73	3/8	4 1/2	25/8	7⁄8	1⁄4	23/8
3		1.32	1/2	6 1/2	4 1/16	17/16	3/8	35⁄8
4		1.83	5/6	713/16	41/2	1 1/2		41/2
5	- 750 - 1100	2.44	78	815/16	5½	1 3⁄4		511/16
6		3.81	37.	101/4	53/4	11/2	14	611/16
8		5.60	94	1211/16	7 ³ /16	1 3⁄4	72	813/16
10		9.73	7/0	151/4	8 7/16	17⁄8	5/6	103⁄4
12	1700	13.80	/8	1715/16	10 ¹ /8	2%16	78	127/16
14		15.60	1	19%16	1011/16	21/2	3/4	147/16
16		26.81	1	22	12	23/8	1	16 ⁵ /16

* Max load exceeds dead weight load requirement of pipe at max span, except 14 and 16 where max load is based on industry standard spacing of 14. See the pipe data and load table on following page for dead weight load calculations. **Based on maximum insulation thickness, variations due to pipe size and insulation thickness may occur.