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ASC Engineered Solutions

Installation Instructions

Friction Anchors

Fig. EL109N, EL110LN, EL110N, & EL110HN

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Installation Instructions for Friction Anchors
FIG. EL109N, EL110LN, EL110N, and EL110HN

Installation Instructions
For
Friction Anchors

FIG. EL109N, EL110LN, EL110N, AND EL110HN

Installation Instructions for Friction Anchors
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1.0 SCOPE

1.1 This procedure details the method for installing ASC's Fig. EL109N, EL110LN, EL110N, and EL110HN Friction Anchors. It is intended for use at nuclear power stations constructed to the rules of the ASME Boiler and Pressure Vessel Code, Section III-NF; ANSI B31.1 Power Piping; and USAS B31.7 Nuclear Power Piping.

1.2 All welding must be performed by qualified welders using appropriate qualified welding procedures. See Paragraph 1.3 for applicable material specifications to determine proper procedures.

1.3 Material Specifications:

Carbon Steel: SA-36
SA-515 GR 65-70 (.3 Carbon Max)
SA-516 GR 65-70 (.3 Carbon Max)

Stainless Steel: SA-240 Type 304

2.0 MATERIAL CHECK

2.1 Insure that each assembly includes -

2.1.1 For Fig. EL109N:

- Top half
- Bottom half with welded "tee"
- Studs (4)
- Nuts (8)
- Washers (8)

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2.1.2 For Fig. EL110LN:

- Top half with unthreaded holes
- Bottom half with tapped holes
- Studs (2)
- Nuts (2)
- Washers (2)

2.1.3 For Fig. EL110N:

- Top half with unthreaded holes
- Bottom half with tapped holes
- Studs (4)
- Nuts (4)
- Washers (4)

2.1.4 For Fig. EL110HN:

- Top half with unthreaded holes
- Bottom half with tapped holes
- Studs (6)
- Nuts (6)
- Washers (6)

2.2 The bottom half of each assembly is marked on one face with Figure Number, Size, and Material (carbon steel [C.S.] or stainless steel [S.S.]).

2.3 Top halves of the same size and material are interchangeable and do not have a matched orientation.

2.4 Friction Anchors should be stored and handled in accordance with ANSI N45.2.2 Level C.

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3.0 INSTALLATION

3.1 Place bottom half of anchor at support point.

3.2 Weld bottom half to support structure using appropriate weld size and procedure. If supporting structure is not flat, sequence weld to minimize distortion. Allow bottom half to cool after welding.

3.3 Align top half with bottom half. Insure that the top and bottom are the same size and material type.

3.4 Install studs.

3.4.1 Fig. EL109N studs go through the top half and bottom half.

3.4.2 Fig. EL110N and EL110HN studs go through the top half and are threaded into the bottom half (1" min. engagement).

3.4.3 Fig. EL110LN studs go through the top half and are fully threaded into the bottom half.

3.5 Install washers and nuts. Do not lubricate threads.

3.6 Insure nuts are uniformly snug tight and are completely engaged. Insure that there is a uniform gap between the top half and bottom half of the anchor.

3.7 Tighten nuts (top nuts for Fig. EL109N) in 1/3 increments using torquing sequence outlined in Figure 1.

3.7.1 Field installation tolerances plus calibration tolerance should not exceed +/- 25%.

3.7.2 Lock wire is not required as torque values will insure a preload adequate for a locking device.

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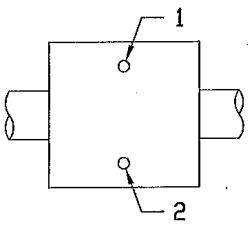
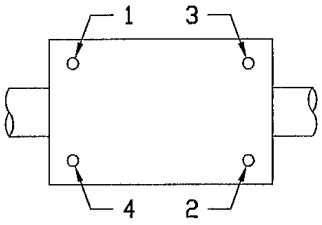
FIGURE 1

PIPE SIZE	TUBE SIZE	STUD SIZE	NUT TORQUE (IN-LBS)
3/8 - 3/4	1/4 - 1/2	3/8	300
1 - 2	3/4 - 1 1/2	1/2	750

TORQUE SEQUENCE



EL110LN



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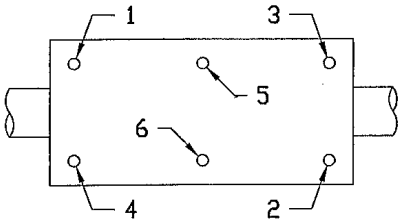

EL110HN

Rev 4: Updated to reflect company name change from Anvil International to ASC Engineered Solutions.

About ASC Engineered Solutions

ASC Engineered Solutions is defined by quality—in its products, services and support. With nearly 2,000 employees, the company's portfolio of precision-engineered piping support, valves and connections provides products to more than 4,000 customers across industries, such as mechanical, industrial, fire protection, oil and gas, and commercial and residential construction. Its portfolio of leading brands includes ABZ Valve®, AFCON®, Anvil®, Anvil EPS, Anvil Services, Basic-PSA, Beck®, Catawissa, Cooplet®, FlexHead®, FPPI®, Gruvlok®, J.B. Smith, Merit®, North Alabama Pipe, Quadrant®, SCI®, Sharpe®, SlideLOK®, SPF®, SprinkFLEX®, Trenton Pipe and VEP. With headquarters in Oak Brook, IL, ASC also has ISO 9001:2015 certified production facilities in PA, TN, IL, TX, AL, LA, KS, and RI.

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