



PLIDCO® STUD BOLT ENCLOSURES INSTALLATION INSTRUCTIONS

LANGUAGES:

CLICK ON LANGUAGE DESIRED

ENGLISH



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PLIDCO® STUD BOLT ENCLOSURES INSTALLATION GUIDELINES

PLIDCO Stud Bolt Enclosures Installation Guidelines are intended for use with PLIDCO Split Repair Fittings only. PLIDCO Stud Bolt Enclosures are designed per application and shall only be installed with the correct PLIDCO Split Repair Fitting. It is assumed the end user has established qualified weld procedures. These guidelines are not intended to override any established end user procedures, but are intended as a guide to those unfamiliar with PLIDCO Stud Bolt Enclosures. If you have any questions, or encounter any difficulties using this product, please contact: PLIDCO 440-871-5700

Safety Check List

- Read and follow these instructions carefully. Follow your company's safety policies and any specific regulatory construction codes and/or standards.
- During the Sleeve Preparation and Installation procedures, those installing the PLIDCO Stud bolt enclosure must wear, at minimum, Z87+ safety eyewear and steel toe safety footwear.
- Verify that the correct PLIDCO Stud Bolt Enclosure has been selected for use with the selected PLIDCO Split Repair Product.
- Make certain the atmosphere around the PLIDCO Split Repair Fitting is safe for welding, and that the Split+Sleeve has maintained a proper seal.

Preparation

- Each of the studs shall be cut about 1/2" (12.7 mm) above the nut on each end.
- The surface of the PLIDCO Split Repair Fitting where the stud enclosure will be welded to the fitting should be ground to bare metal suitable for welding, and free of coatings, rust, scale, and burrs.

Installation

- The PLIDCO Split+Sleeve should be fully welded to the pipe line with the two halves of the sleeve welded longitudinally together per the Split+Sleeve installation instructions provided with the PLIDCO Split+Sleeve prior to welding the PLIDCO Stud Bolt Enclosure.
- All welds must be capable of containing the full operating pressure.
- It may be necessary to grind any weld bevels in the field to achieve a better fit onto the PLIDCO Split Repair Fitting.
- The pipe sections of the PLIDCO Stud Bolt Enclosure fits around the studs (after cutting), as shown below, in Figure 1.
- The Pipe Sections should be installed in a manner such that the larger of the two longitudinal bevels on the Pipe Section of the PLIDCO Stud Bolt Enclosure is mating against the outside diameter of the PLIDCO Split Repair Product, as shown below in Figure 1. Doing this will result in the smaller of the two longitudinal bevels be mated against the sidebar of the PLIDCO Split Repair Product.

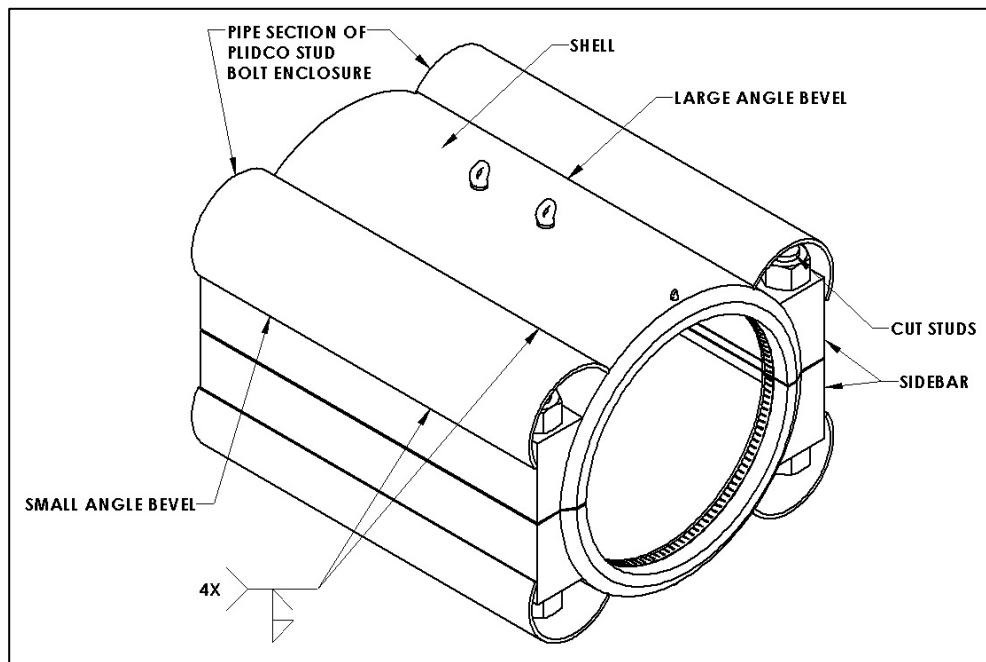


Figure 1

- Once the Pipe Sections have been fit up on the PLIDCO Split Repair Product, the longitudinal welds can be made.
- After the Pipe Sections have been welded to the sidebar and shell, the End Caps can be fit up and welded, as shown below in Figure 2.

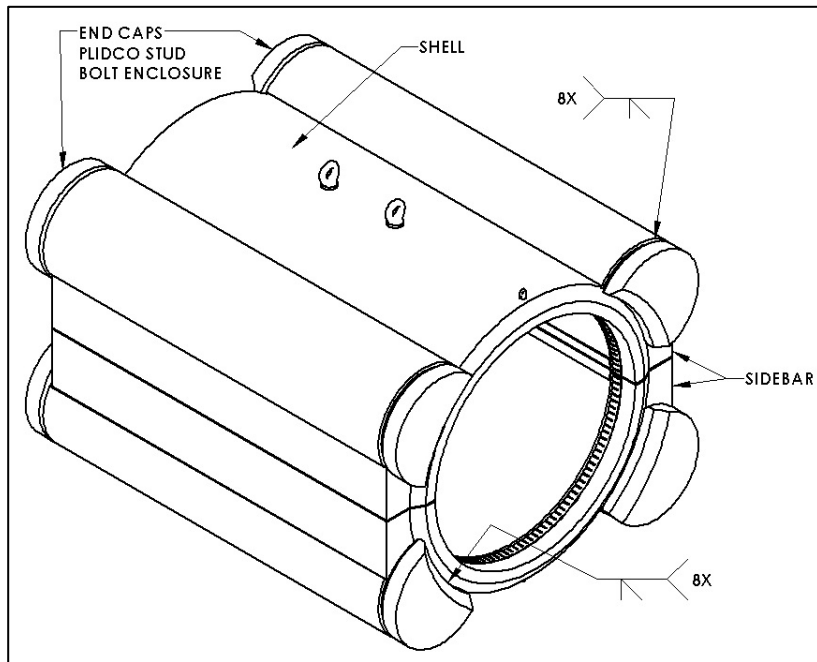


Figure 2

Field Welding Guidelines

All of the aspects for in-service welding of PLIDCO Stud Enclosures are not addressed by this document. ASME PCC-2, API 1104 Appendix B, ASME Section IX, PRCI L52047, PRCI Hot Tap® Model, and other industry information pertaining to in-service welding must be considered when planning in-service welding. Refer to IP-019, *Welding Considerations* for additional information.

Welders and weld procedures should be qualified in accordance with API Standard 1104, *Welding of Pipelines and Related Facilities*, Appendix B, *In-Service Welding*. We strongly recommend the use of a low hydrogen welding process such as GMAW or SMAW using low hydrogen electrodes (E-XX18) because of their high resistance to moisture pick-up and hydrogen cracking. These are also the preferred welding processes for seal welding the studs and nuts. SMAW electrodes must be absolutely dry.

Use weld material that meets or exceeds the tensile strength of the Weld-On Enclosure or the pipe, whichever is greater. Carefully control the size and shape of the circumferential fillet welds. Strive for a concave faced fillet weld, with streamlined blending into both members; avoid notches and undercuts. The smoother and more streamlined the weld, the greater the resistance to fatigue failure. The worst possible shape would be a heavily reinforced convex weld with an undercut. Improper weld shape can lead to rapid fatigue failure, which can cause leakage, rupture or an explosion with attendant serious consequences.

It is very important that the field welding procedure closely follows the essential variables of the qualified procedure so that the quality of the field weld is represented by the mechanical tests performed for the procedure qualification.

We strongly recommend the use of a low hydrogen welding process such as GMAW or SMAW using low hydrogen electrodes (E-XX18) because of their high resistance to moisture pick-up and hydrogen cracking. SMAW electrodes must be absolutely dry.

Additional in-service welding suggestions can be found in Installation Procedure IP-019, *Welding Considerations*. References to heat damage of elastomeric gaskets and welding studs and nuts may not be applicable to your particular weld-on enclosure.