ARMADILLO® Stainless Shell Kit

Be sure to read and completely understand this procedure before applying product. Be sure to select the proper PREFORMED product before application.

NOMENCLATURE

Top Shell half with Air Flange

Bottom Shell Half

Aerial Supension Plate (two)

Square Head Bolt, Hex Nut (two each)

LOCKBAR™ Fastener Assemblies

Bond Clip

Torque Bar (two)

Pipe Plug

Shell Kit with Air Valve Flange

Top Shell Half with Air Flange and Filling Flange

Bottom Shell Half

Funnel with Tubing

Plastic Spacer Mat

Aerial Supension Plate (two)

Check Valve

Reducing Bushing

Pipe Plug (two)

Filling Flange Shell Kit

Square Head Bolt, Hex Nut (two each)
1. Attach the bonding wire in the front shell of the ARMADILLO® Stainless to one of the cable shield connectors before installing the Shells.

2. The back LOCKBAR™ Fastener assembly mates with the front LOCKBAR Fastener assembly through the flange of the Shells, and then locks into position. Arrows face away from the Shell.

3. | **LOCKBAR™ Fastener Stud Replacement Kits** |
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<td><strong>Catalog Number</strong></td>
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The ends of the threaded studs have been treated so that the nuts cannot be easily removed without possible damage. If damage does occur to the studs, or nuts, replacement assemblies are available from PLP®.
4. Aerial applications require that the suspension plates be installed to the back LOCKBAR™ Fastener prior to its application to the Shell. A special third hole is provided on either side of the back LOCKBAR Fastener assembly for this purpose.

5. For external bonding, the bolt, bonding clip and nut must be applied to the (front) keyhole LOCKBAR™ Fastener assembly prior to its mating with the back LOCKBAR Fastener assembly. There is also a special third hole for this purpose.

6. After completing LOCKBAR™ Fastener preparatory steps, apply back shell (the one without the air flange) over the End Plates. Attach the LOCKBAR Fastener assemblies.

NOTE:
1. Do not align shell flanges with End Plate Seams.
2. In cold weather warm shells prior to installation.
3. Remove protective paper liners.
1. Nuts have been grouped into sets. Tighten all nuts within each set, beginning at the “X” in the direction of the arrow. Start with set #1 etc.
   A. Tighten all nuts until Shell Flanges meet.
   B. Repeat “A” torquing each nut to:
      1. 4" cases: 85 in-lbs (9.6 Nm)
      2. 6.5", 8" and 9.5" cases: 125 in-lbs (14.1 Nm)
      3. 12.5" cases: 135 in-lbs (15.3 Nm) then torque to 165 in-lbs (18.6 Nm)
      DO NOT EXCEED 165 in-lbs (18.6 Nm)
   C. Re-torque 8 corner nuts [for 12.5" cases to 165 in-lbs (18.6 Nm)]. Corner Nut Example: 4” x 25” sets #3, #4, #5, #6. See image below.

2. Re-entry, loosen all nuts just far enough to enable removal of all LOCKBAR Fastener assemblies. CAUTION: Bolt ends are treated for nut retention. Avoid running nuts into treated area.

3. After two or three re-entries apply shell lubricant to the studs for continued ease of re-entry.

Using an in-lb torque wrench, tighten the nuts according to the sequence shown.
8. Flash test the installation according to company practices. Replace the “F” pressure valve with the plug provided. After the nuts have been tightened, a certain amount of relaxation occurs. This is to be expected. DO NOT RE-TORQUE. Re-torquing can damage the ARMADILLO® Shells.

9. AERIAL INSTALLATION

For aerial application 2 lashing wire clamps (not supplied), 2 suspension plates (supplied), 2 nuts (supplied) and two bolts are required. Install lashing wire clamps as shown.

10. UNDERGROUND INSTALLATIONS

ARMADILLO Stainless should be installed between the manhole racks.

ARMADILLO Stainless will float in a water filled manhole. They must be tied down.

Bond the ARMADILLO Stainless Shells to a common earth ground per standard company practices. (See step #5 for connection to shells)

11a. BURIED INSTALLATIONS

The ARMADILLO® Stainless must be completely surrounded by one to two feet (.3 - .6m) of sand or fine gravel prior to back filling.

If the ARMADILLO Stainless is not to be bonded, the #6 internal bonding wire may be cut off or the end wrapped with vinyl tape.
11b.

If a Filling Flange ARMADILLO® Stainless is being used, gravity fill and pressurize (optional) as illustrated below.

For gravity filling attach funnel with tubing to filling flange. Install plugs in Air Flange and Filling Flange after filling closure.

11c.

PRESSURE ENCAPSULANT

If desired, pressurize encapsulant immediately after gravity filling. Install plugs after encapsulant has set up.

12.

MAINTENANCE

The ARMADILLO® Stainless is designed for numerous re-entries. However, certain precautions must be taken prior to re-application.

- Clean Shells & End Plates thoroughly
- Replace any bent or stripped studs or nuts
- Lubricate shells (Cat. No. 80801566)
- Discard bent or distorted shell halves
SAFETY CONSIDERATIONS

This application procedure is not intended to supersede any company construction or safety standards. This procedure is offered only to illustrate safe application for the individual.

FAILURE TO FOLLOW THESE PROCEDURES MAY RESULT IN PERSONAL INJURY OR DEATH.

Do not modify this product under any circumstances.

This product is intended for use by trained technicians only. This product should not be used by anyone who is not familiar with, and not trained to use it.

When working in the area of energized lines, extra care should be taken to prevent accidental electrical contact.

For proper performance and personal safety, be sure to select the proper size PREFORMED product before application.

PREFORMED products are precision devices. To insure proper performance, they should be stored in cartons under cover and handled carefully.