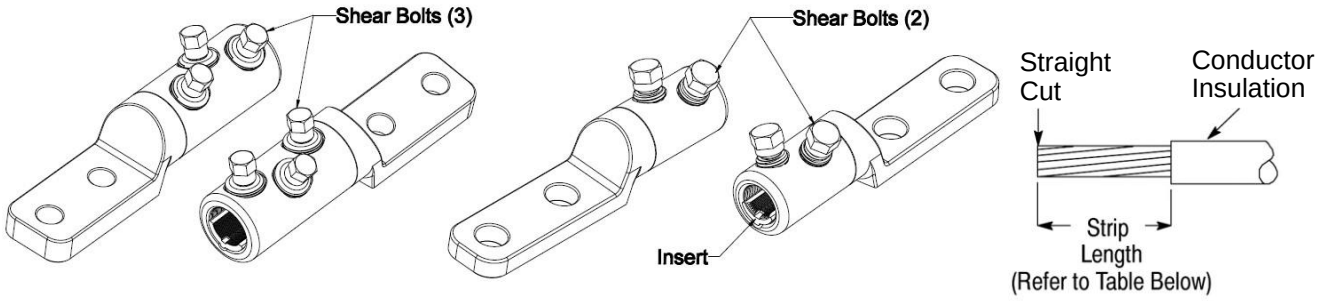
Aluminum Shear Bolt Terminals - ASBT

NOTE: Not to Scale



CONNECTOR					CABLE			
PART NO. AND CATALOG NO.	LENGTH (mm [in.])	OD (mm [in.])	PAD WIDTH (mm [in.])	SOCKET SIZE (mm [in.])	CONDUCTOR RANGE	STRIP LENGTH (mm [in.])	CONDUCTOR DIAMETER RANGE (mm [in.])	REMOVE INSERT FOR CONDUCTOR SIZE GREATER THAN (mm [in.])
1099368-1 ASBT-2-350 (2-Bolt)	149 [5.9]	31 [1.22]	31 [1.22]	13 [1/2]	2 AWG Compact Stranded to 350 kcmil Standard Stranded	44.4 [1 3/4]	6.8-17.3 [.268-.681]	4/0 AWG Standard Stranded 13.4 [.528] Conductor Diameter
1099369-1 ASBT 350-750 (3-Bolt)	188 [7.4]	42.5 [1.67]	42.5 [1.67]	13 [1/2]	350 kcmil Compact Stranded to 750 kcmil Standard Stranded	80 [3 1/8]	15.7-25.3 [.616-.998]	600 kcmil Compact Stranded 20.6 [.813] Conductor Diameter
1099585-1 ASBT 600-1000 (3-Bolt)	196 [7.7]	44.4 [1.75]	44.4 [1.75]	13 [1/2]	600 kcmil Compact Stranded to 1000 kcmil Standard Stranded	95 [3 3/4]	20.6-29.2 [.813-1.152]	750 kcmil Standard Stranded 25.3 [.998] Conductor Diameter
2363968-1 ASBT-2-4/0-SLIM (2-Bolt)	167 [6.6]	28 [1.10]	28 [1.10]	13 [1/2]	2 AWG Solid to 4/0 AWG Standard Stranded	44 [1-3/4]	6.55-13.41 [.258-.528]	1/0 awg Standard Stranded 9.5 [.37] Conductor Diameter
2385860-1 ASBT-3/0-500 (2-Bolt)	158 [6.2]	34 [1.34]	34 [1.34]	13 [1/2]	3/0 AWG Compact Stranded to 500 kcmil Standard Stranded	60 [2 3/8]	10.8-20.65 [0.423-0.813]	300 kcmil Standard Stranded 16 [.630] Conductor Diameter

Figure 1

1. INTRODUCTION

This instruction sheet provides installation procedures for the Aluminum Shear Bolt Terminal.

To obtain information on Energy Products, visit the TE Connectivity website at: http://te.com/energy.

NOTE
Dimensions in these instructions are in metric units [with imperial units in brackets]. Figures are for reference only and are not drawn to scale.

Reasons for re-issue can be found in Section 3, REVISION SUMMARY.

ShearBolt Terminals are designed to be compatible with Raychem cable accessories and insulation products. For other applications, consult the manufacturer's installation instructions for compatibility.

2. INSTALLATION PROCEDURES

2.1. Cable Preparation

CAUTION
DO NOT use a conductor that has been previously terminated.

1. Determine the conductor size to be installed. Ensure that the conductor end has a straight (right-angle) cut. Strip conductor end to the dimension shown in the table in Figure 1.

2. Using a wire brush dedicated for use on aluminum or copper conductors, thoroughly clean the bare surface strands of each conductor end. Cleaned conductor ends should be installed immediately to prevent reformation of fresh oxides.

2.2. Connector Installation

1. Determine whether the insert should be removed according to conductor size (see Figure 1). If insert removal is required, use a small screwdriver to lift or tap the insert from the connector body. If insert is not removed, ensure it is properly positioned in the connector barrel during installation (insert indent seated in connector notch). DO NOT remove the inhibitor contained inside the connector.
2. Back out all bolts to give clearance for the conductor in the connector body.

CAUTION
Do not completely remove bolts from the connector body. Removing bolts followed by improper bolt re-installation could result in stripping of the threads.

3. Insert the conductor into the connector body. For proper installation, there should be NO GAP between the insulation and the connector body.
4. Tighten bolts in a three-step process:
   a. Hand-tighten the bolts to firmly grip conductors in place. Follow the tightening sequence shown in Figure 2.
   b. Using a wrench with a hexagonal socket, tighten the bolts one to one-and-a-half turns, (one second interval if using the TE Connectivity [cordless] impact wrench), repeating the sequence in the previous step. Bolts should remain un-sheared. Prevent core bending by using Holding Tool IT-1000-019 (or equivalent) with the wrench as shown in Figure 2.

NOTE
Cordless Impact Wrench T25446-000 can be used instead for installation. A holding tool is not needed if using this wrench.

   c. Repeat the sequence (above), tightening each bolt until the head of the bolt shears off. The wrench should remain parallel to the connector body.
5. Smooth sharp edges of protruding bolts using the sandpaper provided. Clean connector to remove particles.
6. For medium voltage applications, all bolt heads must be covered with the termination body to prevent moisture ingress. For PILC applications, additional oil sealing components must be specified.

3. REVISION SUMMARY

- Added new information to table in Figure 1.
- Add note in section 2.2 for insert positioning.
- Change to DeWalt Impact Wrench.
- ShearBolt Head A/F Dimension Change.

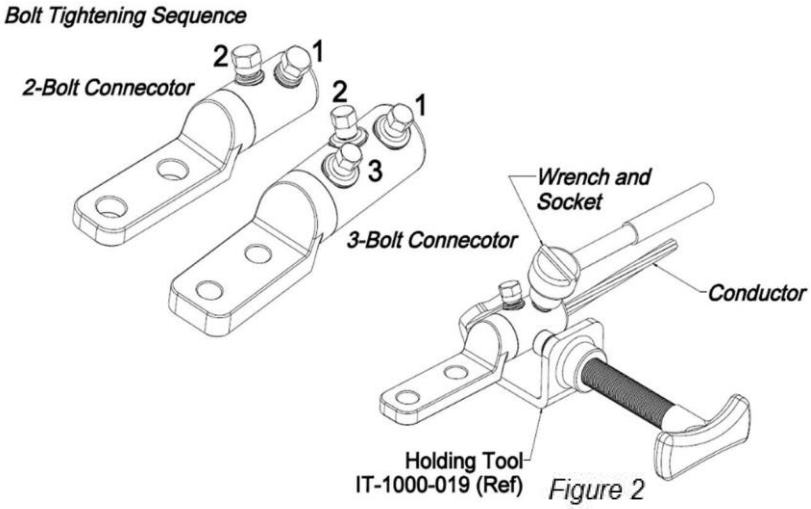


Figure 2

Cordless Impact Wrench (T25446-000 Ref)