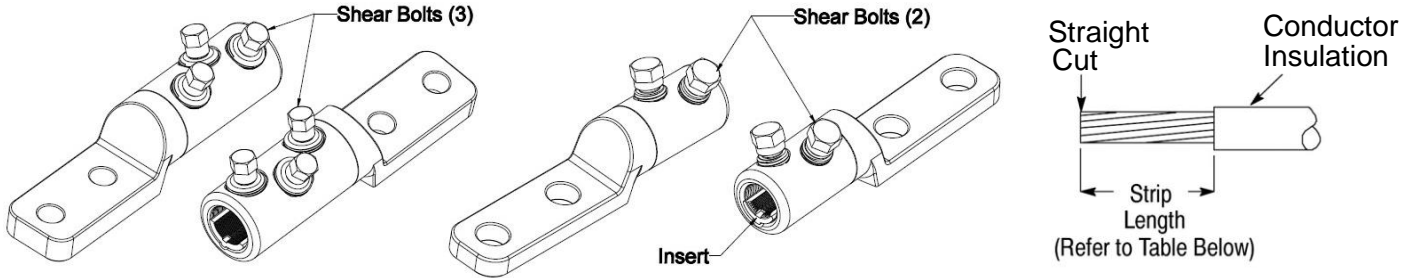


**NOTE:** Not to Scale



CONNECTOR					CONDUCTOR		
PART NUMBER AND CATALOG NUMBER	LENGTH (mm [in.])	OD (mm [in.])	SOCKET SIZE (mm[in.])	INSTALLATION TORQUE (ft-lbs)	RANGE	DIAMETER RANGE (mm[in.])	STRIP LENGTH (mm[in.])
1974141-1 ASBT 2-4/0-U (2-Bolt)	149 [5.9]	31 [1.22]	13 [1/2]	26 ±3	2 AWG Compact Stranded to 4/0 AWG Standard Stranded	6.8-13.4 [.27-.53]	44.4 [1 3/4]
1974142-1 ASBT 250-350-U (2-Bolt)	149 [5.9]	31 [1.22]	13 [1/2]	24 ±3	250 kcmil Compact Stranded to 350 kcmil Standard Stranded	13.2-17.3 [.52-.68]	44.4 [1 3/4]
1974148-1 ASBT 350-500-U (3- Bolt)	188 [7.4]	42.5 [1.67]	13 [1/2]	36 ±3	350 kcmil Compact Stranded to 500 kcmil Standard Stranded	15.7-20.6 [.62-.81]	80 [3 1/8]
1974149-1 ASBT 600-750-U (3-Bolt)	188 [7.4]	42.5 [1.67]	13 [1/2]	33 ±3	600 kcmil Compact Stranded to 750 kcmil Standard Stranded	20.7-25.3 [.81-.99]	80 [3 1/8]
1974153-1 ASBT 1000-U (3-Bolt)	196 [7.7]	44.5 [1.75]	13 [1/2]	42.8 ±2	1000 kcmil Compact Stranded to 1000 kcmil Standard Stranded	27-29.3 [1.06-1.15]	98 [3 7/8]
2182430-1 ASBT 1000-N-U (3-Bolt)	196 [7.7]	44.5 [1.75]	13 [1/2]	42.8 ±2	1000 kcmil Compact Stranded to 1000 kcmil Standard Stranded	27-29.3 [1.06-1.15]	98 [3 7/8]

Figure 1

## 1. INTRODUCTION

This instruction sheet provides installation procedures for the Aluminum ShearBolt Terminals.

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

**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.

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.

Raychem is a trademark.

1. Determine the conductor size to be installed. Ensure that each 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 conductor end. Cleaned conductor ends should be installed immediately to prevent reformation of fresh oxides.

### 2.2. Connector Installation

1. Ensure insert is properly positioned in the connector barrel during installation (insert indent seated in connector notch). 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.

2. Insert the conductor into the connector body. For proper installation, there should be NO GAP between the insulation and the connector body.

**NOTE** To facilitate assembly when two different conductor sizes are to be installed, it is recommended to insert the larger conductor into the connector barrel first.


3. 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.

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.

4. Smooth sharp edges of protruding bolts using the sandpaper provided. Clean connector to remove particles.

5. 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.

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

3. REVISION SUMMARY

- Initial release of document
- 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.

**Bolt Tightening Sequence**

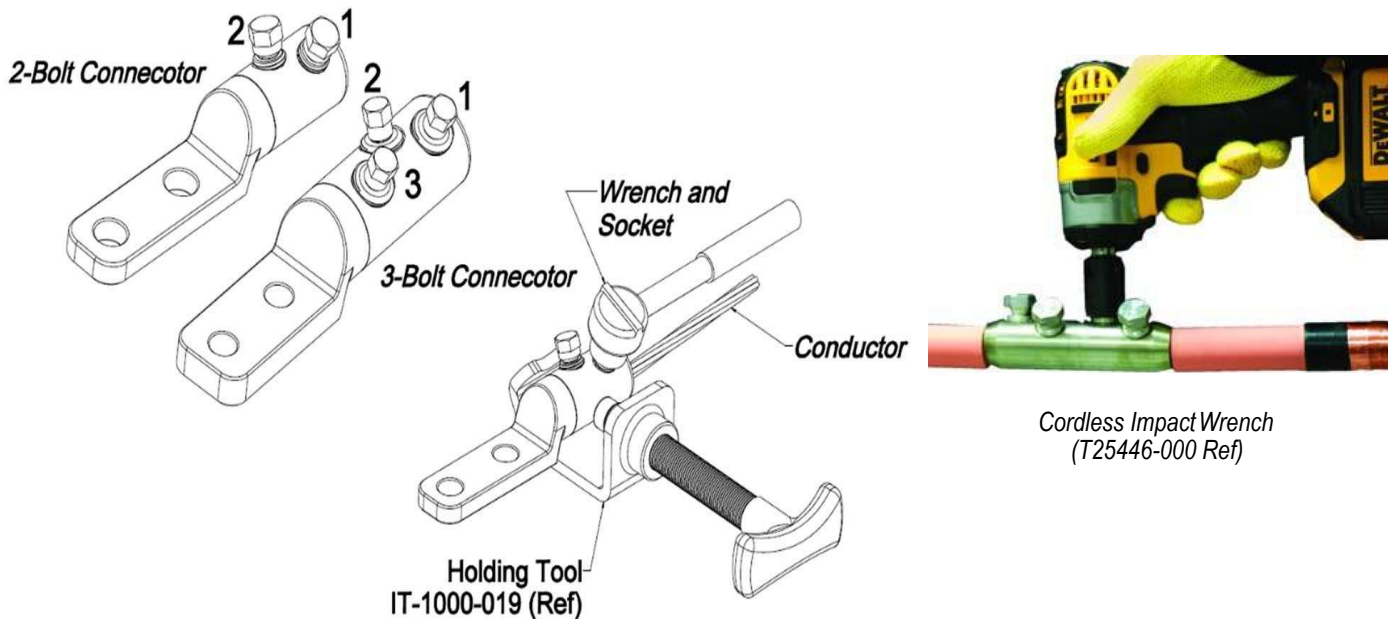


Figure 2