

## Splices, Compression, Reducing



### 1. Scope

This standard covers the requirements for reducing compression splices.

This standard applies to the following Seattle City Light (SCL) stock numbers:

| Stock No. | Conductor Size, kcmil |          |
|-----------|-----------------------|----------|
|           | Barrel A              | Barrel B |
| 650591    | 500                   | 350      |
| 650593    | 750                   | 500      |

### 2. Application

Reducing compression splices are for joining aluminum to copper conductors of different sizes in the underground secondary system.

Splices may be used for up to 35 kV.

See Table 4a for Tooling and Die Requirements.

### 3. Industry Standards

Reducing compression splices shall meet the applicable requirements of the latest revision of the following industry standard:

**ANSI C119.4**, American National Standard for Electric Connectors – Connectors for Use Between Aluminum-to-Aluminum and Aluminum-to-Copper Conductors Designed for Normal Operations at or Below 93° C and Copper-to-Copper Conductors Designed for Normal Operation at or Below 100°C

### 4. Requirements

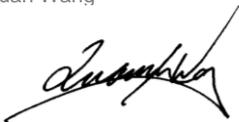
Reducing compression splices shall have the following attributes:

- Made of high-strength aluminum alloy
- Tin plated finish
- A center stop for proper cable insertion
- Factory-filled with a measured amount of oxide-inhibiting compound
- Dimensions as shown in Table 4 and Figure 4
- Sealed at each end to prevent leakage or contamination of the inhibitor

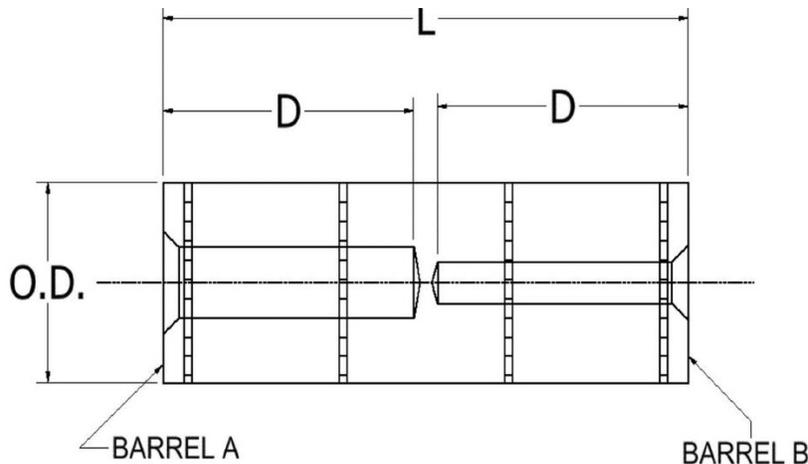
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**Figure 4. Reducing Compression Splice**



**Table 4. Reducing Compression Splice Dimensions (Nominal) and Tooling and Die Requirements**

| Stock No. | Conductor Size<br>kcmil |             | Splice Dimensions (in) |               |                     | Installation Tooling,<br>Hydraulic Tools, Die Sets |                |              |               |
|-----------|-------------------------|-------------|------------------------|---------------|---------------------|--|----------------|--------------|---------------|
|           | Barrel<br>A             | Barrel<br>B | O.D.                   | Length<br>(L) | Barrel<br>Depth (D) | Y35, Y39,<br>Y46                                   | # of<br>Crimps | Die<br>Index | Color<br>Code |
| 650591    | 500                     | 300         | 1.31                   | 5.12          | 2.11                | U34ART   | 4              | 300          | Pink          |
| 650593    | 750                     | 500         | 1.64                   | 9.94          | 4.63                | P39ART -2  | 3              | 936          | Red           |

**5. Markings**

Each reducing compression splice body shall be clearly and indelibly marked with the following:

- Manufacturer name or symbol
- Catalog number
- Conductor range
- Die number

**6. Packaging**

Reducing compression splices shall be packaged to prevent damage during shipping, handling, and storage.

Individual packages shall be legibly marked with:

- Manufacturer name
- Manufacturer part number
- Product description
- Seattle City Light stock number

Shipping containers shall be legibly marked with:

- Seattle City Light purchase order number

**7. Issuance**

EA

**8. Approved Manufacturers**

| <b>Stock No.</b> | <b>Aluminum<br/>(kcmil)</b> | <b>Copper<br/>(kcmil)</b> | <b>Hubbell Power<br/>Systems - Burndy</b> | <b>MAC Connector<br/>Products</b> |
|------------------|-----------------------------|---------------------------|---|-----------------------------------|
| 650591           | 500                         | 350                       | YRB34U31                                  | —                                 |
| 650593           | 750                         | 500                       | YR39A34CAY                                | MAP750-500-1.59                   |

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**9. Sources**

[www.hubbell.com/burndy/en/](http://www.hubbell.com/burndy/en/)

**Stock Catalog Page 65-4** (May 13, 2016)

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