

**MATERIAL STANDARD**

**APPARATUS BUSHING, 90 DEGREE, 600 AMPERE**

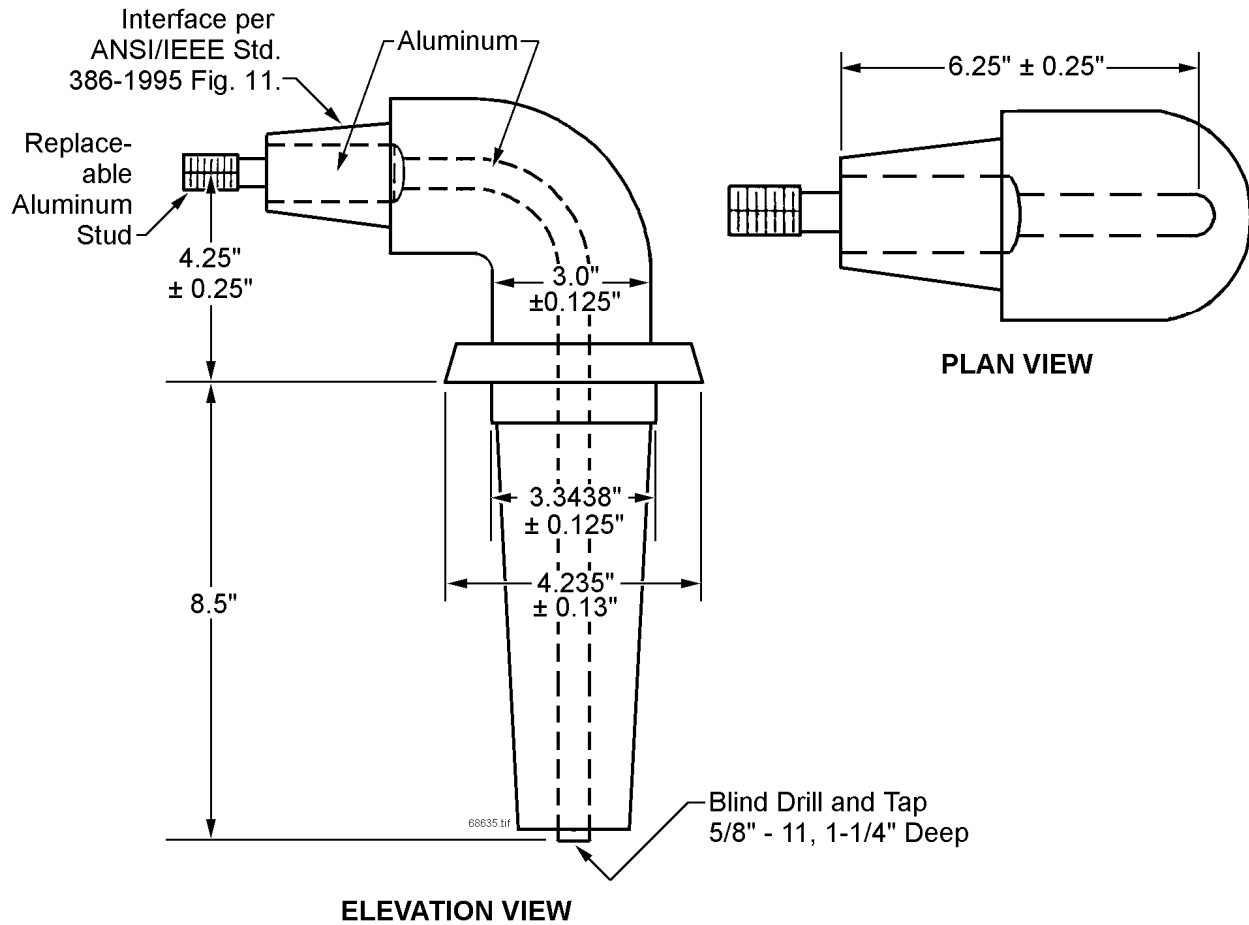


Figure 1

**1. General**

The bushing will be used to terminate XLPE power cable with separable connectors on the primary side of network transformers. The bushing will be clamped into the terminal chamber with the lower end submersed in oil and the outer end interfaced to terminate with 600 ampere deadbreak elbows and components.

**2. Ratings**

- A. For use on 25 kV class equipment.
- B. BIL: 125 kV.
- C. Withstand: 42 kV, 60 Hz, 1 minute.  
80 kV, D.C., 15 minutes.
- D. Corona: 19 kV extinction.
- E. Current: 600 amperes rms continuous.
- F. Momentary: 40,000 amperes rms, asymmetrical, 12 cycles.  
27,000 amperes, symmetrical, 4 seconds.

ORIGINATOR	STANDARDS COORDINATOR	STANDARDS SUPERVISOR	UNIT DIRECTOR
<i>Jim S. Horn</i>	<i>Charles L. Shaffer</i>	<i>John C. Skinner</i>	<i>Harold J. J...</i>

## MATERIAL STANDARD

### 3. Construction

The bushing shall be constructed as shown in Figure 1. The current-carrying parts shall be aluminum.

The 5/8" x 11 NC stud on the bushing interface shall be made of aluminum and shall be removable.

The bushing interface shall be in accordance with ANSI/IEEE Standard 386-1995, Figure 11.

The bushing construction shall be capable of withstanding clamping forces of 14 ft-lbs applied to six bolts evenly spaced around a clamping ring. See Material Standard 6862.8 for clamping ring.

### 4. Data to be Submitted with Bid

Each bidder shall submit with his proposal all the data necessary to evaluate the item bid. The bidder shall submit a description of any changes, additions or exceptions to the specifications that the bidder proposes, together with reasons for departure. The drawings and data furnished must be in sufficient detail and clarity to enable making a complete and positive check with the technical provisions of the specifications.

### 5. Data to be Furnished by Successful Bidder

The successful bidder shall supply with every shipment a certificate of compliance to include test results verifying the ratings in Section 2 of this specification.

### 6. Receiving of Apparatus Bushings

All apparatus bushings may be X-rayed upon receipt by Seattle City Light. Any units found defective (voids, foreign material, etc.) will be rejected and the manufacturer shall replace the defective units at his expense.

**Stock Unit:** EA

**Stock Number:** 687009

**Approved Manufacturer:** Elliott Industries #1611-625L

**Reference:** ANSI C57.12.40, Figures 1 and 2  
ANSI/IEEE Standard 386-1995, Figure 11  
Seattle City Light Material Standard 6862.8