Service Brackets

1. Scope

This standard covers the requirements for service brackets and associated spool insulator, clevis, and base.

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

Stock No.	Description
690658	Spool Insulator only
690405	Roof-mount service bracket with spool insulator
690411	Wall-mount service bracket with spool insulator

2. Application

Service brackets are used to attach service entrance conductors to a customer's building.

Upgrades to secondary service on the pole require that service entrance conductors leading to the customer residence be brought up to code. Service brackets are provided by SCL Joint Use and installed by the customer.

3. Industry Standards

Service brackets and spool insulators shall meet the applicable requirements of the following industry standards:

ANSI C29.3-2015 – American National Standard for Wet-Process Porcelain Insulators – Spool Type

IEEE C135.20 – 1998 – Standard for Zinc-Coated Ferrous Insulator Clevises for Overhead Line Construction

4. Requirements

4.1 Spool Insulators

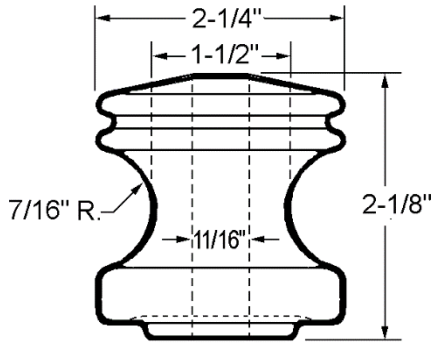
Spool insulators shall meet the requirements of Table 4.1, Figure 4.1, and ANSI/NEMA C29.3 with the following clarification:

Insulator material shall be gray, track-resistant, UV-resistant porcelain or equivalent polymer.

Table 4.1. Insulator Requirements

Attribute	Requirements
Class	53-1 per ANSI C29.3
60 Hz dry flashover, kV rms, minimum	20
60 Hz wet flashover, kV rms, minimum	
Vertical	8
Horizontal	10
Transverse strength rating, lb	2000
Neck designation letter	“A” per ANSI C29.3

Figure 4.1 Insulator Outline



4.2 Service Brackets

Service brackets shall meet the following requirements and those of IEEE C135.20, and be constructed as shown in Figures 4.2a and 4.2b.

The clevis pin shall be removable and have a 3/16" diameter hole that accepts a cotter pin.

The cotter pin shall be self-locking or split type and made of hard-drawn bronze or stainless steel.

The base plate shall be 3/16" x 3" x 8" steel and have two mounting holes that are positioned at the centerline at approximately 1-1/16" from the ends. See Figure 4.2a for details.

The base plate mounting holes for wall-mount bracket shall be round and have a 7/16" diameter. The base plate mounting holes for the roof-mount bracket shall be squared and measure 7/16" x 7/16".

Figure 4.2a. Wall-Mount Service Bracket

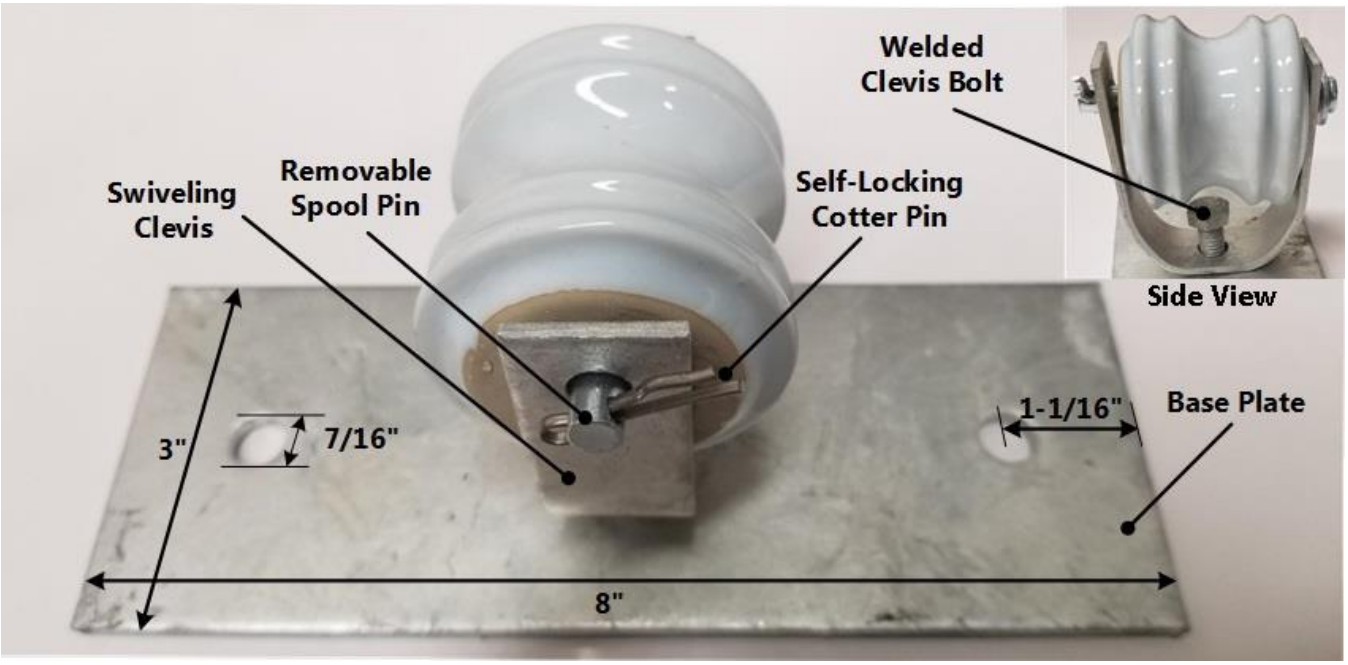
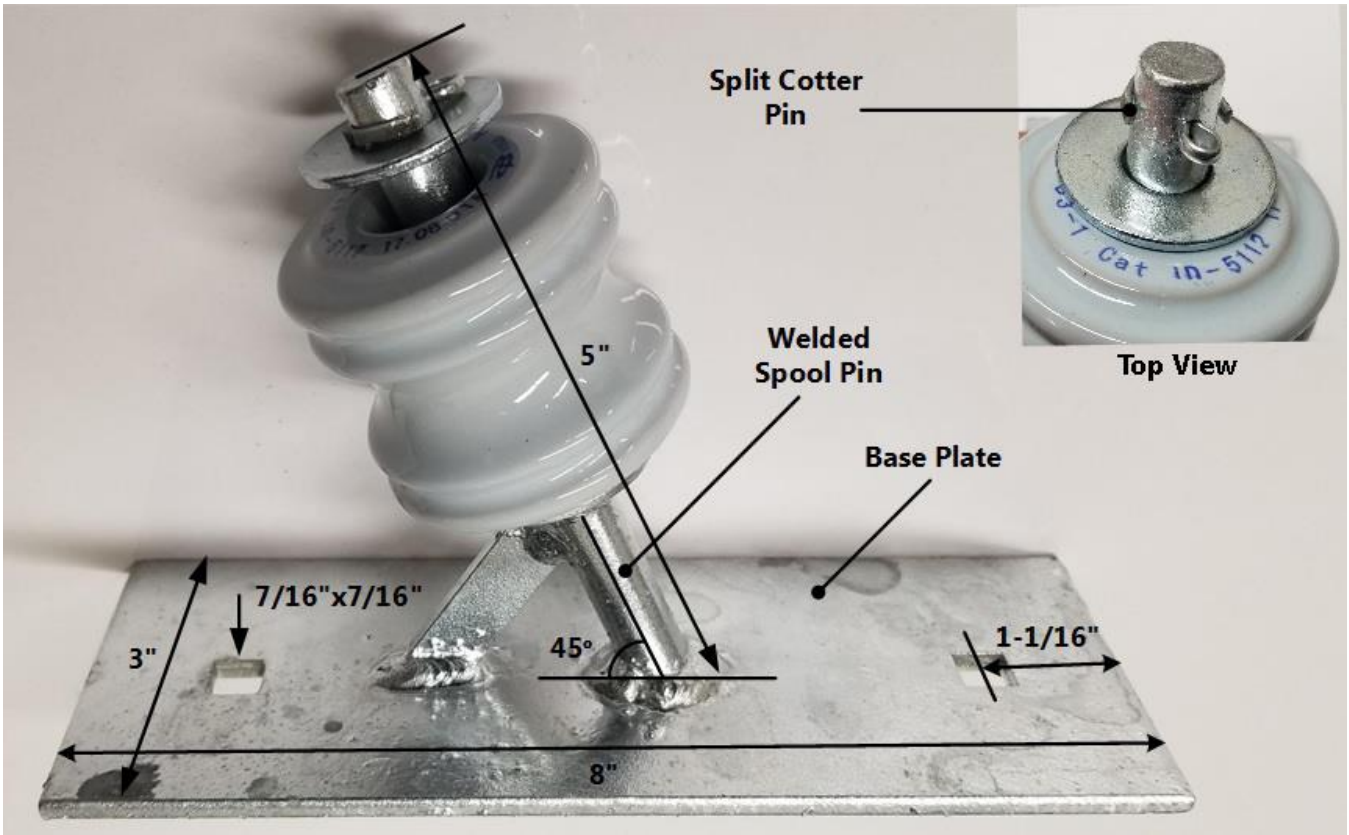


Figure 4.2b. Roof-Mount Service Bracket



5. Marking

Marking shall be legible and durable over the expected life of the product.

Each spool insulator shall be marked with:

- Manufacturer name or symbol
- ANSI C29.3 class number or catalog number

Each clevis and angle bracket shall bear the manufacturer symbol or identification marking per ANSI C135.20, Section 9.

6. Packaging

Service brackets and spool insulators shall be packaged in a way that prevents damage during shipping, handling, and long-term outside storage.

Service brackets shall be shipped assembled with the spool insulator.

Individual packages shall be legibly marked with:

- Manufacturer name
- Manufacturer catalog number
- Seattle City Light stock number

Each shipping container shall be legibly marked with:

- Manufacturer identification
- Seattle City Light purchase order number

7. Issuance

Stock Unit: EA

8. Approved Manufacturers

Stock No.	**690658**
Description	Spool insulator only
Approved Manufacturers	
Lapp	8441-70
NGK-Locke	HRP-614
PPC	5112
Ceramica Santa Terezinha	1101
Victor	2011

Stock No.	**690405**	**690411**
Description	Service Bracket (roof-mount)	Service Bracket (wall-mount)
Approved Manufacturers		
Nicholas	95	315-S (cotter pin)
Wilcor	WA95	WA315S

9. References

SCL Material Standard 6904.15; "Insulator, Polymer Spool and Steel Clevis and Angle Bracket"

10. Sources

Shetab, Muneer; SCL Standards Engineer, originator, and subject matter expert for 6904.25 (muneer.shetab@seattle.gov)