Aerial Self-Support Duct with 1/4-in Support Strand

1. Scope

This standard covers the requirements for figure-8 “aerial” duct with 1/4-in support strand.

This standard applies to Seattle City Light Stock No. 014266.

2. Application

Self-support duct provides aerial placement of fiber optics, coaxial cables and other types of utility cables. It is attached to wood poles and other structures with serpentine clamps.

In 2017, Seattle City Light began a transition from self-support duct with 3/8-in strand to duct with 1/4-in strand. The self-support duct specified in this standard requires 1/4-in mounting hardware.

Aerial self-support duct with 1/4-in strand shall be used for pole-to-pole spans of less than 225 ft. For spans of greater than 225 ft but less than 400 ft, the use of All-Dielectric Self-Supporting (ADSS) cable or aerial self-support duct with 3/8-in strand shall be used. For spans of greater than 400 ft, detailed pull and sag calculations are required.

When aerial self-support duct with 3/8-in strand is no longer available, 3/8-in messenger shall be used with fiber optic cable lashing directly to the messenger.

Self-support duct has a weight of approximately 0.413 lb/ft.

3. Industry Standards

Self-support duct reels shall meet the applicable requirements of the following industry standard:

NEMA WC 26-2008 (EEMAC 201-2008), Binational Wire and Cable Packaging Standard

4. Requirements

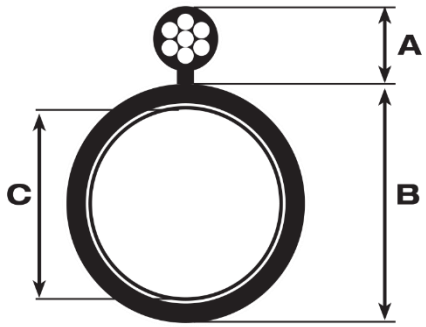
Self-support duct shall meet the requirements of Table 4 and Figure 4.

Table 4. Self-Support Duct Requirements

Attribute	Requirement
Basic construction	Figure-8
Size, nominal	1-1/4 in
A	0.540 in
Outside diameter B, average	1.556 in
Inside diameter C, average	1.286 in
Standard dimension ratio (SDR)	True SIDR 9
Exterior material	High tensile strength, high density polyethylene (HDPE) with UV protection
Exterior color	Black
Interior lining material	Super Silicore™
Support strand	1/4-in EHS (Extra High Strength), Class A, flooded galvanized
Support strand breaking pull strength	6650 lb

Self-support duct shall be provided with factory-installed pull tape.

Figure 4. Self-Support Duct Geometry



5. Marking

Self-support duct shall be permanently marked with:

- Manufacturer name
- Year of manufacture
- Run code
- Footage markings
- Wall thickness
- Industry standard to which duct was manufactured

6. Packaging

Self-support duct shall be package on reels meeting the requirements of Table 6.

Each reel shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- Shipping length of product
- Seattle City Light stock number
- Seattle City Light purchase order number

Table 6. Reel Requirements

Attribute	Value
Reel type	Non-returnable
Flange diameter, maximum	83 in
Outside width, maximum	42 in
Drum diameter minimum	42 in
Arbor hole diameter	3.25 in
Drive (dog) holes, diameter	
Minimum	1.5 in
Maximum	2.0 in
Drive (dog) holes, center-to-center	
Minimum	11 in
Maximum	28 in
Length per reel, +/- 10%	5000 ft

Drive (dog) holes shall be provided on each reel side.

Self-support duct ends shall be sealed to prevent the entrance of moisture.

The inner end of the self-support duct shall be securely fastened to the reel drum or inner flange surface. This method of securement shall be designed and constructed to withstand long-term outside storage.

The inner end of the self-support duct shall not extend beyond the outside plane of the reel flange. The outer end shall be securely fastened to the inner side of the flange.

7. Issuance

Stock unit: FT

8. Approved Manufacturer

Manufacturer	Catalog No.
Dura-Line	10013294

9. Sources

Dura-line Technical Bulletin DCEB-00003; Issue E, January 21, 2016

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