Installing a Wire Mesh Pulling Grip on SST, SST-Ribbon™, SST-UltraRibbon™, SST-Ribbon™ Dry-Lock, ALTOS®, and ALTOS® Riser Cables

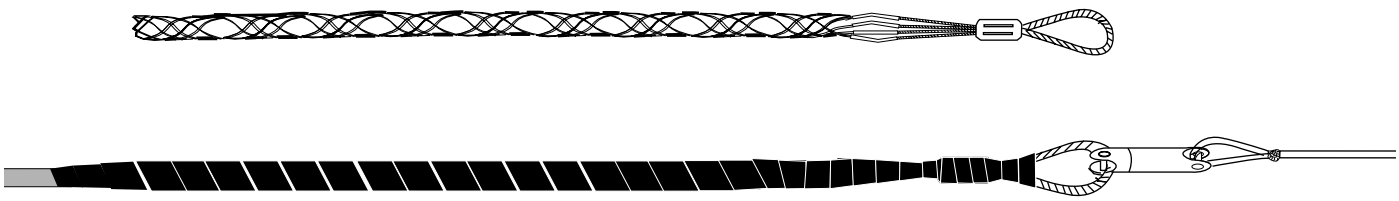

Figure 1

1. General

1.1 This procedure provides instructions for installing a wire mesh pulling grip on Corning Cable Systems SST, SST-Ribbon™, SST-UltraRibbon™, SST-Ribbon™ Dry-Lock, ALTOS, and ALTOS Riser fiber optic cables (Figure 1).

1.2 This procedure describes how to use a pulling grip to couple the pulling load to a single-tube cable's jacket. *Please read and understand this procedure completely before starting the installation of a wire pulling grip.*

1.3 This includes ALTOS And ALTOS Riser cables.

2. Precautions

2.1 General Precautions

Safety Glasses

WARNING: *The wearing of* safety glasses to *protect the eyes from accidental injury is strongly recommended when handling chemicals and cutting fiber. Pieces of glass fiber are very sharp and can damage the cornea of the eye easily.*

Safety Gloves

The wearing of ***safety gloves*** *to protect your hands from accidental injury when using sharp-bladed tools is strongly recommended.*

2.2 Cable Handling Precautions

CAUTION: *Fiber optic cable is sensitive to excessive pulling, bending and crushing forces. Consult the cable specification sheet for the cable you are installing. Do not bend cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than specified. Do not crush the cable or allow it to kink. Doing so may cause damage that can alter the transmission characteristics of the cable- the cable may have to be replaced.*

3. Tools and Materials

3.1 The following tools and materials are required to complete this procedure:

- Kellems® pulling grip
- Side cutters *
- Measuring tape *
- Vinyl tape, 3/4 in (19.1 mm) *
- Gloves
- Scissors *
- Hex wrench or screwdriver* (to fit swivel)
- Swivel, ball-bearing type

**Items included in the M67-003 Tool Kit*

4. Pulling Grip Installation

4.1 Prior to installation, the proper size grip must be chosen for the cable to be pulled.

Grip selection is based on cable diameter. Generally speaking, use the smallest grip which will fit over the cable sheath without excessive difficulty.

4.2 Measure the cable outside diameter and determine the proper grip to use based on the supplier's recommendations

4.3 Once the proper grip is obtained, inspect it for damage, broken wires, bulges due to stress, rust, etc.

Grasp the pulling eye in one hand (gloves recommended) and smooth out the mesh with the other, tightening the wires.

Figure 2 illustrates the technique, which is critical when reusing grips.

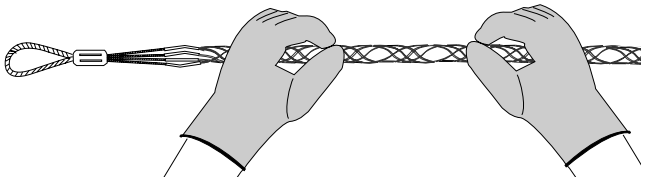

Figure 2

4.4 Trim the end of the cable with side cutters (Figure 3) to remove any protruding tube, strength member, or armor.

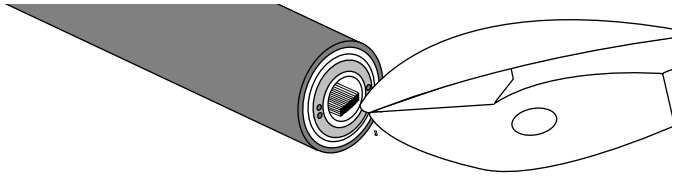

Figure 3

4.5 Use a pumping action to "walk" the grip over the jacket by bringing your hands together and then relaxing them (Figure 4).

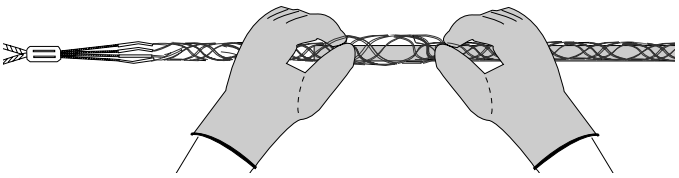

Figure 4

4.6 Position the cable in the grip so that the end of the cable is 0.25 inches (6 mm) behind the grip's basket (Figure 5).

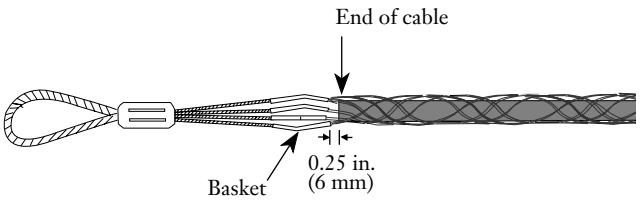

Figure 5

4.7 Compress the basket so that it is no larger than the combined OD of the grip and cable (Figure 6).

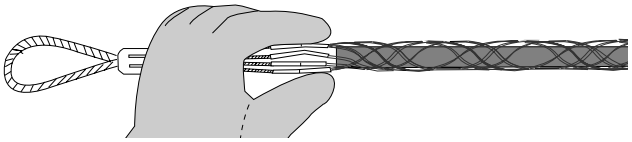

Figure 6

4.8 Smooth the mesh back over the cable, moving from the pulling eye to the cable jacket.

4.9 Tug on the grip to tighten its grip on the cable.

4.10 Start at least 1.0 inch (2.5 cm) below the mesh on the cable and wrap vinyl tape TIGHTLY to the top of the grip.

The mesh's imprint should show boldly through the tape (Figure 7). The tape must be tight because it helps compress the mesh against the cable. Lightly tug on the grip to press it against the cable.

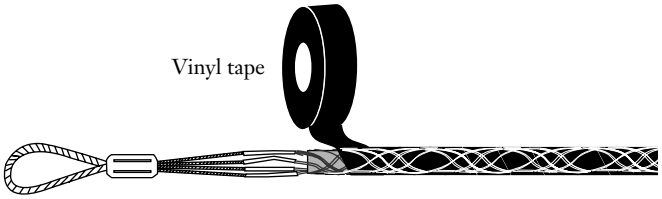

Figure 7

4.11 Figure 8 illustrates a completed grip.

Figure 8

4.12 Connect the pulling eye to the appropriate ball bearing swivel and pulling tape or rope (Figure 9). The grip installation is now ready for the cable pull.

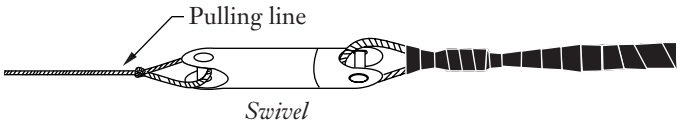

Figure 9

5. Grip Removal

5.1 To remove the pulling grip after completion of the pull:

a) Cut the cable 3 ft (91 cm) behind the grip.

b) Place a protective cap over the exposed cable end and tape in place to prevent water intrusion.

c) Store the coiled splicing slack so that it is protected from damage.

Special Note:
Fiber Optic
Training
Program

Corning Cable Systems offers comprehensive, integrated training programs. Courses are structured for: Telephony, CATV, LAN, Intelligent Transportation Systems and Power Utilities.

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Printed in U.S.A.

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