# **CORNING**

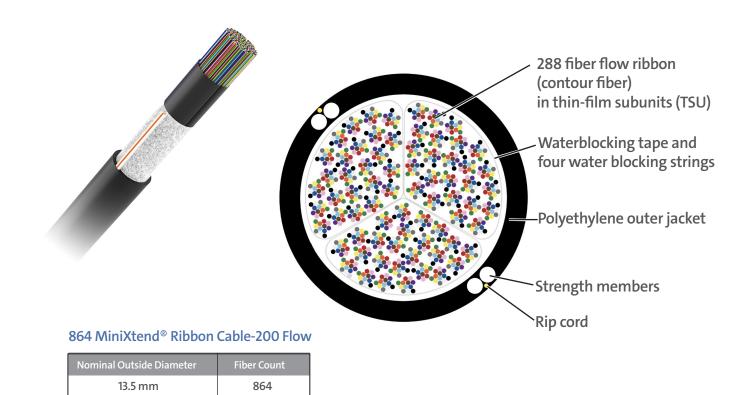
## 864 MiniXtend® Ribbon Cable-200 Flow

#### P/N 004-316-AEN, Issue 2

related literature   Search www.corning.com/opcomm. Click on "Resources/Standard Recommended Procedures."	
AE Note 049	Air-Assisted Cable Installation Techniques
AE Note 096	Micro Cable Air-Assisted Installation Considerations
005-011	Duct Installation of Fiber Optic Cable
AE Note 171	Mass Fusion Splicing of 200-Micron Fibers

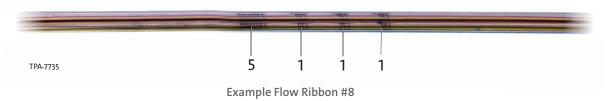
#### 1. General

This document provides recommended jacket removal procedures for MiniXtend® ribbon cable-200 flow, 864 outside plant cable.



#### 2. Ribbon Identification

Flow ribbons are numbered using block print to indicate numbers. Large bars represent 5, and small bars represent 1. Thin-film subunits (TSU) are made up with 24 flow ribbons, each with 6-2 fiber ribbons. There are a total of 288 fibers in each TSU.



Ribbon # **ID Bars** Ribbon # **ID** Bars Ribbon # **ID Bars** Ribbon # **ID** Bars 1 2 8 14 20 3 9 15 21 4 10 16 22 5 11 17 23 6 12 18 24 TPA-7881 Flow Ribbon ID marking

#### 3. Precautions

#### 3.1 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 the 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.



**CAUTION:** This cable is intended to be jetted or blown into a microduct. If pulled ensure breakaway swivel is used that is attached with a basket grip to the central strength member (GRP). Adhere to the minimum bend radius of the cable; do not exceed the cable's specified maximum allowed installation tension.

#### 3.2 Laser Handling Precautions



**WARNING:** Never look directly into the end of a fiber that may be carrying laser light. Laser light can be invisible and can damage your eyes. Viewing it directly does not cause pain. The iris of the eye will not close involuntarily as when viewing a bright light. Consequently, serious damage to the retina of the eye is possible. Should accidental eye exposure to laser light be suspected, arrange for an eye examination immediately.

#### 3.3 Safety Glasses



**CAUTION:** Recommend the use of safety glasses (spectacles) conforming to ANSI Z87, for eye protection from accidental injury when handling chemicals, cables, or fiber. Pieces of glass fiber are very sharp and have the potential to damage the eye.

## 3.4 Safety Gloves



**CAUTION:** The wearing of cut-resistant safety gloves to protect your hands from accidental injury when using sharp-bladed tools and armored cable is strongly recommended. Use extreme care when working with severed armor. There will be a sharp edge where armor is cut. To minimize the chance of injury from the cut armor, cover the exposed edge with a wrap of electrical tape. To minimize the chance of injury from sharp-bladed tools, always cut away from yourself and others. Dispose of used blades and armor scrap properly.

#### 4. Tools and Materials

The following tools and materials are used for accessing the cable:

- Utility knife
- Scissors
- Vinyl tape
- Pliers
- · Seam rippers
- · Diagonal cutting pliers
- Tape measure (100305-01)
- Small slotted screwdriver (100332-01)
- Cable sheath knife
- Needle nose pliers
- Friction tape

#### 5. Cable End Access

#### 5.1 Cable End Sheath Removal

Step 1: Determine the proper sheath removal length for the hardware being used. Mark a point at this distance from the end of the cable with a wrap of tape (Figure 1).

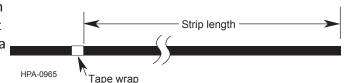
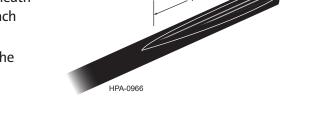


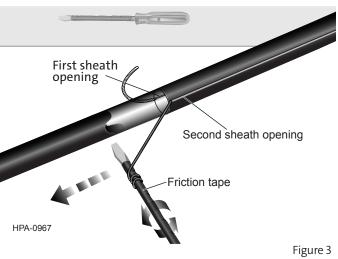
Figure 1

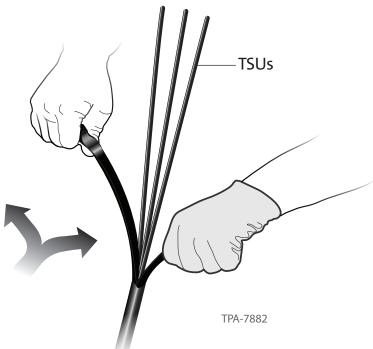
Figure 2

- Step 2: Starting at the end of the cable, use the cable sheath knife to shave off 15 cm (6 in) of the outer sheath over the rods. Shave the sheath until the GRP rods and the ripcord on each side of the cable are visible (Figure 2).
- **Step 3:** Separate the end of the rip cords from the cable.

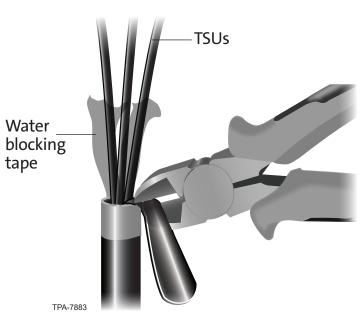


- **Step 4:** Using the shaft of a screwdriver wrapped in friction tape as a handle, pull one ripcord at a time through the sheath to the wrap of tape (Figure 3).
- **Step 5:** Cut the ripcords flush at the tape wrap with scissors.



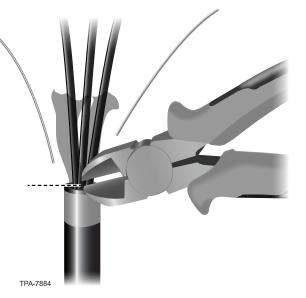


**Step 6:** Flex and split GRPs. Pull back jacket.



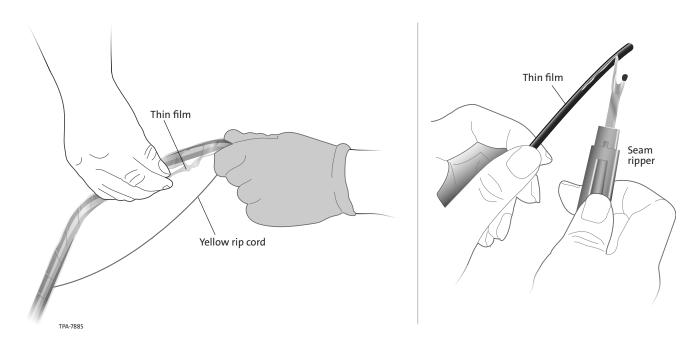
**Step 7:** Trim off jacket, water blocking tape, and two water blocking strings. GRPs are cut flush with jacket.

**NOTE:** GRP strength rods are embedded in the jacket and should not be secured with strain relief clamps when installed in closures.

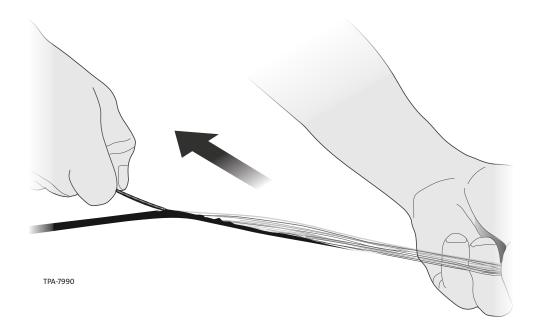


## 6. TSU End Access

**Step 1:** Using fingers or a seam ripper tool, peel off some thin film wrap on the end of the subunits and locate the yellow rip cord.



**Step 2:** Pull yellow rip cord to tape location and remove thin film and three water blocking strings.

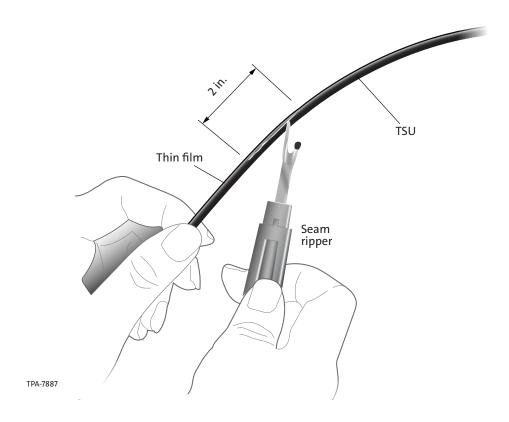


**Note:** Rapidly pull yellow ripcord while holding ribbons and TSU jacket. Proceed six inches at a time.

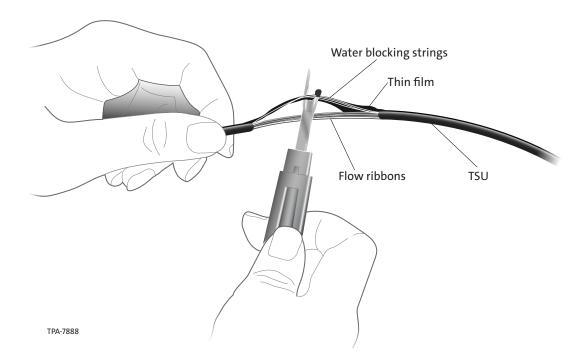
**Note:** The three water blocking strings and thin film are cut off after required length of ribbons are accessed.

# 7. TSU Midspan Access

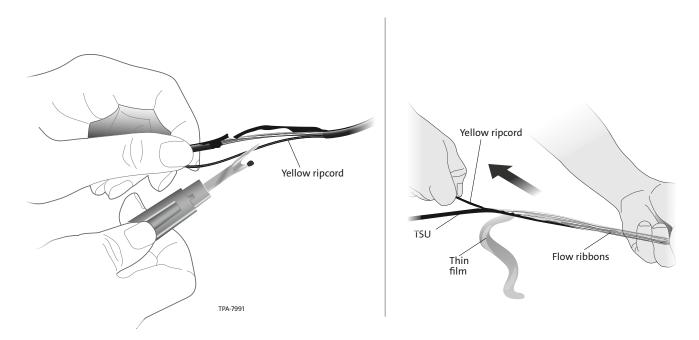
**Step 1:** Use seam ripper in center of midspan of TSU and cut about two inches of thin film.



**Step 2:** Pull by hand, and with seam ripper, thin film and three water blocking strings away from fiber ribbons.



**Step 3:** Locate and cut yellow rip cord, then pull in each direction to remove the thin film.



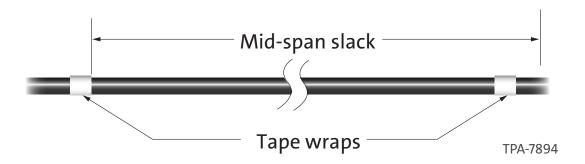
Note: Rapidly pull yellow ripcord while holding ribbons and TSU jacket. Proceed six inches at a time.

**Note:** The three water blocking strings and thin film are trimmed off after fibers are accessed.

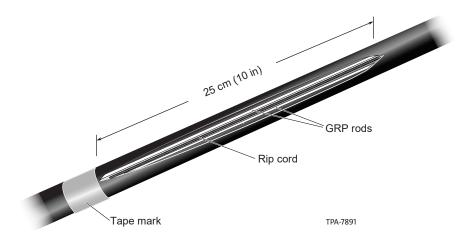
## 8. Cable Midspan Access

**Step 1:** Prepare the tie-in (drop) cable according to its manufacturer's instructions. Set the cable aside in a secure place.

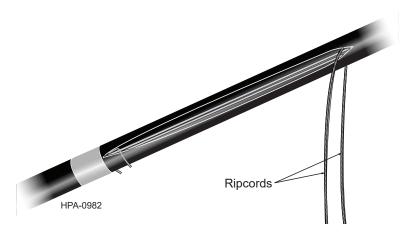
**Step 2:** Determine the amount of slack needed. Place a wrap of tape at each end of the cable sheath that is to be removed.



- **Step 3:** Starting at either inside tape mark, locate and expose the rods and ripcords as follows:
  - a. Using the cable sheath knife, shave off a small section of cable sheath to locate the rods.
  - b. Shave 25 cm (10 in) of the outer sheath over the GRP rods.
  - c. Repeat **Steps a and b** to expose the other rods and ripcord on the opposite side (180 degrees) from the cable section to be accessed.



**Step 4:** Locate the ripcords. Cut the ripcords near a tape mark or in center with scissors.



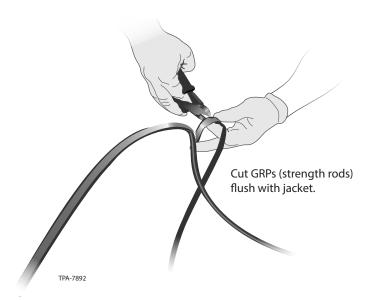
**Step 5:** Pull ripcords to tape mark.

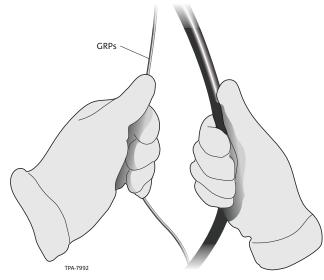


**Step 6:** Flex cable to separate two halves of jacket and separate.

**Step 7:** At the taped locations, bend back jacket and cut it off.

**Note:** Crack cable to open in two different angles, i.e. 180 degrees apart, then use GRPs to open cable and remove jackets.

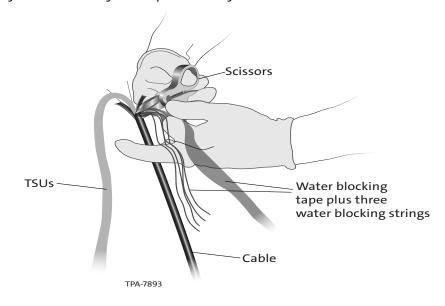




**Note:** GRP strength rods are embedded in the jacket and should not be secured with strain relief clamps when installed in a closure.

Step 8: Cut off and remove water blocking tape and three water blocking strings.

**Note:** Refer to section six for midspan access of TSUs.



Corning Optical Communications LLC • 4200 Corning Place • Charlotte, NC 28216 USA 800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

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