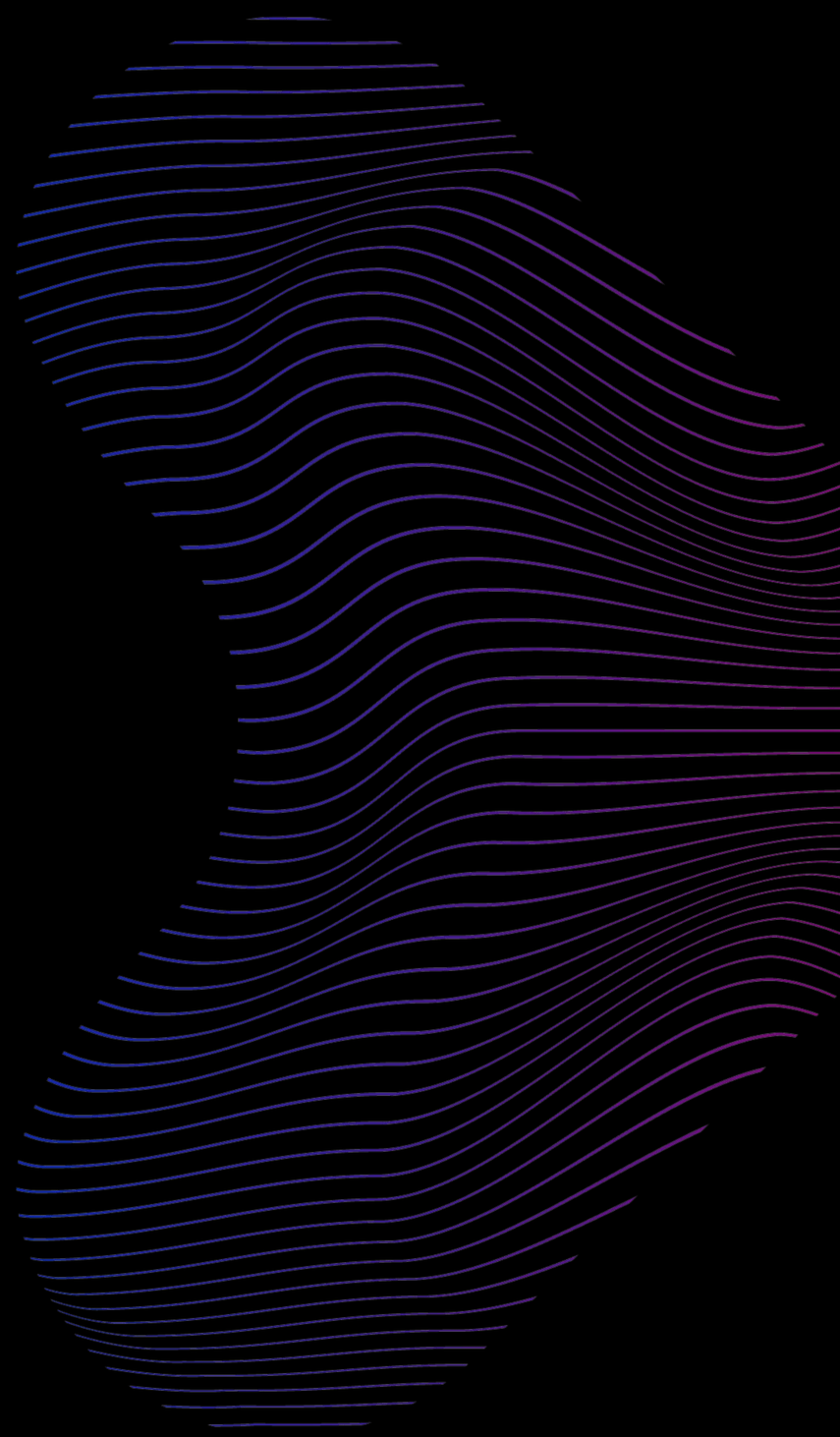
stl.tech

RapidDrop

Optical Fiber Cables

Cable Preparation Guide

Table Of Contents



Overview

The purpose of this document is to provide guidelines for accessing the fibers of STL RapidDrop Optical Fiber Cables, to include flat drop, flat drop with tracer wire, and round drop cables.

This document covers end preparation. It is not all inclusive and is only one method of preparing the cables for splicing in a closure or enclosure. It also features common issues encountered during preparation and highlights best practices and techniques. Installers may use other tools that provide the same functionality.

Note: Depending on the cable design and fiber count, the outer dimensions of the flat and round drop cables may vary. Some of the tools included that do not require ripcord access. They are optimized for certain dimensions, but may not work for all drop cable designs. Alternative methods are also provided to access ripcords if only standard tools are available. It is recommended to measure the drop cable dimensions when appropriate to determine fit with a particular tool.

stl.tech

Tools Used In The Process

Unless otherwise specified, the tools listed below are generic and manufactured by multiple suppliers. Where a specific tool manufacturer and model is identified, STL has found these to be more effective for use with STL cables than other tools.

1

Tool Name: Ideal Buffer Tube Stripper
45-162 (up to 3.2 mm)

2

Tool Name: Kevlar Scissors
Manufacturer: Miller
Model No: KS-1

3

Tool Name: Small Side Cutter

4

Tool Name: Needle Nose Pliers

5

Tool Name: Cut Resistant Gloves

6

Tool Name: Tape measure

Tools Used In The Process

7

Tool Name: Colored Electrical Tape

8

Tool Name: White marker

9

Tool Name: Jonard FOD-2000
Fiber Optic Drop Cable Slitter

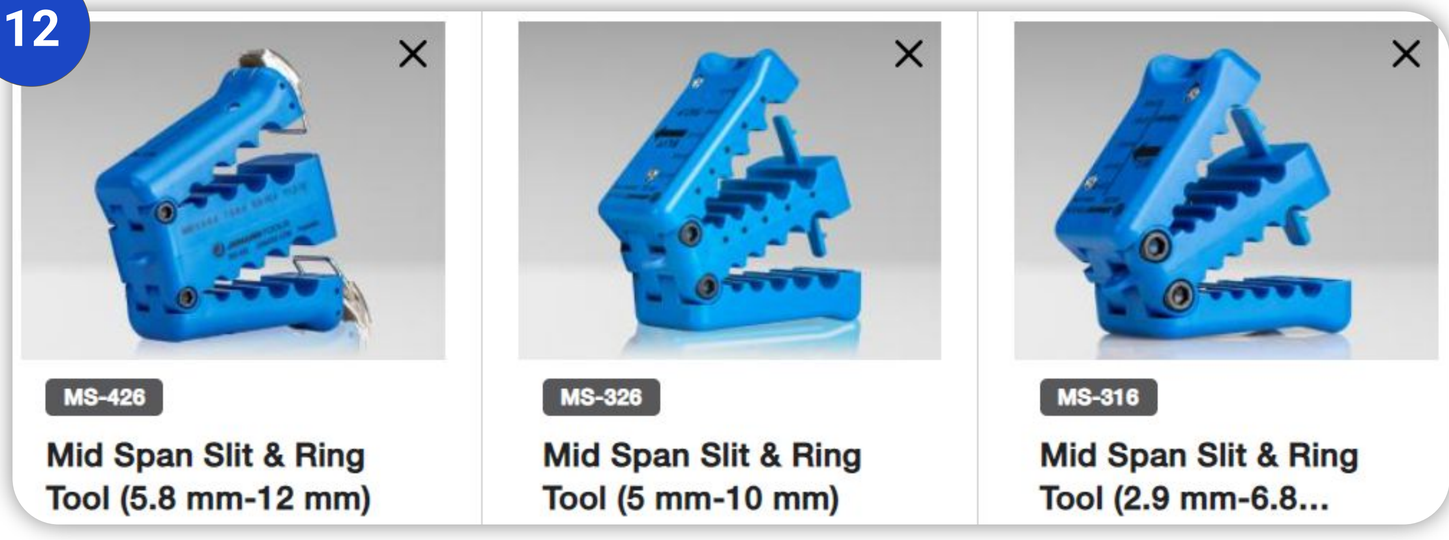
10

Tool Name: Jonard WTS-1
Flat Drop Toner Wire Slitter

11

Tool Name: Miller MA01-7018
Flat Drop Cable Slitter Kit

12



Tool Name: Buffer Tube Mid Span and Ring Tool
Manufacturer: Jonard
Model Nos: MS-426, MS-326, MS-316

stl.tech

End Preparation - Flat Drop

1

This is the procedure for end preparation of STL RapidDrop flat drop cable, flat drop with tracer wire, and round drop cables.

2

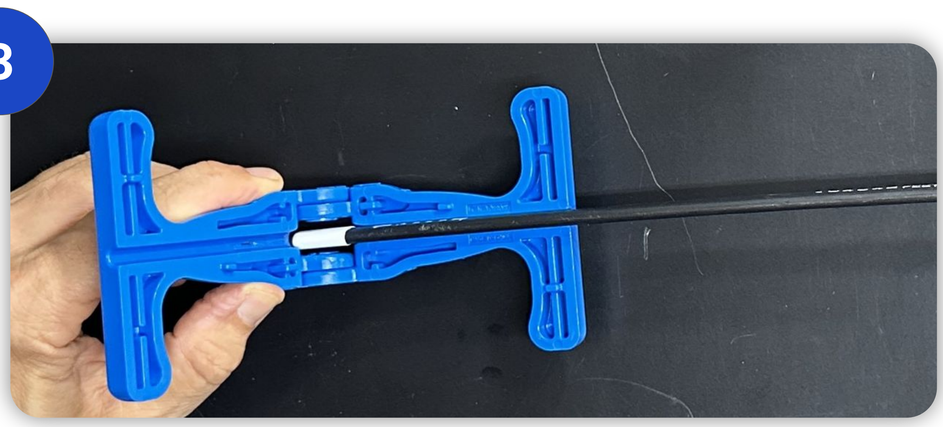
Mark the required distance from the end of the cable that is needed for the closure or hardware used.

Use colored tape or marker. Using tape will affect the OD of the cable, which can interfere with the functionality of some tools; in those cases, a white marker is preferred.

Refer to the closure manufacturer’s instructions on the amount of exposed buffer tube and fiber needed.

End Preparation - Flat Drop

3



For all 12F (and less) flat drop cables, use the Jonard drop cable slitter or Miller tool. Start by sliding the cable through the tool to the mark designating the length of sheath to remove. Close the tool halves and pull in straight line.

4

For the 24F flat drop design, the cable width is slightly wider than the the access trough of the Jonard tool, and will not work properly. In which case, the ripcords will need to be accessed, as described later in this document.

5

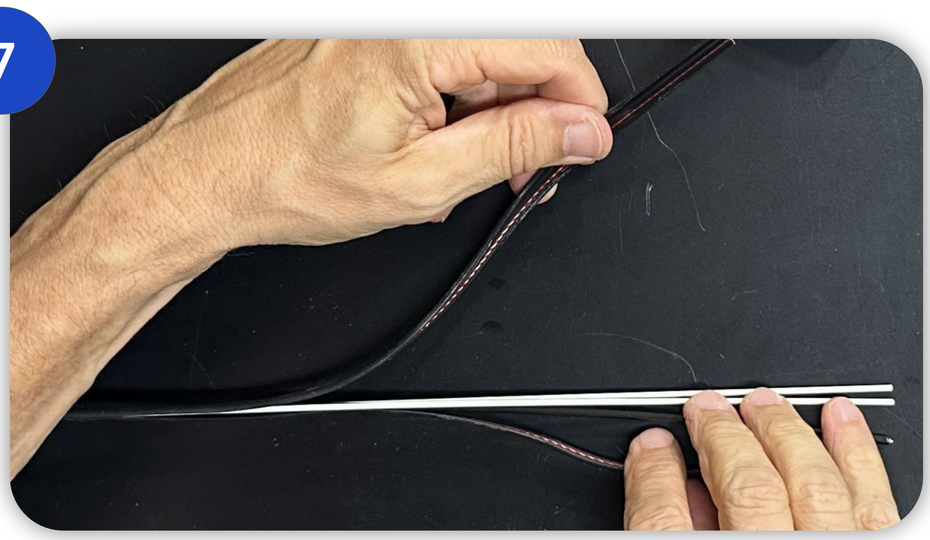
The Miller drop cable tool works similarly as the Jonard tool and in most cases can also be used with the wider 24F design, even though the clamshells may not completely closed. The blades will still slit along the strength members at a slight angle.

6

Close the tool and pull straight along the cable.
The sheath should separate into two halves.

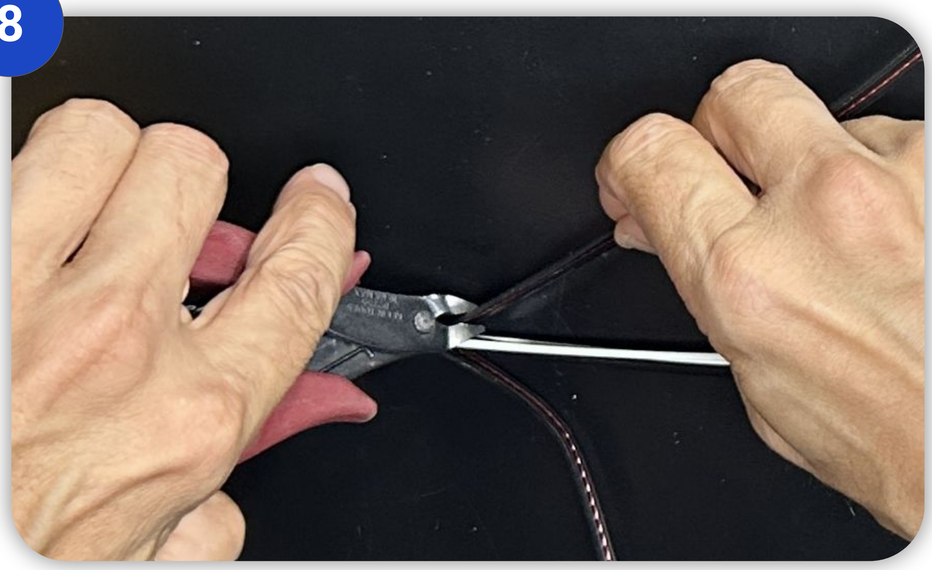
End Preparation - Flat Drop

7



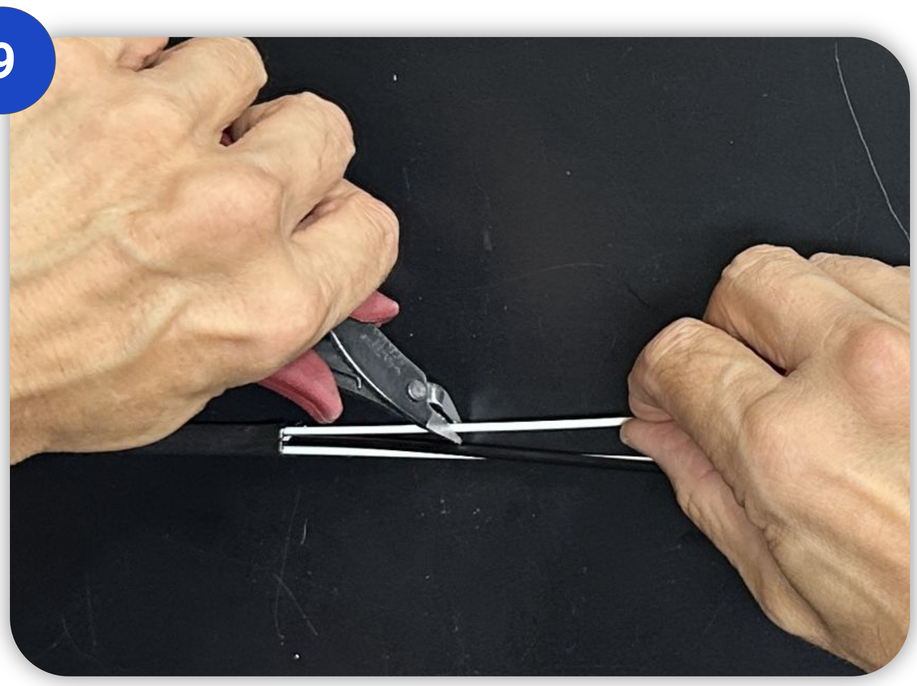
Seperate the two sheath halves from the strength members and buffer tube.

8



Using side cutters, trim the sheath at the mark.

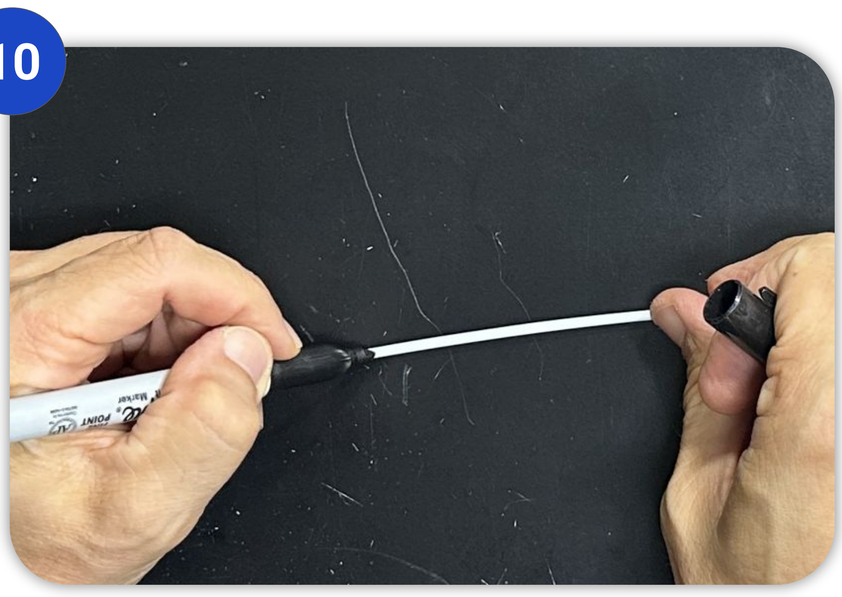
9



Then cut the strength members to length needed for the hardware or application it is being used for.

In some cases, the strength members are necessary for helping secure the cable in the hardware. Refer to the hardware manufacturer’s instructions.

10



Mark the buffer tube to the length of exposed fiber needed for the application.

Depending on the fiber count and cable design, the buffer tube color may either be black or white.

End Preparation - Flat Drop

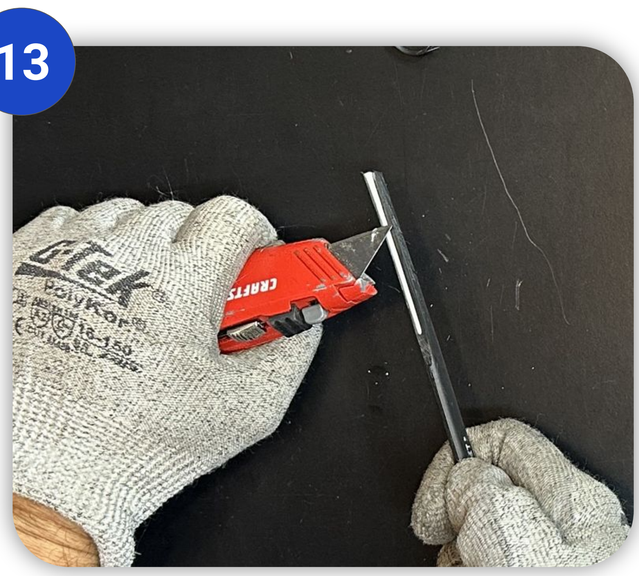
11

Using an Ideal buffer tube cutter, ring cut and snap the buffer tube. Do not ring cut all the way through the buffer tube to avoid damaging the fibers.

12

Score and snap the buffer tube. Pull the cut tube off straight exposing the fibers. It is best to pull from the end farthest away from the ring cut.

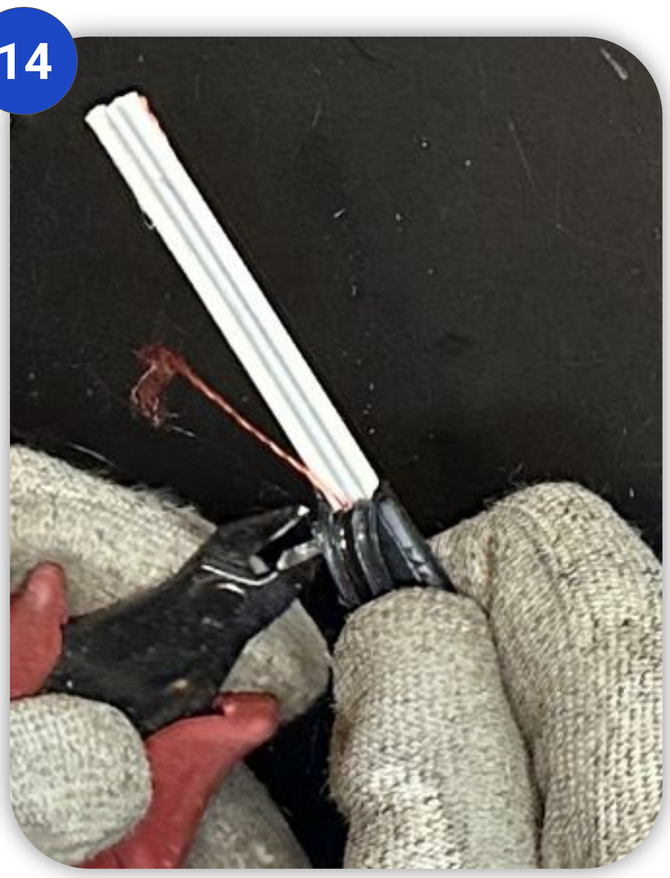
13



An alternative method of preparing the cable is to utilize the ripcords.

Using a cable knife, shave the jacket away, exposing approximately 1-2 inches of the strength members.

14

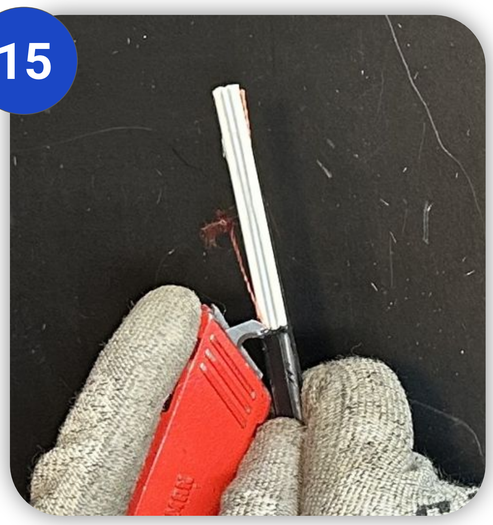


Peel back the jacket on both sides to access the two ripcord directly over the buffer tube.

Cut the sheath with small side cutters, but do not cut or fray the ripcords. In some cases, the ripcords may adhere to the inside of the sheath.

End Preparation - Flat Drop

15



Cut a small notch in the jacket to start the ripcords.

16

Using needle nose pliers, pull the ripcords in line with the cable.

17

Using side cutters, cut the strength members to length needed for the hardware or application it is being used for.

In some cases, the strength members are necessary for helping secure the cable in the hardware. Refer to the hardware manufacturer's instructions.

Trim the jacket sheath to the mark.

stl.tech

End Preparation - Flat Drop with Tracer

For the flat drop with tracer design, one must first remove the tracer wire. .

The most effective tool to use is the Jonard WTS-1 Flat Drop Toner Wire Slitter.

Orient the cable in the tool (toner wire toward hinge) and secure the latch. Pull the tool the length needed.

Note that the jacket edge of the cable may be slightly uneven and affect how easily the sheath is slit with other tools.

1

An alternative method of separating the tracer wire is to use a cable knife.

Place the cable on a flat surface and push the tip of the knife through the web between the main cable and the tracer wire.

This method is more difficult to control, given the knife may cut into the sheath of the tracer wire exposing the wire below.

2

Once the wire is separated from the rest of the cable, the process steps are the same as previously outlined in this document.

stl.tech

End Preparation - Round Drop

1

This is the procedure for end preparation of STL RapidDrop round drop cable.

2

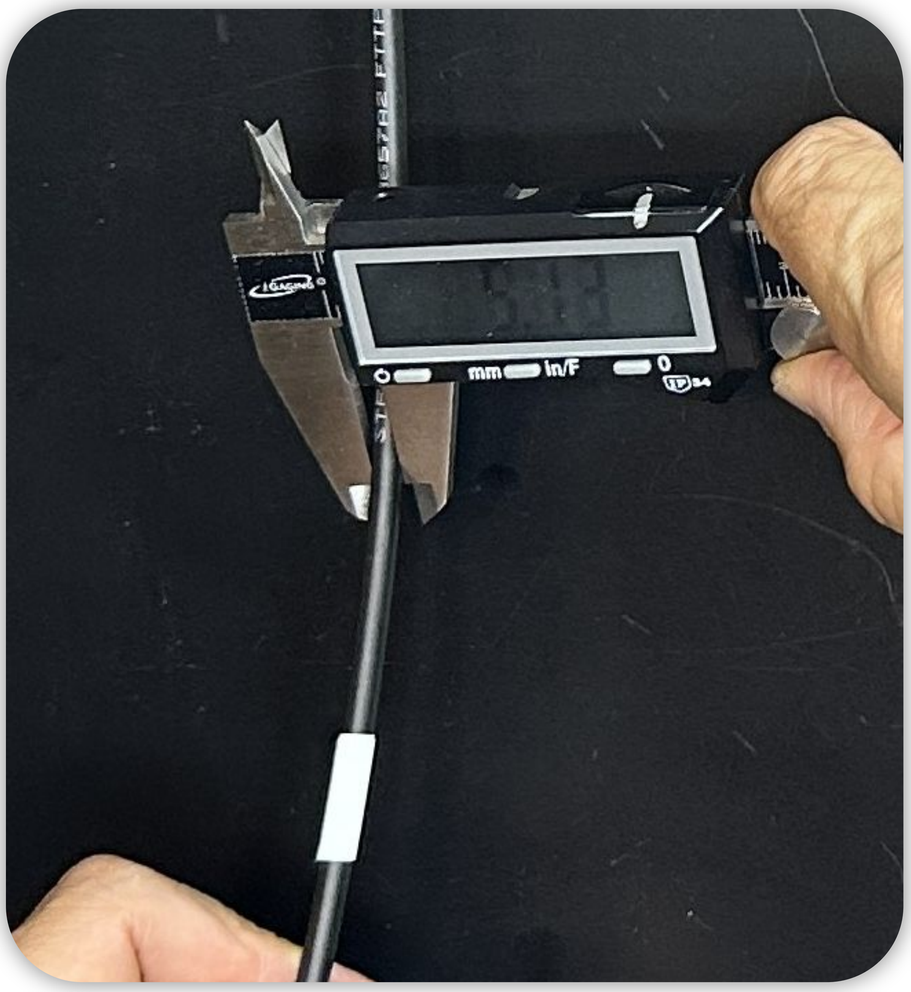
Mark the required distance from the end of the cable that is needed for the closure or hardware used.

Use colored tape or marker. Using tape will affect the OD of the cable, which can interfere with the functionality of some tools; in those cases, a white marker is preferred.

Refer to the closure manufacturer’s instructions on the amount of exposed fiber needed.

stl.tech

End Preparation - Round Drop



For round drop cables, measure the diameter of the outer jacket.

The Jonard ring and slitting blocks are an effective tool to access the inner buffer tube.

The Jonard block slitters have different OD ranges and in most cases have a portion of overlap with other Jonard block slitter models.

For instance, the round drop diameter is approximately 5.0 mm (nominal).

The MS-326 has a slot for 5.0 - 5.6 mm cables, and the MS-316 has a range for 4.4 - 5.2 mm cables.

Depending on the outside diameter, start with the block that has the higher OD range. This will generally ensure that the blades of the tool do not cut too deeply through the jacket and damage the buffer tube.

3

Place the block on the buffer tube and lock the tab.

Note that if the tape is used, the increase in diameter may be too large for the block to completely close. In such cases, a white marker is preferred.

As well, note the alignment line on the outside of the block to indicate where the cut starts.

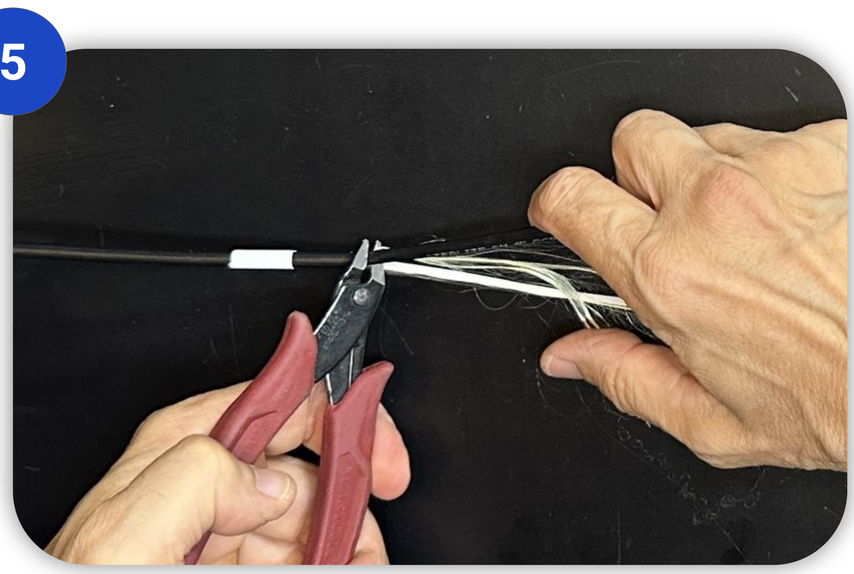
End Preparation - Round Drop

4

Pull the block along the length of the tube in a straight pull to the other mark.

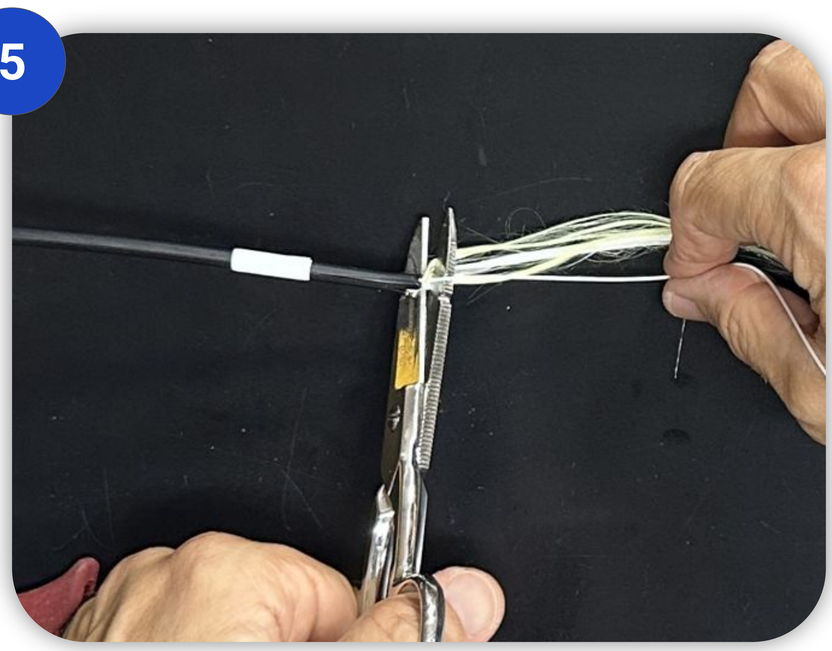
If the jacket does not slit open, this is an indication that the tool blade is not deep enough and one should go to the Jonard block with a “smaller OD window”.

5



Trim the outer jacket with small side cutters.

5



Cut aramid yarns with scissors.

Once the buffer tube is exposed, measure the required amount of buffer tube to remove and use an Ideal buffer tube cutter to score and snap the tube to expose the fiber.

If the block slitters are not available, an alternative method to strip the sheath off the round drop cable is to use a ring cutter and work in short sections (typically one foot at a time).

Given many of the round drop cables have aramid reinforced plastic rods embedded in the jacket, one must cut deep enough to cut through all the rods.

Round drop cables also have ripcords which can be accessed by a cable knife, similarly to the method used for flat drop cables.

01/092024

For additional information please contact your sales representative.
You can also visit our website at www.stl.tech