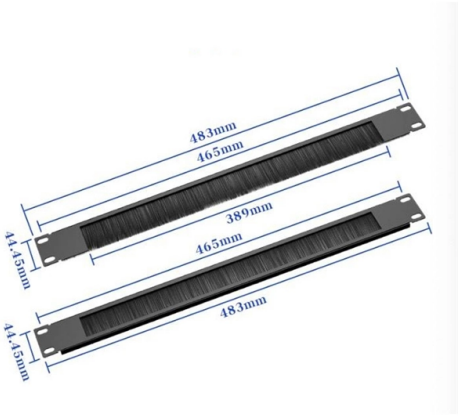
Longitudinal stripping and splicing of optical cables



Overview

Fiber Optic Longitudinal Slitter: Cable Prep Master prep with our Fiber Optic Longitudinal Slitter guide. Learn expert tips for safe, precise mid-span acce.

Key Takeaways

Longitudinal stripping involves carefully removing the outer jacket or armor of an optical cable along its length to expose the internal fibers for splicing, using specialized slitting and stripping tools.

Longitudinal Stripping of Optical Cables

Longitudinal stripping is the process of cutting and removing the outer sheath or armor of a fiber optic cable along its length without damaging the internal fibers. This is essential for preparing cables for fusion splicing, termination, or mid-span access. The process typically involves: Cable Slitters and Strippers: Tools like the ACS Armored Cable Slitter or mid-span fiber cable slitters are designed to perform longitudinal cuts along armored or sheathed cables.

The blade is adjusted to the correct depth (usually 0–5 mm) to avoid nicking the fibers inside, and the tool is pulled along the cable length to remove the jacket cleanly. Mechanical Strippers: Handheld fiber strippers remove coatings from individual fibers, exposing the bare glass for splicing. These can handle standard telecommunication fibers (125 µm cladding, 250 µm coating) and specialty fibers with thinner coatings.

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Automated Systems: Advanced systems like the AutoStrip II use burst technology to vaporize coatings for mid-span window stripping, providing high precision and repeatability without chemicals. Procedure for Longitudinal Stripping: Loosen the tool's adjustment knobs and set the blade for longitudinal cutting. Place the cable in the tool's groove and adjust rollers for a snug fit.

Tighten the blade assembly and pull the tool along the cable length. For cables with external strength members, allow the tool to follow the lay of the members to avoid spiraling or fiber damage. Remove the exposed aramid fibers or loose tubes carefully before splicing.

Fiber Splicing Preparation

After longitudinal stripping, fibers must be prepared for fusion splicing: Cleaning and Cleaving: Stripped fibers are cleaned with alcohol wipes and precisely cleaved using a fiber cleaver to create a flat end face. Splicing: Fusion splicers align the fibers and use an electric arc to join them, ensuring minimal signal loss. Recoating or Protection: Spliced fibers are protected with heat-shrink sleeves or recoating materials to restore mechanical strength and environmental protection.

Key Considerations

Precision: Depth control is critical to avoid nicking fibers, which can cause breakage or signal loss. Tool Selection: Use tools appropriate for the cable type (armored, loose tube, flat drop, or ribbon). Safety: Always wear protective eyewear and handle fibers carefully to prevent injury from glass shards.

Standards Compliance: Follow industry standards such as IEC 61300-3-35 and Telcordia GR-20 for cable preparation and splicing. By combining longitudinal stripping with proper fiber preparation, technicians can achieve high-quality splices, maintain network reliability, and ensure long-term performance of optical fiber installations.

Article Content

Fiber Optic Longitudinal Slitter: Cable Prep

Master prep with our Fiber Optic Longitudinal Slitter guide. Learn expert tips for safe, precise mid-span access and seamless splicing at EPCOM.

Fiber Optic Longitudinal Slitter: Top Solutions

Learn how the professional Fiber Optic Longitudinal Slitter tool boosts network efficiency & safety by ensuring surgical-precision cable access.

Fiber Strippers – tools, mechanical, thermal, chemical,

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Fiber strippers are precision tools that remove a coating from a fiber before connectorization or splicing. There are mechanical, thermal and non-contact

Fiber and Cable Stripper – Types, Uses & Guide

Learn how to use fiber strippers, cable cutting scissors, and armored cable slitters. Discover their applications in fiber splicing, cable prep, and FTTH.

How to Strip and Prepare Fibre Optic Cable for Termination: A ...

In this informative guide, we''ll walk you through the step-by-step process of stripping and preparing fibre optic cable for termination, covering techniques, tools, and best practices to help you

The Complete Guide to Fiber Optic Tools: Splicing, Cleaving, and ...

3.1 Professional Fiber Optic Strippers A Weunion high-precision stripper is engineered to remove the three distinct layers of a fiber cable: the outer 3mm jacket, the 900µm buffer, and the

Optical Fiber Splicing: The Complete Technical Guide to

This guide breaks down the fundamentals of optical fiber splicing, compares fusion and mechanical techniques, explains factors that influence splice loss, and

The Complete Step-by-Step Guide to Fiber Optic Splicing

In this guide, we cover the basics of fiber optic splicing, how to perform splicing using two different methods, and finally some best practices to perform good fiber splicing.

Fiber optic cable splicing and termination steps Guide

① Before stripping, check whether the connected optical cable is damaged or squeezed and deformed; ② Straighten out the optical cable and make reservations according to the regulations;

Stripping Cleaning and Fiber Prep Automation Products

AFL''s advanced Stripping, Cleaning, and Fiber Prep Automation solutions for fusion splicing. Our products ensure efficient, precise fiber preparation, helping enhance fiber optic network performance

The Ultimate Guide to Splicing of Fiber: Techniques and Tips

Fiber optic splicing necessitates vital tools such as a fusion splicer, mechanical splice unit, fiber cleaver, and fiber stripper. These instruments play an integral role in preparing the fibers by

KMS-K Longitudinal Cable Sheath Cutter-Grandway Fiber Optic Tool

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Grandway KMS-K Longitudinal Cable Sheath Cutter includes all the basic tools for fiber optic cable construction and maintenance. Contact now!

Fiber Optic Splicing: A Complete Guide | Jonard Tools

In the ever-evolving world of high-speed connectivity, fiber optic technology serves as the backbone of modern communication networks. From massive data

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We''re on a journey to advance and democratize artificial intelligence through open source and open science.

Fiber Optic Cable Preparation, Splicing and Termination

The optical cable must be adequately prepared before splicing. Each fiber must be made pure (clean) before stripping for splicing. A fitting length of the bare fibers must be exposed by

Reference Guide to Fiber Optic Splicing

Follow these simple steps to make a 144ct fiber splice locations go as easy as apple pie. This process only works if the fibers have been properly cleaned with DeGel and that it has been fully neutralized

Why Fiber Optic Cable is Spliced rather than Termination?

Splicing refers to the method of connecting two fiber optic cables and termination is used to connect two cables. Let''s explore the differences between

The best fiber optic stripping tools

Regarding the operation of optical cables, especially optical fiber terminal splicing, one way is to splice two bare optical fibers together through fusion splicing. In the communications industry, we call it

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