

Explosion-proof optical cable stripping process



AI Overview

Stripping the outer layer of explosion-proof optical cables requires progressive, layer-by-layer removal using precision tools to avoid damaging inner fibers and maintain cable integrity. Understanding Cable Structure Explosion-proof optical cables typically have multiple layers: an outer jacket or sheath, strength members (like aramid yarn or Kevlar), buffer coatings, and the glass fiber core. Each layer serves a protective or structural function, so stripping must be done carefully to avoid compromising tensile strength or fiber integrity.

Stepwise Stripping Process

Outer Jacket Removal Use a jacket stripper or appropriately sized wire stripper to remove the outer sheath. Ensure the tool is matched to the jacket diameter to avoid cutting underlying aramid yarn or fibers. The cut edge should be clean and straight, not jagged or torn, to maintain cable performance.

Strength Member (Aramid Yarn) Handling After jacket removal, inspect the aramid yarn for damage. These fibers carry tensile load; any cuts reduce pull strength. If necessary, use a larger gauge stripper or carefully separate the yarn before proceeding.

Buffer and Coating Stripping Use precision fiber strippers designed for the specific coating thickness (e.g., 250 μm or 900 μm). Tools may be mechanical, thermal, or non-contact and should expose the glass cladding without scratching or nicking it. For multi-layer coatings, strip progressively: secondary buffer first, then primary buffer, ensuring the glass fiber remains untouched.

Tool Selection and Maintenance Professional-grade strippers have multiple notches calibrated for different layers: large for outer jacket, medium for buffer, small for acrylate coating. Fiber guides and matched blades ensure consistent positioning and prevent damage. Keep blades sharp and clean; dull edges can tear layers or damage fibers. Ergonomic, non-slip handles and locking mechanisms improve safety and precision during repe...

Article Content

How to Strip and Prepare Fibre Optic Cable for

Introduction: Stripping and preparing fibre optic cables for termination is a critical step in the installation and maintenance of fibre optic

FO Splice Boxes | Stainless Steel Fibre Optic

The FXLS*.FO* series of hazardous area terminal boxes, manufactured by Pepperl+Fuchs, is a range of fibre optic (FO) splice boxes designed for

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Automation of Laser stripping helps fiberoptic components move more rapidly to volume production. A new noncontact process produces high yields

Laser-based methods of stripping fiber optic cables

One aspect of the disclosure is a method of stripping a fiber optic cable having a protective cover with an outer surface that surrounds at least one optical fiber and that has a cable...

How To Strip Fiber Optic Cable | Instructional

In this instructional video, Bob Licari, Test Equipment Product Manager, demonstrates a simple way to strip optical fiber.#instructional #fiberoptics #fiberF...

Stripping Techniques For Your Fiber Optic Cable

Good fiber optic stripping techniques in your cable assembly process are crucial. See best practices for how to strip fiber optic cable buffers & jackets.

Fiber Strippers – tools, mechanical, thermal, chemical,

Automated systems are particularly valuable when processing specialty fibers or when strict tensile strength requirements necessitate a touch-free stripping

The Ultimate Optical Fiber Stripper Guide

Adjustable and Specialized Optical Fiber Stripper Models While most applications use standard fiber sizes, some projects may involve non-standard or

Fibre Optic Cables in Hazardous Areas

As fibre optic connections become more and more often used within the process industry sometimes the connection of cables becomes a difficult task

Preparing your Fiber Optic Cable for Connectors or Splices

Learn the essential steps and tools for preparing fiber optic cables for connectors or splices. Master mechanical and fusion splicing techniques to

3SAE Plasma Work Station (PWS)

The PWS generates a partial vacuum from an external air supply for optimal stripping conditions and maximum performance. A unique seal and baffle design

Fiber Optics Stripping, Cleaving, Splicing, Recoating,

Fiber Optics Cleaving and Stripping Tools available from StockAMS Technologies offers the full range of must-have tools for field or production – including

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Learn more about the requirements and current technology in optical explosion protection.

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Sheath Removal and Stripping of 8 and 12-Fiber Ribbon Interconnect Cables

1.2 Corning Cable Systems ribbon interconnect cables are lightweight, flame retardant cables designed for high performance transmission of digital and analog signals in process control, computer and

Tips & Techniques for Using Stripping Tools on Fiber Optic Cable

Optical cable specification development includes design and quality testing. FOC's impact reaches the network physical capabilities through fiber manufacturing process expertise from

Fusion Splicing Basics (Part 2): Strippers and Cleavers

When performing a fusion splice, the optical fiber must be stripped down to the bare glass. Let's discuss fiber strippers and fiber cleavers.

Engineering:Stripping (fiber)

Stripping is the act of removing the protective polymer coating around optical fiber in preparation for fusion splicing. The splicing process begins by preparing both

Fiber Stripping | Komax

Semi-automatic fiber-stripping machines enable precise and efficient processing of coated, buffered, and jacketed glass fibers. Designed for reliability and repeatability, these machines ensure high-quality

How Fibre Optic Cables Pose A Risk In Explosive

In short, while fibre optic cables are often perceived as completely risk-free in explosion-prone areas, that is only true under certain conditions.

3SAE AutoStrip II (AS II)

The proven Burst Technology™ method instantly vaporizes the optical fiber coating. The result is a clean, stripped fiber, at a substantially higher strength than any

Strip : FiberOptic 7045 | Contact SCHLEUNIGER

Specifically designed for processing jacketed glass optical fibers (GOF), the FiberOptic 7045 provides for perfect stripping of the outer jacket, Kevlar cutting,

Explosion Protection for Optical Radiation | R. STAHL

Protected optical radiation "op pr" is based on the idea of preventing radiation from escaping from its enclosure. FO cables must be designed so that

Cables and Lines for Hazardous Areas

Deploy Internet connections safely in explosive atmospheres using fiber optics. Preventing sparks, EMI, and hazardous area compliance standards

The "golden rule" in stripping

Note the cable diameter and jacket thickness for each cable – Stripping cables and fibers is a delicate process. Carefully set your hand tool or machine tool to the right cable diameter and

Contact Us

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