

Stripping techniques for optical cables using double steel wires



AI Overview

Stripping double steel wire optical cable requires specialized tools and careful technique to remove protective layers without damaging the fiber core.

Cable Structure

Double steel wire optical cables typically consist of:

- Outer jacket: Protective polymer layer
- Steel wire strength members: Provide tensile strength
- Buffer coating: Secondary protective layer around the fiber
- Primary acrylate coating: Directly protects the glass fiber
- Glass core and cladding: The actual optical fiber transmitting signals

The steel wires add mechanical strength but make stripping more challenging compared to standard fiber cables.

Tools for Stripping

Manual Fiber Strippers: Precision tools with laser-drilled or ground notches to remove buffer and acrylate coatings without touching the glass fiber.

Wire Cutters and Strippers for Steel Members: High-carbon stainless steel blades or spring-assisted pliers can cut through steel wires and outer jackets without crushing the fiber.

Semi-Automated or Automated Machines: Machines like the Cut & Strip Family or PowerStrip series can handle multi-layered cables, including steel-reinforced optical cables, providing consistent and repeatable stripping while reducing operator error.

Stripping Technique

Step 1: Remove Outer Jacket – Use a suitable wire stripper or cutting tool to carefully cut the outer polymer jacket without nicking the steel wires or fiber.

Step 2: Cut Steel Strength Members – Use wire cutters designed for steel to trim the strength members, exposing the buffer layer.

Step 3: Strip Buffer and Primary Coating – Use a fiber optic stripper to remove the buffer and acrylate coating down to the 125µm cladding, ensuring a clean, straight cut.

Step 4: Inspect Fiber – Check for nicks, scratches, or residual coating. Any damage can cause signal loss or connection failure.

Safety and Best Practices

Always wear safety glasses to protect against flying steel fragments. Avoid...

Article Content

Fiber U Lesson Plan: Basic Fiber Optic Skills Lab

Lesson 3: Fiber Optic Cable And Fiber Preparation Objectives: From this lesson you should learn: How to identify typical fiber optic cables How to prepare cables for

Wire Cut and Strip | Komax

Wire Cut and Strip Our semi-automated cut and strip machines are built for precise, efficient processing of a wide range of cable types, from single and

Fiber Cable Stripping Tools: A Comprehensive Guide

Fiber Cable Stripping Tools: A Comprehensive Guide The delicate nature of fiber optic cables requires specialized tools for proper handling, especially when it comes to stripping away the protective layers

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.

Good stripping techniques for your fiber optic cable

Without question, good stripping techniques in your fiber optic cable assembly process are imperative. What happens if you damage the fiber during this

Cable Stripping

To ensure that your cable will perform well with WLP, it will need to be stripped correctly. Many cables are constructed with thick jackets, shielding,

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

Stripping tools for all cable types

Stripping pliers make stripping wires and strands even easier. Universal pliers with an integrated knife are brilliant for round or flat cables

Care of Optical Fibers During Splice Preparation

The methods, techniques, and agents used during fiber cleaning and coating removal must be carefully chosen and controlled to ensure that fiber reliability is retained.

Laser Wire Stripping | 2014-04-01 | Assembly Magazine | ASSEMBLY

Conventional wire stripping techniques include mechanical, abrasive, chemical and thermal methods. However, each has drawbacks, such as slow processing speed, a lack of precision, poor

Fiber Strippers – tools, mechanical, thermal, chemical,

The main types include mechanical handheld tools with precise blades, thermo-mechanical strippers that use heat to soften the coating, non-contact methods

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Stripping techniques for optical cables using double steel wires

Automation Authority Telecom & Energy Systems (AAS) supplies fiber optic cold splice connectors, mechanical splice kits, splice trays, IP68 cable joint closures, fiber protection tubes (heat shrink, c...

Strip cables | Made easy | Simply explained

To strip cables, their insulating layer - generally referred to as the sheath - is removed using a knife or a suitable tool such as a wire stripper. What is the

Fiber Handling and Coupling Guide | PDF | Optical

It covers various techniques for stripping, cleaving, splicing, and connecting fibers, emphasizing safety precautions and best practices for achieving high-quality

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

How to Strip Electrical Wire like a Pro 6 Ways

Learn how the pros strip wire and do the job right. Stop nicking wire and risking fire and short circuits. See the tools that make the job easier and avoid t...

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

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.

Types of wire stripper tool and how to use them.

This blog shows how to choose and use wire strippers correctly. Help you significantly impact the efficiency of fiber optic installations.

Stripping-Instructive-Flat-Drop-Fiber-Optic-Pigtail

The pigtail is a high-quality optical assembly manufactured using custom connectors to accommodate another fiber cable in a tray, rack or splice closer. These factory preterminated flat drop pigtails are

What is Laser Wire Stripping? (Updated 2025 Guide)

Introduction to Wire Stripping Wire stripping is the process of removing the insulation layer from electrical wires to expose the conductive

NKT Photonics App notes

FIBER HANDLING, STRIPPING, CLEAVING AND COUPLING This application note addresses general handling of fibers from NKT Photonics, including how to strip the protective coating, how to cleave

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

How to Strip a Wire (With or Without a Wire Stripper)

Whether you're working on a home electrical project or removing the metal to sell scrap, wire stripping is really simple, and there are quite a few

Fiber Optic Strippers | Cable & Wire Stripping Tools

Precision fiber optic strippers and cable tools for fast, accurate buffer removal. Choose from a variety of reliable, cost-effective wire stripping options.

Contact Us

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