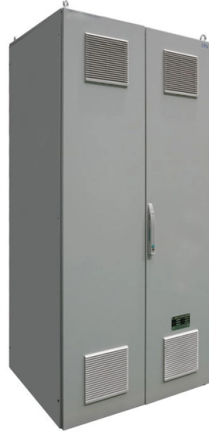


Stripping of flexible optical cable



Overview

The Ultimate Optical Fiber Stripper Guide Explore Optical Fiber Stripper types and uses. Learn pro techniques for precise stripping to ensure reliable netw.

Key Takeaways

Stripping flexible optical cables involves carefully removing protective layers using mechanical, thermal, chemical, or laser-based methods to expose the fiber without causing damage.

Overview of Stripping Flexible Optical Cables

Flexible optical cables typically consist of multiple layers: an outer jacket, aramid yarn for tensile strength, buffer coatings, and the glass fiber core. Each layer must be stripped progressively and individually to avoid damaging the underlying fiber or weakening the cable's structural integrity. The outer jacket is usually a soft plastic material that can be removed with appropriately gauged wire strippers, while aramid yarn and buffer coatings require more precise handling.

Mechanical Stripping

Mechanical strippers are precision tools designed to remove coatings such as acrylate, PVC, or polyimide. They work by clamping and cutting the coating without nicking the glass fiber. Typical mechanical strippers are used for standard telecommunication fibers with a 125 μm glass cladding and 250 μm coating, but specialized strippers exist for thinner or tight-buffered fibers.

Mechanical stripping is often combined with cleaning and inspection steps to ensure the fiber is free of scratches or residues.

Thermal and Chemical Stripping

Thermal strippers use controlled heat to soften or burn off polymer coatings, while chemical strippers dissolve coatings using solvents. These methods are effective for certain polyimide or specialty coatings but require careful handling to avoid fiber damage or chemical hazards. Thermal strippers can be diameter-adjustable to accommodate different fiber sizes, providing flexibility for multi-layer cables.

Laser-

Based Stripping

Laser stripping is a contact-free, highly precise method suitable for ultra-high reliability applications. A focused laser beam removes acrylate or polyimide coatings by forming grooves in the protective layers, which are then split and removed without touching the fiber. Laser stripping allows for end or window stripping, precise dimensional control, and residue-free fiber surfaces, making it ideal for processes like Fiber Bragg Grating fabrication or high-density ribbon cables.

It is particularly advantageous for tight-buffered or flexible fibers where mechanical contact could cause micro-cracks.

Best Practices

Progressive Layer Removal: Strip the outer jacket first, then aramid yarn, and finally the buffer coating, ensuring no damage to the fiber. Tool Maintenance: Keep cutting edges sharp and calibrated to prevent nicks or scratches. Cleaning: After stripping, clean the fiber with lint-free wipes and high-purity alcohol to remove residues.

Inspection: Use a fiber microscope or bend test to check for micro-damage before connectorization or splicing. Controlled Strip Lengths: Avoid stripping more than 50 mm at a time to reduce the risk of fiber damage.

Applications

Stripped fibers are prepared for connectorization, fusion splicing, or specialized optical processing. Laser and non-contact methods are preferred for ultra-high reliability (UHR) applications, while mechanical and thermal strippers are widely used in standard telecommunication and industrial fiber assemblies. By selecting the appropriate stripping method and following best practices, flexible optical cables can be prepared efficiently while maintaining fiber integrity and performance.

Article Content

The Ultimate Optical Fiber Stripper Guide

Explore Optical Fiber Stripper types and uses. Learn pro techniques for precise stripping to ensure reliable network performance with top tools.

Fiber Strippers – tools, mechanical, thermal, chemical,

Fiber strippers are precision tools that reliably and cleanly remove a defined length of coating (often 30–40 mm) from a fiber end so that the bare glass is exposed

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 Stripping | Komax

The pneumatic wire and cable stripper, UniStrip 2545, is designed for jacket stripping of glass optical fiber (GOF) cables and discrete wires up to 3.2 mm (0.125") in diameter. With our service packages,

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.

Fiber Cable Stripping Tools: A Comprehensive Guide

Fiber cable stripping tools are essential for anyone working with fiber optics. Understanding the different types of tools, their applications, and best practices is crucial for ensuring successful installations and

Laser Stripping | Optek Systems

Laser stripping from OpTek Systems provides controllable and reproducible removal of acrylate or polyimide buffers with tight control over the position, location, and fiber-strength.

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...

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stripping fiber optic cables

I am stripping two 144F loose tube cables and one 48F loose tube cable. Please like, subscribe, and comment any questions you may have.

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.

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The “golden rule” in stripping

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