

Optical Cable Stripping Technology



AI Overview

Optical cable stripping technology involves mechanical, thermal, chemical, and plasma methods to precisely remove fiber coatings without damaging the glass core. Overview of Optical Fiber Stripping Optical fibers are protected by polymer coatings such as acrylate, silicone, or polyimide, which must be removed for splicing, connectorization, or other processing. Stripping exposes the bare glass fiber while avoiding scratches or nicks that could weaken the fiber and reduce performance. Proper stripping is critical because even minor damage can lead to cracks under stress or thermal cycling, compromising the fiber's tensile strength and reliability.

Stripping Techniques

1. **Mechanical Stripping:** Handheld or semi-automatic tools use precision blades to remove coatings. These are suitable for standard telecommunication fibers (125 μm cladding, 250 μm coating) and can handle tight buffers or larger jackets. Mechanical strippers are simple, cost-effective, and widely used in laboratories and field applications.
2. **Thermal Stripping:** Thermo-mechanical strippers apply heat to soften the coating before removal. Adjustable temperature and timing settings allow gentle stripping of delicate fibers, including large-diameter fibers (LDF). Thermal strippers reduce the risk of fiber damage and are ideal for high-strength splices.
3. **Plasma and Non-Contact Stripping:** Plasma-assisted or laser-based strippers remove coatings without physical contact, preserving fiber integrity. These methods are particularly effective for large-diameter buffers (up to 1200 μm) and specialty coatings like polyimide, carbon, or gold. Non-contact stripping ensures consistent results and is suitable for automated production environments.
4. **Chemical Stripping:** Solvents or acids can dissolve coatings, but this method is less common due to handling hazards and potential fiber contamination. It is typically reserved for specialized applications where mechanical or thermal methods are impractical.

Multi-Layer Cable Considerations Fiber optic cables often have multiple layers of coating.

Article Content

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

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

Fiber Stripping

OpTek's LaserStrip™ production tools are built around technology that has been relied on in performance critical, volume production of optical fiber components since the mid 1990's. Using a

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

Fiber Optic Cable Cutting Machines Stripper Tools

The Cable Cutting Machines & Stripper Tools category features a comprehensive selection of manual, semi-automatic, and fully-automated fiber cable tools designed for precision cutting and stripping of

Professional Striper Fiber Optic Tool: Precision Coating Removal for ...

High-precision striper fiber optic tool featuring advanced coating removal technology, ergonomic design, and versatile compatibility for professional fiber optic cable preparation and installation.

Fiber Strippers

With our expertise and technology, you can confidently handle a wide range of optical fiber coating removal tasks, ensuring optimal performance in your fiber

Fiber Optics Stripping, Cleaving, Splicing, Recoating, Tapering

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

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.

Optical Fiber Strippers

Optical Fiber Strippers Fiber Strippers, Decoaters and other Stripping Tools Fiber strippers and other fiber optic stripping tools with which you prepare your fibers

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

Optical Fiber Strippers

Our range of optical fiber strippers extends from handy, pocket-sized tools to fully

Fiber and Cable Stripper – Types, Uses & Guide

Fiber & Cable Stripper for Fiber Tools 1. FOS03 Fiber strippers remove the coating from the fiber optic cable to expose the glass fiber. Also

Stripping Techniques For Your Fiber Optic Cable Assembly Process ...

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

Laser stripping of optical fibers opens up new applications

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

Fiber Strippers – tools, mechanical, thermal, chemical, plasma,

Safer mechanical or non-contact alternatives are preferred today. Automated Stripping Systems For high-volume manufacturing environments, such as the production of fiber-optic patch cables or

Fiber Optics Stripping, Cleaving, Splicing, Recoating,

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

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 Optic Cable Splicing Methods: A Practical Guide

Learn fiber optic cable splicing methods: fusion splice techniques and more. A practical guide to optic cable splicing for reliable fiber optics.

Research on the Automatic Stripping Technology of Cable Sheath and ...

Optical sensors are used to track the relative position of the cable and tool, while temperature sensors monitor the heat generated during stripping to prevent overheating.

Fiber Strippers – tools, mechanical, thermal, chemical,

Optical fibers are typically protected with fiber coatings made from polymers such as acrylate, silicone or polyimide. For splicing, connectorization or other processing,

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 production step?

Fiber Optic Stripping

3SAE Technologies designs and manufactures a wide range of high performance fiber optic stripping tools for optical fiber coating removal, providing the most

Lightera Optical Fiber & Connectivity Solutions

Lightera isn't just about connectivity, it's about empowering industries, advancing technology, and improving lives with the power of optical technology.

Contact Us

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