Stripping Method for Ribbon Optical Cables

Article Overview

Ribbon optical cables can be stripped using mechanical, thermal, or automated fiber strippers designed for multi-fiber handling, ensuring clean, precise removal of coatings without damaging the fibers.

Types of Stripping Devices

Mechanical Strippers: These are precision tools that remove coatings from fiber ends or mid-span sections. They are available in handheld pliers or multi-fiber formats suitable for ribbon cables. Mechanical strippers are ideal for standard telecommunication fibers and can handle coatings like acrylate, silicone, or polyimide, typically exposing 30-40 mm of bare fiber without nicking the glass . Thermal Strippers: Thermal devices use controlled heat to soften or vaporize the coating, allowing gentle removal. Handheld thermal strippers, such as the TFS-100, can strip 2-12 strand ribbon fibers quickly, with adjustable temperature levels and rapid heating cycles. They are compatible with most fiber holders and can perform hundreds of stripping operations per charge . Automated and Plasma-Assisted Strippers: For high-volume or laboratory applications, automated systems provide mid-span window stripping and end stripping without chemicals. Devices like the AutoStrip II use patented technologies to vaporize coatings up to 1,000 um in diameter, maintaining fiber strength and cleanliness. These systems allow programmable strip lengths, tensile testing, and integration with production lines .

Key Considerations

o Fiber Type and Coating: Ensure the stripper is compatible with the fiber's coating material (acrylate, polyimide, PVC, etc.) and diameter. Ribbon fibers often require multi-fiber handling capabilities.
o Strip Length and Precision: Handheld tools are suitable for short lengths (?30-50 mm), while automated systems can handle variable lengths with high repeatability.
o Field vs. Laboratory Use: Handheld mechanical or thermal strippers are portable and ideal for field work, whereas automated or plasma-assisted units are better for production or research environments.
o Chemical-Free Operation: Modern devices often eliminate the need for solvents, reducing contamination and improving safety .

Recommended Devices

o Jonard TFS-100: Handheld thermal stripper for 2-12 strand ribbon fibers, rapid heating, multiple temperature settings, compatible with standard fiber holders .
o 3SAE AutoStrip II: Automated mid-span and end stripping system with Burst Technology(TM), chemical-free, high-strength stripping, suitable for large-diameter coatings .
o LASER COMPONENTS Thermal and Mechanical Strippers: Range of devices for single fibers and ribbons,

adjustable for different cladding sizes, suitable for laboratory and field applications . These options provide flexibility depending on the fiber ribbon size, coating type, and operational environment, ensuring efficient and safe preparation of optical fibers for splicing, connectorization, or testing.

Soft-Strip® stripping tools from Micro Electronics strips from 2-12 fiber ribbons quickly and easily. Try the convenient Fiber Stripping

Having worked extensively with various fiber optic tools, including the Ribbon optical fiber thermal stripping pliers, I have developed a

Place the FO R12 on the fiber at the desired strip-off length. Squeeze the handle firmly, cutting the jacket. Pull the tool

What is a Ribbon Optical Cable? Optical fiber ribbons are made up of individual fibers aligned in a single row then impregnated with

For fiber optic ribbon cables, stripping of the multiple coatings from the optical fiber glass is an important step in

Whether it is indoor or outdoor fiber-optic (FO) cable, using a step-by-step approach reduces the chance of fiber damage while

For mass production, ribbon cable stripping machines are available, which can place, size, cut, strip and

Provides effortless operation with reduced pulling force, and extended use with a high-capacity battery enabling about 600 stripping

A major fiberoptic cable supplier discourages this method. Chemical methods can be used for mid-span stripping of

Since OTDRs have directional errors, testing may be required from both directions and averaged.

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

Optix America"s WRXTS6 Thermal Stripper efficiently removes insulation from fiber optic cables. Fast

About this item STRIPPING: The optical fiber stripping tool adopts thermal stripping method, which does not

damage the optical fiber

5. Procedure for Access at Ribbon End Points 5.1 Determine the length of ribbon to be broken out into individual fibers.

Do not bend cable more sharply than the minimum recommended bend radius. Do not apply more pulling force to the cable than

The cable is inserted to the desired strip length, often using a built-in stop feature for consistent results. Execution involves a smooth,

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