ZITHA TECH SPECIALTY CABLES (Pty) Ltd

Low-loss OEM fiber optic fusion splicing equipment



Overview

Fiber Fusion Splicers GAO''s fiber fusion splicers are used in the field of fiber optics to join or splice two optical fibers together.

Key Takeaways

High-quality OEM fiber optic fusion splicers achieve low-loss, reliable splicing through precise core alignment, advanced heating, and automated features suitable for telecom, FTTH, and specialty fiber applications.Key Features of Low-Loss Fusion Splicers



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Core Alignment Technology: Most low-loss splicers use core alignment to precisely align fiber cores, minimizing splice loss. Examples include Fujikura's core alignment splicers and FORC F15S, which use profile alignment techniques for accurate splice loss estimation . Corning's OptiSplice M90e combines LID-SYSTEM™ core alignment with a video-based core detection system for high-end accuracy . Fast Splice and Heat Times: Modern OEM splicers offer rapid splicing cycles. FORC F15S achieves a 7-second splice time and 9-second heat time, while Corning's M90e heats standard 60 mm heat-shrinks in just 20 seconds . Fast cycles improve efficiency in field and data center deployments. Fiber Compatibility: Low-loss splicers support a wide range of fibers, including single-mode, multimode, polarization-maintaining (PANDA), thin or large-diameter fibers, and multi-core fibers . This versatility is critical for FTTH, FTTx, and advanced optical systems. Durability and Portability: OEM splicers like FORC F15S are compact, rugged, and field-ready, with dual batteries and bright LEDs for low-light environments . Fujikura and FITEL splicers also emphasize portability without compromising performance . User-Friendly Interfaces: Many splicers feature high-definition touchscreens, GUI navigation, and on-board training videos (e.g., Corning M90e) to reduce operator errors and training time . Automated functions like fiber-type detection, auto-start, and clamp cover closing enhance consistency and reduce splice rework . Specialized Applications: Advanced OEM splicers handle mass fusion splicing (4-core or 16-core), ribbon fibers, and specialty fibers for R&D, manufacturing, or high-power optical systems . Integrated fiber preparation tools further improve splice quality and repeatability.

Recommended OEM Options

• Fujikura Core Alignment Splicers: Reliable, low-loss, suitable for telecom and R&D, with Bluetooth-enabled tools and automatic mechanisms .

• FORC F15S: Compact, rugged, fast splicing for FTTH and outside plant applications, with profile alignment and dual batteries .

• Corning OptiSplice M90e: High-end accuracy, low-loss splicing for long-haul, CATV, and LAN networks, with LID-SYSTEM™ and CDS technology .

• FITEL S185EDV/S179: Precision splicers for specialty fibers, large-diameter fibers, and alignment-critical systems .

Conclusion

For low-loss OEM fiber optic fusion splicing, the ideal equipment combines core alignment, fast splice/heat cycles, fiber versatility, rugged design, and automated features. Selection depends on your application—telecom, FTTH, data centers, or specialty fibers—and whether portability, mass splicing, or advanced fiber handling is required. Proper training, maintenance, and calibration are essential to maintain consistent low-loss performance and long-term reliability .

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The FSP200 touchscreen optical fusion splicer uses core alignment technology, which

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Fusion splicing stands out as a superior technique for joining optical fibers, offering a seamless, low-loss connection

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Fusion-splice basics

Fusion splicing is used for joining cables during network installation projects, repairing

What is Fiber Fusion Splicer

1. fusion splicer meaning A fusion splicer is a specialized device used to permanently join two optical fibers by melting

Fusion Splicing of Fibers – electric discharge, fusion splicers

Fusion splicing of fibers is a technique of making low-loss fiber joints by fusing fiber endfaces together. It is widely used in fiber optics.

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INTRODUCTION For many Optoelectonic manufacturing (OEM) applications, such as EDFA assembly, the ability to fabricate low

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Control splicing loss in fusion splicing by optimizing alignment, cleaving, and cleaning for reliable, low-loss fiber optic

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In addition, fusion splicer devices have been designed for the field technician applications, smaller in size and easier to carry.

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Fusion splicing is used to physically join together two optical fiber ends. The process may vary, depending on the type of fusion

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Mechanical vs. Fusion Splicing: Which Is Right for You?

Comparing mechanical and fusion splicing for fiber optic cabling: costs, performance, and more. Discover the right

Fusion splicing

Fusion splicing is the act of joining two optical fibers end-to-end. The goal is to fuse the two fibers together in such a way that light

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Proper maintenance of mechanical and optical systems on fusion splicing equipment is necessary to ensure it

An update on fusion splicers and optical fiber splicing

This overview suggests where high-end single, mass, and mini fusion splicers can be used to capitalize on their

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