

# Function of Fiber Optic Fusion Splicing Equipment

## Overview

Fusion splicers are essential for creating low-loss, high-performance fiber optic connections in telecom, FTTH, and data center applications. The best splicers offer core alignment, fast splice times, durable designs, and smart features like cloud syncing and automated. It is a technique that uses controlled heat to permanently fuse two optical fiber ends together. This will typically be 250µm for bare fibers and 900µm for coated fibers. Top-rated models. Here's a step-by-step guide to achieving a perfect fusion splice: Prepare the Cables: Begin by stripping the cable jacket to expose approximately 2-3 meters of buffer tubes and fibers needed for splicing. Ensure all water-blocking materials are removed using appropriate cleaning solutions. The goal is to fuse the two fibers together in such a way that light passing through the fibers is not scattered or reflected back by the splice, and so that the splice and the region surrounding it are almost as strong as the. Fusion splicing is the process of fusing or welding two fibers together usually by an electric arc.



## Article Content

Sep 19, 2025

### Fiber Fusion Splicing

Their fusion splicers feature high-speed splicing, low splice loss, and automatic arc calibration functions, making them ideal for field splicing applications in telecommunications, FTTH ...

Nov 26, 2025

### The Application of Fusion Splicer in Optical Fiber

The fusion splicer is a vital tool in optical fiber communications. Its ability to create low-loss, high-performance connections ensures the reliability and efficiency of modern communication ...

Apr 18, 2026

### Fusion splicing

The goal is to fuse the two fibers together in such a way that light passing through the fibers is not scattered or reflected back by the splice, and so that the splice and the region surrounding it are ...

Oct 07, 2025

### The FOA Reference For Fiber Optics

When fusion is completed, the splicing machine will inspect the splice and estimate the optical loss of the splice. It will tell the operator if a splice needs to be remade.

Nov 05, 2025

### Top 5 Fusion Splicers for 2025: Precision Tools for Fiber Optic Experts

Fusion splicers are essential for creating low-loss, high-performance fiber optic connections in telecom, FTTH, and data center applications. The best splicers offer core alignment, ...

May 29, 2026

### Mastering the Arc: Your Guide to Fiber Optic Fusion Splicing

Understanding Fiber Optic Fusion Splicing and Its Advantages Fiber optic fusion splicing is the process of permanently joining two optical fibers end-to-end by melting them together using an ...

Jan 29, 2026

### Fusion Splicing Explained: Process, Benefits, and Uses

It is a technique that uses controlled heat to permanently fuse two optical fiber ends together. Unlike mechanical splicing, which relies on alignment sleeves and index-matching gel, this ...

Jun 12, 2026

### Essential Features of Fiber Optic Fusion Splicers

Fiber optic fusion splicers are essential tools in fiber optic networks, used to join optical fibers by melting or fusing them together. The resulting connection, known as a splice, enables the ...

Mar 10, 2026

### Fusion Splicing in Fiber Optics

Splicing: Place the prepared fibers into the fusion splicer. The machine will then align and fuse the fibers using an electric arc, ensuring a continuous and robust connection.

Jul 17, 2026

### Fiber Optic Fusion Splicing Guide: From Safety to Troubleshooting

Ribbon fiber splicing machines weld all the individual fibers (12 or more) at the same time, increasing production efficiency for data center and telecom installations. Single fiber splicing ...

## Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://iiss.co.za>

Email: [sales@iiss.co.za](mailto:sales@iiss.co.za)

Phone: +27 63 174 2895

Address: Unit 8, Innovation Park, 15 Rivonia Road, Sandton, Johannesburg, 2196, South Africa

This document is for informational purposes only. Specifications subject to change without notice.

