

# FUSION SPLICING AND ACCESORIES

Weighing in at 50 pounds in the 1970s, today's hand-held AI-integrated fusion splicers are modern miracles

## Fusion Splicers: Precision Perfected



*Fujikura FR-1 - 1977, the world's first fusion splicer*

The evolution of fusion splicers in the field of data and telecommunications has been a remarkable journey, marked by continuous advancements in technology in a quest for more precise, efficient, and reliable fiber optic connections.

In the early days, fusion splicers were large and complex, requiring skilled technicians to operate. Over time, technological innovations led to the development of very compact and user-friendly models. As demand for high-speed internet and data transmission increased, so did the need for faster and more accurate fusion splicing.

One of the recent game-changers in the fusion splicing arena is the integration of artificial intelligence (AI) technology. AI has brought about a paradigm shift, automating and optimizing various aspects of the splicing process. Modern fusion splicers equipped with AI capabilities can analyze fiber profiles, assess environmental conditions, and autonomously adjust splicing parameters for optimal results. This not only reduces the dependency on highly skilled technicians but also significantly enhances the ease, speed, and accuracy, of splicing operations.

## Today's Modern Fusion Splicers Utilize:

- Artificial Intelligence integration
- Remote connectivity
- Cloud integration
- Automated cleaving and stripping
- High-speed heating and splicing
- LCD touchscreen interface with an intuitive GUI
- Mobile data communications
- GPS tracking

## Sumitomo Series of Fusion Splicers



### Q102-CA+ - Core Alignment

With NanoTune, the world's first AI programmed high definition core aligning fusion splicer. NanoTune reduces the need to recut defective fiber cleaving edges - the #1 source of frustration for operators.

**Key Features:**

- NanoTune & SumiCloud technology
- Splicing success rate of >90%
- Tough - survives 2.5' drop on 5 faces
- IP52, water & dust resistance
- Fast dual ovens - 8 sec heating
- 5" LCD intuitive touchscreen
- 300 splice cycles



SumiCloud



### Q502S - Clad Alignment

Features a lightweight work tray that is ready for use immediately out of the carrying case. Includes a built-in cooling tray and removable waste bin. Built to splice on the move - great for aerial splicing.

**Key Features:**

- NanoTune & SumiCloud technology
- Open and splice ergonomic design
- Tough - Survives 2.5' drop on 5 faces
- IP52, water & dust resistance
- 4.3" LCD intuitive touchscreen
- 250 splice cycles



Stand & Splice



### Q102-M12+ - Ribbon Splicing

Designed to maximize work efficiency. Includes NanoTune, dual independent ovens, tool-free replaceable V-grooves, and special coatings. Easily adapts to 250µm and 200µm ecosystems.

**Key Features:**

- NanoTune & SumiCloud technology
- Versatile - Works well with all kinds of ribbon fibers from multiple brands
- Enhanced autoclamping for better alignment
- Versatile replaceable V-groove handles

### What is NanoTune Technology?



**NanoTune™**

AI technology has reached the fusion splicer! NanoTune is able to splice fibers that would have previously required rework. NanoTune accomplishes this by

using state-of-the-art AI technology and unique algorithms to accurately adjust parameters when splicing. NanoTune improves field splicing success rate to >90%, alleviating frustration and shortening field work time dramatically.

**Key Features:**

- Fiber end analysis technology, with AI based real-time 3D pattern recognition
- Splicing algorithm is optimized to instantly calculate the best possible splice based on 10 essential splice parameters
- Fiber core position prediction technology, watching fibers until the moment of splicing

## Accessories



### Sumitomo FC-6R+ Benchtop Fiber Cleaver

For single and ribbon-fiber cleaving with a rotating blade. It's a simple operation for the user to remove or install the single-fiber adapter and alternate between ribbon and single-fiber cleaving.

**Key Features:**

- Smart Cleave Counter 1 to 12-Fiber Ribbon Cleaver
- High volume precision cleaving - Blade performs 60K cleaves
- Automatic blade rotation ideal for mechanical connectors
- Compatible with all Sumitomo Electric fusion splicers



### Rollei C5i Fusion Splicer Tripod

Lightweight and compact, the tripod combines stability with the convenience of holding a single fusion splicer, or a temporary workstation that can support a fusion splicer, cleaver, and accessories.

**Key Features:**

- Adjusts to uneven ground surfaces
- 4-way extendable 4-in-1 tripod
- 3D ball head with spirit levels
- Quick setup, intuitive operation
- Max height 5' - Max load 17.5 lbs.
- Aluminium-magnesium construction



### Lynx-CustomFit HDD-LC with Push-Pull Tab Splice-On Connectors

The industry's first field installable LC duplex solution for high density interconnection. The connectors retain all the performance of a traditional LC duplex patch cord but is terminated on site, giving the ability to build trim to fit interconnect cables as well as repair damaged connectors without having to remove the entire cable.

**Key Features:**

- Duplex assembly in as little as 30 seconds, with polarity interchange
- T-shape clip offers a smaller footprint for high-density applications
- Front housing of the connector utilizes a guide hole for smooth push-pull tab operation

## INNO Series of Fusion Splicers



Splice time (Quick/SM mode): 4/5 secs  
Heat time: 9 secs  
Bat capacity: 9000 mAh  
Cycles/charge  
Splice & heat: 500

### VIEW 8X - Premium Core Alignment

Equipped with IoT and GPS modules, ensuring state-of-the-art connectivity and enhanced security. Tailored for both large-scale operations and nuanced, detailed work. The View 8X has an extra large battery capacity allowing for extended operations.

#### Key Features:

- All of the advantage of View Pro Manager built-in IOT module that connects to the INNO's View Pro Cloud Management System for real-time operation and management online
- Ultra-large battery & pressure heater



Splice time (Quick/SM mode): 4/5 secs  
Heat time: 9 secs  
Bat capacity: 7000 mAh  
Cycles/charge  
Splice & heat: 350

### VIEW 5X - Core Alignment

Its high-resolution touchscreen and compact design offer user-friendly portability. In addition to advanced IoT and GPS capabilities, the View 5X illuminates dark environments with an enhanced 3xLED lighting system.

#### Key Features:

- All of the advantage of View Pro Manager - a built-in IOT module that connects to the INNO's View Pro Cloud Management System for real-time operation and management online
- Best for working in low-light environments



Splice time (Quick/SM mode): 4/5 secs  
Heat time: 9 secs  
Bat capacity: 7000 mAh  
Cycles/charge  
Splice & heat: 350

### VIEW 3X - Active V-Groove Clad Alignment

Designed for reliability and consistency, delivering dependable splices with each use. Along with all of the VIEW X Splicers - the world's fastest splicing time.

#### Key Features:

- All of the advantage of View Pro Manager - a built-in IOT module that connects to the INNO's View Pro Cloud Management System for real-time operation and management online
- 5" high-resolution color LCD touch screen with user-friendly intuitive GUI
- Pressure heater technology

## What is View Pro Manager?



The integrated web-based View Pro Manager is an IoT cloud-based management system integrated into all VIEW series of splicers. View Pro Manager improves communication and efficiency through centralized management.

#### Key Features:

- Splice Data - Get access to all your splice details in real time, or browse through historical data
- Asset Management - Stay in control of your fleet of fusion splicers and save your work in the Cloud
- Anti-Theft - Take advantage of multiple security options. Protect your devices against loss and theft
- Job & Fiber Management - Allocate jobs across your team and monitor your projects.

## INNO Accessories



Cleaver blade with 24 cut positions, or channels

### V12 - Single Fiber & Ribbon Cleaver

Integrated automatic fiber shard collector and a magnetic universal holder (clamp). It has been designed to cover a wide range of different cables, including 250µm & 900µm fiber cable, flat cable, ribbon fiber, and jumper cable.

#### Key Features:

- Fully automatic and self-activating
- Digital Counter - Cleave counts are indicated in real-time in a digital format
- Auto Blade Rotation - Blade rotates after every 2,500 cleaves in 24 channels for 60,000 total cleaves per blade
- Alloy steel blade
- Maintenance free



### IWS Workstation & Accessories

Fusion splicing has migrated from the workbench to the field. The INNO workstation offers a variety of solutions for various work environments from both aerial and ground locations, incorporating a lightweight and portable work tray.

#### Key Features:

- Sturdy work tray supports the splicer, cleaver and accessories
- Tripod supports a load capacity of up to eleven pounds
- Independent telescoping tripod legs support uneven work surfaces
- Leveraged handles securely lock work tray into position



**IWS01**  
Work Tray  
(View 1/3/5/6)



**IWS02**  
Work Tray  
(View 7/8+12R)



**IWS04**  
Strap-on Workstation  
for aerial work



**ICC-48**  
Backpack for  
Workstation

## AFL Fujikura Fusion Splicers, Cleavers, and Accessories



### 90S+ - Core Alignment

Solves common problems seen in the field - from splicing poor quality legacy fiber to automated equipment maintenance and upkeep. Can be use in multiple field splicing applications including bend-insensitive fibers in drop cables, loose buffer fiber, splice-on connectors. Bluetooth enabled.



This new technology improves splice loss significantly and reduces the risk of re-installation by analyzing the condition of both L & R cleave end faces and performs optimal fusion control.

#### Key Features:

- Cleave tracking and upkeep with wireless communication with CT50 Cleaver
- Improved real-time arc control for fibers with poor cleave angles
- Loose and tight buffer with same sheath clamp
- Automated wind protector, sheath clamps and splice operation
- Intuitive GUI with 5.0" touchscreen



### CT50 Single and up to 12 Fiber Ribbon Cleaver

Features automated blade rotation, unprecedented durability, and simplistic maintenance. Paired with a Bluetooth enabled 90S+ and 90R fusion splicer, cleaver blade positions can be automatically advanced when needed based on cleave count or cleave quality. If automated rotation is not desired, the blade position can be advanced at the touch of a button, no tools required.



The CT50 fiber cleaver is enabled with wireless data connectivity. This capability allows automatic cleaver blade rotation when the 90S+ and 45S splicers judge the blade is worn. The 90S+ can connect to two CT50s simultaneously.

#### Key Features:

- Industry first cleaver ruggedized to withstand severe shock, including drops up to 30 inches
- Single or up to 12 ribbon fiber
- Motorized blade rotation
- Bluetooth communication
- Shock resistant
- Simple one-step operation
- 60,000 cleave blade life
- Field serviceable with all precision components easily replaced in the field



### 90RS - Ribbon Splicer

Fiber preparation, stripping, cleaving, and setting in the splicer usually needs repeating separately for both left and right-side fibers. The 45S enables simultaneous fiber preparation thanks to the new SS05 double fiber stripper and the new AD-16A fiber adapter. Bluetooth enabled.

#### Key Features:

- Cleave tracking and upkeep with wireless communication with CT50 Cleaver
- Automated wind protector, tube heater and splice operation
- User replaceable v-grooves
- Active Blade Management for cleave quality monitoring and correction
- 200 μm and 250 μm SWR universal ribbon prep accessories



### RT-02 Ribbonizing Tool

The first universal ribbonizing tool on the market, suitable for forming a temporary tape from 200 μm or 250 μm loose fibers. It is also the first tool with a glue-free process for taping and splicing 12 fiber tapes. With this tool, you can now enjoy the benefits of bulk fusion splicing when installing the latest generation of loose fiber micro cables.

#### Key Features:

- No glue needed
- Left and right fiber holder color codes printed on tool
- Color-coded loading not required
- Fibers loaded directly into the fiber holder

## Netceed Fusion Splicer



### Netceed FSPLICE-300 Core Alignment Kit

The tough and rugged Netceed FSPLICE-300 core alignment fusion splicer is drop/impact, dirt/dust and water resistant. Netceed is proud to provide a 3 Year USA Warranty, and all USA Service and Support.

The fusion splicer employs high-speed image processing and special positioning technology allowing the fusion splicing to be completed in as little as a FAST 7 seconds and can heat shrink in as little as an ULTRA-FAST 9 seconds. The splicer is compact in size, lightweight, and is ideal to work just about anywhere including harsh outdoor environments, dark and remote worksites.

#### Key Features:

- A fraction of the cost of comparable splicers
- FAST 7 second splicing
- ULTRA-FAST 9 second heat shrinking
- Drop/impact, dirt/dust and water resistant
- 6-motor precision mechanism
- 5-direction anti-shock
- State-of-the-art fiber profile alignment system (PAS)
- 3-year domestic, 1-year international warranty - USA service and support
- Quick-change rechargeable lithium battery
- German design, USA & Japanese technology
- Titanium alloy frame
- High-performance processor board

## Netceed Accessories



### Netceed Microfocus ITL103144 Tool Kit

Complete toolkit for fiber optic and cable preparation in combination with all necessary cleaning and connector tools. The complete tool set, delivered in the practical Microfocus backpack, contains everything needed when installing fiber optic networks.

#### Microfocus Tool Kit Includes:

- Fiber Optic Stripper Three hole
- Kevlar scissors
- Riser Slitting Tool
- Thin & Thick-walled Microduct Scoring Tool, 5-16 mm
- 28 & 64 Micro Duct Cutter max. 28/64mm
- Dispensing Pump (220ml)
- Fiber Scraps Disposal Can
- Insulated Cable Sheathing Knife
- Cable Saber-Armored Mid-Span Cable Slit & Ring Too
- Fiber connector insertion/extraction tool type LC, SC, MU & MT-RJ
- Ratcheting Cable Slitter
- High Leverage Diagonal Cutting Pliers
- Adjustable Wire Stripper & Cutter
- Window Shaving Façade Tool
- Fiber Optic Stripper 180µm
- Tool Bag Backpack
- Mid Span Slit and Ring Tool (2,9-6,8mm)
- Mid Span Slit & Ring Tool (1,2-3,3mm)
- Reamer - Deburring Tool
- KIMTECH Kimwipes
- One-Click Cleaner type A for use with SC/ST/FC etc
- One-Click Cleaner type B for use with LC/MU etc
- Isopropyl Alcohol in Kautex bottle
- CleanSwabs
- Microfocus CleanSwabs
- Splice and Connector Fluid



### Netceed All-purpose Workbench

Ample room for a fusion splicer and all the accessories needed, including the LED worklight. The height adjustment allows you to always have an ergonomic working position, whatever your height and whether you work standing or sitting.

#### Key Features:

- Height adjustable with secure lock
- Extra-large work surface with extension
- Allows for clamping from multiple angles
- Fully tiltable platform from 0-65° which opens up new fields of application
- Magnetic reservoir integrated into the top allows screws and nails within easy reach
- Robust base with quick folding system for space-saving storage

### Netceed LED Work Light for Workstation

To aid in the precision work of fusion splicing, the invaluable gooseneck LED work light is designed to plug into the internal 12V output of the fusion splicer and illuminate the immediate work area. The light can also be attached to the cassette holder using the integrated magnet.

#### Key Features:

- Adjustable to any angle
- Bright LED emits a clean white light for easy viewing
- Assists in accuracy of fiber placement into holders



### Netceed 3-Hole Fiber Optic Cable Strippers

Precision made, this stripper can perform all common fiber stripping functions with one tool.

#### Key Features:

- All stripping surfaces are quality manufactured to precise tolerances
- Factory-set blade notches require no adjustment & will not scratch or nick the fiber

#### Three notches allows stripping of:

- Standard fiber ranging from 250 to 125 microns
- Sealing pad coatings ranging from 900 to 250 micros
- Fiber sheaths ranging from 2 to 3 mm

### Netceed Fusion Splice Protection Sleeves

Fusion splice protection sleeves provide vital protection at the fused juncture between two fusion spliced optical fibers. In addition to providing a substitute for the original fiber optic cable jacket, the steel strength member provides a degree of rigidity that prevents the spliced area from bending or flexing.

#### Key Features:

- Moisture-proof for environmental protection
- Clear sleeve makes splice easier to detect before heat shrinking
- Easy to use and prevents any damage to the optical fiber during installation

