F AFL

Specialty Splicing Systems

FSM-100M

FSM-100P

ARCMaster™
FSM-100M and FSM-100P Fusion Splicers

Whether splicing similar fiber types or double clad LDF fibers for high power lasers, the ARCMaster series splicers provide multiple solutions for diverse production needs. With State of the ARC™ technology, the ARCMaster sets the standard for fusion splicing with a multitude of new features designed to make splicing easier.

The patent-pending "split V-groove" fiber clamping system accommodates optical fiber ranges from 60 to 2,000 μm for cladding or coating without changing V-grooves or fiber clamps. The "Plasma Zone" fiber positioning system incorporates multiple fiber and electrode positioning techniques to provide unprecedented versatility for splicing LDF, heat sensitive or small diameter fibers.

With a new fiber imaging technology, Interrelation Profile Alignment (IPA), alignment and splicing capabilities are possible with virtually any PM fiber type. Longer fiber tapering application is possible with Fujikura's Sweep Arc technology. Incorporating PAS (cold fiber image) and WSI (warm image) technologies, the optical analysis system provides a number of advanced features including improved loss estimation capabilities, fiber image performance with both LDF, small or heat sensitive fibers.

Users can program multi-step glass processing operations to include non-splicing operations such as generating tapers or lenses. Dual LCD monitors provide enhanced data and graphical information that is user-selectable during each stage of the splicing process. Both units are designed with the needs for production in mind and are suitable for the most popular production workstations.

Features

- Split V-groove clamping system
- "Plasma Zone" fiber positioning
- PAS and WSI
- New IPA alignment method for PM fibers
- Enhanced sweep arc technology
- Zero degree fiber handling for LDF
- Special functions for glass processing capability
- Fiber profile memory function
- New arc calibration technology
- Short cleave length capability
- Fast and accurate PANDA splice mode
- Ergonomic, production friendly design
- User selectable display on dual LCD monitors
- Internet firmware updates

Ordering Information

DESCRIPTION	AFL NO.
ARCMaster FSM-100M Fusion Splicer (machine only) **Includes:** FH-100-250 fiber holders (pair), FH-100-900 fiber holders (pair), spare electrodes (pair), ADC-15 AC adapter, ACC-02 AC power cord, USB cable, dust cleaning swab set, operation manual and software on CD, transit case, and One year factory warranty	S014821
ARCMaster FSM-100M Fusion Splicer Kit *	S014822
ARCMaster FSM-100P Fusion Splicer (machine only) **Includes:** FH-100-250 fiber holders (pair), FH-100-400 fiber holders (pair), FH-100-900 fiber holders (pair), spare electrodes (pair), ADC-15 AC adapter, ACC-02 AC power cord, USB cable, dust cleaning swab set, operation manual and software on CD, transit case, and One year factory warranty	S014823
ARCMaster FSM-100P Fusion Splicer Kit *	S014824
One year extended warranty (extends factory warranty by one year)	S012996
Two year extended warranty (extends factory warranty by two years)	S013000

* Each splicer kit includes an RS01 Thermal Stripper, a CT52 Cleaver and a SPA-RS02-08 Spacer for RS01 in addition to the items listed above.

State of the ARC™

CONTACT US

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UNITED TEL·SUPPLY *and* F AFL

ARCMaster™
FSM-100M and FSM-100P Fusion Splicers

Specifications

PARAMETER	VALUE
Applicable Fiber	Silica based Single-mode and Multimode glass fiber: SMF (G.652), MMF (G.651), NZDSF (G.655), EDF, DCF, LDF and PMF, etc.
Fiber Dimension	Cladding diameter: 60 to 500 µm Coating diameter: 100 to 2,000 µm
Cleave Length	Glass clamping: 8 to 10 mm (standard 9 mm) Coating clamping: 3 to 5 mm (standard 4 mm)
Typical Splice Loss	SMF: 0.03 dB MMF: 0.02 dB NZDSF/LDF: 0.05 dB PMF: 0.06 dB (FSM-100P)
Splicing Time	SMF/MMF: 15 sec. NZDSF/LDF: 25 sec. PMF (PANDA): 35 to 50 sec. (FSM-100P) PMF (IPA): 90 to 300 sec. (FSM-100P)
Polarization Cross-Talk	PMF (PANDA): -40 dB / 0.6 degree (FSM-100P) PMF (IPA): -32 dB / 1.4 degree (FSM-100P)
Return Loss	60 dB or more
Heating Time	FP-40: 30 sec. FP-60: 35 sec. Micro sleeves: 55 sec.
Sweep Length	±5 mm
Electrode Life	2,500 Arc Discharges (SMF G.652 splicing at 1mm gap)
Electrode Gap	1 to 3 mm
Electrode Offset	-0.3 to +0.1 mm
Proof Test	1.96 N to 2.45 N
Dimensions (mm)	311W x 232D x 160H
Weight (excluding AC adapter)	FSM-100M: 7.5 kg FSM-100P: 8.0 kg
Operation Temperature	0°C to 40°C at 0 to 95% RH (Non-Dew)
Storage Temperature	-40°C to 80°C
Monitor Type	Dual 4.1 inch TFT color LCD monitors
Magnification	125 µm: 187 to 300 X 250 µm: 58 to 300 X 400 µm: 58 to 93 X

Accessories for the FSM-100M and FSM-100P

DESCRIPTION	AFL NO.
High Strength Accessories	
High Strength Preparation Kit Includes: USC-02, AFL PowerStrip and AFL PowerCleave	S013632
Ultrasonic Cleaner (USC-02)	S014783
HTS-12 High Tensile Stripper - includes 250 µm blades (400 µm available)	S012094
AFL PowerStrip High Tensile Stripper	S012808
AFL PowerCleave High Strength Cleaver	S009972
Strippers	
RS01 Thermal Stripper	S016815
RS03-80 Thermal Stripper	S016842
SPA-RS02-08 Spacer	S016818
Electrodes	
ELCT2-25 Spare Electrodes (pair)	S002068
Cleavers	
CT52 Cleaver	S017078
CT58 Cleaver (for 80 µm cladding)	S017097
Fiber Holders (Pairs)	
FH-110-60 Fiber Holder	S018215
FH-110-100 Fiber Holder	S018216
FH-110-125 Fiber Holder	S018217
FH-110-150 Fiber Holder	S018218
FH-110-180 Fiber Holder	S018219
FH-110-210 Fiber Holder	S018220
FH-110-250 Fiber Holder	S018221
FH-110-300 Fiber Holder	S018222
FH-110-350 Fiber Holder	S018223
FH-110-400 Fiber Holder	S018224
FH-110-500 Fiber Holder	S018225
FH-110-600 Fiber Holder	S018226
FH-110-700 Fiber Holder	S018227
FH-110-800 Fiber Holder	S018228
FH-110-900 Fiber Holder	S018229
Power and Cords	
ADC-15 AC Adapter (FSM-100M/P)	S014826
ACC-02 AC Power Cord	S001171
ADC-09A AC Adapter (RS01)	S016820
ACC-09 AC Power Cord (for ADC-09)	S014390
Miscellaneous	
CC-27 Transit Case (100 M/P)	S014825
DCS-01 Dust Cleaning Swab	S014827
HP Power Meter Coupling Adapter	S012180
ILX Power Meter Coupling Adapter	S012184
Fiber Holder Adapter for HP/ILX PM	S012188
Splicer V-Groove Cleaning Kit	S014397