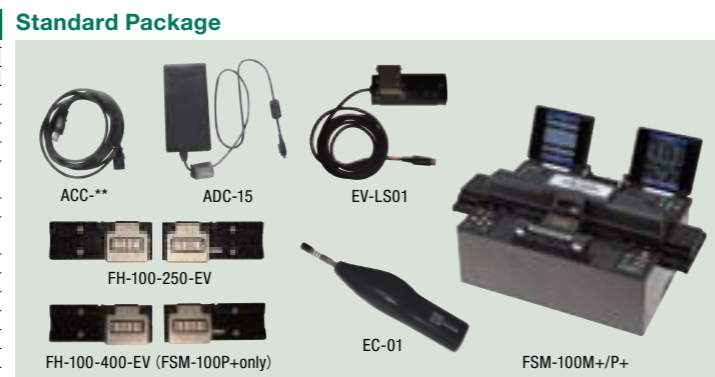


SPECIFICATION		
Description	FSM-100M+	FSM-100P+
Applicable type of fibers	For Telecommunication	SMF(ITU-T G652), NZDSF(ITU-T G655), MMF(ITU-T G651), EDF, DCF and other specialty fibers.
	Large diameter fiber	Conventional silica LDF
	PM fiber	PMF
	Clad diameter	φ 60 to 1200 μm
	Coating diameter	φ 60 to 2000 μm
Cleave length	Glass clamp : 8 to 30 mm (standard 9mm)	
	Coating clamp : 3 to 5 mm (standard 4mm)	
Typically splice loss	SMF	0.03 dB
	NZDSF/LDF	0.05 dB
	MMF	0.02 dB
	PMF	0.06 dB
Splice time	SMF/MMF	15 sec
	NZDSF/LDF	25 sec
	PMF(PANDA)	35 to 50 sec
	PM AUTO	70 to 300 sec
	PMF(PANDA)	-40 dB / 0.6 degree
Typically splice loss	PM AUTO	-40 dB / 0.6 degree
	Return loss	>> 60 dB
Tube heat time	FP-03 40 mm	30 sec
	FP-03 60 mm	35 sec
	FPS01 series (micro sleeve)	55 sec
Fiber clamp	*Heat time change with depended on type of micro sleeve If changes according to cladding diameter and coating diameter automatically	
Sweep range	± 18 mm (the arc center is 0mm.)	
Z-axis holder base position adjustment system	Available	
End view fiber observation system	Available	
Electrode life	2500 arc discharges. (at the SMF (ITU-T G.652) splicing with 1mm electrode gap)	
Electrode gap	1.0 to 3.0 mm (adjustable)	
Electrode oscillating function	Available	

Standard Package			
Name	Model	FSM-100M+ Qty.	FSM-100P+ Qty.
Splicer Main Body	FSM-100M+ FSM-100P+	1pc -	- 1pc
Carrying Case	CC-27	1pc	1pc
Fiber Holder for 250 μm	FH-100-250	1pair	1pair
Fiber Holder (250 μm coating diameter) for End-view	FH-100-250-EV	1pair	1pair
Fiber Holder for 400 μm	FH-100-400	-	1pair
Fiber Holder (400 μm coating diameter) for End-view	FH-100-400-EV	-	1pair
AC Adapter	ADC-15	1pc	1pc
AC Power Cord for AC adapter	ACC-**	1pc	1pc
End-view Light Source	EV-LS01	2pcs	2pcs
Spare Electrodes for LDF	ELCT3-25-LDF	1pair	1pair
USB Cable	USB-01	1pc	1pc
Dust Cleaning Stick	DCS-01	1pc	1pc
Electrode Cleaner	EC-01	1pc	1pc
Warnings and Cautions	W-100MP-E	1pc	1pc
Splicing Report	SR-01-E	1pc	1pc
Instruction Manual	M-100MP-E	1pc	1pc

Optional Items		
Item	Model	Note
Fiber Holder	FH-100-***	*** : Coating diameter 060, 100, 125, 150, 180, 210, 250, 300, 350, 400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000 μm
	FH-100-***-EV	* -EV is fiber holder for End-view observation system.
	FH-40-LT900	Coating Dia. : 900 μm for loose tube
Cleave	EVM-01	Spare End-view mirror
	CT-100	Cladding Dia. : 80 to 400 μm, Cleave length : 0 to 40 mm
	CT-32	Cladding Dia. : 125 μm, Cleave length : 4 mm / 9 mm
	CT-38	Cladding Dia. : 80 μm, Cleave length : 4 mm / 9 mm
	CT-10	Cladding Dia. : 125 μm, Cleave length : 5 mm / 10 mm
Angle Cleave	CT-30	Cladding Dia. : 125 μm, Cleave length : 5 mm / 10 mm
	CT-11	Cladding Dia. : 125 μm, Cleave length : 5 mm / 10 mm
Jacket Stripper	JS-02-900	Coating Dia. : 900 μm (applicable for fiber holder 900 μm)
Hot Jacket Stripper	JS-01	Coating Dia. : 900 μm
Ultra-sonic Cleaner	HJS-02	Coating Dia. : 250 to 400 μm
Recoater & Proof tester	USC-02	-
Sleeve	FSR-02	-
	FP-03	60 mm
Micro Sleeve	FP-04S	40 mm
	FPS01-400-**	12, 15, 20, 25, 34, 45 mm / Coating Dia. 400 μm
	FPS01-900-**	15, 20, 25, 34, 45 mm / Coating Dia. 900 μm

SPECIFICATION		
Description	FSM-100M+	FSM-100P+
Electrode offset	-0.3 to +0.1 mm (adjustable)	
Proof test	1.96 to 2.45 N	
Magnification	3.5 to 300 (changeable)	
Auto start function	Available	
Splicing mode	Number of splice mode	Total 300 modes
	Standard mode	Available
	Manual mode	Available
	Endview Mode	Available
	Power meter mode	Available
Number of tube heating mode	Attenuation mode	Available
	100 heating mode installed	
	Storage of splicing result	The last 2000 result to be stored in the internal memory.
	Language	English / Japanese / Chinese
	Arc power calibration	3 methods installed
Arc position calibration	2 methods installed	
Fiber learning function	Available	
PC communication	Software upgrade	Cable via internet
	Display image data	Capable
	Splice conditions	Capable
	Splice results	Capable
Display	Dual 4.1" inches color LCD monitor.	
Dimensions	470 (W) × 232 (D) × 160 (H) mm excluding rubber foot	
Weight	8.0 kg	9.5 kg
Power supply	External AC adapter : ADC-15 Input : AC100 to 240V (50 to 60Hz) (max. 100 W AC)	
Operating condition	0 to 95%RH and 0 to 40 degC respectively	
Storage condition	0 to 95%RH and -40 to 80 degC respectively	
Terminals	Power supply : DC19 V 4.5 A	
	USB2.0(Mini-B type) for PC communication	
	IEEE-488 24pin for power monitor feedback alignment	
	Two 6-pin Mini-DIN connector for external equipment (HJS-02)	



Specifications and descriptions are subject to change without prior notice.

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Specialty Fiber Fusion Splicers



ARC Master™ FSM-100M+/100P+

- End view fiber observation system
- X-LDF (Extra Large Diameter Fiber) splicing
- Patented "Split V-groove" clamping system
- "Plasma Zone" fiber positioning
- Short cleave length
- Special arc calibration
- Dual splice loss estimation
- Enhanced sweep arc
- Internet firmware update & interface
- Production environment friendly design
- Zero degree fiber holder position
- Fiber profile learning function
- Dual PM alignment method (FSM-100P+ Only)



End view fiber observation system



Specialty Fiber Fusion Splicer
FSM-100M+

Polarization Maintaining Fiber Fusion Splicer
FSM-100P+

ARC Master™ product line

Fujikura's new "ARC Master" splicers are engineered with a robust set of features that offer customers technology and reliability not available elsewhere. The need for Accurate, Reliable, and Consistent splicing is expanding to new applications beyond telecommunications. These entirely new "ARC Master" fusion splicers from Fujikura have been developed to provide the ultimate in performance and flexibility for a variety of customers and markets.

Additional information can be found at www.StateoftheARC.com website which is the central repository of information for all of Fujikura's state of the arc fusion splicer products. Stay tuned to www.StateoftheARC.com for forthcoming additions to the "ARC Master" family of specialty fusion splicers where incremental capabilities will be revealed.



FSM-100M+ FSM-100P+

Fujikura's new specialty splicers FSM-100M+ and FSM-100P+ offer a host of innovative technology to address the rapidly expanding splicing needs for factory, manufacturing, laboratory and R&D applications. These models are introduced as "ARC Master" splicers due to their unique capabilities to control the plasma zone of the fusion arc. These capabilities will revolutionize the way users will splice various types of specialty fibers; LDF, low contrast PM, holey structured, etc.

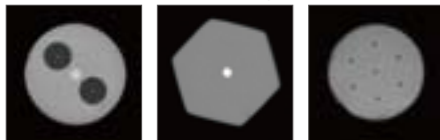
End-view fiber observation system

The cleaved ends of the optical fiber are observed in the axial direction by a means of a mirror that directs the fiber-end image into the camera system. This allows precise alignment of uniquely structured fibers, such as PM fiber, multi-core non-circular fibers.

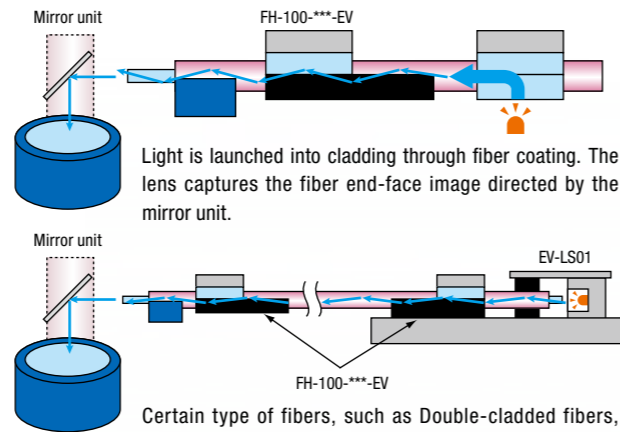


Mirror unit between the fiber ends observes fiber in the axial direction.

End view fiber image example



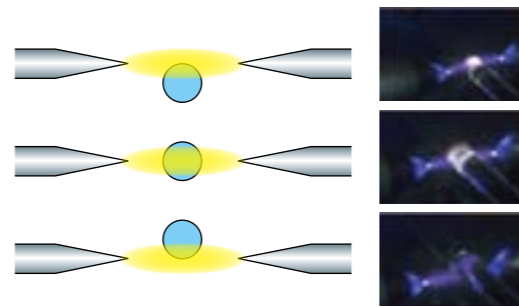
PANDA fiber Non-circular fiber Multi-core fiber



X-LDF (Extra Large Diameter Fiber) splicing

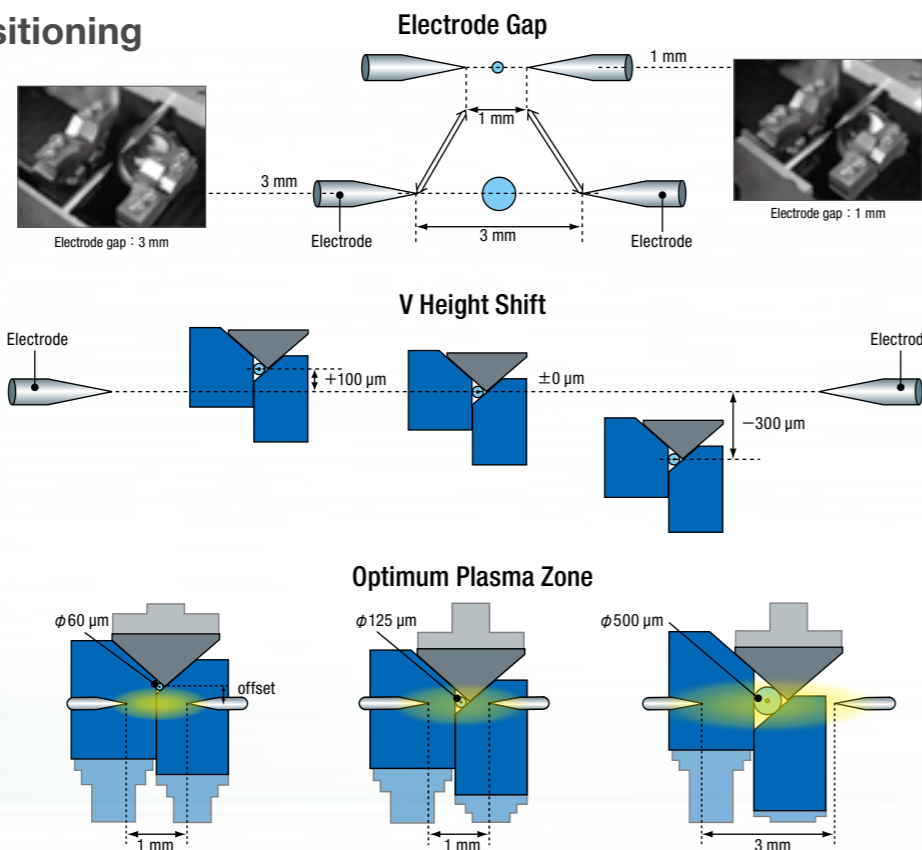


Large diameter fibers up to 1200 μm cladding dia can be spliced with air-cooled electrodes that oscillate up/down during splicing.



"Plasma Zone" fiber positioning

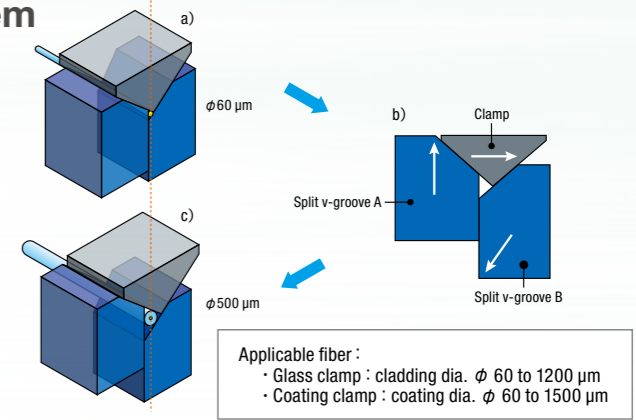
The FSM-100M+ and FSM-100P+ have two electrode positioning techniques in order to provide unprecedented versatility for each specialty fiber.



Patented "Split V-groove" clamping system

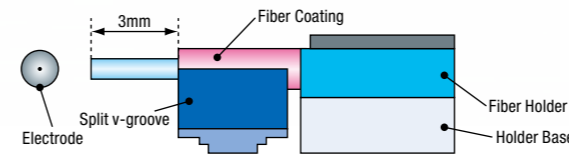
The FSM-100M+ and FSM-100P+ have the revolutionary design clamp system.

- No need to change V-groove or clamp part
- Programmable for any fiber or coating size
- Reliably "captures" fiber for good alignment



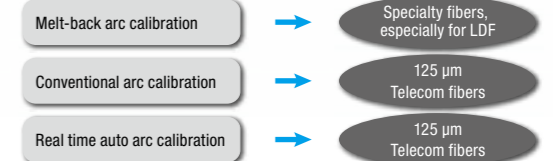
Short cleave length

For minimizing the length of stripped fiber at splice point, FSM-100M+ and FSM-100P+ can splice a short cleave length fiber.



Special arc calibration

This calibration technology facilitates an easy transfer of high end splicing applications from R&D to production by ensuring consistent performance and takes full advantage of "Plasma Zone" capabilities.

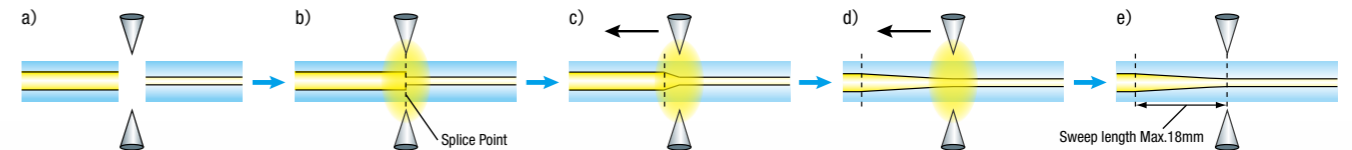


Dual splice loss estimation

Combining the best features of both cold and warm splice imaging, FSM-100M+ and FSM-100P+ offer unprecedented accuracy for splice loss estimation

Enhanced sweep arc

Increased travel range for "sweep arc" provides improved MFD matching capability for reshaping non-circular fibers in preparation for splicing.



Internet firmware update & interface

An industry first! Customers can now upgrade firmware as new capabilities become available from Fujikura. Upgrading is as simple as connecting a USB cable to your splicer.

Production environment friendly design

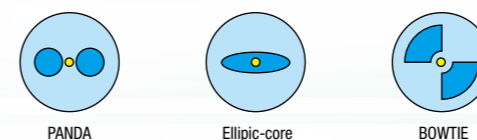
A low profile design that eliminates fiber catch points, the dimensions of both splicers are consistent with the most popular production splicing work-benches in use today.

Fiber profile learning function

The splicer learns the fiber profile with the best focusing position in order to observe the core position accurately. After learning, the focusing time during a splice will be short.

Dual PM alignment (FSM-100P+ Only)

To properly align and splice the ever increasing and technically challenging variety of PM fibers, Fujikura developed IPA which is a new alignment technology. The FSM-100P+ includes both traditional PAS alignment as well as the new IPA technology, and it provides users with the most comprehensive capabilities on the market for splicing PM fiber. IPA also enables accurate PER estimation for all PM fiber types.



Comparison table

Item	FSM-100M	FSM-100M+	FSM-100P	FSM-100P+
θ alignment system	-	-	✓	✓
Sweep arc stroke	± 5 mm	± 18 mm	± 5 mm	± 18 mm
End view fiber observation system	-	✓	-	✓
Electrode swing system	-	✓	-	✓
LDF splicing capability	60 to 500 μm	60 to 1200 μm	60 to 500 μm	60 to 1200 μm
Holder base position adjustment system	-	✓	-	✓

