Specialty Fibre Fusion Splicer
FSM-100M

Polarization Maintaining
Fibre Fusion Splicer
FSM-100P

Fujikura FSM-100 Series

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 'ARCMaster' splicers due to their unique capabilities to control the plasma zone of the fusion arc. These capabilities will revolutionise the way users will splice various types of specialty fibres: LDF, low contrast PM, holey structured, etc.

Features

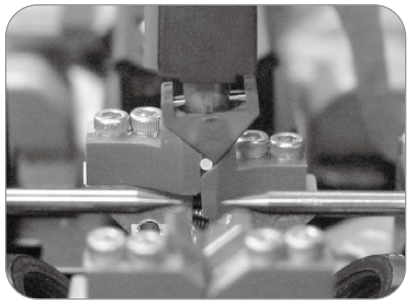
- Patented 'Split V-groove' clamping system
- 'Plasma Zone' fibre positioning
- Short cleave length capability
- Special arc calibration
- Dual splice loss estimation
- Enhanced sweep arc
- Internet firmware update and interface
- Production environment friendly design
- Zero-degree fibre holder position
- Fibre profile learning function
- Dual PM alignment method (FSM-100P only)

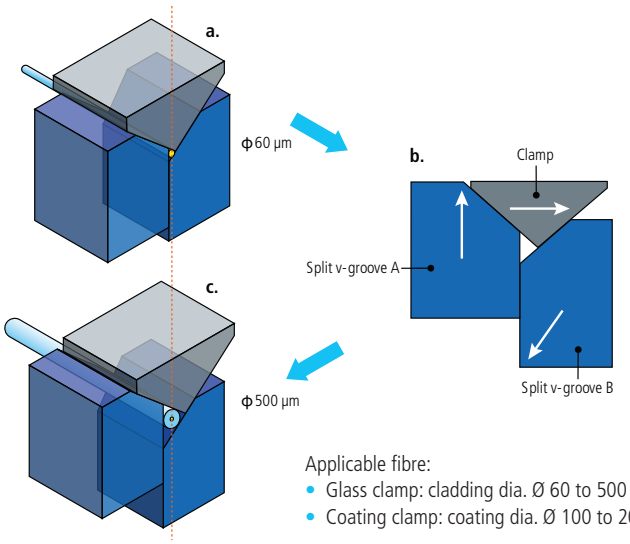
Patented 'Split V-groove' clamping system

The FSM-100 series has the revolutionary design clamp system.

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

The FSM-100 series has two electrode positioning techniques in order to provide unprecedented versatility for each specialty fibre.





Applicable fibre:

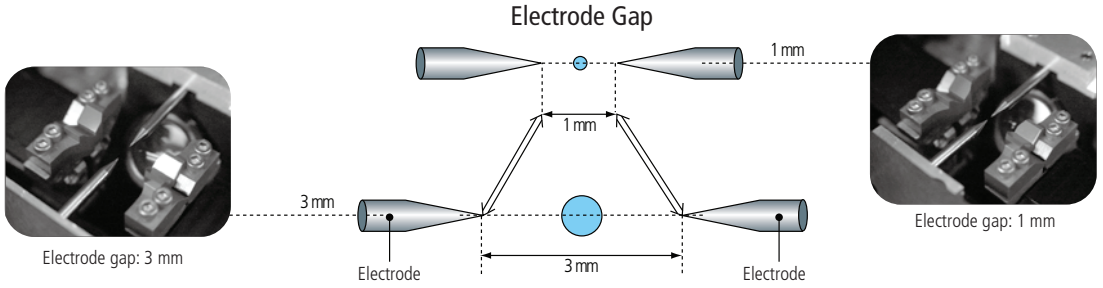
- Glass clamp: cladding dia. Ø 60 to 500 µm
- Coating clamp: coating dia. Ø 100 to 2000 µm

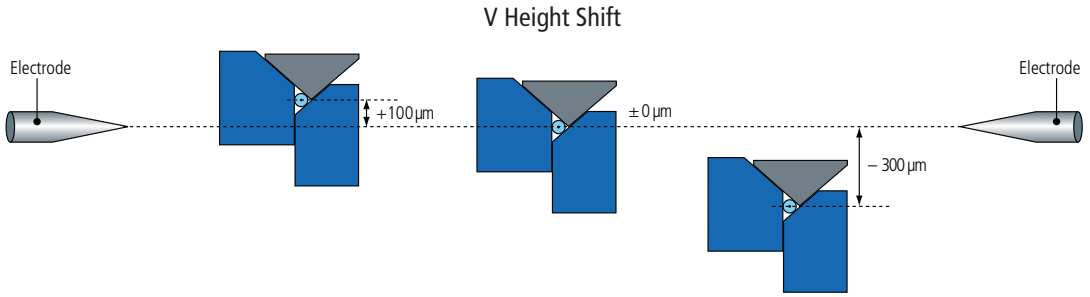
Australia: 1300 232 476 New Zealand: 09 927 7140
www.AFLglobal.com

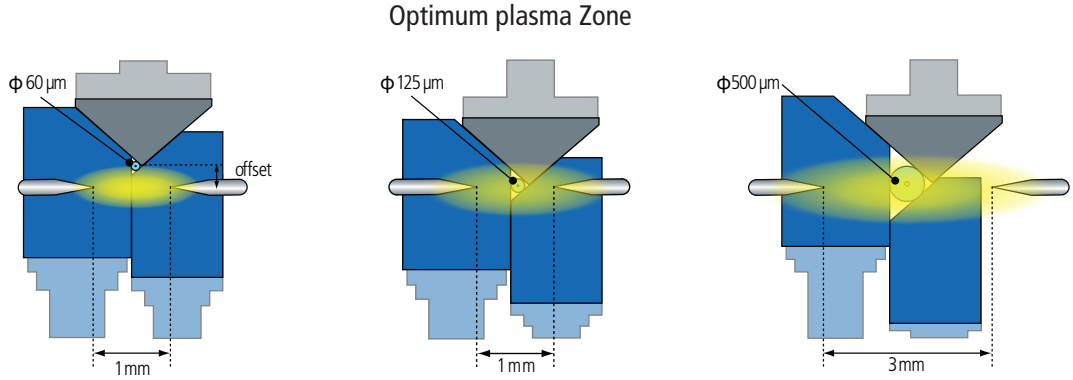
Fujikura FSM-100 Series

'Plasma Zone' fibre positioning

The FSM-100 series has two electrode positioning techniques in order to provide unprecedented versatility for each specialty fibre.

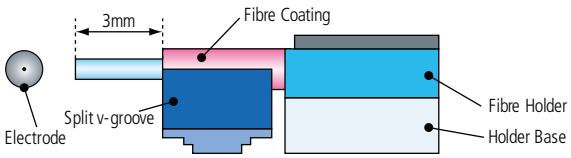






Short cleave length capability

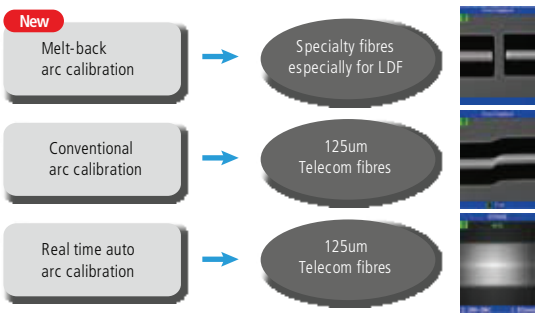
For minimising the length of stripped fibre at splice point, FSM-100 series can splice a short cleave length fibre.



Fujikura FSM-100 Series

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-100 series offer unprecedented accuracy for splice loss estimation.

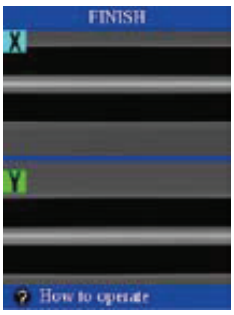


Image of PAS

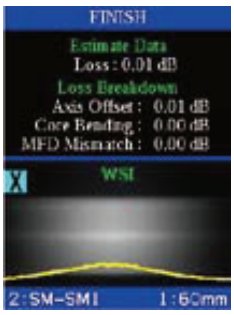
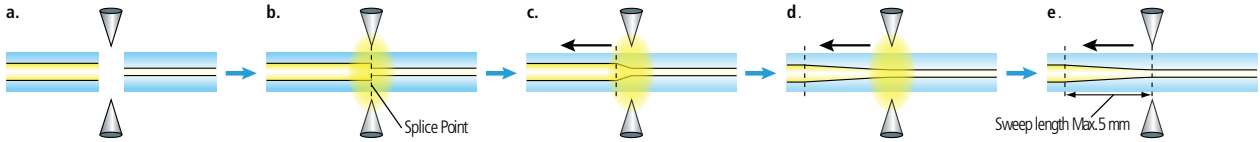


Image of WSI

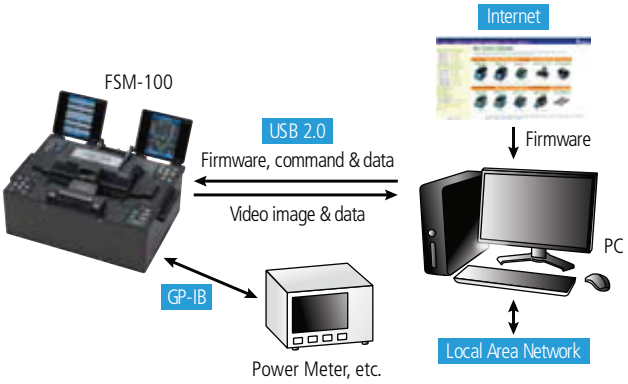
Enhanced sweep arc

Increased travel range for 'sweep arc' provides improved MFD matching capability and the ability for reshaping non-circular fibres 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 fibre catch points, the dimensions of both splicers are consistent with the most popular production splicing work-benches in use today.

Zero degree fibre holder position – For splicing LDF fibres with minimal core angle, the fibre holders are horizontally positioned relative to the v-grooves.

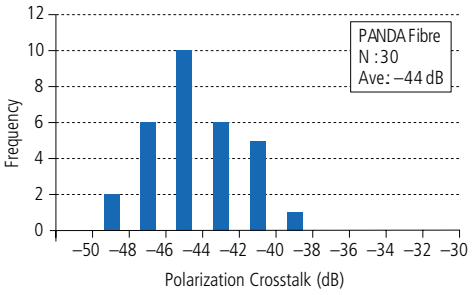
Fibre profile learning function

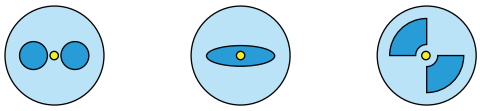
The splicer learns the fibre profile with the best focusing position in order to observe the core position accurately. After learning, the focusing time during a splice will be short.

Fujikura FSM-100 Series

Dual PM alignment (FSM-100P Only)

To properly align and splice the ever increasing and technically challenging variety of PM fibres, 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 fibre. IPA also enables accurate PER estimation for all PM fibre types.





Specifications

DESCRIPTION		FSM-100M	FSM-100P
Applicable type of fibres	For Telecommunication	SMF(ITU-T G652), NZDSF(ITU-T G655), MMF(ITU-T G651), EDF, DCF and other specialty fibres.	
	Large Diameter Fibre	Conventional silica LDF	
	PM fibre	–	PMF
	Clad diameter	Ø 60 to 500 µm	
	Coating diameter	Ø100 to 2000 µm	
Fibre count		Single	
Cleave length		Glass clamp: 8 to 10 mm (standard 9 mm) Coating clamp: 3 to 5 mm (standard 4 mm)	
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	–	90 to 300 sec
Typically Polarization crosstalk	PMF (PANDA)	–	-40 dB / 0.6 degree
	PM AUTO	–	-32 dB / 1.4 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 *Heat time change with depended on type of micro sleeve	
Fibre clamp		It changes according to cladding diameter and coating diameter automatically.	
Sweep range		± 5 mm (the arc center is 0 mm.)	
Electrode life		2500 arc discharges (at the SMF (ITU-T G.652) splicing with 1 mm electrode gap)	
Electrode gap		1.0 to 3.0 mm (adjustable)	
Electrode offset		-0.3 to +0.1 mm (adjustable)	
Proof test		1.96 to 2.45 N	
Magnification		58 to 300 (changeable)	
Auto start function		Available	
Splicing mode	Number of splice mode	Total 300 modes	
	Standard mode	Available	
	Manual mode	Available	
	Power meter mode	Available	
	Attenuation mode	Available	
Number of tube heating mode		100 heating mode installed	
Stage of splicing result		The last 2000 results to be stored in the internal memory	

Fujikura FSM-100 Series

Specifications (Continued)

DESCRIPTION		FSM-100M	FSM-100P
Language		English / Japanese / Chinese	
Arc power calibration		3 methods installed	
Arc position calibration		2 methods installed	
Fibre learning function		Available	
PC communication	Software upgrade	Capable via internet.	
	Display image data	Capable	
	Splice conditions	Capable	
	Splice results	Capable	
	PC control	Capable. Sample software and command list is available.	
Display		Dual 4.1" inches colour LCD monitor.	
Dimensions		311 (W) × 232 (D) × 160 (H) mm excluding rubber foot	
Weight		7.5 kg	7.9 kg
Power supply		External AC adapter: ADC-15 Input : AC100 to 240 V (50 to 60 Hz) (max.100 W AC)	
Operating condition		0 to 95%RH and 0 to 40°C respectively	
Storage condition		0 to 95%RH and -40 to 80°C respectively	
Terminals		Power supply: DC19 V 4.5 A	
		USB2.0 (Mini-B type) for PC communication	
		IEEE-488 24 pin for power monitor feedback alignment	
		Two 6-pin Mini-DIN connector for external equipment (HJS-02)	

Standard Package - FUJFSM100x


FUJACC-**


FUJADC-15


FUJ USB-01


M-100MP-E


FUJ FH-100-250

FUJ FH-100-400 (FSM-100P only)


FUJ FSM-100M/P

Standard inclusions: FSM100x splicer, carry case, 250 µm fibre holders, AC adapter and power cord, spare electrode, USB cable, dust cleaning kit, user manual and factory QA report. FSM100P includes additional 400 µm fibre holders.

Accessories

ITEM	DESCRIPTION	NOTE
Fibre Holder	FUJFH-100-***	*** : Coating diameter FH-100-060, FH-100-100, FH-100-125, FH-100-150, FH-100-180, FH-100-210, FH-100-250, FH-100-300, FH-100-350, FH-100-400, FH-100-500, FH-100-600, FH-100-700, FH-100-800, FH-100-900
	FUJFH-100-****	Coating Dia.: 1000 to 2000 µm
	FUJFH-40-LT900	Coating Dia.: 900 µm for loose tube
Cleaver	FUJCT32	Cladding Dia.: 125 µm, Cleave length: 4 mm / 9 mm
	FUJCT38	Cladding Dia.: 80 µm, Cleave length: 4 mm / 9 mm
	FUJCT10	Cladding Dia.: 125 µm, Cleave length: 5 mm /10 mm
	FUJCT30	Cladding Dia.: 125 µm, Cleave length: 5 mm /10 mm
Angle Cleaver	FUJCT11	Cladding Dia.: 125 µm
Jacket Stripper	FUJJS-02-900	Coating Dia.: 900 µm (applicable for fibre holder 900 µm)
	FUJJS-01	Coating Dia.: 900 µm
Hot Jacket Stripper	FUJHJS02	Coating Dia.: 250 to 400 µm
Ultrasonic Cleaner	FUJUSC02	–
Recoater and Proof tester	FUJFSR02	–
Sleeve	FUJFP-03	60 mm
	FUJFP-04S	40 mm
Micro sleeve	FUJFPS01-400-**	12,15,20,25,34,45 mm / coating dia. 400 µm
	FUJFPS01-900-**	15,20,25,34,45 mm / coating dia. 900 µm