SINGLE MODE AND MULTIMODE OPTICAL FIBER SPLICERS

PFS 300 SERIES

Power Technology Incorporated

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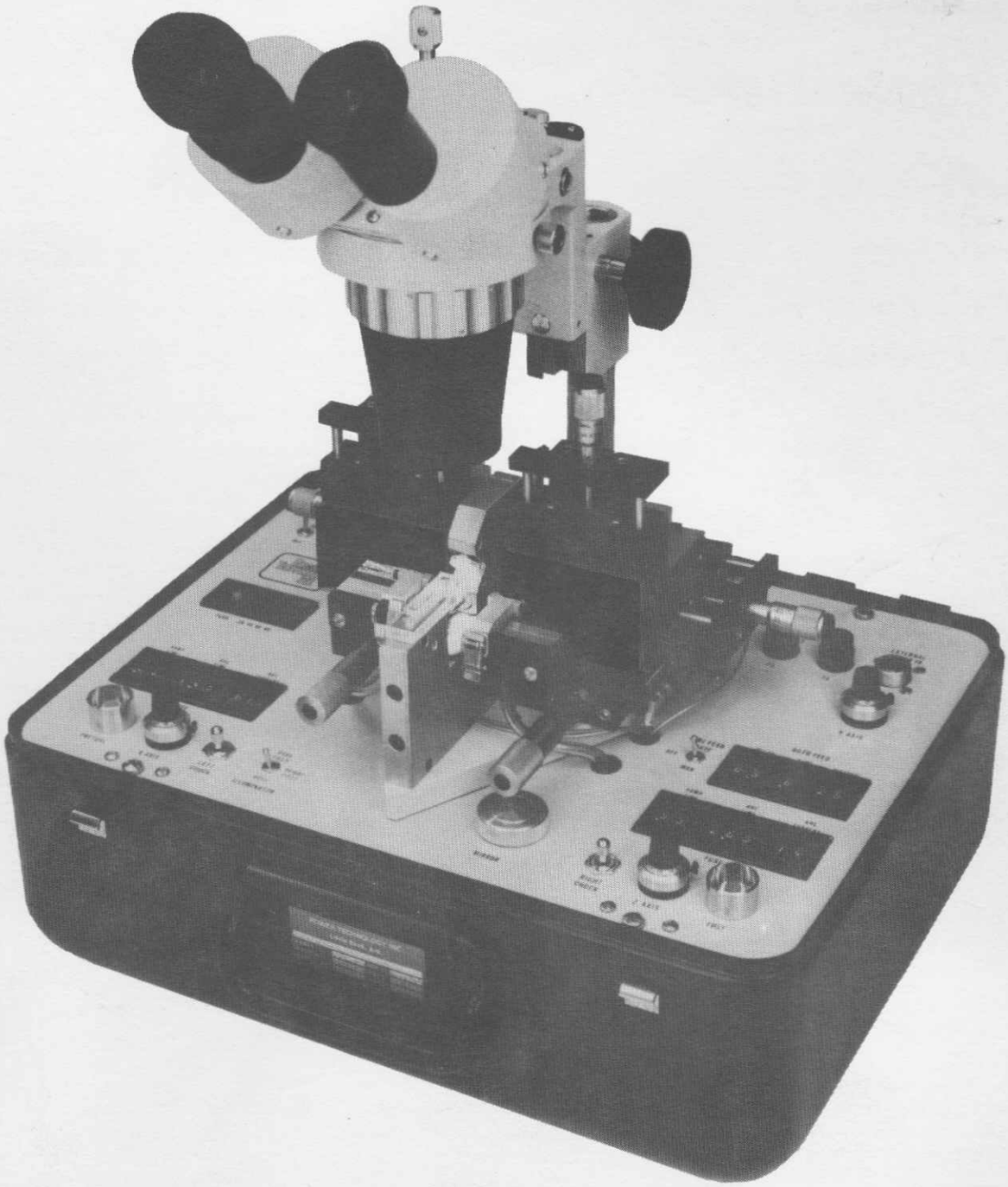

SPLICERS FOR OPTICAL FIBERS

SPECIFICATIONS

Input Power	12VDC (negative ground). 110/230VAC, 50/400Hz.
Arc Duration, Fuse	0.01 to 9.99 seconds
Arc Duration, Prefuse	0.01 to 9.99 seconds.
Arc Current, Fuse	7 to 39mA.
Arc Current, Prefuse	7 to 39mA.
Fiber **CORE** Sizes	4 to 600μm.
Fiber **CLADDING** Sizes	80 to 600μm. PFS-300 and PFS-320. 80 to 400μm. PFS-310 and PFS-330.
Vacuum Chuck Clamping Limits, PFS-310 and PFS-330	100 to 200μm.
Piezo-Fine™	Three axis positioning with simultaneous fiber advance of both fibers on feed (Z) axis.
Piezo-fine™ Range	$\geqslant$29μm on each axis (total Z-axis 59μm).
Piezo-fine™ Resolution	Better than .01μm.
Piezo-fine™ Controls	Three (3) each ten turn potentiometers (one per axis).
Coarse Positioning	Six (6) heavy duty micropositioners.
Auto Feed Controls	Off-Man-Auto switch Feed delay thumbwheel Ramp time (feed rate) thumbwheel Feed distance thumbwheel
Auto Feed Delay	0.1 to 9.9 seconds.
Auto Feed Duration	(Ramp Time) 0.0 to 0.9 seconds.
Auto Feed Distance	$\geqslant$00 to 59μm.
Weight	**43 lbs.**

DESCRIPTION

PFS300	Standard Unit (multimode)
PFS310	Standard Unit with Vacuum Chucks (multimode)
PFS320	Standard Unit with Piezo Fine™ micropositioning (single mode)
PFS330	Standard Unit with Vacuum Chucks and Piezo Fine™ Micropositioning (single mode)

Operating from internal batteries or from a variety of external power sources, the PFS300 Series splicers are ideal universal instruments in the laboratory, out in the field during installations and repairs, or as part of a production line. The combination of ruggedness and rigidity that makes this splicer so versatile has many important ramifications, particularly in the field of single mode lightwave transmissions.

Top of the line PFS320 and PFS330, incorporating Piezo crystal transducers to eliminate backlash that has been inherent in mechanical alignment systems, and vacuum chucking (PFS330) to minimize macro and micro bending stresses during alignment and splicing, offers the maximization of present technology.

FEATURES

- Fiber alignment micropositioners are mechanically isolated from front panel to prevent transfer of panel stress during the operating sequence.
- Heavy duty micropositioners.
- Dual lighting of splicing area provides both light and dark field illumination.
- For extreme accuracy in fiber alignment, Piezo Fine™ electronic adjustment of x, y, and z axis is standard on PFS320 and PFS330.
- Digital selection switch allows variable automatic delay of fiber advance (standard on PFS320 and PFS330).
- Separate arc current and arc time controls for both prefuse and fuse.
- Ramping of the fusion arc at the beginning and end of the heating cycle reduces thermal stress on the fiber.
- Internal batteries automatically recharge when the unit is connected to either 110 or 230VAC.
- Splice arc is interlocked and covered for operator safety.
- Dual power stereo microscope is **standard, 40X and 80X.**

OPTIONS

#01 X1.5 magnification lense increases the power of the stereo microscope from X40 and X80 to X60 and X120. This option is useful in visual discrimination and inspection.

#02 Hard and soft vacuum with flow reversal is supplied from a dual port pump and provides presettable amounts of vacuum holding to each chuck. It is therefore possible to hold one fiber firmly while providing only sufficient hold to the other fiber that would allow rotation for cleave-angle matching, thus displacing bulk material that would normally be present during fusion. This facility is vital in the single mode application since it makes alignment of an imperfect cleave possible. Also, as part of the 02 option, air flow reversal from the dual port pump will clean the grooves in the chucks. This flow reversal is interlocked so inadvertent use will not disturb aligned fiber.

#03 Stereo zoom microscope, with magnification of 14X to 90X, provides large flat fields of view, crisply resolved. By rotating a knurled ring, magnifications are variable. (With a 1.5X lense attachment (01 option) magnification of 21X to 135X is provided.

#04 Monocular microscope is offered as an alternate.

#05 12VDC vacuum pump, with battery charger and carrying case, is used to power the vacuum chucks when unit is in the field. By use of a sensing system, the vacuum pump usage is kept to a minimum and recharge intervals are less frequent. The unit is dual port so it can supply pressurized air for chuck cleaning. This unit will charge the battery and/or operate from 115 or 230VAC. **Weight 29 lbs.**

#08 Rack to secure splice organizer

#09 Precision fiber rotation stage

#99 For control by external microprocessor (microprocessor not furnished by PTI.) Before specifying contact PTI for interface information.

US & Export Fiber Splicers and Options [18]		
Model	**DESCRIPTION**	**PRICE**
300	Standard Model	11,450
310	Standard Model with Vacuum Chucks	12,250
320	Mechanical Clamping with Piezo-Fine MicroPositioning	18,250
330	Vacuum Chucks with Piezo-Fine MicroPositioning	19,050
Option	OPTIONS AVAILABLE	
01	1.5X Auxiliary Lense	150
02	Hard and Soft Vacuum Control with Flow Reversal Ability	1,000
05	Vacuum Pump for chucks with battery charger and case	1,350
10	Transit case suitable for air-shipment and unit stowage	600
11,16,17	Differential micrometer with 0.5um markings(Z,Y,X-Axis)	600
22	uP Controlled fiber rotation stage with readout and memory	2,500
24	High power arc unit(doubles arc current)	3,100
26	Inert gas atmos. splicing with variable pressure and flow	650
27	Fiber end prism viewing system	650
30	Nikon binocular zoom 52.8X --> 230X Microscope	1,250
31	Nikon binocular zoom 52.8X --> 330X Microscope	2,350
32	Nikon trinocular zoom 66X --> 415X microscope	5,200
	Camera(35mm) or TV camera ready	-
36	TV camera viewing sysem for user supplied monitor	2,200
36	TV camera viewing system and TFT/LCD monitor	4,200

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