



PTR-200-PRL

POLYIMIDE RECOATER



**High Temperature Recoat Protection
and Linear Proof Testing**



光技術をサポートする
株式会社オプトサイエンス

<http://www.optoscience.com>

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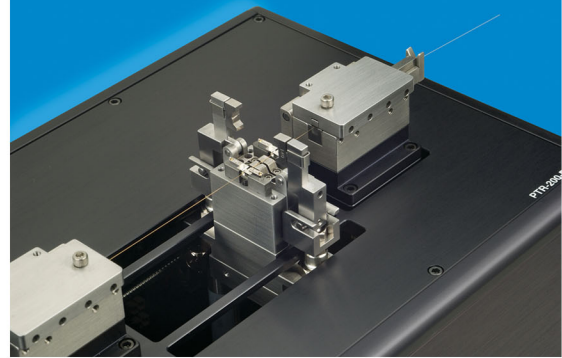
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PTR-200-PRL

The PTR-200-PRL is a stand-alone optical fiber recoating system designed for the application of polyimide coatings. A “drawing” process applies the polyimide resin which is then thermally cured to form a hard, high-temperature recoat. A single layer application takes approximately 60 seconds and results in a coating thickness of 3 - 5 microns. Multiple layers can be applied for higher reliability and increased coating diameters. The resulting recoat has mechanical and thermal properties similar to the original polyimide coated fiber.

Fully Automated Process:

The section of fiber to be recoated is located between two fiber holding blocks. Once the recoat process is initiated, the polyimide resin is automatically pumped to a drawing head via a volumetric pump. The drawing head, which consists of dual dies and dual heaters, automatically makes the user specified number of “passes” along the section of fiber. Each “pass” applies a coating of resin, followed by a low-temperature bake to remove volatiles and then a high-temperature bake to imidize and harden the coating. The integral linear proof tester ensures that proper tension is applied to the fiber during the recoating process and allows for proof testing of the recoated section of fiber.



Specifications

Overall Size	H: 5.0" (127 mm), W: 10.25" (260 mm), D: 7.0" (178= mm)
Weight	14.0 lbs (6.4 kg)
Power	48 VDC, 10A (provided by external power supply)
Gas Supply	80-120 psi, dry compressed air or gas supply
Vacuum Supply	External vacuum pump provided
RECOATING	
Recoat Material	Thermal cure polyimide
Recoat Dies	Standard size for 125 micron fiber with 155 micron coating (other sizes available)
Recoat Diameter	Programmable based on number of layers (approx 3-5 microns per layer)
Recoat Length	50 mm max
Thermal Source	Dual filament heaters
Recoat Injection	Automatic direct from 1 oz. bottle
Total Cycle Time	2 to 7 minutes, depending on number of layers
PROOF TESTING	
Load Application	Linear fiber clamp
Clamp Length	1.5" (38 mm)
Clamp Spacing	3.7" (94 mm)
Max. Load	4.5 lbs., 2.1 kg, 235 kpsi (1.6 GPa) for 125 micron fiber
Accuracy	+ / - 2%
Ramp Rate	Programmable, up to 5 lbs/s (2.3 kg/s)
Hold Time	Programmable



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