

PTR306B - February 7, 2023

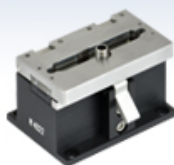
Item # PTR306B was discontinued on February 7, 2023. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

VYTRAN® FIBER RECOATERS WITH UV LAMPS AND PROOF TESTERS

- Recoat Fusion-Spliced Fibers to Restore Flexibility
- Integrated Linear or Rotary Proof Tester
- Manual and Automatic Recoat Injectors



PTR307
Fiber Recoater with Rotary
Proof Tester and Controller



RM430A
Mold Assembly for Manual
Recoater (Sold Separately)



PTR306B
Fiber Recoater with Linear
Proof Tester and Controller



VHJ500
Bottom Fiber Block
Insert (Sold Separately)



VHJT
Top Fiber Block Insert
(Sold Separately)



Strip



Clean



Cleave



Splice



Taper/Combine



Recoat



Test

Features

- Recoat Spliced Fibers and Test Splice Strength
- Manual and Automatic Recoater Options:
 - Manual Mold Assembly with Automatic Recoat Injector
 - Manual Mold Assembly with Manual Recoat Injector
- Integrated Linear (Up to 20 N Load) or Rotary (Up to 89 N Load) Proof Tester
- Fully Programmable with Push Button Operation via Handset Controller
- Durable Quartz Mold Plate Capable of >10,000 Recoats
- 50 mm Maximum Recoat Length
- Replacement Components Sold Separately Below

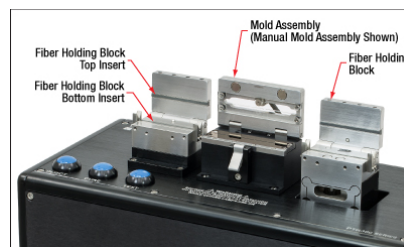
Fiber Recoaters with UV Curing LEDs			
Item #	Mold Assembly	Recoat Injector	Proof Tester
PTR306	Manual	Automatic	Linear
PTR306B	Manual	Manual	Linear
PTR307	Manual	Automatic	Rotary
PTR307B	Manual	Manual	Rotary

Building a Complete Fiber Processing System?

To build a complete system, you will need to purchase a base unit plus additional components that are dependent upon the size of the fiber being processed. We recommend that you contact us prior to ordering for assistance with choosing a system and all the necessary components. This also allows us to install and factory-align all system components within the base unit prior to shipping, ensuring optimal performance out-of-the-box.

To take advantage of this assistance, please e-mail us directly at techsupport@thorlabs.com and a representative will contact you shortly.

Thorlabs' Vytran® Fiber Recoaters with UV Lamps and Proof Testers offer easy, integrated solutions to recoat and test fusion-spliced fibers. The fiber recoating process restores the buffer coating to a stripped fiber, offering more flexibility than a heat-shrink protection sleeve, enabling it to be handled and coiled without damaging the fusion-spliced section. The integrated linear or rotary proof tester allows users to immediately test a recoated fiber with a pre-determined load and determine the long-term reliability of the fiber. Due to their ability to restore a fusion-spliced fiber to near original condition, these systems are ideal for applications such as undersea optical fiber cables, submarine communication cabling, fiber lasers, or Distributed Bragg Reflector (DBR) lasers.



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Photograph of PTR306 Fiber Recoater with Linear Proof Tester.
Red arrows indicate the mold assembly, fiber block holders, and fiber block inserts.

The process starts with the fusion-spliced section of fiber being placed in the middle of the mold assembly (see image to the right). Once set in position, inserts in the fiber blocks secure the spliced fiber in place. Recoat material is pumped into the cavity and then UV-cured. The recoated fiber can then be tested by pulling on it up to a pre-determined load.

We also offer fiber recoaters with proof testers here that use UV LEDs for curing the fiber.

Recoater and Mold Assembly Options

Recoaters are available with a manual mold assembly. Manual mold assemblies use hinged mold plates that provide flexibility and are ideal for low-volume manufacturing or R&D applications. An automatic or manual volumetric dispensing pump and injection system is used to inject the recoat material into the mold cavity.

For our manual recoaters (Item #s PTR306, PTR306B, PTR307, and PTR307B), the mold assembly is sold separately so that customers can choose the right mold coating diameter for their application. Custom mold coating sizes are available up to $\varnothing 900\ \mu\text{m}$. Pre-installation of the mold assembly at the factory is also available upon request. Contact Tech Support for more information on custom molds or factory assembly.

Thorlabs offers both high-index (Item # AB950200) and low-index (Item # PC373) recoat materials for use in these recoaters. Recoaters with manual injection pumps (Item #s PTR306B and PTR307B) are compatible with both types of recoat material; all other recoaters are compatible with the high-index material only. Our manual recoaters with an automatic injection system (Item #s PTR306 and PTR307) can be customized to work with both the low- and high-index recoat material; please contact Tech Support for more information.

Proof Tester Options

The PTR306 and PTR306B Fiber Recoaters come with an integrated linear proof tester, which takes the fiber up to a predetermined load ($\leq 20\ \text{N}$) and then releases it. The linear proof tester uses the same fiber holding blocks as the recoater and thus the fiber does not need to be moved prior to testing. The PTR307 and PTR307B Fiber Recoaters come with an integrated rotary proof tester, which can perform both proof and tension tests ($\leq 89\ \text{N}$). One set of proof test grips is included; replacement proof test grips are available below in packs of 10. Each testing process is fully programmable via the included controller, allowing the user to select parameters such as the load, the rate at which the load is applied, and the hold time.

Inserts for Fiber Holding Blocks

In addition to the above, we offer a variety of inserts for use in the fiber holding blocks of the recoaters in order to support a wide range of fiber coating diameters. See the subgroup below for details.



Item #	PTR306	PTR306B	PTR307	PTR307B
Recoater Type	Manual			
Recoater Mold	Hinged Split Quartz Plates			
Recoat Diameter ^a	280 μm, 430 μm, or 600 μm ^b			
Maximum Recoat Length	50 mm			
Recoat Material	High-Index UV Curable Acrylate	High- or Low-Index UV Curable Acrylate	High-Index UV Curable Acrylate	High- or Low-Index UV Curable Acrylate
UV/Thermal Source	Four 10 W Tungsten-Halogen Lamps (Replacement Item # UVRB, Available Below)			
Recoat Injection	Automatic	Manual ^c	Automatic	Manual ^c
Recoat Volume	Programmable (μL)	Manual	Programmable (μL)	Manual
Recoat Injection Rate	Programmable (≤1.8 μL/s)	Manual	Programmable (≤1.8 μL/s)	Manual
Lamp Delay Time ^d	5 s (Typical)			
Cure Time ^e	17 s (Typical)			
Mold Cleaning Requirement ^f	After Every Recoat			
Total Cycle Time	60 s (Typical)			
Dimensions (L × W × H)	10.25" x 5.0" x 5.0" (260 mm x 127 mm x 127 mm)		10.14" x 7.85" x 7.26" (257.4 mm x 199.3 mm x 184.4 mm)	
AC Power	110 - 120 V / 200 - 240 V, 47-63 Hz			
Controller Type	Handset			
Proof Tester Specifications				
Proof Tester Type	Linear		Rotary	
Load Mechanism	1.5" (38 mm) Linear Fiber Clamp		Ø2" (50.8 mm) Rotating Mandrel ^g	
Fiber Spacing	2.9" (74 mm)		5" (127 mm)	
Minimum Fiber Length	6" (150 mm)		17" (432 mm)	
Maximum Load	20 N (4.5 lbs) 235 kpsi (1.6 GPa) for a Ø125 μm Fiber		89 N (20 lbs) >800 kpsi (5.5 GPa) for a Ø125 μm Fiber	
Accuracy	±2%			
Ramp Rate ^h	Programmable, ≤22.2 N/s (5 lbs/s)		Manual, ≤22.2 N/s (5 lbs/s)	
Hold Time	0.00 s - 60.00 s, Programmable ^d		N/A	
Display Units	lbs, kg, N, kpsi, and GPa			

a. Custom sizes available; contact Tech Support.

b. Depends on the Mold Assembly (See the Mold Assembly Presentation Below)

c. Replacement Item # PTRRRM, Available Separately Below

d. Programmable with the Controller

e. Programmable with the Controller; Mold Size and Recoat Material Dependent

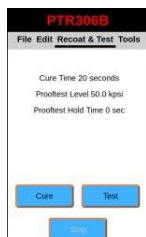
f. The mold should be cleaned with either acetone or isopropyl alcohol, applied with a cotton swab. If the mold has an accumulation of cured material stuck on the plates, allow the cleaning solution (preferably acetone) about 60 - 90 seconds to soften and lift the material from the surface.

g. Check the minimum short-term bend radius of the fiber to be tested to ensure its compatibility with the Ø2" mandrel.

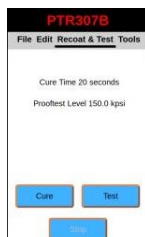
h. The ramp rate is the rate at which the load is applied to the fiber.

Handset Controller GUI Interface

The VYT300C handset controller is included with the recoaters. It is also compatible with Vytran PTR series fiber recoaters and proof testers, as well as Vytran large-diameter fiber cleavers. One handset controller can be used to configure parameters on multiple fiber processing units in succession. Full instructions for using the handset controller can be found in the manual for each device. The screenshots below highlight key features of the graphical user interface.



Click to Enlarge



Click to Enlarge

The initial screen on the VYT300C Handset Controller gives the option to begin recoating and testing. Other menus can be accessed by swiping the touchscreen left or right, or by tapping the options at the top of the screen.

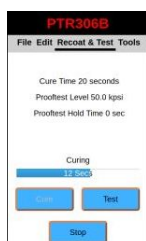


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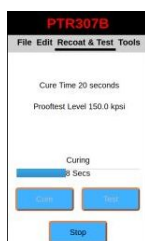


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The Recoat and Test screen will display the status of the process that is running. The Stop button can be used to end the active Recoat or Test process. During a proof test and the injection process, the handset controller shows the parameters configured on the Edit tab.



Click to Enlarge

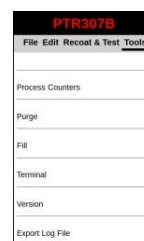


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During curing, the controller displays the parameters defined on the Edit tab and the progress of the cure. The Stop button can be used to end the active cure.



Click to Enlarge



Click to Enlarge

The suite of tools available through the handset controller includes some that are not shown on the tablet controller, such as a record of the total cure time of the machine. See the manuals of the compatible fiber recoaters for more information on these tools.



Product Demonstrations

Thorlabs has demonstration facilities for the Vytran® fiber glass processing systems offered on this page within our Morganville, New Jersey and Exeter, Devonshire offices. We invite you to schedule a visit to see these products in operation and to discuss the various options with a fiber processing specialist. Please schedule a demonstration at one of our locations below by contacting technical support. We welcome the opportunity for personal interaction during your visit!

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SELECTION GUIDE

The table below outlines the entire PTR series to directly compare the capabilities across the whole line.

Vytran® PTR Series Recoater and Proof Tester Selection Guide								
Item #	UV Curing Source	Mold Assembly	Proof Tester	Recoat Injection Pump	Max Recoat Length	Recoat Material		Mold Cleaning Requirement
						High Index (Item # AB950200)	Low Index (Item # PC373)	
Dedicated Proof Testers								
PTR301	N/A	N/A	Linear	N/A	N/A	-	-	N/A
PTR302			Rotary			-	-	
Dedicated Recoaters ^a								
PTR303	Halogen Lamps	Manual	N/A	Automatic	50 mm	✓	-	After Every Recoat Process
PTR303B				Manual	50 mm	✓	✓	
PTR403	LEDs	Manual	N/A	Automatic	50 mm	✓	-	After Every Recoat Process
PTR403B				Manual	50 mm	✓	✓	
PTR404B				Manual	100 mm	✓	✓	
PTR304	Halogen Lamps	Manual	N/A	Automatic	100 mm	✓	-	After Every Recoat Process
PTR304B				Manual	100 mm	✓	✓	
PTR305	LEDs	Automatic	N/A	Automatic	50 mm	✓	-	Daily ^b
Recoaters with Proof Testers ^a								
PTR306	Halogen Lamps	Manual	Linear	Automatic	50 mm	✓	-	After Every Recoat Process
PTR306B				Manual	50 mm	✓	✓	
PTR406	LEDs	Manual	Linear	Automatic	50 mm	✓	-	After Every Recoat Process
PTR406B				Manual	50 mm	✓	✓	
PTR307	Halogen Lamps	Manual	Rotary	Automatic	50 mm	✓	-	After Every Recoat Process
PTR307B				Manual	50 mm	✓	✓	
PTR407	LEDs	Manual	Rotary	Automatic	50 mm	✓	-	After Every Recoat Process
PTR407B				Manual	50 mm	✓	✓	
PTR308	LEDs	Automatic	Linear	Automatic	50 mm	✓	-	Daily ^b

a. These recoaters are designed to be used with high- or low-index recoater material. Thorlabs also offers the PRL201, which is designed for polyimide-coated fibers.

b. The mold assembly of these recoaters should be cleaned before the first recoating process of the day and then again after the last recoating process of the day.

Fiber Recoaters with Linear Proof Testers (Manual Mold Assemblies Required)



- ▶ Fiber Recoaters with Manual Mold Assembly and Linear Proof Tester
- ▶ Proof Testing up to 20 N (4.5 lbs)
- ▶ Compatible with Mold Assemblies with Coating Diameters of 280 μm, 430 μm, or 600 μm
- ▶ 50 mm Maximum Recoat Length
- ▶ Automatic and Manual Recoat Injector Configurations Available
- ▶ Ideal for Low-Volume Manufacturing and R&D
- ▶ Program Process Parameters via Included Handset Controller

Included

- Fiber Recoater with Integrated Linear Proof Tester
- Location-Specific Power Cord
- Handset Controller

Must be Purchased Separately

- Mold Assembly (One Required)
- Fiber Holder Top Inserts (Two Required)
- Fiber Holder Bottom Inserts (Two Required)
- High- or Low-Index Recoat Material (One Bottle Required)

Optional

- Replacement UV Bulb
- Replacement Injection Tube
- Replacement Manual Injector (PTR306B Only)
- Replacement Syringe Barrel (PTR306B Only)
- Replacement SS2SN013 Setscrews for Fiber Holding Blocks

The PTR306 and PTR306B combine a fiber recoater and linear proof tester into a single unit. These recoaters use a hinged mold assembly (sold separately below) to form the mold cavity for recoating; recoat material is injected through a cross-channel in the mold's top plate. The integrated linear proof tester can pull the recoated fiber up to a predetermined load (≤20 N) and uses the same fiber holding blocks as the recoater; therefore, both recoating and testing processes can be performed without moving the fiber.

The PTR306 and PTR306B include a controller that allows the user to program and control the unit. Adjustable settings include the inject rate, inject amount, cure time, lamp power, and proof test level; this enables the programming of custom recipes. An injection calculator provides an estimate of recoat parameters that can be refined by the user. The controller is shipped preloaded with files for common recoat and proof test parameters, but can store a virtually unlimited number of files; please see the *Controller* tab for details.

Recoat Injector Configurations

Two recoat injector configurations are available. The PTR306 uses an automated pump to inject the recoat material. The amount of material dispensed by the automatic injector is controlled by hand via the top-mounted "Inject" button or programmed into the machine using the controller. The PTR306B features a manual recoat injection system that requires the user to manually dispense the recoat material into the mold cavity; a replacement injector for the PTR306B recoater is available below. Please note that the automatic injector is only compatible with high-index recoat material, while the manual injector is compatible with both low- and high- index recoat material; both are sold separately below. Please contact Tech Support for more information.

Selecting a Mold Assembly or Fiber Holder Inserts

When selecting one of these recoaters, both a mold assembly and inserts for the fiber holding blocks (two top and two bottom, sold below) must be chosen. The mold assemblies are available for coating diameters of 280 μm, 430 μm, and 600 μm. Customized recoat diameters up to 900 μm are also available; please contact Tech Support for more information. The type of insert is dependent upon the type of integrated proof tester. The PTR306 and PTR306B are compatible with the VHJ series inserts. Nylon-tipped setscrews are used to secure the inserts in the fiber holding blocks; replacement 2-56, 1/8" long SS2SN013 setscrews are available in packs of 10.

Older models of the legacy PTR206B sold before 2015 (and later replaced by the PTR306B) used two different types of UV lamps (high or low power) for curing the recoat material, depending on whether low- or high-index material was being used. All current models use the high-power UV lamp (Item # UVRB, available below), which can be programmed for high- or low-powered output. For help with replacing the older, low-power lamp or to order systems that still use this lamp, please contact Tech Support.



Click to Enlarge
The PTR306B Manual Fiber Recoater shown with the included Handset Controller.

Part Number	Description	Price	Availability
PTR306	Fiber Recoater with UV Lamps, Linear Proof Tester, and Automatic Recoat Injector, 50 mm Max Fiber Recoat Length, Requires Manual Mold Assembly	\$14,965.49	Lead Time
PTR306B	Fiber Recoater with UV Lamps, Linear Proof Tester, and Manual Recoat Injector, 50 mm Max Fiber Recoat Length, Requires Manual Mold Assembly	\$13,480.59	Lead Time

Fiber Recoaters with Rotary Proof Testers (Manual Mold Assemblies Required)



- ▶ Fiber Recoaters with Manual Mold Assembly and Rotary Proof Tester
- ▶ Proof and Tension Testing up to 89 N (20 lbs)
- ▶ Compatible with Mold Assemblies with Coating Diameters of 280 μm, 430 μm, or 600 μm
- ▶ 50 mm Maximum Recoat Length
- ▶ Automatic and Manual Recoat Injector Configurations Available
- ▶ Ideal for Low-Volume Manufacturing and R&D
- ▶ Program Process Parameters via Included Handset Controller

Included

- Fiber Recoater with Integrated Rotary Proof Tester
- Location-Specific Power Cord
- Handset Controller

Must be Purchased Separately

- Mold Assembly (One Required)
- Fiber Holder Top Inserts (Two Required)
- Fiber Holder Bottom Inserts (Two Required)
- High- or Low-Index Recoat Material (One Bottle Required)

Optional

- Replacement UV Bulb
- Replacement Injection Tube
- Replacement Manual Injector (PTR307B Only)
- Replacement Syringe Barrel (PTR307B Only)
- Replacement Proof Test Grips
- Replacement SS2SN013 Setscrews for Fiber Holding Blocks

The PTR307 and PTR307B combine a fiber recoater and rotary proof tester into a single unit. These recoaters use a hinged mold assembly (sold separately below) to form the mold cavity for recoating; recoat material is injected through a cross-channel in the mold's top plate. The integrated rotary proof tester can perform both proof and tension tests (≤89 N). Tension testing takes the fiber up to its breaking point, and the peak tension is recorded in units of tension (pounds, kilograms, or Newtons) or in units of stress (kpsi or GPa).

The PTR307 and PTR307B include a handset controller that allows the user to program and control the unit. Adjustable settings include the inject rate, inject amount, cure time, lamp power, and proof test level; this enables the programming of custom recipes. An injection calculator provides an estimate of recoat parameters that can be refined by the user. The controller is shipped preloaded with files for common recoat and proof test parameters, but can store a virtually unlimited number of files; please see the *Controller* tab for details.

Recoat Injector Configurations

Two recoat injector configurations are available. The PTR307 uses an automated pump to inject the recoat material. The amount of material dispensed by the automatic injector is controlled by hand via the top-mounted "Inject" button or programmed into the machine using the controller. The PTR307B features a manual recoat injection system that requires the user to manually dispense the recoat material into the mold cavity; a replacement injector for the PTR307B recoater is available below. Please note that the automatic injector is only compatible with high-index recoat material, while the manual injector is compatible with both low- and high- index recoat material; both are sold separately below. Please contact Tech Support for more information.

Selecting a Mold Assembly or Fiber Holder Inserts

When selecting one of these recoaters, both a mold assembly and inserts for the fiber holding blocks (two top and two bottom, sold below) must be chosen. The mold assemblies are available for coating diameters of 280 μm, 430 μm, and 600 μm. Customized recoat diameters up to 900 μm are also available; please contact Tech Support for more information. The type of insert is dependent upon the type of integrated proof tester. These units are compatible with the VHH series inserts. Nylon-tipped setscrews are used to secure the inserts in the fiber holding blocks; replacement 2-56, 1/8" long SS2SN013 setscrews are available in packs of 10.



Click to Enlarge
PTR307B Recoater with
Manual Injector

Part Number	Description	Price	Availability
PTR307	Fiber Recoater with UV Lamps, Rotary Proof Tester, and Automatic Recoat Injector, 50 mm Max Fiber Recoat Length, Requires Manual Mold Assembly	\$15,100.22	Lead Time
PTR307B	Fiber Recoater with UV Lamps, Rotary Proof Tester, and Manual Recoat Injector, 50 mm Max Fiber Recoat Length, Requires Manual Mold Assembly	\$13,929.88	Lead Time

Mold Assemblies - One Required for Manual Fiber Recoaters



- ▶ Compatible with Manual Fiber Recoaters
- ▶ Three Available Mold Coating Diameters: 280 µm, 430 µm, and 600 µm
- ▶ Recoats Fibers up to 50 mm in Length

Item #	Coating Diameter	Compatible Recoaters
RM280A	280 µm	PTR306(B) PTR307(B)
RM430A	430 µm	
RM600A	600 µm	

The Mold Assemblies are composed of split quartz mold plates which, when closed, form the cylindrical mold cavity around the exposed section of the fiber being recoated. They are available for Ø280 µm, Ø430 µm, or Ø600 µm fiber coatings. Custom mold sizes up to Ø900 µm are available; please contact Tech Support for more information. These mold assemblies feature a lever to assist with opening and closing the mold.

Recoat material (sold below) is injected into the mold assembly by either an automatic or manual injection system. Then, UV light cures the recoat material. Cure times are dependent on the mold size and recoat material, but they range from approximately 12 - 15 seconds for the RM280A mold assembly with high-index AB950200 recoat material to 30 - 60 seconds with the low-index PC373 recoat material. The recoater mold assembly should be cleaned thoroughly with isopropyl alcohol or acetone between each recoating process; reliable and repeatable performance is highly dependent on the cleanliness of the mold.

When purchasing a manual fiber recoater for the first time, it is necessary to choose a mold assembly that is appropriate for the desired fiber coating diameter. Additional mold assemblies may also be purchased and swapped out by the user. The assembly simply screws to the top of the device, making the removal and install simple and easy. Because of this, our manual recoaters are adaptable and flexible in the field and can be modified to accept varying diameters of fiber quickly. A recoater mold can be factory installed prior to shipment upon request by contacting techsupport@thorlabs.com. It is also necessary to order the proper inserts (sold below) that best match the fiber diameter being used, whether purchasing a fiber recoater for the first time or updating a current recoater for a different fiber diameter.

Part Number	Description	Price	Availability
RM280A	Recoater Mold Assembly, Ø280 µm Coating, 50 mm Max Recoat Length	\$4,703.94	Lead Time
RM430A	Recoater Mold Assembly, Ø430 µm Coating, 50 mm Max Recoat Length	\$4,703.94	Lead Time
RM600A	Recoater Mold Assembly, Ø600 µm Coating, 50 mm Max Recoat Length	\$4,703.94	Lead Time

Inserts for Fiber Holding Blocks - Two Top and Two Bottom Required



- ▶ Fiber Block Inserts for Thorlabs' Fiber Recoaters
- ▶ Two Types:
 - VHJ Series for Recoaters with Linear Proof Testers
 - VHH Series for Recoaters with Rotary Proof Testers
- ▶ Choose Two Top Inserts and Two Bottom Inserts
- ▶ Replacement Strips for Select VHJ Series Inserts Available Below

For all the recoaters sold above, the proper set of inserts need to be selected. A total of four inserts (two top and two bottom) are required for a full unit. The inserts are seated in and secured to the fiber holding blocks. They can easily be swapped out for different sizes, allowing our recoaters to adapt quickly should different fiber coating sizes be desired.

We offer two types of inserts. The VHJ Series inserts are designed for recoaters with linear proof testers (Item #s PTR306 and PTR306B). The VHH Series inserts are designed for recoaters with a rotary proof tester (Item #s PTR307 and PTR307B).

Custom sizes are available; please contact Tech Support for more information.

Compatible Fiber Buffer/Coating Diameters & Recoaters					
Item #	Top or Bottom	Nominal Diameter	Min Diameter	Max Diameter	Compatible Recoaters
VHJT	Top	-	80 µm	700 µm	PTR306(B)
VHJT900 ^a	Top	900 µm	700 µm	1000 µm	
VHJ250	Bottom	250 µm	80 µm	375 µm	
VHJ500	Bottom	500 µm	375 µm	700 µm	
VHJ900S ^a	Bottom	900 µm	700 µm	1000 µm	
VHH000	Top	-	90 µm	660 µm	PTR307(B)
VHH900 ^a	Top	900 µm	700 µm	1000 µm	
VHH100	Bottom	100 µm	90 µm	110 µm	
VHH125	Bottom	125 µm	113 µm	137 µm	
VHH160	Bottom	160 µm	144 µm	176 µm	
VHH250	Bottom	250 µm	225 µm	275 µm	
VHH300	Bottom	300 µm	250 µm	350 µm	
VHH400	Bottom	400 µm	350 µm	450 µm	
VHH500	Bottom	500 µm	450 µm	550 µm	
VHH600	Bottom	600 µm	540 µm	660 µm	
VHH900S ^a	Bottom	900 µm	810 µm	990 µm	

a. Custom mold sizes are available for Ø900 µm fiber coatings for both our automatic and manual fiber recoaters. Please contact Tech Support for more information.

Part Number	Description	Price	Availability
VHJT	Top Insert for Fiber Holding Blocks with Rubber Insert	\$118.79	Today
VHJT900	Top Insert for Fiber Holding Blocks with Rubber Insert for Large-Diameter Fiber	\$154.90	Today
VHJ250	Bottom Guide Insert for Fiber Holding Blocks, Ø80 µm - Ø375 µm Coating	\$220.11	Lead Time
VHJ500	Bottom Guide Insert for Fiber Holding Blocks, Ø375 µm - Ø700 µm Coating	\$220.11	Today
VHJ900S	Bottom Guide Insert for Fiber Holding Blocks, Ø700 µm - Ø1000 µm Coating	\$220.11	Today
VHH000	Top Insert for Fiber Holding Blocks, Flat	\$58.23	Today
VHH900	Top Insert for Fiber Holding Blocks, Clearance Slot for Large-Diameter Fiber	\$185.18	Today
VHH100	Bottom V-Groove Insert for Fiber Holding Blocks, Ø90 µm - Ø110 µm Coating	\$185.18	Today
VHH125	Bottom V-Groove Insert for Fiber Holding Blocks, Ø113 µm - Ø137 µm Coating	\$185.18	Today
VHH160	Bottom V-Groove Insert for Fiber Holding Blocks, Ø144 µm - Ø176 µm Coating	\$185.18	Today
VHH250	Bottom V-Groove Insert for Fiber Holding Blocks, Ø225 µm - Ø275 µm Coating	\$185.18	Today
VHH300	Bottom V-Groove Insert for Fiber Holding Blocks, Ø250 µm - Ø350 µm Coating	\$185.18	Today
VHH400	Bottom V-Groove Insert for Fiber Holding Blocks, Ø350 µm - Ø450 µm Coating	\$185.18	Today
VHH500	Bottom V-Groove Insert for Fiber Holding Blocks, Ø450 µm - Ø550 µm Coating	\$185.18	Today
VHH600	Bottom V-Groove Insert for Fiber Holding Blocks, Ø540 µm - Ø660 µm Coating	\$185.18	Today
VHH900S	Bottom V-Groove Insert for Fiber Holding Blocks, Ø810 µm - Ø990 µm Coating	\$185.18	Today

Recoat Materials - Choose Appropriate Material



- ▶ AB950200: High-Index Recoat Material
- ▶ PC373: Low-Index Recoat Material

Thorlabs offers UV-curable acrylate recoat materials to be used in our PTR series fiber recoaters. We offer both high-index (Item # AB950200) and low-index (Item # PC373) material in 1 oz bottles. The high-index material can be used in all recoaters (except the PRL201), whereas the low-index material can only be used in recoaters with the manual injection pump option.

Item #	Recoat Material	Compatible Recoaters	
		Automatic Injection	Manual Injection
AB950200	High Index	PTR303, PTR304, PTR305, PTR308, PTR403, PTR404, PTR406, PTR407	PTR303B, PTR304B, PTR403B, PTR404B, PTR406B, PTR407B
PC373	Low Index	-	

Part Number	Description	Price	Availability
AB950200	High-Index Recoat Material, 1 oz	\$309.79	Today
PC373	Low-Index Recoat Material, 1 oz	\$451.88	Today

Replacement UV Bulb for Manual Recoaters



- ▶ Replacement UV Bulbs for Manual Recoaters Listed to the Right
- ▶ 10 W Tungsten-Halogen Lamp
- ▶ Replacements Sold Individually
 - Four Bulbs Used in 50 mm Length Recoaters
 - Eight Bulbs Used in 100 mm Length Recoaters

Compatible Systems

- PTR303, PTR303B, PTR304, and PTR304B Manual Fiber Recoaters
- PTR306, PTR306B, PTR307, and PTR307B Manual Fiber Recoaters with Proof Testers
- FFS2000 and FFS2000PT Fiber Preparation and Splicing Workstations
- FFS2000PM and FFS2000WS Fiber Preparation, Splicing, and Proof Testing Workstations

The UVRB is a replacement bulb for the Vytran fiber recoaters listed to the right. Recoaters with a 50 mm recoat length are shipped with the four bulbs required for operation and recoaters with a 100 mm recoat length are shipped with eight bulbs.

Based on a schedule of 2000 recoats per month with 15 seconds per recoat, we recommend replacing the bulbs monthly. Instructions for bulb replacement are provided in the manual for each recoater or workstation (available from our website by clicking the red Docs icon next to each base unit item #).

Please note that any fingerprints on the surface of the bulb will shorten the bulb's life; avoid handling the glass envelope of the bulb. If the envelope is touched, clean with a soft lens tissue wetted with acetone or alcohol.

Part Number	Description	Price	Availability
UVRB	Replacement Recoat Bulb for Manual Fiber Recoaters, Qty. 1	\$59.40	Today

Replacement Manual Injector and Components



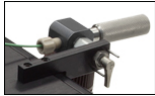
- ▶ Replacement Manual Injector for Dispensing Recoat Material into the Mold
 - ▶ Accept PC373 and AB950200 Recoat Materials
- ▶ Replacement Injection Tube for Recoaters with Manual Injectors
- ▶ Replacement Syringe Barrel for Manual Injectors

The PTRRRM Manual Injector and RRMTA Injection Tube are available as replacement parts for Thorlabs' Vytran 50 mm Recoat Length Fiber Recoaters with Manual Injectors; compatible systems are listed to the right. We also offer a replacement syringe barrel (Item # RRMS).

Each injector can be mounted to compatible fiber recoaters via two 4-40, 3/32" hex screws on the recoater housing (see photo to the right). To connect the injector to the recoater mold, tighten the connector at the end of the green plastic tubing, then loosen by a 1/4 turn to allow for rotation.

The injector is equipped with a distribution valve and two-position selection lever for directing the flow of recoat material. A knurled dispensing screw with an internal plunger acts as a syringe for the recoat material. To fill the syringe, point the lever downward (i.e., toward the recoat bottle), then rotate the knurled dispensing screw counterclockwise until it spins freely to fill the syringe (shown in the photo to the right). Then, to inject the recoat material into the mold, point the lever horizontally (i.e., facing the knurled screw) and rotate the screw clockwise until near the end of the travel range is reached. Avoid bottoming out the dispenser as this may damage the internal plunger; also take care when re-engaging the threads to avoid cross threading the dispensing screw. Several fill/inject steps may be needed until air is displaced within the system. Use lens tissue and an acetone or alcohol cleaning solution to collect any excess recoat material that flows from the mold.

The RRMTA injection tube and the RRMS syringe barrel are available as replacement parts for the PTRRRM manual injector. The injection tube should be changed out if the knurl fitting breaks off the end, it leaks recoat material, or a clog forms that cannot be cleared with acetone. If the syringe no longer injects or an excessive number of air bubbles are visible in the recoat material (even after flushing the system), the syringe barrel should be replaced. A 5/16" thin spanner wrench is required for securing the syringe onto the recoat injector. Detailed installation instructions are provided in the support documentation, which can be found by clicking on the red documents icon (📄) next to each item number.



Click to Enlarge
The manual injector is mounted to the recoater via two 4-40 mounting screws.



Click to Enlarge

Part Number	Description	Price	Availability
PTRRRM	Replacement Injector for Vytran Recoaters with 50 mm Manual Mold Assemblies and Manual Injectors	\$1,429.00	Today
RRMTA	Replacement Injection Tube for Vytran Recoaters with 50 mm Manual Mold Assemblies and Manual Injectors	\$376.69	Today
RRMS	Replacement Syringe Barrel for Vytran Recoaters with Manual Injectors	\$672.66	Today

Replacement Injection Tube for Recoaters with Manual Mold Assemblies and Automatic Injectors



- ▶ Replacement Injection Tube for Dispensing Recoat Material into the Mold
- ▶ Compatible with Vytran Fiber Recoaters with Manual Mold Assemblies that Use Automatic Injectors (See List to the Right)
- ▶ For Use with AB950200 and PC373 Recoat Materials

Compatible Systems

- PTR303, PTR304, and PTR403 Manual Fiber Recoaters, Automatic Recoat Injector
- PTR306, PTR307, PTR406, and PTR407 Manual Fiber Recoaters with Proof Testers, Automatic Recoat Injector

This replacement injection tube is compatible with Thorlabs' Vytran Fiber Recoaters that use Manual Mold Assemblies and Automatic Injection Systems (Item #s listed to the right). Though each system comes with an injection tube installed, it may need to be replaced if the knurled fitting breaks off the end, it leaks recoat material, or a clog forms that cannot be cleared with acetone.

Detailed installation instructions for the RRATA injection tube are provided in the support documentation, which can be found by clicking on the red documents icon (📄) next to the item number.

Part Number	Description	Price	Availability
RRATA	Replacement Injection Tube for Vytran Recoaters with Manual Mold Assemblies and Automatic Injectors	\$376.69	Today

Replacement Proof Test Grips for Fiber Rotary Proof Testers



The PG200 Proof Test Grips are designed as replacements for the Vytran rotary proof testers listed to the right. Each system is sold with a set of these grips installed. Proof test grips may need to be replaced when the fiber slips at high tension levels. After the proof test grips are replaced the system will need to be calibrated; please contact Tech Support for details. Instructions for replacing the proof test grips are provided in each system's manual.

Compatible Systems

- PTR302 Fiber Rotary Proof Tester
- PTR307(B) and PTR407(B) Manual Fiber Recoaters with Proof Testers
- FFS2000PT Fiber Preparation and Splicing Workstation
- FFS2000WS Fiber Preparation, Splicing, and Proof Testing Workstation

Part Number	Description	Price	Availability
PG200	Replacement Proof Test Grips for Rotary Proof Testers, Qty. 10	\$59.40	Today

Replacement Rubber Strip for VHJT, VHJ250, and VHJ500 Inserts



- ▶ Replacement Rubber Strip for VHJT, VHJ250, and VHJ500 Fiber Holding Block Inserts
- ▶ 2" Length (Trim to Size)
- ▶ Available in a Pack of 12



Click for Details
VHJR Rubber Strip shown partially inserted into the metal channel of a VHJT Fiber Holding Block Insert.

This 12 Pack of Replacement Rubber Strips is directly compatible with our VHJT, VHJ250, and VHJ500 fiber holding block inserts. Although one rubber strip comes preinstalled in each insert, these can wear out over time and should be replaced when the holding block insert no longer withstands the applied proof test tension.

The rubber strip features a raised profile, and care must be taken during installation to ensure this profile sits above the metal channel of the insert. Detailed installation instructions are provided in the VHJR support documentation, which can be found by clicking on the red documents icon (📄) next to the item number.

Part Number	Description	Price	Availability
VHJR	Replacement Rubber Strip for VHJT, VHJ250, and VHJ500 Inserts, 12 Pack	\$59.20	Today

Replacement Handset Controller



- ▶ Provides Full Functionality for Compatible Systems (See Compatible Systems List to the Right)
- ▶ Intuitive GUI
- ▶ Capacitive Touchscreen
- ▶ Small Footprint

This handset controller is available as an alternative to the tablet controller previously included with our Vytran Large Diameter Fiber Cleavers, PTR Series Fiber Recoaters, and PTR Series Fiber Proof Testers. One handset controller is included with each new PTR series recoater system. A single handset controller can be used with multiple systems; after configuring parameters for one fiber processing unit, the controller can be disconnected and then connected to a different unit, of the same or a different type, to configure its parameters.

The handset controller must be connected via the included cable in order to use it. The controller automatically turns on when the connected system is turned on. Upon startup, the handset controller will always read parameters from the connected system; i.e., the parameters that appear on the screen will always be the parameters that have been uploaded to the connected unit. If the parameters read from the unit match the parameters of the most recently opened file on the handset controller, the screen will display the file name.

The suite of tools available through the handset controller includes a record of the total cure time of the machine (under Process Counters) that is not shown on the tablet controller. This value may be reset each time the bulbs are replaced.

The handset controller can open, save, delete, export, and import files containing parameters for compatible systems. Exporting or importing a file will require a memory device to be connected to the Program Port of the handset controller.

Instructions for using this controller can be found in the manuals for the compatible Vytran systems.

Compatible Systems

- LDC401(A) Fiber Cleavers
- LDC450B Portable Fiber Cleaver
- PTR303(B), PTR304(B), PTR306(B), PTR307(B), PTR403(B), PTR404B, PTR406(B), and PTR407(B) Manual Mold Fiber Recoaters
- PTR305 and PTR308 Automatic Mold Fiber Recoaters
- PTR301 and PTR302 Fiber Proof Tester



Click to Enlarge
Screenshot of VYT300C
Controller When Used with
PTR403 Recoater

Part Number	Description	Price	Availability
VYT300C	Handset Controller for LDC401(A) Cleavers, LDC450B Portable Cleaver, PTR30x(B) and PTR40x(B) Recoaters, and PTR30x Proof Testers	\$963.25	Today



PTR306B