56 Sparta Avenue • Newton, New Jersey 07860
(973) 300-3000 Sales • (973) 300-3600 Fax
www.thorlabs.com

THORLABS

UVRB - February 7, 2023

Item # UVRB 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 CURING LAMPS

- **Recoat Spliced Fibers for Full Protection and Flexibility**
- **Available with Manual or Automatic Recoat Injector**
- **50 mm or 100 mm Maximum Recoat Length**

PTR303B
Fiber Recoater for Manual Recoat Injector, 50 mm Recoat Length

PTR304
Fiber Recoater with Automatic Recoat Injector, 100 mm Recoat Length

RM430A
Mold Assembly for Manual Recoater (Sold Separately)

VHH000
Top Fiber Block Insert (Sold Separately)

VHH500
Bottom Fiber Block Insert (Sold Separately)

vytran®

OVERVIEW

Features

- Recoat Fusion-Spliced Fibers to Protect Splice and Restore Flexibility
- Manual and Automatic Recoat Injector Options
- Fully Programmable Using the Included Controller
- Push Buttons on Recoaters Start and Stop Recoat Process
- 50 mm or 100 mm Maximum Recoat Length
- Durable Quartz Mold Plate Capable of >10 000 Recoats
- Replacement Components Sold Separately Below

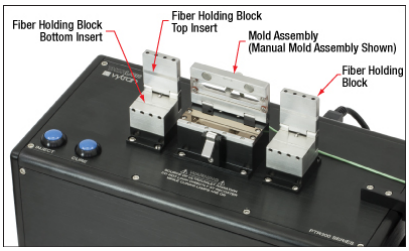
Fiber Recoaters with UV Curing Lamps			
Item #	**Mold Assembly**	**Recoat Injector**	**Max Recoat Length**
PTR303	Manual	Automatic	50 mm
PTR304	Manual	Automatic	100 mm
PTR303B	Manual	Manual	50 mm
PTR304B	Manual	Manual	100 mm

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 restore the coating to a fusion-spliced fiber. The recoat material is injected through a cross-channel in the top plate into the mold assembly. Recoaters with manual mold assemblies and UV halogen lamps are available. Our manual recoaters use a hinged top that can be opened and closed by hand. The split-quartz mold's surface is coated to prevent any recoat material that migrates between the plates from curing and forming imperfections on the finished recoat.



Click to Enlarge
Thorlabs' Fiber Recoater Indicating the Mold Assembly, Fiber Holding Blocks, and Fiber Holding Block Inserts

Each recoater uses a volumetric dispensing pump to inject the recoat material into the mold cavity. This pump is available with an automatic injection system (Item #s PTR303 and PTR304) or a manual injection system (Item #s PTR303B and PTR304B). The recoated fiber is then cured with an ultraviolet (UV) halogen lamp. The fiber recoating process restores the buffer coating to a stripped fiber, giving it the same flexibility as when originally manufactured. Unlike standard heat shrink protection sleeves, a recoated fiber can be handled and coiled normally, without risking the fusion-spliced section of fiber.

The recoat process starts with the fusion-spliced section of fiber being placed in the middle of the mold assembly. 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. Due to their ability to restore a fusion-spliced fiber to original condition, fiber recoaters are ideal for manufacturing high-stress or sensitive fibers such as undersea optical fiber cables, submarine communication cabling, fiber lasers, or Distributed Bragg Reflector (DBR) lasers.

We also offer fiber recoaters with UV LEDs for curing the fiber.

Mold Assemblies

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 Ø900 µm. 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.

Inserts for Fiber Holding Blocks

We offer a variety of fiber holding block inserts in order to support a wide range of fiber coating diameters. The inserts cover fiber coatings from Ø90 µm to Ø990 µm; a total of four are necessary for each recoater, two top inserts and two bottom inserts.

Recoat Materials

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 PTR303B and PTR304B) are compatible with both types of recoat material, while manual recoaters with an automatic injection system (Item #s PTR303 and PTR304) all other recoaters are compatible with the high-index material only. These recoaters can be customized to work with both the low- and high-index recoat material; please contact Tech Support for more information.

SPECS

Item #	PTR303	PTR303B	PTR304	PTR304B
Recoater Type	Manual			
Recoat Mold	Hinged Split Quartz Plates			
Recoat Diameter[a]	280 µm, 430 µm, or 600 µm[b]			
Maximum Recoat Length	50 mm		100 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 Halogen Lamps (Replacement Item # UVRB, Available Below)			
Recoat Injection	Automatic	Manual[c]	Automatic	Manual
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[d]	17 s (Typical)			
Mold Cleaning Requirement[e]	After Every Recoat			
Total Cycle Time	60 s (Typical)			
Dimensions (L × W × H)	10.14" × 5.30" × 6.88" (257.4 mm × 134.6 mm × 174.8 mm)		10.14" × 5.30" × 7.17" (257.4 mm × 134.6 mm × 182.2 mm)	
AC Power	110 - 120 V / 200 - 240 V, 47-63 Hz			
Controller Type	Handset			

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; Mold Size and Recoat Material Dependent
e. 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.

Handset Controller GUI Interface

The VYT300C handset controller is included with the recoaters. It is 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
The initial screen on the VYT300C Handset Controller gives the option to begin curing. Other menus can be accessed by swiping the touchscreen left or right, or by tapping the options at the top of the screen.

Click to Enlarge
While 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
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. See the manuals of the compatible fiber recoaters for more information on these tools.

Click to Enlarge
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.

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Product Demonstrations

Thorlabs has demonstration facilities for the Vytran® fiber glass processing systems offered on this page within our Morganville, New Jersey; Shanghai, China; 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!

Thorlabs Vytran USA
Morganville, New Jersey, USA

1400 Campus Dr
Morganville, NJ 07751
USA

Appointment Scheduling and Customer Support

- Phone: (973) 300-3000
- E-mail: techsupport@thorlabs.com

Thorlabs China
Shanghai, China

Room A101, No.100, Lane 2891, South Qilianshan Road Shanghai 200331
China

Appointment Scheduling and Customer Support

- Phone: +86 (0) 21-60561122
- E-mail: techsupport-cn@thorlabs.com

Thorlabs Vytran Europe
Exeter, United Kingdom

2 Kew Court
Exeter EX2 5AZ
United Kingdom

Appointment Scheduling and Customer Support

- Phone: +44 (0) 1392-445777
- E-mail: vytran.uk@thorlabs.com

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 Automatic Recoat Injectors (Manual Mold Assemblies Required)

- Compatible with Mold Assemblies for Coating Diameters of 280 µm, 430 µm, or 600 µm
- 50 mm or 100 mm Maximum Recoat Length
- Ideal for Low-Volume Manufacturing and R&D
- Compatible with High-Index Recoat Material

Included

- Fiber Recoater
- 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-Index Recoat Material (One Bottle Required)

Replacement Parts

- UV Bulb
- Injection Tube

These fiber recoaters use a hinged mold assembly (sold below) to form the mold cavity for recoating. This design allows the recoat material to be injected through a cross-channel in the mold's top plate. Intended for low-volume manufacturing and R&D applications, the mold assembly can be easily swapped out and the process parameters can be easily changed, providing flexibility and adaptability, but requires cleaning between each recoat process.

Each recoater features 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 by the included handset controller. The automatic injector is only compatible with high-index recoat material (sold below); however, an add-on unit that can use both low- and high-index recoat materials is available. Please contact Tech Support for more information.

The PTR304 (shown with mold assembly) has a maximum recoat length of 100 mm, while the PTR303 has a maximum recoat length of 50 mm.

When selecting one of these recoaters, both a mold assembly and appropriately sized fiber holding block inserts (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 and maximum recoating lengths of 50 mm (Item # PTR303) or 100 mm (Item # PTR304). Customized recoat diameters up to 900 µm are also available; please contact Tech Support for more information.

The PTR303 and PTR304 recoaters include a controller that both allow the user to program and control the recoater unit (see top left image). Adjustable settings include the inject rate, inject amount, cure time, lamp power, and programming custom recipes. An injection calculator provides an estimate of recoat parameters that can be refined by the user. The handset controller is shipped preloaded with files for common recoat parameters, but can store an unlimited number of files; please see the *Controller* tab for details.

Part Number	Description	Price	Availability
PTR303	**Fiber Recoater with UV Lamps, Automatic Recoat Injector, 50 mm Max Fiber Recoat Length, Requires Manual Mold Assembly**	**$6,793.68**	**Lead Time**
PTR304	**Fiber Recoater with UV Lamps, Automatic Recoat Injector, 100 mm Max Fiber Recoat Length, Requires Manual Mold Assembly**	**$11,674.83**	**Lead Time**

Fiber Recoaters with Manual Recoat Injectors (Manual Mold Assemblies Required)

- Compatible with Mold Assemblies for Coating Diameters of 280 µm, 430 µm, or 600 µm
- 50 mm or 100 mm Maximum Recoat Length
- Compatible with High- and Low-Index Recoat Material
- Ideal for Low-Volume Manufacturing and R&D

These fiber recoaters use a hinged mold assembly (sold below) to form the mold cavity for recoating. This design allows the recoat material to be injected through a cross-channel in the mold's top plate. Intended for low-volume manufacturing and R&D applications, the mold assembly can be easily swapped out and the process parameters can be easily changed, providing flexibility and adaptability, but requires cleaning between each recoat process.

Each recoater features a manual recoat injection system. The user is required to dispense the recoat material into the mold cavity. This manual injection system is compatible with both low- and high-index recoat material (sold below). Additionally, replacement injectors are available below.

Included

- Fiber Recoater
- 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)

Replacement Parts

- UV Bulb
- Manual Injector
- Injection Tube
- Syringe Barrel

When selecting one of these recoaters, both a mold assembly and appropriately sized fiber holding block inserts (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 and maximum recoating lengths of 50 mm (Item # PTR303B) or 100 mm (Item # PTR304B). Customized recoat diameters up to 900 µm are also available; please contact Tech Support for more information.

The PTR303B and PTR304B recoaters include a controller that both allow the user to program and control the recoater unit (see top left image). Adjustable settings include the inject rate, inject amount, cure time, lamp power, and programming 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 parameters, but can store an unlimited number of files; please see the *Controller* tab for details.

The PTR304B (shown with mold assembly) has a maximum recoat length of 100 mm, while the PTR303B has a maximum recoat length of 50 mm.

Part Number	Description	Price	Availability
PTR303B	**Fiber Recoater with UV Lamps, Manual Recoat Injector, 50 mm Max Fiber Recoat Length, Requires Manual Mold Assembly**	**$5,382.42**	**Lead Time**
PTR304B	**Fiber Recoater with UV Lamps, Manual Recoat Injector, 100 mm Max Fiber Recoat Length, Requires Manual Mold Assembly**	**$10,276.14**	**Lead Time**

Mold Assemblies - One Required for Manual Fiber Recoaters

- Compatible with UV Lamp Fiber Recoaters
- Three Available Mold Coating Diameters: 280 µm, 430 µm, and 600 µm
- 50 mm or 100 mm Maximum Recoat Length

Item #	Coating Diameter	Max Recoat Length	Compatible Recoaters
RM280A	280 µm	50 mm	PTR303(B)
RM430A	430 µm		
RM600A	600 µm		
RM280L	280 µm	100 mm	PTR304(B)
RM430L	430 µm		
RM600L	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 and in maximum fiber recoat lengths of 50 mm (compatible with Item #s PTR303 and PTR303B) and 100 mm (compatible with Item #s PTR304 and PTR304B). Custom mold sizes up to Ø900 µm are available; please contact Tech Support for more information. Mold assemblies with a 50 mm recoat length feature a lever to assist with opening or 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 throughly 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 Tech Support. 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**
RM280L	**Recoater Mold Assembly, Ø280 µm Coating, 100 mm Max Recoat Length**	**$7,104.24**	**Today**
RM430L	**Recoater Mold Assembly, Ø430 µm Coating, 100 mm Max Recoat Length**	**$7,104.24**	**Lead Time**
RM600L	**Recoater Mold Assembly, Ø600 µm Coating, 100 mm Max Recoat Length**	**$7,104.24**	**Today**

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

- Fiber Block Inserts for Thorlabs' Fiber Recoaters
- Compatible with Fiber Coating Diameters from 90 µm to 990 µm
- Choose Two Top Inserts and Two Bottom Inserts

For all the recoaters sold above, the proper set of inserts needs 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. These inserts are compatible with fiber coatings ranging from Ø90 µm to Ø990 µm.

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**
VHH000	Top	-	90 µm	660 µm	PTR305 PTR303(B) PTR304(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
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.

		Compatible Recoaters	
Item #	**Recoat Material**	**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

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.

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

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**

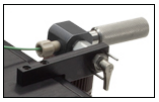
Replacement Manual Injectors and Components

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

Item #	Component Description	Compatible Recoaters	
		50 mm Recoaters	100 mm Recoaters
PTRRRM	Manual Injector	PTR303B, PTR306B, PTR307B, PTR406B, PTR407B	-
PTRRRML		-	PTR304B, PTR404B
RRMTA	Injection Tube	PTR303B, PTR306B, PTR307B, PTR406B, PTR407B	-
RRMTAL		-	PTR304B, PTR404B
RRMS	Syringe Barrel	PTR303B, PTR306B, PTR307B, PTR406B, PTR407B	PTR304B, PTR404B

These manual injectors and injection tubes are available as replacement parts for Thorlabs' Vytran Fiber Recoaters with Manual Injectors; compatible systems are listed to the right. We also offer a replacement syringe barrel.

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.



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

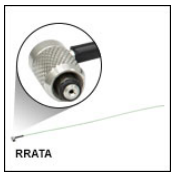
Click to Enlarge

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.

Each injection tube and the RRMS syringe barrel are available as replacement parts for the manual injectors. 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.

Part Number	Description	Price	Availability
PTRRRM	**Replacement Injector for Vytran Recoaters with 50 mm Manual Mold Assemblies and Manual Injectors**	**$1,429.00**	**Today**
PTRRRML	**Replacement Injector for Vytran Recoaters with 100 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**
RRMTAL	**Replacement Injection Tube for Vytran Recoaters with 100 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 Handset Controller

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

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

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Screenshot of VYT300C Controller When Used with PTR403 Recoater

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.

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**

UVRB