

FFSFXT - September 18, 2017

Item # FFSFXT was discontinued on September 18, 2017. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

VYTRAN® FIBER PREPARATION, SPLICING, AND PROOF TESTING: SM AND MM

- ▶ Prepare and Splice SM or MM Fibers with Cladding Diameters from 80 μm to 200 μm
- ▶ Includes Proof Testing Capability

Base Unit and Components Sold Separately



FFS2000PT
Illustration Shown with
Recoat Mold Assembly
(Purchased Separately)



RM430
Recoat Mold Assembly



FTV7
Tungsten Fusion Splicing
Filament



CST080180
Thermo-Mechanical
Stripping Blade Insert Set



Strip



Clean



Cleave



Splice



Taper/Combine



Recoat



Test

OVERVIEW

Features

- Fiber Coating Soaking Station
- Thermo-Mechanical Coating Stripping Station
- Ultrasonic Fiber Cleaning Station
- Fiber Cleaving Station Provides Flat Cleaves (Replacement Blades Available Below)
- True Core Imaging® for Automatic Fiber Alignment and Accurate Splice Loss Determination
- Filament Fusion Splicing Station with Automatic Post-Fusion Fire Polishing for Strength Enhancement
- Recoat Station for Acrylate Coating Restoration
- Built-in Proof Tester / Tension Tester
- Includes Windows® 7 PC with GUI
- Replacement Components Sold Separately Below

Thorlabs' Vytran® All-in-One Fiber Preparation and Fusion Splicing Workstation offers all fusion splicing procedures integrated into a single system that can be used to produce consistent splices quickly and efficiently. This workstation uses our filament fusion technology to provide a convenient, reliable method of making high-strength, low-loss splices for both production and R&D applications. The splicer features True Core Imaging technology, which is a high-magnification, high-resolution optical imaging system capable of detecting and displaying the inner core structure of a fiber. This technology provides for fast, accurate core

The Process for Fusion Splicing

The FFS2000PT Incorporates All Components and Procedures to Prepare the Fiber for Splicing:

1. A Coating Soaking Station for Specific Fibers that Require a Solvent Pre-Soak to Soften the Coating Prior to Stripping
2. A Thermo-Mechanical Stripping (TMS) Station Provides a Fast, Single-Step Process for Safely Removing Acrylate Coatings while Maintaining Fiber Strength
3. Ultrasonic Fiber Cleaning Removes Coating Particles or Residue Left on the Glass Surface that Could Reduce Splice Strength
4. An Automatic Fiber Cleaver Produces a Flat Cleave, Important for Achieving Low-Loss Splices
5. Uniquely Designed Fiber Holding Blocks and Transfer Jig Minimize Fiber Handling by Precisely Positioning the Fibers for Each Process
6. Omega-Shaped Filament Provides a Uniform Concentric Heat Source for Fusing the Fiber Tips, as well as for an Optional Post-Fusion Fire Polishing Step to Remove Silica Deposits
7. Recoater Restores the Protective Polymer Coating Over the Spliced Region

alignment and splice loss calculation. Also

included is a Windows® 7 PC with a user interface that offers complete configuration and process control. The model offered here is for SM and MM fibers and includes a proof / tension tester.

The system is capable of processing fibers with Ø80 µm to Ø200 µm cladding. This includes standard Ø80 µm cladding / Ø180 µm coating and Ø125 µm cladding / Ø250 µm coating fibers.

All-In-One Fiber Processing Workstation Selection Guide

SM and MM Fiber
SM and MM Fiber with Proof Testing
SM, MM, and PM Fiber
SM, MM, and PM Fiber with Proof Testing

Automatic Alignment

The True Core Imaging in our FFS2000PT All-in-One Workstation detects and displays a fiber's inner core structure; in conjunction with 0.01 µm resolution stepper-motor-controlled XY positioners, the FFS2000PT provides a fast and accurate alignment system. Alternately, the stepper motors in the FFS2000PT can also interface with external test and measurement equipment, such as power meters, spectrum analyzers, and polarimeters, through analog BNC inputs to create a fully automated optical assembly station.

True Core Imaging can also provide a splice loss determination after the splicing is complete. From the image of the fiber cores, a proprietary algorithm is used to accurately calculate the loss for a splice of a variety of similar or dissimilar fiber types.

Filament Fusion

Our unique filament fusion technology provides a consistent, reliable method of making high-strength, low-loss splices. Precise control of the fusion process is achieved by purging the splice region with an inert gas and using a tungsten or iridium filament to supply the thermal input necessary for fiber fusion. Because the fusion heat source is isolated from the environment, filament fusion splicing is not dependent on ambient conditions. Controlled conditions inside the system in combination with constant power control circuitry ensure repeatable performance splice after splice.

Fire Polishing

Our fire polishing process significantly increases splice strength through a rapid post-fusion heat treatment of the splice region. When a fusion splice is made, silica will evaporate off of the hot center region of the splice and condense on either side of the joint where the fiber is cooler. The condensed silica deposits act as a surface flaw, lowering splice strength. The fire polishing process removes or minimizes the deposits, thereby improving splice strength. In addition, the fire polishing process provides capabilities to expand adiabatically the mode field diameter of a fiber by causing the dopants in the cladding to diffuse farther from the core. Through this thermal core expansion process, extremely low-loss fusion splices between markedly dissimilar fibers, such as those typically used in WDM applications, can be achieved.

Recoating

The FFS2000PT includes an optical fiber recoater to restore the protective polymer coating over the fusion splice. The combination of high-strength filament fusion splicing and UV acrylate recoating provides a more reliable alternative to standard heat shrink protection sleeves. The recoat process maintains a near-original fiber diameter and delivers a smooth, flexible fusion splice that can be handled or tightly coiled as if no splice were present.

Proof Testing

The FFS2000PT includes a rotary proof tester that can test fibers up to a tension of 89 N (20 lbs) with an accuracy of ±2%. The included software allows the user to program the unit to perform either a tension test, where the splice is tested to failure, or a proof test, where it is tested to a pre-determined tension. One set of proof test grips is included; replacement proof test grips are available below in packs of 10.

Questions? We're All Ears!

To build a complete fiber processing system, you will need to purchase a base unit plus additional components that are dependent upon the size of the fiber being processed. Upon receipt of your order, we will review it for completeness and accuracy and contact you if there appear to be any discrepancies. All inserts are installed and factory-aligned within the base unit prior to shipping.

If you would like assistance in choosing the correct components or have questions about component compatibility, please contact tech support. We're more than happy to answer your questions any time before or after purchase.

S P E C S

Item #	FFS2000PT
Accepted Fiber Cladding Diameters	80 to 200 µm
Fiber Type	SM or MM
Thermo-Mechanical Stripper	

Accepted Coating Materials	Single or Dual Acrylate
Maximum Stripping Temperature	~130 °F (54 °C)
Ultrasonic Cleaner	
Accepted Cleaning Solvents	Acetone or Isopropyl Alcohol
Cleaning Time	1 to 120 s
Cleaver	
Cleave Method	Tension and Scribe (Replacement Blade Item # ACL83, Available Below)
Cleave Type	Flat (0°)
Maximum Tension ^a	2.45 N (0.55 lbs)
Splicing	
Fusion Method	Filament Fusion
Filament Power	40 W (Max)
Alignment Method	Fully Automated by True Core Imaging [®] or External Feedback
XY Fiber Positioning Resolution	Stepper Motor Controlled with 0.01 µm Resolution
Z Fiber Feed Resolution	Stepper Motor Controlled with 0.125 µm Resolution
Insertion Loss (SMF to SMF)	0.02 dB (Typical)
Tensile Strength	>250 kpsi (Typical)
Recoating	
Recoat Mold	Quartz
Recoat Diameter ^b	Ø280 µm, Ø430 µm, or Ø600 µm
UV Source	Four Tungsten Halogen Lamps (Replacement Item # UVRB, Available Below)
Proof Testing	
Maximum Tension ^c	89 N (20 lbs)
Mandrel Size	Ø2" (Ø50.8 mm)
Accuracy	±2%
General Specifications	
Size (L x W x H)	17.0" x 13.9" x 5.0" (432 mm x 353 mm x 127 mm)
Weight	26 lbs (11.8 kg)
Power	12 V DC External Power Supply with Universal AC Input
Operating System	Included Windows [®] 7 PC with Software GUI Installed

- Tension can be adjusted manually by the user for different fiber sizes. The cleaver is calibrated using standard weights that are hung off of a pulley, so the tension settings are programmed in grams. This maximum tension corresponds to 250 g.
- Depending on your selection of Recoat Mold Assembly below.
- The proof tester is calibrated using standard weights that are hung off of a pulley, so the tension settings are programmed in grams. This maximum tension corresponds to 9.1 kg.

PRODUCT DEMOS



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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All-in-One Preparation, Fusion Splicing, and Proof Testing Workstation - Base Unit

To begin the process of purchasing your complete fiber preparation and fusion splicing workstation, add the Item # FFS2000PT to your cart. In the subsequent product groupings, you will select one or more required accessories; the number of items required from each group will be indicated in the red headings. The specific choice of components will depend upon your fiber size and type. Once we receive your order, we will review it and contact you if we have any additional questions or if a required component is missing.

As the alignment of the components in the FFS2000PT workstation is critical and must be performed in the factory, your complete system will ship with all of the components installed. Once you receive the system, most inserts (except the Graphite V-Groove Inserts) can be easily replaced by the user if needed.

An external supply of argon and soaking and cleaning solvents must be provided by the user to operate the workstation.

Components Included

- FFS2000PT Base Unit
- One FTV7 Tungsten Filament Assembly Installed
- Two VHG125 Graphite V-Grooves Installed
- FHB1 Fiber Holding Blocks
- Fiber Holding Block Transfer Jig
- Location-Specific Power Supply and AC Power Cord
- PC with Monitor, Keyboard, and Mouse
- Large Tank Regulator with Gas Line (For Argon Gas Supply)
- External Vacuum Pump
- Tool Kit

Must Be Purchased Separately

- V-Groove Inserts for Fiber Holding Blocks (Two Required)
- Thermo-Mechanical Stripper Blade Sets (One Required)
- Bottom Cleaver Inserts (Two Required)
- Top Cleaver Inserts (Two Required)
- Additional Graphite V-Groove Inserts
- Additional Fusion Splicing Filaments
- Mold Assembly for Recoater (One Required)
- Recoat Materials (One Required)
- Proof Test Calibration Tool (Optional)
- >99.999% Purity Argon Gas (Not Available from Thorlabs)
- Soaking and Cleaning Solvents (Not Available from Thorlabs)

Please contact tech support if you have any questions or would like assistance in building a fiber processing solution to meet your needs. In addition, installation and training by one of our application engineers is recommended for this system; please contact tech support for more details.

Part Number	Description	Price	Availability
FFS2000PT	Fiber Stripper, Cleaner, Cleaver, Splicer, Recoater, and Proof Tester for SM and MM Fiber - Base Unit	\$58,675.00	Today

Bottom V-Groove Inserts for Non-Rotating Fiber Holding Blocks - Two Required

- ▶ V-Groove Inserts Align Fibers within the Fiber Holding Blocks Included with the Workstation Base Unit
- ▶ Support Buffer or Coating Diameters Ranging from 90 µm to 990 µm (See Table to the Right)
- ▶ Two Required: One Each for Left and Right Holding Blocks

These Bottom V-Groove Inserts are designed for the FHB1 Non-Rotating Fiber Holding Blocks that are included with the workstation base unit. A total of two items must be purchased, one insert for the left holding block and one insert for the right holding block. They are provided individually so as to allow for the construction of a system that can process two fibers with different coating diameters. Different V-groove sizes are provided to support a range of fiber cladding diameters; compatibility is listed in the table to the right.

Two bottom inserts from the list below must be purchased in order to operate your workstation. When purchased with a workstation base unit, the bottom fiber holding block inserts will be installed at the factory. If necessary, these inserts can be replaced by the user. In addition, a top insert (sold in the next product grouping) is required.

Compatible Fiber Buffer/Coating Diameters			
Item #	Nominal Diameter	Minimum Diameter	Maximum Diameter
VHH100	100 µm	90 µm	110 µm
VHH125	125 µm	113 µm	137 µm
VHH160	160 µm	144 µm	176 µm
VHH250	250 µm	225 µm	275 µm
VHH500	500 µm	450 µm	550 µm
VHH600	600 µm	540 µm	660 µm
VHH900S	900 µm	810 µm	990 µm

Part Number	Description	Price	Availability
VHH100	Bottom V-Groove Insert for FHB1 and PTR Series, Ø90 µm - Ø110 µm Coating	\$159.00	Today
VHH125	Bottom V-Groove Insert for FHB1 and PTR Series, Ø113 µm - Ø137 µm Coating	\$159.00	Today
VHH160	Bottom V-Groove Insert for FHB1 and PTR Series, Ø144 µm - Ø176 µm Coating	\$159.00	Today
VHH250	Bottom V-Groove Insert for FHB1 and PTR Series, Ø225 µm - Ø275 µm Coating	\$159.00	Today
VHH500	Bottom V-Groove Insert for FHB1 and PTR Series, Ø450 µm - Ø550 µm Coating	\$159.00	Today
VHH600	Bottom V-Groove Insert for FHB1 and PTR Series, Ø540 µm - Ø660 µm Coating	\$159.00	Today
VHH900S	Bottom V-Groove Insert for FHB1 and PTR Series, Ø810 µm - Ø990 µm Coating	\$159.00	Today

Top Inserts for Non-Rotating Fiber Holding Blocks - Two Required

- ▶ Select the Top Inserts that Match Your Bottom V-Groove Inserts Selected Above (See Table to the Right)
- ▶ Two Required: One Each for Left and Right Fiber Holding Blocks

In addition to the bottom V-groove inserts that must be installed in the FHB1 non-rotating fiber holding blocks, top inserts must be purchased as well. There are two choices of top inserts. The VHH000 is a flat insert that fits in the lid of one of the fiber holding blocks; it is compatible with all of our bottom V-Groove inserts except the VHH900S. If you are using the VHH900S as a bottom V-groove insert, you must select the VHH900 as the top insert to allow clearance for the lid of the holding block to close.

When purchased with a workstation base unit, the top inserts will be installed at the factory. If necessary, the top inserts can be replaced by the user.

Required Top Insert Selection Guide		
Bottom V-Groove Insert Item #	Top Insert VHH000	Top Insert VHH900
VHH100	✓	
VHH125	✓	
VHH160	✓	
VHH250	✓	
VHH500	✓	
VHH600	✓	
VHH900S		✓

Part Number	Description	Price	Availability
VHH000	Top Insert for FHB1 and PTR Series, Flat	\$50.00	Today
VHH900	Top Insert for Use with VHH900S	\$159.00	Today

Thermo-Mechanical Stripping Blade Inserts - One Required

- ▶ Thermo-Mechanical Stripping (TMS) Insert Sets for the All-In-One Fiber Preparation and Splicing Workstation
- ▶ Each Blade Set Consists of One Top and One Bottom Insert
- ▶ Four Sizes Available (See Table to the Right)

Thorlabs offers four sets of blades for stripping fiber. The maximum buffer diameter is limited by the size of the channel in the insert. Each blade set consists of two pieces: one top and one bottom insert that each have flat blades on the ends.

Three of the blades sets are designed to strip the same size cladding on both the left and right ends. The CSTM080125 blade set is designed to strip Ø80 µm cladding fiber on one end and Ø125 µm cladding fiber on the other. When ordered with the workstation base unit, it will be installed by default with the blades for Ø80 µm claddings on the left and the blades for Ø125 µm cladding on the right. The blade orientation can be reversed by the user to strip Ø80 µm cladding on the right and Ø125 µm cladding on the left; however you must be certain to switch both the top and bottom inserts together.

We offer four inserts from stock to accommodate standard fiber sizes. TMS blade insert sets are available for cladding diameters up to Ø200 µm upon request by contacting Tech Support.

One TMS blade insert set must be purchased in order to operate your workstation; when purchased with a workstation base unit, the stripping blade insert set will be installed at the factory. If necessary, the stripping blade insert set can be replaced by the user.

Thermo-Mechanical Stripping Blade Insert Sets			
Item #	Accepted Cladding Diameter ^a		Maximum Buffer Diameter
	End 1	End 2	
CST080180	80 µm	80 µm	180 µm
CSTM080125	80 µm	125 µm	250 µm
CST125250	125 µm	125 µm	250 µm
CST125400	125 µm	125 µm	400 µm

- For different cladding diameters than those listed here, please contact Tech Support. TMS blade insert sets are available for cladding diameters up to Ø200 µm upon request.

Part Number	Description	Price	Availability
CST080180	TMS Blade Insert Set for Ø80 µm Cladding, up to Ø180 µm Buffer	\$1,432.00	Today
CSTM080125	TMS Blade Insert Set for Ø80 µm and Ø125 µm Claddings, up to Ø250 µm Buffer	\$1,432.00	Today
CST125250	TMS Blade Insert Set for Ø125 µm Cladding, up to Ø250 µm Buffer	\$1,432.00	Today
CST125400	TMS Blade Insert Set for Ø125 µm Cladding, up to Ø400 µm Buffer	\$1,432.00	Today

Bottom Cleaver Inserts - Two Required

- ▶ V-Groove Inserts Align the Fibers within the Fiber Cleaver Unit
- ▶ Five Versions to Support the Workstation's Accepted Cladding Diameters (From 80 µm to 200 µm)
- ▶ Two Required: One Each for Left and Right Cleaver

These Bottom Cleaver Inserts secure the fiber inside the cleaving assembly of the workstation. They are sold individually to allow cleaving of differently sized fibers held within the left and right fiber holding blocks. Different inserts are available to support a variety of fiber sizes; compatibility is listed in the table to the right.

Two bottom cleaver inserts, one for both the left and right fibers, must be purchased in order to operate your workstation; when purchased with an FPC200 base unit, the bottom cleaver inserts will be installed at the factory. If necessary, the cleaver inserts can be replaced by the user. When the cleaving assembly is closed, the top (sold in the next product grouping) and bottom inserts mate to secure the stripped fiber.

Compatible Fiber Cladding Diameters ^a			
Item #	Nominal Diameter	Minimum Diameter	Maximum Diameter
SCV075	75 µm	68 µm	82 µm
SCV100	100 µm	90 µm	110 µm
SCV125	125 µm	113 µm	137 µm
SCV150	150 µm	135 µm	165 µm
SCV200	200 µm	180 µm	220 µm

- Please note that the cladding diameter range of the base unit is limited to 80 µm to 200 µm.

Part Number	Description	Price	Availability
SCV075	Bottom Cleaver Insert for Ø68 µm - Ø82 µm Cladding	\$128.00	Today
SCV100	Bottom Cleaver Insert for Ø90 µm - Ø110 µm Cladding	\$128.00	Today
SCV125	Bottom Cleaver Insert for Ø113 µm - Ø137 µm Cladding	\$128.00	Today
SCV150	Bottom Cleaver Insert for Ø135 µm - Ø165 µm Cladding	\$128.00	Today
SCV200	Bottom Cleaver Insert for Ø180 µm - Ø220 µm Cladding	\$128.00	Today

Top Cleaver Insert - Two Required

- ▶ Top Insert for the Fiber Cleaver Unit
- ▶ Two Required: One Each for Left and Right Cleaver

The SCV000 Top Cleaver Insert is a flat plate that helps secure the fiber inside the cleaving assembly of the workstation. It is sold individually, so two items must be purchased, one for the left and one for the right fiber cleaver.

In addition to these top cleaver inserts, you must buy the bottom insert that matches your fiber size (see the previous product grouping). When purchased with a workstation base unit, the top cleaver inserts will be installed at the factory. If necessary, the cleaver inserts can be replaced by the user. When the cleaving assembly is closed, the top and bottom inserts mate to secure the fiber.

Part Number	Description	Price	Availability
SCV000	Top Cleaver Insert	\$128.00	Today

Additional Graphite V-Groove Inserts for Splicing Unit

- ▶ V-Grooves Support Fibers for Fusion Splicing (Two VHG125 are Installed with System)
- ▶ Support Cladding Diameters Ranging from 80 μm to 200 μm (See Table to the Right)
- ▶ Two Required: One Each for Left and Right Sides of the Splicer Assembly

Compatible Fiber Cladding Diameters			
Item #	Nominal Diameter	Minimum Diameter	Maximum Diameter
VHG125	125 μm	80 μm	125 μm
VHG200	200 μm	150 μm	200 μm

These Graphite V-Groove Inserts help to position the fiber in the fusion splicer. The fiber size is limited by the size of the channel in the insert; the compatible sizes are listed in the table to the right.

These items are sold individually; two Graphite V-groove inserts, one for the left and one for the right side of the splicer assembly; two VHG125 inserts are included with the system. Due to the alignment precision required, these inserts must be installed and aligned at the factory and are not user replaceable. If you require a different insert size for an existing system, please contact tech support to arrange the reconfiguration.

Part Number	Description	Price	Availability
VHG125	Graphite V-Groove, $\varnothing 80 \mu\text{m}$ - $\varnothing 125 \mu\text{m}$	\$133.00	Today
VHG200	Graphite V-Groove, $\varnothing 150 \mu\text{m}$ - $\varnothing 200 \mu\text{m}$, 0.313" Length	\$133.00	Today

Additional Fusion Splicing Filaments

- ▶ Two Options Available:
 - ▶ FTV7 Tungsten Filament Ideal for Most Applications
 - ▶ ETV7 Iridium Filament Ideal for Soft Glass Fibers
- ▶ Omega Shape Provides Uniform Concentric Heat Source

There are two available fusion splicing filaments for the all-in-one workstation. The FTV7 tungsten filament is ideal for most splicing applications, while the ETV7 iridium filament is ideal for soft glass fibers. The omega-shaped filament is housed in an included mount and is easily replaced by the end user. The omega shape provides a uniform concentric heat source for fusing the fiber tips and for an optional post-fusion fire polishing step. Filament lifetimes will depend upon the particular splicing parameters used but are typically about 40 minutes.

One FTV7 filament comes pre-installed in the workstation. Additional filaments are recommended as this is a consumable item.

Part Number	Description	Price	Availability
FTV7	Tungsten Fusion Splicing Filament for the FSX2000PM and FFS Series	\$188.00	Today
ETV7	Iridium Fusion Splicing Filament for the FSX2000PM and FFS Series	\$255.00	Today

Mold Assembly for Recoater - One Required

- ▶ Three Options Available for 280 µm, 430 µm, or 600 µm Recoat Diameter
- ▶ Other Sizes up to Ø900 µm Available Upon Request (Contact Tech Support)
- ▶ Maximum Recoat Length of 50 mm
- ▶ One Mold Assembly Required

Compatible Coating Diameters	
Item #	Recoated Diameter
RM280	280 µm
RM430	430 µm
RM600	600 µm

There are three available recoater mold assemblies for the all-in-one fiber processing workstation. They are available for 280 µm, 430 µm, or 600 µm coating diameters. Custom mold sizes up to Ø900 µm are available; please contact Tech Support for more information. The assembly is composed of split quartz mold plates, which, when closed, form the cylindrical mold cavity around the exposed section of the fiber being recoated.

During operation, the recoat material (available in the next product grouping) is injected into the mold assembly with a manual injection system that is included in the workstation base unit. 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 RM280 mold assembly with high-index AB950200 recoat material to 30 - 60 seconds with the low-index PC373 recoat material.

One recoater mold assembly must be purchased in order to operate your workstation; when purchased with a workstation base unit, it will be installed at the factory. If necessary, the recoat mold assemblies are user replaceable.

Part Number	Description	Price	Availability
RM280	Recoater Mold Assembly, Ø280 µm Coating, 50 mm Max Recoat Length	\$4,039.00	Today
RM430	Recoater Mold Assembly, Ø430 µm Coating, 50 mm Max Recoat Length	\$4,039.00	Today
RM600	Recoater Mold Assembly, Ø600 µm Coating, 50 mm Max Recoat Length	\$4,039.00	Today

Recoat Materials - One Required

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

Thorlabs offers UV-curable acrylic recoat materials for the fiber processing workstation. We offer both high-index and low-index materials. The recoat material is injected into the recoater mold assembly by a manual injection system included in the workstation base unit. Each bottle includes 1 oz (30 g) of recoat material.

One bottle of recoat material must be purchased in order to operate your workstation.

Part Number	Description	Price	Availability
AB950200	High-Index Recoat Material, 1 oz	\$266.00	Today
PC373	Low-Index Recoat Material, 1 oz	\$388.00	Today

Replacement Diamond Cleave Blade

- ▶ Replacement Blade for Our Fiber Cleaving Systems (See List to the Right)
- ▶ 0.08" (2.0 mm) Long Diamond Blade
- ▶ User Installable



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The blade is shipped in a protective covering.

The ACL83 Diamond Cleave Blade is a replacement blade for the Vytran fiber processing systems listed to the right. Each system is shipped with a blade included.

When used with proper cleave parameters, a single location on the blade can provide up to 5,000 cleaves (dependent on the cladding properties of the fiber being cleaved). The blade can be positioned approximately 10 times before replacement (assuming proper cleave parameters and usage that does not cause unexpected damage to the blade). Blade replacement instructions for each system

Compatible Systems

- FPC200 Fiber Preparation Station
- CAC400 and CAC400A Fiber Cleavers
- LDC401 and LDC401A Fiber Cleavers
- GPX3800 and GPX3850 Automated Glass Processors with Cleavers
- FFS2000 and FFS2000PT Fiber Preparation and Splicing Workstations
- FFS2000PM and FFS2000WS Fiber Preparation, Splicing, and Proof Testing Workstations
- Former Generation LDC-200 Fiber Cleaver

are provided in the user manuals.

Note: Severe damage to the blade can occur if conditions cause high stress perpendicular to the edge of the blade or if incorrect parameters are used to cleave the fiber.

Part Number	Description	Price	Availability
ACL83	Replacement Diamond Cleave Blade	\$612.00	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.

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.

Compatible Systems

- PTR303, PTR303B, PTR304, and PTR304B Manual Fiber Recoaters
- PTR206, PTR206B*, PTR207, and PTR207B* Manual Fiber Recoaters with Proof Testers
- FFS2000 and FFS2000PT Fiber Preparation and Splicing Workstations
- FFS2000PM and FFS2000WS Fiber Preparation, Splicing, and Proof Testing Workstations
- Discontinued PTR203, PTR203B*, PTR204, and PTR204B* Recoaters

*Older models of the PTR203B, PTR204B, PTR206B, and PTR207B (sold before 2015) used two different types of UV bulbs (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 UVRB, which can be programmed for high- or low-powered output. For help with replacing the older, low-power bulb, please contact Tech Support.

Part Number	Description	Price	Availability
UVRB	Replacement Recoat Bulb for Manual Fiber Recoaters, Qty. 1	\$51.00	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
- PTR207 and PTR207B 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	\$51.00	Today

Proof Test Calibration Tool - Optional



[Zoom](#)

- ▶ Jig and Monofilament Line to Calibrate Proof Tester Unit
- ▶ Bolts Onto the Workstation Housing

The FFSFXT is used to calibrate the proof tester on the all-in-one workstation. It includes a jig with a pulley and 20 lb test monofilament line. After the jig is bolted on the workstation housing, the monofilament is wrapped around the proof test mandrel and allowed to hang over the pulley. By attaching a weight to the end of the monofilament, the proof testing assembly can be calibrated.

Please note that the weights needed to calibrate the unit are not included nor sold separately by Thorlabs.

Based on your currency / country selection, your order will ship from Newton, New Jersey

+1	Qty	Docs	Part Number - Universal	Price	Available / Ships
+1	<input type="text"/>		FFSFXT Calibration Fixture for FFS2000PT and FFS2000WS	\$995.00	Lead Time