

EXPERIENCE
POWERFLEX

THE
DIFFERENCE

POWERFlex[™]
Full Line of Holmium Laser Fibers



Maximum Flexibility... Maximum Strength

PowerFlex fibers use a variety of technologies to ensure that all fibers are produced for optimal performance. Fiber design is critical for all operating conditions, including extreme scope deflections. By carefully selecting the appropriate core-to-cladding ratios and primary coatings, PowerFlex fibers achieve maximum performance.

- Power transmission is optimized through the fiber
- Unique connector improves optical alignment and transmission
- Optical fibers are designed and custom manufactured exclusively for PowerFlex to meet the unique performance requirements of lithotripsy and soft tissue applications

PowerFlex Product Lines

REUSABLE STRAIGHT TIP

Available sizes:

- 272
- 365
- 550
- 1000

SINGLE-USE STRAIGHT TIP

Available sizes:

- 272
- 365
- 550
- 1000

SINGLE-USE ROUND TIP

Available sizes:

- 272
- 365

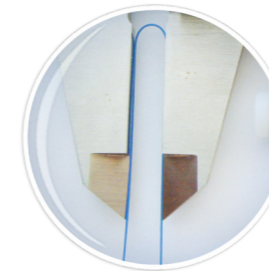
SINGLE-USE HYBRID TIP

Available size:

- 200



Not All Single-Use Fibers are Created Equal



ARMOURTEC COATING

An advanced coating for a durable design allowing the fiber to withstand a 1.0 cm diameter bend under high power settings.



DISTAL TIP

Hybrid, round or straight tips for any surgeon's preference.



ZIRCONIA CERAMIC CONNECTOR

Exclusive ceramic connector safely diffuses errant energy to provide a high level of reliability and eliminates damage to the debris shield and laser optics.

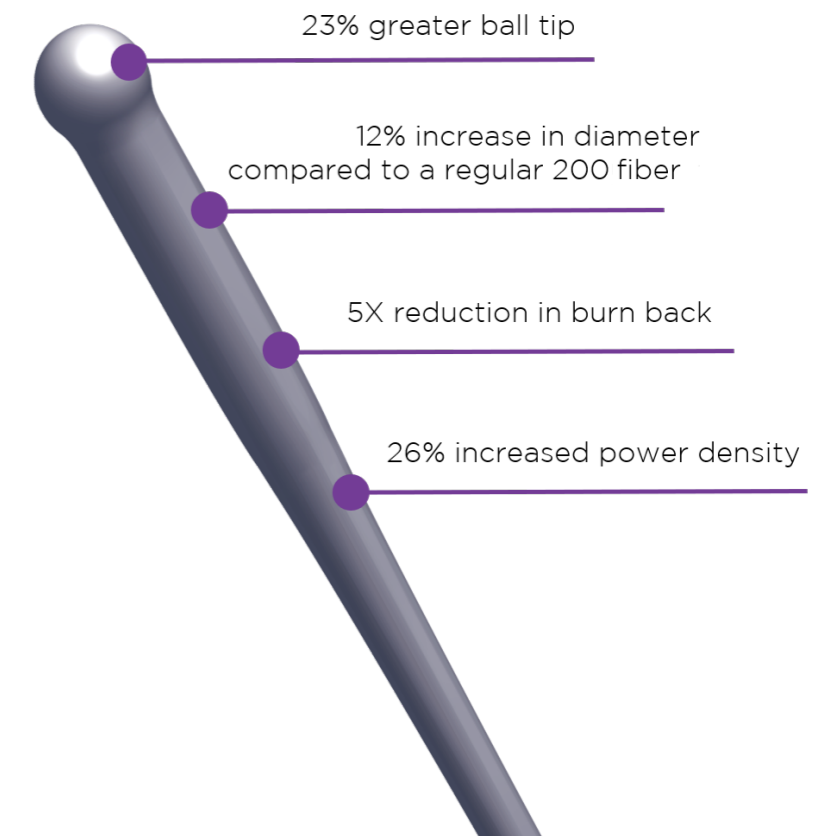


CUSTOM PACKAGING

Patented dispensing tray protects fibers against pinch points and allows for safe and controlled removal.

Hybrid Fiber

The innovative design provides the superior flexibility of a 200 fiber while the larger surface area of the distal tip allows for quicker stone treatment benefits similar to the larger 272 fiber.



To Order:

Phone: 1-800-668-5236 | Fax: 1-866-320-7287

Email: consumableorders@clarionmedical.com

Fiber Size	Description	Units per Box	Part Number
Reusable			
272	272 Reusable Holmium Laser Fiber	1	PF272R
365	365 Reusable Holmium Laser Fiber	1	PF365R
550	550 Reusable Holmium Laser Fiber	1	PF550R
1000	1000 Reusable Holmium Laser Fiber	1	PF1000R
Single-Use Straight Tip			
272	272 Single-Use Holmium Laser Fiber	5	PF272SE-5PK
365	365 Single-Use Holmium Laser Fiber	5	PF365SE-5PK
550	550 Single-Use Holmium Laser Fiber	1	PF550SE-1PK
1000	1000 Single-Use Holmium Laser Fiber	1	PE1000SE-1PK
Single-Use Round Tip			
272	272 Round Tip Single-Use Holmium Laser Fiber	5	PF272SE-RT-5PK
365	365 Round Tip Single-Use Holmium Laser Fiber	5	PF365SE-RT-5PK
Single-Use Hybrid Tip			
200	200 Hybrid Tip Single-Use Holmium Laser Fiber	5	PF200SE-RT-5PK



125 Fleming Drive, Cambridge, ON N1T 2B8
info@luvomedical.com

Distributed by:





PowerFlex Surgical Fibers

POWERFlex

Maximum Power... Maximum Performance!

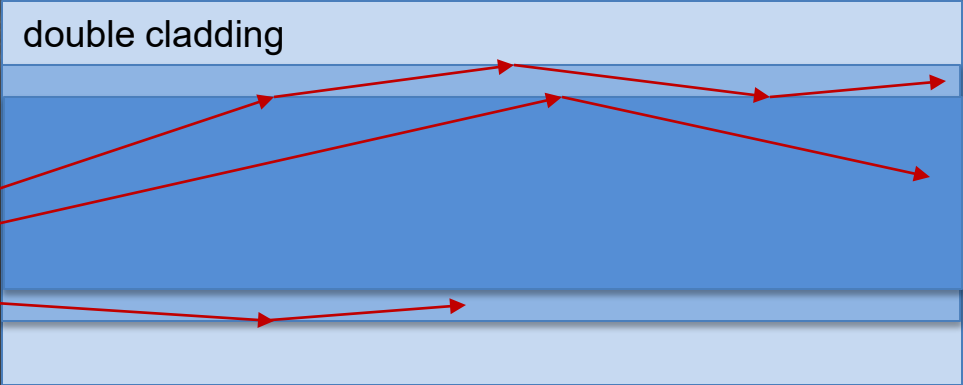


Enhanced Single Use Fiber

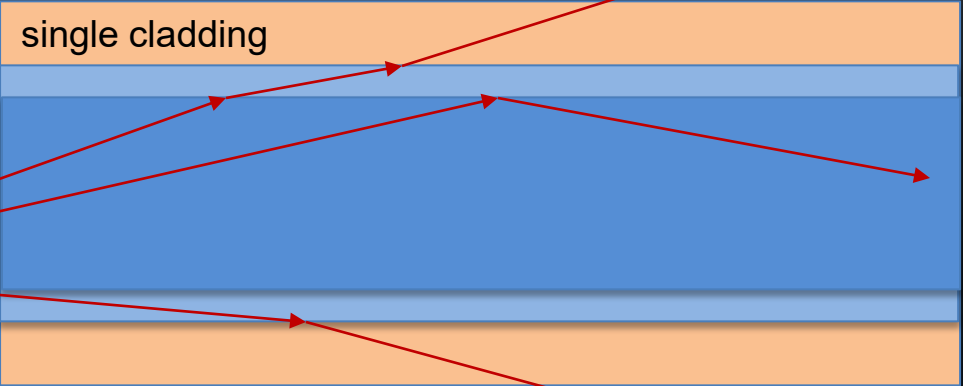
- Double Clad design
 - Buffer material effectively serves as a secondary cladding
 - Improved power handling, especially under tight bends



How It Works



buffer
cladding
core



buffer
cladding
core

Enhanced Single Use Fiber



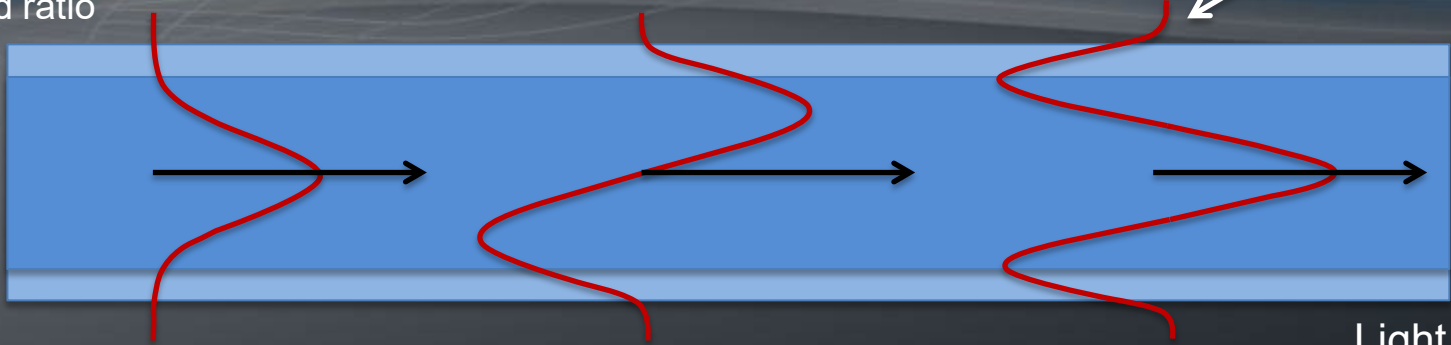
- Larger Cladding for 272
 - 1.2 vs. 1.1 core/cladding ratio
 - Cladding size is doubled
 - Improved power handling, especially under tight bends

How it works

1.1 core/clad ratio

Higher order modes extend into the cladding

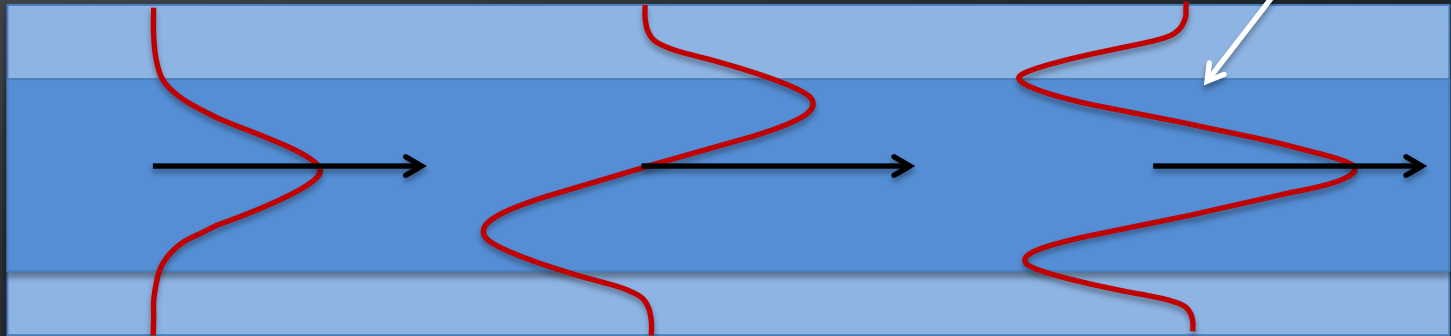
Unwanted losses



1.2 core/clad ratio

Transverse Electric (TE) mode field patterns

Light is retained in the core



TE₀

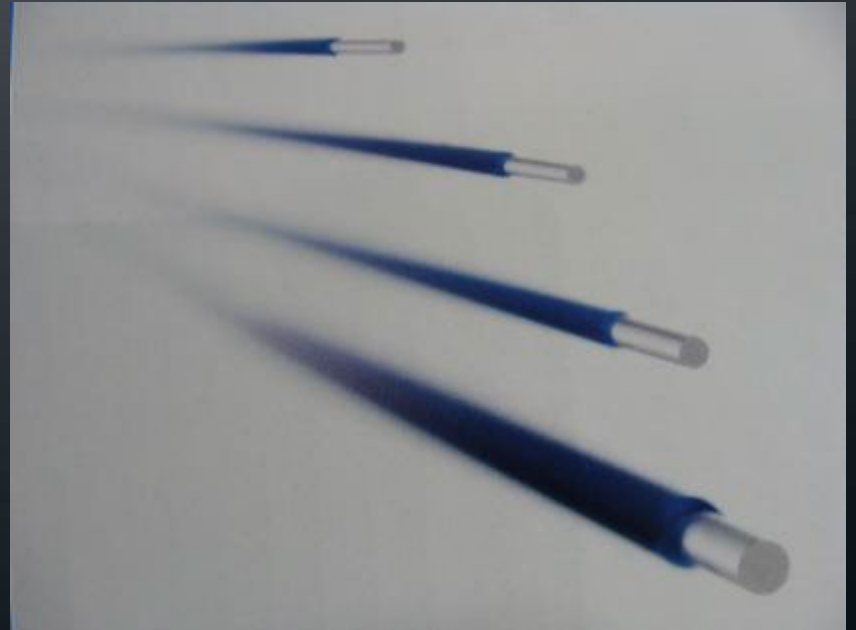
TE₁

TE₂

TE ...

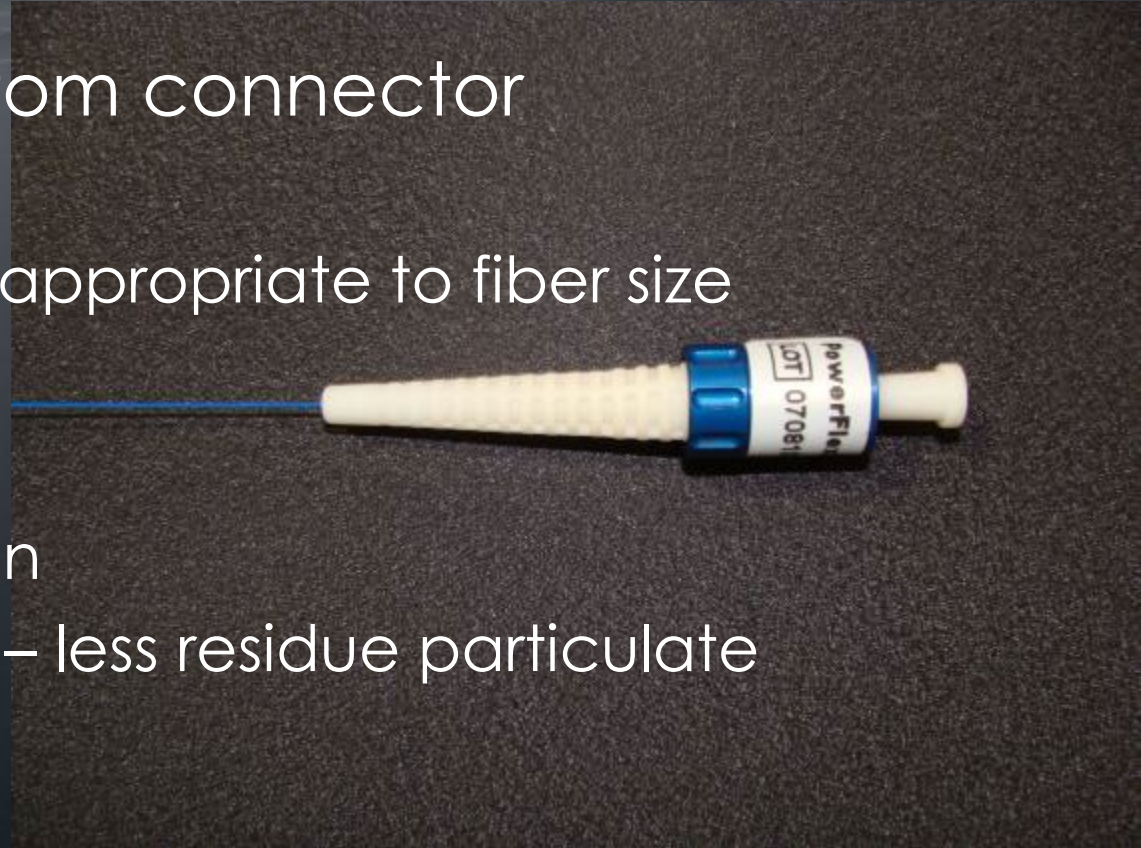
Enhanced Single Use Fiber

- Tefzel Blue Jacket
 - Industry Standard material
 - Clean strip edge
 - Most durable coating



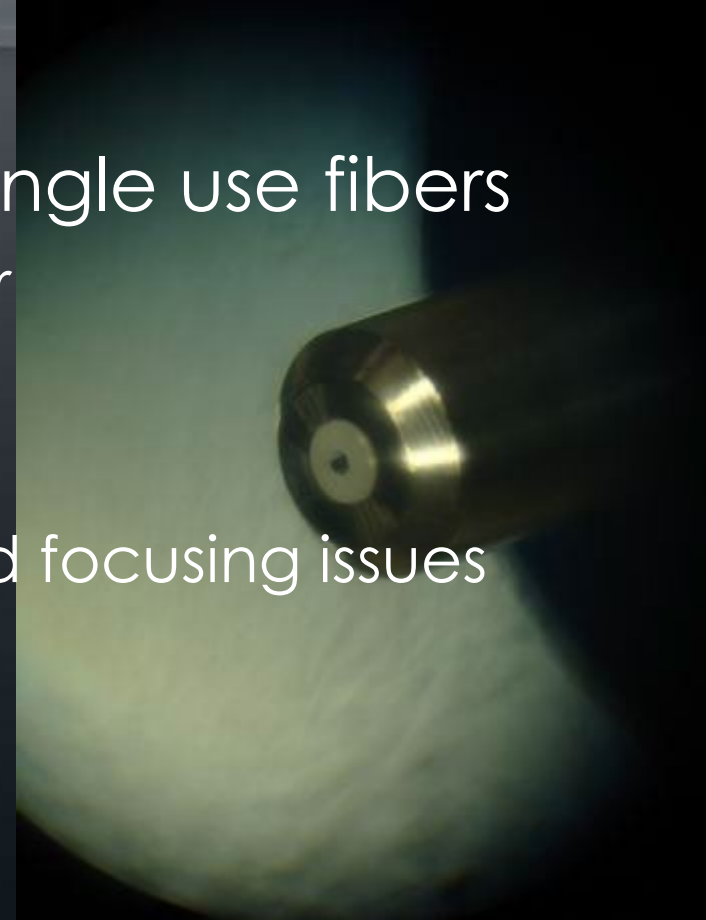
Enhanced Single Use SMA Connector

- High quality custom connector
 - Small size
 - Size and weight appropriate to fiber size
 - Less waste
 - Easy to handle
 - Clean grip design
 - White dust caps – less residue particulate on fiber face
 - Zirconia insert

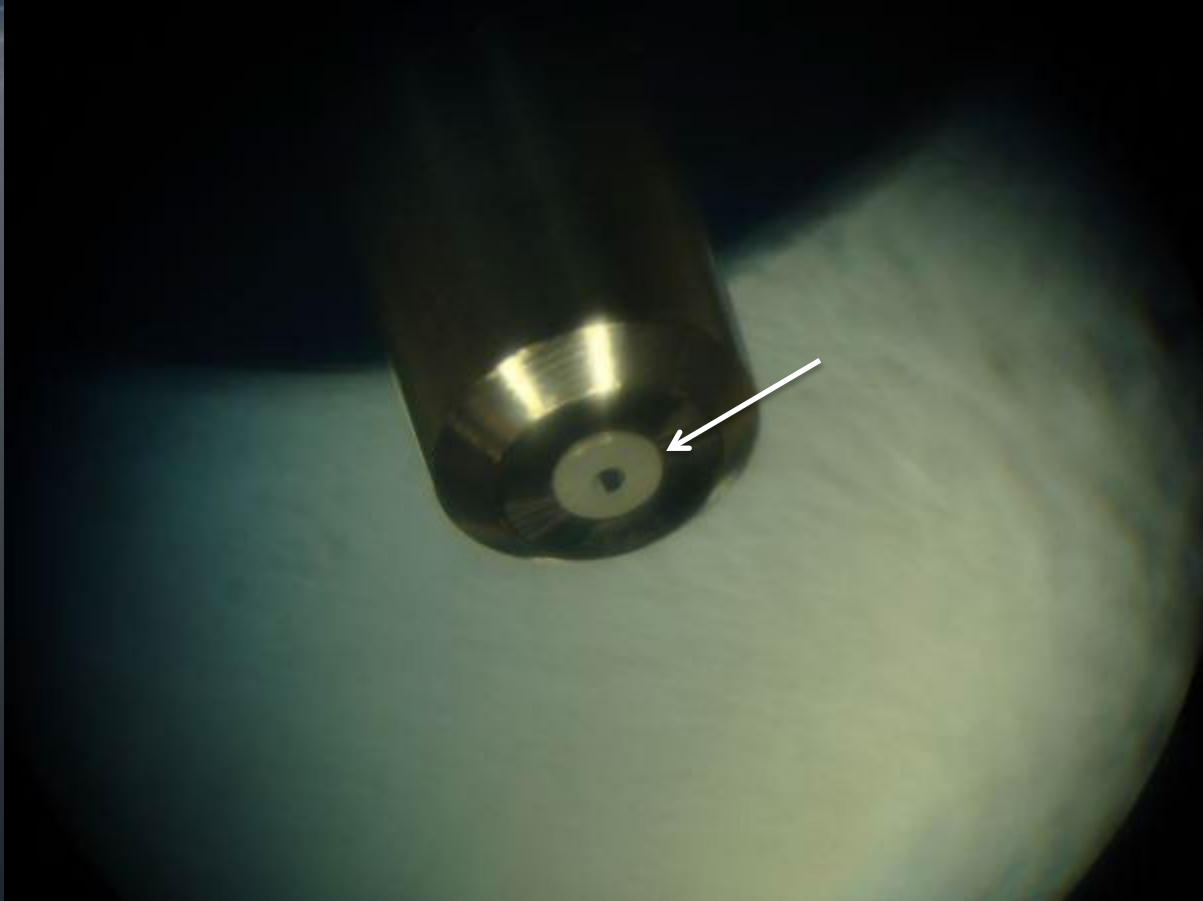


SMA with Zirconia insert

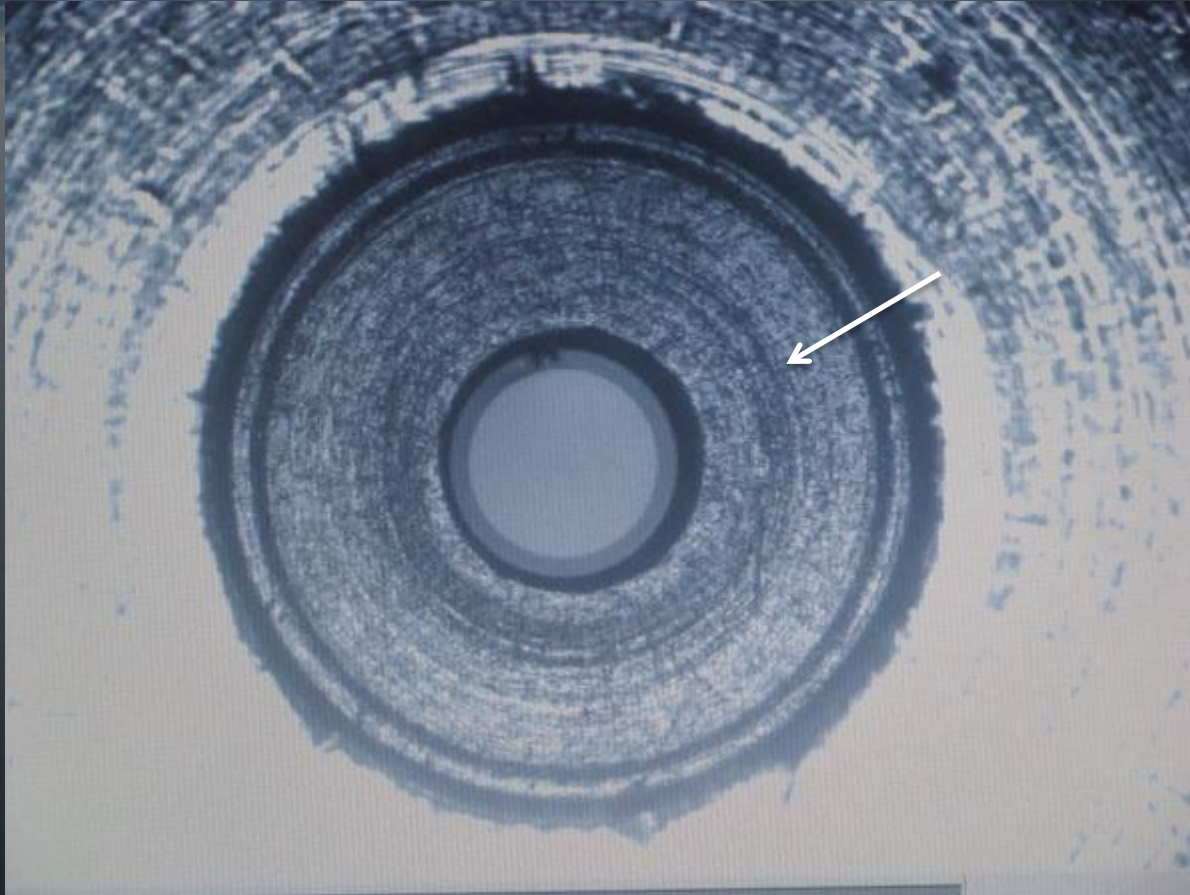
- Zirconia ceramic insert for single use fibers
 - white Ceramic surrounds fiber
 - For 272 and 365
 - Handles high power
 - Handles beam alignment and focusing issues
 - Proven 100% reliability



Zirconia insert



Zirconia insert



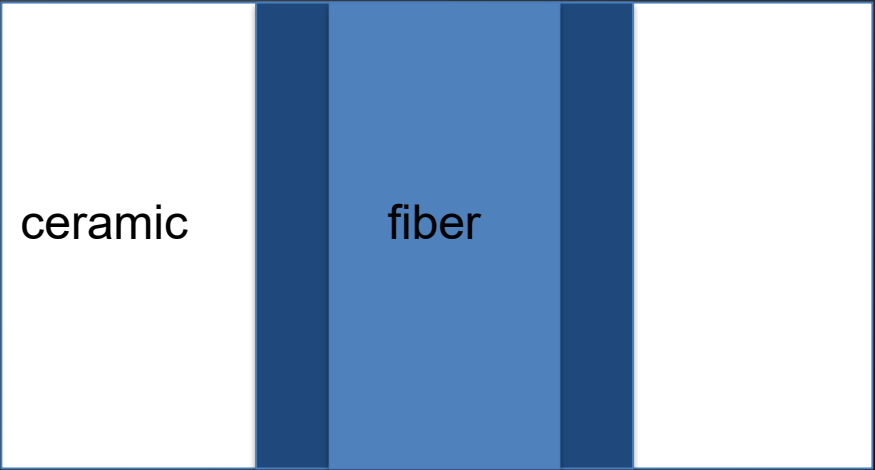
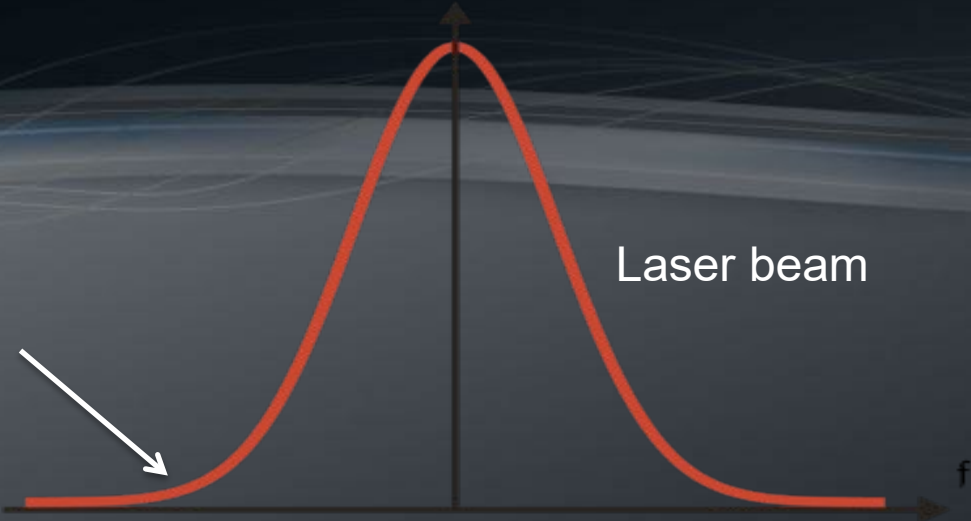
How It Works

- Laser Beam profiles are Gaussian and therefore a percentage of light will surround the fiber
- This excess light will damage adhesives typically used in SMA connectors
- The ceramic surrounding the fiber will handle the excess light without issue

Excess light



Laser beam

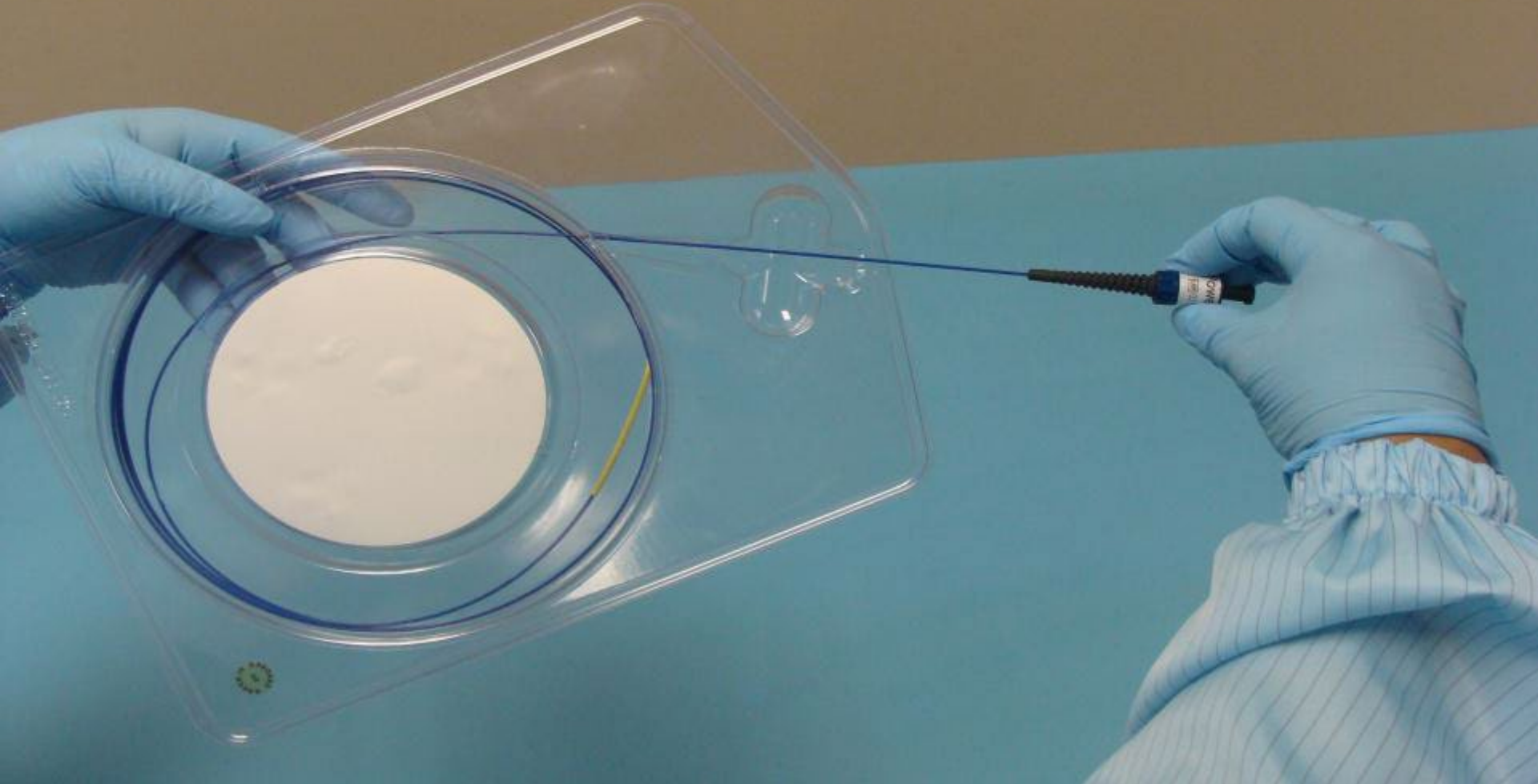


Innovative Package Design



- Patent Pending
- Vacuum Formed Tray – clean - clear
- Easy & safe to unload
- Better protection for the fiber
- No pinch points
- EO Indicator label
- Single Tyvek Pouch – less waste

Fiber is dispensed safely
in a controlled manner



Tip Protector

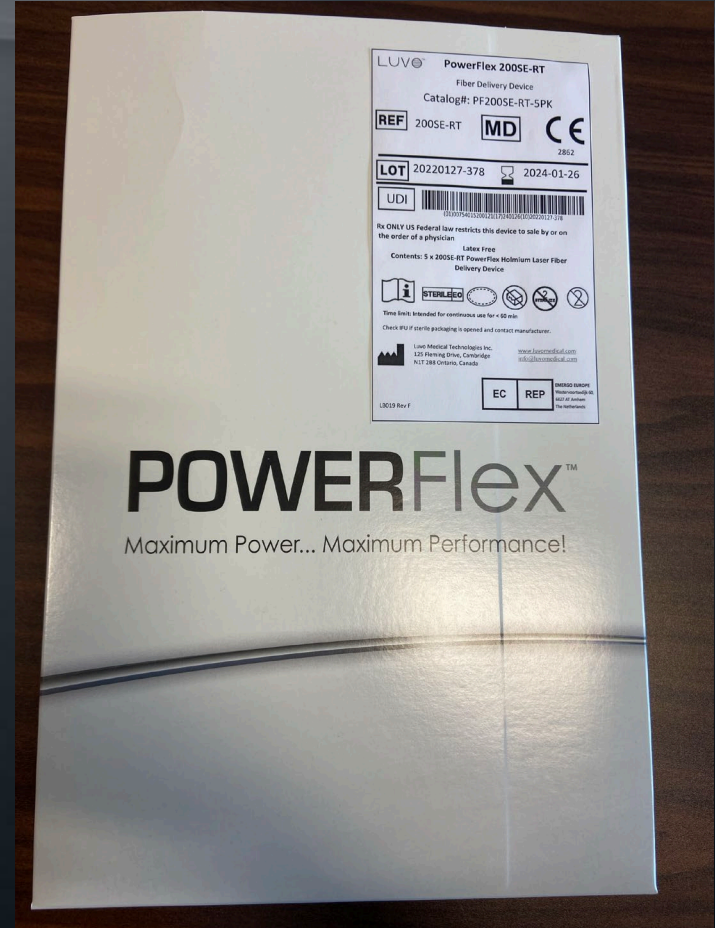
- Yellow tip protector for single use fibers
 - Protects the factory cleaved tip from damage
 - Keeps the tip clean
 - Helps ensure easy dispensing from the tray



Finished Goods



Graphics and Labeling



Single use fibers ordering information

- PF – PowerFlex
- SE – Single use Enhanced
- 5PK – 5 per package
- 1PK – 1 per package
- 272, 365, 550, 1000 – fiber optic core size in microns

Complete list of the various configurations/variants of the device

Name of device	Model Number	Catalog# for box of 1	Catalog# for box of 5
POWERFLEX SINGLE USE FIBER DELIVERY DEVICE	272SE	-	PF272SE-5PK
POWERFLEX SINGLE USE FIBER DELIVERY DEVICE	365SE	-	PF365SE-5PK
POWERFLEX SINGLE USE FIBER DELIVERY DEVICE	550SE	PF550SE-1PK	-
POWERFLEX SINGLE USE FIBER DELIVERY DEVICE	1000SE	PF1000SE-1PK	-
POWERFLEX SINGLE USE FIBER DELIVERY DEVICE	272SE-3MM	-	PF272SE-3MM-5PK
POWERFLEX SINGLE USE FIBER DELIVERY DEVICE	365SE-3MM	-	PF365SE-3MM-5PK
POWERFLEX SINGLE USE FIBER DELIVERY DEVICE	200SE-RT	-	PF200SE-RT-5PK
POWERFLEX SINGLE USE FIBER DELIVERY DEVICE	272SE-RT	-	PF272SE-RT-5PK
POWERFLEX SINGLE USE FIBER DELIVERY DEVICE	365SE-RT	-	PF365SE-RT-5PK

Specifications

Maximum Input Specifications		
Wavelength	For use in saline environment	
2,100nm	Model	Parameter
Maximum	200SE-RT*, 272SE, 272SE-RT, 272SE-3MM	1.5 Joules
Energy	365SE, 365SE-RT, 365SE-3MM	6.0 Joules
Input	550SE	6.0 Joules
	1000SE	6.0 Joules
Maximum	200SE-RT, 272SE, 272SE-RT, 272SE-3MM	45 watts
Power	365SE, 365SE-RT, 365SE-3MM	120 watts
Input	550SE	120 watts
	1000SE	120 watts

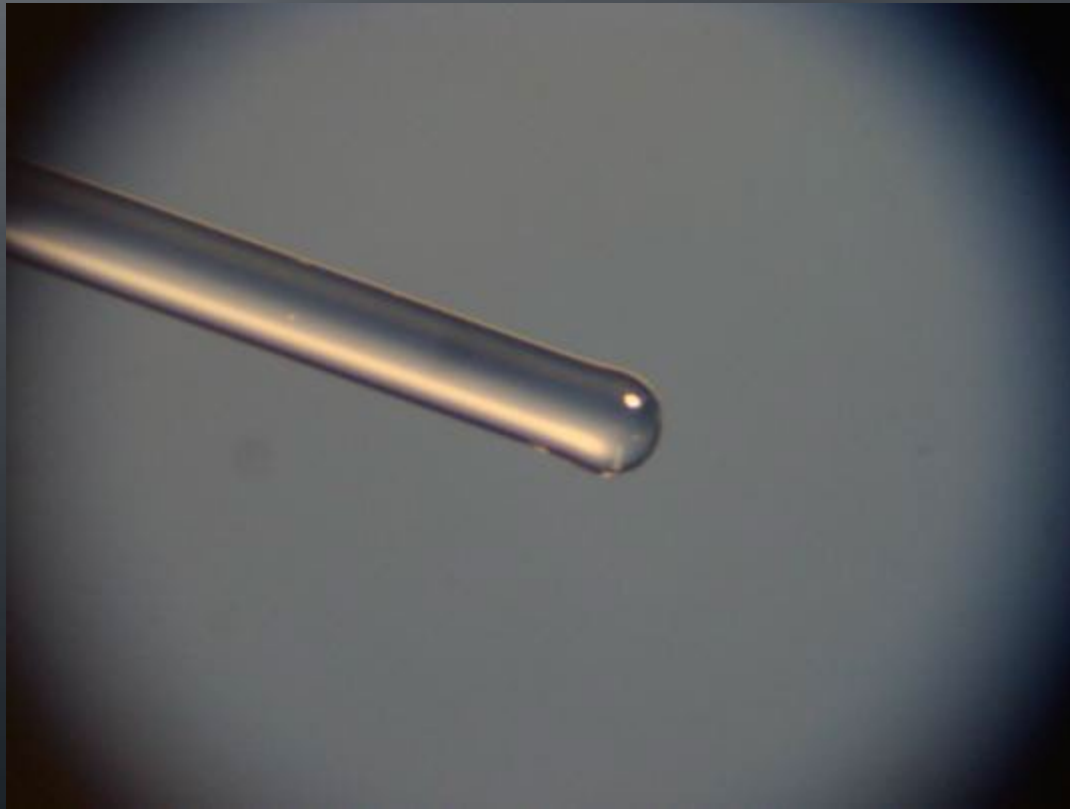
Detailed Optical Fiber Specifications

Fiber Specifications	200SE-RT	272SE	365SE	550SE	1000SE
		272SE-RT	365SE-RT		
		272SE-3MM	365SE-3MM		
Core diameter (um)	242	272	364	545	910
Maximum Outer diameter (um)	450	450	580	780	1450
Total Length (m)	3	3	3	3	3

	Materials
Core	Silica Glass (low OH silica core)
Cladding	Silica Glass
Buffer	UV resin (acrylate fluoride)
Jacket	Tefzel 750 (blue)

Model	Distal Tip Profile	Distal Tip Diameter (um)	Distal Tip Length (mm)
200SE-RT	Ball	415-423	5
272SE	Square	339-373	5
272SE-RT	Round	340-350	5
272SE-3MM	Square	339-373	3
365SE	Square	409-451	5
365SE-RT	Round	410-421	5
365SE-3MM	Square	409-451	3
550SE	Square	599-661	5
1000SE	Square	984-1086	5

New Round Tip Fiber

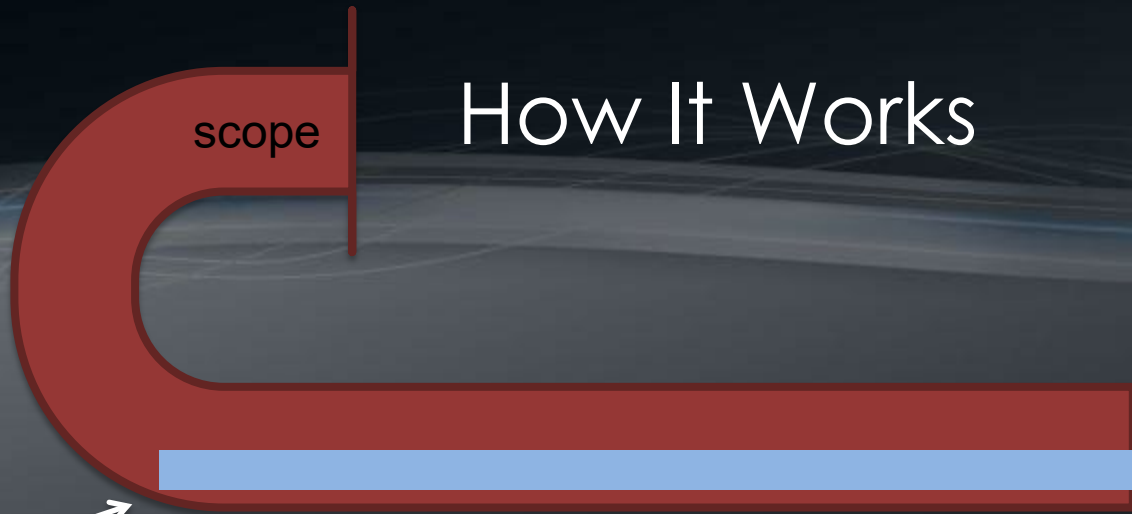


New Round Tip Fiber

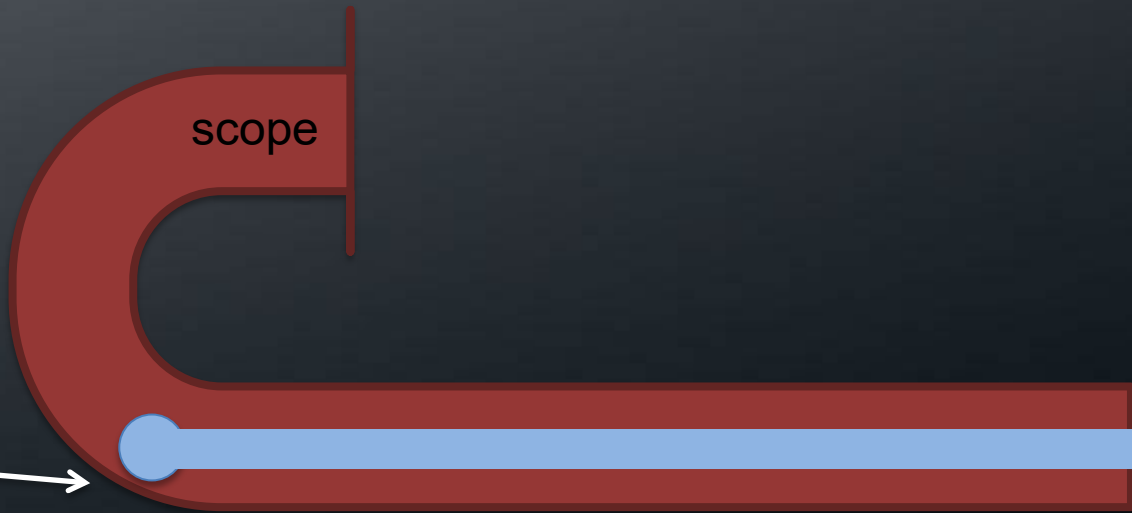
- Advantages

- No sharp cleaved edges to damage the inside of the scope
- Glides freely through the scope, even under tight deflection
- Simplify Procedures in particular when accessing the lower pole

How It Works



Sharp
cleaved
edge



Smooth
round
tip



Catalog number for the new Round Tip fiber - RT

- PF272SE-RT-5PK
- PF365SE-RT-5PK

Approvals

Certified Quality System

- ISO 13485:2016; MDSAP cert:
0097008-02

Health Canada Class 2 Approvals

- Medical Device Licences
- Licence No.: 75802
- Licence No.: 75803

FDA Medical Device Approval

- 510K Approval
- K090281

Europe

- CE Mark Pending for EU MDR
2017/745
- **Certificate Issued:**
- EC certificate number: 41371607-02
- Initial certificate date: 31/01/2018
- Certificate valid from 7/11/2019



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