

ProCleave™ TF

ELECTRONIC FIBER CLEAVER FOR THIN FIBERS



The ProCleave TF is an advanced electronic fiber cleaver developed for thin and reduced-cladding optical fibers with cladding diameters $< 80 \mu\text{m}$. These fibers are increasingly used to enable smaller, lighter, and higher-density photonic systems, such as miniaturized fiber-optic gyroscopes, FOGs, for navigation, and ultra-thin embedded fiber Bragg grating sensors, FBGs, for structural monitoring and advanced medical and industrial sensing.

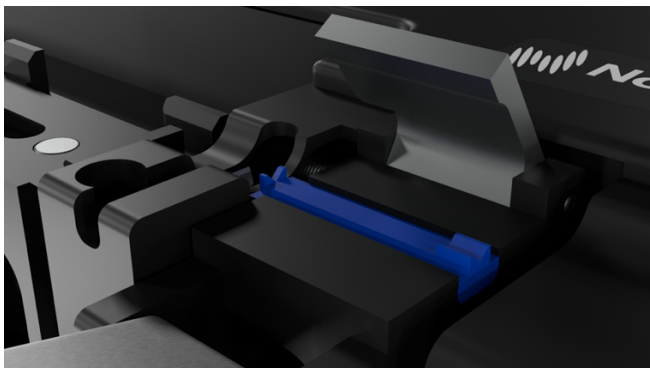
The ProCleave TF utilizes advanced ultrasonic diamond scribe technology to achieve optimal cleave performance and consistency. The precise fiber tension control enables accurate cleaving at very low fiber tension resulting in very flat end faces, low cleave angles (typical $< 1^\circ$) with minimum blade intrusion. The generic clamping mechanism is designed for ease of use and with process speed in mind. It is powered by an external power supply or the built-in rechargeable battery. This makes it ideal for both high-yield production lines and R&D environments.

The ProCleave TF is used together with a fiber holder* from a fusion splicer (adapted for all main splicer brands).

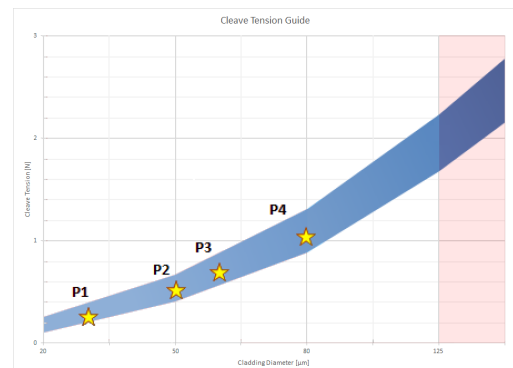
* Fiber holder not included in the delivery kit.

Key Features

- Designed for fiber cladding diameters from 30 to $80 \mu\text{m}$
- Electronic cleave process for optimal cleave quality and repeatability
- Low cleave angles with very flat end faces, typical $< 1^\circ$
- Can be powered with battery or external power supply
- Delivered with platform that support Fujikura, Fitel and 3SAE fiber holders



Generic clamping mechanism of ProCleave TF



Typical cleave tension as a function of cladding diameter

ProCleave™ TF

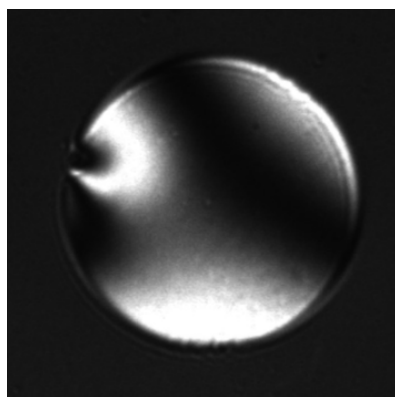
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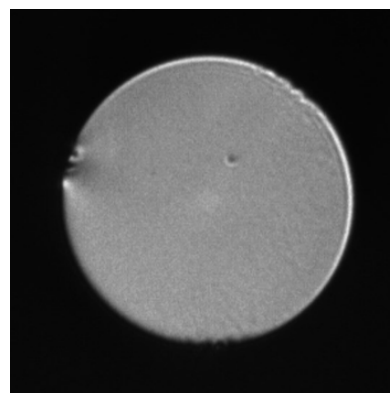
Technical Specifications

Dimensions:	150(W) x 94(D) x 47(H) mm 150(W) x 107(D) x 51(H) mm (incl. lever and rubber feet)
Supported fiber cladding:	30 – 80 µm, with capability up to 125 µm*
Cleave angles:	Typical < 1°
Weight:	0.91 Kg
Power Source:	Built-in rechargeable Li-Ion battery or external power supply (100 - 240 V AC, 50/60 Hz)
Supported fiber coating:	Depending on fiber holder
*Cleaving fibers with cladding diameters near the upper limit may affect cleave results.	

Product	Part #	Qty
NorthLab ProCleave™ TF	CL-03-03000	
Standard Package		
Power Supply + Cord EU/US	CL-90-90005	1
Tool Kit	CL-03-01001	1
USB 2.0 Cable	N/A	1
User's Manual & PC Software (USB-stick)	N/A	1
Optional Components		
Spare Diamond Blade	CL-90-90001	
LD Clamp for fiber cladding ~180 - 250 µm	CL-03-01002	



Interferometer image approx. 0.15 °



Magnified end face

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