

Index-Matching Fluid

The use of Index-Matching Fluid between two optics virtually eliminates the reflection losses associated with the glass-air interface. The fluid may also be used to strip cladding modes from a bare fiber or to terminate fibers by dipping the fiber into the liquid. Unlike silicone-based fluid/gel, which is very difficult to remove completely, Newport's Index-Matching Fluid can be removed simply with acetone. While the liquid will not evaporate, it is designed to be used on a temporary basis. Available in 6 cc syringes.



F-RFS

Specifications and Ordering Information

Model	Viscosity (cps)	Refractive Index
F-IMF-105	100	1.52 @ 589 nm

Kevlar® Shears

Model F-KS Kevlar Shears provide an efficient solution for trimming Kevlar® strength members of fiber optic cables. This durable tool is made of hot-forged, high carbon steel with non-slip serrated blades. Overall length: 6.5 in., full cutting length: 0.625 in.



Specifications and Ordering Information

Model	Description
F-KS	Kevlar Shears

Manual Fiber Cleavers

The Model F-BK2 Fiber Cleaver offers precise endface quality with clean edges and very little angle, free of lips, chips or hackle for better splice performance. The diamond edge provides over 1000 cleaves without replacement.

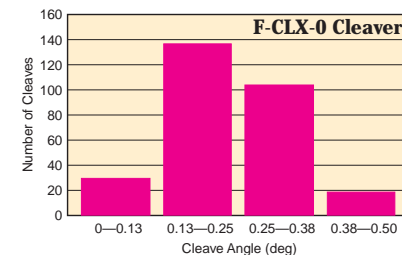
The F-CLX Series rugged fiber cleavers are simple to operate and produce very high quality cleaves. Once the fiber is placed in the V-groove, the patented mechanism clamps, tenses, scribes and cleaves the fiber with a simple downward push of the top lever.

The F-CLX-0-3 perpendicular cleaver provides a typical end angle of 0.25° and has an excellent cleave repeatability. The F-CLX-8-3 angle cleaves fibers to eliminate back reflections with an average angle of 8° and a standard deviation of 0.35°. Both versions offer a minimum cleave length of only 3 mm. Other features include a long-life blade angled to reduce stresses during cleaving and providing up to 20,000 cleaves — and a scale for gauging cleave lengths.

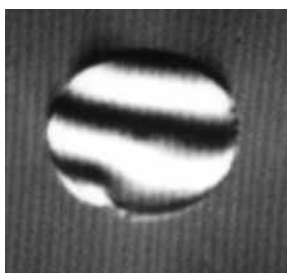
F-RCL Series ribbon cleavers are available for angle cleaving 4-fiber or 8-fiber ribbons for pigtailing to arrays of photonic components. Both models angle cleave all fibers in the ribbon at 8° (0.35° standard deviation) with a cleave length set at 7-10mm.



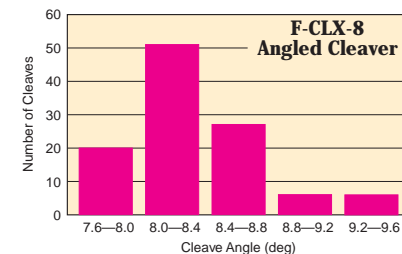
F-CLX-0



F-BK2



A typical F-BK2 cleave is clean, flat and perpendicular.



Specifications and Ordering Information

Model	Description	Fiber Cladding	Cleave End Angles	Cleave Lengths (mm)	Blade Life (cleaves)	Dimensions [in. (mm)]
F-BK2	Precision Fiber Cleaver	125 μm	<1°	>3	>1000	9 (228) x 3 (76) x 6 (152)
F-CLX-0-3	Manual Fiber Cleaver, 0.5 Degree Angle, 125um Fiber, 3mm min. Cleave		<0.5° average; <0.6° for 99% of cleaves		>20,000	2.8 (72) x 2.8 (72) x 3.5 (90)
F-CLX-8-3	Manual Fiber Cleaver, 8.4 Degree Angle, 125um Fiber, 3mm min. Cleave		8° average; 0.35° standard deviation			
F-RCL-8-4F	Manual 4-Fiber Ribbon Cleaver, 8.4 Degree Angle, 10mm min. Cleave	125 μm with ribbon coating		7-10		3 (75) x 3 (75) x 4.3 (110)
F-RCL-8-8F	Manual 8-Fiber Ribbon Cleaver, 8.4 Degree Angle, 10mm min. Cleave					

Mode Scrambler



FM-1

- Repeatedly provides an equilibrium mode distribution
- Simulates kilometer lengths of fiber
- Negligible insertion loss
- Optimized for 50 and 100 μm core, graded-index fibers

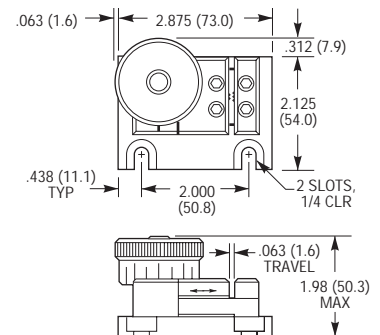
The FM-1 Mode Scrambler produces a stable mode distribution in a fiber and low insertion loss regardless of the light launch conditions. This condition is important when making accurate measurements of properties and losses due to fiber components.

Its precision mechanism gently presses the fiber between specially designed corrugated surfaces to cause microbending of the fiber. This dramatically increases mode coupling among guided modes (known as mode scrambling) and coupling of high-order guided modes to radiation modes (mode filtering). The distribution of power among the modes is then independent of the launch conditions of the light, simulating the distribution achieved after the light has traveled through several kilometers of fiber.

The fiber is placed in an easily accessible slot. A knob controls the pressure applied to the fiber until the desired output distribution is achieved. Tests have shown that losses introduced are negligible regardless of launch condition. A graduated scale assures that the fiber may be removed and replaced and the pressure reset with high repeatability.

Ordering Information

Model	Description
FM-1	Mode Scrambler



POLARIZATION MEASUREMENT AND CONTROL

LASER DIODE CONTROL

LASER DIODE MOUNTS

FIBER OPTIC COMPONENTS

OPTICAL FIBERS AND ACCESSORIES

EDUCATIONAL KITS