

Electronic Fiber Cleaver EFC 11-4



- *Electronically tuned ultrasonic blade*
- *For multi-mode and single-mode fiber*
- *End angle consistently $< 1^\circ$*
- *For laboratory and field use*
- *Easy to handle*

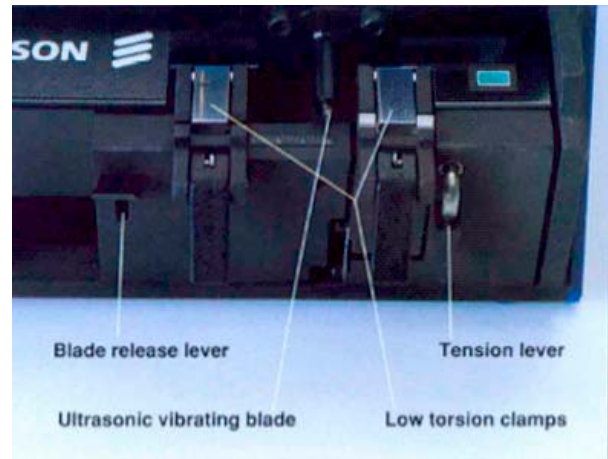
The most revolutionary aspect of the EFC 11-4 is the ultrasonic cleaving action. A precision diamond blade is attached to a resonant acoustic-stepped horn. The ultrasonic horn resonance is started and maintained for the duration of the cleave by an electronic circuit. It is then automatically terminated to preserve battery life.

The ultrasonically vibrating blade moves slowly towards the tensioned fiber on stiction-less damped bearings. Cleaving takes place without the compressive stresses and blade intrusion into the fiber that is typical of conventional cleavers. This revolutionary new cleaving technique produces superb planar ends of mirror quality with no hackle.

Operation

A stripped and cleaned fiber is placed in the grooves of the cleaver and is held by specially designed low-tension clamps. Constant tension is then applied to the fiber by lowering the tension lever. Cleaving is initiated by pushing the blade release lever downwards. The design allows cleaving to take place as close to the coating as may be required.

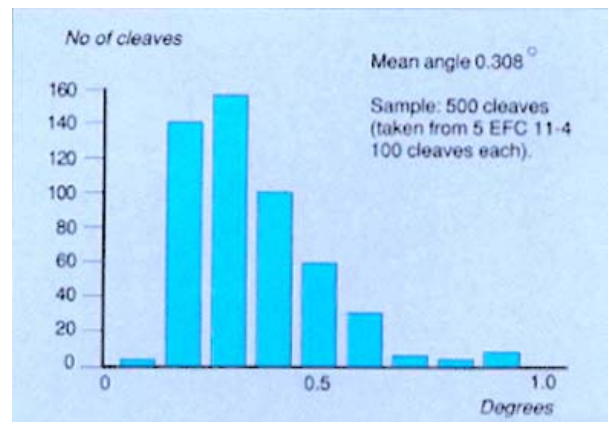
The EFC 11-4 fiber cleaver has been designed to provide trouble-free cleaving over many thousands of cleaves. This design does not require constant adjustment to stay "in tune". In the event of accidental damage to part of the diamond edge, the operator can adjust the blade to bring a new part of the cutting edge into use.



Performance

Ericsson has tested five different EFC 11-4 cleavers, performing more than 500 cleaves in all (100 splices per cleaver).

The test showed that most of the cleaves had a mean angle of 0-0.5 degrees, indicating superior cleaving results with the EFC 11-4. This ability to cleave optical fiber with end angles consistently less than 1° is a necessity for a good splicing result.



Technical Data

Battery: 9V alkaline (MN 1604) recommended

Battery life: 10,000 cleaves

Estimated blade life: >20,000 cleaves

Fiber diameter: 80-200 μm

Weight: 1.2 kg (2,6 lb)

Size: 150 x 150 x 68 mm (6" x 6" x 2 2/3")