A stable, repeatable mode distribution is important when making accurate measurements of fiber properties and of losses due to components such as connectors and splices. The FM-1 Mode Scrambler produces a stable mode distribution in a fiber regardless of the light launch conditions, without the need for kilometers of intervening fiber and with low insertion loss.

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, repeatedly simulating the distribution achieved after the light has traveled through several kilometers of fiber.

The FM-1 is easy to use. 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.

### Universal Cable Clamp

Model F-CC Cable Clamp is a convenient, general-purpose device that securely holds fiber cables and provides strain relief. The fiber can be clamped in place in either of two V-grooves. The two clamping bars can mount on an SP Series Support Post (see page 726) at any convenient height. They lock in place with a knurled thumbscrew.

For direct mounting to tables, positioners and post holders, a stub post with a threaded stud is also provided. The stub post can also be used to hold a cable in the outer V-groove when the clamp is post-mounted.

The V-groove arrangement makes this clamp useful as a laboratory holder for small cylindrical optical elements as well as optical and electrical cables.