

Rotating Beam Fatigue Tester



Blockwise Engineering, LLC
<http://www.blockwise.com>

The Blockwise Rotating Beam Fatigue Tester Model FTX is used to test wires or small stents to failure by rotating the ends of the specimen while it is bent through 180 degrees, causing a one-per-revolution bending stress in the specimen. Unlike competitive machines, the wire is driven from both ends, so there's no question about torque in the wire.

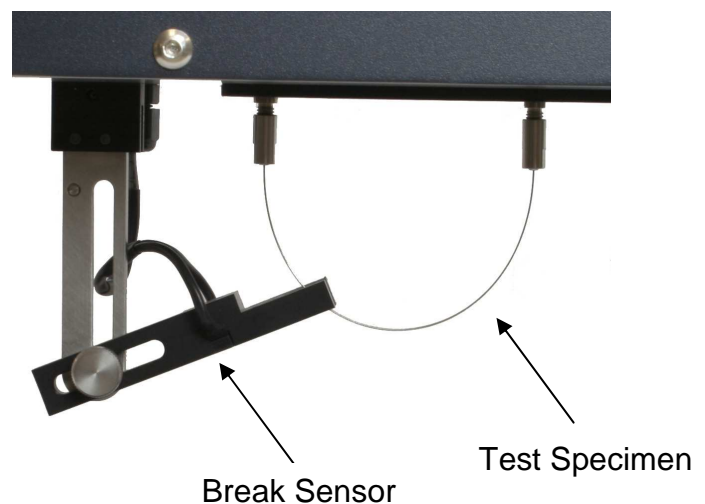
The machine has an integrated controller that shows the cycle count, test RPM, rotation direction, and the distance between the chucks. An electronic breakage sensor automatically stops the motors when the specimen breaks and displays a message for the user. The unique v-groove breakage sensor can easily be set up in just a few seconds.

When testing wires, the stress depends on the wire diameter, the length of wire between the chucks, and the spacing of the chucks. (We can provide references to help calculate the stress.) The chuck spacing can be set in seconds by entering the desired distance into the intuitive interface. The chuck will automatically move into position. Unlike competitive machines, there are no belts to readjust when changing the spacing.

Typically, the specimen is submerged in body-temperature water during the test. An optional temperature-controlled water bath is available.

Rotation speed and direction are also adjusted on the LCD interface.

A high-speed model is available for extremely quick test times.





Rotary Fatigue Tester with Optional
Temperature-Controlled Water Bath

Specifications:

Drive Type	Direct drive high-speed servo-motors
Wire Diameter Capacity if Fitted with Blockwise Microchucks	0.005 inch to 0.035 inch
Shaft Speed (Standard Model)	1 to 10000 RPM
Shaft Speed (High-Speed Model)	1 to 37000 RPM
Shaft Direction	User Selectable
Shaft Spacing Adjustment Range	0.8 inch to 5.5 inch
Shaft Spacing Accuracy	±0.001 inch
Service Connections	110 to 240 VAC, 1.4 A electric power



Model FWE Ten-Station Fatigue Tester Array with Common Temperature-Controlled Water Bath