

Kershaw Instrumentation LLC

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UNWIND TESTER, MODEL UT-60

INTRODUCTION:

The Model UT-60 Unwind tester has been an industry standard for testing the unwind tension in adhesive tapes for more than 30 years. The tester is designed to unwind adhesive tapes from a roll and record the tension required to pull the tape off of the roll. The instrument can accommodate a wide variety of widths and diameters, and can operate over a wide speed range.

PRINCIPLE:

The tester features an unwind mandrel to accommodate the test roll, a sensing roll which measures the unwind force, two drive rollers which pull the tape from the test roll, and a wind up roll to roll up the tape as its pulled off the test roller. The wind-up roller is driven by a magnetically coupled clutch, which attempts to run faster than the drive rollers, thus taking up the slack in the sample. The speed of the drive rollers and the torque exerted by the windup roller are adjustable to accommodate the characteristics of the test sample.

A six-position tape width selector switch is provided on the instrument cabinet, which allows the operator to scale the tension display as if the sample was one inch wide. All six positions on the tape width selector switch can be calibrated to accommodate the widths of your standard products.

OPERATION:

The operator slides the sample tape roll over the unwind mandrel and pulls off enough tape to thread the machine. Next the tape is pulled under the sensing roller and over the drive rollers and finally attached to the wind-up roller. Next the operator selects the proper speed, torque and tape width to accommodate the test sample. Next the operator presses the start button to begin the test. Four digital readouts indicate the speed, tension, length of sample and torque present during the test.

OPTIONAL RECORDING DEVICES:

An analog output proportional to the tension is provided on the instrument to accommodate the use of a strip chart recorder. The strip chart recorder will provide a continuous graphic printout of the tension as the tape is being pulled from the roll.

An optional computer interface provides the UT-60 with a data link to a standard PC. With the software provided, the operator can generate real-time graphs of the tension, which can be printed or stored in data files. These graphs can be recalled later and overlaid on other tests for comparison.

SPECIFICATION:

Size: Approx. 36 inches long x 30 inches wide x 16 inches high

Power: 115 VAC line power

Unwind mandrel: Standard diameters for 1 inch and 3-inch tape cores.

Other sizes upon request

Tension: 0 to 160 ounces

Tape Width: $\frac{1}{4}$ - 4.0 inches

Speed: 0 - 200 inches per minute.

