

Horizontal Tensile Machine



Figure: Tensile tester with integrated wet basket for tissue samples

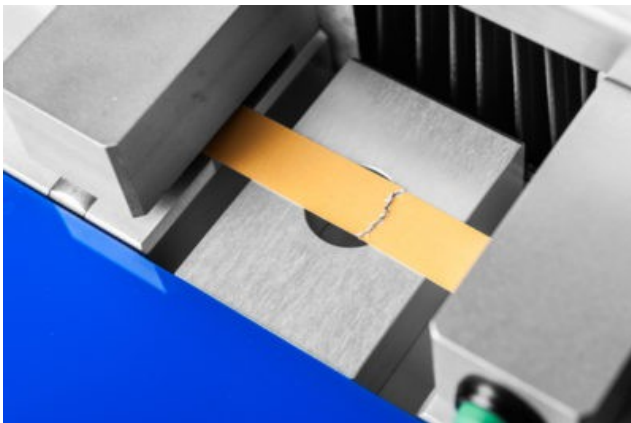


Figure: Water bath for wet tensile measurements. Measurements for up to 50 mm wide stripes possible. The tensile test ranges from 50 mm to 180 mm distance between the clamps.



Display of the tensile tester with two separate buttons for Start and Stop.

Usage

For the determination of tensile resistance in dry or wet state, elongation and tensile energy absorption (TEA) in paper or tissue.

Applicable Standards

ISO 1924-2, UNE-EN ISO12625-4/5, TAPPI T456, T494, PAPTAC D34, BS4415/2, etc.

Device description

This device is delivered with a built-in touch screen and controlled by an industrial computer. All parts are built into a sturdy frame. Measuring range up to 1000N with an accuracy of $\pm 1\%$ of the displayed value. Automatic test cycle with break detection and after break automatic return to starting position. Easy to select test on the display.

Test description

The user chooses the test to be performed on the touch screen. The clamps automatically drive into position. Now the sample support is placed into the space between the clamps and the sample is placed. The sample is automatically detected and the clamps close. According to the test the sample is either watered for the pre-set time, pulled out of the water and stretched till it breaks or it is directly stretched. The figures, curves, statistics with max, min, mean as well as the standard deviation are shown on the touch screen and can be printed. The clamps automatically open and return into start position after testing.

The software comes with the pre-installed tests as they are described in the standards. Company specific tests can be set as well. All the parameters like testing speed, testing length, breaking- and pre-load levels can be adjusted individually. The software can be set into different languages.

Specifications

- Easy to operate due to touchscreen controls
- Automatic sample detection and automatic return into initial position
- Test speed adjustable between 0.2 and 330 mm/sec
Multiple safety installations (limit switch, photocell barrier, emergency switch)
- RS 232 and USB interface
- Water or standard tensile tests
- Regular software updates
- Accuracy: < 1% of the applied force (between 2% and 100% of the FS)
- Resolution: Force: 0.0004% of the FS, Travel: ± 0.01 mm

Load cell and options

- Load Cells: 150.00 or 1000 N
- Calibration kit
- Display (service menu) and some graphs on another menu
Water bath for wet tensile measurements. 50 mm wide stripes can be measured. 50 mm up to 180 mm distance between the clamps selectable
- Clamps can be used for 15 mm, 25 mm or 50 mm wide samples

Connections

Electricity: 230 V, 50 Hz AC

Air: 600 kPa

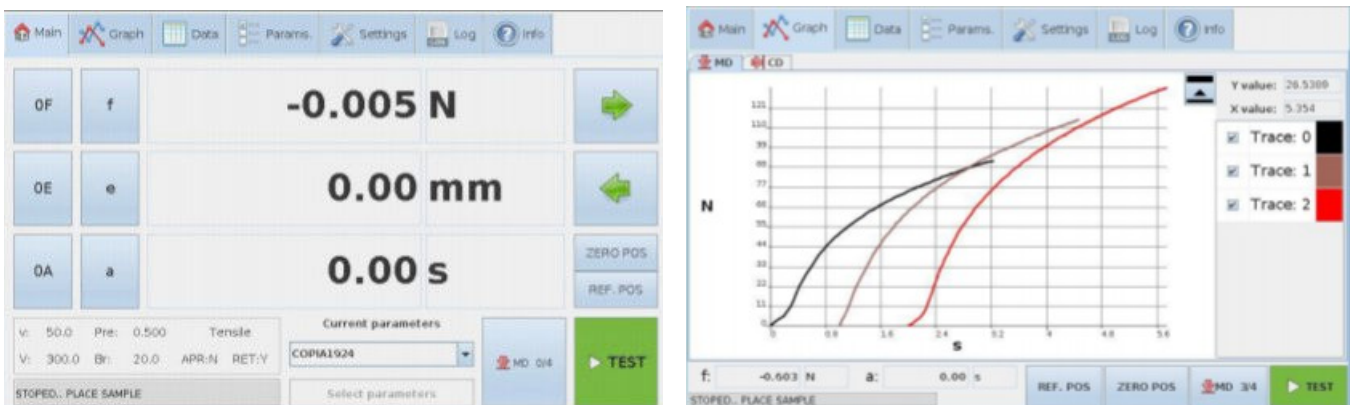


Figure: With the device it is possible to preset tests, configure the test parameters, save test results, graphical curves, generate test reports, etc.