

TESTING INSTRUMENTS FOR QUALITY CONTROL 



FX 3000 HydroTester IV

Automatic Hydrostatic Head Tester

TEXTTEST
INSTRUMENTS

FX 3000 HydroTester IV with many benefits

The fourth generation of the Hydrostatic Head Tester convinces by its versatility, its user-friendliness and its wide measuring range. The instrument measures in compliance with AATCC 127, ASTM F 1670, BS 2823, DIN 53886, EN 1734, EN 20811, FZ/T 01004, GB/T 4744, GB 19082, ISO 811, JIS L 1092 A, JIS L 1092 B-a+b, WSP 80.6 and many other national and international test standards.



FX 3000 HydroTester IV
with Automatic Drop Detector

Benefit thanks to a wide measuring range

The FX 3000 HydroTester IV allows measurements up to 7 bar (70 m water column). Different models with different pressure maximums meet every customer requirement.

Benefit thanks to high accuracy

High-precision pressure sensors provide not only for highly accurate results, but also for precise and stable pressure gradients, even in the lower pressure ranges.

Benefit thanks to Automatic Drop Detector

The optional Automatic Drop Detector eliminates the need for an operator to observe the sample and to manually terminate the test. When the preset number of water drops has penetrated the sample, the test is automatically stopped and the result is displayed.

Benefit thanks to Automatic Level Control

The optional Automatic Level Control fills the water tank and compensates for any water loss in between two measurements – reliably and at the push of a button.





Touch display for operation of the instrument

Benefit thanks to a high clamping force

A manual clamping mechanism, depending on the model supported by a pneumatic cylinder, provides an even clamping force and effectively prevents lateral water leakage.

Benefit thanks to evaluation and printing options

The instrument can be connected to a network by ethernet cable or Wi-Fi. With the optional evaluation module, test reports in PDF or XML formats can then be downloaded from the instrument's web server. Alternatively, an integrated strip printer is available.

Image from the Automatic Drop Detector with three drops



BENEFITS AT A GLANCE 

- Wide measuring range
- High accuracy
- Automatic Drop Detector
- Automatic Level Control
- High clamping force
- Evaluation and printing options

Hydrostatic Pressure Test

Basic data

Style: 4711
 Reference:
 Date: 29.01.2019
 Time: 11:58:56
 Instrument: FX 3000-4H
 Serial Number: 100

Settings

Program name: DYNAMIC TEST 60 mbar-min
 Program number: 1
 Program part 1: Dynamic test 60.0 mbar/min End of Test
 Stop criterion: 3rd drop
 Test area: 100 cm²
 Nom / Min / Max: 4500 / 4050 / 4950 mbar
 Unit: mbar

Statistical analysis

| | 1 st drop | 3 rd drop |
|----------|----------------------|----------------------|
| Average: | 4413 mbar | 4498 mbar |
| Minimum: | 4309 mbar | 4403 mbar |
| Maximum: | 4507 mbar | 4573 mbar |
| CV: | 2.3 % | 1.9 % |

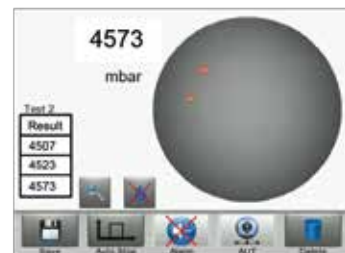
Test result

| | 1 st drop | 3 rd drop |
|----|----------------------|----------------------|
| 1: | 4309 mbar | 4403 mbar |
| 2: | 4507 mbar | 4573 mbar |
| 3: | 4424 mbar | 4518 mbar |

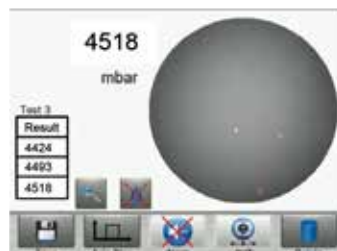
Test 1



Test 2



Test 3



Test report generated with FX 3300-IV EVA

Technical Specifications FX 3000 HydroTester IV

| | |
|------------------------------------|---|
| Measuring range: | <ul style="list-style-type: none"> ■ Model FX 3000-4L-PUM: 0 ... 500 mbar (5 m water column) ■ Model FX 3000-4M: 0 ... 2,000 mbar (20 m water column) ■ Model FX 3000-4H: 0 ... 5,000 mbar (50 m water column) ■ Model FX 3000-4H+: 0 ... 7,000 mbar (70 m water column) |
| Dynamic Test Method: | <ul style="list-style-type: none"> ■ Model FX 3000-4L-PUM: Pressure gradient: 1 ... 500 mbar/min ■ Models FX 3000-4M and -4H: Pressure gradient: 1 ... 1,000 mbar/min ■ Model FX 3000-4H+: Pressure gradient: 10 ... 4,000 mbar/min |
| Static Test Method: | <ul style="list-style-type: none"> ■ Models FX 3000-4L-PUM, -4M and -4H: Test pressure: 10 mbar ... max. test pressure, depending on model ■ Model FX 3000-4H+: Test pressure: 100 mbar ... 7,000 mbar |
| Program Test Method: | Freely programmable time-pressure-sequences |
| Measuring accuracy: | ± 0.5 % of the displayed value ± 1 mbar |
| Unit of measure for test pressure: | mbar, bar, mm w.c., cm w.c., m w.c., kPa, psi |
| Test area: | 100 cm ² (10 cm ² , 26 cm ² and 28 cm ² as options) |
| Sample thickness: | 0 ... 5 mm |
| Clamping force: | <ul style="list-style-type: none"> ■ Model FX 3000-4L-PUM: Approx. 2,000 N (manual) ■ Model FX 3000-4M: Max. 8,000 N (manual, supported by pneumatic cylinder) ■ Model FX 3000-4H: Max. 20,000 N (manual, supported by pneumatic cylinder) ■ Model FX 3000-4H+: Max. 25,000 N (manual, supported by pneumatic cylinder) |
| Data ports: | USB 2/3, Ethernet and Wi-Fi as options |
| User interface: | Touch display |
| Power requirements: | 90 ... 240 V, 50 ... 60 Hz, 200 W |
| Compressed air requirements: | <ul style="list-style-type: none"> ■ Model FX 3000-4L-PUM: No compressed air required, internal pump ■ Model FX 3000-4M: 4 ... 8 bar, clean and dry, approx. 5 NI / test cycle ■ Model FX 3000-4H: 6 ... 8 bar, clean and dry, approx. 10 NI / test cycle ■ Model FX 3000-4H+: 10 ... 15 bar, clean and dry, approx. 10 NI / test cycle |
| Dimensions (w x d x h): | 40 x 65 x 71 cm |
| Weight: | Approx. 70 kg |

The scope of supply includes an ISO conform calibration certificate, a hand switch, a drain hose and a skimmer.

Subject to change

Accessories

| | |
|-------------------------|--|
| FX 3000-IV AUT | Automatic Drop Detector |
| FX 3000-IV ALC | Automatic Level Control |
| FX 3000-IV 10, -26, -28 | 10 cm ² , 26 cm ² and 28 cm ² test heads |
| FX 3000-903 | Penetration cell according to ASTM F 1670 |
| FX 3000-NWH, -NWE, -NWZ | Protective sleeves 100 cm ² , 26/28 cm ² and 10 cm ² for fine nonwovens |
| FX 3000-IV EVA | Evaluation module for downloading of test reports |
| FX 3000-IV STP | Integrated Strip Printer for printing of a basic test protocol |
| FX 3000-IV PRI | Combination of FX 3000-IV EVA and -STP |
| FX 3000-IV WLN 2 | Wi-Fi module for connecting the instrument to the network via Wi-Fi. |

