

# Hydrostatic Head Tester

TEST INSTRUMENT



# Hydrostatic Head Tester

INNOVATIVE INSTRUMENT

hydrostatic pressure ,  $n$  — the force distributed over an area exerted by water

From active wear to technical textiles, water repellency is a critical feature of many of today's high-performance fabrics. Satisfying the demands of consumers and producers requires ways to accurately and repeatably test material water repellency. SDL Atlas offers the most versatile, accurate and reliable hydrostatic tester on the market, allowing manufacturers to control production processes and validate their performance claims.

M018

## Hydrostatic Head Tester

The SDL Hydrostatic Head Tester measures the resistance of a fabric (yarn, weave and finish) to penetration by water under hydrostatic pressure. Its electronic sensor applies controlled static or dynamic (increasing) force until 3 points of leakage occur. After a minimum of three specimens are tested, the tester measures and calculates average maximum hydrostatic pressure in mBars or cmH<sub>2</sub>O and rates the fabric. Results are displayed on screen and can be collected and reported on your PC using SDL's automatic analysis software (included). The M018 Model offers compact and solid design, a clamping device that will accommodate thicker samples, a pressure system that delivers three bars of pressure compared to the standard maximum of two, automatic refill of test solution, large, brightly lit LED display, and a pressure point alarm.



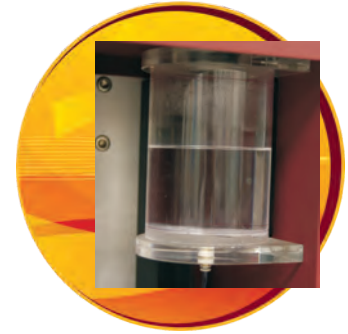


## ONE Greater Capacity

The Hydrostatic Head Tester screw clamping mechanism adjusts to securely hold test specimens up to 30mm thick at a maximum pressure range of 3 bar (3000cm H<sub>2</sub>O).

## TWO Automatic Refill

An automatic 1.5L water reservoir supplies test water to the instrument head. This feature automatically refills the head between tests to improve the operator's testing efficiency.



## THREE Audible Alarm

The Hydrostatic Head Tester's pressure point audible/visual alarm alerts an operator when a test is near completion, shortening direct observation time by up to 80%.

## FOUR Electronic Pressure Sensor

A high-stability, precision electronic sensor ensures accurate conditions throughout the test to provide maximum reliability in meeting the test standard chosen.



## FIVE Easy-View Test Head

The open framework and secure clamping mechanism of the Hydrostatic Head Tester reduces possible edge leakage that may occur in other clamp designs while still offering the operator a clear view of the specimen surface which is brightly illuminated under a bank of LEDs. The 100 cm<sup>2</sup> head performs a host of typical tests and comes standard with the M018 Hydrostatic Head Tester. 10cm<sup>2</sup>, 19.63cm<sup>2</sup>, 26cm<sup>2</sup> and 28cm<sup>2</sup> heads are also available.



# THE M018 HYDROSTATIC HEAD TESTER

## STANDARD CONFIGURATION

M018 – Hydrostatic Head Tester  
 M018/100 – 100cm<sup>2</sup> Test Head (included)  
 One 9 PIN RS232 Data Cable for computer  
 Two Tubes For Draining  
 Fuse (5F,2.5A,250v)  
 CD for Analysis Software  
 CD for Instruction Manual and Power Cable

## OPTIONAL ACCESSORIES

M018/100 100 cm<sup>2</sup> Test Head  
 M018/019 28 cm<sup>2</sup> Test Head  
 M018/026 26 cm<sup>2</sup> Test Head  
 M018/028 19.63 cm<sup>2</sup> Test Head  
 M018/010 10 cm<sup>2</sup> Test Head  
 M018A Pore Size Test Head

## SPECIFICATIONS

Test Mode	Dynamic or Static
Penetration Pressure	0–3,000 mbar/cmH <sub>2</sub> O
Pressure Gradient (Step 1 ) (Step 50 )	Digital Control 1–100 mbar/min, cmH <sub>2</sub> O 150–500 mbar/min, cmH <sub>2</sub> O
Test Area	100 cm <sup>2</sup> (standard), 10cm <sup>2</sup> , 19.63cm <sup>2</sup> , 26cm <sup>2</sup> , 28cm <sup>2</sup> (optional)
Sample Thickness	Max 30mm
Sample Clamping	Screw Clamp
Water Reservoir	1.5 liters, auto-refill
Data Output	RS232 connect to PC
Electric	220V/50Hz or 110V/60Hz
Dimensions	48 x 54 x 60 cm (W x D x H)
Net Weight	70 kg
Air Supply	Max.8 bar

## DYNAMIC TEST METHOD

Pressure Accuracy	±0.5% of displayed value ±1mbar/cmH <sub>2</sub> O
Selectable Pressure Unit	mbar/cmH <sub>2</sub> O
Alarm Pressure	1-3,000 mbar/cmH <sub>2</sub> O

## STATIC TEST METHOD

Penetration time	1 min - 99 hours 59 min
Readability	1 minute
Alarm Time	0 5,999 min

TESTING STANDARD	TESTING DEVICE		PARTS/ACCESSORIES		
	M018-HHT Hydrostatic Tester 220V/110V	M018/100 Interchangeable Head 100CM <sup>2</sup>	M018/019 Interchangeable Head 19.63CM <sup>2</sup>	M018/028 Interchangeable Head 28CM <sup>2</sup>	
AATCC 127	●	●			
BS 2823	●	●			
*BS 3424–26 29A	●	●			
BS EN 20811	●	●			
ISO 811	●	●			
EN 1734	●	●			
*BS 3424–26 29C	●		●		
JIS L 1092A	●	●			
DIN 53886	●	●			
INDA IST 80.4	●	●			
NF G07–057	●	●			
EDANA 120.2–05	●				●

\*remarks the method is for dynamic testing.

# TOTAL CONSUMABLES SOLUTIONS

## The Complete Source for Textile Testing Consumables

Today, standardized consumable materials play a critical role in many textile testing applications. Whether you need fabric, detergent or custom-prepared testing material, you can rely on the SDL Atlas testing and consumables divisions to provide a single source solution. Beyond consumables fulfillment, we offer technical expertise to help make your testing efficient, precise and compliant.



- ⌘ Textile Innovators consumables including: multi-fiber, laundering, crockmeter accessories, bulk testing fabrics and wash ballast
- ⌘ SDC consumables including: multi-fiber fabrics, detergents and rating and grading scales
- ⌘ AATCC consumables including: multi-fiber fabrics, detergents and rating and grading scales
- ⌘ WFK consumables including: soil fabrics, detergents and laundry testing
- ⌘ SDL Atlas consumables including: Martindale testing accessories and cork liners



Our extensive inventory of consumables meet all of the accepted test methods and standards so a lab can be assured of a high quality and steady supply of all the consumables they need from a globally recognized source. We assure consistency by archiving every tested sample Logging and documenting every lot.

### Testing and Calibration

Every SDL Atlas product is subjected to complete testing and calibration to ensure highest possible performance and full compliance to international standards. In addition, UKAS accredited calibration services are available from the SDL Atlas TecNet, our technical solutions team. With accredited service engineers in three continents, we offer the best service available in the market. TecNet operates a working laboratory, offers presale product demonstrations and participates in standards development.



## RELATED TEST PRODUCTS

Complete support: products, installation, consumables, training, and service

SDL Atlas offers a full line of laboratory testing equipment, products and consumables, backed by the support of a cross disciplined team of textile technologists, hardware and software engineers, mechanical and instrumentation engineers, calibration experts and installation and maintenance technicians.



### Sweating Guarded Hotplate

The Sweating Guarded Hotplate measures thermal and water vapour resistance, simulating the heat and mass transfer processes of human skin. The specimen to be tested is placed on an electronically heated porous plate with conditioned air ducted to flow across and parallel to its upper surface. Housed in a conditioned cabinet, the instrument operates with user-friendly Windows software and prints out standard test reports. This test conforms to ISO 11092 standards.

### Moisture Management Tester (MMT)

Beyond traditional absorbency and wicking evaluations, SDL's Moisture Management Tester (MMT) dynamically measures moisture transfer across knit and woven apparel materials. The instrument calculates the moisture absorbing rate of a fabric's inner and outer surfaces, one-way transportation capability from inner to outer surface and the moisture spreading rate.



### Air Permeability Tester

The SDL Atlas Air Permeability Tester offers unmatched ease of use, efficiency, and reliability for air permeability tests. It automatically measures the flow of air through a given area of a fabric (set by a selected standard orifice) at a given pressure drop over this test area during the time called out by the accepted standard. Exclusive features include automatic detection of the test head size and an automatic ranging system that eliminates the need for a pretest to discover and then set the instrument range. The 50 cm test arm allows for simple testing on a large sample without having to cut multiple small specimens. The compact size and included casters permit the instrument to be setup quickly and easily wherever testing needs to be done, from the laboratory to the production floor.



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**Wherever people test textiles, you'll find SDL Atlas!**