

Accurately measures water
vapor transmission rates to
 $5 \times 10^{-5} \text{ g}/(\text{m}^2 \cdot \text{day})$



AQUATRAN[®] Model 2

High sensitivity coulometric water vapor
transmission rate test system



AQUATRAN® Model 2

An instrument for ultra-high barrier water vapor transmission rate (WVTR) testing which incorporates MOCON's proprietary AQUATRACE® Gold sensor, an absolute sensor for ultimate accuracy.

The AQUATRAN Model 2 offers:

- Absolute measurement
- **AQUATRACE Gold Sensor**
 - No calibration required
 - Longer sensor life
 - Measures to $5 \times 10^{-5} \text{g}/(\text{m}^2 \cdot \text{day})$
 - Two test cells per module
 - Flexibility to add satellite modules
 - WinPerm™ Software
- **TruSeal™ flush ring**

TruSeal nitrogen flush ring at the perimeter of the seal between film and instrument ensures a perfect leak-free seal every time.



AQUATRAN Model 2 systems are certified in accordance with the National Institute of Standards and Technology (N.I.S.T.). Each instrument will be issued a signed Certificate of Compliance and include a set of N.I.S.T. traceable WVTR films.

Eliminate Ambient Water Vapor Error

When measuring the permeability of water vapor at the $5 \times 10^{-5} \text{g}/(\text{m}^2 \cdot \text{day})$, seal leaks present a major hurdle due to moisture in ambient air. Regardless of the method or sensor used, it is imperative to account for only the moisture due to actual permeation, not from an ambient leak.

To ensure the accuracy of the WVTR measurement, MOCON developed TruSeal. TruSeal ensures a perfect seal between film and instrument – every time, by incorporating a nitrogen flush ring at the perimeter of the cell. During a test cycle, nitrogen flushes around the ring and eliminates the possibility of ambient water vapor entering the test area through or under the seal.

AQUATRACE Gold Sensor

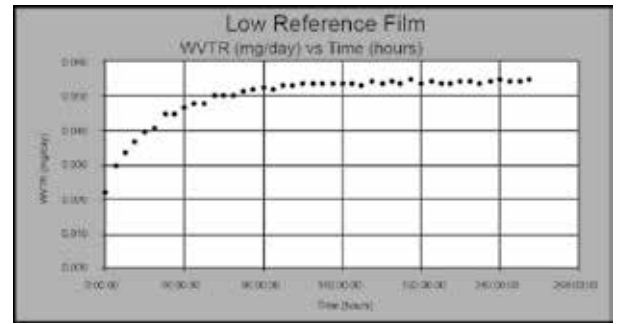
This sensor is a unique coulometric phosphorous pentoxide sensor that is absolute and follows Faraday's Law. One hundred percent of all water vapor entering this sensor is directly converted to a measurable amount of charge.

This sensor also incorporates MOCON's proprietary technology which allows this sensor to be one hundred percent efficient and have a longer life than conventional phosphorous pentoxide sensor technology



For ultra-high barrier films where accuracy and extreme sensitivity are necessary.

AQUATRAN Model 2 is ideally suited for developers, manufacturers and converters of ultra-high barrier films, as well as packagers using ultra-high barrier films to help extend product shelf life.



Actual data from test performed on AQUATRAN Model 2 low reference film.

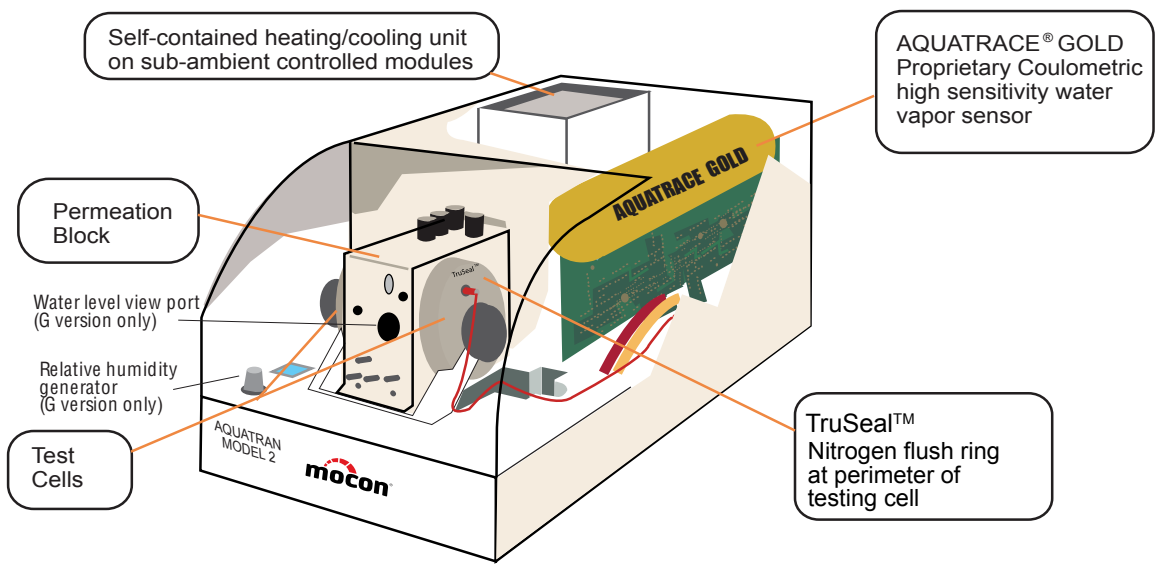
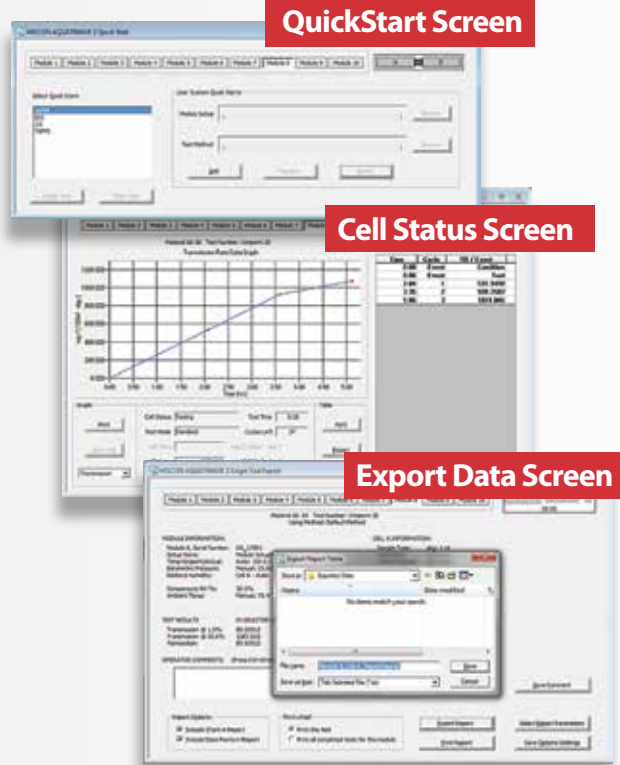
WinPerm™ software further speeds analysis, ensures accuracy and incorporates more data handling capabilities

The WinPerm permeability software controls up to 20 test cells in a system and simplifies the tasks of setting up and conducting tests.

Pre-programmed test and module formats as well as intuitive set-up, control and results screens make it easy to generate and interpret test data.

WinPerm Features:

- Quickstart for fast test initiation using standard or user defined test conditions
- Automatic conversion of test data to Excel® format
- Ability to print detailed single test results or summary report of all tests performed on a module



AQUATRAN® Model 2 Specifications

G Model

WVTR Range

$5 \times 10^{-5} \text{ g}/(\text{m}^2 \cdot \text{day})$ to $5 \text{ g}/(\text{m}^2 \cdot \text{day})$

Sensor

AQUATRACE® Gold

Test Temperature Range

Films - 10 - 40 C

Packages - ambient or 10 - 40 C with optional package environmental chamber

RH

Films - 35 - 90, 100%

Packages - 100% RH

Test Sample Sizes

Films - 50 cm²

Packages - up to 3 liters per package

Test Cells

Two - 50 cm² Test Cells per Module

Expandable up to 10 modules

Electrical Specifications

Voltages: 100, 120, 220 or 240 VAC \pm 10%

Frequencies: 50/60 Hz

W Model

WVTR Range

$5 \times 10^{-5} \text{ g}/(\text{m}^2 \cdot \text{day})$ to $5 \text{ g}/(\text{m}^2 \cdot \text{day})$

Sensor

AQUATRACE® Gold

Test Temperature Range

5 - 50 C

RH

Films - 100% RH

Packages - 100% RH

Test Sample Sizes

Films - 50 cm²

Packages - up to 3 liters per package

Test Cells

Two - 50 cm² Test Cells per Module

Expandable up to 10 modules

Electrical Specifications

Voltages: 100, 120, 220 or 240 VAC \pm 10%

Frequencies: 50/60 Hz

The AQUATRAN® Model 2 conforms to ISO 15106-3

MOCON® Commitment

These analytical instruments are another example of MOCON's long-standing commitment to innovation and quality in the support of our customers.

Technical Support & Service

MOCON offers a variety of technical services designed to provide you with first class support. Whether you require technical support, next-day spare parts delivery, on-site training, N.I.S.T. certification or "turn-key" validation, our staff can tailor a service program to fit your needs. Our goal is to provide the best in product support services.

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763.493.6370 | info@mocon.com

www.mocon.com

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Offices Worldwide