

# Fully automated, faster coulometric oxygen transmission rate test system

## OX-TRAN® Model 2/22 H

Only MOCON's systems comply with ASTM D-3985

**Oxygen transmission rate (OTR) testing. Fully automated with improved results and reduced testing times.**

### Features

- Stand alone with integrated computer
- Intuitive touch screen interface
- On-board data storage
- Fully automated testing
- Advanced testing with manual control
- Repeatability improved 2.5 times \*
- Faster time to results
- Faster set up
- Easy film placement
- Horizontal pneumatically clamped test cells
- Auto control of RH, pressure and flow
- Auto temperature control
- Auto sequential testing
- Auto test save and printing
- Package testing adapter (Optional)
- High purge rate for packages
- Fast, simple change from wet to dry testing
- TruSeal™ test cell
- Ethernet and USB ready
- Faster Coulox® coulometric sensor
- No calibration required
- Gas saver
- Sensor over-range protection
- Circuit board protection
- Built in calendar
- Remote diagnosis

**MOCON systems are the only OTR systems that comply with ASTM D-3985**

\* Compared to the OX-TRAN Model 2/21 H  
\*\* Film type dependent



**For barrier films and packages where speed to result and accuracy are required. MOCON set out to develop an OTR instrument that's faster, easier to use, with improved results and a lower cost of ownership.**

**The OX-TRAN Model 2/22 H is all that and more.**

The OX-TRAN Model 2/22 H is ideal for food, pharmaceutical, medical device companies, film converters, resin and chemical converters who test O<sub>2</sub> barriers and need fast accurate results.

This instrument measures barrier films, accurately and repeatably down to 0.05 cc/(m<sup>2</sup> · d) at precise temperature and RH conditions created and controlled automatically. The TruSeal cell provides increased accuracy and repeatability in this range.

Laboratories that test unknown films will appreciate the fully automatic testing mode. Simply place the film, set RH and temperature, start the test and the instrument will determine the parameters and conduct the test automatically.

Advanced users have full access to manually set all test parameters in the advanced testing mode.

The OX-TRAN Model 2/22 H is benefit rich including:

#### **Ease of use:**

- Fully automated testing
- Advanced manual testing control
- Automatic controls of RH, temperature, pressure and flow of both carrier and test gases
- Control via touch screen and/or remote computer
- Simple access to stored test data
- Horizontal pneumatic cell drawers with lift out cells for simple film placement

#### **Faster speed to result:**

- Reduced time to confirm equilibrium
- Elimination of individual zero\*\*
- High purge rate for packages to reduce package testing times

#### **Lower cost of ownership:**

- Protected circuits providing lower maintenance cost
- Longer sensor life
- Lower gas usage
- Planable maintenance
- Remote diagnostics
- No coolant or pumps to replace

#### **Improved results:**

- Repeatability 2.5 times better\*



# Specifications

## Range:

	cc/(m <sup>2</sup> · d)	cc/(100 in <sup>2</sup> · d)	cc/(pkd · d)
Unmasked	0.05 to 200	0.003 to 12.9	0.00025 to 1.0
Masked	0.5 to 2,000	0.03 to 129	N/A

## Repeatability:

± 0.02 cc/(m<sup>2</sup> · d) or 1% of reading whichever is greater

## Resolution:

0.02 cc/(m<sup>2</sup> · d)

## Temperature test range:

10 C to 40 C ± 0.2 C

## Film test cells per module:

2 x 50 cm<sup>2</sup> (pneumatic clamping cells)

## Package testing:

Optional package testing adapter cells available

## Relative Humidity Range (RH):

Films - Carrier gas 0% to 90% ± 3%

Test gas 0% to 90% ± 3%

Packages - Ambient

## Test sample size:

Films - 4.0" x 4.0" (10.2 cm x 10.2 cm)

Packages - Up to 3 liters per package

## Test database :

Automatically saves up to 100 tests

## Automatic sequential testing:

Set up to 20 different RH and temperature tests for same film

## Barometric pressure compensator:

Included

## User interface:

Touch screen with optional keyboard and mouse,  
remote access capable with optional PermNet® Lite.  
Ethernet and USB ready



Home screen

*Users will appreciate the intuitive touch screen interface and the option to monitor and control from either remotely or at the touch screen.*

## Standards:

ASTM D-3985 films

ASTM F-1927 films

DIN 53380 films

JIS K-7126 films

ASTM F1307 packages

ISO CD 15105-2

CFR 21 Part 11 compliant - optional

Validation service available

## TruSeal™ flush ring test cell:

MOCON's patented TruSeal flush ring at the perimeter of the film ensures a leak-free seal every time.

## MOCON's technology reduces the time to result:

Each user will experience different time savings due to unique film and test conditions.

For example: A user testing a flat film in a range equal to or greater than 2.0 cc/(m<sup>2</sup> · d) may eliminate the need to obtain an individual zero, a process that typically doubles the testing time.

Other users, who conduct a number of convergent tests to confirm equilibrium, will find the OX-TRAN Model 2/22 H substantially reduces the total testing time. MOCON cannot warrant the exact time each user will save. Talk to your MOCON representative to better understand how this technology will impact your testing.

## Coulox coulometric sensor:

For over 40 years the OX-TRAN line of instruments have been the industry standard for OTR testing. Using a patented coulometric sensor, the OX-TRAN family is the basis for the ASTM standard D-3985. The proprietary Coulox sensor is an intrinsic or absolute sensor which follows Faraday's law, therefore requiring no calibration. N.I.S.T. films are available to ensure the entire system is performing to the highest MOCON standards in precision and accuracy.

## 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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