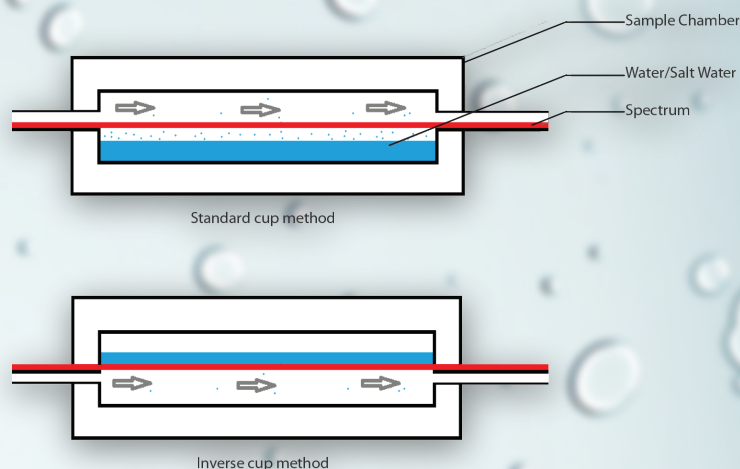
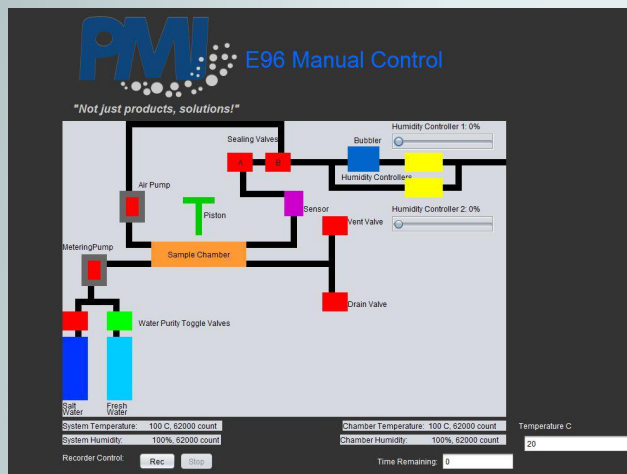


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V APOUR T RANSMISSION T ESTER  
AWVTR-E-96-3

Not just products... Solutions

# PRINCIPLE

The sample is used to seal the mouth of a cup containing water. The cup is kept in the test chamber which is maintained at the desired temperature and humidity. The water maintains one hundred percent humidity in the cup below the sample and a lower humidity is maintained outside the cup above the sample. Hence water vapor migrates through the sample and water is lost by the cup. Weight loss of the cup yields water vapor permeability.



# APPLICATIONS

The instrument has the ability to measure water vapor permeability of a wide variety of samples based on ASTM Designations ASTM E96 and ASTM D1653.

# INSTRUMENT

Pressurized air passes through a pressure regulator. The outlet of the regulator is divided in to two streams, which pass through flow controllers. The gas from one of the flow controllers goes through bubblers and then combines with the other air stream. The humidity of the air stream is controller simply by controlling the ratio of gas flow rates through the flow controllers. The air with desired humidity is released to the test chamber which is maintained at the desired temperature. The flow velocity of gas above the cup is maintained at the desired value which is normally less than 3 m/s. The flow rate is measured.





## FEATURES

- Fully automatic
- Non-destructive testing
- Minimal maintenance required
- Windows-based software handles all control, measurement, data collection, and report generation; complete manual control also possible
- Comes with a computer equipped with real-time graphical LCD test display that depicts testing status and results throughout operation

The screenshot shows a software window with the following fields and controls:

- Sample ID:** sample\_xyz\_001
- Sample Area (cm²):** 34
- Thickness (cm):** .3
- Lot No.:** 1234
- Test Type:** Standard (dropdown menu)
- Fluid Type:** Water (dropdown menu)
- Test Condition (Humidity):**
  - ☐ Initial %rH: [ ]
  - ☐ Target %rH: [ ]
  - ☒ **Duration**
    - Initial %rH: 10
    - Duration (hr): 1
- Buttons:** Load Settings, Save Settings, Select Data File, Edit Test Parameters, Start Test
- Select Data File:** Desktop\E-96\data\sample\_xyz\_001.txt

## SPECIFICATION

- Humidity Range: 5% RH to 90% RH
- Conforms to ASTM E-96 Standard Method Testing
- Samples: Ability to test up to 3 samples simultaneously.
- AWWTR Measuring Range: 0.1 g/m² .day - 10,000 g/m² .day
- Temperature Range: ambient 10°C to 45°C (can be upgraded up to 70°C)
- Accuracy: 0.01 g/m² .day

The screenshot shows the PMI Reporting Software interface with the following elements:

- Logo:** PMI
- Text:** PMIRep Reporting Software
- Quote:** "Not just products, solutions!"
- Report Settings:**
  - Type of test:** E-96 (dropdown menu)
  - Location of TXT file:** Input File Here (text field) with a **Browse...** button
  - Location to save spreadsheet:** C:\Program Files (x86)\capwin\data\Spreadsheet.xls (text field) with a **Browse...** button
  - ☐ Overwrite save file at this location
  - ☐ Wet Charts ☐ Dry Charts
- Additional Comments:** [ ]
- Buttons:** Generate Report

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