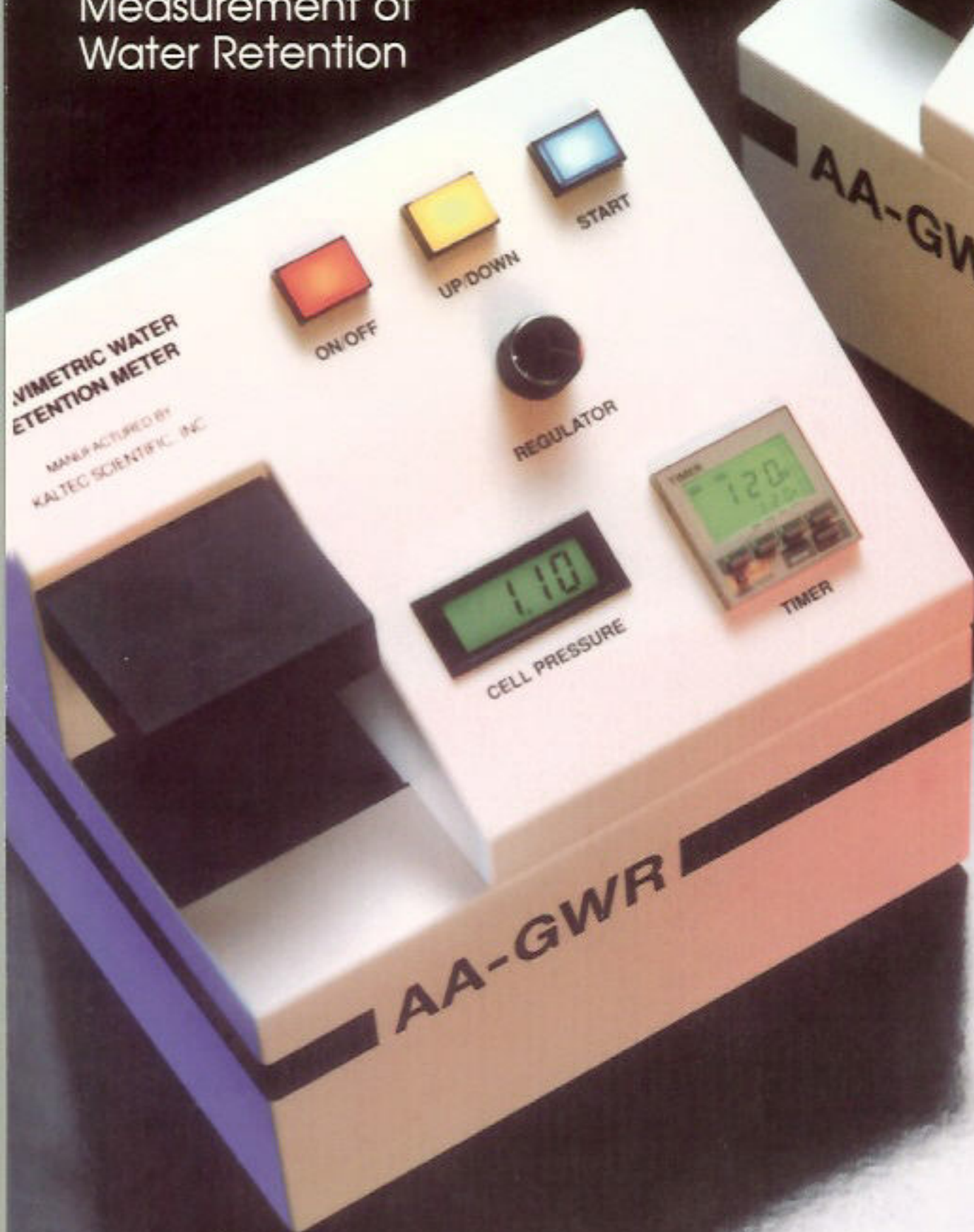


# WATER RETENTION METER

for Accurate  
Measurement of  
Water Retention



Kaltec Scientific, Inc.

# AA-GWR WATER RETENTION METER

for Accurate Measurement of Water Retention

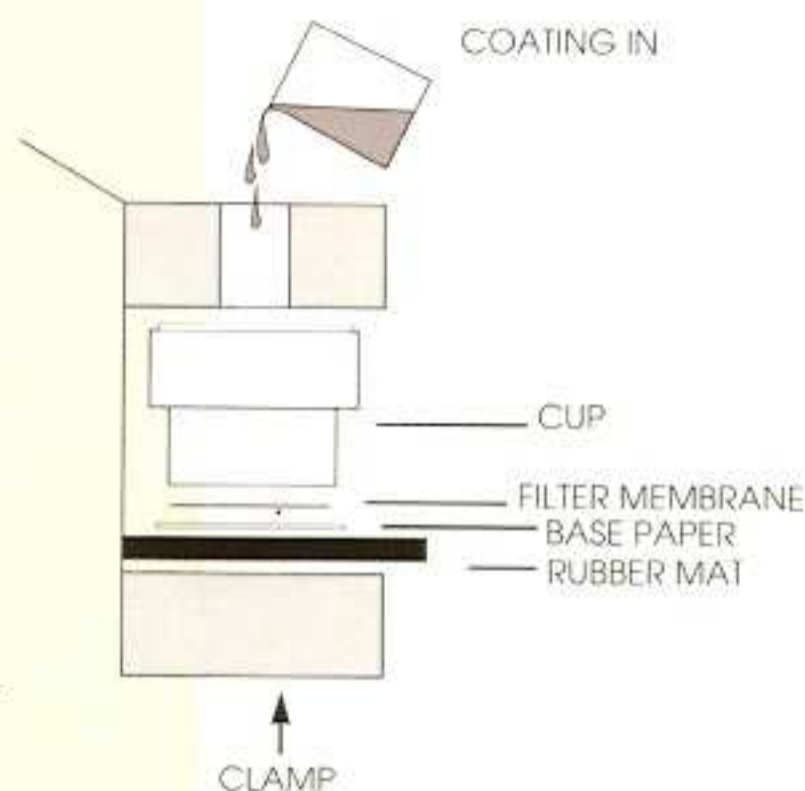
## Principle of Measurement

The method is based on pressure filtration of coatings under an externally applied air pressure over a certain time period. It utilizes gravimetric determination of the aqueous phase penetrating through a filter and absorbed by a paper sample. The measurement is very sensitive to changes in coating color formulation and has good reproducibility because the procedure is simple and the measurement system is well defined. Various contact times and pressures can be easily studied.

## How it Works

The absorbing paper is weighed and placed on a rubber mat. The filter and cup are set on top of the paper and then clamped into place. The coating is poured into the test cell and, immediately, pressurized for a given time period. Upon completion of the test period, the paper is re-weighed to determine the amount of liquid de-watered from the coating.

- Measures coating de-watering under pressure.
- Identifies differences on absorptive properties of paper samples.
- Rapid measurements, 2 - 5 minutes per test.
- Easy to operate and clean.
- Very high accuracy and repeatability.
- Portable, ideal for on-site troubleshooting and problem solving at the mill.
- Digital timer controls test duration and alerts the operator when the test is complete.



## Two Models Available

**Analog Model 150** uses a precision regulator to manually adjust cell pressure. Pressure is displayed on a dial gage with an accuracy of  $\pm 2.5\%$ .

**Digital Model 250's** cell pressure is set using a pressure reference knob and a LCD display. This model utilizes a servo pressure control system which is comprised of two valves, a pressure sensor and electronic control circuitry. Pressure in the measuring cell is continuously monitored and if necessary adjusted to maintain precise control to within  $\pm 1\%$  of full scale.

### TECHNICAL DATA

Test Cell Area	.....8.0 cm <sup>2</sup>
Sample Volume	.....10 ml
Cell Pressure	.....0-30 psi (0 - 2 bar)
Input Pressure	.....100 psi (7 bar)
Electrical	.....115 V
Timer	.....LCD Digital Display, 0 - 9990 Second Counter
Weight	.....18 lbs. net
Dimensions	.....10x10x7 (HxWxD) in inches

Manufactured in the United States by

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