



Measure



Improve



Service

GURLEY HIGH PRESSURE DENSOMETER



High pressure densometers are the accepted standard for measuring the porosity, air-permeability or air-resistance of materials having low permeability.

Typical materials include coated papers, plastics and membranes. High pressure units are recommended whenever a standard unit would yield excessive measurement times.

Operation

The densometer test measures the time required for a specific volume of air (2.5 to 30 cc), at a constant pressure of 31 cm W.C., to flow through a standard area of the material being tested. The air pressure is supplied by a weighted inner cylinder floating freely within an outer cylinder which is partially filled with oil to act as a seal. The sample material is held between clamping plates having a circular orifice area of 6.5 cm² (standard).

Porosity readings with the high pressure densometer are much faster than those taken with a regular densometer. This difference can be as great as twenty-five times faster since higher air pressure is used and air volumes are one-tenth those measured with a standard densometer. Readings also can be affected by using different adapter plates with smaller orifices on all models.

The new oil-filled high pressure densometers replace older mercury-filled models yet feature identical performance, continued reliability and accuracy.

Models

4150N

High Pressure Densometer for measuring porosity and air permeability

Model 4250N H-P-S Tester

measures a given air flow through the sample for porosity tests and leakage across its surface(s) for smoothness tests

4240N High Pressure Densometer

with weighted arm assembly

4320DN Digital Timing Attachment

specifically designed for standard densometers and high pressure models. It increases the accuracy and productivity of these instruments, and provides recording and computing capabilities that will absolutely minimize the possibility of operator error.

Both RS-232 and Centronics output to a variety of devices, including most printers and PC's.

Features

- With electronic timer - easy to upgrade later
- Measuring surfaces: standard 1 inch
- Different volumes: 2.5 to 30 cc
- Model 4320DN features include:
- Automatic & manual program options
- Calculates mean & standard deviation
- Built-in calibration program
- Easy to read graphic display
- Fits all Gurley™ densometers
- User Programmable
- Date/time stamp
- Automatic sensitivity calibration

Applications

- In manufacturing and printing, to control the selection of materials affording the appropriate degree of liquid (ink, varnish, sizing) absorption
- To test filters, porous bags & materials where controlled porosity is essential
- To test insulating materials for air resistance
- To supplement other physical tests enabling regulation or strength of manufacturing process to give the desired formation, appearance or strength since there is a close correlation in a given material between air permeability and these other properties.

Physical specifications

- Dimensions
20 x 21.5 x 71 cm (W x L x H)
- Net Weight
varying from 5 to 7 kg

Options

- Different clamp & adapter plates
- Different cylinders
- Automatic digital timer and instrument base

Standards

TAPPI T-536-88, ASTM D-726-58 Method B