

DENSOMETERS

STANDARD AND LOW PRESSURE

PRINCIPLE:

- The densometer test measures the time required for a given volume of air (25cc to 300cc) to flow through a standard area of material being tested, under uniform light pressure. The air pressure is supplied by an inner cylinder of a specific diameter and standardized weight, floating freely within an outer cylinder partially filled with oil to act as an air-seal. The sample material is held between clamping plates having a circular orifice area of 1.0 (standard), 0.25 (optional), or 0.1 (optional) square inches.
- Densometer readings may be evaluated on both a direct, and an indirect, basis dependent upon the material and the test purpose. They are a direct test of materials which are intended to either resist or permit the passage of air. Indirectly, they are used to measure other physical properties which affect the flow of air through a porous sheet.



MODEL 4110N WITH OPTIONAL 4320 DIGITAL TIMER

MODEL 4320 DIGITAL ATTACHMENT:

- The Model 4320 works with all Gurley Densometers to provide automatic & manual program options, a built-in calibration program and calculation of mean & standard deviation. These features ensure an increased accuracy and productivity of the densometers. It has both RS-232 and Centronics output for interfacing with printers and PC's.
- Minimizes errors and variations by new/different operations and eliminates need for operator monitoring of test.
- Direct replacement for previous generation Gurley timers.

APPLICATIONS:

- Some applications of the Model 4110N include controlling the selection of Films materials, testing filters, testing insulating materials, and to supplement Cardstock other physical tests.
- Tyvek
- Battery Separator
- Paper Materials
- Board Materials
- Nonwovens
- Perforated
- Filters
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GPI



Genuine Gurley™

SPECIFICATIONS

CONFORMS TO:

- TAPPI T-460
- ASTM D-726-58
- APPITA/AS 1301-420
- BS 5926
- CPPA D-14
- ISO 5636/5
- SCAN P-19 & P53
- D-202-77

Model	Test Pressure (Inches of Water)	Test Area *	Volume of Air **	Description ***
4110N	4.88	1.0sq.in.	25 - 300cc	Standard Pressure is the most popular Densometer sold for measuring porosity and air permeability in materials of average values
Optional Configurations For Added Capability				
4118N	1.22	0.1sq.in.	25 - 300cc	Low Pressure used to test fabrics and other more permeable materials that may be too porous for the model 4110N
4140N	4.88	1.0sq.in.	25 - 300cc	Same as 4110N with an installed weighted arm assembly to apply a uniform clamping pressure to the sample (ideal for thicker materials)
4190N	4.88	1.0sq.in.	25 - 300cc	Same as 4140N, but also includes additional weights and clamping plates to allow the user to also test Gurley Smoothness and Softness

* The upper and lower 1.0, 0.25, and 0.1sq.in. clamping plates are interchangeable between all instruments, but must match in size

** 10cc of air can also be measured when used with the 4320 timer

*** Both the automatic timer and instrument base are key to reducing operator error and increasing accuracy and repeatability

MODEL 4118N



MODEL 4140N



MODEL 4190N



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