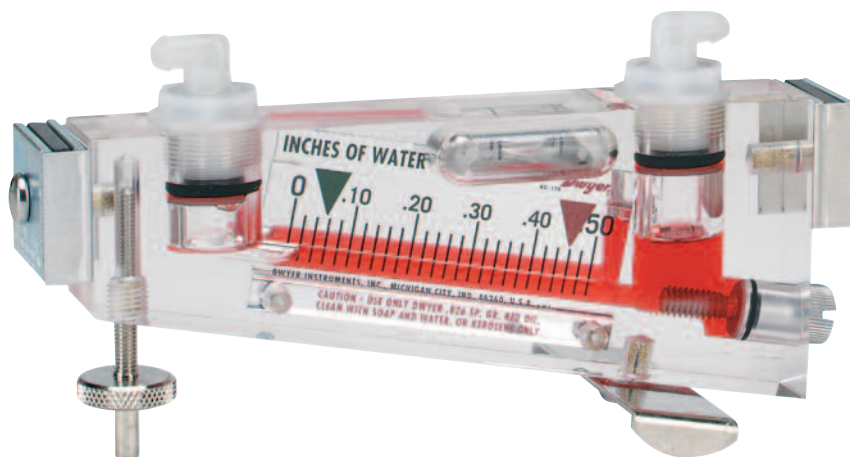




## Durablock® Air Volume Gage

### Specifications - Installation and Operating Instructions



#### TO TEST FOR AIR FLOW VOLUME WHEN INSTALLING AND SERVICING RESIDENTIAL AND SMALL CENTRAL AIR CONDITIONING SYSTEMS

#### For field or laboratory use ...

The Dwyer® Air Volume Gage is a precision-built instrument for air conditioning and heating engineers that has proven to be extremely useful both in the field and in the laboratory. Portable and highly accurate, this instrument fills the need for an instrument to accurately determine the volume of air flowing through air conditioning coils. An indispensable aid in proving out cooling system installations, the Dwyer® Air Volume Gage helps to avoid poor performance and mechanical failure. It shows the installer or engineer exactly when more or less air is needed to keep within the critical limits necessary for the most efficient and trouble-free cooling system operation.

#### Accurate, simple to use ...

Field methods for determining air flow volume in air conditioning equipment have traditionally been rough and inaccurate. Anemometers and other types of air speed indicators are inadequate for volume measurements because of both velocity variations at each register and extreme turbulence throughout the system. Nor do mathematical computations accurately indicate effective free area for air flow in the system. In contrast, the Dwyer® Air Volume Gage measures the static pressure drop across cooling coils and offers a highly practical way of determining flow volume.

#### INSTALLATION ...

Simply level, adjust for zero, attach static lines and insert Trail-Tails in test holes. Pressure drop is then read in inches of water column. The reading can be quickly converted to volume flow by referring to the manufacturer's pressure and flow curves furnished with the cooling unit.

#### FEATURES

- **ALSO USEFUL**  
For ventilating, heating, refrigeration and air filter systems: indicates air volume flow, furnace draft, filter condition, plenum pressure, etc.
- **READY TO USE**  
Simple to assemble, hook up, and take readings.
- **PERMANENTLY ACCURATE**  
No delicate parts to get out of order, no moving parts of any kind, accuracy remains constant.
- **DURABLOCK**  
Construction of solid transparent plastic, virtually indestructible and permanently accurate.
- **COMPACT GAGE DIMENSIONS**  
6-3/8" x 3" x 1" (16.19 cm x 7.62 cm x 2.54 cm).

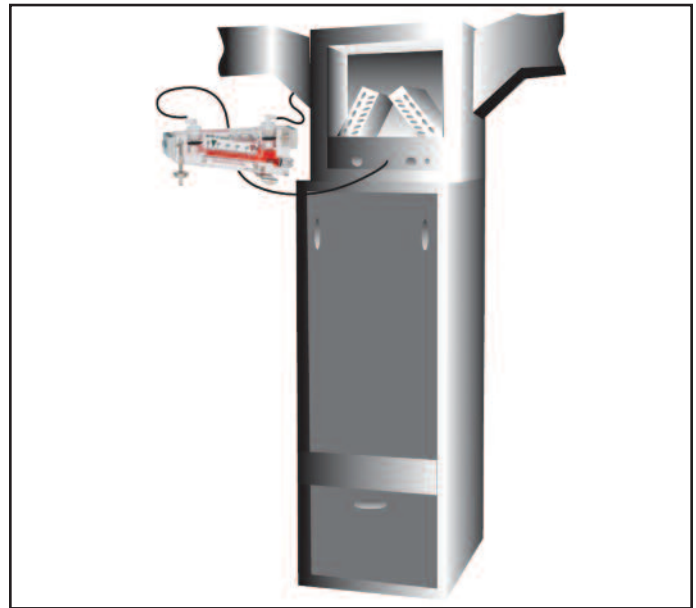
### Small and portable ...

To determine cooling capacity of air conditioning systems, the American Society of Refrigeration Engineers requires that air volume be established by measuring static pressure differential across a calibrated test orifice with an elliptic curve approach. This laboratory test is highly accurate, but impractical for field use because of the large, cumbersome equipment involved. The Dwyer® Air Volume Gage static pressure sensors offers a positive solution to this problem. This compact gage combines laboratory accuracy, field-use versatility and ease of operation.

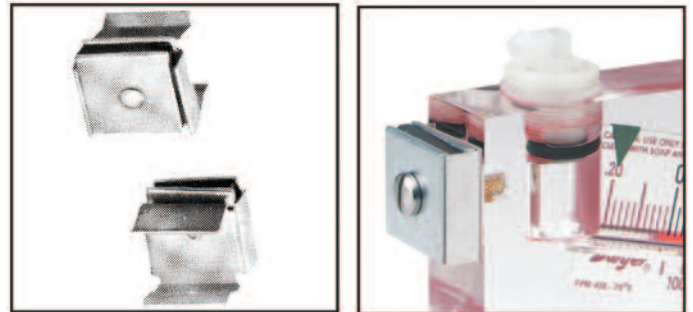
### Saves time, saves work ...

Leading cooling equipment manufacturers furnish coil performance data showing the static pressure differential across each coil along with the equivalent volume flow and peak cooling point. This data is determined in laboratory hot rooms with air flow accurately measured by ASRE standard methods. Recommended static pressure differentials usually run between .10" and .20" water column (.2482 mbar and .4964 mbar). Maximum cooling capacity is usually found in the range of 400 c.f.m. (11,326.4 LPM) for each 12,000 b.t.u. of cooling. Using the Dwyer® Air Volume Gage static pressure sensors, the air conditioning engineer or installer can accurately measure air pressure differential across a cooling coil. With this information, the user may determine air volume flow from the manufacturer's data, thus bringing laboratory accuracy into the field. Adjustments in blower speed can then be made to exactly duplicate the manufacturer's recommended operating point. Conditions which would lead to mechanical failure are avoided and peak performance is assured.

### TYPICAL HI-BOY FURNACE WITH COOLING COIL IN PLENUM



### MAGNECLIPS



This valuable accessory, furnished as standard equipment with each Dwyer® portable air volume gage, allows rapid positioning of the gage on any vertical iron or steel surface. Just touch the Magneclip-equipped gage to the side of the duct, plenum or other convenient surface. It grips instantly and securely, freeing hands for other work.