

TrueFlow[®] Air Handler Flow Meter

The Energy Conservatory's **TrueFlow[®] Air Handler Flow Meter** provides a simple and accurate measurement of air flow through residential air handlers and filter grills.

The TrueFlow[®] Meter temporarily replaces the filter in a typical air handler system when measuring air flow. If the filter location is directly adjacent to the air handler, the TrueFlow[®] Meter will measure the total air handler flow. If the filter is located remotely at a single central return, it will measure the air flow through the central return.

Other methods for estimating the air handler flow rate, such as the temperature rise method, static pressure and fan curve method, and the Duct Blaster[®] isolated return method, have been found to be problematic or time-consuming.



Extensive field testing has shown that the TrueFlow[®] Meter:

- Fast and easy to use in the field. Direct cubic feet per minute values are delivered in 2 to 3 minutes without extensive calculations.
- Measures flow through air handlers rated from 1 ton to 5 tons, 400 to 2,000 CFM.
- Works in a wide range of return plenum and air handler fan configurations.
- Changes size quickly to fit standard and custom filter slots.
- Four times more accurate than the single point temperature rise method.
- Works with any manometer having a resolution of 1 Pa or 0.005 inches of water.
- Flow accuracy of $\pm 7\%$ for most applications when used with a 1% accurate pressure gauge.
- Works with our DG-700 Digital Pressure and Flow Gauge to directly display air flow in cubic feet per minute through the metering plate.

Performance Testing Tools

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TEC[™]
The Energy Conservatory

TrueFlow® Air Handler Flow Meter Specifications

Accuracy* of flow using a DG-700 Digital Pressure and Flow Gauge or equivalent (+/- 1% of reading)	± 7% of indicated reading
Accuracy of flow using analog pressure gauges	± 9% of indicated reading
Range of flow: #14 Metering Plate	365 to 1,565 CFM (620 to 2,600 cmh, 172 to 740 l/s)
Range of flow: #20 Metering Plate	485 to 2,100 CFM (825 to 3,570 cmh, 225 to 990 l/s)
Storage and operating temperature range	-40°F to +150°F (-40°C to +65°C)
Nominal sizes of plates with gasket material connected: #14 Metering plate	14.5 in. by 20.5 in. (37 cm by 52 cm)
Nominal sizes of plates with gasket material connected: #20 Metering plate	20.5 in. x 20.5 in. (52 cm by 52 cm)
Weight—Metering plates, spacers and carrying case	13 lbs. (5.9 kg)
The TrueFlow® Meter will fit in most standard size filter slots.	
The compatible filter sizes with #14 Metering plate #1 are	14 x 20, 14 x 25, 16 x 20, 16 x 24, 16 x 25, 18 x 20
The compatible filter sizes with #20 Metering plate #2 are	20 x 20, 20 x 22, 20 x 24, 20 x 25, 20 x 30, 24 x 24

Specifications subject to change without notice.

*Accuracy is installation dependent. Obstructions within 6 inches (15 cm) upstream or 2 inches (5 cm) downstream of the metering plate that block air flow through any of the metering holes may reduce the flow accuracy.

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TrueFlow® Plate #14 with 2x20 spacer at a central return..



TrueFlow® Plate #14 with 2x20 spacer at filter slot between the return and the air handler.



TrueFlow® Air Handler Flow Meter kit includes: #14 and #20 Plates, 8 spacers, carrying case, hose, static pressure probe and manual.

Complete service and technical support is built in.

All of our products come with a full two-year warranty on parts and labor, and access to the most knowledgeable customer service staff in the industry. If you have questions on the use of our products or how to handle unusual situations, you can count on us to give dependable answers. We always stock a complete line of replacement parts and can respond quickly to any service or equipment problem.

Our nearly 30 years of expertise goes beyond simply knowing about equipment. The Energy Conservatory's on-going research, active participation with technical associations, and close working relationships with the world's leading building scientists keeps us involved in the development and field testing of many of the performance testing industry's techniques. This means you always have the most up-to-date information and testing procedures.

To order, or for more information contact:



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