

Dwyer
SERIES SAH



SMART AIR HOOD™ BALANCING INSTRUMENT

Quad Flow Design Technology, Predictive Balancing



The **SERIES SAH SMART Air Hood™** Balancing Instrument is the most accurate and easy to operate air flow hood on the market. By using the included hood stand and wireless communications to the handheld, a single operator can balance a branch in less time than traditional balancing teams. Besides being lighter than most traditional capture hoods, the ergonomic design makes the Series SAH easy to maneuver, with less physical stress. The rugged polypropylene base hood features patented Quad Flow Design Technology for controlling air flow and minimizing back pressure, which yields superior measurement accuracy. The Wi-Fi direct communication gives reliable communication with a distance of up to 200 yards (183 m) between the hood and the handheld test instrument. The SMART Air Hood™ Balancing Instrument includes the PredictAir™ Application Software which reduces the number of steps in the air flow balancing process using Predictive Balancing's Express Balance mode. Predictive Balancing is a method of predicting the optimal flow set point for each register and the order in which they should be adjusted.

FEATURES/BENEFITS

- Patent pending Quad Flow Design Technology directs the circulating air patterns to provide a more even air flow that minimizes backpressure enabling accurate readings
- Predictive Balancing is a process that guides the balancing technician on setting the optimal flow set point for each sequential terminal. With the PredictAir™ Application Software, the balancing process takes much less time than traditional air balancing methods
- The ergonomic design is much lighter and easier to work with than the existing bulky air hoods, providing greater maneuverability and less physical strain. One technician can complete the air balancing.
- Wi-Fi direct wireless communication provides a range up to 200 yards (183 m)

APPLICATIONS

- Commissioning, testing, adjusting and balancing volumetric air flow from diffusers, grilles, and registers in HVAC systems

MODEL CHART	
Model	Description
SAH-22	SMART Air Hood™ with 2' x 2' (600 m x 600 m) opening
SAH-22-LB	SMART Air Hood™ with 2' x 2' (600 m x 600 m) opening, less the lithium battery (for International shipments only).

Included with the SAH: Translucent gray SAH base unit with 2' x 2' (600 m x 600 m) opening, handheld test instrument with attached quick release, extendable pole 4.5' to 12' (1400 m to 3700 m) with handheld test instrument connection, extendable pole with 2' to 4' (600 m to 1200 m) with handheld test instrument connection, installation and operating manual, pole safety clamp, stationary pole adapter, SAH travel case, cable adapter to connect SAH and handheld test instrument, charger and cables for SAH and handheld test instrument.

SPECIFICATIONS

VOLUME FLOW

Service: Air.
Units: CFM, l/s, m³/h.
Volume Flow Ranges: Supply: 40 to 2000 CFM (68 to 3398 m³/h); Exhaust: 80 to 2000 CFM (136 to 3398 m³/h).
Accuracy at Calibration > 40 CFM: ±3% of reading ±7 CFM*.
Accuracy for Any Diffuser > 40 CFM: ±3% of reading ±10 CFM**.
Resolution: 1 CFM (1.7 m³/h) (.5 l/s).

TEMPERATURE

Units: °F, °C, K.
Operating Range: 40 to 140°F (4.4 to 60°C).
Storage Range: -4 to 122° F (-20° C to 50° C).
Accuracy: ±0.3 % of reading (no calibration required).

RELATIVE HUMIDITY

Range: 5 to 95%.
Accuracy: ±5% of reading (no calibration required).
Resolution: 0.1% RH.

ABSOLUTE PRESSURE

Units: mbar, Pa.
Range: 10 to 2000 mbar (1000 to 200,000 Pa).
Accuracy @ 25°C and within 300 to 1100 mbar: ±2% of reading (no calibration required).
Resolution: 0.1 mbar.

Power Requirements: 3.6 V NCR18650B MH12210 lithium ion battery, included, user replaceable or (4) 1.5 V AA alkaline batteries, not included, user replaceable.

Housing Material: Polypropylene.

Weight: 5.75 lb (2.6 kg).

Agency Approvals: CE, FCC, IC.

*Based on calibration with Sensing Precision Calibration fixture and Dwyer standard diffuser.

**Based on any diffuser in the Dwyer downloadable library.

ACCESSORIES

Model	Description
A-SAH-14S	Canvas hood 1' x 4' (300 m to 1200 m) adapter
A-SAH-BK	SAH adapter base kit for canvas hood
A-SAH-CK	Spare calibration kit with four Quad Flow Sensing Grids and Sensor Module