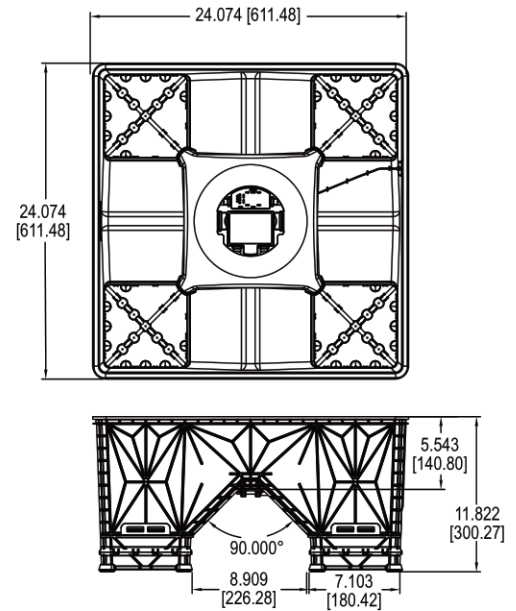


# SMART AIR HOOD® BALANCING INSTRUMENT

Quad Flow Design Technology, Predictive Balancing



CALIBRATION SERVICES AVAILABLE



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 SMART Air Hood® 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.

**BENEFITS/FEATURES**

- Patent pending Quad Flow Design Technology directs the circulating air patterns to provide a more even air flow that minimizes backpressure enabling accurate readings
- Patent pending Predictive Balancing is a process that guides the balancing technician on setting the optimal flow set point for each sequential terminal. With the SMART Air Hood® 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) line of sight

**APPLICATIONS**

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

**INCLUDED WITH THE SAH KITS:**

- Handheld Test Instrument preloaded with SMART Air Hood® app
- 3' (0.9 m) extendable pole
- Handheld quick release pole adaptor kit
- SAH roller travel case with instrument available foam inserts
- Charging cables for SAH and handheld
- Lithium ion battery (not included in international versions)
- Installation and operating manual
- NIST traceable certificate

**SPECIFICATIONS**

**SAH SPECIFICATIONS**

**Service:** Air.  
**Units:** CFM, m<sup>3</sup>/h, l/s.  
**Volume Flow Ranges:** Supply: 40 to 2000 CFM (68 to 3398 m<sup>3</sup>/h) (19 to 944 l/s); Exhaust: 80 to 2000 CFM (136 to 3398 m<sup>3</sup>/h) (38 to 944 l/s).  
**Accuracy > 40 CFM:** ±3% of reading ±7 CFM (11.9 m<sup>3</sup>/hr) (3.3 l/s).  
**Resolution:** 1 CFM (1.7 m<sup>3</sup>/h) (.5 l/s).  
**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).  
**Compliance:** CE, FCC, IC, RCM (-AU model only).

**HANDHELD SPECIFICATIONS**

**Operating System:** SMART Air Hood® application software only available with factory supplied test instrument.  
**Wireless Protocol:** Wi-Fi direct low energy wireless technology.  
**Response Time:** 1 s.  
**Note:** Updates to diffuser library can be downloaded using Google Play™ store.

**MODEL CHART**

Model	Description
SAH-22	SMART Air Hood® balancing instrument with 2' x 2' (0.6 m x 0.6 m) opening
A-SAH-12P	4.5' to 12' (1.4 m x 3.7 m) extendable pole ( <b>Required for operation</b> )
SAH-22HC	SMART Air Hood® balancing instrument with 2' x 2' (0.6 m x 0.6 m) opening, with hard travel case

**ACCESSORIES**

Model	Description
A-SAH-12P	4.5' to 12' (1.4 m x 3.7 m) extendable pole
A-SAH-14S	Canvas hood 1' x 4' (0.3 m x 1.2 m)
A-SAH-15S	Canvas hood, 1' x 5' (0.3 m x 1.5 m)
A-SAH-24S	Canvas hood, 2' x 4' (0.6 m x 1.2 m)
A-SAH-33S	Canvas hood, 3' x 3' (0.9 m x 0.9 m)
A-SAH-44S	Canvas hood attachment, 4' X 4', (1.2 m x 1.2 m)
A-SAH-BK	SAH adaptor base kit for canvas hood
A-SAH-CK	Spare calibration kit with four quad flow sensing grids and sensor module
A-SAH-HC	Hard carrying case for SAH
A-SAH-PLUG	Low flow plug
A-SAH-SC	Replacement SMART Air Hood® travel case

**Note:** For full functionality and versatility, the A-SAH-12P is required for operation of all SAH models.

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