

# SERIES SAH

## SMART AIR HOOD® Balancing Instrument



Optional handheld device UHH7 shown

### 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 PredictAir™ SAH application software, the balancing process takes much less time than traditional air balancing methods.
- The ergonomic design is ¼ of the height of a traditional legacy flow hood, and 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 air balancing by themselves.
- Wi-Fi wireless communication provides a range up to 200 yards, and provides a more stable connection in environments with steel and concrete than Bluetooth® communication.
- The iOS® version of the SAH software has the capability to drag and drop into third party software in split-screen mode.
- When plugging in directly to a mobile device to the SAH, the Wi-Fi radio is deactivated.
- The hardcase (included with SAH-22HC) gives users the ability to plug in all the instruments inside the case and then externally run a cord to the case so they can charge all instruments with one cord (extension cord not included).
- For linear diffusers (1'x4') and HEPA filters (2'x4'), optional hoods are available that are designed to be installed quickly onto the standard 2x2 low profile design.

### Applications

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

### Description

The **SMART AIR HOOD® (SAH) Balancing Instrument** is the most accurate and easy to operate air flow hood on the market today. The low profile design allows balancers to work in occupied spaces (bathroom stalls, MRI machines, cubicles, tables/chairs, etc.) and maneuver through doorways easier. By using the included 12 foot hood pole and wireless communications to a mobile device, one 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 technician exude less energy as the SAH has a lighter, balanced design. The rugged polypropylene base hood features Quad Flow Design Technology for controlling air flow and minimizing back pressure, which yields superior measurement accuracy. The Wi-Fi protocol back to the user's Android® or iOS® device gives the user real-time feedback, as they may be up to 200 yards (183 m) from the hood which saves the technician from unnecessarily going up and down their ladder multiple times to cut or open the dampers to balance the system.

The **SMART AIR HOOD® Application Software** reduces the number of steps in the air flow balancing process using Predictive Balancing. Predictive Balancing is a method of predicting the optimal flow set point for each register and the order in which they should be adjusted.

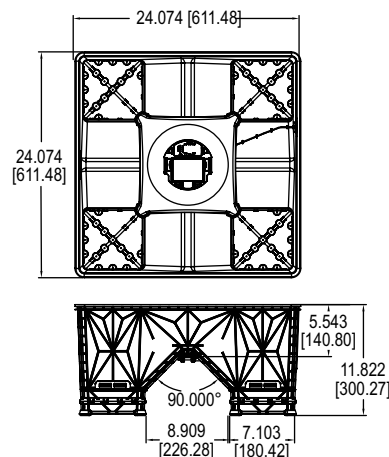
### Specifications

Service	Air.
Units	Cubic feet per minute (CFM), cubic meter per hour (M <sup>3</sup> /H), cubic meter per second (M <sup>3</sup> /S), liter per minute (l/min), liter per hour (l/hour), liter per second (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 Li-ion rechargeable battery (included), or (4) AA alkaline 1.5 V batteries (not included).
Housing Material	Polypropylene.
Weight of Hood	5.75 lb (2.6 kg).
Supported Devices	UHH6 and newer, and smart devices with Android® firmware version 8.0 and above or iOS® version 14.1 and above.
Software	SMART Air Hood® application software, available on the Google Play™ store and the Apple App Store®.
Wireless Protocol	Wi-Fi wireless technology.
Response Time	1 s.
Compliance	CE, FCC, IC, RCM (-AU model only).

## Standard Equipment

- 3 ft (0.9 m) extendable pole
- 12 ft (3.7 m) extendable pole
- Mobile device quick release pole adaptor kit
- Two low flow plugs
- Softcase SAH22 or hardcase SAH-22HC with storage for additional instruments
- Lithium ion battery (not included in international versions)
- Installation and operating manual
- NIST traceable certificate
- Charging cables for SAH

## Dimensions



## How to Order

Use the **bold** characters from the chart below to construct a product code.

	SAH	-22	-IN
<b>Series</b>	SAH: SMART Air Hood® balancing instrument with standard equipment		
<b>Size</b>		-22: 2' x 2' (0.61 m x 0.61 m) opening	
<b>Options</b>			-IN: International version (does not include lithium battery) HC: Hard case

## Accessories

Model	Description
A-SAH-03P	Extendable pole, 2' to 4' (replacement pole)
A-SAH-12P	Extendable pole 4.5' to 12' (replacement pole)
A-SAH-14S	Canvas hood attachment, 1' x 4' (0.3 m x 1.2 m), quick setup connection
A-SAH-15S	Canvas hood attachment, 1' x 5' (0.3 m x 1.5 m), requires A-SAH-BK
A-SAH-24S	Canvas hood attachment, 2' x 4' (0.6 m x 1.2 m), quick setup connection
A-SAH-33S	Canvas hood attachment, 3' x 3' (0.9 m x 0.9 m), requires A-SAH-BK
A-SAH-44S	Canvas hood attachment, 4' X 4' (1.2 m x 1.2 m), requires A-SAH-BK
A-SAH-BK	Adapter base kit for canvas hoods, required for use with A-SAH-15S, -33S and -44S
A-SAH-CK	Replacement calibration kit includes: sensor module and 4 quad flow sensing grids
A-SAH-CLIP	Pole mounting clips (2)
A-SAH-HC	Hard travel case
A-SAH-PLUG	Low flow plug
A-SAH-SC	Soft travel case
UHH7	Universal handheld test device with software

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