



## SERIES SAH | SMART AIR HOOD® BALANCING INSTRUMENT

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### FEATURES/BENEFITS

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- **QUAD FLOW DESIGN TECHNOLOGY**

A patent pending design based on controlling the circulating air patterns providing a more even air flow with minimal backpressure effects. The design result is an accuracy of 3% or better regardless of diffuser types, based on any diffuser in the Dwyer SMART Air Hood® application software.

- **PREDICTIVE BALANCING**

An industry first for airflow balancing, this patent pending process guides the balancing technician on setting the proper air flow values for each diffuser to fully optimize the HVAC system. No more guess work as Predictive Balancing provides the optimal flow set point for each sequential terminal. The SMART Air Hood® application software completes the balancing process in much less time than traditional balancing methods.

- **ERGONOMIC DESIGN**

Made from a rugged lightweight polymer construction; it is the smallest, lightest and most aerodynamic design in the industry, weighing less than 6 pounds and 1/4 the height of other bulky air hoods. The Series SAH mounts to an extendable pole for easy use and maneuverability resulting in less muscle strain compared to other air balancing equipment. Balancing can be completed by just one technician.

- **MOBILE SPEED**

With the digital handheld test instrument and software, featuring Wi-Fi direct wireless communications and a range of up to 200 yards (183 m), the testing, adjusting and balancing process is faster and more accurate than any other air flow hood on the market today.

- **LOWEST TOTAL COST OF OWNERSHIP**

Fast, accurate and easy; a better way to air balance saving time and money. The Series SAH features a rechargeable lithium battery backed up by four AA batteries. For annual calibration, simply detach the removable quad flow sensing grids and sensor module and return without the hood for calibration. To ensure no downtime, simply snap on another calibrated set quad flow sensing grids and sensor module.

### APPLICATIONS

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

### DESCRIPTION

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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.

## SPECIFICATIONS

VOLUME FLOW	
<b>Service</b>	Air.
<b>Units</b>	CFM, m <sup>3</sup> /h, l/s.
<b>Volume Flow Ranges</b>	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).
<b>Accuracy &gt; 40 CFM</b>	±3% of reading ±7 CFM (11.9 m <sup>3</sup> /hr) (3.3 l/s).
<b>Resolution</b>	1 CFM (.5 l/s) (1.7 m <sup>3</sup> /h).
POWER REQUIREMENT	
<b>Battery</b>	3.6 V NCR18650B MH12210 lithium ion battery, included, user replaceable or (4) 1.5 V AA alkaline batteries, not included, user replaceable.
PHYSICAL CHARACTERISTICS	
<b>Housing Material</b>	Polypropylene.
<b>Weight</b>	5.75 lb (2.6 kg).
<b>Compliance</b>	CE, FCC, IC, RCM (-AU model only).
HANDHELD SPECIFICATIONS	
<b>Operating System</b>	SMART Air Hood® Application Software only available with factory supplied test instrument.
<b>Wireless Protocol</b>	Wi-Fi direct low energy wireless technology.
<b>Response Time</b>	1 s.
<b>Note:</b> Updates to diffuser library can be downloaded using Google Play™ store.	

## STANDARD EQUIPMENT

- SAH Base unit, 2 ft x 2 ft (0.61 m x 0.61 m) opening
- Handheld test instrument with attached quick release
- Extendable pole 2 ft to 4 ft (0.61 m to 1.22 m) with handheld test instrument connection
- Pole locking connection
- SAH travel case
- Cable to connect the SAH and the handheld test instrument
- Charger and cable for SAH and handheld test instrument

## ADDITIONAL EQUIPMENT

- Extendable pole 4.5 ft to 12 ft (1.4 m to 3.7 m) with handheld test instrument connection (A-SAH-12P accessory ordered separately)

## HOW TO ORDER

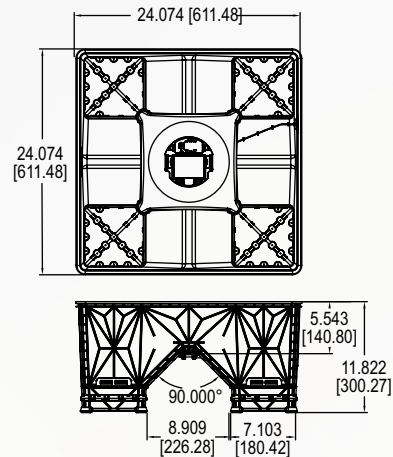
Use the **bold** characters from the chart below to construct a product code.

	SAH	-22	-IN
<b>SERIES</b>	SAH		
<b>SAH:</b> SMART Air Hood® balancing instrument with standard equipment			
<b>SIZE</b>		-22	
<b>-22:</b> 2' x 2' (0.61 m x 0.61 m) opening			
<b>OPTIONS</b>			-IN
<b>-IN:</b> International version (does not include lithium battery)			
<b>-AU:</b> Australia compliant model			
<b>HC:</b> Hard case			

## ORDER ONLINE TODAY!

[dwyer-inst.com/Product/SeriesSAH](http://dwyer-inst.com/Product/SeriesSAH)

## DIMENSIONS



## ACCESSORIES

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