

[Capture Hoods

What is a capture hood?

A capture hood (flow measuring hood) is an instrument used to measure volumetric air flows from supply or exhaust diffusers and grilles. The Alnor version of the capture hood is called a Balometer. Most capture hoods include lightweight fabric hoods of sizes to match common terminals, a meter readout device mounted on a sturdy flow base, and a measuring manifold mounted in the base.

Capture hoods make fast, repeatable measurements. However, precision can be affected by HVAC system design. Factors to consider are the diffuser or register type, upstream disturbances (bends, vanes), resistance effects (reduction in duct area), physical properties of air, and the capture hood manifold.

Different sensing technologies have been used in capture hood design. These include thermo-anemometers, mechanical swinging vane anemometers, and differential pressure meters. Thermo-anemometers (LoFlo Balometer hoods) give excellent low-end sensitivity. Mechanical swinging vane anemometers (Alnor Standard Balometer and Balometer Jr. hoods) require no batteries or power source. Differential pressure meters provide excellent resolution (EBT721).

Features	LoFlo Balometer		Balometer JR.		Standard Balometer			EBT
	6200D	6200F	342	343	6461CFM	6463CFM	6465CFM	721
10-500 CFM (17-850 m ³ /hr)	•	•						
0-1400 CFM (0-2400 m ³ /hr)			•	•				
0-2000 CFM (0-3400 m ³ /hr)					•	•	•	
25-2500 CFM (42-4250 m ³ /hr)								•
Temperature (°F or °C)								•
Velocity, temperature or %RH probe								•
With 2' x 2' hood	•		•		•			•
With 2' x 2', 2' x 4', 1' x 4' hoods						•		•
With 2' x 2', 2' x 4', 1' x 4', 1' x 5', and 3' x 3' hoods							•	•
16" x 16" hood		•		•	•	•	•	•
BSC Hood Kit								•
Deflecting vane anemometer (analog display)			•	•	•	•	•	
Pressure Sensor (manometer)								•
Thermo-anemometer sensor	•	•						
Inherently intrinsically safe			•	•	•	•	•	
Statistics (min., max., and avg.)								•
Data log (recall / download to a PC)								•
K-factor input or field calibration	•	•						•
Backlit LCD Display								•
Automatic Density Correction								•
Backpressure Compensation								•
Internal NiMH Battery Charging								•

• = Standard Feature 2' x 2' (610 mm x 610 mm) 1' x 4' (305 mm x 1220 mm)
 • = Optional accessory 2' x 4' (610 mm x 1220 mm) 1' x 5' (305 mm x 1525 mm)

[Standard Balometer® Capture Hood

By placing the Alnor Balometer Capture Hood over a diffuser or grille, you can measure air volume to balance buildings and verify air flow distribution. The easily observed trend values and fast meter response make the Standard Balometer hood the preferred instrument for test, balance, and commissioning firms.



model

	cfm	m ³ /h	l/s
model 6461	6461cfm	6461cmh	6461lps
model 6463	6463cfm	6463cmh	6463lps
model 6465	6465cfm	6465cmh	6465lps

Note: model 6461 includes 2 ft. x 2 ft. (610 mm x 610 mm) hood
 model 6463 includes 6461 plus 2 ft. x 4 ft. (610 mm x 1220 mm) and 1 ft. x 4 ft. (305 mm x 1220 mm) hoods
 model 6465 includes 6463 plus 3 ft. x 3 ft. (915 mm x 915 mm) and 1 ft. x 5 ft. (305 mm x 1525 mm) hoods

specifications

range		0–2000 cfm (0–3400 m ³ /h, 0–950 l/s)
resolution	VOLUME	5 cfm from 25–250 cfm (10 m ³ /h from 50–400 m ³ /h, 5 l/s from 10–120 l/s) 10 cfm from 100–500 cfm (10 m ³ /h from 200–400 m ³ /h, 5 l/s from 50–240 l/s) 20 cfm from 400–1000 cfm (25 m ³ /h from 700–1700 m ³ /h, 10 l/s from 200–475 l/s) 50 cfm from 800–2000 cfm (50 m ³ /h from 1400–3400 m ³ /h, 25 l/s from 400–950 l/s)
accuracy	SUPPLY	±3% of full scale, except ± 20 cfm on 250 cfm scale (± 35 cmh on 400 cmh scale) (± 10 l/s on 120 l/s scale)
	EXHAUST	±3% of full scale, except ± 20 cfm on 250 cfm scale (± 35 cmh on 400 cmh scale) (± 10 l/s on 120 l/s scale)
display		precision-balanced analog meter movement
instrument weight and height		9.8 lb (4.5 kg) with 2 ft x 2 ft (610 mm x 610 mm) hood attached, 40 in. (1017 mm) tall

[LoFlo Balometer® Capture Hood

The LoFlo Balometer Capture Hood is the ideal way to measure very low volumetric flow. You can measure confidently and accurately from 10 to 500 cfm (17 to 850 m³/h). This lightweight instrument is great for residential or light commercial use.



model

6200D

with 2 ft x 2 ft (610 mm x 610 mm) hood

6200F

with 16 in. x 16 in. (406 mm x 406 mm) hood

6200E

base only metric

specifications

range		10–500 cfm (17–850 m ³ /h, 4.7–236 l/s)
resolution	VOLUME	1 cfm from 10–500 cfm (1 m ³ /h from 17–850 m ³ /h, 0.1 l/s from 4.7–9.9 l/s, 1 l/s from 10–236 l/s)
accuracy	SUPPLY EXHAUST	±3% of reading +5 cfm, or (+8.5 m ³ /h, +2.4 l/s) ±3% of reading +5 cfm, or (+8.5 m ³ /h, +2.4 l/s)
display		3-digit, 0.44 in. (11 mm) high, digital display with 26-segment simulated analog display
instrument weight and height		6.5 lb (3 kg) with 2 ft x 2 ft (610 mm x 610 mm) hood attached, 34.5 in. (876mm) tall
batteries		four C-size alkaline; minimum 10 hours continuous use

[Balometer® Jr. Capture Hood

The size of Alnor's Balometer Jr. Capture Hood is ideal for tight spaces, such as above office cubicles and in restrooms. This instrument stands only 21-in. (533-mm) high with the smaller hood. Moreover, it uses the same swinging vane technology as Alnor's Standard Balometer hood.



model

	cfm	m ³ /h	l/s
with 2 ft x 2 ft (610 mm x 610 mm) hood	342	352	332
with 16 in. x 16 in. (406 mm x 406 mm) hood	343	353	333

specifications

range	0–1400 cfm (0–2400 m ³ /h, 0–660 l/s)	
resolution	VOLUME	10 cfm from 0–200 cfm (20 m ³ /h from 0–340 m ³ /h, 5 l/s from 0–95 l/s) 20 cfm from 100–600 cfm (50 m ³ /h from 200–1000 m ³ /h, 10 l/s from 50–290 l/s) 50 cfm from 400–1400 cfm (100 m ³ /h from 800–2400 m ³ /h, 20 l/s from 200–660 l/s)
accuracy	SUPPLY EXHAUST	±5% of full scale ±5% of full scale
display	precision-balanced analog meter movement	
instrument weight and height	6.9 lb (3.1 kg) with 2 ft x 2 ft (610 mm x 610 mm) hood attached, 34 in. (864mm) tall	

[Electronic Balancing Tool—EBT721

The EBT721 Balometer Electronic Balancing Tool features a detachable multipurpose digital manometer that can be used with a variety of common test and balance tools, such as pitot, air flow, temperature, relative humidity probes or a 16-point Velocity Matrix. It will become the tool of choice for contractors and facilities personnel because of its ergonomic design and extremely light weight.



model

model number	description
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EBT721-A1	2 ft. x 2 ft. (610 mm x 610 mm) air capture hood/frame/base, manometer, 4-AA size rechargeable NiMH batteries, external battery charger, AC adaptor, 18-in. (457 mm) pitot probe, 2 static pressure probes, 16-ft. (4.9 m) Norprene® tubing, wheeled luggage style carrying case, NIST-traceable calibration certificate, CompuDat™ PC downloading software, and manual.
EBT721-X1	-A1 plus 16-point Velocity Matrix with telescoping handle
EBT721-O1	-X1 plus Temperature Probe
EBT721-Z1	-O1 plus Relative Humidity/Temperature probe, Air Flow Probe

Note: For EBT720 or 721 with European AC adapter, change to -A2, -X2, -O2, -Z2
 For EBT720 or 721 with UK AC adapter, change to -A3, -X3, -O3, -Z3
 For EBT720 or 721 with Australian AC adapter, change to -A4, -X4, -O4, -Z4

accessories

Alnor® EBT720 and EBT721

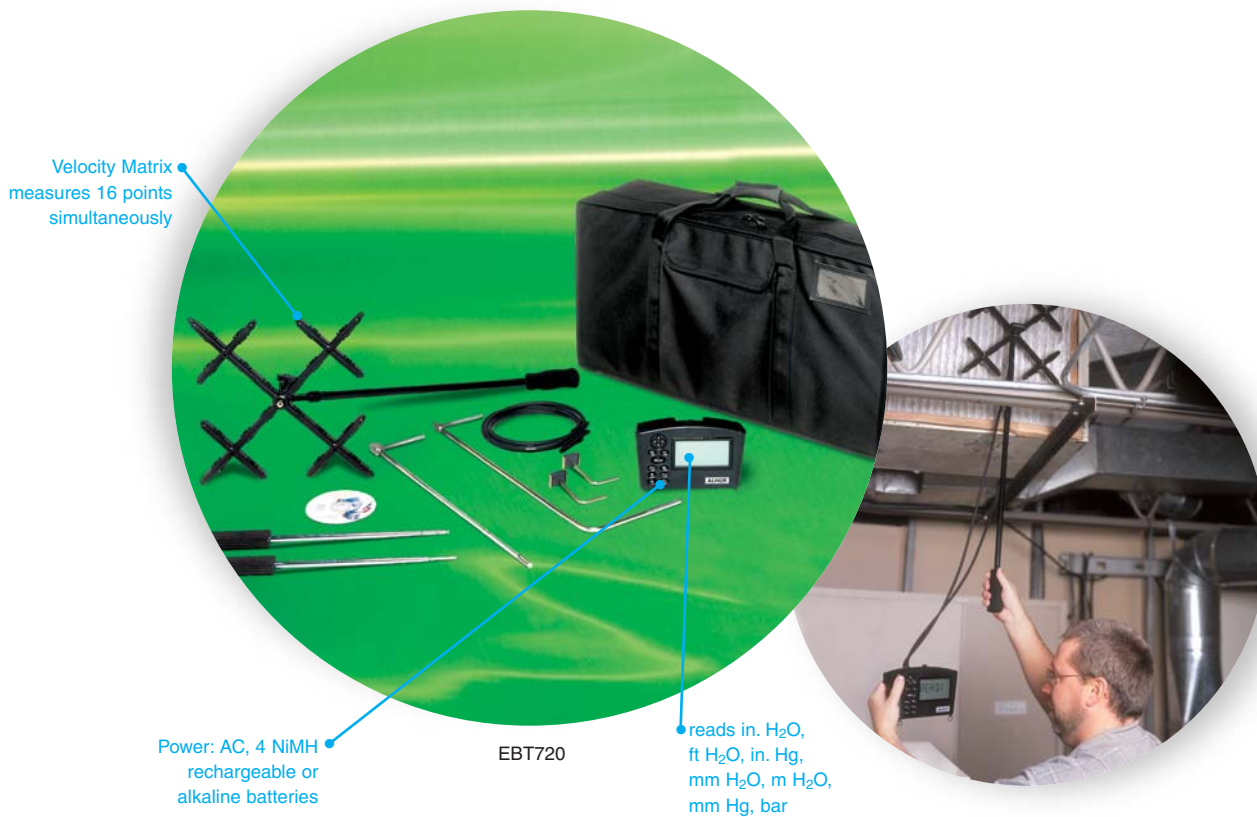
Velocity matrix	part # 801090	12 in. pitot probe	part # 634-634-000
Air flow probe	part # 800187	18 in. pitot probe	part # 634-634-001
Temperature probe	part # 800188	24 in. pitot probe	part # 634-634-002
Temp/Humidity probe	part # 800189	36 in. pitot probe	part # 634-634-003
		60 in. pitot probe	part # 634-634-005

Bio-Safety Cabinet Hood Kits

8-in. x 24-in. (203 mm x 610 mm) hood	part # 801050
10-in. x 24-in. (254 mm x 610 mm) hood	part # 801051

[Electronic Balancing Tool—EBT720

The new Alnor EBT720 is one of the most advanced, versatile, and easy-to-use air balancing tools on the market today. With a variety of best-in-class probes, it will become the everyday tool of test and balance technicians.



model #

model number	description
EBT720-A1	Manometer with carrying case, 4-AA size rechargeable NiMH batteries, external battery charger, AC adaptor, 18-in. (457 mm) pitot probe, 2 static pressure probes, 16-ft. (4.9 m) Norprene® tubing, CompuDat™ PC downloading software, NIST-traceable calibration certificate, and manual.
EBT720-X1	-A1 plus 16-point Velocity Matrix with telescoping handle
EBT720-O1	-X1 plus Temperature Probe
EBT720-Z1	-O1 plus Relative Humidity/Temperature probe, Air Flow Probe

Note: For EBT720 or 721 with European AC adapter, change to -A2, -X2, -O2, -Z2
 For EBT720 or 721 with UK AC adapter, change to -A3, -X3, -O3, -Z3
 For EBT720 or 721 with Australian AC adapter, change to -A4, -X4, -O4, -Z4