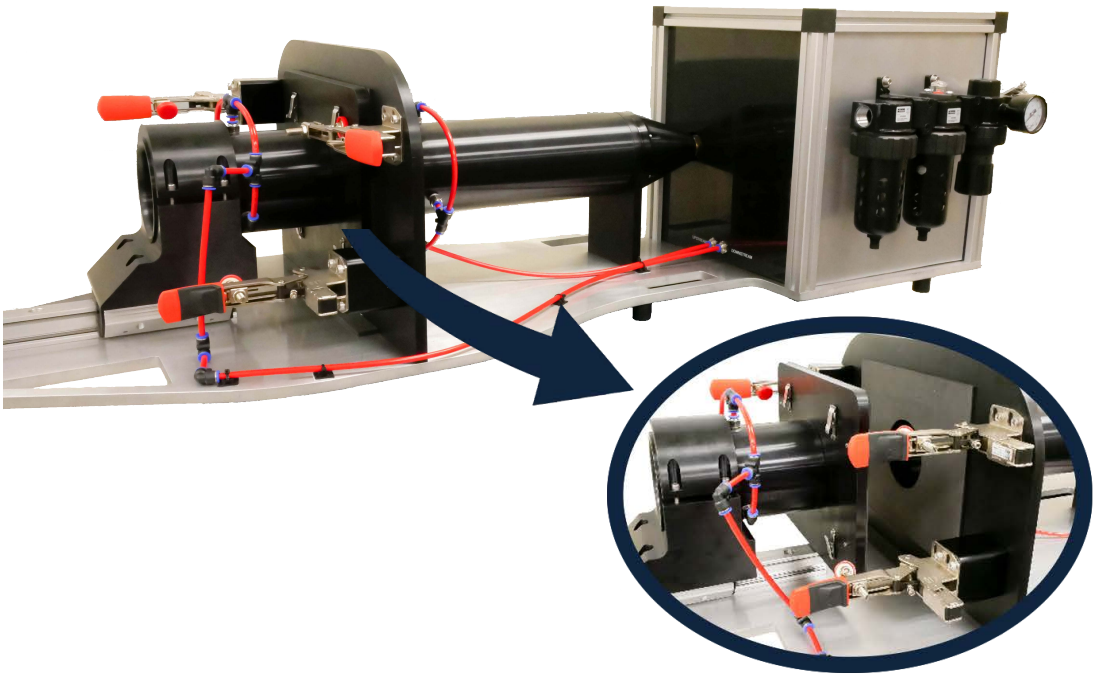




We build silence

## ***HF SIGMA***

High Airflow Resistance Meter



The high airflow resistance meter (HF SIGMA) is designed to obtain reliable measurements of the airflow resistance, normalized resistance, resistivity and viscous permeability in function of the flow velocity for a wide range of open cell materials.

Mecanum Inc.  
2444 Bonin Street  
Sherbrooke (Qc) J1K 1C4 Canada

(819) 346-5666  
info@mecanum.com  
www.mecanum.com

# Adds and Complements

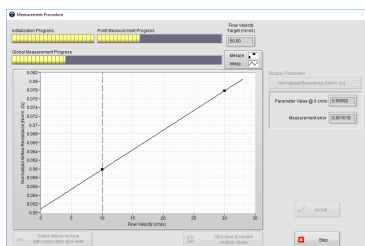
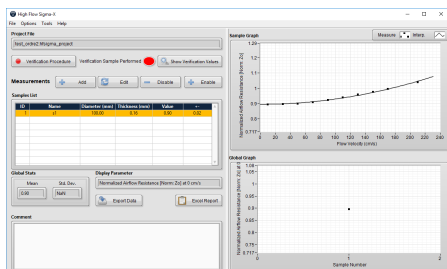
## Hardware

- High airflow measuring system with integrated DAQ;
- Integrated mobile sample holder to test up to 2 inches thick samples;
- Verification sample with its certificate.

## Software - HF SIGMA-X



- Automatic measurement and flow control;
- Airflow resistance, resistivity, permeability and normalized airflow resistance calculations following direct method;
- Calculates indicators at different speed and at 0 cm/s (static value);
- Data export to XML and MS/Excel format.



## Warranty and Support

The system is covered by a 1-year limited warranty<sup>1</sup> and technical support.

<sup>1</sup> Mecanum Warranty is only valid on manufacturing defects and will not cover damage due to any abusive or improper use.

## On Demand

- Custom circular sample holder

## Typical Tested Materials

- Perforated plate
- Headliner
- Resistive screen

## Technical Data

*Test diameter:* 100 mm

*Minimum square sample dimensions:*

120(L) x 120(W) mm

*Material:* CNC machined aluminum, black anodized

*Dimensions:* 1420(L) x 520(W) x 450(H) mm

*DAQ:* 16 bit, USB

*Power supply:* 100-240 V / 50-60 Hz / 2 A

*Flow control:* from 3.5 cm/s to 300 cm/s

*Differential pressure transducer:* 0-17400 Pa range

*Operating temperature:* +15 to +30 °C

*Weight:* 70 kg

## Range

- Airflow resistance:
  - From 1 to 540 000 Pa.s/m (for a 100 mm diameter sample)
- Airflow resistivity:
  - From 40 to  $21 \times 10^6$  Pa.s/m<sup>2</sup> (for a 100 mm diameter and 25.4 mm thick sample)
- Permeability:
  - From  $8.6 \times 10^{-13}$  to  $4.7 \times 10^{-7}$  m<sup>2</sup> (for a 100 mm diameter and 25.4 mm thick sample)

## Special Requirements

The HF SIGMA system requires a minimum of 60 CFM at 50 psi of clean and dry air line (optional air device available).