

HF-SIGMA

High Flow Resistivity Meter

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Mecanum's high flow resistivity meter is designed to obtain reliable measurement of airflow resistivity, resistance, normalized resistance, permeability and non linear Darcy Forchheimer coefficients as a function of flow velocity for a wide range of acoustic materials used for noise control.

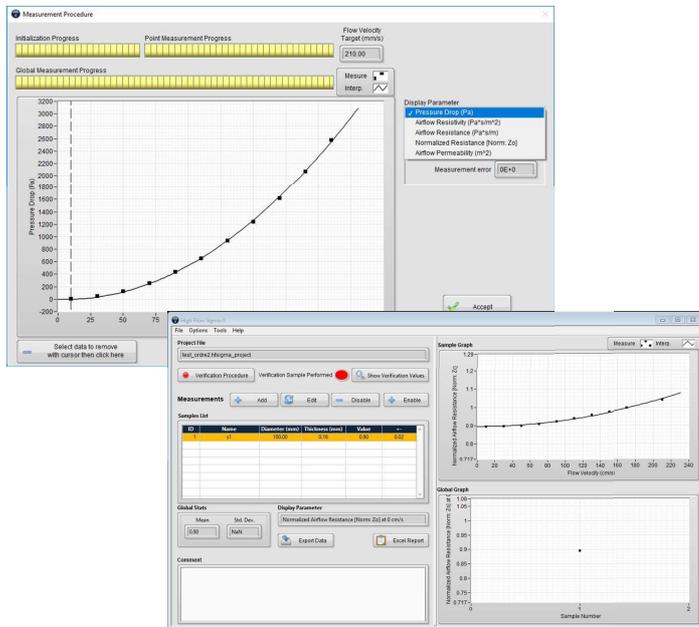
SPECIFICATIONS

Test Bench

- Integrated mass flow controllers
- Integrated pressure sensors
- Certified verification sample

HF-SIGMA-X Software

- Automatic airflow control
- Calculates airflow resistance, normalized resistance, resistivity and permeability
- Calculates non linear Darcy-Forchheimer coefficients
- Reports generation



TYPICAL TESTED MATERIALS

- Perforated plates
- Resistive screens & fabrics
- Porous materials

OPTIONAL ACCESSORIES

Custom sample holder (ex: circular)

TECHNICAL DATA

Test Bench

- Dimensions: 1438 (L) x 600 (W) x 408 (H) mm
- Weight: 95 kg
- Power supply: 100-240 V / 50-60 Hz / 90 W
- Operating temperature: 0°C to 50°C
- Test section diameter: 100 mm
- Max flow rate: 1500 SLM
- Differential pressure sensor: up to 17 000 Pa
- Communication: USB 2.0 type A
- Material: CNC machined aluminum, black anodized

MEASURING RANGE

- Flow velocity: 10 to 280 cm/s (*)
- Pressure drop: up to 17 000 Pa (*)
- Airflow resistance: 5 to 170 000 Pa.s/m (*)
- Normalized airflow resistance: 0.012 to 411.2 Pa.m.s²/kg (**)
- Airflow resistivity: 197 to 6.69 x 10⁶ Pa.s/m² (***)
- Airflow permeability: 2.7 x 10⁻¹² to 9.2 x 10⁻⁸ m² (***)

(*) For a 100 mm diameter sample

(**) For a 100 mm diameter sample at 20°C et 1013 hPa

(***) For a 100 mm diameter and 25.4 mm thickness sample

SPECIAL REQUIREMENT

The HF-SIGMA system requires a clean and dry 60 CFM (1700 LM) at 40 psi (276 kPa) air line. Maximum 10 minutes per test.

WARRANTY & SUPPORT

All Mecanum characterization systems are covered by a one-year limited warranty and technical support. Valid only on manufacturing defects and does not cover damage due to abuse or improper use of the equipment.

Please note that the technical aspects of our equipment may be subject to change without notice