

Resistivity measurement setup

Air flow resistivity is an essential parameter for the characterization and simulation of the acoustic behaviour of porous materials.

The measurement setup developed by CTTM is compliant with the ISO standard "EN 29053 (ISO 9053), méthode A " .

Principle

The tested sample is placed in a continuous air flow. The volumetric flow rate and the pressure drop created by the material are measured thus allowing the calculation of the resistivity (Darcy's Law).



Specifications

- Air flow generated by a vacuum pump from 0.5 to 6 l/min.
- Diameter of the sample holder : 44.4 mm.
- Measurement Range : 20 to 20000 Rayls (MKS).
- Precision of the pressure transducers : $\pm 2\%$.
- Power alimentation : 220 V.

Device included

- Sample holder,
- Vacuum pump + silencer,
- Pressure transducers with digital display,
- Calibrated resistance,
- Pipes, data wires
- Sample cutter,
- Acquisition and control software on Windows (one parallel port and two serial ports required).