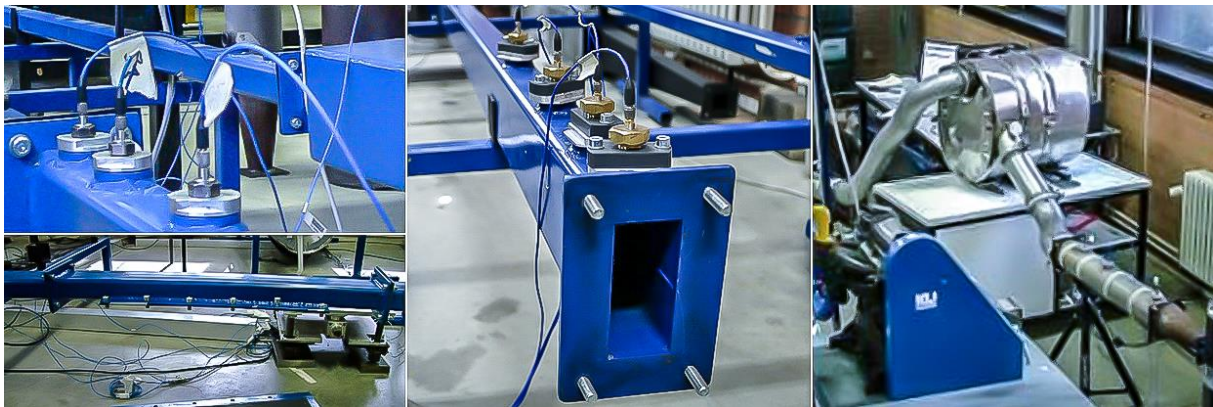


FLOW-ACOUSTIC CHARACTERISATION OF DUCT SYSTEMS



Location: FlandersMake@KULeuven

DESCRIPTION

This modular facility enables the flow-acoustic characterisation, like sound transmission, reflection and absorption under various flow conditions, aerodynamic sound generation, etc. of duct components from e.g. HVAC, intake or exhaust systems.

The test setup is also available for the indirect determination of the acoustic impedance of sound absorbing materials, both under quiescent conditions and in the presence of a mean flow. The experimental approach is based on an active multiport characterisation of the test objects using multiple flush-mounted pressure transducers and a combined multiple-source/multiple-load approach.

NVH & DURABILITY TESTING

TECHNICAL SPECIFICATIONS

- Modular system with circular or rectangular ducts of various dimensions.
- Max flow rate: 650 m³/h
- Flow conditioning: uniform (frequency regulated roots blower) or time-pulsing (cold engine simulator at ambient temperature)

OUR OFFER

Using this test infrastructure, we offer:

- Flow-acoustic characterisation of duct components: sound transmission and reflection; aerodynamic noise generation.
- Characterisation of sound absorbing materials (micro-perforates, liners, porous wall treatments, ...) under grazing flow.

INTERESTED?

Contact contact_DMMS@flandersmake.be for more information.