

Delphi Customer Technology Centre Luxembourg Noise and Vibration Laboratory

The Noise and Vibration Laboratory at the Delphi Customer Technology Centre Luxembourg offers two testing chambers:

- Vehicle Semi-Anechoic Chamber (V.S.A.C.) for measurement of noise under a free field condition over a reflective surface (ISO 3745-1977 standard), and vibration performances of a component under operating conditions
- Component Anechoic Chamber (C.A.C.) for measurement of noise under a free field condition over a reflective surface (DIN 45635 standard), and vibration performances of belt-driven components under operating conditions

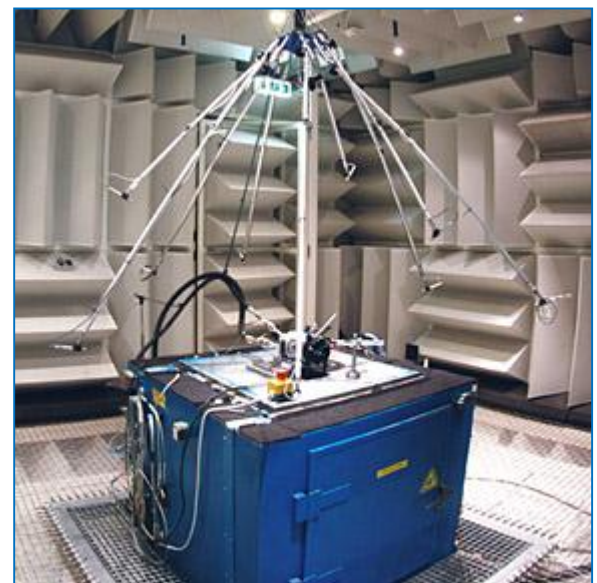
Services at the Delphi Customer Technology Centre Luxembourg are performed by a highly trained and experienced staff that understands the challenges facing manufacturers today. The services are conducted according to industry standards, and are designed to meet individual customer schedules and enable competitive costs.

► Operational Parameters

- Vehicle Semi-Anechoic Chamber (V.S.A.C.):
 - Size: length 8.1 m, by width 6.1 m, by height 3.7 m
 - Frequency range: from 100 Hz to 10 kHz (cut-off frequency: 100 Hz)
 - Background noise: 25 dB (A)
 - Ambient temperature control: from 16°C to 26°C
 - Acquisition devices:
 - Difa system, 20 channel, 24 bit quantification
 - Octobox, 8 channel, 24 bit
 - 50 kHz sampling
 - Head acoustic system
 - LMS software
 - ARTEMIS software
 - Car engine speed control: by throttle actuator using stepper motor
- Component Anechoic Chamber (C.A.C.):
 - Frequency range: from 125 Hz to 10 kHz
 - Background noise: 25 dB (A)
 - Belt-driven test stand: 0 to 20,000 rpm
 - Acquisition devices:
 - Difa system, 24 channel, 24 bit quantification
 - 50 kHz sampling
 - Head acoustic system
 - LMS software
 - Electrical load: up to 300 A
 - External compressor refrigerant conditioning



Vehicle Semi-Anechoic Chamber (V.S.A.C.) at Delphi Customer Technology Centre Luxembourg



Component Anechoic Chamber (C.A.C.)

▶ The Delphi Advantage

Delphi's Customer Technology Centre Luxembourg is conveniently located near European customers in the design, development, testing and validation of their products. It is certified to ISO/TS 16949 Standard for Supplier Quality Management Systems. It is part of Delphi's network of state-of-the-art technical centers around the world.

Delphi is a leading global supplier of a broad range of technologies with manufacturing facilities located in more than 30 countries. Delphi's products are engineered to meet the rigorous standards of the automotive industry, but Delphi technologies are also used in many other industries. We leverage a rich heritage and extensive technical knowledge to offer customers an array of innovative, cost competitive solutions.

▶ Contact Information

Delphi Customer Technology Centre Luxembourg
External Testing Services
Avenue de Luxembourg
L-4940 Bascharage
G.D. of Luxembourg
Telephone: [352] 5018.4082
Fax: [352] 5018.3210
E-mail: test.lu@delphi.com