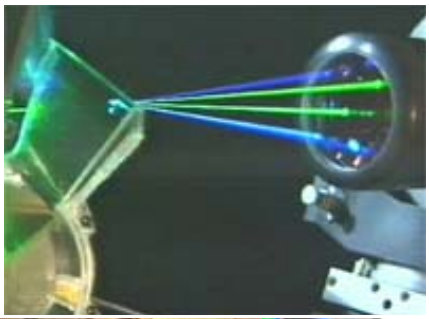
NVH Tools for Heating, Ventilation and Air Conditioning (HVAC)

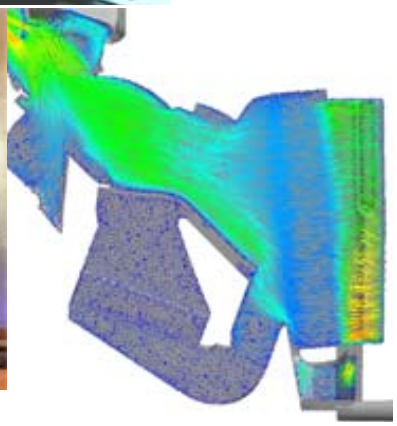
Visteon utilizes a full range of analytical tools and laboratory capabilities in the development of Heating, Ventilation and Air Conditioning (HVAC) systems designed to deliver optimal Noise, Vibration and Harshness (NVH) performance and rapid development times.

- **Leading-Edge Computational Fluid Dynamic (CFD) Tools –** Enables optimized NVH performance through rapid evaluation of air flow characteristics based on multiple design alternatives while reducing the number of design iterations.
- **Advanced Predictive Aero-Acoustics Tool** – Unique predictive model that analyzes in-vehicle air rush noise levels before prototypes are developed.
- **State-of-the-art Laser Laboratory** – Characterizes actual air flow characteristics within both the HVAC system and vehicle cabin, enabling validation of Computer-Aided Engineering (CAE) models and optimization of performance.
- **Sound Intensity Ranking and Mapping** – Pinpoints the root cause of noise in large complex sources (e.g. cockpit and air handling assemblies).
- **Frequency Response Function, Modal Analysis and Laser Vibrometer –** Identifies vibration mode shapes responsible for noise generation, providing valuable insight for design changes.
- **Silent Drive Noise Chamber –** Noise measurement while exercising rotating devices (e.g. compressors, alternators, pumps) in a quiet environment for developmental experimentation.

Additional NVH Testing Capabilities:

- Anechoic and Semi-Anechoic Chambers
- Transmission-Loss Lab
- Refrigerant Flow Bench Quiet Room
- MB Dynamics Energizer-Series Squeak and Rattle Exciter
- Aachen HEAD Binaural Recording and Artemis Sound Quality Analysis (with state-of-the-art playback studio)
- Sqadriga and SQLab Portable Noise Vibration Measurement Equipment





Visteon Corporation
Test Operations

One Village Center Drive
Van Buren Township, MI 48111
Phone: 1-800-VISTEON
E-mail: testlabs@visteon.com
URL: http://www.visteon.com/testing