

Delphi Customer Technology Center Michigan Air Flow Test Laboratory

The Air Flow Test Laboratory at the Delphi Customer Technology Center Michigan (CTCM) offers customers accurate and repeatable test capabilities for the measurement of engine intake air induction system performance, including mass airflow (MAF) sensor performance. MAF sensors are tested within complete systems to enable determination of optimal air/fuel mixtures for fuel injected internal combustion engines. The Air Flow Test Lab can also provide support for development of intake air induction system designs that can achieve optimal signal noise.

Available state-of-the-art test equipment includes:

- Two sonic flow test stands for accurate flow rate measurement.
- One temperature and humidity compensated sonic air flow stand for accurate flow rate measurement under extreme environmental conditions.
- A leak test stand for measurement of pressure decay rates.
- Pressure drop measurement equipment for induction system flow restriction as well as exhaust system flow restriction performance.

Testing in the CTCM Air Flow Test Lab is conducted by a highly trained and experienced staff that understands the challenges facing manufacturers today. Laboratory services are conducted to meet individual customer schedules at a competitive cost.

► Capabilities

Delphi's CTCM Air Flow Test Laboratory offers:

- Induction Air Flow
 - 0.25 to 800 g/s, +/-0.5%
- Temperature and Flow Testing (Reference Testing Only)
 - From -25°C to 70°C and from 0% to 90% RH at 1 to 185 g/s, +/-1% typical
- Air Flow Look-up Table Generation
- Air Induction System Testing
- Air Flow Restriction (Pressure Drop)
- Pulse and Reverse Flow Mapping
- Manufacturer's Test and Calibration Algorithm Development



**Sonic Air Flow Test Stand at Delphi's
Customer Technology Center Michigan**

▶ The Delphi Advantage

The Delphi Customer Technology Center Michigan supports hundreds of customers worldwide in the design, development, testing, and validation of their products. It is certified to the ISO/TS 16949 Standard for Automotive 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 on many other industries. We leverage a rich heritage and extensive technical knowledge to offer customers an array of innovative, cost competitive solutions.

▶ Contact Information

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Temperature and Humidity Compensated Air Flow Test Stand at Delphi's Customer Technology Center Michigan Technology Center Michigan