

Delphi Customer Technology Center Michigan Environmental Chamber Testing Laboratory

The Environmental Chamber Testing Laboratory at the Delphi Customer Technology Center Michigan (CTCM) can subject components to a variety of accelerated environmental tests including:

- Corrosive salt fog
- Dust
- Gravelometer
- Temperature and humidity
- Thermal shock

Testing in the Environmental Chamber Test Laboratory 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 and at a competitive cost. Professional, experienced account management provides customers with single-point contact to streamline test coordination.

The Environmental Chamber Test Laboratory's vast capabilities can expose products to the most stringent transportation and military standards. Delphi offers quick turnaround time and maintains customer confidentiality. Delphi's CTCM Environmental Chamber Testing Laboratory supports customers who do not have in-house testing, or require "overflow" testing services.

► Capabilities

The Environmental Chamber Testing Laboratory at Delphi's CTCM offers the following facilities:

- Corrosion salt fog chamber
 - Maximum size: 30 cu. ft.; 45 inches wide by 30 inches deep by 39 inches high (1.143 m x .762 m x .9906 m)
 - ASTM-B117 steady state fog at 35°C
 - Ambient or 35°C
- Dust chamber
 - Ambient Temperature
 - Chamber size: 36 inches by 36 inches by 36 inches (.9144 m x .9144 m x .9144 m)
 - Dust: Fine, Medium, or Coarse Arizona Test Dust
 - Stir and settle times are programmable
- Gravelometer Q-Panel
 - Test Method: SAE J400
 - Pressure: 60 psi to 80 psi
 - Feed Rate: 10 to 20 seconds per pint of gravel; slight adjustments can be made
 - Gravel: Water eroded alluvial road gravel passing through a 5/8" screen but retained in a 3/8" screen



The Environmental Chamber Laboratory at the Delphi CTCM offers a wide array of testing capabilities.

- Temperature and humidity environmental chambers
 - Temperature range: -73°C to 177°C
 - 3 degree/minute ramp rate (Quick Ramp):
-15 degree/minute ramp rate
 - Relative humidity: 20% to 95%
 - Maximum size: 74 cu. ft.; 54 inches wide by 54 inches deep by 44.5 inches high (1.37 m x 1.37 m x 1.13 m)
- Thermal shock chambers
 - Temperature range: -73°C to 250°C
 - Transition time: Chamber <5 seconds
 - Maximum payload: 240 lbs. (108.9 k)
 - Maximum size: 30 inches wide by 25 inches deep by 24 inches high (0.76 m x 0.63 m x 0.61 m)

▶ The Delphi Advantage

Delphi's Customer Technology Center Michigan supports hundreds of customers worldwide 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

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The Thermal Shock Chamber at the Delphi CTCM has a maximum operating temperature up to 250°C.