



Multiple testing needs met in one unique facility

- Equipped to test aerodynamics, acoustics, and racing characteristics
- 5-belt moving ground plane system for upper body aerodynamic development
- Wide-belt moving ground plane system for under body aerodynamic development

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Located in central Ohio on the grounds of the Transportation Research Center



Wind Tunnel

Test Capabilities	Multi-Module System • Aerodynamics • Aeroacoustics • Motorsports / Racing
Test Section	Variable Nozzle Area • Large Nozzle: 25m² (6.5 x 3.9 m or 21.4 x 12.7 ft) • Small Nozzle: 18m² (5.4 x 3.3 m or 17.8 x 10.9 ft)
Speed Range	Large nozzle: 0 - 250 kph (155 mph) Small nozzle: 0 - 310 kph (192 mph)
Temperature Range	10 - 50°C (50 - 122°F) Temperature and Dew Point Control
Fan Specifications	Diameter: 8 meters (26.3 feet) Blades: 12 Hollow Carbon Fiber, fixed pitch Motor: Electric, 5-Megawatt, 6700 HP
Turntable	Diameter: 12 meters (39.4 feet) Rotation Range: 180 degrees
Aero Force Measurement	Multi-Module (5-Belt or Wide Belt, 9.5 m long) 3-Axis Load Cell in Towers Drag Force Sensitivity: +/- 2.5 Newtons (0.5 lbs)
Traverse System	Moving Path Accuracy: 1.0 mm Position Accuracy: +/- 0.5 mm Maximum Deflection: < 1.0 mm
Acoustic Capability	<57 dBA at 140 kph (87 mph) 502 External Microphone Arrays with Cameras 54 Internal Microphone Array External Noise Source Accuracy: 5.0 cm



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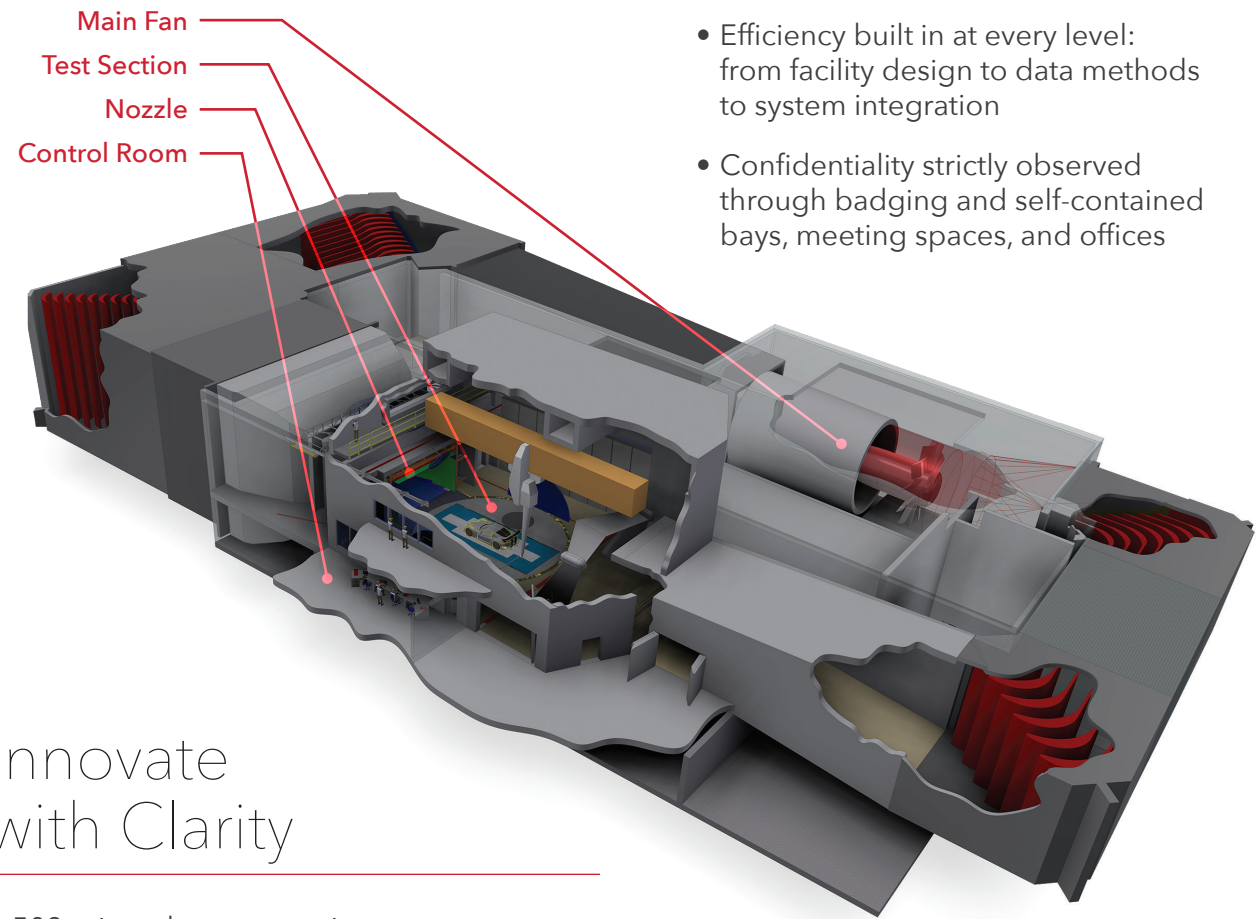


Honda Automotive Labs of Ohio

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Wind Tunnel



Innovate with Confidence

- Precision is what we do
- Efficiency built in at every level: from facility design to data methods to system integration
- Confidentiality strictly observed through badging and self-contained bays, meeting spaces, and offices

Innovate with Clarity

- 502-microphone acoustic array system with 54 microphone in-vehicle sound source detection system to pinpoint exact noise sources
- Create a visual map of the sound level in real-time and in 3D
- Ride height system tests vehicles at varying height, pitch, and roll in automated test sequences

Innovate Efficiently

- Five-belt rolling road system and single wide-belt system
- Transition from aerodynamic to aeroacoustic mode possible within an hour