





- · Engine Testing
- Specialized Test Cells (altitude, sea level, simulated and dyno testing)
- · Patented Technology



- **High Altitude Testing**
- Simulated Altitude Testing
- Extreme Environmental Temperature Testing



- **Emissions Certification**
- Exhaust & Evaporative Emissions
- · Portable Emissions (PEMS)



- Engines Large or Small (heavy duty, vehicle, marine, aircraft, motorcycle, EV & HEV, ATV, gensets, etc.)
- In Use Verification Program

ENGINE TESTING FROM TRP

RESEARCH, DEVELOPMENT & CERTIFICATION

At TRP, we have accredited laboratories across the country dedicated to engine and vehicle testing, components testing, engineering services, and customizable test cells that can accommodate a wide range of test scenarios.

Our network of transportation industry testing facilities can test anything from small hand-held engines to large heavy-duty engines, including those in vehicle, marine and aircraft transportation. We offer expertise and experience in testing and labs that support the latest industry requirements.

We offer many engine specific testing services under these umbrellas.

- Engine Testing Development and Certification
- Testing Under Extreme Environmental Conditions
- · Emissions and Exhaust Testing and Certification

As your testing resource partner, we help assure your products quality, performance and safety requirements are met. Quality forms one of our core business principals and we give it serious thought. Our dedicated quality management team helps each division administer in-house processes and guidelines, they also work to meet or exceed the stringent requirements from ISO/IEC 17025.



ENGINE TESTING SERVICES

The TRP testing facilities have several comprehensive engine test cells with a wide range of specialized dynamometers and accommodations for diesel, gasoline and gaseous fueled engines rated from 10hp to 4,000hp.

ENGINE TESTING DEVELOPMENT AND CERTIFICATION

- Exhaust emissions certification tests, compliant with 40CFR Part 1065 and ISO 8178
- "Not-to-Exceed" performance and emissions testing at extreme environmental conditions
- Engine mapping and emission control system development
- · Prototype engine development
- Engine component and retrofit evaluations
- Aftertreatment component evaluations
- · Competitive benchmarking
- Fuel blends and additive studies
- Turnkey calibration engineering services
- In-use Verification Program

TESTING UNDER EXTREME ENVIRONMENTAL CONDITIONS

- Balancing Altitude Simulation Equipment (BASE™)
 - TRP patented, tests up to 14,000 ft (4,267m) elevation above sea level
 - Both steady state and transient engine operating conditions

- Combustion air temperatures from 14 to 130°F (-10 to 54°C) over the range of simulated altitudes
- Realistic intercooler efficiency assured by air-to-liquid laboratory intercoolers, isolated cooling circuit designs and coolant flow meters with closed loop controllers

EMISSIONS AND EXHAUST TESTING AND CERTIFICATION

- A&D Combustion Analysis Systems (CAS) and AVL IndiCom
- Euro 6 Particle Number (PN) sampling with rotating disk diluter
- Particulate Matter (PM) size, distribution and gravimetric analysis
- Microsoot sensors along with smoke and opacity meters
- NMOG exhaust specification (DNPH cartridges, impingers and bags)
- Fourier Transform Infrared Analyzer (FTIR), MKS MG2030
- Laser absorption spectrometer for NH3 and N20 measurements
- Fuel and coolant flow meters

• EV & HEV Testing EMPIRE, CO

AURORA, COHigh Altitude LaboratoryVehicle & Engine Testing

· Emissions Cert Testing

PEMS Testing Services

Mileage AccumulationSub-Zero Cold Testing

· In Use Verification Program

- · High Altitude Test Center
- Elevation 8,900 ft
- On-road Development
- Sub-Zero Cold Testing
- 700 ft Drive-away
- On-Site Refueling
- EV & HEV Charging



COLUMBUS, IN

- · Sea Level Laboratory
- · Vehicle & Engine Testing
- · Emissions Cert Testing
- Sub-Zero Cold Testing
- Mileage Accumulation
- Motorcycle/ATV/UTV
- In Use Verification Program
- EV & HEV Testing



LAPEER, MI

- Fuel Storage & Systems
- · Component Testing
- · Environmental & Durability
- Evaporative Emission
- · Fill & Refueling Testing
- Lateral Slosh Testing
- · Fire Resistance Testing



TAYLOR, MI

- · Catalyst Aging
- Equipment Design & Production (NG1/NG2, Next Gen Burners)
- Fabrication & Machining
- Thermal Component Testing



TROY, MI

- Chassis & Suspension
- Shock Absorber Testing
- Component Testing
- Fatigue & Cyclic Testing
- Vibration Testing
- Thermal Test Conditions
- Exhaust Systems Testing



WHY US?

At TRP, we provide comprehensive testing services to ensure your products meet the highest safety, reliability, and compliance standards. With decades of experience, we are a trusted partner for automotive manufacturers, OEMs, and aftermarket producers.

UNMATCHED EXPERTISE

of industry
experience, our
team of seasoned
professionals exce
as skilled testing
specialists.

HIGH PRECISION LABORATORIES

ISO accredited labs feature innovative technologies, specialized facilities and advanced testing equipment.

EXTENSIVE TESTING SOLUTIONS

Diverse testing capabilities, from large commercial vehicles to small parts and their components.

CUSTOMER FOCUSED

A customer centric approach with tailored solutions to meet your specific project needs.

TRUST AND RELIABILITY

A proven track record of reliability, delivering quality results with quick turnaround times.

