## SGS SHOCK ABSORBER TESTING

Located just north of Detroit, our ISO 17025 accredited facility in Troy, MI is capable of performing servo-hydraulic, shock and vibration testing. A leader within the industry for testing and engineering services, SGS serves customers in a wide range of industries including; automotive, off-road, heavy truck, aerospace, power sports, marine and military. Through investments in technology, the use of flexible equipment, and collaboration with our network of SGS labs, we work hand-in-hand with our customers to create accelerated lab-based testing methods that support shorter product life-cycles in order to bring products to market quickly and efficiently.





### **CONTACT US**

To request a quote or discuss your testing needs in detail, please call +01 844 730 4175 or email us.transportation@sgs.com.



#### **AVAILABLE EQUIPMENT & SUPPORT**

- Three dedicated shock absorber test stands capable of testing sample sizes of six simultaneously
- Two purpose built shock absorber test stands designed to support large vehicles, heavy trucks, off-road vehicles and military applications
- Multiple high performance test rigs with speeds in excess of 5.0 m/s
- Anechoic chamber for noise evaluations
- Control systems that support damper software and real-time testing
- 1000 GPM hydraulic pumping system
- All tests can include cooling jackets, side loading, data collection and data acquisition
- Dedicated technical staff support is available seven days a week, 24 hours a day

#### **TESTING CAPABILITIES**

- High speed valve durability
- High and low speed cycling
- High speed impact
- Damping force characteristics
- Temperature cycling
- Noise evaluations
- Tube static strength
- High speed piston endurance
- Piston rod fatigue
- Static bending strength
- Mounting pin static and dynamic load
- Dust durability
- Oil seal durability
- Muddy water endurance
- Friction testing
- Rebound bumper testing
- Biaxial life cycle
- Gas repulsion
- Impact drop
- Piston rod bending fatigue
- Clevis bracket to cylinder durability

## HEAVY DUTY SHOCK ABSORBER TESTING CAPABILITIES

- Heavy duty shock absorber test systems to support military, aerospace, heavy duty, off-road, bus, rail and industrial applications
- Ridged two and four post test frames with 45 kip actuators, +/- 5 inch stroke, and high response servo valves
- Optional hydraulic or pneumatic side loading capability
- Custom enclosures for high and low temperature environmental conditions
- All tests can include water cooling jackets, data collection and data acquisition
- Custom fixture design, build and fabrication capabilities
- Test frames mounted to in-ground bed plates with reaction mass



## **SGS** GLOBAL & LOCAL

## 95,000 EMPLOYEES | 2,400 OFFICES & LABORATORIES AROUND THE WORLD



**EUROPE, AFRICA** & MIDDLE EAST

1,400 OFFICES & LABORATORIES 39,700 EMPLOYEES

**ASIA PACIFIC** 

**520 OFFICES & LABORATORIES** 32,900 EMPLOYEES

# **GLOBAL SERVICE LOCAL EXPERTISE**

### **SGS TRANSPORTATION**

- Automotive
- Aerospace & Defense
- Military
- Marine
- Off-road
- Non-road
- Small Engine
- **Power Sports**
- Agriculture
- Portable Fuel Containers
- Industry Groups
- Government & Regulatory Agencies

#### **CONTACT US**

**VARIABLE ALTITUDE ENGINE & VEHICLE TESTING** 

Aurora, CO

**TEST CELL SOLUTIONS, SOFTWARE AND VARIABLE HORSEPOWER ENGINE AND VEHICLE TESTING** 

Columbus, IN

**ROCKY MOUNTAIN HIGH ALTITUDE TEST CENTER** 

Empire, CO

**MILEAGE ACCUMULATION CENTER** 

Jackson, MI

**FUEL & COMPONENT SYSTEMS TESTING** 

Lapeer, MI

**CATALYST AGING & COMPONENT TESTING SERVICES** 

Taylor, MI

**COMPONENT TESTING & ENGINEERING SERVICES** 

Troy, MI

