

# SGS VEHICLE & ENGINE TESTING

## RESEARCH, DEVELOPMENT AND CERTIFICATION TESTING WITH ENVIRONMENTAL CONDITIONS

SGS is equipped with a comprehensive array of laboratories capable of testing under extreme environmental conditions and at simulated altitudes through its patented technology. Our experts can help you with anything from your most basic testing needs for small to engines all the way to custom designed complex tests for larger engines for vehicles. Let our independent lab complement your current testing program.



### EXHAUST EMISSIONS CERTIFICATION

- Five chassis dynamometer emissions laboratories compliant with EPA standards
- Federal and supplemental vehicle emissions certification testing
- EPA CAP2000 and In-Use Verification Program (IUVP)
- Motorcycle and ATV chassis dyno

### VEHICLE DEVELOPMENT

- Emissions labs to meet customer needs, including environmental testing, catalyst efficiency determination, custom drive cycles/ test procedures and exhaust speciation
- Vehicle instrumentation, including exhaust sample ports, thermocouples, pressure transducers and data logging
- Large cold soak room for cold start and sub-zero evaluation of products to -22°F (-30°C)
- Certification and specialty fuels in bulk tanks and drums

### EVAPORATIVE EMISSIONS

- Four variable temperature SHEDs
- EPA and CARB procedures performed
- Point source running loss and fuel tank temp profile control
- On-board Refueling Vapor Recovery
- Canister loading and breakthrough

### EXTREME TESTING

- All test cells feature patented altitude simulation capable of testing 0 to more than 12000' (3660 m) above sea level for both steady state and transient engine operating conditions
- Combustion air temperatures may be set from 14° to 130°F (-10° to 54°C)

### TYPICAL ENGINE TEST CELL USES

- Exhaust emissions certification tests, compliant with 40CFR Part 1065 and ISO8178 standards
- "Not-to-Exceed" performance and emissions testing at extreme environmental conditions
- Engine mapping and emission control system development
- Prototype engine development
- Electronic control system calibration
- Engine and aftertreatment component evaluations
- Verification of retrofit systems for state programs
- Fuel blends and additive studies
- Competitive benchmarking

### CONTACT US

SGS's Aurora, CO facility is staffed with experts to answer your questions from 8:00 a.m. until 5:00 p.m. Monday through Friday. To request a quote or discuss your needs in detail, please call (303) 344-5470 or email [us.transportation@sgs.com](mailto:us.transportation@sgs.com).



# SGS

# SGS UNIQUE TESTING SOLUTIONS

When your testing is performed at an SGS laboratory, rest assured that the results will be of the highest quality in the industry. Our laboratories are used by automotive and engine manufacturers, suppliers, the petrol chemical industry, the research community and government agencies among others. We offer vehicle procurement, engineering services, design of experiments, control system calibration, data analysis and project management to meet specific customer needs.

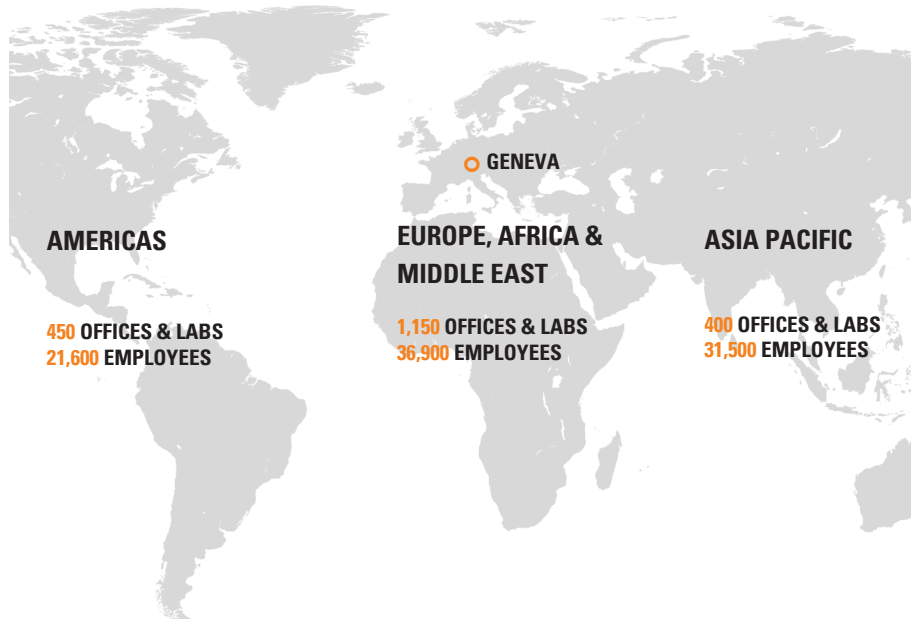


## UNIQUE OFFERINGS

- Our high-feature engine and vehicle test cells are equipped with our patented altitude simulation system (BASE™) and allow us to test powertrains from sea level and normal conditions to extreme altitude and variable temperature conditions.
- Our labs are equipped with comprehensive security and video surveillance systems to ensure customer confidentiality.
- Our highly skilled and experienced staff aids customers to test new products, perform research and development and ensure compliance with federal and state emissions regulations.
- Our core business is the advancement of test technology and methods to enable the development of next-generation powertrains.

# SGS GLOBAL & LOCAL

90,000 EMPLOYEES | 2,000 OFFICES & LABS AROUND THE WORLD



## VARIABLE ALTITUDE ENGINE & VEHICLE TESTING

Aurora, CO  
(303) 344-5470

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

Columbus, IN  
(800) 713-1203

## FUEL & COMPONENT SYSTEMS TESTING

Lapeer, MI  
(810) 245-1600

## MILEAGE ACCUMULATION CENTER

Jackson, MI  
(303) 344-5470

## CATALYST AGING & COMPONENT TESTING SERVICES

Taylor, MI  
(734) 442-0200

## COMPONENT TESTING & ENGINEERING SERVICES

Troy, MI  
(734) 442-0200

## ROCKY MOUNTAIN HIGH ALTITUDE TEST CENTER

Empire, CO  
(303) 344-5470

WHEN YOU NEED TO BE SURE

