



Auto Test solutions for those who demand precision.

ST

Design. Build. Test.

Your next testing facility must reflect your brand and capabilities at the highest level of operational efficiency with precision test data, and a clean look and feel.



Sierra makes it possible through a working approach that is built on teamwork, innovation, flexibility, and challenging the status quo in everything we do.

From mechanical layout, controls and software to dynamometers and peripheral equipment, we handle every facet of your project with a combination of process knowledge, subject matter expertise, and integration experience that makes our services uniquely valuable.

Sierra's experience delivers design decisions that support your brand equity and result in effective test data production and superior reporting to support research and development over the long term. We design and construct facilities for a complete scope of automotive test applications including engine, vehicle, powertrain, transmission, emissions, analytical, and component testing.

And uniquely, we also design and manufacture all of the measurement and control product technology used in each facility. Although we do integrate other manufacturers' technology when required, using our own products allows for rapid customization and innovation as our customers continue to push their product testing performance to the next level.

Let's get started.

Recent Projects

INTERTEK (pictured above and right)

Six engine, powertrain, hybrid and EV test cells and associated infrastructure.

NATURAL GAS ENGINE TEST

Three emissions test cells for development and certification of natural gas and diesel engines.

MUGEN-HONDA MOTORSPORT

Two high performance engine test cells for World Touring Car, Le Mans and Formula One engines.

PROTEAN ELECTRIC

Powertrain test system allowing full vehicle installation through a connection to the test vehicle wheel hubs.

PRODUCT
TECHNOLOGY
SOLUTIONS

Engine
Conditioning

Fuel Metering
& Conditioning

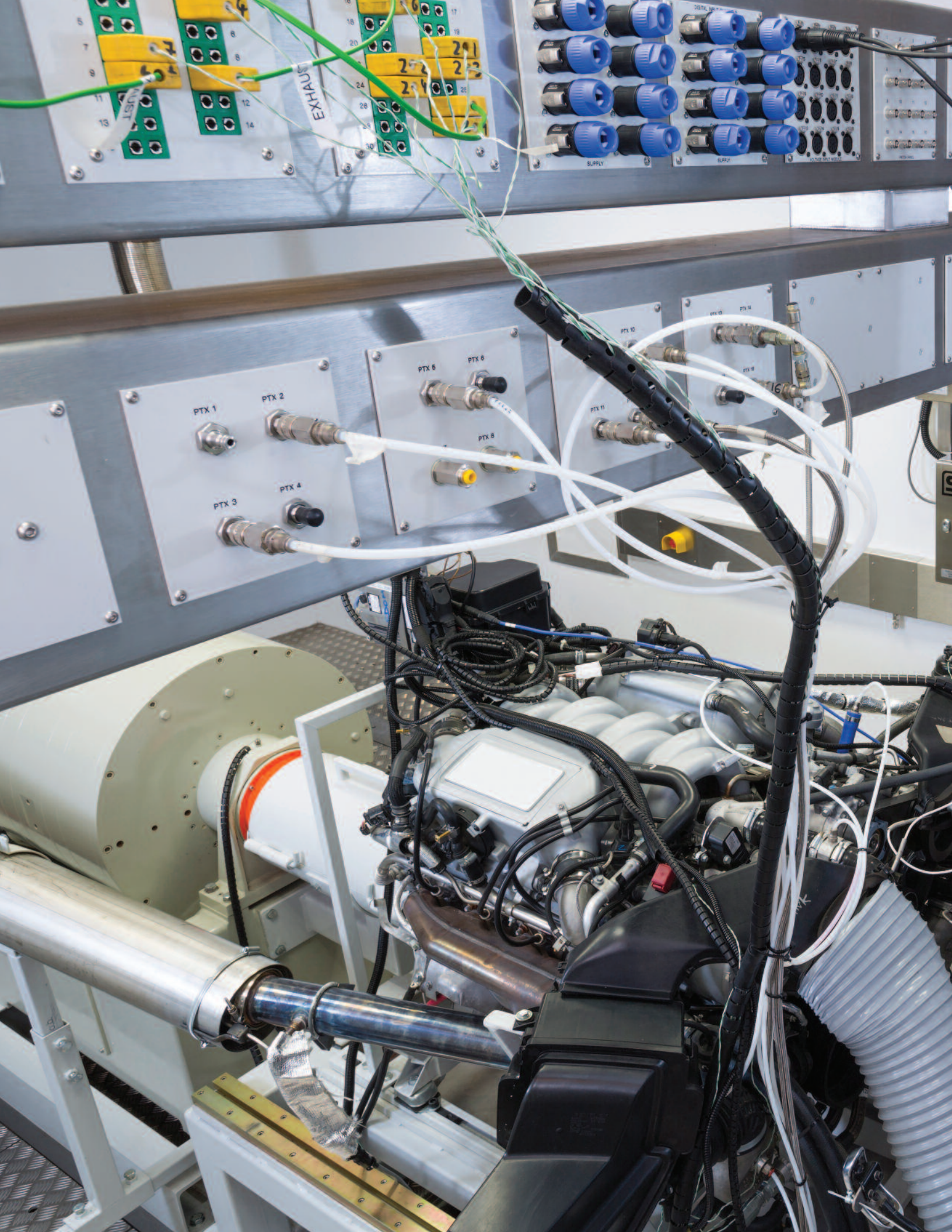
Test Automation
Systems

Emissions
& Analytical

Dynamometers

Test Support
Equipment

Robot Drivers

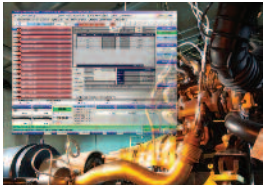


A man in a blue button-down shirt with an "Intertek" logo on the chest is working on a large industrial machine. The machine features a prominent vertical corrugated grey hose. In the background, there are various electrical panels and components, including one with a large black "S" logo. The scene is set in a technical or laboratory environment.

IMAGINE WHAT WE
CAN DO FOR YOU.

SIERRA-CP.COM

APPLICATIONS



Engine Test

Whether it is a new turnkey facility, upgrade, or specific equipment placement, we can meet your needs. Applications include production, quality audit, COP, emissions and analytical, research and development, key life, single cylinder, and hybrid.



Powertrain and Hybrid

Sierra provides a wide range of solutions for conventional motive power units, e-motor and hybrid variations. Applications include 2wd / 4wd, direct hub test, drive line brake force, transmission shift feel and force, manual or automatic transmissions, emissions and fuel consumption, NVH, endurance and climatic.



E-Motor

This fast growing application sector requires solutions that combine the best available technologies. We merge our system integration capability with the freedom to use components from other specialty suppliers.



Motorsports

Our CADET automation software and low inertia dynamometers enable the repeatable simulation of race circuits in various climates around the world. Combustion Air Handling Units (CAHU) emulates actual racetrack-simulated temperature, pressure, and humidity, while our transient FuelTrak conditions and measures fuel.



Emissions Measurement

We can help you handle certifications and audits, and stay very current on regulations for both on and off highway engine and vehicle applications. We manufacture the BG3 Elite partial flow sampler, CVS Elite constant volume sampler, EGA Elite exhaust gas analyzer and the ExhaustTrak direct exhaust mass flow meter.



Vehicle Test

Driven by Sierra's CADET test automation software, our chassis dynamometers cover all research and development requirements for cars, trucks, motorcycles, three-wheelers and off-road applications. We also offer cost-effective upgrades to existing test stands from other manufacturers.



FEAD and Component Test

The flexibility and scalability of our CADET test automation software ensures that Sierra's custom developed test rigs are future-proof. For example, our FEAD (Functional Engine Auxiliary Device) test rigs simulate the additional load that "bolt-on" accessories like power assist steering and water conditioning units will have on the base engine.



Single Cylinder / Educational Rigs

Sierra installs packaged engine test solutions to meet a wide variety of customer testing requirements. This approach is well suited to small engines and also provides significant benefits for advanced research.

GLOBAL LOCATIONS



California / USA



United Kingdom



Michigan / USA



India



China



The Netherlands



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