Testing Expertise & Experience
Beyond the Ordinary

SPECIALIZED TESTING IS OUR BUSINESS. IF IT’S MEASURABLE, SES HAS THE UNIQUE INSTRUMENTATION AND DATA ACQUISITION CAPABILITIES TO CAPTURE THE CRITICAL DATA … IN THE LAB OR THE FIELD.

Understanding materials & applications

SES serves a broad range of industries including consumer and medical products, pharmaceutical, electronics, packaging, and equipment manufacturing involving plastics, metals, composites, glass, and elastomers. Often these projects are directed at evaluating product or material failures, or focused on determining how long a product will last during use. The materials and application knowledge from this diversified experience base, combined with our multi-disciplinary approach to problem solving, adds a measure of value that makes SES the industry leader in specialized testing.
For physics-based, purpose-built test hardware with unique performance requirements, there are few engineering firms in the world that can compete with SES.

Our lab is equipped with the most advanced instrumentation, monitoring and data acquisition systems available. Many of these systems have been developed by SES, such as MicroDAQ, MiniDAQ, and PalletDAQ are proprietary, and capable of collecting data that was previously unavailable.

Functional Testing

SES engineers routinely measure and evaluate the performance of new products, components and sub-assemblies. Our flexible facilities include the load frames, environmental chambers and strain gages that you would expect to find, along with specialized equipment for measuring force, pressure, temperature, vibration and displacement not available at other labs.

Custom Testing Solutions

We also provide a variety of custom services aimed at evaluating performance, reliability and safety, including precision testing for low force and sub-micron displacement, noise and vibration. SES tests unique performance criteria on conventional products, or standard criteria on unusual designs, including:

• Life cycle
• Life simulation
• Extreme environment
• Extreme usage

Specialized Test & Fixture Development

The SES expertise that many clients find most valuable is our ability to design the right tests, along with any custom test fixtures and test stands that may be necessary. Our extensive experience includes process monitoring and control, remote data collection and transmission, distributed monitoring systems, and networked database connectivity. In addition to placing thousands of strain gages each year for both static and dynamic measurements, SES offers turn-key instrumentation systems for collecting data from pressure transducers, thermocouples, and virtually any other type of sensor. Our own laboratory test techniques are often leveraged into semi- or fully-automated test systems that are used by clients in their manufacturing or R&D facilities.

Third Party Testing

SES provides third party testing services in accordance with API, ASME, ANSI, ASTM and others. Where agency approvals are needed we can manage outsourcing of those tasks and provide the technical interface.

Testing Challenges an SES Specialty

FORCE & TORQUE

- Full pallet unit load test
- Torque measurement on plastic gear box
- Transient pressure profile of bottle drop

PRESSURE & FLOW

- PVC pipe testing
- Actuation force vs. Flow rate

IMPACT

- Instrumented bottle drop test

NOISE, VIBRATION & WEAR

- Noise assessment in semi-anechoic chamber
- Toothbrush lifecycle testing

TEMPERATURE

- Accelerated aging chamber
- Cryogenic material characterization
- Extreme heat testing

GAGES

- Strain gage on liposuction needle
- miniature data acquisition system for measuring bottle labeling force
SES Offers Experience... Expertise... Technical Excellence

With three U.S. locations, a staff of engineers and technicians representing the full spectrum of engineering disciplines, SES has the testing expertise you're looking for. Employee-owned and in business since 1972, SES applies classical engineering methods, advanced technologies and innovative applications to help our clients solve problems and answer questions. Where others provide academic answers, SES offers applicable, real-world solutions.

For Solutions to Tough Testing Challenges
Call SES Today at 513-336-6701

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