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On the Horizon

A World of Lubrication Understanding®

Volume 25 | Quarter 1 | 2021

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Advanced SRV Wear Testing Capability

Savant Labs have expanded its SRV testing capabilities for lubricating oil and grease testing. SRV is a valuable tool in tribological research of base oils, additives, formulated lubricants, greases, and more. The name SRV has become synonymous with innovation in the tribological analysis of lubricants and materials. The initials are derived from the German; Schwingung (oscillation), Reibung (friction), and Verschleiss (wear).



SRV measures the physical interactions between a lubricant and two specimens in a loaded contact and offers dual motion capabilities including oscillation and rotational modes. This method of testing is used to demonstrate performance across a broad range of applications for automotive, aerospace, semiconductor, biomedical, industrial, and more.

All standard SRV tests are in compliance with DIN, ASTM, and ISO. Most recently, the SRV test is now part of the NLGI's new High-Performance Multiuse (HPM) Grease specification for high load (HPM+HL) certification.



The SRV Equipment and Uses

The SRV equipment is completely PC controlled (with manual system override), offering infinite programming flexibility within design specifications. Dynamic changes in the

load, temperature, frequency, and stroke can be programmed to occur at preset times and rates during the test. The environment in the test chamber (temperature and atmosphere) can also be controlled.

The SRV can be used for:

- Fundamental research in tribology
- Lubricant and material development
- Friction and wear analysis of lubricants, materials, and bonded coatings
- Analysis of EP properties of oils and greases
- Analysis of stick-slip properties
- Research in fretting corrosion and other phenomena
- Oxidation stability and high-temperature performance of oil and greases
- Evaluating sub-zero lubricant properties
- Studying friction and wear behavior of fuels

The oscillation and rotation modes provide the ultimate in flexibility stresses that can be readily simulated on the SRV to match actual field conditions of:

- Oscillating friction
- Sliding friction
- Rolling friction
- Forming friction

Our most requested standard industry methods, for the SRV are ASTM D5706, ASTM D5707, ASTM D6425, ASTM D7594, DIN 51834, and others.

The table references the mode test ranges:

Oscillation Test Ranges	
Time:	1 minute to 999 hours
Load:	2 to 2000 N or 1 to 200 N
Frequency:	1 to 511 Hz
Stroke:	0.2 to 4 mm
Temperature:	Ambient to 290° C

The SRV is ideally suited to help manufacturers satisfy their quests for peak performance, more rapid product development, and cost reduction.

In case you missed it, our On the Horizons Q3 2020 edition highlighted an additional article on [Wear Preventive Characteristics](#) including Extreme Pressure Four-Ball and Four-Ball Wear.

The technical team at Savant Labs has a deep understanding of wear testing. We can help you define a test slate and analyze the data in a concise and understandable format. [Contact us](#) for more information or [request a quote](#) for your next wear testing project.

Service Level Advantages

We understand the need for urgent testing results to meet project deadlines or solve problems. We are staffed with highly



motivated chemists and technicians who can provide 24 hour/next day turnaround service on test methods that can be completed within a day. We also offer rush 3-day service, expedited 5-day service, and our standard 10-day service levels. There are times when you may need customized reports with specific formats to meet your business needs. Our team can do this for you as well.

Our customers have shared with us that not all testing laboratories offer this level of service and support. These services are affordable and come with the quality-assured data you expect with an ISO 9001:2015 quality management system certified lab. This provides a sense of trust that your samples are being tested by a world-class quality laboratory. [Contact us](#) for your next testing project.

Savant Labs - Your Trusted Source

Look to Savant Labs to meet your testing needs... we listen, act with integrity, and stand behind the quality of our data. View Savant Labs' latest video promotion.



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