

We will be exhibiting at
Lubricant Expo & The Bearing
Show on stand 872.



Improving longevity and sustainability of tribologically stressed systems

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2 Save time and costs in product R&E and QA – Facing the challenges with ETS

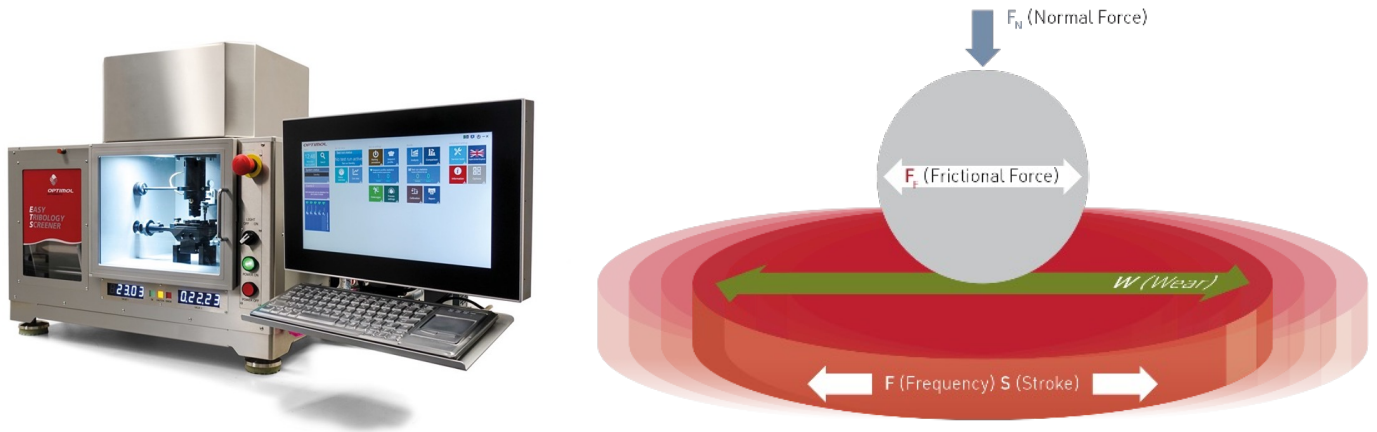
The future challenges of the energy and mobility transition will have a significant impact on modern tribometry ([📄 Read more](#)). With modern tribometers and the extensive ready-to-use methodologies for determining wear and friction coefficients, on the one hand, testing cycles can be greatly simplified and shortened by suitable pre-selection on a laboratory scale, and on the other hand, more precise data can be supplied for software simulations. Friction and wear coefficients can be determined by tribologists in the laboratory with manageable effort within a short period of time and allow statements to be made about the functional performance for materials and operating supplies in a wide variety of application areas. Not only the selection but also the optimisation of friction systems offer considerable potential for the reduction of friction losses and the improvement of service life.

Facing the challenges with ETS

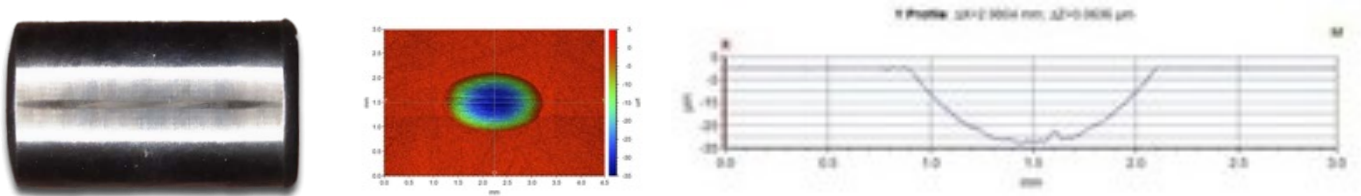
With the ETS – Easy Tribology Screener – Optimol Instruments has developed an easy-to-use table tribometer that can be excellently used in all phases of product development and optimisation.

By means of real-time detection of coefficient of friction CoF and wear depth in high precision, the ETS shows the performance of a tribological collective even during the test. The usability of the ETS for numerous challenges of modern tribometry is shown by some selected examples from different areas of tribological application technology, see links below Episode 3-6.

With a normal force of up to 1 N to 300 N, movement amplitudes of 0.01 mm to 3 mm, movement frequencies of 1 Hz to 70 Hz and a temperature range from room temperature to 200°C, the ETS enables many real load parameters to be transferred to a tribological laboratory system. Possible geometry pairings can be point, line and surface contact – each against a flat, cylindrical base body.



The ETS - Easy Tribology Screener by Optimol Instruments - Load spectrum and measured variables in the ETS



Friction-stressed surface for assessment - 3D surface measurement for quantitative wear assessment

For further information on this topic and/or your individual question, please contact us!

About Optimol

Optimol is a leading international company for the development and distribution of tribological model testing systems and test benches. We are a reliable partner for our customers with innovative technology, tried-and-tested solutions, competent advice and comprehensive services. With the world-renowned SRV® test system, we have created the industry standard for tribological model testing.

To find out more about tribology and Optimol: *Improving longevity and sustainability of tribologically stressed systems*

- 1 How tribometry contributes to net zero emissions - Selection of sustainable, low friction tribo-systems - Future moves and requirements for tribometric test methods
- ② Save time and costs in product R&E and QA - Facing the challenges with ETS
- 3 Functional performance of used lubricants - Qualification of lubricants with regard to their service life in terms of acceptable energy losses and damage risks
- 4 Design of new nontoxic and water-resistant greases for water mixer taps
- 5 Reducing fretting wear in wind turbine bearings and gearboxes
- 6 Pre-qualification of materials with regard to fluid compatibility and reduction of fretting wear in the electric drive train in the stator-hairpin-housing system