TORONTECH

RUST & OXIDATION CORROSION TESTERS

Rust & Oxidation Corrosion Testers | ASTM D665 & ISO 7120 Rust Testing

A rust and oxidation tester evaluates how well steam-turbine, hydraulic, and circulating oils protect ferrous metal parts and resist breakdown in service. Torontech's range opens with ASTM D665 and ISO 7120 rust-preventing characteristics testing, the standard method for confirming that inhibited mineral oil keeps ferrous parts from rusting when water mixes into the oil.

The method also covers heavier-than-water fluids such as phosphate esters, so lubricant blenders and power-generation labs get one repeatable rust check for both new and in-service oil.

Why Choose Torontech for Your Rust & Oxidation Corrosion Tester

Torontech supplies testing and measurement equipment to laboratories and manufacturers across North America and worldwide, backed by responsive technical support and calibration service. The Rust & Oxidation Corrosion Tester range is built for reliable, standards-driven results, so you can standardize on one supplier as your testing needs grow. Our team helps you match the right configuration to your samples, applicable standards, and throughput, then supports you through installation and beyond.

Request a Quote

Tell us which oils you need to qualify for rust or oxidation resistance, and we will help you configure the right test program. Contact the Torontech team for pricing and lead times.

APPLICATIONS

Applications

Rust testing under ASTM D665 is a routine quality checkpoint anywhere water can mix into a lubricant and attack ferrous metal parts.

- Lubricant Manufacturing: verifies that rust-inhibitor additive packages perform as formulated before a batch of turbine, hydraulic, or circulating oil ships.
- Power Generation: qualifies new steam-turbine oil shipments and monitors in-service oil condition, since rusting inside a turbine system risks costly downtime.
- Industrial Manufacturing: supports incoming QC and predictive maintenance on the hydraulic and circulating oils that keep steel mills, paper mills, and production lines running.
- Marine and Offshore: supports rust-protection checks on marine lubricants and hydraulic fluids where onboard equipment faces constant water exposure.

TECHNICAL SPECIFICATIONS

Rust & Oxidation Corrosion Tester Range

The range currently features one tester built around ASTM D665 rust-preventing characteristics testing.

Rusting Characteristics of Oils (TT-665)

A four-station bath tester built to ASTM D665 and ISO 7120, evaluating whether inhibited mineral oils, particularly steam-turbine oils, keep ferrous parts from rusting when water mixes into the oil. It also tests hydraulic oils, circulating oils, and heavier-than-water fluids, using an electric stirring motor and digital temperature control held at 60°C ± 0.5°C.

How to Choose the Right Rust & Oxidation Corrosion Tester

- For qualifying new steam-turbine, hydraulic, or circulating oil shipments: run the TT-665 to confirm rust-preventing performance before the oil goes into service.

- For monitoring in-service turbine or circulating oil: schedule periodic ASTM D665 checks to catch rust-inhibitor depletion before ferrous parts corrode.
- For heavier-than-water or synthetic fluids such as phosphate esters: request the TT-665 configured with chemically resistant beaker covers and test rod holders.
- For full rust and oxidation (R&O) qualification: contact the Torontech team to discuss adding oxidation stability testing alongside your rust program.

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