



## **SIMULATED SERVICE CORROSION TESTER**

# Simulated Service Corrosion Tester TT-2570

Simulated Service Corrosion Tester TT-2570 conforms to ASTM D2570, the Standard Test Method for Simulated Service Corrosion Testing of Engine Coolants.

In this test, an engine coolant is circulated for 1064 hours at 88°C (190°F) in a flow loop consisting of a metal reservoir, an automotive coolant pump, an automotive radiator, and connecting rubber hoses. Test specimens, representing engine cooling system metals, are mounted inside the reservoir, which simulates an engine cylinder block. At the end of the test period, the corrosion-inhibiting properties of the coolant are evaluated by measuring the mass losses of the test specimens and visually examining the interior surfaces of the components.

## APPLICATIONS

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The Torontech TT-2570 is engineered to conduct the ASTM D2570 Simulated Service Corrosion Test, one of the most comprehensive and realistic laboratory methods for evaluating the long-term performance of engine coolants. By circulating the coolant for over 1000 hours in a complete, heated automotive circuit, this test provides a definitive assessment of an inhibitor package's durability and its ability to protect a full range of system metals over an extended service life.

This advanced, long-duration validation is a cornerstone for:

- **Coolant & Additive R&D:** As a final and critical step in the development of new and extended-life coolant formulations, bridging the gap between basic screening tests and expensive, time-consuming fleet trials.
- **Automotive & Engine OEMs:** For the final validation and approval of coolants to be used for factory-fill and service, ensuring they meet long-term warranty and performance requirements for the entire vehicle.
- **Heavy-Duty & Fleet Operations:** To rigorously qualify Extended Life Coolants (ELCs), providing the technical proof needed to safely extend service intervals, reduce maintenance costs, and maximize the operational life of high-value assets.

- **Performance Chemical & Aftermarket Brands:** To substantiate premium performance claims for long-life antifreeze/coolant products, providing the robust data needed for marketing and technical certification.

## FEATURES

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- Consists of operation parts, display, heating control, speed control, pressure control, flow rate control, and necessary spare parts.
- Motor: Drives the coolant circulation, connected to the water pump.
- Water pump: Provides the required circulating flow rate.
- Condenser: Reduces the test pressure, simulating the car's working conditions.
- Reservoir: Holds the metal test specimens.
- Glass tube: Allows observation of the circulation status.

## TECHNICAL SPECIFICATIONS

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1. Applicable standard: ASTM D2570
2. Ambient requirements: 20-25°C, Humidity <60%
3. Fuse: 20A
4. Temperature control accuracy:  $\pm 3^{\circ}\text{C}$
5. Temperature measuring accuracy:  $0.1^{\circ}\text{C}$
6. Temperature control range: Ambient to  $88^{\circ}\text{C}$
7. Flow rate control range: 0-95 L/min

8. Flow rate control accuracy:  $\pm 5\%$

9. Rated voltage: AC 220V, 50Hz (110V also available)

10. Power: 7000W



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