



TORONTECH



TENSILE TEST CHAMBER TORONTTC™ 300

Tensile Test Chamber ToronTTC™ 300 is designed to meet precise temperature control requirements for advanced material testing. It features a PID-controlled temperature system, ensuring minimal overshoot and high accuracy. A centrifugal fan enhances airflow within the chamber, maintaining uniform temperature distribution. This high-performance testing equipment is ideal for universities, research institutions, and industrial material testing facilities.

The chamber integrates seamlessly with testing machines without requiring modifications. It is equipped with a track system, allowing easy repositioning when conducting room-temperature tests. This user-friendly design enables efficient testing of metals and nonmetals under various temperature conditions, including tensile, compression, bending, and shear tests. It is well-suited for industries such as plastics and rubber, ensuring reliable performance across diverse applications.

APPLICATIONS

Standards

1. Metallic materials – Tensile testing at elevated temperatures
2. Other relevant industry standards for high- and low-temperature testing chambers and tensile testing of metallic materials

FEATURES

Key Features

1. Efficient Heating System – Equipped with a finned stainless steel electric heater for reliable temperature control.

2. Durable Construction – The exterior features an electrostatic spray coating, while the interior is made of mirror-finish stainless steel. The front door includes an observation window with a demisting function and internal lighting for clear visibility during testing.
3. Precision Temperature Control – Utilizes a PID control system with a display accuracy of 0.1°C, ensuring stable and precise temperature regulation.
4. Optimized Airflow – A centrifugal fan ensures forced air circulation, maintaining uniform temperature distribution to meet test standard requirements.
5. User-Friendly Design – Built with a guide rail system for effortless movement of the test chamber in and out of the testing machine’s test space.
6. Sealed Access Points – Features U-shaped openings on both the top and bottom, equipped with sealing components for smooth integration with the testing machine.

TECHNICAL SPECIFICATIONS

Temperature control range	Room temperature +10℃ 300℃
Temperature control accuracy	≤±1℃
Instrument display accuracy	0.1℃
Temperature uniformity	≤±2℃ (Axial center 200 mm)
Heating speed	1℃ 3℃/min (Free load)
Internal Dimensions	250 × 530 × 260 mm (width × height × depth)
Chamber External Dimensions	370 × 670 × 880 mm (width × height × depth)
Tensile rod hole size	Φ 50 mm
Dimensions reference	Please reference the dimensions picture
Voltage	AC220V, 50HZ (110V is also available)

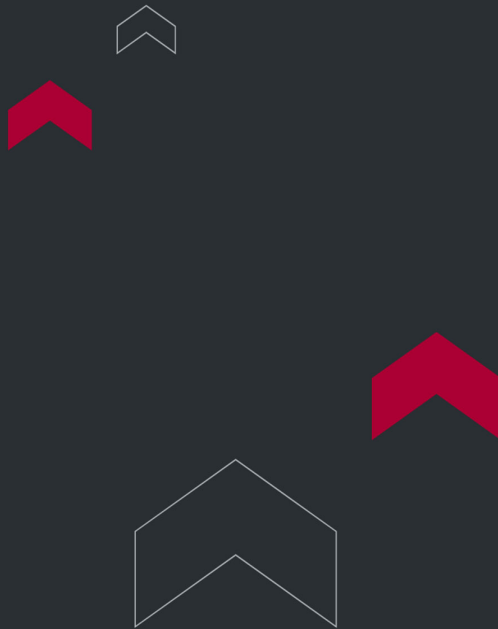
Power	1.5 kW
Operating environment temperature	5°C □ 30°C

Configuration

1. **Observation Window** – Hollow electric heating glass for clear visibility.
2. **Temperature Control** – PID automatic temperature regulation for precise and stable operation.
3. **Exterior Material** – Cold-rolled steel with an electrostatic spray coating or stainless steel.
4. **Interior Material** – Mirror-finish stainless steel for durability and easy maintenance.
5. **Insulation** – Flame-retardant insulation material for enhanced safety and efficiency.
6. **Illumination** – Single internal lamp positioned for optimal visibility, controlled externally.
7. **Air Regulation System:**
 1. **Temperature Control** – PID automatic regulation.
 2. **Air Circulation** – Centrifugal fan ensures uniform airflow.
 3. **Heating Method** – Stainless steel electric heater with forced ventilation and internal circulation for precise temperature adjustments.
 4. **Temperature Sensor** – Platinum resistance sensor for accurate measurement.
8. **Sealed Construction** – Silicone strip seals on the door and chamber body provide excellent insulation and prevent leakage.
9. **Easy Mobility** – Guide rail system enables smooth, linear movement for effortless installation and removal.
10. **Safety Protection Features:**
 1. Power overload and short-circuit protection.
 2. Ground protection.
 3. Leakage protection.
 4. Over-temperature safety mechanism.

Dimensions

Tensile Test Chamber ToronTTC-300



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