



BENCHTOP ENVIRONMENTAL TEST CHAMBER

Compact and reliable testing for temperature and humidity performance.

The ToronTHC™-36 Benchtop Environmental Chamber is a space-efficient solution for precise temperature and humidity testing of industrial products.

Designed to function as both a benchtop humidity chamber and a benchtop temperature chamber, it delivers consistent, controlled test conditions across a wide range. The system supports high-accuracy testing to meet international standards and helps evaluate product durability in extreme environments.

APPLICATIONS

Benchtop Environmental Test Chamber

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The ToronTHC-36 series benchtop environmental test chamber is available in three variants and complies with international testing standards:

IEC Standards:

- IEC 60068-2-1: Low Temperature Test
- IEC 60068-2-2: High Temperature Test
- IEC 60068-2-3: Constant Humidity and Heat Test
- IEC 60068-2-30: Alternating Humidity and Heat Test

MIL Standards:

- MIL-STD-202F: High Temperature Life Test
- MIL-STD-810D: High and Low Temperature Test Methods
- MIL-STD-810D: Damp Heat Test

This benchtop temperature chamber is Torontech's most compact standard model, with a temperature range from -70°C to +150°C. Available models:

- ToronTHC-36R
- ToronTHC-36L
- ToronTHC-36S

Structural Features of the Benchtop Temperature Test Chamber

The chamber consists of three main parts: an insulation enclosure, a refrigeration unit, and an electrical control cabinet.

- Insulation Enclosure: Constructed with an outer layer of cold-rolled steel and an inner lining of SUS304 stainless steel.
- Insulation Layer: Filled with flame-retardant (B2 grade) rigid polyurethane foam to ensure thermal efficiency.
- Sealing System: Equipped with silicone rubber seals that withstand both high and low temperatures, along with a door-frame anti-condensation heating system and pressure balance vent.

- Door: Single, left-hinged design for easy opening and sealing.
- Observation Window: Includes a vacuum glass window and electronic anti-fogging film.
- Interior Lighting: Integrated 24V DC LED lighting for clear internal visibility.

FEATURES

1. Compact size temperature chamber
2. Temperature independent PID control
3. Electronic over-temperature protection device
4. Balanced temperature and humidity control method (BTHC)
5. Mechanical compression refrigeration
6. 36 liter volume
7. Various alarm functions
8. Mobile casters
9. Stainless steel shelves

TECHNICAL SPECIFICATIONS

Model Number□ Standard□	ToronTHC™ -36R	ToronTHC™ -36L	ToronTHC™ -36S
Volume	36L		
Inner Dimensions W×H×D□ mm□	300×400×300		
External Dimensions W×H×D□ mm□	510×830×1020		
Temperature Fluctuation	±0.5℃		
Temperature Range	-20℃to+150℃	-40℃to+150℃	-70℃to+150℃

Heating Rate	-20°Cto+100°C:3°C/min	-40°Cto+100°C:3°C/min	-70°Cto+100°C:3°C/min
Cooling Rate	+20°Cto-20°C: 1°C/min	+20°Cto-40°C:1°C/min	+20°Cto-60°C:1°C/min
Voltage	220V AC, 3.5KW, 12A (Max.) (110V is also available)		
Noise	≤75dB		



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