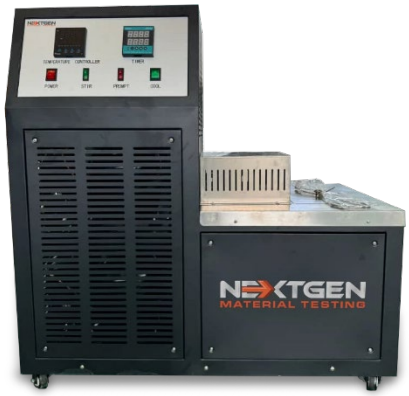
Impact Specimen Cooling and Heating Temperature Chamber – GenChamber

Standards: ISO 148, ASTM E23, ASTM E74 (Class AA)

- ULTIMATE USER-FRIENDLINESS
- LEADING DEPENDABILITY AND RELIABILITY
- STRICT COMPLIANCE WITH INDUSTRY STANDARDS
- STOCKED CONSUMABLES AND SPARES
- TRUSTED AFTER SALES TECHNICAL SUPPORT
- LIFETIME PRODUCT SUPPORT ADVANTAGE



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Description

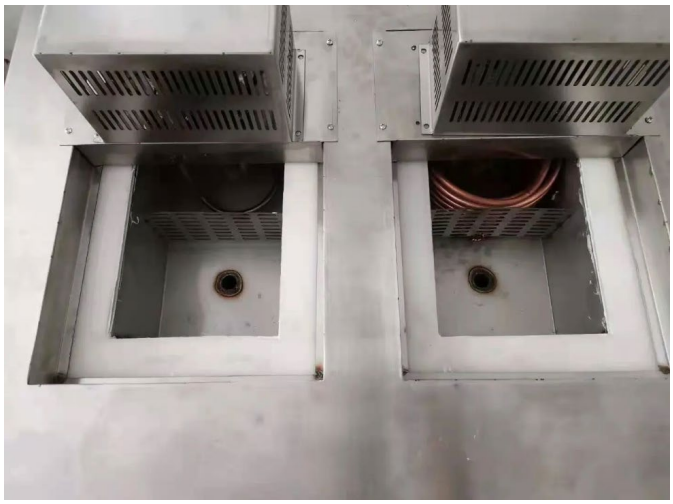
The Impact Specimen Cooling and Heating Temperature Chamber – GenChamber is a high-performance dual-function system engineered for precise temperature conditioning of Charpy and Izod impact specimens. Designed to meet the requirements of ISO 148-1 and ASTM E23, this chamber supports both low-temperature soaking and high-temperature stabilization for metallic materials prior to impact testing.

The low-temperature mode uses an advanced compressor-based refrigeration system combined with thermal equilibrium and circulating stirring mechanisms, delivering automatic cooling and uniform temperature control down to -80°C. This ensures consistent preparation of impact notch specimens and supports repeatable, reliable test results. Built-in safety protections guard against overheating and overcurrent conditions. Additionally, an integrated alarm notifies the user when the target temperature is reached, guaranteeing precise timing for specimen preparation.

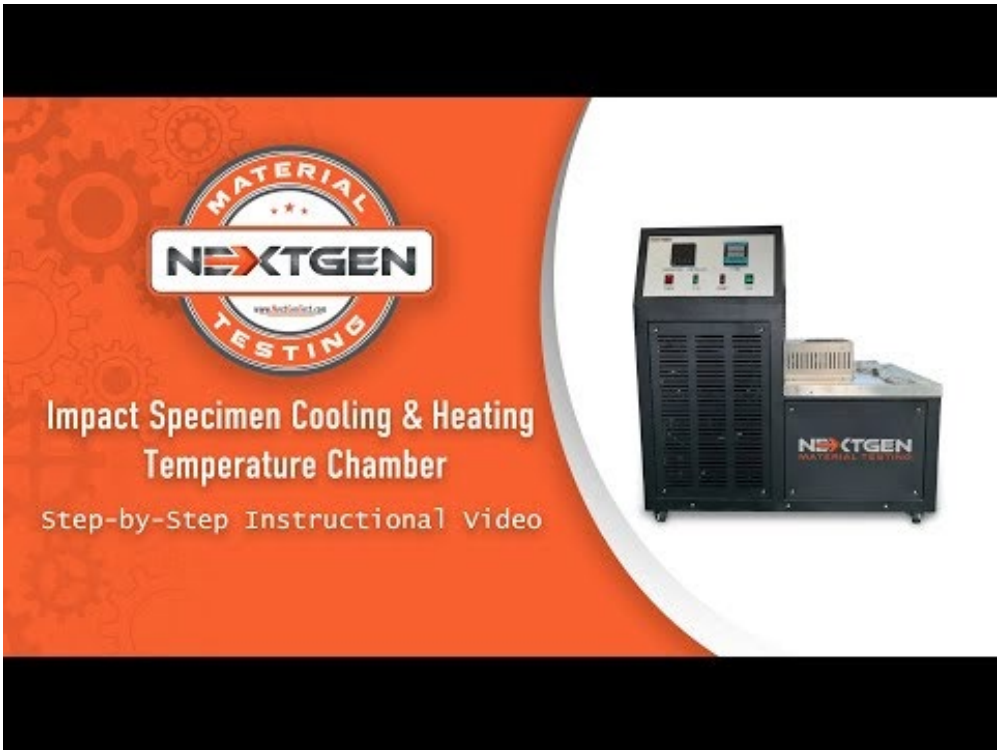
The high-temperature function features a durable stainless-steel electric heating system with forced air circulation and internal ventilation for uniform heat distribution. The system is equipped with PID temperature control and offers high-resolution monitoring with a 0.1°C display accuracy, maintaining stable conditions throughout the heating process. A centrifugal fan ensures continuous airflow and temperature uniformity, meeting industry-standard temperature gradient requirements.

Technical Specifications

Model	GenChamber
Range of Control Temperature	Low temperature: +30℃ to -80℃ (ambient temperature ≤ 25°C) High temperature: +30℃ to 100℃ (ambient temperature ≤ 25°C)
Temperature Control Accuracy	Low temperature: ≤ ±0.5°C High temperature: < ±1°C
Display Resolution	0.1°C
Cooling Speed	+30°C to 0°C: approx. 2°C/min 0°C to -20°C: approx. 1.5°C/min -20°C to -60°C: approx. 1°C/min -60°C to -80°C: approx. 0.7°C/min
Heating Speed	+20°C to +50°C: approx. 2°C/min +50°C to +100°C: approx. 3°C/min
Working Area (L × W × H)	Low Temperature Chamber: 5.9 × 5.5 × 4.7 in (150 × 140 × 120 mm) High Temperature Chamber: 5.9 × 5.5 × 4.7 in (150 × 140 × 120 mm)
Specimen Capacity	60–120 specimens *(Standard size: 10 × 10 × 55 mm)*
Outer Dimensions (L × W × H)	25.6 × 20.0 × 29.9 in (650 × 510 × 760 mm)
Timer	1 to 99 minutes, 1-second resolution
Cooling Medium	Cooling chamber: Ethyl alcohol (≥ 99.5% purity recommended) Heating chamber: Air
Stirring Motor Power	23 W
Power Supply	Single-phase, 110 V, 60 Hz, 2.5 kW



High-Temperature and Low-Temperature Chambers of the GenChamber System



Step-by-Step Instructional Video | Impact Specimen Cooling and Heating Temperature Chamber

Standard Configuration

Model	GenChamber
Main Unit	One set
Cooling Compressor	One set
Stainless Steel Heating Pipes	One set
High-Precision Intelligent Temperature Controller	One set
Stainless-Steel Inner Chamber	Corrosion-resistant and anti-aging
Sample Baskets	3 pieces for the high-temperature chamber
Power Transformer	Included (110V input to 220V output)

GET A QUOTE

*** Request a formal quotation or send an e-mail to sales@nextgentest.com for the most up-to-date pricing and applicable discounts and incentives.**