

INNOVATIVE TECHNOLOGIES

# Rapid Freeze-Thaw Test Chambers

**ToronRFTC-Series**



TORONTECH



## Rapid Freeze-Thaw Test Chambers

### ToronRFTC-Series

The ToronRFTC-Series Rapid Freeze-Thaw Test Chambers are **fully automated systems specifically designed for evaluating the freeze-thaw resistance and long-term durability of concrete.**

Built to meet **ASTM C666 standards**, these chambers simulate repeated freezing and thawing cycles with high precision, making them essential for testing concrete performance in cold climates where thermal stress can cause significant damage. With programmable temperature control and excellent temperature uniformity, the system ensures accurate, repeatable results.

Available in three models: **ToronRFTC-3**, **ToronRFTC-5**, and **ToronRFTC-9**, the series offers scalable options for construction material labs, quality control departments, and academic research institutions.



## FEATURES/ADVANTAGES

### » **ASTM C666 Compliant**

Fully supports standardized rapid freeze-thaw testing of concrete for durability under thermal stress.

### » **Standard Specimen Support**

Designed for concrete samples sized 100 × 100 × 400 mm, widely used in construction material testing.

### » **Fully Automatic Test Management**

Automates the freeze-thaw cycle process for efficient, repeatable, and accurate performance analysis.

### » **Eco-Friendly, High-Efficiency Cooling**

Uses a Danfoss compressor and R404 refrigerant for reliable operation with minimal environmental impact.

### » **Durable Stainless Steel Construction**

Features corrosion-resistant stainless steel chambers and piping to ensure long-lasting performance.

### » **Optimized Thermal Cycling**

Fast freeze-thaw cycling is enabled by an advanced evaporative condenser system for consistent results.

### » **Smart Digital Control System**

Equipped with a microprocessor-based interface for real-time monitoring and precise temperature control.

### » **Operator-Friendly Design**

Includes an automatic lid-lift system and high-density insulation for ease of use and energy efficiency.



# TECHNICAL SPECIFICATIONS

SPECIFICATIONS	DETAILS
Temperature Range	-20°C to +25°C (adjustable)
Temperature Uniformity	<2°C
Temperature Accuracy	±0.5°C
Display Resolution	0.06°C
Cycle Time	2.5–4 hours per full freeze-thaw cycle
Cooling Time	1.5–2.5 hours
Heating Time	1.0–1.5 hours

CONCRETE SPECIMEN CENTER TEMPERATURE	
Freeze	-17 ±2°C
Thaw	+8 ±2°C



**TORONTECH**

**Torontech Inc.**

251 Consumers Road, Suite 1200

Toronto, Ontario, M2J 4R3, Canada 

Phone: +1 416 368 2721 | Fax: +1 416 981 7652

Email: [info@torontech.com](mailto:info@torontech.com)

**Torontech, LLC**

601 Brickell Key Drive, Suite 700

Miami, FL 33131, USA 

Toll-Free: 1-866-383-7919

Email: [sales@torontech.com](mailto:sales@torontech.com)



USA | Canada | EU | UAE | GCC | India | Africa | Latin America | Asia

**TORONTECH.com**