



TORONTECH



3-ZONE THERMAL SHOCK CHAMBER

Torontech's 3-Zone Thermal Shock Chambers take testing to the next level by incorporating hot, cold, and ambient zones. This advanced design allows for more complex thermal cycling simulations, offering the flexibility to test materials and components under a broader range of conditions.

Samples are automatically moved between the three zones to replicate real-world environmental stress more accurately. These chambers are ideal for applications requiring precise testing, such as in the electronics, aerospace, and automotive industries.

Torontech's 3-zone thermal shock chambers are engineered for fast transition times, exceptional temperature uniformity, and ease of operation, ensuring reliable results for even the most demanding thermal shock testing requirements.

APPLICATIONS

Standards

- 1. JEDEC JESD22-A104E
- 2. MIL-STD-883H
- 3. IEC 60068-2-14
- 4. SAE J1211
- 5. IEC 60068-2-1
- 6. IEC 60068-2-2

TECHNICAL SPECIFICATIONS

Model No.	ToronTSC3-64	ToronTSC3-100	ToronTSC3-200	ToronTSC3-300	ToronTSC3-500	ToronTSC3-1000
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Test Space Volume (Liters)	64	100	200	300	500	1000
Inner chamber size W×H×D(mm)	400×400×400	500×450×450	650×460×670	850×600×650	1000×750×700	1000×1000×1000
Exterior chamber size W×H×D(mm)	1420×1930×2000	1520×1990×2050	1620×1980×2140	1840×1862×2100	1900×1962×2200	1900×2150×2200
High Temp. Chamber	+60°C to +200°C					
Pre-heating time	from normal temperature RT to ~ +200°C within 30 min					
Low Temp. Chamber	A: -55°C to -10°C B: -70°C to -10°C D: -80°C to -10°C					
Pre-cooling time	from normal temperature RT to -55°C / -70°C / -80°C within 60 min					
Temp. shock range	A: -40°C to +150°C B: -55°C to +150°C D: -65°C to +150°C					
Recovery time	≤ 5 min					
Temp. fluctuation	±0.5°C					
Temp. uniformity	≤ 2.0°C					
Exterior chamber material	High-quality carbon steel with painting					
Interior chamber material	SUS304 matte stainless steel plate					
Insulation material	Rigid polyurethane foam insulation					
Refrigeration system	Water cooled					
	Semi-hermetic compressor, cascade refrigeration system, Eco-friendly refrigerant					

Controller	LCD Touch Screen Controller with PID control
Safety protection device	NFB (No fuse breaker), over pressure, over heat and over current protectors for compressor, over temperature protectors, over load protector of fan, dry heat protector, short of water protector
Standard accessory	Cable port(φ50mm)Ã—2, shelvesÃ—2 Mobile Casters with foot cups
Ambient temp.	+5 to +35Â°C
Voltage	380V AC 30 50Hz
Customization service	Non-standard or special requirements can be customized.



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