

INNOVATIVE TECHNOLOGIES

2-Zone Thermal Shock Chamber

ToronTSC



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Torontech's 2-zone thermal shock chambers are **built to perform rapid temperature cycling by alternating test samples between two separate zones: one hot and one cold.** This design allows for fast and controlled exposure to extreme temperature differences, helping evaluate a product's ability to withstand sudden thermal stresses. The system automatically transfers samples between zones, minimizing transition time and ensuring consistent testing conditions.

These chambers are especially valuable in industries such as electronics, automotive, aerospace, and defense, where components must maintain performance despite severe environmental changes. With rapid temperature recovery, stable operation, and intuitive controls, Torontech's 2-zone thermal shock chambers provide dependable, repeatable testing to verify product durability, reliability, and compliance with strict quality standards.



FEATURES/ADVANTAGES

» Dual-Zone Thermal Design

Provides hot and cold zones to simulate rapid temperature changes for accurate and controlled thermal cycling tests.

» Quick Sample Transfer

Automatically moves samples between zones to evaluate durability against extreme temperature fluctuations effectively.

» Wide Application Range

Perfect for electronics, automotive, and aerospace industries where products face harsh thermal environments regularly.

» Rapid Temperature Recovery

Designed for fast stabilization after each transition, reducing total test time while maintaining consistent accuracy.

» Consistent Testing Accuracy

Ensures reliable, repeatable results that meet high durability and quality standards across multiple testing scenarios.

» Easy-to-Use Operation

Features intuitive control systems for simple operation, reducing operator workload while ensuring precise performance.

TECHNICAL SPECIFICATIONS

SPECIFICATIONS		DETAILS				
		ToronTSC-70A/B/D	ToronTSC-100A/B/D	ToronTSC-150A/B/D	ToronTSC-300A/B/D	ToronTSC-500A/B/D
Basket Dimensions (cm)	W	50	67	67	85	90
	H	35	40	46	55	70
	D	40	50	49	64	80
External Dimensions (cm)	W	150	95	152	194	202.5
	H	197	204	184	226	268.5
	D	190	203	253	273.5	274
Hot Zone	Temperature Range	+60°C ~ +200°C				
	Heating Time	RT→+200°C: about 30 min				
Cold Zone	Temperature Range	A: 0~-40°C, B: 0~-55°C, D: 0~-65°C				
	Cooling Time	RT→-70°C: about 60 min				
Basket	Thermal Shock Range	A: -40°C~150°C; B: -55°C~150°C; D: -65°C~150°C				
	Temperature Uniformity	≤ ±2.0°C				
	Temperature Fluctuation	< ±0.5°C				
	Temperature Deviation	±2.0°C				
	Transfer Time	≤10s				
	Recovery Time	≤5 min				
Voltage		380V AC				



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