



ZETATEK®
Committed to Excellence

**Simulating Environments
Since 1990.**



Thermal Shock Chamber

Introduction

Environmental conditions widely impact the performance and reliability of components and products. Performing a normal temperature test may not fully qualify a product's performance and reliability. A thermal shock test helps in detecting inherent weaknesses in the product without subjecting it to the extreme mechanical and thermal stress limits. Lift time of products can be determined by performing only a few cycles. Effects of sudden temperature changes on the operation and functionality of a product can also be tested.

Thermal Shock chambers from Zetatek are a revolution in environmental testing and can simulate fast temperature shocks between -70°C and $+220^{\circ}\text{C}$.

Features

- The test space made from stainless steel 304 is welded airtight
- Multilayer composite insulation provides resistance against high and low temperature with just 100mm insulation thickness
- The door can be easily engaged and disengaged with an elegant rotary latch
- Large inspection window with multi-layer vacuum sealed toughened glass and window heaters
- Travelling Port hole is provided for easy handling of cables during basket movement
- Mesh protection around each basket to keep specimen safe during basket movement

Klima Controller

- Connectable to chamber through Ethernet and Wi-Fi
- Multiple touchscreen options: 7", 10" and 15"
- Multiple user levels with passcode access
- Numerical and graphical visualization of test parameters
- Synoptic chart for status monitoring
- Program and manual mode of chamber operation
- Test data logging for easy analysis and graphing

Options

- Multi-level adjustable wire shelves
- Water cooled system for better performance
- External electrical terminals
- Multiple independent sensors for temperature measurement
- External panels made from stainless steel
- Basket movement vertical / horizontal

Specifications

Models	ZSF	6C	12C	30C
Dimensions				
Test Space Volume (l)		64	125	300
Basket Dimensions (mm)	w	400	500	670
	d	400	500	670
	h	400	500	670
Temperature Performance				
Temperature Range in Cold Chamber (°C)		-70 to +100		
Temperature Range in Hot Chamber (°C)		+50 to +220		
Cooling Rate in Cold Chamber (°C/min)		5		
Heating Rate in Hot Chamber (°C/min)		5		
Heating Rate in Cold Chamber (°C/min)		5		
Temperature Stability (°C) ³		±0.5 to ±1		
Temperature Homogeneity (°C)		±1		
Recovery Time (min)		<12		
Condenser		air-cooled / water-cooled		
Basket Parameters				
Basket Movement Time (sec)		<10		
Specimen Weight (Kg)		15.0	20.0	30.0
Electrical				
Supply Voltage		415V ± 10% / 50Hz ± 3% / 3+N+G		



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