7. Rapid-Rate Temperature Cycling Chambers

Application:

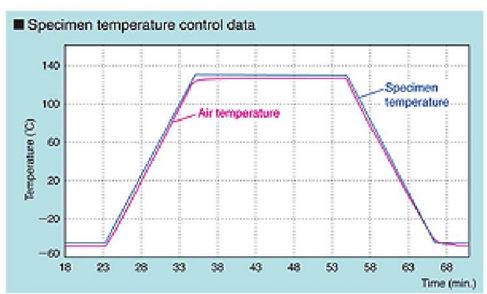
Environmental Stress Screening, shorted as ESS, it is a test method of Rapid-Rate Temperature Cycling and Vibration Chamber used to test the bearing extent of the material structures and composite material in an instant and continuous high temperature and extremely low temperature environment, which is in the shortest time to test its thermal expansion and contraction caused by chemical change or physical harm.Rapid-rate temperature change chamber is widely used in metal, plastic, rubber, electronics and other materials and it can be used as an important reference for improving product quality.

Product Features

Model	MESS-250	MESS-500	MESS-1000	MESS-1500	Custom
Interior Volume	250L	500L	1000L	800L	Accept
Interior Dimension(cm)	70*70H*50	80*90H*70	100*100H*100	100*150H*100	
Standard Load(Aluminum Ingots)	5kg	12kg	25kg	30kg	
Temp Change Rate(with load)	5℃ ～20℃/m(Standard); 30/℃/m(Liquid Netrogen)				
Temp Range	-70℃～+150℃ -40℃～+150℃				
Temp Fluctuation	±0.3℃～±0.5℃				
Temp & Humidity Deviation	±1℃～±2℃ ±3％RH(＞75％RH);±5％RH(≤75％RH) (optional)				
Standard configurations	1 Window, 1 Cable port, 1 Lamp, 4 Casters, 1 Power cable, 2 Stainless steel shelves				
Standard Documentations	quality certification,test report ,user operaion manual for machine & controller				
Safety devices	Electric leakage, fan overheat ,anti-dry ,compressor overheat & overpressure,power supply undercurrent,overheat, overcurrent, phase sequence, over-temperature				

Testing sample

Specimen temperature ramp control (Example)



☆Test conditions
High temp. soak : +130° C
Low temp. soak : -45° C
Ramp rate : 15° C/min.
Control point : Front center specimen on the lower level
Specimen : Printed Circuit Board, 145 × 130 mm, 90 pcs.
☆Measurement method:
45 specimens placed in two rows on two levels in the specimen basket, with thermocouples attached to the surface of each specimen at the control point.