

Technical Specification for Thermal Shock Test Chamber (two zone type)



(The photo is only for reference, specification is subject to the physical chamber)

Model: TST-500A

Manufacturer: KOMEGB Tech. Ind. Co., Ltd

I . Control method and characteristics

Using low temperature and high temperature hot and cold storage tank, in accordance with the need open the DAMPER, achieve rapid impact effect; Balance (BTC) temperature control system, to control SSPR by P.I.D. , make the system of heat up equal to the amount of heat loss, thus the use of long-term stability

II . Features: Water cooled. Ambient Temp. +25°C no-load

1. High Temperature Shock Range	+60°C ~ +150°C
2. Low Temperature Shock Range	-40°C ~ -10°C
2. High Temperature Chamber Temp. Range	+60 ~ +200°C
4. Low Temperature Chamber Temp. Range	-65°C ~ -10°C
5. Temperature fluctuation	±0.5°C
6. Temperature uniformity	±2.0°C
7. Recovery time	-40°C ~ 150°C within 5mins (load 15KG) (the sensor put in the outlet of the unit)
8. Exposure time	more than 30 minutes
9. Transfer time	Less than 10 seconds

III. Structure

1. Internal dimension	W 650 × H 550 × D 1400 mm
2. EX. Dimension	W 2290 × H 2260 × D 3150 mm (about)
3. Chamber Structure	independent product testing area, High temperature storage area, Low temperature cold storage area
4. Inner wall material:	Stainless Steel Plate SUS304
5. Wall material:	Top-grade Carbon Steel Plate
6. Insulation material	High temperature chamber: 24k Glass wool Low temperature chamber: Rigid polyurethane Foam + glass fiber
7. Heater	Nickel - Chromium Alloy Wire heater

8. Supply air circulation system	a. Teco motors b. Stainless steel long axis c. (SIROCCO FAN)
9. Door	Single door a. Planar embedded handle b. Button: SUS #304 c. Silicone foam strip

IV. Refrigeration System

1. Compressor	Germany BOCK Semi-closed Compressor
2. Refrigerant	Environment friendly refrigerant
3. Condenser	Water cooled condenser
4. Evaporator	Finned heat exchange
5. Other accessories	desiccant, oil separator, Refrigerant flow valve, Repair valve
6. Expansion system	Capacity control of the refrigeration system

V. Control System

1. Controller Model	KM-5188T
2. Controller	7 TFT Color LCD Touch screen controller
3. Program Mode	Program mode
4. Setting Mode	Chinese English Menu, True color touch screen input
5. Program Capacity	127 programs, extra long run, 999 hours per paragraph, programmable cycle could reach 32000 times.
6. Setting range	High Temp. Limit: : +200°C; Low Temp. Limit: : -80°C;
7. Display resolution	Sampling temperature: 0.1°C, setting temperature 1°C。 Time: 1S





8. The power cord and drain holes	located on the back of chamber
9. Temperature sensor	T type sheathed thermocouple
VI. Control cabinet	
<ul style="list-style-type: none"> a. Emergency stop switch b. Power switch c. RS-485 interface d. USB interface 	
VII. Others	
1. Safety device	<ul style="list-style-type: none"> a. Over temperature protection device b. Heater dry combustion protection switch c. Motor overload protection d. Compressor high pressure protection switch e. Compressor over temperature protection switch f. Compressor overcurrent protection switch g. Overvoltage open phase, reverse protection switch h. Circuit breaker i. RCCB j. Cooling water protection
2. Cable port	Φ50mm cable port located on left sides with rubber stopper and plastic cover
3. Sample holder	Two layers of stainless steel sample holder
4. Ambient environment	<ul style="list-style-type: none"> a. Permissible temperature range: 0~35°C b. Performance guarantee scope: 5~35°C
5. Power	AC 3φ4W 380V 50HZ (R.S.T.N.G) (voltage fluctuation $\cong \pm 10\%$)
6. Air Source	5kg/cm ² customer provide
7. Warranty	One year (excluding the damages caused by the natural disasters, abnormal power, improper operation and maintenance, etc.)

P.S.

1. Please equip the above power demanded to the terminal box of the machine control, user must prepare an exclusively no-fuse switch for the machine.
2. The above water source demand to match to the host machine and connected the host.
3. The above compressed air source demand to match to the host machine and connected the host.
4. Please confirm whether it can enter the door or access elevators.
5. This offer is only the price of the machine, do not contain power cord outside the machine, gas supply, cooling towers and piping engineering cost.

Main parts list

	Parts	Brand	Remarks
1	Compressor	BOCK semi-hermetic compressor	
2	Oil separator	Emerson	
3	Plate heat exchanger	Germany GEA	
4	Press switch	DANFOSS	
5	Condenser	Yongqiang	
6	Evaporator	Yongqiang	
7	Dryer	Denmark DANFOSS	
8	Expansion valve	Denmark DANFOS / HONEYWELL	
9	Magnetic valve	Japan SAGLNOMLYA or Nickideu or Denmark DANFOS	
10	Controller	KOMEG	
11	No-fuse switch	French Schneider	
12	AC contactor	French Schneider	
13	Thermorelay	French Schneider	

14	Phase sequence relay	Carlo Gavazzi	
15	Solid-state relay	Carlo Gavazzi	
16	Intermediate relay	OMRON	
17	CYCLE MOTOR	TECO	
	Note: Two options listed is for alternate choice and backup purpose		