

# Temp. & Humidity Chamber ▶▶

## ETSP-TH series



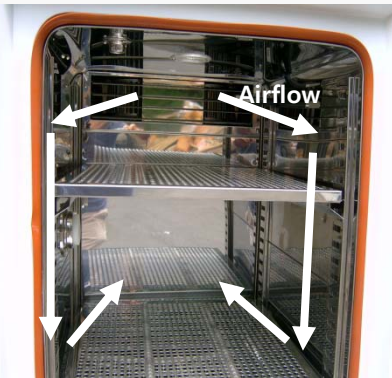
**ETSP-TH** series are climatic (temperature & humidity control) version chamber for durability or operating status of parts and products in extreme conditions as defined in IEC 60068-3-5:2001, IEC 60068-3-6:2001, MIL STD 810G, NATO STANAG 4370.

Solved noise, bad humidity control and condensation, slow temperature/humidity variations, unbalanced air distribution inside the chamber.

**ETSP-TH** series are manufactured according to the Total Quality procedures, in compliance with the ISO 9001 standard.

### General Features

- Excellent air and temperature distribution in space.



- Silent compressors using ecologically friendly refrigerants.



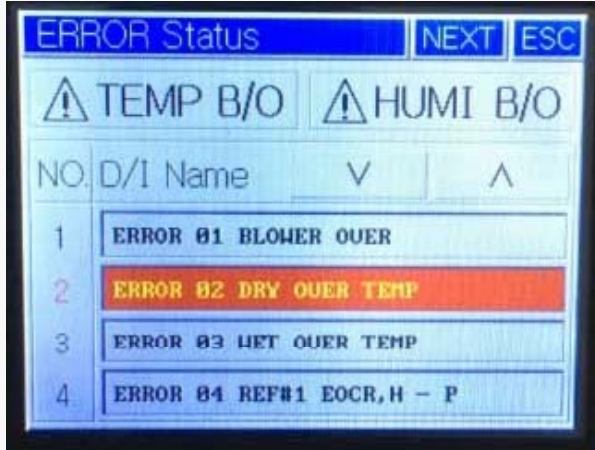
- Friendly, flexible, up-to date control and management systems.



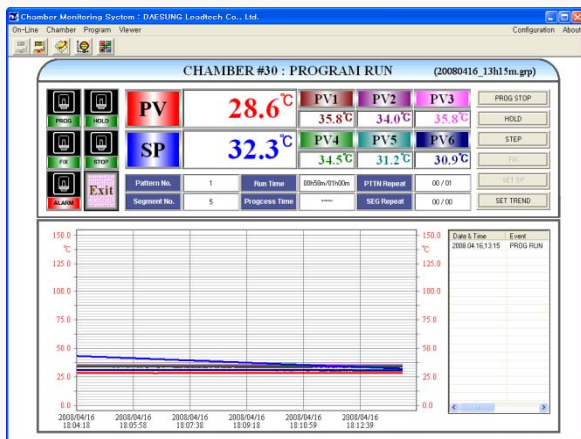
- Automatic and precision water level control to maintain accurate control of relative humidity and temperature.



- Allows easy servicing and upgrades by error diagnosis system and inspection system.



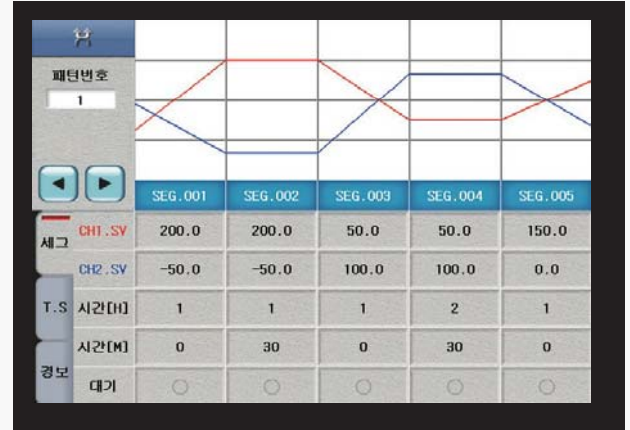
- Network connection of several chambers to a single "master" control unit allowing centralized supervision both in local and remote mode.



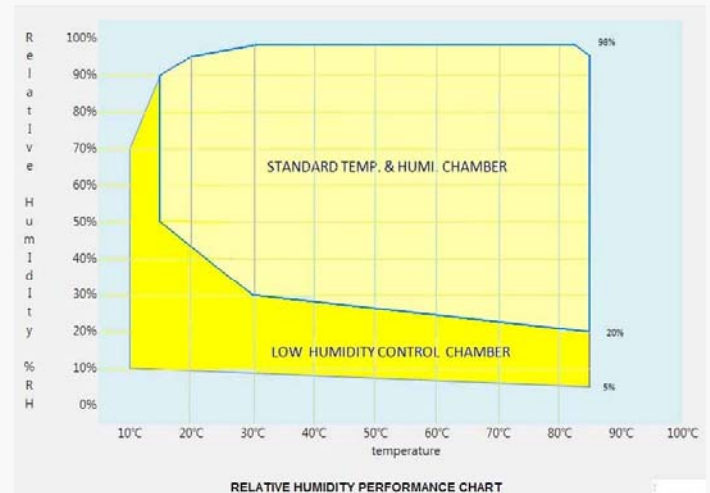
- RS232/485 oven networking with free control software



- Integrated program editor and program storage.



- Wide range of temperature and humidity control. Optionally 10%RH at 10°C is available.

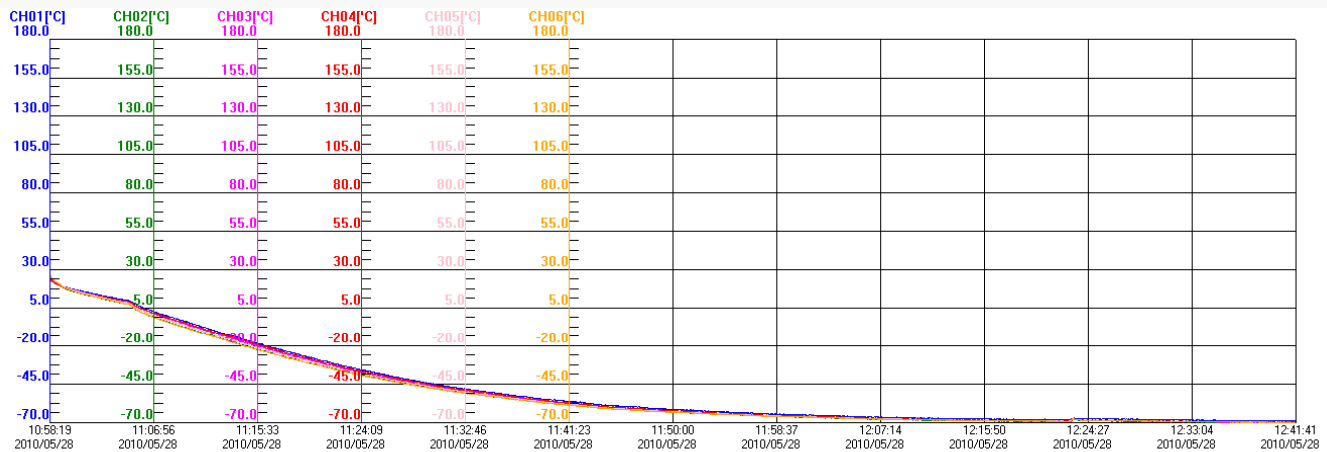


- Electronic humidity sensor.



## Technical Features

- Temperature range: -40 °C ~+150 °C (Single stage refrigeration system)  
-70 °C ~+150 °C (Cascade refrigeration system)  
(changeable on customer request)
- Temperature accuracy: less than  $\pm 0.3$  °C
- Temperature stability(fluctuation): less than  $\pm 0.5$  °C
- Temperature uniformity: less than  $\pm 2.0$  °C



- Humidity range: 10% ~ 95%RH
- Humidity stability: less than  $\pm 1.5\%$  RH
- Humidity uniformity: less than  $\pm 3\%$  RH
- Dew point temperature range: 5 °C ~ 85 °C
- Heating-up rate: 2.5 °C/min on average with no load measured in air inlet
- Cooling-down rate: 1.0 °C/min on average with no load measured in air inlet
- Input Power Requirements: 3PH 380V, 50Hz/60Hz  
(Changeable according to customer specification.)

## Included accessories

- 2 Shelves
- Viewing window (heater wire including, reinforced window) and interior light
- RS232/485 oven networking with control software
- Cable port and rubber plug  
(selectable among 50,80,100mm)



- Caster for moving



- Cartridge type water reservoir with connector
- Hard copy/soft copy instruction and maintenance manual

## Technical Specification

Model	Internal dimensions	External dimensions	Useful capacity
ETSP-TH 150	500 x500 x600 (WxDxH) mm	1,190 x 1,090x 1,764 (WxD xH) mm	150 liters
ETSP-TH 216	600 x600 x600 (WxD xH) mm	1,290 x 1,190 x 1,764 (W xD xH)mm	216 liters
ETSP-TH 343	700 x700 x700 (WxD xH) mm	1,390 x 1,290 x 1,860 (W xD xH)mm	343 liters
ETSP-TH 392	700 x700 x800 (WxD xH) mm	1,390 x 1,290 x 1,960 (W xD xH)mm	392 liters
ETSP-TH 512	800 x800 x800 (WxD xH) mm	1,490 x 1,390 x 1,960 (W xD xH)mm	512 liters
ETSP-TH 800	930 x930 x930 (WxD xH) mm	1,620 x 1,530 x 2,070 (W xD xH)mm	800 liters
ETSP-TH 1000	1,000 X1,000 X1,000 (WxD xH) mm	1,690 x1,590 x 2,100 (W xD xH) mm	1,000 liters
ETSP-TH 1800	1,200 X1,200 X1,250 (WxD xH) mm	1,900 x 1,800 x 1,850 (W xD xH)mm	1,800 liters

Note :Custom designed chambers are available on user's demand.

■ **Controller:** Programmable type TFT Color 5.7" touch screen LCD controller (Max. 120 patterns, Max. 1,200 profile), Set resolution: temperature 0.01°C ,humidity 0.1%RH, automatic recording and show graphs for temperature and humidity

■ **CFC free refrigerant** (R404A, R23)

■ **Safety devices** Electrical Leakage breaker, circuit breaker, over heat protector, refrigerator high and low pressure switch, Water low level switch, compressor built-in protector, pressure relief port, Electrical over current relay. Emergency shut off switch, Motor reverse-prevention relay

## Options

- Low humidity control at low temperature.
- Paperless digital chart recorder  
(selectable among 6CH, 8Ch, 12CH, 18CH)



- Additional port hole and rubber plug  
(selectable among 50,80,100mm)
- Additional stainless steel shelves

- Door lock system



- USB Memory stick (Inner 32M bite memory)



- Customization available