

**Constant Temperature Humidity Chamber: Stability Chamber – 253L
Capacity and -5~70°C Temperature Range**



Pharmaceutical stability testing, food quality assessment, and electronic component reliability evaluation all share one critical requirement: a precisely controlled environment that remains stable for weeks or months. The Master Science MSICB-H253YHSWISS Constant Temperature Humidity Chamber delivers exactly that. With a 253-litre chamber, a temperature range of -5~70°C, and humidity control from 15% to 95%RH, this stability chamber is engineered for long-term testing protocols that demand consistency. The frost-free design eliminates the temperature and humidity drift that plagues conventional chambers during defrost cycles, making this Constant Temperature Humidity Chamber a dependable workhorse for laboratories that cannot afford experimental interruptions.

Technical Specifications

- **Model: MSICB-H253YHSWISS**
- **Brand: Master Science**
- **Origin: China**
- **Capacity: 253 L**
- **Circulation Mode: Forced Convection (Balanced Type)**

- Internal Dimensions (W×D×H): 640 × 460 × 860 mm
- External Dimensions (W×D×H): 800 × 780 × 1570 mm
- Temperature Range: -5~70 °C
- Temperature Resolution: 0.1 °C
- Temperature Fluctuation: ±0.2 °C
- Temperature Uniformity: ±0.5 °C
- Humidity Range: 15%~95%RH
- Humidity Fluctuation: ±1%RH
- Operating Ambient Temperature: 5–30 °C
- Shelves (Standard): 3
- Test Hole: ?40 mm
- Voltage/Frequency: AC 220V, 50Hz
- Power Consumption: 2000 W
- Control System: Programmable microcomputer fuzzy PID control, 30 segments, 99 cycles
- Display: Wide-screen with temperature, humidity, fan speed, and running time
- Alarm Functions: Temperature, humidity, and water level alarms (visual and audible)
- USB Interface: For printer or USB flash drive data recording
- Refrigeration: Hot gas bypass energy regulation technology
- Safety Protection: Compressor overheating, over-current, over-pressure protection; condenser fan overheating protection; main power phase sequence and phase loss protection; leakage and short-circuit protection; overload protection; water shortage protection

Standard Accessories Included

- Main chamber unit
- 3 adjustable SUS304 stainless steel shelves
- Power cord
- Operation manual

Key Benefits

- Frost-free design maintains stability during long-term tests – Traditional humidity chambers require periodic defrosting, which causes temperature and humidity spikes that ruin ongoing experiments. The ICB-H253YH uses a frost-

free design that eliminates this problem entirely, so your stability studies proceed without interruption or data invalidation. This Constant Temperature Humidity Chamber keeps conditions rock-steady for weeks.

- Three-speed circulating fan adapts to your protocol – Whether you need rapid thermal ramping or gentle, uniform conditions for sensitive samples, the high/medium/low fan speed settings let you optimize airflow for your specific application. The diffusion-type air duct circulation system further improves uniformity across the entire 253L chamber.
- Programmable PID control with 30 segments and 99 cycles – The fuzzy PID controller enables gradient and slope control of temperature rise and fall. You can program temperature, humidity, fan speed, running time, and heating rates to create complex multi-step protocols that run automatically.
- Automatic water replenishment saves time and water – The water system features automatic replenishment and recycling, so you spend less time monitoring water levels and more time on research. Water shortage protection adds an extra layer of safety.
- Comprehensive safety and alarm systems – Over-temperature protection, temperature/humidity/water level alarms, compressor protection, and leakage/short-circuit protection work together to protect your samples and your facility. The audible and visual alarms ensure you are alerted immediately if conditions deviate.

Address Customer Pain Points

- Struggling with temperature and humidity drift during long-term stability studies? The frost-free design eliminates the need for defrost cycles, which are the primary cause of drift. Your Constant Temperature Humidity Chamber maintains $\pm 0.2^{\circ}\text{C}$ temperature fluctuation and $\pm 1\%\text{RH}$ humidity fluctuation continuously, without interruption.
- Worried about inconsistent conditions across different shelf positions? The diffusion-type air duct circulation system and three-speed fan ensure uniform temperature ($\pm 0.5^{\circ}\text{C}$) and humidity throughout the 253L chamber. Every sample experiences the same conditions, regardless of position.
- Tired of manually monitoring water levels? The automatic water replenishment and recycling system handles this for you. The water shortage protection alarm alerts you only if intervention is truly needed.
- Need audit-ready data trails? The USB interface connects to a printer or flash drive for real-time recording of temperature and humidity data. This Constant Temperature Humidity Chamber makes it easy to document environmental conditions for regulatory submissions.
- **Concerned about sample safety? The over-temperature protection system**

automatically interrupts operation and sounds an alarm if the preset range is exceeded. The tempered glass inner door is explosion-proof, and the outer door's 4-point locking mechanism ensures a tight seal.