BioCold Stability Chamber Series

BioCold Stability Chambers are designed to satisfy demanding environmental testing requirements with exceptional temperature and humidity control, while providing reliable and efficient solutions for a variety of stability testing applications.

Temperature Control System
BioCold stability chambers use a continuous solid state cooling system with low watt density heaters, eliminating downtime due to refrigerant leaks or compressor failure. Solid state thermoelectric cooling systems offer an average life of 23 years of reliable, efficient operation. By cycling resistive heaters against a constant cooling load, BioCold offers tight temperature control (±0.3°C) over a range from +20°C to +45°C, with extended ranges available.

Humidity Control System
BioCold's ultrasonic humidification system provides efficiency and precision in humidity control. The chamber cooling system provides a constant dehumidification effect, with the humidifier injecting water vapor instantaneously into the chamber at less than 10% the energy usage of traditional steam generators. Desiccant dehumidification systems are also available for low humidity applications.

Cabinet Design
Double-wall cabinet construction with foamed-in-place high density urethane insulation (CFC-free) provides years of trouble-free operation. Chambers come standard with a stainless steel door, brushed anodized aluminum exterior, NSF-approved aluminum interior, and stainless steel floor. Chambers are also available in optional stainless steel interior and exterior finishes.

Shelving
Chambers are equipped with heavy-duty, vinyl-coated wire shelving able to support up to 200 lbs. of distributed load per shelf. Chambers come standard with three shelves per door section, with additional shelving available up to a maximum of six shelves per door section.

Controls
BioCold stability chambers come standard with two microprocessor-based controls with dual digital displays (actual value and set value), which feature PID with Fuzzy Logic and Autotune to ensure straight -line temperature and humidity control. BioCold also offers optional BioLogic™ touchscreen controls with an Allen Bradley programmable logic controller (PLC), providing customers with remote access Ethernet and serial monitoring and control. All control and monitoring functions are accomplished through the touchscreen control system, including optional programmable temperature, humidity and lighting routines.

STANDARD FEATURES

Chamber Performance

Temperature Range:	20°C to 45°C
Temperature Control:	±0.3°C
Temperature Uniformity:	±1.0°C
Temperature Sensor:	100 ohm RTD
Humidity Range:	60% to 80% RH
Humidity Control:	±0.5% RH
Humidity Uniformity:	±3.0% RH
Humidity Sensor:	Vaisala 2%

Cabinet Construction
- High density CFC-free insulation
- 300 series stainless steel door
- Brushed anodized aluminum exterior
- NSF-approved aluminum interior
- 300 series stainless steel floor
- Side wall plenum
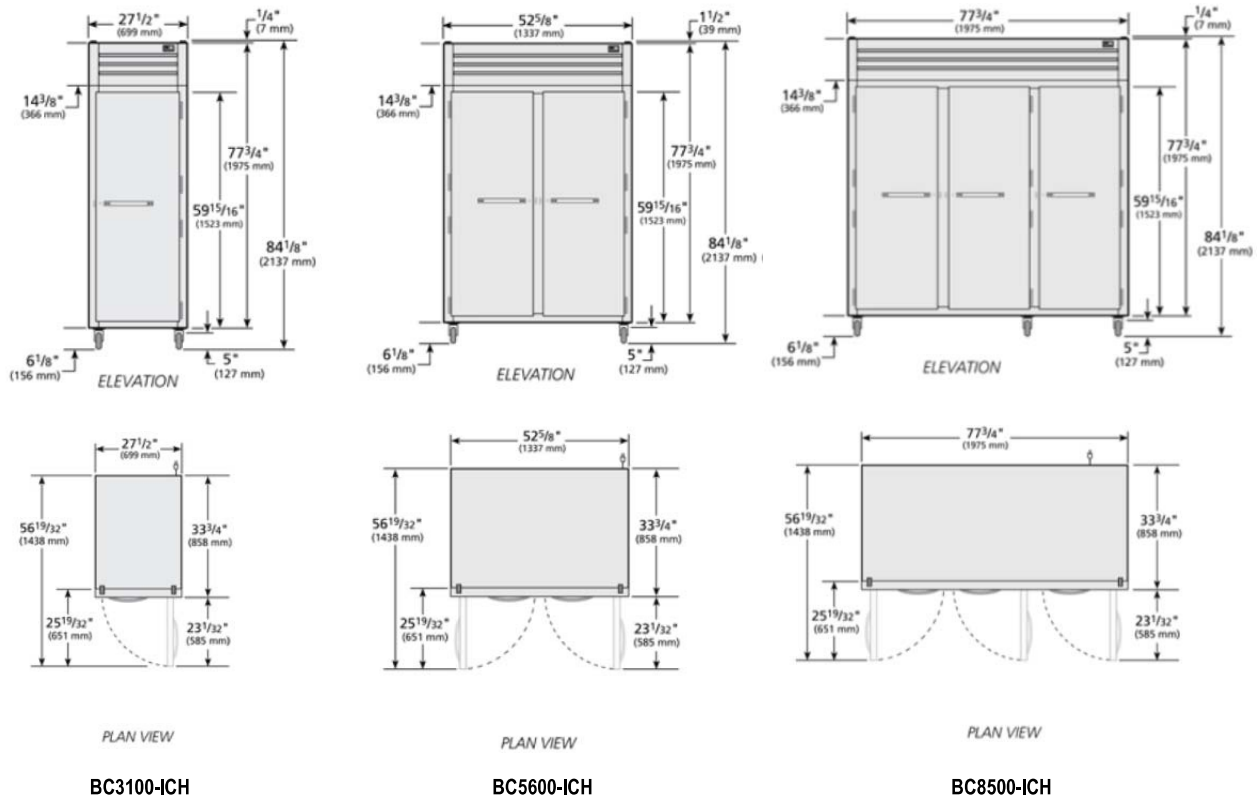- 3/4" diameter instrument port
- 6" casters

Controls
- Microprocessor-based controls with dual digital display (actual and set values)
- PID with Autotune to ensure straight-line temperature and humidity control

Chamber Dimensions

BC3100-ICH

BC5600-ICH

BC8500-ICH

Chamber Specifications

Chamber Model	Capacity (Approx.)	Doors / Shelves	Shelving Area	Ext. Dimensions WxDxH	Int. Dimensions WxDxH	Electrical Volts/Ø/Amps	Shipping Weight
BC3100-ICH	21 ft^3	1 / 3	12 ft^2	27½" x 33¾" x 84⅛"	22½" x 27" x 59"	115/1/20	475 lbs.
BC5600-ICH	44 ft^3	2 / 6	24 ft^2	52¾" x 33¾" x 84⅛"	47½" x 27" x 59"	115/1/20	850 lbs.
BC8500-ICH	68 ft^3	3 / 9	36 ft^2	77¾" x 33¾" x 84⅛"	72¾" x 27" x 59"	115/1/20	1,050 lbs.

Chamber Options

BioCold offers a wide range of options and accessories. Please contact us at (636) 349-0300 or sales@biocold.com for any features not shown.

- Access ports (up to 4" dia.)
- Circular chart recorder
- CO_2 control
- Desiccant dehumidification
- Extended temperature ranges
- High intensity lighting
- Interior GFCI receptacles
- International voltages
- LED lighting
- Local temperature and RH displays
- Programmable ramp/soak
- RO/DI water filtration system
- Stainless steel interior/exterior
- Stainless steel wire shelving
- Water carboy with tubing
- Water-cooled condensing unit