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MULTICOOL LOW TEMPERATURE BATH



MultiCool Low Temperature Bath, a cutting-edge refrigeration solution designed for optimal sample freezing down to -80°C . This mechanically refrigerated system features a temperature range from -80°C to 100°C , incorporating a magnetic stirrer and vortex breaker for consistent isothermal conditions.

The use of a liquid medium ensures precise temperature control, eliminating the expenses and potential risks associated with dry ice or liquid nitrogen. With features like a built-in magnetic stirrer, vortex breaker, and a multi-functional temperature controller, the MultiCool Low Temperature Bath offers a reliable and cost-effective alternative to traditional refrigerants.

APPLICATIONS

MultiCool Low Temperature Bath by Qualitest

Experience a new level of refrigeration with the MultiCool Low Temperature Bath. It's the most efficient way to freeze your samples down to -80°C .

The MultiCool low-temperature bath is mechanically refrigerated, with temperatures ranging from -80°C to 100°C . The design includes a magnetic stirrer and vortex breaker to ensure isothermal conditions throughout the bath's temperature range. By using a liquid medium, the MultiCool provides precise temperature control while avoiding the costs and potential hazards associated with dry ice or liquid nitrogen.



FEATURES

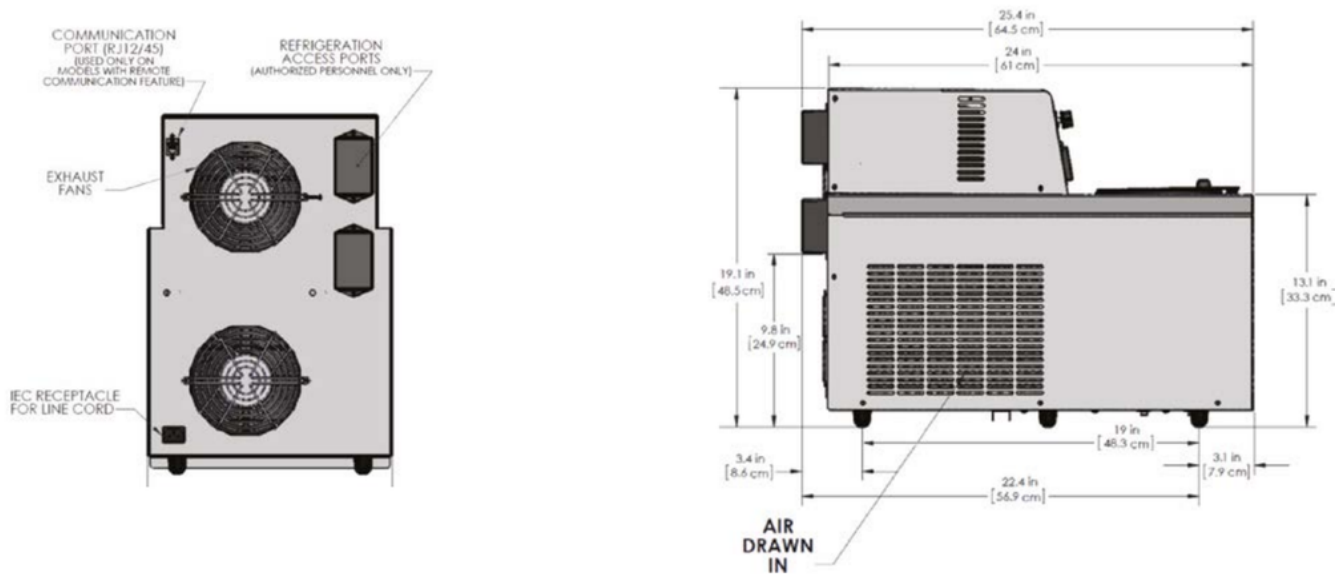
MultiCool Low Temperature Bath Advanced Features & Benefits:

- **Wide Temperature Control Range:** Achieve precise temperature control within a range of -80 °C to 100 °C.
- **Built-in Magnetic Stirrer and Vortex Breaker:** Ensure consistent isothermal bath conditions for optimal performance.
- **Enhanced Temperature Stability:** Utilize a liquid medium to enhance stability and uniformity in temperature control.
- **Multi-functional Temperature Controller:** Enjoy accurate temperature control with a clear temperature indication for reliable results.
- **Comprehensive Package:** The inclusion of a USB adapter, two-meter cable, and software facilitates data logging and remote access for enhanced convenience.
- **Cost-Efficient and Safe Operation:** Mechanical refrigeration eliminates costs and hazards associated with expendable refrigerants.

Certifications for Quality Assurance

- **CE Certification:** Compliant with standards (2006/42/EC), (2006/95/EC), (006/108/EC) to ensure product quality and safety.

THEORY & METHOD



Communication Kit for Solo Control with MultiCool Low Temperature Bath

Discover enhanced capabilities with the MultiCool Low Temperature Bath Communication Kit, an essential component included with your system. This kit features a USB adapter, a two-meter cable, and critical software for seamless integration.

To ensure optimal performance, your PC should be equipped with the Windows® 10, Windows® 98, Windows® NT, Windows® XP, 32-bit Windows Vista®, or 32-bit Windows® 7 operating system for bridge and driver installation.

Key Features of the Communication Kit:

- **Complete PC Control:** Take command of the MultiCool Low Temperature Bath directly from your PC for unparalleled convenience and flexibility.
- **Plug & Play Operation:** Experience a hassle-free setup and operation, allowing you to focus on your work without technical complexities.

- **Data Logging Capability:** Keep track of critical information effortlessly, thanks to the kit's built-in data logging feature.
- **64 Segment Ramp Soak Program:** Enhance your control with a versatile ramp soak program, providing precise temperature management.

Optimal Fluid Selections for Superior Stirring:

For optimal stirring results, choose a fluid medium with a kinematic viscosity of 20 centistokes or less across the entire operating temperature range.

Upgrade your laboratory experience with the MultiCool Low Temperature Bath Communication Kit, ensuring seamless communication, data management, and precise control.

TECHNICAL SPECIFICATIONS

MultiCool Low Temperature Bath Technical Specifications

Performance Specifications

Description	MC480	MC880
Maximum Low Temperature	-80 °C	-80 °C
Temperature Control Range	-80 to 100 °C	-80 to 100 °C
Temperature Control Stability	± 0.1 °C	± 0.1 °C
Temperature Indication Display	0.1	0.1

Description	MC480	MC880
Compressor	2 @ 0.25 hp	2 @ 0.25 hp
Available Bath Volumes	4 L	8 L
Magnetic Stirrer	Included	Included
Vortex Breaker	Included	Included
Computer Interface	RS485/USB (with software)	RS485/USB (with software)

Note: Performance specifications are based on SP test data from units using methanol operating at an ambient room temperature of approximately 22 °C (72 °F).

Heat Removal

Description	MC480	MC880
20 °C	270 W, 922 BTU/hr	270 W, 922 BTU/hr
0 °C	240 W, 820 BTU/hr	240 W, 820 BTU/hr
-20 °C	200 W, 683 BTU/hr	200 W, 683 BTU/hr
-40 °C	170 W, 581 BTU/hr	170 W, 581 BTU/hr
-60 °C	120 W, 410 BTU/hr	120 W, 410 BTU/hr
-80 °C	30 W, 102 BTU/hr	30 W, 102 BTU/hr

Electrical Requirements

Option	MC480	MC880
60 Hz	120 V, 12 A2	120 V, 12 A2
50 Hz	220 V, 6 A2	220 V, 6 A2

Note: All equipment configured with the 60 Hz option is supplied with a 5-15P NEMA configuration (i.e.,). All equipment configured with the 50 Hz option is supplied with a non-terminated AWG 18-3 power cord.

Dimensional Data

Description	MC480	MC880
Width	33 cm (13 in)	33 cm (13 in)
Depth	64.5 cm (25.4 in)	64.5 cm (25.4 in)
Height	48.5 cm (19.1 in)	48.5 cm (19.1 in)
Weight	43.5 kg (96 lbs)	45.4 kg (100 lbs)
Chamber Diameter	16.5 cm (6.5 in)	19.8 cm (7.8 in)
Chamber Depth	18.4 cm (7.25 in)	22.9 cm (9 in)
Height to Work Surface Above Bench Top	34.3 cm (13.5 in)	34.5 cm (13.5 in)

¹ 50 Hz option decreases heat removal by 17%.

² Maximum continuous amperage drawn by the equipment.

³ Stirrer assembly reduces chamber depth by .75 inches (1.9 cm) in cylindrical chambers.



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