Low-Capacity Temperature Stability System

Biolife Solutions®

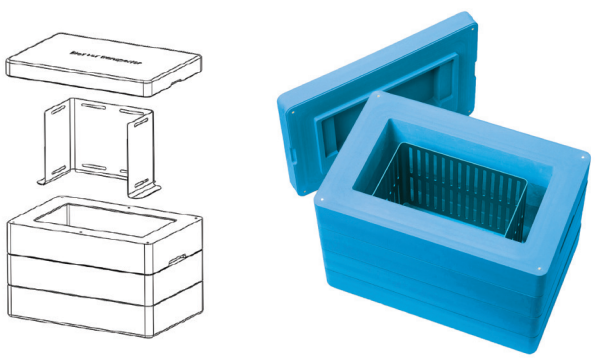
Breakthrough portable solution for handling and transporting valuable frozen biological materials and temperature-sensitive samples, or freezing samples at a collection site.

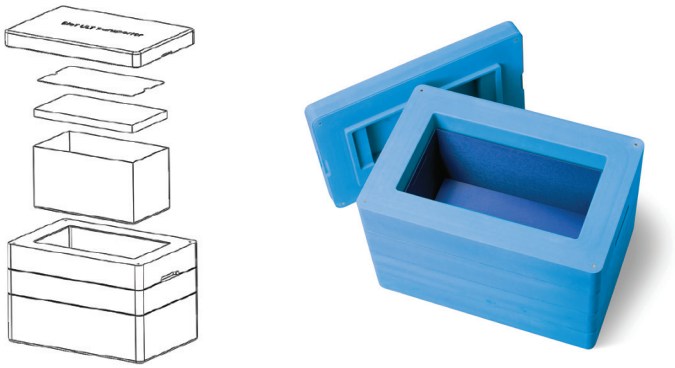
The closed-cell high-density polyethylene foam construction of the lid and base chamber is durable, non-absorbent, and remains comfortable to the touch even when loaded with dry ice and frozen materials. Magnetized lid ensures safe transport of contents. The dry ice retainer or DIR™ and thermo-conductive shelf plate are constructed of aluminum alloy anodized for durability.

Delivers Reliable Performance

BioT™ ULT Transporter maintains samples at -50°C for 24 hours and the BioT LN2 Transporter maintains cryogenic temperature at -150°C for approximately 2 hours.

- Ready to use in approximately 10 minutes
- Lightweight, easy to carry
- Intuitive assembly, durable
- Easy to clean and store

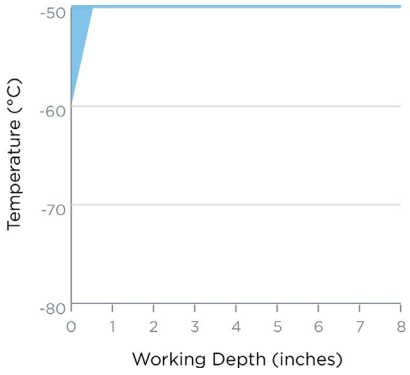


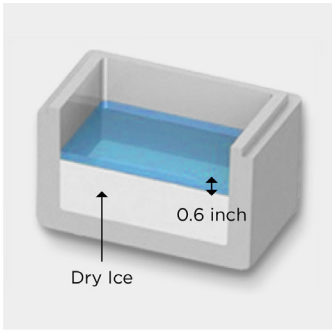


BioT™ ULT Transporter is comprised of three parts: magnetized lid, DIR™ dry ice retainer and base chamber. To begin, insert the DIR retainer, flanges down, into the base chamber. Add pelletized dry ice into the cavity between the DIR retainer and the base chamber walls, filling to the top of the DIR retainer. A full load of dry ice is approximately 13 lbs (5.8 kgs). The internal chamber will reach optimal working conditions (<-70˚C to -50˚C) within approximately 10 minutes and will be ready for use.

BioT™ LN2 Transporter is comprised of five parts: magnetized lid, thermo-conductive basket, thermo-conductive shelf plate, absorbent/baffle pad and base chamber. To begin simply insert the thermo-conductive basket into empty base chamber, followed by the absorbent/baffle pad. Place the thermo-conductive shelf plate into the basket on top of the absorbent/baffle pad. With the addition of LN2, (~ 2.7L) the internal chamber will reach <-150˚C within approximately 10 minutes.

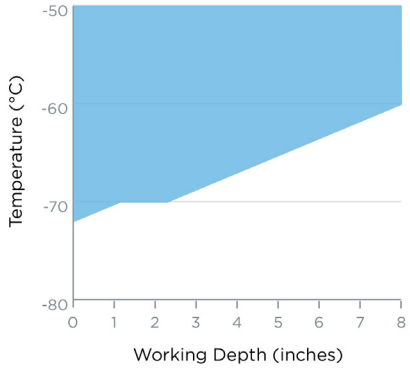
Styrofoam Box and Dry Ice: 0.6 Inches Below -50˚C

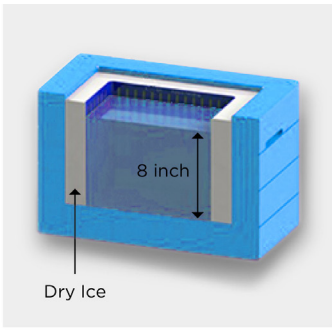




A dry ice-filled Styrofoam box is currently the standard method used for receiving, handling and transporting valuable frozen samples. However, only a 0.6 inch (1.5 cm) high zone above the dry ice stays below -50°C for 2 hours. Worse, at 2 inches (5.0 cm) above the dry ice - the top of a standard 2-inch cryostorage box- the temperature is above -20°C.

BioT™ ULT Transporter: 8.0 Inches Below -50˚C





BioT™ ULT Transporter provides a stable ultra-low temperature (< -70°C to -50°C) work zone 8.0 inches (20.3 cm) deep. Up to 8 standard 2-inch cryostorage boxes will remain safely below -50°C for over 8 hours with the lid open and over 24 hours with the lid closed with one charge of dry ice.

Specifications

BioT™ ULT Transporter	
-70°C to -50°C	Lid off: over 8 hours Lid on: over 24 hours
Dimensions (L x W x H)	Internal working area: 29.0 × 16.2 x 20.3 cm (11.4 × 6.4 × 8.0 in) External: 50.8 × 33.8 × 33 cm (20.0 × 13.3 × 13 in)
Amount of dry ice re-quired	5.4 kg (12.8 lb)
Weight empty	3.6 kg (8.0 lb)
Weight with dry ice	9.0 kg (20.8 lb)
Working depth <-50˚C	up to 20 cm (8.0 in) from chamber floor
Capacity	8 standard 2-inch cryostorage boxes 18, 250 mL cassettes

BioT™ LN2 Transporter	
-180˚C to -150˚C at < 6”	Lid off: 1 - 1.5 hours Lid on: 2 - 2.5 hours
Dimensions (L x W x H)	Internal working area: 36.3 × 19.8 x 17.8 cm (14.3 × 7.8 × 7.0 in) External: 50.8 × 33.8 × 33 cm (20.0 × 13.3 × 13 in)
Amount of LN2 required	~2.7 L to charge unit
Weight empty	4.0 kg (8.8 lbs)
Weight with LN2	6.2 kg (13.6 lbs)
Working depth < -150°C	up to 15.2 cm (6 inches) from floor plate
Capacity	> 6 standard 2-inch cryostorage boxes 24, 250 mL cassettes

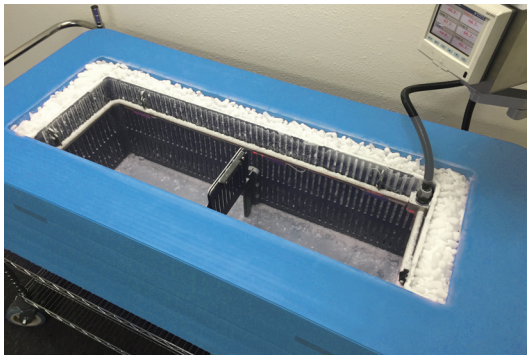
Ordering Information

BioT™ ULT Transporter	
AST-500D	BioT™ ULT Transporter, magnetized lid, DIR™ dry ice retainer and base chamber
AST-500L	BioT™ LN2 Transporter, magnetized lid, thermo-conductive basket, thermo-conductive shelf plate and absorbent pad and base chamber
AST-501D	BioT™ DIR™ Retainer, thermo-conductive dry ice retainer
AST-501L	BioT™ LN2 Basket, thermo-conductive basket, thermo-conductive shelf plate and absorbent pad

Ultra-Low, High-Capacity Mobile Temperature Stability System

BioT™ ULT Workstation is a breakthrough solution for handling and transporting valuable temperature-sensitive biomaterials, or freezing samples at collection site.

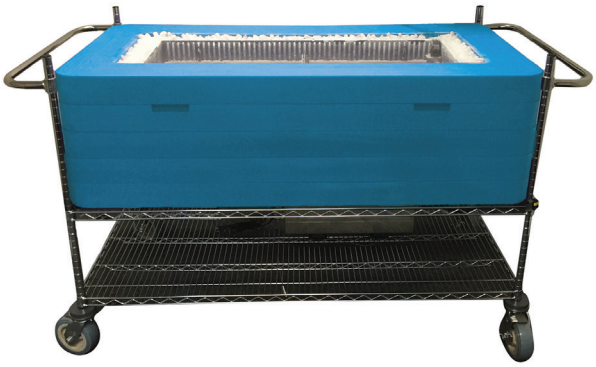
The dry ice-based BioT™ ULT Workstation provides a secure ultra-low temperature (ULT) -75° to -50°C work area for processing or transporting critical frozen samples. The patent-pending DIR™ cooling insert technology ensures that samples are completely immersed in temperatures below -50°C during the operating period. Requiring minimal dry ice, the chamber equilibrates to -50°C within 30 minutes and continues to cool for over 15 hours with the lid open with a single charge of dry ice.



Maintains < -75° to -50°C for 15 hours

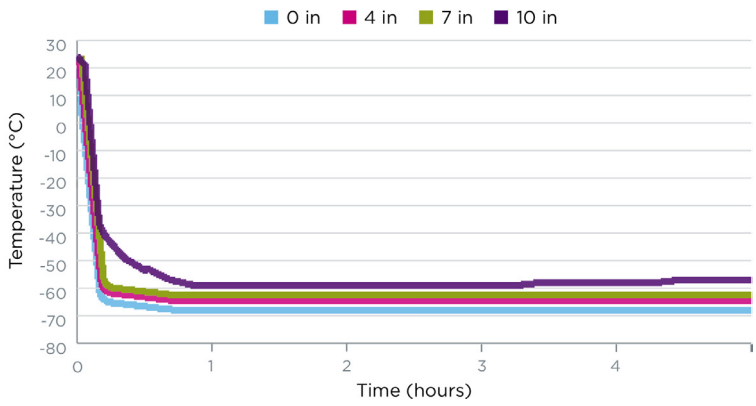
ULT handling and transport for a variety of applications

- Cherry-picking, sorting or other short term handling of critical samples outside a -80°C freezer
- Controlled-temperature transfer of frozen samples within and between facilities
- Transfer of temperature-sensitive materials to long-term storage tanks or automated biobank facilities
- Preparing, labeling or packaging of frozen samples for shipment



Performance Data

BioT™ ULT Workstation: 10.0 inches below -50°C



BioT™ ULT Workstation equilibrates to <-50°C in less than 30 minutes and entire chamber maintains temperature stability for over 15 hours. Temperature measured at 0 inches (blue), 4 inches (red), 7 inches (green), 10 inches (lavender).

Specifications

BioT™ ULT Workstation	
Internal Dimensions (L x W x H)	105.4 × 33.0 × 35.5 cm / 41.5 × 13.0 × 14.0 in
External Dimensions (L x W x H)	152.4 × 71.1 × 44.5 cm / 60.0 × 28.0 × 17.5 in
Hours of <-50˚C cooling	Lid open: over 15 hours
Amount of dry ice required	41 kg (90 lb)
Working depth <-50˚C	up to 25.4 cm (10 in)

Ordering Information

BioT™ ULT Workstation	
AST-508	BioT™ ULT Workstation, dry ice based freezing Includes: container base, lid and cart. Temperature monitoring and alarm system available upon request.

Biolife Solutions®

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