Isothermal Cryogenic Dry-Vapor Freezers

We know cold™

CBS Cryogenic Solutions
Part of Biolife Solutions

Exclusive Isothermal Technology for Superior Sample Integrity

Our Isothermal V-Series freezers take LN2 cryogenic storage to the next level, engineered to maximize sample integrity. Our innovative technology includes a liquid nitrogen (LN2) filled jacket that surrounds the chamber to provide completely dry storage and industry-leading temperature consistency throughout the chamber.

The Isothermal's unique jacket separates LN2 from the chamber, lowering the risk of sample cross-contamination from LN2 and increasing effective storage space.

The 2301 SmartTouch Controller user interface was designed specifically for cryogenic storage and added peace of mind. It features dual temperature display, autofill, alarm, fill timer, exportable reports, Modbus enabled, programmable lid alarm and is monitoring system ready.

Exceptional Temperature Uniformity

A blanket of LN2 surrounding the entire wall of the storage area creates minimal temperature variation throughout the chamber.

Minimal Temperature Change with Lid Open

No LN2 in the chamber, so there is a minimal temperature decrease when the lid is open.

Reduced Risk of Cross-Contamination

Liquid-free chamber greatly reduces the chance of sample cross-contamination and eliminates the risk of LN2 leaking into samples.

Increased Safety

Completely dry storage area keeps your staff safe from LN2 splashes.

The only liquid nitrogen freezers on the market offering completely dry storage.

Increased Dry Storage Space

Cutting-edge jacket technology provides more storage space than traditional LN2 freezers because there is no LN2 at the bottom of the chamber. Traditional LN2 freezers have at least six inches of LN2 at the bottom.

Quick Sample Access

Wide lid opening or square lid opening on carousel models give you easy access to all your samples without having to remove racks to find the one you need.

Variety of Sizes and Styles

Whether you need a wide lid opening or a smaller one with a carousel designed for ceiling restrictions, both give you easy access to samples.

Isothermal Carousel model with square lid

	V-1500AB	V-3000AB	V-5000AB	V-3000ABEH	V-5000ABEH	V-3000AB-C	V-5000AB-C	V-3000ABEH-C	V-5000ABEH-C
LN2 Capacity									
	30 Liters	70 Liters	93 Liters	89 Liters	140 Liters	70 Liters	93 Liters	89 Liters	140 Liters
Maximum Storage Capacity									
Vials (2 mL)	9,100	22,100	40,300	25,500	46,500	16,800	36,400	21,000	42,000
Cryobags (50 mL)	434	1,120	1,936	1,280	2,208	792	1,638	1,056	1,872
Unit Dimensions									
External Length mm (in.)	1005.8 (39.6)	1277.6 (50.3)	1450.3 (57.1)	1277.6 (50.3)	1450.3 (57.1)	1259.8 (49.6)	1445.3 (56.9)	1259.8 (49.6)	1445.3 (56.9)
External Width mm (in.)	675.6 (26.6)	955 (37.6)	1371.6 (54)	955 (37.6)	1371.6 (54)	970.3 (38.2)	1191.3 (46.9)	970.3 (38.2)	1191.3 (46.9)
Usable Interior Diameter mm (in.)	533.4 (21)	787.4 (31)	1016 (40)	787.4 (31)	1016 (40)	736.6 (29)	965.2 (38)	736.6 (29)	965.2 (38)
External Height mm (in.)	1211.6 (47.7)	1249.7 (49.2)	1430 (56.3)	1463 (57.6)	1551.9 (61.1)	1292.9 (50.9)	1475.7 (58.1)	1582.4 (62.3)	1602.7 (63.1)
Usable Interior Height mm (in.)	736.6 (29)	736.6 (29)	736.6 (29)	939.8 (37)	863.6 (34)	685.8 (27)	736.6 (29)	914.4 (36)	863.6 (34)
Liftover Height mm (in.)	1965.9 (77.4)	2278.4 (89.7)	2578.1 (101.5)	2491.7 (98.1)	2700 (106.3)	-	-	-	-

Biolife Solutions®

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Storage Solutions

CBS Cryogenic Solutions

Technical Data Sheet
Isothermal V-Series

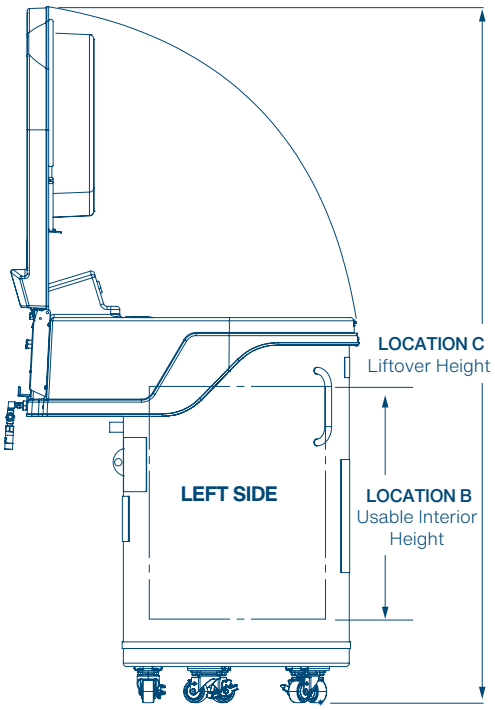
Cryogenic Dry-Vapor Freezers

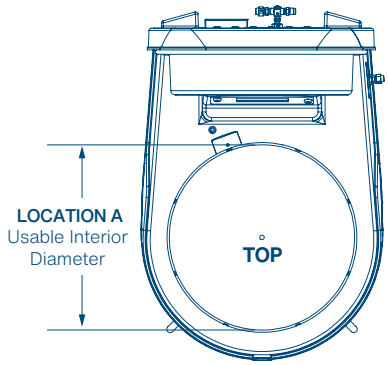
We know cold™

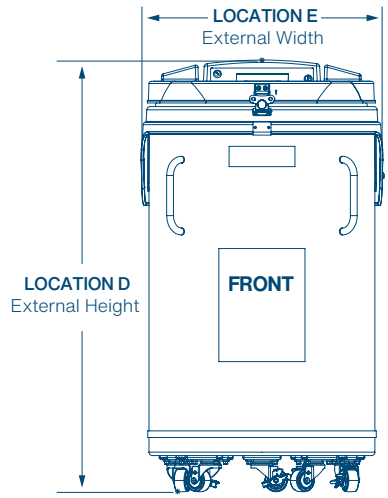
Unit Dimensions

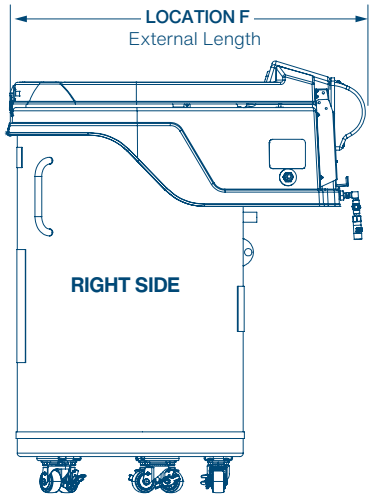
Model	V-1500AB	V-3000AB	V-5000AB	V-3000ABEH	V-5000ABEH	V-3000AB-C	V-5000AB-C	V-3000ABEH-C	V-5000ABEH-C
Location F: External Length mm (in.)	1005.8 (39.6)	1277.6 (50.3)	1450.3 (57.1)*	1277.6 (50.3)	1450.3 (57.1)*	1259.8 (49.6)	1445.3 (56.9)	1259.8 (49.6)	1445.3 (56.9)
Location E: External Width mm (in.)	675.6 (26.6)	955 (37.6)	1371.6 (54)*	955 (37.6)	1371.6 (54)*	970.3 (38.2)	1191.3 (46.9)	970.3 (38.2)	1191.3 (46.9)
Location A: Usable Interior Diameter mm (in.)	533.4 (21)	787.4 (31)	1016 (40)	787.4 (31)	1016 (40)	736.6 (29)	965.2 (38)	736.6 (29)	965.2 (38)
Location D: External Height mm (in.)	1211.6 (47.7)	1249.7 (49.2)	1430 (56.3)*	1463 (57.6)	1551.9 (61.1)*	1292.9 (50.9)*	1475.7 (58.1)*	1582.4 (62.3)*	1602.7 (63.1)*
Location B: Usable Interior Height mm (in.)	736.6 (29)	736.6 (29)	736.6 (29)	939.8 (37)	863.6 (34)	685.8 (27)	736.6 (29)	914.4 (36)	863.6 (34)
Location C: Liftover Height mm (in.)	1965.9 (77.4)	2278.4 (89.7)	2578.1 (101.5)	2491.7 (98.1)	2700 (106.3)	-	-	-	-
Weight Empty kg (lbs.)**	173.7 (383)	326.6 (720)	498.9 (1100)	366.5 (808)	565.6 (1247)	344.7 (760)	535.2 (1180)	384.6 (848)	601.9 (1327)
Weight Liquid Full kg (lbs.)**	197.9 (436.4)	383.1 (844.6)	574.1 (1265.7)	438.4 (966.5)	678.8 (1496.4)	401.3 (884.7)	610.4 (1345.7)	456.5 (1006.5)	715.0 (1576.4)

*Dimensions include clamshell controller.
**Dimensions are for reference only.









Technical Data Sheet **Isothermal V-Series**

Cryogenic Dry-Vapor Freezers

Storage Capacity

Model	V-1500AB	V-3000AB	V-5000AB	V-3000ABEH	V-5000ABEH	V-3000AB-C	V-5000AB-C	V-3000ABEH-C	V-5000ABEH-C
LN2 Capacity (L)	30	70	93	89	140	70	93	89	140
Vials Capacity (2 mL)	9,100	22,100	40,300	25,500	46,500	16,800	36,400	21,000	42,000
Cryobag Capacity (50 mL)	434	1,120	1,936	1,280	2,208	792	1,638	1,056	1,872

V-1500AB Square Rack configuration with capacity of 9,100 (2 mL) vials

Isothermal V-Series Interior View

Beratung, Vertrieb, Service:

Biolife Solutions®

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