

MVE Series with CryoVerse™ Connect Controller

Liquid Nitrogen Storage with Intelligent Control



The MVE Series freezers provide stable, high-capacity cryogenic storage for up to 39,000 1.2 / 2.0 ml vials, delivering maximum storage density and extended hold times for critical biological materials. Engineered with over 60 years of MVE expertise in open-top cryogenic design, the MVE Series is purpose-built for liquid nitrogen (LN₂) storage and offers the flexibility to operate in vapor-phase applications. This dual capability allows users to balance storage efficiency, sample protection, and operational safety—reducing contamination risk while improving access and handling.

Designed for real-world laboratory workflows, the MVE Series features wide neck openings for easy sample retrieval, low liftover heights for improved ergonomics, and large LN₂ capacities to support long-term storage with minimal intervention. Proven across life sciences, biobanking, IVF, and research environments, these freezers deliver reliable, repeatable cryogenic performance for the world's most valuable samples.

Now enhanced with intelligent control through the CryoVerse™ Connect Controller, the MVE Series combines proven cryogenic performance with modern visibility, traceability, and system awareness—bringing a new level of confidence to liquid nitrogen storage.

Trust History. Trust MVE.



Bringing Intelligence to Cryogenic Storage

The MVE Series with CryoVerse™ Connect Controller represents the evolution of liquid nitrogen storage. By combining proven cryogenic performance with modern connectivity and system intelligence, it delivers enhanced visibility, improved operational control, and greater confidence in sample protection.

Key Features

MVE Series Freezer

- Liquid sample storage
- Wide neck opening for easy access
- Low liftover height for improved ergonomics
- Large LN₂ capacity for extended hold times
- High storage density without increasing footprint
- Optional battery backup for added security
- Intelligent monitoring and control with CryoVerse™ Connect

CryoVerse™ Connect Controller

- 10.1" intuitive touchscreen interface
- Real-time monitoring of temperature and LN₂ levels
- Role-based access with full audit trail
- Visual light bar for instant system status
- Connectivity: Wi-Fi, Ethernet, USB, Serial
- Embedded Linux architecture for security and reliability
- Real-time trending and event logging for full traceability

	MVE 205	MVE 510	MVE 616	MVE 1426	MVE 1839
Maximum Storage Capacity					
○ 1.2 & 2 ml Vials (Internally Threaded)	5,200	10,400	16,900	26,650	39,000
○ Number of Racks 100 cell boxes	4	7	12	18	28
○ Number of Racks 25 cell boxes	-	4	4	10	8
○ Number of Stages per Rack	13	13	13	13	13
○ High Security Straw Capacity (0.5 ml)	19,320	32,760	50,400	79,800	151,200
○ Number of Canisters (73 mm)	23	39	60	95	150
○ Goblets/Canister : Straws/Goblet	5:168	5:168	5:168	5:168	6:168
Performance					
○ LN ₂ Capacity L	95	166	240	388	673
Unit Dimensions					
○ Neck Opening in. (mm)	16.00 (406)	20.70 (527)	25.10 (638)	31.75 (806)	39.40 (1002)
○ Usable Internal Height in. (mm)	28.9 (735)	30.0 (762)	29.5 (749)	29.3 (745)	33.6 (854)
○ Inner Diameter in. (mm)	16.00 (406)	20.70 (527)	25.1 (638)	31.75 (806)	39.40 (1002)
○ Overall Height w/ AutoFill in. (mm)	46.3 (1176)	46.7 (1185)	45.8 (1161)	46.8 (1188)	54.0 (1372)
○ Door Width Requirement** in. (mm) Outer Dimensions	23.6x22.7 (601x577)	30.6x29.7 (778x754)	33.5x34.6 (852x878)	40x41.6 (1017x1056)	46.8x48.9 (1187x1242)
○ Weight Empty lb. (kg)	195 (88)	281 (127)	320 (145)	490 (222)	750 (341)
○ Weight Liquid Full* lb. (kg)	365 (166)	577 (262)	748 (339)	1181 (536)	1950 (885)

	MVE 205			MVE 510			MVE 616			MVE 1426			MVE 1839		
Blood Bag Capacities	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames	Total Bags	Bags/ Frame	No. Frames
	○ 791 OS/U Medsep (25 ml)	539	7	77	882	7	126	1,372	7	196	2,226	7	318	3,968	8
○ 4R9951 (50 ml)	228	6	38	420	6	70	612	6	102	924	6	154	1,856	8	232
○ 4R9953 (250 ml)	128	4	32	224	4	56	336	4	84	512	4	128	1,010	5	202
○ 4R9955 (500 ml)	96	4	24	160	4	40	248	4	62	424	4	106	770	5	154
○ DF200 (200 ml)	80	4	20	128	4	32	200	4	50	336	4	84	610	5	122
○ DF700 (700 ml)	40	4	10	68	4	17	116	4	29	168	4	42	380	5	76

FIVE Year Vacuum Warranty • TWO Year Parts Warranty

* Without inventory

**Minimum width required for vessel to pass through opening. Footprint may vary. Contact Tech Service for detailed drawings.

Note: The usable height is decreased when using a vapor platform, and storage capacity is reduced when using a sleeve.

Intended Use & Indication for Use of Cryogenic Storage and/or Transport

LIFE SCIENCE INTENDED USE STATEMENT

STORAGE ONLY

MVE freezers are intended for the indication of preserving human biological products, samples, and/or specimens (e.g., blood, blood products, cells, tissues, etc.) at cryogenic and ultracold temperatures during storage.

STORAGE AND TRANSPORT

MVE dewars and vapor shippers are intended for the indication of preserving human biological products, samples, or specimens (e.g., blood, blood products, cells, tissues, etc.) at cryogenic and ultracold temperatures during storage and/or transportation.



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