

MVE HE Series Freezers with CryoVerse™ Connect Controller High-Efficiency Cryogenic Storage with Intelligent Control



The MVE HE Series sets the benchmark for cryogenic storage performance, now integrated with the new MVE CryoVerse™ Connect Controller. Combining industry-leading LN₂ efficiency with intelligent, connected control, the HE Series delivers confidence, visibility, and security for the world's most valuable biological materials.

As the on-device command center of the CryoVerse™ platform, CryoVerse™ Connect Controller transforms the freezer into an intelligent system, providing real-time insights, traceability, and secure connectivity.

Key Features

MVE HE Freezer

- Industry-leading LN₂ efficiency through advanced insulation and vapor management
- Consistent vapor temperature performance (-190°C ±5°C at top box when loaded)
- High storage density without increasing footprint
- Lower total cost of ownership through reduced LN₂ consumption

Introducing the MVE CryoVerse™ Connect Controller

The MVE CryoVerse™ Connect Controller combines an intuitive 10.1" touchscreen with robust embedded Linux performance and flexible connectivity (Wi-Fi, Ethernet, USB, Serial) to deliver a modern, secure, and highly functional user experience. Pressure-sensitive action buttons allow operators to perform tasks while wearing gloves without interrupting workflow, while the unique light bar provides instant visual status from across the room, clearly indicating fills, alarms, and even confirming proper computing module operation through its slow scrolling indicator. With role-based access, sensor logging, and real-time trending of temperature, LN₂ levels, and events, the system enhances compliance, security, and full traceability. It also features a streamlined firmware update path and maintains backward compatibility with legacy TEC 3000 and TS Controllers, ensuring seamless integration into existing installations.



	MVE 815P-190	MVE 1536P-190	MVE 1542R-190	MVE 1892P-190	MVE 1894R-190
Maximum Storage Capacities					
○ 1.2 & 2 ml Vials (Internally Threaded)	15,600	36,400	42,000	92,250	94,500
○ Quantity of Large Racks 100 cell boxes	12	24	26	54	60
○ Quantity of Mini Racks 25 cell boxes	4	16	16	30	12
○ Number of Shelves per Rack	12	13	14	15	15
Performance					
○ LN ₂ Capacity at Vapor Platform L est.	62	133	133	282	300
○ LN ₂ Capacity w/o Inventory L est.	360	756	797	1735	1730
Unit Dimensions					
○ Neck Opening in. (mm)	12.5 (318)	17.5 (445)	17.5 (445)	25.0 (635)	25.0 (635)
○ Usable Internal Height in. (mm)	26.5 (673)	28.7 (730)	30.7 (781)	34.5 (876)	34.2 (868)
○ Inner Diameter in. (mm)	28.8 (731)	38.5 (978)	38.7 (983)	55.9 (1422)	54.8 (1391)
○ Overall Height w/Autofill in. (mm)	58.2 (1478)	61.3 (1556)	63.2 (1607)	73.2 (1860)	73.2 (1860)
○ Liftover Height in. (mm)		37.1 (942)	39.2 (995)		
○ Door Width Requirement** in. (mm)	32.0 (813)	42.0 (1067)	42.0 (1067)	60.0 (1524)	60.0 (1524)
○ Door Width Requirement** with handles in. (mm)	33.2 (843)	7.9 (201)	7.9 (201)		
○ Weight Empty* lb. (kg)	480 (218)	690 (313)	720 (327)	1721 (781)	1721 (781)
○ Weight Liquid Full* lb. (kg) est.	1160 (526)	2037 (924)	2140 (971)	4875 (2211)	4875 (2211)

Blood Bag Capacities	MVE 815P-190			MVE 1536P-190			MVE 1542R-190			MVE 1892P-190			MVE 1894R-190		
	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)	1,224	6	204	3,320	8†	415	3,184	8†	398	6,704	8	838	6,432	8	804
○ 4R9951 (50 ml)	768	6	128	1,736	7	248	1,687	7	241	3,936	8	492	3,920	8	490
○ 4R9953 (250 ml)	416	4	104	812	4	203	768	4	192	1,980	5	396	2,010	5	402
○ 4R9955 (500 ml)	304	4	76	608	4	152	576	4	144	1,380	5	276	1,550	5	310
○ DF200 (200 ml)	236	4	59	496	4	124	488	4	122	1,200	5	240	1,230	5	246
○ DF700 (700 ml)				256	4	64	264	4	66	630	5	126	680	5	136

FIVE Year Vacuum Warranty • TWO Year Parts Warranty

Freezer systems SGS listed in the US and Canada.

* Without inventory

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

† Between usable height and clearance. Please refer to specifications.

Optional Accessories

- Racks
- Vacuum Jacketed Hose
- Battery Backup



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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