

MVE High Efficiency/Vapor Series

There is a critical temperature for most biological samples that are cryopreserved. This critical temperature is known as the Glass Transition Temperature (T_g) of water, which is widely accepted as being in the order of -130° to -135°C. The long-term viability of frozen samples can be seriously compromised if stored above this temperature range. Further, if they experience several transitions through this range in either thermal direction, additional deterioration may occur. It is important that the LN₂ freezer maintain a lower temperature, even during filling and sample retrieval cycles. This is much more likely to be achieved if the freezer maintains a temperature of -190°C than if the system is at or near the critical temperature at



Optional Step for 800 Series



Product Specifications

	815P-150	818P-150	819P-150	1536P-150	1539P-190
MAXIMUM STORAGE CAPACITY					
1.2 & 2 mL Vials (Internally Threaded)	15600	18200	19500	36400	39200
Number of Racks <i>100 cell boxes</i>	12	12	12	24	24
Number of Racks <i>25 cell boxes</i>	4	4	4	16	16
Number of Stages per Rack	12	14	15	13	14
PERFORMANCE					
LN ₂ Capacity <i>L</i>	370	420	463	756	797
LN ₂ Capacity Under					
Platform Vapor Storage <i>L</i>	52	55	55	133	133
UNIT DIMENSIONS					
Neck Opening <i>in. (mm)</i>	12.5 (317)	12.5 (317)	12.5 (317)	17.5 (445)	17.5 (44)
Usable Internal Height <i>in. (mm)</i>	26.6 (676)	30.7 (781)	34.5 (877)	28.8 (730)	30.8 (781)
Inner Diameter <i>in. (mm)</i>	28.8 (731)	28.8 (731)	28.8 (731)	38.5 (978)	38.5 (978)
Overall Height <i>in. (mm)</i>	49 (1245)	53.3 (1353)	57 (1449)	54.9 (1393)	56.8 (1445)
Outer Diameter <i>in. (mm)</i>	32 (813)	32 (813)	32 (813)	42 (1066)	42 (1066)
Footprint <i>in. (mm)</i>	33.19x32 (843x813)	33.19x32 (843x813)	33.19x32 (843x813)	43.6x54.1 (1107x1172)	42x46.1 (1066x117)
Depth of Extended Step <i>in. (mm)</i>	-	-	-	7.9 (202)	7.9 (202)
Weight Empty <i>lb. (kg)</i>	475 (215)	495 (225)	515 (234)	690 (313)	720 (327)
Weight Full <i>lb. (kg)</i>	1134 (514)	1168 (530)	1340 (608)	2037 (924)	2140 (971)

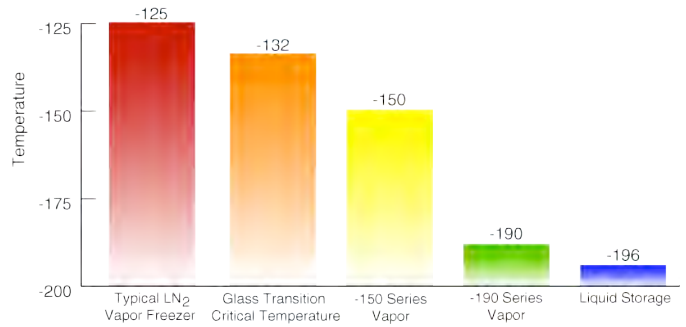
Blood Bag Capacities

Unit	815P-150			818P-150			819P-150			1536P-150			1539P-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 (25 mL)	1224	6	204	1632	8	204	-	-	-	3080	7	440	3064	8	383
4R9951 (50 mL)	768	6	128	896	7	128	1024	8	128	1488	6	248	1736	7	248
4R9953 (250 mL)	416	4	104	416	4	104	520	5	104	812	4	203	812	4	203
4R9955 (500 mL)	304	4	76	304	4	76	380	5	76	608	4	152	608	4	152
DF200 (200 mL)	236	4	59	-	-	-	295	5	59	496	4	124	496	4	124
DF700 (700 mL)	-	-	-	-	-	-	-	-	-	256	4	64	256	4	64

TWO Year Standard Warranty • FIVE Year Vacuum Warranty

-150 & -190

normal equilibrium. Chart-MVE's approach to this problem was to improve the fundamental design of freezers used in vapor phase and to design and build a nitrogen vapor freezer which ensures stability at -190°C.



MVE 1879P-150

MVE 1892P-190

MVE 815P-190

MVE 1536P-190

MVE 1879P-190

79950	92250	15600	36400	79950
54	54	12	24	54
30	30	4	16	30
13	15	12	13	13
1612	1829	370	756	1672
260	296	52	133	296
25 (635)	25 (635)	12.5 (317)	17.5 (445)	25 (635)
28.8 (732)	34.5 (876)	26.5 (673)	28.8 (730)	29.5 (749)
56.3 (1429)	56 (1422)	28.8 (731)	38.5 (978)	56 (1422)
60.6 (1539)	67.1 (1704)	49 (1245)	54.9 (1393)	62.1 (1577)
60 (1524)	60 (1524)	32 (813)	42 (1066)	60 (1524)
60x64.1 (1524x1629)	60x64.1 (1524x1629)	32x33.2 (813x843)	46.1x42 (1172x1066)	64.1x60 (1629x1524)
15.2 (385)	15.2 (385)	-	7.94 (202)	15.2 (385)
1585 (719)	1545 (701)	475 (215)	690 (313)	1606 (728)
4458 (2022)	4803 (2179)	1134 (514)	2037 (924)	4585 (2080)

1879P-150			MVE 1892P-190			MVE 815P-190			MVE 1536P-190			MVE 1879P-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
5866	7	838	6704	8	838	1224	6	204	3080	7	440	5866	7	838
2952	6	492	3936	8	492	768	6	128	1488	6	248	2952	6	492
1584	4	396	1980	5	396	416	4	104	812	4	203	1584	4	396
1104	4	276	1380	5	276	304	4	76	608	4	152	1104	4	276
960	4	240	1200	5	240	236	4	59	496	4	124	960	4	240
504	4	126	630	5	126	-	-	-	256	4	64	504	4	126

• Units available which conform to MDD 93/42/EEC, the Medical Device Directive for the EU.