



MVE Doble Series



The traditional method of export shipment and distribution for biological products such as semen and vaccines has been based around wet shipment under liquid nitrogen. Over the past few years, many of the traditional shipping companies have either prohibited the shipment of liquid nitrogen, or placed hazardous material surcharges on shipments to the point where this method is uneconomical.

In many cases, vapor shippers have become the method of choice for cryogenic shipment. These shippers hold product at cryogenic temperature and allow most shipping methods to be employed, even for export shipments. From a transport point of view, this is a perfect solution. From a distribution standpoint, it leaves much to be desired. Once at a destination, the samples have to be transferred into a liquid storage tank and the shipping container has to be recovered by the shipping company. Therefore, there is an additional "return shipment".

Since the early 1960's Chart/MVE has been at the forefront of innovation and excellence in the field of storage and transportation of frozen biological samples. Once again, Chart/MVE has taken a step in front of all other cryogenic manufacturers.

The Doble series tanks are the first units to be designed for both vapor shipment and liquid storage. A unique absorbent layer in the base of the storage tanks enable them to be charged with nitrogen and employed as dry shippers with hold times of up to 30 days. Once at the final destination, the tanks can be filled with liquid and used for long term storage.

PRODUCT SPECIFICATIONS

MODEL	Doble-11	Doble-20	Doble-28	Doble-34	Doble-47	Doble47-10
PART NUMBER	110507886	11492151	11527730	11497948	11498684	115543508
Number of Canisters	6	6	6	6	6	10
No. of 1/2 cc Straws (10/cane)	480	660	2400	2100	4500	3500
PERFORMANCE						
Liquid Nitrogen Capacity (liters)	10	18.5	28	32	46	46
Vapor Capacity (liters)	3.4	3.4	8.4	6.7	8.4	9.6
Static Evaporation Rate (liters/day)	0.17	0.1	0.3	0.2	0.4	0.4
Normal Working Duration (days for liquid)	42	125	50	100	74	72
Normal Working Duration (days for vapor)	21	21	24	30	21	21
UNIT DIMENSIONS						
Neck Opening (in/mm)	2 / 51	2.18 / 55	3.81 / 97	3.5 / 89	5 / 127	5 / 127
Overall Height (in/mm)	21.6 / 549	25.7 / 652	22 / 559	26.6 / 676	26.5 / 673	26.5 / 673
Outside Diameter (in/mm)	10.2 / 260	14.5 / 368	18.2 / 462	18.2 / 462	20 / 508	20 / 508
Canister Height (in/mm)	11 / 279	11 / 279	11 / 279	11 / 279	11 / 279	11 / 279
Canister Diameter (in/mm)	1.5 / 38	1.65 / 42	3.09 / 78	2.81 / 72	4 / 101.6	2.81 / 72
Weight Empty (lbs/kg)	19 / 8.7	25.2 / 12	34 / 16	39.2 / 18	47 / 21.3	48 / 21.8
Weight Charged (vapor lbs/kg)	24 / 11	30.2 / 14	49 / 22	51 / 23	63 / 28.6	64 / 29
Weight Full (liquid lbs/kg)	36 / 16	60 / 27	84 / 38	95 / 43	125 / 57	120 / 54.5
Lbs/Kg of Cabosil	1 / .45	1 / .45	2.5 / 1.2	2 / .9	2.5 / 1.2	3.4 / 1.6

THREE Year Vacuum Warranty

Conforms to MDD 93/42/EEC, the Medical Device Directive for the EU