Planer liquid nitrogen storage systems

Liquid Nitrogen Vessel Selection Wizards

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Liquid Storage Vessel Selection Wizard

- Choose your sample container
- Choose your maximum capacity requirement
- Select storage vessel from chosen group

Step 1

Choose your type of sample container...

0.5ml straws - go to Step 2

2ml vials - go to Step 3

Step 2

Select maximum 0.5ml straw capacity requirement from the following ranges...

up to 699 - go to Group A1

700 to 999 - go to Group A2

1,000 to 1,999 - go to Group A3

2,000 to 2,999 - go to Group A4

3,000 to 4, 499 - go to Group A5

4,500 to 9,999 - go to Group A6

10,000 to 21,999 - go to Group A7

22,000 to 39,999 - go to Group A8

40,000 to 149,999 - go to Group A9

150,000 to 199,999 - go to Group A10

200,000 plus - go to Group A11

Step 3

Select maximum 2ml vial capacity requirement from the following ranges...

up to 150 - go to Group B1

151 to 199 - go to Group B2

200 TO 599 - go to Group B3

600 TO 799 - go to Group B4

800 TO 1,200 - go to Group B5

1,201 TO 3,200 - go to Group B6

3,201 TO 4,999 - go to Group B7

5,000 TO 10,399 - go to Group B8

10,400 TO 24,999 - go to Group B9

25,000 TO 39,999 - go to Group B10

40,000 plus - go to Group B11

See nextl page for descriptions of vessels included within Groups

Planer nitrogen vapour storage systems

Liquid Storage Vessel Selection Wizard

Air Liquide - RCB Range:

RCBs 500/600/1000/1001 have a narrow neck that reduces nitrogen evaporation to the absolute minimum and conserves at an extremely low range of temperatures. They are also particularly suited for keeping large quantities of biological products for long periods. RCBs can be fitted with an extremely wide range of internal attachments, which makes them suitable for a very broad variety of cryobiological applications. They also have the benefit of AIR LIQUIDE's extensive experience in monitoring and controlling cryoconservation. Exceptionally reliable and robust, the RCB range gives you the guarantee of unfailing conservation.

Air Liquide - Espace Range:

ESPACE units are effective and easy-to-use too. Every detail has been thought out to make your work more pleasant and efficient. But first and foremost ESPACE's technology is a guarantee of reliability. Because of the quality of the cryogenic compartment, as well as all the monitoring and control systems on the container, you are confidently able to store your most valuable products. With the ESPACE range, enter the new dimension of cryoconservation.

Air Liquide - GT Range:

Built in aluminium with super-insulation and resin neck to combine thermal efficiency, lightness and strength. The polyurethane paintwork gives the container a quality finish and remarkably long life. The containers are made in accordance with extremely strict internal quality assurance rules (ISO 9001 version 2000). All GTs comply with international regulations applicable to the transport of dangerous materials by land, air or rail. (A level rod for checking the level is available as standard on the whole GT range).

Air Liquide - Arpege Range:

The increasing number of applications calls for great flexibility in terms of capacity and type of storage. With 7 containers and an unequalled range of attachments, all needs are satisfied. The value of samples makes managing data on their conservation an essential requirement. Liquid level and temperature indication, automatic filling system, alarms, recording of traceability data, computerised management of stored products, ARPEGE units guarantee optimal conservation conditions.

Chart/MVE - MVE Doble Series:

The traditional method of export shipment and distribution for biological products such as semen and vaccines has involved wet shipment under liquid nitrogen. In recent years, many traditional shipping companies have either prohibited the shipment of liquid nitrogen, or placed hazardous material surcharges on shipments, making this method of transport uneconomical. In many cases, vapor shippers have become the method of choice for cryogenic shipment. These shippers hold samples at cryogenic temperature and allow a wide variety of shipping methods to be employed, even export shipments. Regarding transport, this is a perfect solution, regarding distribution, it is not. Once at the destination, the samples have to be transferred into a liquid storage tank. Meanwhile, the shipping container must be recovered by the shipping company, incurring an additional "return shipment". 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 enables 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, therefore avoiding the need for return shipments.

Chart/MVE - MVE SC Series:

MVE offers the widest range of compact aluminum storage tanks available on the market today. Over the past 50 years, our product designs have improved through end-user input and evolved into a unique selection of units. The SC Series is designed for the user who has small capacity needs, but requires long-term storage and low liquid nitrogen consumption in a convenient lightweight package.

Chart/MVE - MVE XC Series:

MVE XC Series tanks have capacities ranging from 700-5000 straws and 150-1000 vials. Manufactured to a world class level of excellence and backed by a 5 year vacuum warranty, these durable, lightweight units can be relied on to perform in the most demanding of environments. The XC Series is designed for the user who requires large capacity storage and low liquid nitrogen consumption in a convenient lightweight package.

Chart/MVE - MVE CryoSystem Series:

The MVE CryoSystem 750, 2000, 4000 and 6000 combine the benefits of low nitrogen consumption with mid-range vial capacity to meet the diverse needs of today's professionals worldwide. The lightweight and low-space demands of these containers make them the most economical units in their class. Chart-MVE cryogenic vessels are performance leaders through innovation, super insulation and vacuum technology.

Chart/MVE - MVE Stock Series:

MVE Cryopreservation Systems are designed to be used for either vapor or liquid storage. A wide neck opening and stainless steel construction provide the most durable environment for your biological samples. With advanced features and storage from 3,200 to 39,000 vials, the MVE series is the choice of laboratories worldwide. The MVE Series freezers are designed primarily for liquid phase storage. If vapor phase storage is required, ask your distributor about the vapor storage accessory package.

Chart/MVE - MVE Cabinet Series:

The MVE 600 and 1400 Cryopreservation Systems are designed to provide reliable storage of biological products in liquid or vapor*. The units are upgraded with improved ergonomics and easier sample access. In addition, the cabinets are constructed from aluminum, with stainless steel top decks. With vial storage capacities ranging from 16900 to 26650, low-maintenance design and the TEC 3000 controller, the MVE Cabinet Series are world-class, wide neck freezers. * The MVE 600/1400 Series Freezers are designed primarily for liquid phase storage. If vapor phase storage is required, ask your distributor about the available vapor phase storage accessory package.

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Liquid Storage Vessel Selection Wizard

				Capacity	
group	**manufacturer**	**series**	**model**	**0.5ml straws in canisters**	
A1	Air Liquide	GT Range	GT 2	150	
A1	Chart/MVE	MVE SC Series	SC Millennium 20	540	
A1	Chart/MVE	MVE SC Series	SC 20/20	540	
A1	Chart/MVE	MVE SC Series	SC 33/26	540	
A1	Chart/MVE	MVE SC Series	SC 36/32	540	
A1	Chart/MVE	MVE Doble Series	Doble 11	660	
A1	Chart/MVE	MVE Doble Series	Doble 20	660	
A2	Chart/MVE	MVE SC Series	SC 11/7	720	
A2	Chart/MVE	MVE XC Series	XC Millennium 20	720	
A2	Air Liquide	GT Range	GT 3	720	
A2	Air Liquide	GT Range	GT 7	720	
A2	Air Liquide	GT Range	GT 9	720	
A2	Air Liquide	GT Range	GT 11	720	
A2	Air Liquide	GT Range	GT 21	720	
A2	Air Liquide	GT Range	GT 35	720	
A3	Chart/MVE	MVE SC Series	SC 16/11	1,098**	
A3	Chart/MVE	MVE SC Series	SC 3/3	1,122**	
A3	Chart/MVE	MVE SC Series	SC 8/5	1,122**	
A3	Chart/MVE	MVE XC Series	XC 33/22	1,260	
A3	Chart/MVE	MVE XC Series	XC 43/28	1,260	
A3	Air Liquide	GT Range	GT 14/9	1,305	
A4	Chart/MVE	MVE XC Series	XC 34/18	2,100	
A4	Chart/MVE	MVE Doble Series	Doble 34	2,100	
A4	Air Liquide	GT Range	GT 14/6	2,170	
A4	Chart/MVE	MVE XC Series	XC 22/5	2,400	
A4	Chart/MVE	MVE Doble Series	Doble 28	2,400	
A4	CHART	MVE XC Series	XC 32/8	2,520	
A5	Air Liquide	GT Range	GT 26	3,285	
A5	Chart/MVE	MVE XC Series	XC 47/11-10	3,500	
A5	Chart/MVE	MVE Doble Series	Doble 47-10	3,500	
A5	Chart/MVE	MVE XC Series	XC 21/6	3,870**	
A5	Air Liquide	GT Range	GT 18	4,380	
A5	Air Liquide	GT Range	GT 38	4,380	
				* indicates estimated value	**bulk storage only

Planer nitrogen vapour storage systems

Liquid Storage Vessel Selection Wizard

				Capacity
group	**manufacturer**	**series**	**model**	**0.5ml straws in canisters**
A6	Chart/MVE	MVE XC Series	XC 47/11-6	4,500
A6	Chart/MVE	MVE Doble Series	Doble 47	4,500
A6	Chart/MVE	MVE CryoSystem Series	CryoSystem 750	5,100*
A6	Air Liquide	Arpege Range	Arpege 70	6,800
A6	Chart/MVE	MVE Stock Series	MVE 103	6,820
A6	Air Liquide	GT Range	GT 40	7,300
A6	Air Liquide	GT Range	NATAL NT	7,300
A7	Air Liquide	Arpege Range	Arpege 110	10,200
A7	Chart/MVE	MVE CryoSystem Series	CryoSystem 2000	13,600*
A7	Air Liquide	Arpege Range	Arpege 140	15,300
A7	Chart/MVE	MVE Stock Series	MVE 808	18,910
A7	Air Liquide	Arpege Range	Arpege 170	20,400
A7	Chart/MVE	MVE Series	MVE 204	21,760*
A8	Air Liquide	Arpege Range	Arpege 55	22,995
A8	Chart/MVE	MVE CryoSystem Series	CryoSystem 4000	27,200*
A8	Air Liquide	Arpege Range	Arpege 75	30,600
A8	Chart/MVE	MVE Series	MVE 205	35,360*
A8	Chart/MVE	MVE Stock Series	MVE 816P-2T-190	35,650
A8	Chart/MVE	MVE Stock Series	MVE 1318	39,990
A9	Chart/MVE	MVE CryoSystem Series	CryoSystem 6000	40,800*
A9	Chart/MVE	MVE Series	MVE 510	70,720*
A9	Air Liquide	Espace Range	Espace 151 liquid	83,950
A9	Chart/MVE	MVE Stock Series	MVE 1842P-150	91,140
A9	Chart/MVE	MVE Series	MVE 616	114,920*
A9	Chart/MVE	MVE Cabinet Series	MVE 616C	114,920*
A10	Air Liquide	Espace Range	Espace 331 Liquid with rotating tray	160,600
A10	Chart/MVE	MVE Stock Series	MVE 1877P-2T-150	167,090
A10	Air Liquide	Espace Range	Espace 331 Liquid	177,025
A10	Chart/MVE	MVE Series	MVE 1426	181,220*
A10	Chart/MVE	MVE Cabinet Series	MVE 1426C	181,220*
A11	Air Liquide	RCB Range	RCB 500 Liquid	211,700
A11	Air Liquide	RCB Range	RCB 600 Liquid	254,040
A11	Chart/MVE	MVE Series	MVE 1839	265,200*
A11	Air Liquide	Espace Range	Espace 661 Liquid	297,475
A11	Air Liquide	RCB Range	RCB 1000 Liquid	410,625
A11	Air Liquide	RCB Range	RCB 1001 Liquid	492,750
			* indicates estimated value	**bulk storage only

Planer nitrogen vapour storage systems

Liquid Storage Vessel Selection Wizard

				Capacity
group	**manufacturer**	**series**	**model**	**2ml vials**
B1	Air Liquide	GT Range	GT 2	43*
B1	Chart/MVE	MVE Doble Series	Doble 11	140*
B1	Chart/MVE	MVE Doble Series	Doble 20	140*
B1	Chart/MVE	MVE SC Series	SC Millennium 20	150
B1	Chart/MVE	MVE SC Series	SC 20/20	150
B1	Chart/MVE	MVE SC Series	SC 33/26	150
B1	Chart/MVE	MVE SC Series	SC 36/32	150
B2	Air Liquide	GT Range	GT 3	153*
B2	Air Liquide	GT Range	GT 7	153*
B2	Air Liquide	GT Range	GT 9	153*
B2	Air Liquide	GT Range	GT 11	180
B2	Air Liquide	GT Range	GT 21	180
B2	Air Liquide	GT Range	GT 35	180
B3	Chart/MVE	MVE SC Series	SC 11/7	210
B3	Chart/MVE	MVE XC Series	XC Millennium 20	210
B3	Chart/MVE	MVE XC Series	XC 33/22	360
B3	Chart/MVE	MVE XC Series	XC 43/28	360
B3	Air Liquide	GT Range	GT 14/9	370*
B3	Chart/MVE	MVE Doble Series	Doble 34	595*
B4	Air Liquide	GT Range	GT 18	612
B4	Air Liquide	GT Range	GT 38	612
B4	Air Liquide	GT Range	GT 14/6	615*
B4	Chart/MVE	MVE XC Series	XC 34/18	630
B4	Chart/MVE	MVE Doble Series	Doble 28	680*
B4	Chart/MVE	MVE CryoSystem Series	CryoSystem 750	750
B4	Air Liquide	Arpege Range	Arpege 40	750
B4	Chart/MVE	MVE XC Series	XC 47/11-6SQ	750
B5	Chart/MVE	MVE XC Series	XC 22/5	810
B5	Chart/MVE	MVE XC Series	XC 32/8	855
B5	Air Liquide	GT Range	GT 26	930*
B5	Chart/MVE	MVE Doble Series	Doble 47-10	990*
B5	Chart/MVE	MVE XC Series	XC 47/11-10	1,050
B5	Air Liquide	GT Range	GT 40	1,200
B5	Air Liquide	GT Range	NATAL NT	1,200
				* indicates estimated value

Planer nitrogen vapour storage systems

Liquid Storage Vessel Selection Wizard

				Capacity
group	**manufacturer**	**series**	**model**	**2ml vials**
B6	Chart/MVE	MVE Doble Series	Doble 47	1,275*
B6	Chart/MVE	MVE XC Series	XC 47/11-6	1,320
B6	Chart/MVE	MVE Stock Series	MVE 103	1,760
B6	Air Liquide	Arpege Range	Arpege 70	2,000
B6	Chart/MVE	MVE CryoSystem Series	CryoSystem 2000	2,000
B6	Chart/MVE	MVE Series	MVE 204	3,200
B7	Air Liquide	Arpege Range	Arpege 110	3,600
B7	Air Liquide	Arpege Range	Arpege 55	3,618
B7	Chart/MVE	MVE CryoSystem Series	CryoSystem 4000	4,000
B7	Air Liquide	Arpege Range	Arpege 140	4,800
B7	Air Liquide	Arpege Range	Arpege 75	4,824
B7	Chart/MVE	MVE Stock Series	MVE 808	4,880
B8	Chart/MVE	MVE Series	MVE 205	5,200
B8	Air Liquide	Arpege Range	Arpege 170	6,000
B8	Chart/MVE	MVE CryoSystem Series	CryoSystem 6000	6,000
B8	Chart/MVE	MVE Stock Series	MVE 816P-2T-190	9,200
B8	Chart/MVE	MVE Stock Series	MVE 1318	10,320
B8	Chart/MVE	MVE Series	MVE 510	10,400
B9	Air Liquide	Espace Range	Espace 151 liquid	10,400
B9	Chart/MVE	MVE Series	MVE 616	16,900
B9	Chart/MVE	MVE Cabinet Series	MVE 616C	16,900
B9	Air Liquide	Espace Range	Espace 331 Liquid with rotating tray	19,800
B9	Air Liquide	Espace Range	Espace 331 Liquid	22,200
B9	Chart/MVE	MVE Stock Series	MVE 1842P-150	23,520
B10	Chart/MVE	MVE Series	MVE 1426	26,650
B10	Chart/MVE	MVE Cabinet Series	MVE 1426C	26,650
B10	Air Liquide	RCB Range	RCB 500 Liquid	27,300
B10	Air Liquide	RCB Range	RCB 600 Liquid	29,400
B10	Air Liquide	Espace Range	Espace 661 Liquid	38,400
B10	Chart/MVE	MVE Series	MVE 1839	39,000
B11	Chart/MVE	MVE Stock Series	MVE 1877P-2T-150	43,120
B11	Air Liquide	RCB Range	RCB 1000 Liquid	52,000
B11	Air Liquide	RCB Range	RCB 1001 Liquid	52,000
				* indicates estimated value

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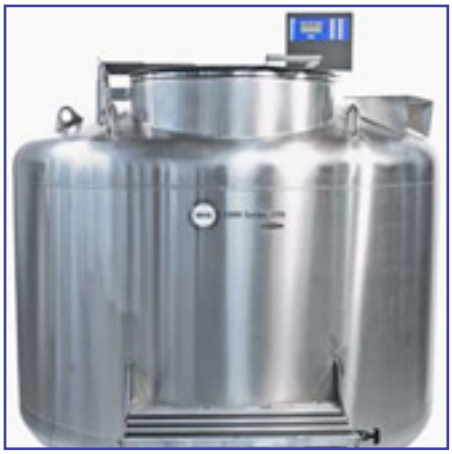
Vapour Storage Vessel Selection Wizard



Planer offer a huge range of liquid nitrogen storage vessels from a number of worldwide manufacturers. Use this Selection Wizard to help you choose the most appropriate vessel from the range.

Step 1	Do you require a high efficiency vessel? YES - go to Step 2 NO - go to Step 3
Step 2	Do you require a guaranteed lower temperature of -190C? YES - go to Step 4 NO - go to Step 5
Step 3	Go to Group D overleaf
Step 4	Go to Group A overleaf
Step 5	Go to Groups B and C overleaf

Chart/MVE - MVE Hi Eff/Vap Series:

There is a critical temperature for most biological samples that are cryopreserved. This critical temperature is known as the Glass Transition Temperature (Tg) 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 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 vapour freezer which ensures stability at -190°C.

Air Liquide - RCB Range:

RCBs 500/600/1000/1001 have a narrow neck that reduces nitrogen evaporation to the absolute minimum and conserves at an extremely low range of temperatures. They are also particularly suited for keeping large quantities of biological products for long periods. RCBs can be fitted with an extremely wide range of internal attachments, which makes them suitable for a very broad variety of cryobiological applications. They also have the benefit of AIR LIQUIDE's extensive experience in monitoring and controlling cryoconservation. Exceptionally reliable and robust, the RCB range gives you the guarantee of unfailing conservation.

Planer nitrogen vapour storage systems

Vapour Storage Vessel Selection Wizard

Use the Selection Wizard on the previous page to help select the group of vessels - marked A, B, C and D below - that best suits your current needs, and remember to allow for any future expansion requirements.

				Capacity					
group	**manufacturer**	**series**	**model**	**0.5ml straws**	**2ml vials**	**50ml blood bag**	**250ml blood bag**	**500ml blood bag**	**750ml blood bag**
A	Chart/MVE	MVE Hi Eff/Vap Series	MVE 815P-190	106,080*	15.600	768	416	304	
A	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1536P-190	247,520*	36,400	1,488	812	608	256
A	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1542R-190	285,600*	42,000	1,687	960	720	330
A	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1879P-190	543,660*	79,950	2,952	1,584	1,104	504
A	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1881R-190	556,920*	81,900	2,940	1,608	1,240	544
A	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1894R-190	642,600*	94,500	3,920	2,010	1,550	680
B	Chart/MVE	MVE Hi Eff/Vap Series	MVE 815P-150	106,080*	15.600	768	416	304	
B	Chart/MVE	MVE Hi Eff/Vap Series	MVE 818P-150	123,760*	18,200	896	416	304	
B	Chart/MVE	MVE Hi Eff/Vap Series	MVE 819P-150	132,600*	19,500	1,024	520	380	
B	Air Liquide	RCB Range	RCB 600 Gas	254,040	29,400	1,008	512	432	320
B	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1536P-150	247,520*	36,400	1,488	812	608	256
B	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1539R-150	265,200*	39,000	1,446	768	576	264
B	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1539P-150	266,560*	39,200	1,736	812	608	256
C	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1542R-150	285,600*	42,000	1,687	960	720	330
C	Air Liquide	RCB Range	RCB 1001 Gas	410,625	52,000	1,960	992	864	608
C	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1879P-150	543,660*	79,950	2,952	1,584	1,104	504
C	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1881R-150	556,920*	81,900	2,940	1,608	1,240	544
C	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1892P-150	627,300*	92,250	3,936	1,980	1,380	630
C	Chart/MVE	MVE Hi Eff/Vap Series	MVE 1894R-150	642,600*	94,500	3,920	2,010	1,550	680
D	Air Liquide	Espace Range	Espace 151 Gas	83,950	10,400	392	192	168	120
D	Air Liquide	Espace Range	Espace 331 Gas with rotating tray	160,600	19,800	812	400	384	256
D	Air Liquide	Espace Range	Espace 331 Gas	177,025	22,200	840	432	384	288
D	Air Liquide	Espace Range	Espace 661 Gas	297,475	38,400	1,568	800	672	512
				* indicates estimated value					

Air Liquide - Espace Range:

ESPACE units are effective and easy-to-use too. Every detail has been thought out to make your work more pleasant and efficient. But first and foremost ESPACE's technology is a guarantee of reliability. Because of the quality of the cryogenic compartment, as well as all the monitoring and control systems on the container, you are confidently able to store your most valuable products. With the ESPACE range, enter the new dimension of cryoconservation.

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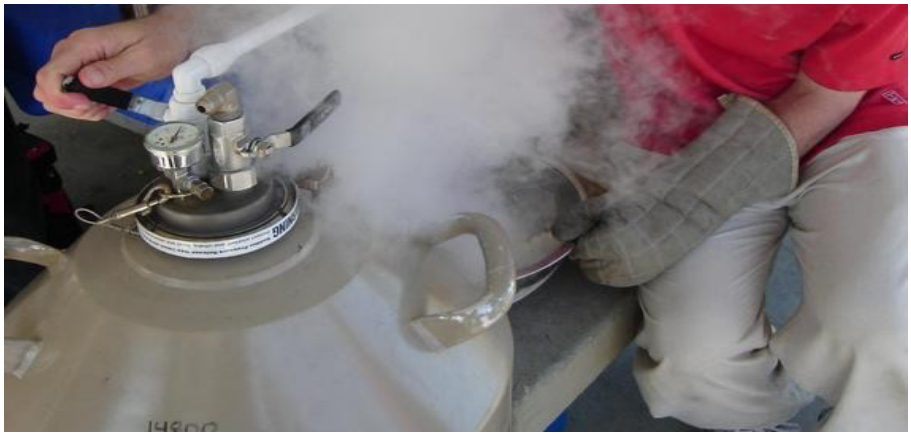
Liquid Nitrogen Supply Vessel Selection Wizard

- Determine your current capacity needs
- Consider your future requirements
- Select your supply vessel from the four groups provided



Step 1	Determine your current capacity needs	
Step 2	Consider your future capacity requirements	
Step 3	Choose from the following ranges...	
	up to 3.0 litres	Go to Group A overleaf
	between 4.0 and 19.0 litres	Go to Group B overleaf
	between 20.0 and 49.0 litres	Go to Group C overleaf
	over 50.0 litres	Go to Group D overleaf

Air Liquide - Agil Range:

AGILs are stainless steel, vacuum insulated containers. The range includes 6 models with capacities from 0.5 l to 6 l. They can be fitted with lids (optional). Although AGILs are often used for handling liquid nitrogen, their uses cover a wide range of temperatures from -200°C to +200°C, which makes them suitable for a large number of laboratory applications. Light, strong and compact, AGILs are practical to use because of the their top and side handles.

Air Liquide - TR Range:

TRs are non-pressurised containers designed for storing and transporting liquid nitrogen. Roller base with castors, tipping handle, tipping stand, dispensing system: TRs can be fitted with a range of accessories that make your work easier and more efficient. Their light alloy construction and composite material neck allow a combination of low consumption, strength and lightness. The polyurethane paintwork gives the container an exceptional quality of finish and long life. Various dispensing systems can be fitted to containers. Their flange fixing is quick and sure. The TR range complies with international regulations applicable to the transport of dangerous materials (ADR and IATA-OACI).

Air Liquide - TP Range:

Self-pressurised aluminium containers, TPs are designed for storing and dispensing liquid nitrogen at low pressure. A float-type level indicator enables the quantity of liquid available to be quickly checked. The operating head, removable in seconds, is fitted with a pressure level rod and 2 safety valves. Nitrogen is available at all times by simply opening the valve. Compact, the TP35 can be put under a laboratory bench. In the self-pressurised container sphere, TPs have the special feature of being made of aluminium, so combine lightness with strength. The self-pressurising system is based solely on simple physical principles. TPs fit naturally into the laboratory environment.

Planer nitrogen vapour storage systems

Liquid Nitrogen Supply Vessel Selection Wizard

Use the Selection Wizard on the previous page to help select the group of vessels - marked A, B, C and D below - that best suits your current needs, and remember to allow for any future expansion requirements.

				Capacity
group	manufacturer	series	model	capacity in litres
A	Air Liquide	AGIL Range	AGIL 0,5	0.5
A	Air Liquide	AGIL Range	AGIL 1	1.0
A	Air Liquide	AGIL Range	AGIL 1/L	1.0
A	Chart/MVE	MVE Lab Series	SS 1.5L	1.5
A	Air Liquide	AGIL Range	AGIL 2	2.0
A	Chart/MVE	MVE Lab Series	SS 2.5L	2.5
A	Air Liquide	AGIL Range	AGIL 3	3.0
B	Chart/MVE	MVE Lab Series	LAB 4	4.0
B	Chart/MVE	MVE Lab Series	LAB 5	5.0
B	Chart/MVE	MVE Lab Series	SS 5L	5.0
B	Air Liquide	AGIL Range	AGIL 6	6.0
B	Air Liquide	TR Range	TR7	7.2
B	Chart/MVE	MVE Lab Series	LAB 10	10.0
B	Air Liquide	TR Range	TR11	12.2
C	Chart/MVE	MVE Lab Series	LAB 20	20.0
C	Air Liquide	TR Range	TR21	21.5
C	Air Liquide	TR Range	TR26	26.0
C	Chart/MVE	MVE Lab Series	LAB 30	32.0
C	Air Liquide	TR Range	TR35	33.6
C	Air Liquide	TP Range	TP35	35.0
D	Chart/MVE	MVE Lab Series	LAB 50	50.0
D	Air Liquide	TR Range	TR60	60.0
D	Air Liquide	TP Range	TP60	60.0
D	Air Liquide	TP Range	TP100	98.0
D	Air Liquide	TR Range	TR100	99.0
D	Chart/MVE	Eurocyl	Eurocyl 180/24	186.0
D	Chart/MVE	Eurocyl	Eurocyl 230/24 SB	228.0

Chart/MVE - MVE Lab Series:

The Lab Series cryogenic liquid dewars get their name from their acceptance in laboratories and medical facilities worldwide. These high-efficiency, super insulated dewars are the most convenient, economical way to store and dispense liquid nitrogen. Many lab units can be fitted with pouring spouts, pressurized dispensing devices, or dippers to aid in the transfer of liquid nitrogen.

Chart/MVE - Euro-Cyl Range:

Chart Euro-Cyl vessels are easy to use, have superior performance and provide cost effective solutions. They are ideal for transportable or stationary gas supply, have automatic pressure building and gas economizer systems. All valves and instruments are within easy reach and visibility, and the units are very stable thanks to a low center of gravity. They are rugged, maneuverable, and fast filling, provide gas and/or liquid withdrawal at continuous rates up to 10,5 Nm3/h. Super-insulation provides long holding time and low Nominal Evaporation Rate. All stainless steel vessels and patented inner support system for durability and long life. Heavy-duty footring and large diameter handling ring with four supports.

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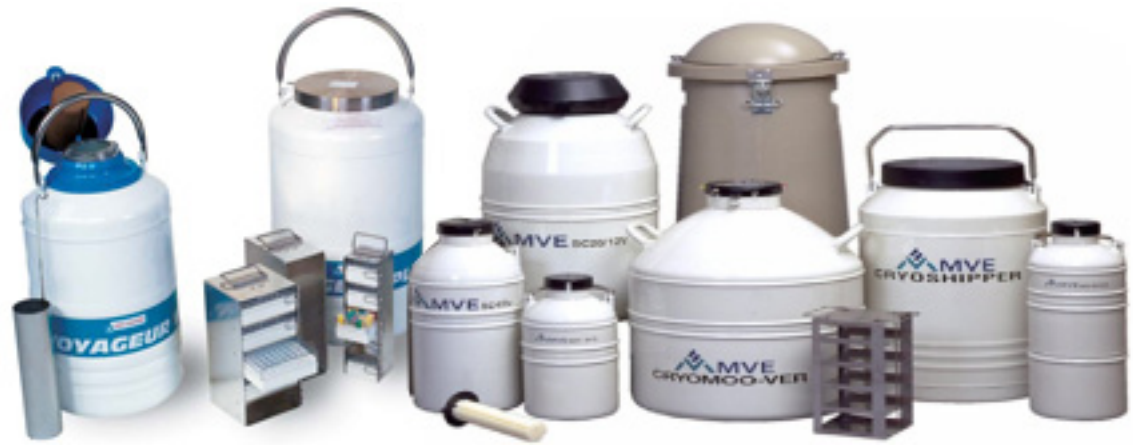
PLANER

Planer liquid nitrogen storage systems

Vapour Shipper Selection Wizard



Step 1	Choose your type of sample container
Step 2	Consider your maximum capacity requirement
Step 3	Choose vapour shipper from the products listed overleaf...

Air Liquide - Voyageur Range:

The Voyageur range is specially designed for carrying biological products. A porous material absorbs the liquid nitrogen and keeps samples in the gaseous phase. Transport is completely safe because the risk of liquid spilling if the container is upset is eliminated. Transport time is of critical importance and may sometimes be difficult to control. "Dry tanks" also have a particularly extended holding time time for this type of container. AIR LIQUIDE "dry tanks" are made to meet the requirements imposed by the International Air Transport Association (IATA) and the International Civil Aviation Organisation (ICAO).

EXTRAS THAT MAKE THE DIFFERENCE

- Safety:
  The liquid nitrogen is absorbed, the risk of spillage during transport is totally avoided. Samples are conserved in the gaseous phase.
- Efficient storage:
  "Dry tanks" have a wide range of storage layouts meeting the most specific needs.
- Reduced consumption:
  The extremely low nitrogen consumption guarantees longer holding time.
- Compliance with the regulations:
  "Dry tanks" comply with the international regulations applicable to the transport of dangerous materials by land (ADR), air (IATA-OACI) and rail (RID).

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Planer nitrogen vapour storage systems

Vapour Shipper Selection Wizard

Use the table below to help select the vapour shipper you require, based on sample container type and capacity requirements, and remember to allow for any future expansion needs.

			Capacity	
manufacturer	**series**	**model**	**0.5ml straws in canisters**	**2ml vials**
Chart/MVE	MVE Vapour Shippers	SC 2/1V	88**	9
Air Liquide	Voyageur Range	Voyageur 2	100	20
Chart/MVE	MVE Vapour Shippers	Mini Moover	60	24
Chart/MVE	MVE Vapour Shippers	SC 4/3V	120	48
Air Liquide	Voyageur Range	Voyageur 5	-	84
Chart/MVE	MVE Vapour Shippers	SC 4/2V	280	106
Chart/MVE	MVE Vapour Shippers	SC 20/12V	540	180
Chart/MVE	MVE Doble Series	Doble 11	660	210
Chart/MVE	MVE Doble Series	Doble 20	660	210
Air Liquide	Voyageur Range	Voyageur 12	-	252
Chart/MVE	MVE Vapour Shippers	Cryo Shipper Mini	-	500*
Chart/MVE	MVE Vapour Shippers	Cryo Shipper	-	500
Chart/MVE	MVE Vapour Shippers	IATA	-	500
Air Liquide	Voyageur Range	Voyageur PLUS	-	500
Chart/MVE	MVE Vapour Shippers	XC 20/3V	2,000	672
Chart/MVE	MVE Doble Series	Doble 47	4,500	750
Chart/MVE	MVE Vapour Shippers	Cryo Shipper XC	-	966
Chart/MVE	MVE Doble Series	Doble 28	2,400	1,050
Chart/MVE	MVE Doble Series	Doble 34	2,100	1,050
Chart/MVE	MVE Doble Series	Doble 47-10	3,500	1,050
Chart/MVE	MVE Vapour Shippers	Cryo Moover	3,080	1,134
			* indicates estimated value	**bulk storage only

Chart/MVE - MVE Doble Series:

The traditional method of export shipment and distribution for biological products such as semen and vaccines has involved wet shipment under liquid nitrogen. In recent years, many traditional shipping companies have either prohibited the shipment of liquid nitrogen, or placed hazardous material surcharges on shipments, making this method of transport uneconomical. In many cases, vapor shippers have become the method of choice for cryogenic shipment. These shippers hold samples at cryogenic temperature and allow a wide variety of shipping methods to be employed, even export shipments. Regarding transport, this is a perfect solution, regarding distribution, it is not. Once at the destination, the samples have to be transferred into a liquid storage tank. Meanwhile, the shipping container must be recovered by the shipping company, incurring an additional "return shipment". 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 enables 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, therefore avoiding the need for return shipments.

Chart/MVE - MVE Vapour Shippers:

MVE Vapor Shippers are designed for the safe transportation of biological samples at cryogenic (-150°C or colder) temperatures. Manufactured from durable, lightweight aluminum, they employ a hydrophobic compound which absorbs the liquid nitrogen to ensure spill-free shipping. Because the absorbent is hydrophobic, it also repels moisture and humidity, assuring maximum holding time and eliminating the necessity to dry units between uses. A protective shipping carton is available for all models (except the SC 20/12V). This carton protects the container from being placed on its side and helps withstand the rigors of transportation. These containers may be used to ship your samples with a "non-hazardous" classification throughout the world, thus reducing costs and helping to assure sample viability.

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