



CRYO-FRYSERE OG BEHOLDERE

STRANDMØLLEN



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Liquid Dewar Series



LD Series

The LD Series of cryogenic dewars are designed for storing and dispensing small amounts of liquid nitrogen. The series includes a beaker style dewar with a wide mouth (5LD) and pitcher-style model for easy pouring (LD4).

Features

- High performance modern construction and advanced insulation materials assure high thermal efficiency
- New rugged construction, ribbed high strength aluminum body, magniformed necktube design, and more durable paint system
- Easy operation lightweight snap-on cap and necktube assures tight closure and easy access, convenient larger handles
- Superior vacuum performance with super insulation provides maximum holding times
- Optional equipment includes liquid withdrawal device, tipping stand, dippers and roller base (for larger models)

MODEL		LD4	5LD	LD10	LD25	CLASSIC-25	LD35	LD50
Static Holding Days		10	6	45	109	119	152	122
Evaporation Rate	liters/days	0.40	0.77	0.22	0.23	0.21	0.23	0.41
Liquid Nitrogen Capacity	- liters	4	5	10	25	25	35	50
Weight Empty	lbs. kg.	6.6 3.0	6.9 3.1	14.5 6.6	23.2 10.5	19 8.6	35.1 16.0	38.7 17.6
Weight Full	lbs. kg.	13.7 6.2	15.8 7.2	32.3 14.7	67.7 30.8	63.5 28.9	97.4 44.3	127.7 58.0
Neck Diameter	in. mm.	1.2 30	5.6 142	2.0 51	2.5 64	2.0 51	2.5 64	2.5 64
Overall Height	in. mm.	17.0 432	17.5 445	23.5 597	25.8 655	22.9 582	26.3 668	32.4 823
Overall Diameter	in. mm.	7.6 193	7.6 193	11.4 290	15.6 396	15.5 394	18.8 475	18.8 475
Liquid Withdrawal Device	P/N	N/A	N/A	N/A	D250-8C05	N/A	D250-8C05	D250-8C05
Roller Base	P/N	N/A	N/A	N/A	R018-8C00W	D024-8C02	R033-8C00W	R033-8C00W
Tipping Stand	P/N	N/A	N/A	N/A	D025-8C00	N/A	N/A	N/A
Dipper	P/N	N/A	R018-8C50	R018-8C50	R018-8C50	R018-8C50	R018-8C50	R018-8C50



LD25 with Roller Base (P/N R018-8C00W) and Liquid Withdrawal Device (P/N D250-8C05).

Extended Time Series



XT Series

The Extended Time (XT) Series of cryogenic refrigerators are designed for long-term storage of a variety of materials at cryogenic temperatures. This series also offers low profile models (XTL), with 5" (127 mm) canisters.

Features

- New Rugged Construction – ribbed high strength aluminum body, magneformed necktube design, and more durable paint
- Versatile storage system – convenient canister numbered index location ring and tapered internal canister locator
- Superior vacuum performance with super insulation provides maximum holding times
- Security – Accessory low-level alarm is available with remote connection capability on larger models
- Lockable lids (except for XT10)
- Mobility – Roller bases are available for some models



MODEL		XTL3	XTL8	XT10	XT20	XT34
Static Holding Days		27	80	100	230	340
Working Time days		17	50	62	140	212
Evaporation Rate liters/days		0.11	0.10	0.10	0.09	0.10
Liquid Nitrogen Capacity - liters		3	8	10	20.7	34
Weight Empty	lbs. kg.	7.2 3.3	19.6 8.9	16.5 7.5	26 11.8	34.75 15.8
Weight Full	lbs. kg.	12.5 5.7	33.8 15.4	34.3 15.6	62.8 28.6	95.3 43.3
Neck Diameter	in. mm.	2.0 51	2.0 51	2.0 51	2.0 51	2.0 51
Overall Height	in. mm.	17.2 437	19 483	23.8 597	25.8 655	26.3 668
Overall Diameter	in. mm.	7.6 193	15.6 396	11.4 290	15.6 396	18.8 478
Number of Canisters		6	6	6	6	6
Canister Dimensions	in. mm.	1.5x5 38x127	1.5x5 38x127	1.5x11 38x279	1.5x11 38x279	1.5x11 38x279
Number of 1.2 ml & 2.0 ml vials (5/cane)		N/A	N/A	150	150	150
Number of 1.2 ml & 2.0 ml vials (6/cane)		N/A	N/A	180	180	180
Number of 1/2 cc straws - (10 per cane)		N/A	N/A	540	540	540
Number of 1/2 cc straws - Bulk (1 level)		750	750	N/A	750	750
Number of 1/2 cc straws - Bulk (2 levels)		N/A	N/A	1500	1500	1500
Roller Base		N/A	R018-8C00W	N/A	R018-8C00W	R033-8C00W
Low Liquid Level Alarm		N/A	N/A	N/A	R033-8C15	R033-8C15

Reliable and Efficient Storage



K Series

Worthington Industries' K Series cryogenic systems offer reliable and efficient liquid nitrogen storage and easy access to stored product. Featuring the safety of electronic controllers that monitor and manage liquid level, temperature, and a full array of alarms, the K Series freezers provide solutions to either liquid or vapor phase storage requirements.

Features

- Suitable for vapor or liquid storage
- Intuitive touch controls
- CryoCon AFT-1D or AFT-3L Controller
- Stainless Steel vacuum vessel
- Modular design
- Durable powder coated cabinet
- Caster mounted
- Superior vacuum performance
- Optional step for 38K
- Various blood bag sizes and capacity details are available upon request



MODEL		3K	10K	24K	38K
Static Holding Days		19	33	52	74
Working Time days		12	N/A	N/A	N/A
Evaporation Rate liters/days		2.5	5.0	7.0	8.0
Liquid Nitrogen Capacity - liters		48	165	365	590
Weight Empty	lbs. kg.	42.0 19.1	245 111	405 184	565 256
Weight Full	lbs. kg.	125 56.7	537 243	1046 474	1616 733
Neck Diameter	in. mm.	14.0 356	21.0 533	31.0 787	39.0 991
Overall Height	in. mm.	29.7 754	44.0 111.8	44.0 111.8	49.0 1245
Overall Dimensions	in. mm.	15.4 391	23.1x30.5 587x775	34.0x38.5 864x965	42.0 1067
Usable Height - Internal	in. mm.	19.2 488	29.0 737	29.0 737	29.0 737
Internal Diameter	in. mm.	14.0 356	21.0 533	31.0 787	39.0 991

CAPACITY	3K	10K	24K	38K
2 ml Plastic Vials	3024	10400	24050	38350
Number of 100/81 Cell Racks	N/A	7	17	28
Number of 25 Cell Racks	N/A	4	6	6
Number of Shelves	N/A	13	13	13
Box Size Shape in. mm. Vials per box	Triangle 6.75x6.87 171x175 56	Square 5x5 127x127 100	Square 3x3 76x76 25	
0.50cc straws, 10 per goblet, 2-13mm goblets per can, two tier turn-table inventory control system	N/A	44000	59400	114000
Roller Base	R018-8C00W	N/A	N/A	N/A

Accessories



Transfer Hoses

Standard transfer hoses are constructed of flexible stainless steel suitable for the transfer of cryogenic fluids and are available in 4 ft. (1.2 m) or 6 ft. (1.8 m) lengths. Hoses are fitted with a 3/8 in. NPT male fitting and a DKJ UNF 3/4 in. fitting.

4' (1.2m) - DKJ UNF 3/4" x 3/8" NPT P/N 1700-9C65W

6' (1.8m) - DKJ UNF 3/4" x 3/8" NPT P/N 1600-9C66W



Cryogenic Phase Separators

Designed to minimize hazardous splashing, phase separators are available in three different sizes to accommodate transferring liquids into various open containers. The two larger phase separators are designed to fit the 3/8" MNPT end of the transfer hoses.

2 3/4" (69.9 mm) x 1 3/8" (34.9 mm) OD, 3/8" FNPT P/N 1193-8C80

1 1/4" (31.8 mm) x 1" (25.4 mm) OD, 3/8" FNPT P/N 1193-8C82

1 1/2" (38.1 mm) x 1/2" (12.5 mm) OD, 1/8" FNPT P/N 1193-8C83



Low Liquid Level Alarm

Provides security for valuable biological samples. This alarm will sound promptly to alert you when more liquid nitrogen is needed. Alarm includes remote alarm plug, which can be attached to a dialer/maintenance system to advise of an alarm when the lab is unattended. Recommended for stored product protection. Battery operated or powered by standard grounded plug. For use with XT20, XT34, HC20, HC34, HC35, VHC35, VHC38, LS750, LS3000, LS4800, LS6000, AI21 and TORO (TXT24) vessels.



Roller Base & Tipping Stand

The sturdy aluminum, five caster roller base enables movement of refrigerators and dewars easily and safely. Choose from three sizes to fit either the 15.6 in. (396 mm) dia., 18.8 in (478 mm) dia., or the 26.7 in (678 mm) dia. units. The tipping stand for the LD25 provides mobility and assists in transferring liquid nitrogen. Both include lockable casters.



Liquid Withdrawal Device

The Liquid Withdrawal Device enables the LD25, LD35 and the LD50 to conveniently pressure-transfer liquid nitrogen at rates up to 8 liters per minute. The low pressure (7 psig/0.5 bar) assures safe dispensing through a phase separator or an accessory transfer hose. Model 80 phase separator comes standard with this device. P/N D250-8C05.



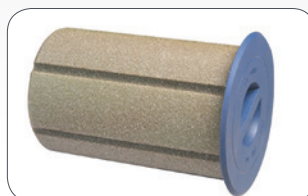
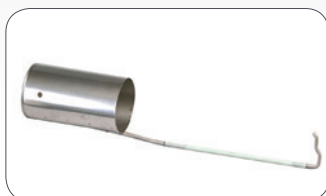
Dippers & Measuring Rods

Safe and convenient LN₂ dipper available. Dipper capacity of 0.7 cubic inches (12 cc). The low conducting measuring rod will clearly show the LN₂ level of a dewar in inches and centimeters.

Dipper	P/N R018-8C50
Measuring Rod (36")	P/N R033-8C11
Measuring Rod (48")	P/N R033-8C13

Also Available:

- Replacement Canisters and Neck Tube cores
- Racks and Boxes



Opbevaring og transport af flydende nitrogen

The all-purpose gas transport, storage and supply vessels for laboratories, hospitals, universities and other low-pressure liquid users.

Easy to Use

- Ideal for transport, storage and dispensing of cryogenic liquids
- Easy to maneuver caster bases on many models
- All valves and instruments within easy reach and visibility
- Stable center of gravity

Superior Performance

- Low evaporation rate and high durability
- Optional pressure building system for high or continuous withdrawal rates
- Extended-stem liquid valve to reduce ice formation



Model		120/4 SB	180/4	230/4 RB	230/4 SB	600/8	1000/8
Capacity							
Liquid (gross)	(liters)	120	196	240	240	673	993
Liquid (net)	(liters)	114	186	228	228	639	943
Performance							
NER**** (N ₂)	(% per day)	2	1,9	1,8	1,8	1,6	1,5
Dimensions							
Tank Diameter	(mm)	508	508	660	660	965	1067
Base Dimensions	(mm)	650 x 675	508	660	715 x 715	1030x1030	1130x1130
Type of Base		square	round	round	square	pallet	pallet
		caster-base	footring	caster-base	caster-base	frame	frame
Tank Height	(mm)	1290	1613	1391	1391	1915	2165
Tank Empty Weight	(kg)	94	109	125	143	550	720

Sikkerhed ved arbejde med flydende nitrogen og andre flydende gasser



Indånding

Ved utilstrækkelig ventilation: Anvend åndedrætsværn som er luftforsynet.

Hænder

Anbefalet: læderhandsker.



Øjne

Brug beskyttelsesbriller/ansigtsskærm.

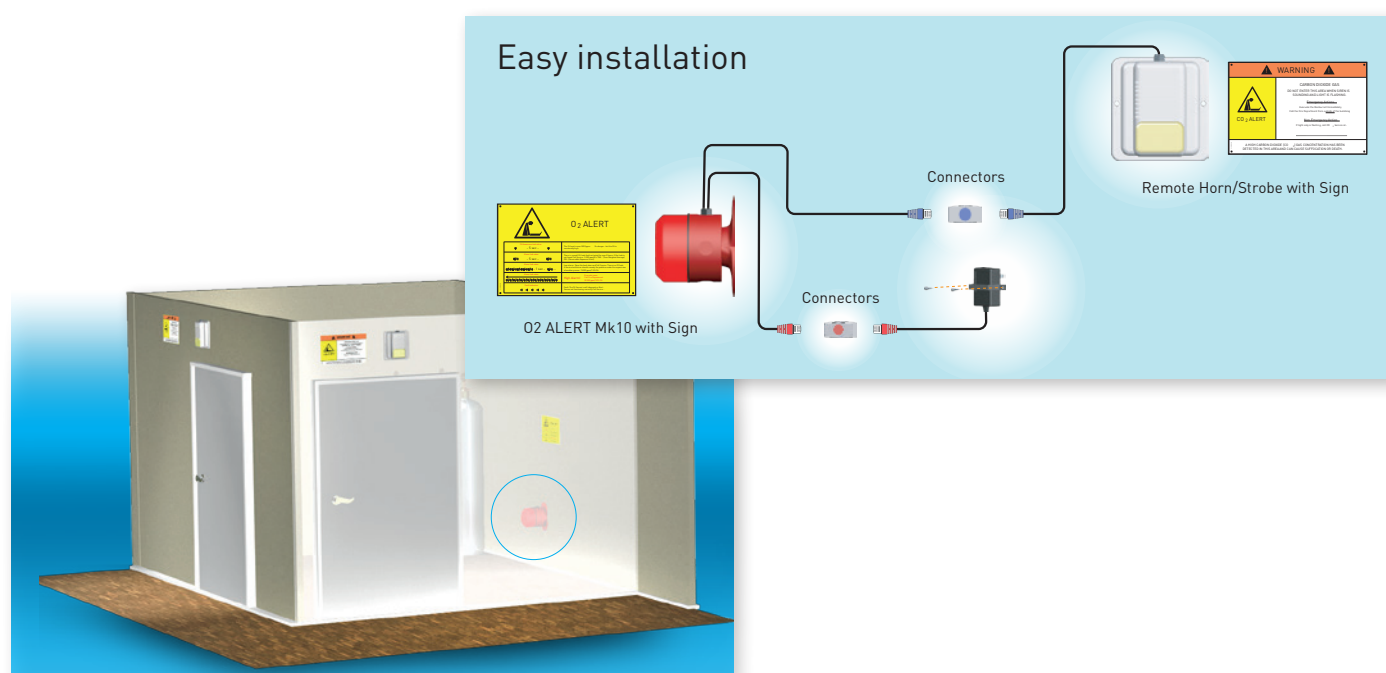


Hud og krop

Brug sikkerhedssko samt sikkerhedsforklæde ved håndtering af flasker.

Ilt alarmer og kvælningfare

I rum med opbevaring eller større arbejde med flydende nitrogen og andre flydende gasser bør der altid være installeret måler for ilt-niveauet i det pågældende rum. I rummet og tilstødende lokaler bør der være både audio- og visuelle alarmer ved bl.a. ilt-mangel.



Laboratory Systems Series



LS Series

The Worthington Industries Laboratory Systems (LS) are uniquely designed for vial storage in convenient box-type storage racks. They provide maximum holding times, which means lower per vial operating costs and fewer refills. The LS3000, LS4800 and LS6000 with the CryoCon AFT-3L Controller with temperature readout provides automatic filling and alarm features.

Features

- LS Series is suitable for liquid or vapor phase storage. In vapor phase storage, temperature at the top of the racks is -190°C.
- Rugged Construction – ribbed high strength aluminum body, magneformed necktube design, and more durable paint system
- Convenient Storage Systems – rack index location ring and internal location fixture, computer compatible box storage is ideal for simple inventory management
- Superior vacuum performance with super insulation provides maximum holding times
- Security – Accessory low-level alarm is available with remote connection capability
- Lockable lids
- Mobility – Roller bases are available



MODEL		LS750	LS3000	LS4800	LS6000
Static Holding Days		130	106	153	194
Working Time days		80	66	96	120
Evaporation Rate liters/days		0.27	0.76	0.85	0.84
Liquid Nitrogen Capacity - liters		35	81	130	165
Weight Empty	lbs. kg.	39 17.7	70 31.8	90 40.9	121 55.0
Weight Full	lbs. kg.	101.3 46.0	214.2 97.4	312.4 146.1	410.0 186.4
Neck Diameter	in. mm.	4.7 119	8.5 216	8.5 216	8.5 216
Overall Height	in. mm.	26.8 681	28.8 731	35.1 892	39.0 991
Overall Diameter	in. mm.	18.8 478	26.9 683	26.9 683	26.9 683
Number of Racks		6	6	6	6
Number of Shelves/Rack		5	5	8	10
2 ml Vial Capacity		750	3000	4800	6000
Box Size - Shape		Square	Square	Square	Square
Size in.		3.0 x 3.0	5.0 x 5.0	5.0 x 5.0	5.0 x 5.0
Size mm.		76x76	127x127	127x127	127x127
Vials per box		25	100	100	100
Roller Base		R033-8C00W	R05K-8C00W	R05K-8C00W	R05K-8C00W
Low Liquid Level Alarm		R036-8C30	RS30-8C40	R05K-8C26	RS60-8C26
CryoCon AFT-3L Controller Kit		N/A	M505KBOX	M505KBOX	M505KBOX

High Capacity Series



HC Series

The High Capacity (HC) Series of refrigerators are designed for storing large quantities of a variety of materials at cryogenic temperatures. Provides temperatures of -196°C at the liquid surface, and -190°C at the top of the canisters. This series also offers a low-profile model (HCL12) with 5-inch (125 mm) canisters.

Features

- Large storage capacity
- Rugged Construction – ribbed high strength aluminum body, magneformed necktube design, and more durable paint
- Numbered index ring and tapered internal canister locator.
- Superior vacuum performance with superinsulation provides maximum holding times
- Security – Lockable lid and optional low level alarm with remote connection available
- Mobility – Roller bases are available for all models



MODEL		HCL12	HC20	HC34	HC35	VHC35	VHC38
Static Holding Days		60	87	200	130	130	120
Working Time days		37	54	125	81	81	75
Evaporation Rate liters/days		0.20	0.23	0.17	0.27	0.27	0.31
Liquid Nitrogen Capacity - liters		12	20	34	35	35	38
Weight Empty	lbs. kg.	21.6 9.8	26.4 12.0	35.38 16.1	39 17.7	37.9 17.2	38.2 17.3
Weight Full	lbs. kg.	43.0 19.5	62.0 28.2	95.9 43.6	101.3 46.0	100.2 45.5	104.7 47.5
Neck Diameter	in. mm.	3.6 91	3.6 91	3.6 91	4.7 119	4.7 119	5.0 127
Overall Height	in. mm.	19.0 482	24.25 615	26.31 668	26.8 681	26.8 681	26.8 681
Overall Diameter	in. mm.	15.6 396	15.6 396	18.8 478	18.8 478	18.8 478	18.8 478
Number of Canisters		6	6	6	10	6	6
Canister Dimensions		2.75x5 70x127	2.75x11 70x279	2.75x11 70x279	2.64x11 67x279	3.7x11 94x279	4.13x11 105x279
Number of 1.2 ml & 2.0 ml vials (5/cane)		N/A	570	570	850	1050	1260
Number of 1.2 ml & 2.0 ml vials (6/cane)		N/A	684	684	1020	1260	1512
Number of 1/2 cc straws - (10 per cane)		N/A	1850	1850	2800	3000	3528
Number of 1/2 cc straws - Bulk (1 level)		2940	N/A	N/A	N/A	N/A	N/A
Number of 1/2 cc straws - Bulk (2 levels)		N/A	5880	5880	9800	9900	11520
7th Canister		N/A	N/A	N/A	N/A	R036-9C27	R038-9C28
Roller Base		R018-8C00W	R018-8C00W	R033-8C00W	R033-8C00W	R033-8C00W	R033-8C00W
Low Liquid Level Alarm		N/A	R034-8C15	R034-8C15	R037-8C15	R036-8C30	R038-8C30

Cryo Storage in Biobanking



Lab-Series: State-of-the art engineering design featuring:

High efficiency – very low LN₂ consumption

- LN₂ storage in either liquid or vapor phase
- Near LN₂ temperatures maintained at top of inventory storage system for overall sample viability

Single pivot point aluminum turntable design – smooth rotation and ergonomic use

- Eliminates any mechanical component maintenance
- Full height, segmented and labeled turntable provides easy inventory storage access and management
- Convenient access to measure LN₂ level

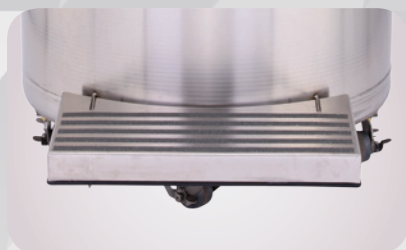
Hinged lid and stainless steel table top – easy operation with a convenient working surface

- The lid includes locking capabilities and activates an automatic defog for quick viewing of inventory storage
- The table top provides a working surface and provides protection to electrical and plumbing components

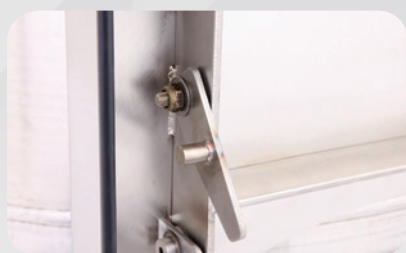
Enhanced and intuitive controller technology:

- Discrete thermistor level measurement and thermocouple temperature resolution within 0.1°C
- Capabilities for data collection, event scheduling and enhanced security settings
- Second access point for monitoring temperature

Features



Integral folding step with slip-resistant surface

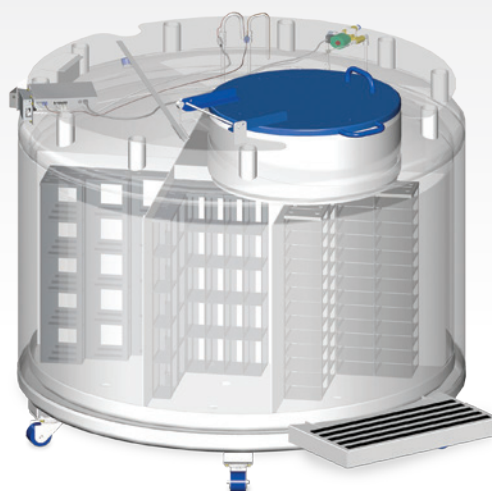


All units include a mechanical step lock for securing the step when stowed



Flexible Fill Hose with 1,2 or 1,8m length and a DKJ UNF 3/4" x 3/8" NPT connection

MODELS		20K	38K	40K	80K	94K
External Operating Height (Top of Step to Lid opening)	in. mm.	42 1067	44 1118	42 1067	42 1067	40 1016
Step Height	in. mm.	11 275	11.5 287.5	11/16.3 275/407.5	11/17 275/425	11/22 275/550
Height (Floor to Opening)	in. mm.	53 1346	56 1422	53 1346	53 1346	62 1575
Usable Height, Internal	in. mm.	30 762	30 762	30 762	30 762	35.3 897
Outside Diameter	in. mm.	34 864	42 1067	45 1143	59.5 1511	59.5 1511
Internal Working Diameter	in. mm.	29.5 750	38 965	40.5 1029	55 1397	55 1397
Neck Opening	in. mm.	13 330	18 457	18 457	24.5 622	24.5 622
Capacity						
Total LN ₂ Capacity (Liquid Storage)	L.	371	623	698	1269	1595
Total LN ₂ Capacity (Vapor Storage)	L.	36	73	80	137	300
Weight, Empty	lb. kg.	650 295	930 422	920 417	1550 703	1700 771
Maximum Gross Weight	lb. kg.	1311 595	2040 925	2164 981	3811 1729	4542 2060
Inventory Control System Specifications						
No. 100/81 Cell Racks		14	26	30	58	60
No. Shelves/Rack		13	13	13	13	15
No. 25 Cell Racks		4	12	8	12	8
No. Shelves/Rack		13	13	13	13	15
Vial Capacity, 2 ml		19500	37700	41600	79300	93000
Bag 25 ml (7 Level Rack)		1624	2688	3108	5999	6856
Bag 50 ml (7 Level Rack)		924	1582	1876	3381	3864
Bag 250 ml (5 Level Rack)		500	900	990	1920	2304
Bag 500 ml (5 Level Rack)		420	690	830	1610	1932



Cryo Exchange Series



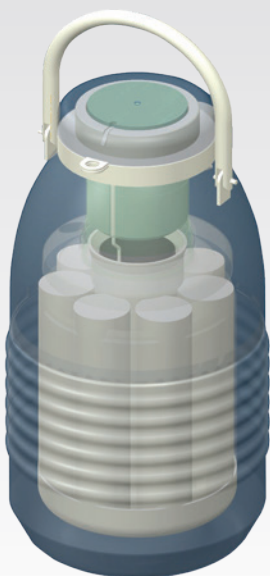
CX & CXR Series

Cryo Exchange (CX) Vapor Shippers are designed to safely transport a variety of materials at cryogenic temperatures. The unique adsorbent material prevents a liquid spill if

the unit is tipped over. Storage temperature inside the shipping chamber remains at approximately -190°C until the liquid nitrogen evaporates from the adsorbent material.

Features

- Advanced Concept Adsorbent enables faster charging
- Complies with IATA regulations for open cryogenic receptacles
- Rugged construction includes – dependable, stronger necktube design, ribbed high strength aluminum body, and durable paint system
- Superior vacuum performance with super insulation provides maximum holding times
- Optional storage accessories include a five shelf rack box system and Blood Bag rack for the CXR500
- Temperature loggers are available for all models
- Lockable lids



MODEL		CX100	CXR100	CXR500
Static Holding Days		22	16	11
Working Time days		17	11	7
Evaporation Rate liters/days		0.19	0.23	0.64
Liquid Nitrogen Absorbed - liters		4.1	3.7	7
Weight Empty	lbs. kg.	11.7 5.3	11.7 5.3	30 13.6
Weight Full	lbs. kg.	19 8.6	18.3 8.3	42.5 19.3
Neck Diameter	in. mm.	2.78 71	3.58 91	8.5 216
Overall Height	in. mm.	18.4 467	19.4 493	26.9 693
Overall Diameter	in. mm.	9.2 234	9.2 234	15.5 391
Number of Canisters		1	1	N/A
Canister Dimensions	in. mm.	2.64x11.0 67x279	2.64x11.0 67x279	N/A N/A
Number of 1.2 ml & 2.0 ml vials (5/cane)		85	85	500
Number of 1.2 ml & 2.0 ml vials (6/cane)		102	102	500
Number of 1/2 straws (10/cane)		280	280	N/A
Number of 1/2 cc straws - Bulk (2 levels)		800	800	N/A

ACCESSORIES

Shelf Stainless Steel Rack (100 cell plastic box)	N/A	N/A	RS30-9C44
Stainless Steel Blood Bag Rack	N/A	N/A	CP70-9C44
Replaceable Adsorbent Kit	N/A	CXR100-9C30	CXR100-9C30
Spare Canister	R005-9C24	CXR100-9C24	N/A
Spare Necktube Core	R005-9C21	CXR100-9C01	CP70-9C18
Poly Carb 100 Cell Box (case of 24)	N/A	N/A	5026-1010R
Round Black Shipping Case	CXR100-8C00	CXR100-8C00	CXR500-8C00
Square Plastic Shipping Case (grey)	CX10-8C00	CX10-8C00	N/A
Square Aluminum Shipping Case	CX10-8C00K	CX10-8C00K	CX50-8C00
Temperature Logger, Tilt Switch incl.	M380CE	M382CE	M385CE

Medicinsk udstyr direktivet (MDD 93/42/EEC) og dets indflydelse på cryo udstyr

Medical Device Directive 93/42 EEC

Medicinsk udstyr klassificeres i følgende klasser: I, IIa, IIb og III

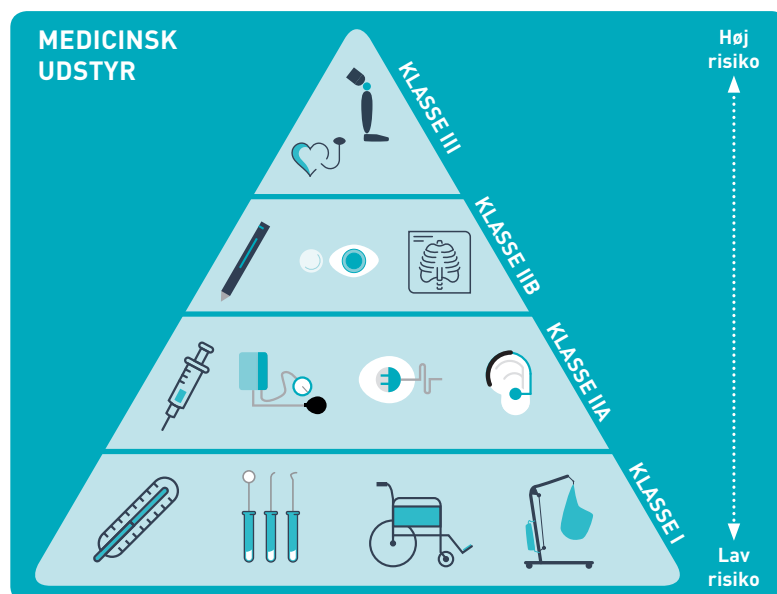
Klassificeringen afspejler den risiko, der er forbundet med at anvende produktet – det vil sige jo højere nummer des højere risiko, grupperes derfor efter forskellige regler.

Udstyr som anvendes i forbindelse med cryo opbevaring ligger primært indenfor klasse I og op til II b.

Alt udstyr som anvendes til opbevaring af celler og vævsprøver til medicinsk brug, skal være CE-mærket. CE-mærkning af udstyret er afhængigt af klassificeringen.

For klasse I udstyr kan producenten selv stå for mærkningen, hvorimod klassificering indenfor klasse IIa og IIb kræver at en 3. part skal ind over. I forbindelse med certificering udføres altid en risiko-vurdering i henhold til EN ISO 14971 (se beskrivelse nedenfor).

Brugeren bør også selv vurdere/udfører en risikovurdering, da sikrer en langt bedre forståelse for både opbevaring og håndtering af f.eks flydende nitrogen.

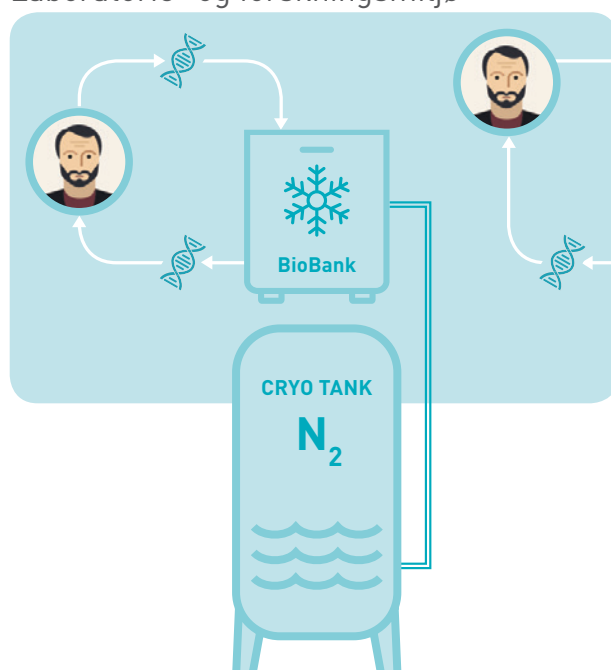


Risikoanalysen bør allerede ske i projekterings/designfasen. DS/EN ISO 14971

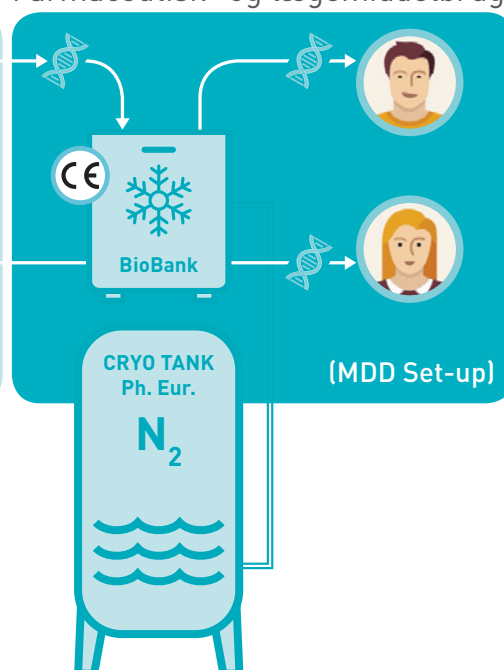
Medicinsk udstyr – Anvendelse af risikoledeelse i forbindelse med medicinsk udstyr

Standarden beskriver hele risikoanalyseprocessen. På side 6 i standarden er et skematisk flow for risikostyringsproces (se fig. 1), sidst i flowet ses produktion- og efterproduktionsinformation, hvilket betyder, at hele risikovurderingen foretages før produktionen

Laboratorie- og forskningsmiljø



Farmaceutisk- og lægemiddelbrug



påbegyndes(installeres).

Hvis man ser på punkt 3.4. i standarden står der, at risikoanalyse plan skal beskrive indsamling og gennemgang af oplysninger fra det øjeblik af produktionen påbegyndes, men at man også skal opsamle data efter produktionen (installation) er påbegyndt. Installatøren og brugere kan selvfølgelig lettere lave fejl, hvis der ikke er en risikoanalyse, der beskriver eventuelle risici.

Da det er en kendsgerning, at risikoanalyse er et "levende dokument", er det ikke færdigt, selv efter afslutningen af anlægget, idet man jo også ønsker at styre efter de risici, der kan opstå, når systemet anvendes i længere tid.

Efterfølgende kan risikovurdering danne baggrund for en Log-bog som er med til at sikre en højere grad af kvalitet/kvalitetsstyring.

INSTALLATION AF TANKANLÆG

Tankanlæg til flydende gasser kontrolleres og funktions-testes inden de tages i brug. Vi har en helt klar metode, som i korte træk er:

Inden opstilling af tank

- Tegninger og kontrol dokument udformes
- Opstillingsgodkendelse søges hos bemyndiget organ.

Under opstilling af tank

- Nødforsyning etableres
- Tank monteres
- Strandmøllens tankovervågning SOS monteres (Strandmøllens Overvågning System)
- Kontrol gennemføres (se senere afsnit)
- Tanken driftgodkendes

Efter opstilling af tank

- Årlig kontrol og årlig vedligeholdelse

Strandmøllen har som eneste virksomhed i Danmark tilladelse til at markedsføre tanke mellem 5 liter og 60.000 liter.

Rørsystem

Installation af rørsystem med udtag på anvendelsesstedet er derimod en 100 procent kundeorienteret proces. I denne proces kræves:

- En brugerkravspecifikation, samt funktions- og designspecifikationer, inden endeligt system kan udformes.
- Maskinteknik med tegninger og beregninger, således at anlægget kan bygges.
- Montering, validering og endelig godkendelse af anlægget.

Det er altså en længere proces end ved tankopstilling.

Det er ikke unormalt, at kunder allerede har velfungerende rørsystemer og udtag på anvendelsesstedet. Men hvordan sikres gaskvaliteten?

Strandmøllen har erfaring i at udføre gasanalyser på anvendelsesstedet i samarbejde med kunden. På denne måde får kunden dokumenteret at gaskvaliteten fra tankanlægget til anvendelsesstedet er uforandret.



Gas er ikke bare gas

Det ved vi, fordi vi har produceret og solgt luftarter i 100 år.

Gas er en vigtig brik for dig, når du skal skabe dine produkter eller serviceydelser. Uanset hvilken branche du kommer fra, kan vi tilbyde et komplet udbud af gasser og luftarter med tilhørende udstyr, teknik og rådgivning.

Udover egen produktion af luftarter har vi samarbejde med udenlandske producenter om levering af specielle produkter.

Vores store klient database spænder stort set alle brancher, herunder:

- Jern og maskinindustrien
- Sundhedssektoren
- Levnedsmiddelvirksomheder
- Laboratorie- og farmaceutisk industri
- Procesindustrien

Strandmøllen har siden 1967 været et fondsejet selskab. Dette betyder, at vi er en solid, langsigtet og økonomisk stærk virksomhed.

Strandmøllen har i dag mere end 150 ansatte fordelt i Danmark og Sverige.



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