



NORDIC LAB

Your Cool Solution Partner

Product Catalogue



NORDIC LAB Profile



About us

Nordic Lab is a Danish-based manufacturer and supplier of laboratory freezers and accessories. We have focus on high quality, design and functionality.

Our products are designed, developed and produced in Denmark.

Our vision is to be a global provider of top designed and innovative laboratory equipment and solutions, with the optimum ratio between quality and prices.

Our product range

Nordic Lab represents a series of Low Temperature freezers, covering temperatures from -10°C to -86°C , both as chest and upright freezers.

Our freezers are based on a unique single stage compressor technology, which gives the user a seamless and economical low temperature solution.

The product range matches all requirements and demands for laboratories, hospitals and research institutions in terms of length of storage, sensitivity and type of samples etc. The Ultra Low Temperature (ULT) freezers -86°C meet the ultimate demands for long-term storage of the most sensitive samples.

The positioning of the Nordic Lab freezers is quite special in the market. Our products are complementary to the freezers from all the major brands and our strategy is to focus on small sized and inexpensive freezers. We are not offering any large sized freezers, that segment is already well represented by our good colleagues e.g. Thermo, Panasonic, Binder, Esco, Telstar, New Brunswick and so on.



The environment

Our freezers are produced with strong focus on environment friendliness and sustainability.

Our LT models are offered with natural refrigerants R290 (Propane), and our XLT and ULT models with Nature R, which is a patented natural refrigerant. Both are pure refrigerants free of toxic gases that could harm the environment, and they have no impact on ozone depletion.

Furthermore, our cyclopentane insulation that reduces the energy consumption and our use with approx. 80% recyclable materials, is another key factor in our strive for sustainable solutions that will reduce the impact on the environment.

The production is in accordance with ISO 9001, 14001 and 45001 certification and standards, which guarantees reliable and consistent high quality products, which are in compliance with environmental regulations and standards.

We also comply with RoHS Directive – meaning that all our products are totally free from lead, mercury, cadmium, hexavalent chromium, PBB and PBDE.

Welcome to Nordic Lab, we look forward working with you.

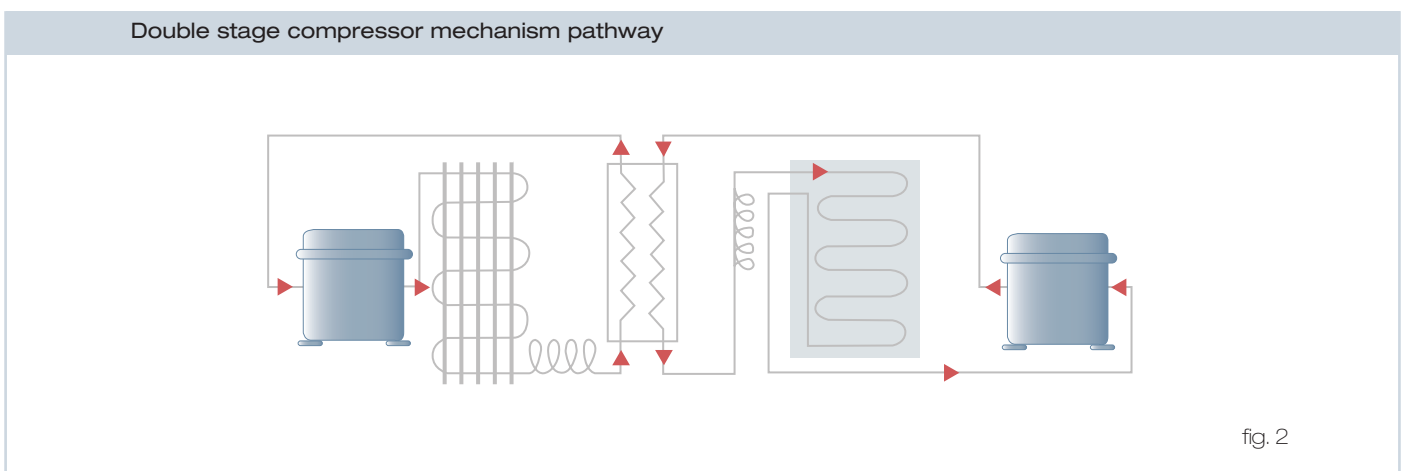
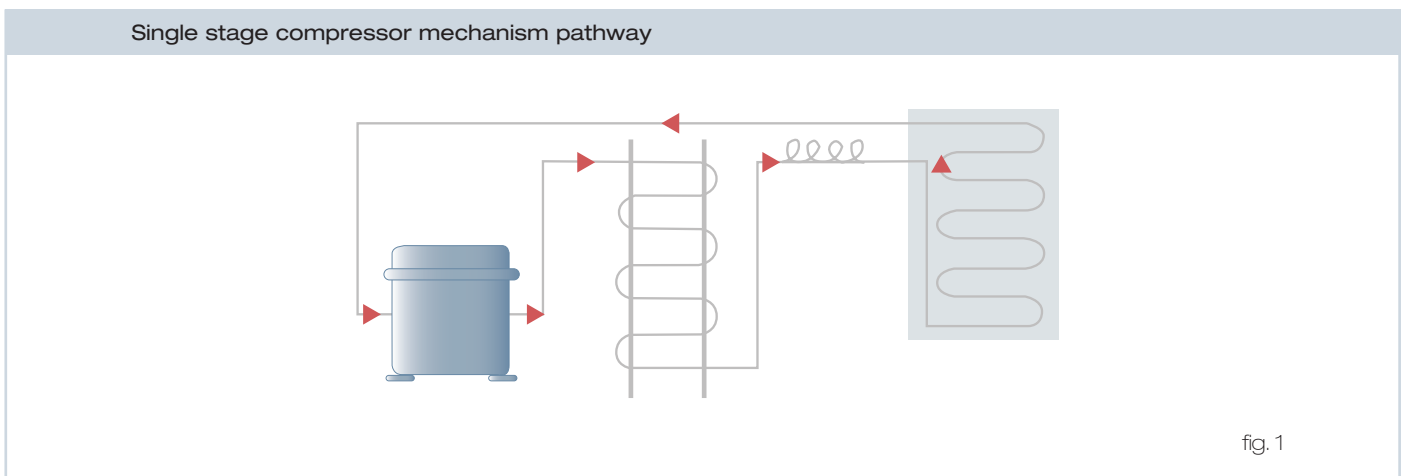
Best regards
Morten Holm
CEO



Single vs. Double Stage Compressor



Compressor mechanism pathway		
Types of technology	Single stage	Double stage
Principle of the technology	A single stage compressor system gets all its compression in one cylinder stroke and it has a less complicated pathway (see fig. 1)	Two stage compressor has one cylinder that compresses the air part way, and sends it to the next cylinder, which does the final compression. This is a more complicated pathway (see fig. 2)
Wear on the system	The system is less complicated and has less moving parts which reduces wear on the system	This system is more complicated and has more moving parts which increases the wear on the system
Heat generation	One compressor generates less heat than two	Two compressors generate more heat than one
Filter cleaning	This system does not have a filter and therefore there will be no filter maintenance	This system has a filter and frequent filter maintenance is required



-86°C Upright freezer ULT U100



- Optimal footprint, easily installable & movable
- Low cost of ownership
- Limited maintenance and on-site service
- Eco-friendly, HCFC-free Nature R refrigerant
- Efficient cyclopentane insulation
- ISO 9001, 14001 & 45001 Certified

Specifications	
Technical	
Gross volume	93 litres
Net volume	91 litres
Temp. range	-60°C to -86°C
Temp. probes	1/PT 1000
Compressor	Embraco
Refrigerant	Nature R
Noise level	57 dB
Power consumption 24/h	6,7 kWh
Power consumption	2.445 kWh / year
Voltage	230 V
Frequency	50 Hz
Features	
Audible & visual alarm	YES
Castors	NO
Inner doors	NO
Defrost	Manual
Integrated lock	YES
Battery Backup	48h
USB	YES
Data connection	MODBUS
Digital controller	XW737K
Data logging	35.500 Entries
High/Low temperature alarm	YES
Adjustable shelves, stainless steel	2
Door vacuum release	Automatic
Porthole for external probe & CO2 backup	Ø12 mm
Prepared for external logging equipment	YES
Contact for remote alarm	YES
Material	
Inner	Stainless steel
Outer	Galvanized pre-coated steel
Dimensions	
Height	825 mm
Width	595 mm
Depth (incl. condenser)	630 mm
Depth (incl. condenser & handle)	690 mm
Net weight	60 kg
Internal dimensions	
Height	625/395 mm
Width	430 mm
Depth	425/205 mm
Insulation	80 mm
Insulationtype	PUR
Internal humidity	<5 %

ULT U100	
Product no.	N123001

Storage capacity. Rack				
Box height	No. of boxes	No. of racks	Total no. of boxes	Product no.
50 mm	74	1	74	N321700
75 mm	45	1	45	N321800
100 mm	33	1	33	N331400

Storage capacity. Rack with boxes and dividers			
Box height	Divider	No. of samples	Product no.
50 mm	9x9	5994	N322700
50 mm	10x10	7400	N322710
75 mm	9x9	3645	N322800
75 mm	10x10	4500	N322810
100 mm	9x9	2673	N332400
100 mm	10x10	3300	N332410

-86°C Upright freezer ULT U250



- Low cost of ownership
- Limited maintenance and on-site service
- Optimal footprint
- DUAL cooling single stage compressor system
- Efficient cyclopentane insulation
- Maintains -60°C with only 1 compressor running
- Eco-friendly, HCFC-free Nature R refrigerant
- ISO 9001, 14001 & 45001 Certified

Specifications	
Technical	
Gross volume	256 litres
Net volume	236 litres
Temp. range	-60°C to -86°C
Temp. probes	1/PT 1000
Compressor	Secop DUAL
Refrigerant	Nature R
Noise level	64 dB
Power consumption 24/h	10,3 kWh
Power consumption	3.759 kWh / year
Voltage	230V
Frequency	50 Hz
Features	
Audible & visual alarm	YES
Castors with brakes	4
Inner doors	2
Defrost	Manual
Integrated lock	YES
Battery Backup	48h
USB	YES
Data connection	MODBUS
Digital controller with display	XW737K
Data logging	35.500 Entries
High/Low temperature alarm	YES
Adjustable shelves, stainless steel	5
Door vacuum release	Automatic
Porthole for external probe & CO2 backup	Ø12 mm
Prepared for external logging equipment	YES
Contact for remote alarm	YES
Material	
Inner	Stainless steel
Outer	Galvanized pre-coated steel
Dimensions	
Height (with castors)	2.055 mm
Width	600 mm
Depth (incl. condenser)	630 mm
Depth (incl. condenser & handle)	690 mm
Net weight	140 kg
Internal dimensions	
Height	1.420 mm
Width	435 mm
Depth	370 mm
Insulation	80 mm
Insulation type	PUR
Internal humidity	<5 %

ULT U250

Product no. N123002

Storage capacity				
Box height	No. of boxes	No. of racks	Total no. of boxes	Product no.
50 mm	4 × 2 = 8	3	24	N321200
	5 × 2 = 10	12	120	N321210
			= 144	
75 mm	2 × 2 = 4	3	12	N321300
	3 × 2 = 6	12	72	N321310
			= 84	
100 mm	2 × 2 = 4	15	60	N321400

-86°C Chest Freezers



Model	ULT C75	ULT C200	ULT C300	ULT C400
Technical				
Net volume	71 litres	189 litres	284 litres	368 litres
Temp. range	-60°C to -86°C	-60°C to -86°C	-60°C to -86°C	-60°C to -86°C
Temp. probe	1/PT 1000	1/PT 1000	1/PT 1000	1/PT 1000
Refrigerant	Nature R	Nature R	Nature R	Nature R
Inner lids	1	3	3	4
Power consumption 24/h	5,0 kWh	5,3 kWh	8,0 kWh	9,0 kWh
Voltage	230V	230V	230V	230V
Frequency	50 Hz	50 Hz	50 Hz	50 Hz
Compressor type	Single stage	Single stage	Single stage	Single stage
Features				
Audible and visual alarm	Yes	Yes	Yes	Yes
High/low alarm	Yes	Yes	Yes	Yes
Battery backup	48h	48h	48h	48h
Castors	4	4	4	4
Digital controller	XR30CX	XR30CX	XR30CX	XR30CX
Integrated lock	Yes	Yes	Yes	Yes
Porthole for external probe & CO2 backup	Ø12 mm	Ø12 mm	Ø12 mm	Ø12 mm
Outer dimensions				
Height	870 mm	885 mm	885 mm	885 mm
Width	555 mm	923 mm	1265 mm	1562 mm
Depth (incl. condenser)	580 mm	630 mm	630 mm	630 mm
Net weight	45 kg	69 kg	76 kg	80 kg
Product no.	N113001	N113002	N113003	N113004

Storage capacity	ULT C75	ULT C200	ULT C300	ULT C400
Box height	Total no. of boxes	Total no. of boxes	Total no. of boxes	Total no. of boxes
50 mm	40	117	216	282
75 mm	25	84	156	204
100 mm	20	54	99	129

- Personal freezer for easy access and daily use in laboratories, hospitals or anywhere scientific research and storage of sensitive samples is required – e.g. viruses, bacteria, cell preparations and tissue samples.
- Low power consumption, supreme stability, reliability, and long-term durability.
- Easy installation – the freezer has a small outer dimension and can go through all standard doors. This combined with low weight makes it very easy to install and move around.
- No maintenance is required besides defrosting and vacuum cleaning the compressor compartment.
- Service and repair – no regular service is required. In case of a failure, repair can be performed on-site by any trained freezer service engineer.

-60°C Upright freezer XLT U250



- Optimal footprint
- Low cost of ownership
- Limited maintenance and on-site service
- Easily installable and movable
- Efficient cyclopentane insulation
- Eco-friendly, HCFC-free Nature R refrigerant
- Low energy consumption
- ISO 9001, 14001 & 45001 Certified

Specifications	
Technical	
Gross volume	256 litres
Net Volume	236 litres
Temp. range	-40°C to -60°C
Temp. probes	1/PT 1000
Compressor	Secop
Refrigerant	Nature R
Noise level	60 dB
Power consumption 24/h	6,1 kWh
Power consumption	2.227 kWh / year
Voltage	230V
Frequency	50 Hz
Features	
Audible and visual alarm	YES
Castors with brakes	4
Inner doors	2
Integrated lock	YES
Defrost	Manual
Battery Backup	48h
USB	YES
Data connection	MODBUS
Digital controller with display	XW737K
Data logging	35.500 Entries
High/Low temperature alarm	YES
Adjustable shelves, stainless steel	5
Door vacuum release	Automatic
Porthole for external probe & CO2 backup	Ø12 mm
Prepared for external logging equipment	YES
Contact for remote alarm	YES
Material	
Inner	Stainless steel
Outer	Galvanized pre-coated steel
Dimensions	
Height (with castors)	2.055 mm
Width	600 mm
Depth (incl. condenser)	630 mm
Depth (incl. condenser & handle)	690 mm
Net weight	120 kg
Internal dimensions	
Height	1.420 mm
Width	420 mm
Depth	370 mm
Insulation	80 mm
Insulation type	PUR
Internal humidity	<5 %

XLT U250



Product no.

N122002

Opbevaringskapacitet

Boks højde	Antal bokse	Antal racks	Total antal bokse	Produkt nr.
50 mm	4 × 2 = 8	3	24	N321200
	5 × 2 = 10	12	120	N321210
			= 144	
75 mm	2 × 2 = 4	3	12	N321300
	3 × 2 = 6	12	72	N321310
			= 84	
100 mm	2 × 2 = 4	15	60	N321400

-60°C Chest Freezers



Model	XLT C75	XLT C150	XLT C200	XLT C300	XLT C400	XLT C500
Technical						
Net volume	71 litres	133 litres	189 litres	284 litres	368 litres	476 litres
Temp. range	-40°C to -60°C	-40°C to -60°C	-40°C to -60°C	-40°C to -60°C	-40°C to -60°C	-40°C to -60°C
Temp probe	1/PT 1000	1/PT 1000	1/PT 1000	1/PT 1000	1/PT 1000	1/PT 1000
Refrigerant	Nature R	Nature R	Nature R	Nature R	Nature R	Nature R
Baskets	1	1	1	3	4	3
Power consumption 24/h	4,0 kWh	3,7 kWh	3,1 kWh	5,5 kWh	7,0 kWh	5,7 kWh
Voltage	230V	230V	230V	230V	230V	230V
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Compressor type	Single stage	Single stage	Single stage	Single stage	Single stage	Single stage
Features						
Audible and visual alarm	Yes	Yes	Yes	Yes	Yes	Yes
High/low alarm	Yes	Yes	Yes	Yes	Yes	Yes
Castors	Legs	4	4	4	4	4
Digital controller	XR30CX	XR30CX	XR30CX	XR30CX	XR30CX	XR30CX
Integrated lock	Yes	Yes	Yes	Yes	Yes	Yes
Porthole for external probe						
- & CO2 backup	Ø12 mm	Ø12 mm	Ø12 mm	Ø12 mm	Ø12 mm	Ø12 mm
Outer dimensions						
Height	870 mm	885 mm	885 mm	885 mm	885 mm	923 mm
Width	555 mm	725 mm	923 mm	1260 mm	1560 mm	1664 mm
Depth (incl. condenser)	580 mm	630 mm	630 mm	630 mm	630 mm	690 mm
Net weight	48 kg	59 kg	62 kg	71 kg	86 kg	92 kg
Product no.	N112001	N112002	N112006	N112003	N112004	N112005

Model	XLT C75	XLT C150	XLT C200	XLT C300	XLT C400	XLT C500
Box height	Total no. of boxes	Total no. of boxes	Total no. of boxes	Total no. of boxes	Total no. of boxes	Total no. of boxes
50 mm	40	84	117	216	282	315
75 mm	25	60	84	156	204	228
100 mm	20	39	54	99	129	144

- Main and central storage freezer for use in laboratories, hospitals or anywhere scientific research and longer term cold storage of various ingredients are required.
- Low power consumption, supreme stability, reliability, and long-term durability.
- Easy installation – the freezer has a small outer dimension and can go through all standard doors, which makes it very easy to install.
- No maintenance is required besides defrosting and vacuum cleaning the compressor compartment.
- Service and repair – no regular service is required. In case of a failure, repair can be performed on-site by any trained freezer service engineer.

-45°C Upright freezer LT U250



- Optimal footprint, easily installable & movable
- Low cost of ownership
- Limited maintenance and on-site service
- Efficient cyclopentane insulation
- Eco-friendly, HCFC-free Nature R refrigerant
- ISO 9001, 14001 & 45001 Certified

Specifications	
Technical	
Gross volume	256 litres
Net Volume	236 litres
Temp. range	-25°C to -45°C
Temp. probes	1/PT 1000
Compressor	Secop
Refrigerant	Nature R
Noise level	60 dB
Power consumption 24/h	4,8 kWh
Power consumption	1.752 kWh / year
Voltage	230V
Frequency	50 Hz
Features	
Castors with brakes	4
Inner doors	0
Integrated lock	YES
Defrost	Manual
Battery Backup	48h
USB	YES
Data connection	MODBUS
Digital controller with display	XW737K
Data logging	35.500 Entries
High/Low temperature alarm	YES
Adjustable shelves, stainless steel	5
Door vacuum release	Automatic
Porthole for external probe & CO2 backup	Ø12 mm
Prepared for external logging equipment	YES
Contact for remote alarm	YES
Material	
Inner	Stainless steel
Outer	Galvanized pre-coated steel
Outer dimensions	
Height (with castors)	2.055 mm
Width	600 mm
Depth (incl. condenser)	630 mm
Depth (incl. condenser & handle)	690 mm
Net weight	116 kg
Inner dimensions	
Height	1420 mm
Width	420 mm
Depth	370 mm
Insulation	80 mm
Insulation type	PUR
Internal humidity	<5 %

LT U250

Product no. N121002

Storage capacity				
Box height	No. of boxes	No. of racks	Total no. of boxes	Product no.
50 mm	4 × 2 = 8	3	24	N321200
	5 × 2 = 10	12	120	N321210
			= 144	
75 mm	2 × 2 = 4	3	12	N321300
	3 × 2 = 6	12	72	N321310
			= 84	
100 mm	2 × 2 = 4	15	60	N321400

-45°C Chest Freezers



Model	LT C150	LT C200	LT C300	LT C400	LT C500
Technical					
Net volume	133 litres	189 litres	284 litres	368 litres	476 litres
Temp. range	-25°C to -45°C	-25°C to -45°C	-25°C to -45°C	-25°C to -45°C	-25°C to -45°C
Temp. probe	1/PTC	1/PTC	1/PTC	1/PTC	1/PTC
Refrigerant	R290	R290	R290	R290	R290
Baskets	1	1	1	1	3
Power consumption 24/h	1,8 kWh	2,8 kWh	3,7 kWh	4,1 kWh	4,1 kWh
Voltage	230V	230V	230V	230V	230V
Frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Compressor type	Single stage	Single stage	Single stage	Single stage	Single stage
Features					
Audible and visual alarm	Yes	Yes	Yes	Yes	Yes
High/low alarm	Yes	Yes	Yes	Yes	Yes
Castors	4	4	4	4	4
Digital Controller	XR30CX	XR30CX	XR30CX	XR30CX	XR30CX
Integrated lock	Yes	Yes	Yes	Yes	Yes
Porthole for external probe					
- & CO2 backup	Ø12 mm	Ø12 mm	Ø12 mm	Ø12 mm	Ø12 mm
Outer dimensions					
Height	885 mm	885 mm	885 mm	885 mm	923 mm
Width	725 mm	923 mm	1260 mm	1562 mm	1664 mm
Depth (incl. condenser)	630 mm	630 mm	630 mm	630 mm	690 mm
Net weight	55 kg	63 kg	71 kg	83 kg	92 kg
Product no.	N111002	N111006	N111003	N111004	N111005

Storage capacity	LT C150	LT C200	LT C300	LT C400	LT C500
Box height	Total no. of boxes	Total no. of boxes	Total no. of boxes	Total no. of boxes	Total no. of boxes
50 mm	84	117	216	282	315
75 mm	60	84	156	204	228
100 mm	39	54	99	129	144

- Freezer for cold-storage in laboratories, hospitals or anywhere scientific research of biological samples, vaccines and blood products are required.
- Low power consumption, supreme stability, reliability, and long-term durability.
- Easy installation – the freezer has a small outer dimension and can go through all standard doors, which makes it very easy to install.
- No maintenance is required besides defrosting and vacuum cleaning the compressor compartment.
- Service and repair – no regular service is required. In case of a failure, repair can be performed on-site by any trained freezer service engineer.

Cold Storage Solution



- The Nordic high quality, user friendliness, efficiency, capacity at the best possible economy, are vital objectives for Nordic Lab's business philosophy and for development of our product programs.
- In this respect, an excellent storage system is developed and available for all freezers. This includes racks and boxes that insure an optimal handling and market high capacity regarding the number of samples to be stored.
- Our racks are also produced in Denmark, by our sister company TENAK. TENAK is specialized in freezer storage solutions for use in all freezers on the global market.



Storage capacity					
Model	Temperature	Capacity	No. of boxes		
			50 mm	75 mm	100 mm
ULT C75	-86°C	71 liters	40	25	20
ULT C200	-86°C	189 liters	117	84	54
ULT C300	-86°C	284 liters	216	156	99
ULT C400	-86°C	368 liters	282	204	129
ULT U100	-86°C	91 liters	74	45	33
ULT U250	-86°C	236 liters	144	84	60
XLT C75	-60°C	71 liters	40	25	20
XLT C150	-60°C	133 liters	84	60	39
XLT C200	-60°C	189 litres	117	84	54
XLT C300	-60°C	284 liters	216	156	99
XLT C400	-60°C	368 liters	282	204	129
XLT C500	-60°C	476 liters	315	228	144
XLT U250	-60°C	236 liters	144	84	60
LT C150	-45°C	133 liters	84	60	39
LT C200	-45°C	189 liters	117	84	54
LT C300	-45°C	284 liters	216	156	99
LT C400	-45°C	368 liters	282	204	129
LT C500	-45°C	476 liters	315	228	144
LT U250	-45°C	236 liters	144	84	60

Product overview



-86°C ULT Freezers



-60°C XLT Freezers



-45°C LT Freezers



NOTES

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Contact details



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