

ULTRA LOW TEMPERATURE FREEZER UPRIGHT (-40°C to -86°C)

LABEC Ultra Low Temperature Freezer combines a reliable cooling system together with a unique door sealing system (perfect fit system®).

Not the -86°C freezer itself, but the samples stored in it are the most important issue for a customer. For this reason Labec only chooses the most reliable components available in the world. The reliable proven bristol compressors are used in a unique cascade system with very low pressures and a completely sealed cooling system.

The Labec Ultra Low Freezer is a very durable and reliable system with an extremely low noise level (around 50dBA). This low noise level is created by a very efficient and effective use of the cascade compressor system with non CFC refrigerants.

Labec creates the safest environment for your samples, due to its temperature and power alarms, standard dry contacts and an attractive priced optional CO₂ back-up system.

FEATURES:

- Hermetically sealed cooling system with very durable compressors.
- Cold air loss is minimized by insulated inner doors.
- Efficient evaporator with maximum contact with walls for fast cooling down.
- 130mm polyurethane foamed insulation.
- Heavy-duty casters with built-in adjustable stands.
- Cabinet with round corners for easy cleaning.
- 3 Built-in access ports.
- Very user-friendly control panel on eye level.
- Easy to clean condenser filter.
- Pressure equalization port allows easy access to cabinet after door closing.
- Quiet running fans and compressors create a very low noise level (+/- 50 dBA).
- Heated door seals (hot gas) prevents ice build up.
- Light adjustable HDPE shelf with air circulation hole (No wrenched in -120°).



Serving the Scientific, Medical and Research industries since 1945

LABEC



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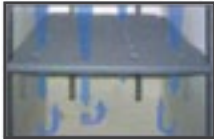
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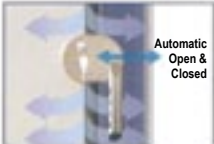
>> Perfect adiabatic System

High pressure polyurethane insulation system (130mm insulation) keeps the cold temperature in, decreases electric power consumption and increases the life of the freezer.



>> Adjustable shelf

Shelves are fully adjustable with small holes to provide uniform temperature in the freezer.



>> Safety door lock device

If the pressure of CO₂ exceeds its maximum permissible pressure whilst using the CO₂ back-up system the safety door lock device will help to maintain even pressure to protect users and their samples from explosion.



>> RS-232 port / Remote alarm port

RS-232 for connection to a PC allows remote alarming and monitoring.



>> Electrical box

Electrical parts are easily accessible.



>> Three door airtight gasket

The triple gasket system blocks the air from outside, increasing efficiency of the freezer, decreasing the maintenance expense by using one sealing gasket on the chamber and two sealing gaskets on the door.



Microprocessor controls monitor



Convenient voltage checking

>> Control Panel

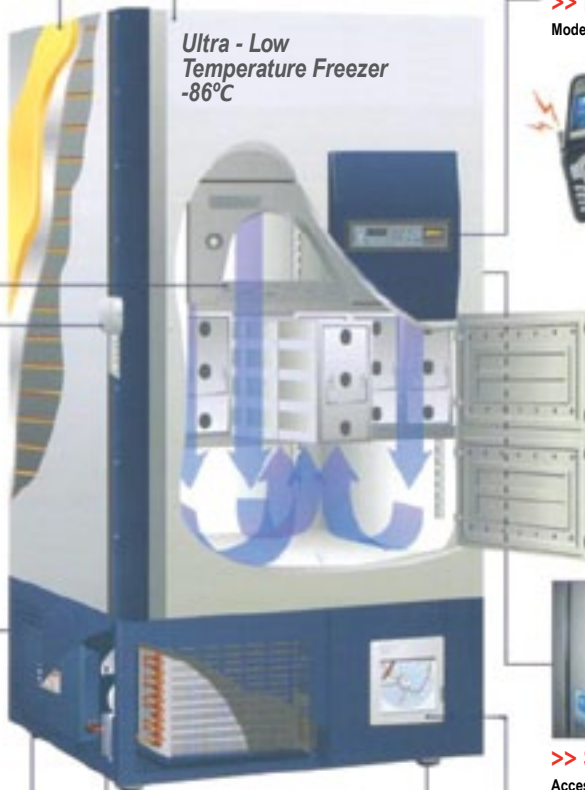
Control Panel is central and easily accessible.

>> Dialing System

Model No: DS0119



1. Automatic alarm signal and sound when alarm system is working.
2. Automatic dial contact to five telephone numbers as per customers setting.
3. 30 seconds voice message recording function.
4. 4 hours back-up battery in case of electricity power failure.



>> Service Port

Access ports allow cables or thermocouples into the chamber.



>> Refrigeration system

High power 1/2-1hp compressor is applied with extra running condenser, so refrigeration system can be used with maximum power. This system helps to concentrate on decreasing power for quiet operation (50dB).



>> Status fix/wheel adjustment

Wheels are fitted to allow easy movement of the freezer.



>> Recorder

By recording freezer chamber temperature, customer can keep a permanent record.



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SPECIFICATIONS

ULTRA LOW TEMPERATURE FREEZER UPRIGHT (-40°C to -86°C)

Model	DF8510	DF8514	DF8517	DF8520	DF8524
Capacity (litres)	276	369	484	605	730
Ext. Dim. (cm) W x D x H	92 x 90 x 174	92 x 90 x 197.9	92 x 105 x 197.9	107 x 105 197.9	107 x 118 x 197.9
Int. Dim. (cm) W x D X H	60 x 48 x 96	60 x 48 x 128	60 x 63 x 128	75 x 63 x 128	75 x 76 x 128
Insulation	130 mm Non CFC, foamed in place polyurethane				
Electrical	110 V / 60 Hz or 200 / 230 V, 50 / 60 Hz			200 / 230 V, 50 / 60 Hz	
Certification	CE, EM, KFSA certified				
Weight	294 kg	334 kg	380 kg	410 kg	450 kg
Noise level	In normal operation and ambient conditions of 20°C all models +/- 50dBa				
Refrigeration	2 x 1/2 HP	2 x 1/2 HP	2 x 1/2 HP	2 x 1 HP	2 x 1 HP
Temp. Min	-86°C				
Temp. Max	-40°C				
2" Cryo boxes	15 boxes / rack	15 boxes / rack	20 boxes / rack	20 boxes / rack	25 boxes / rack
3" Cryo boxes	9 boxes / rack	9 boxes / rack	12 boxes / rack	12 boxes / rack	15 boxes / rack
Racks / Freezer	12 racks total	16 racks total	16 racks total	20 racks total	20 racks total

* All models have the option for a stainless steel interior. Please add 'S' behind the model number to order stainless steel interior, (for example DF8517S).

*** Temperature range of -40°C to -135°C in a 28°C ambient environment.

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