

## Laboratory Ultra Low Deep-Freezer, chest

**TC 902-85**



(Ill. similar)

### External Dimension:

W = 920 mm  
D = 695 mm (plus handle and hinge)  
H = 890 mm

### Inside Dimension:

Utility Space 1	Utility Space 2
W = 550 mm	W = 210 mm
D = 440 mm	D = 440 mm
H = 635 mm	H = 385 mm

### Capacity:

189 l

### Temperature range:

-60°C to -85°C

### Housing

galvanized sheet steel with white coating.  
Cover double-walled with door lock, adhesive band. Mounted on 4 castors.

### Interior space

special aluminium with round edges

### Isolation

Cyclopentane isolation, without space, free of CFCS

### Interior fittings

**Optional:** white coated wire baskets



(Ill. similar)

### High quality electronic temperature controller.

Actual and set value display digital.  
Actual value permanently readable  
Set value digital adjustable by switch.  
Working range from -60°C to -85°C

### Temperature irregularities are viewed acoustically

Battery backup for temperature display and alarm messages

### Refrigerating unit

fully hermetically sealed fitted on vibration-absorbing mounts (ambient temperature 25°C), air cooled, energy saving compressor (55 dB (A)) with high quality vaporisation system

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**Defrost**  
manually

### Electrical dates

Power supply 230 V/50 Hz / single-phase **Optional: 230 V/ 60 Hz**  
Power consumption: 400 W  
Energy consumption 7,4 KW (24 Std.)  
Power cable 2,0 m with schuko plug

### Packing details (palletized)

Dimensions: approx. 160x80x120 cm  
Net weight: approx. 64 kg  
Gross weight: approx. 80 kg  
**Country of Origin: European Union**  
Customs clearance code: 8418 3080



## Qualifications

### DQ (Design Qualification)

**Definition:** Documented proof that the quality-related, GMP-related requirements has been adequately addressed in the design of equipment, including buildings, premises and auxiliary equipment

The user-requirement profiles (specifications) are documented and confirmed by us. On request, a specification can be created by us.

### IQ (Installation Qualification)

**Definition:** Documented proof that critical equipment and systems have been delivered and installed in accordance with the set requirements and government regulations.

The IQ documentation is worked out by us especially for the delivered machine and is made available to you.

The IQ documentation has to be carried out by the customer itself.

### OQ (Operational Qualification)

**Definition:** Documented proof that critical equipment and systems in accordance with the set requirements in the whole operating range are working as intended in accordance with predetermined limits.

The OQ documentation is worked out by us especially for the delivered machine and is made available to you.

The OQ documentation has to be carried out by the customer itself.

### CQ (Calibration Qualification) according to DIN 13277:2022-05

**Definition:** Documented proof that critical measuring equipment in the intended range in accordance with predetermined tolerances operate reliably under current operating conditions

**Verifying the temperature in the unloaded cooling unit** (after reaching the steady state)

**1 temperature on 3 measuring levels with 5 measuring points each**

(Measurement with calibrated PT 1000 sensors). Test time 4 hours, then open door for 60 seconds.

During this time, the limit values specified in DIN 13277:2022-05 must not be exceeded. Repeat the door opening after one hour.

The temperature measurements are carried out on our premises. The evaluation of the measurements, including graphical representation, is made in written form. The values must not exceed the limit values specified in DIN 13277:2022-05. **(Other measuring methods possible on request)**

### PQ (Performance-Qualification) according to DIN 13277:2022-05

**Definition:** Documented proof that critical equipment and systems in accordance with the set requirements in the whole workspace under current working conditions (with product) provide the requested services

The calibration described above is carried out under real conditions on site. Optionally, the measurement can be carried out in a loaded or unloaded state. The measurement evaluation, including graphical representation, is made in written form. The values must not exceed the limits specified in DIN 13277:2022-05.

exceeded. **(Other measuring methods possible on request)**