

Freeze Dryer

PROLIO-4000 VHP



- New tool for pilot or R&D freeze-drying
- 0.4 m² shelf area
- Shelf fluid circulated cooling and heating
- - 90 °C condenser coil temperature
- Pneumatic vial cap stoppering system as standard
- 50 recipes, each with up to 50 segments
- Air-cooled compressor refrigeration system
- Vacuum pump built-in frame
- VHP decontamination ready

Vacuum & pressure



Temperature



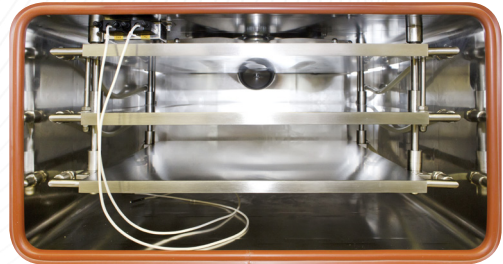
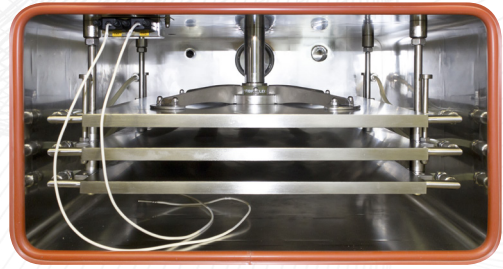
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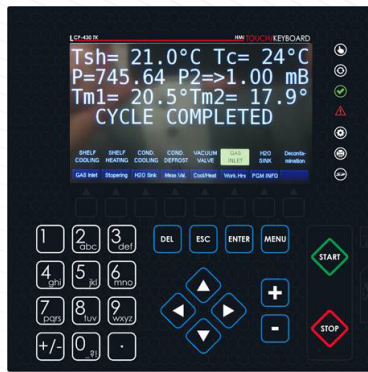
Device Specifications:

- Perfected temperature control on shelves
- Smooth and easy to clean
- Shelves and chamber made in AISI 316
- Condenser with transparent cover
- Condenser made in AISI 316
- Exterior made in AISI 304
- Fully transparent door for product and process observation
- Vacuum control function
- VHP decontamination ready:
 - chamber decontamination
 - chamber and condenser decontamination



Technical Data:	PROLIO-4000 VHP
External dimensions (WxDxH)	990 mm x 1385 mm x 1795 mm
Chamber dimensions (WxDxH)	580 mm x 530 mm x 300 mm
Ice condenser performance	8kg / 24h
Ice condenser temperature	- 90 °C
Ice condenser defrost	Electrical
Number of shelves	2 working + 1 guardian stoppering
Shelf size (WxD)	450 mm x 450 mm
Shelf surface	2 x 0.2 m² = 0.4 m²
Shelf spacing	max 70 mm (stoppering fully open) min 30 mm (stoppering fully closed)
Shelf temperature range	- 40 °C ... + 60 °C
Shelf temperature stability	+/- 0.1 °C
Shelf temperature uniformity	+/- 0.5 °C
Temperature set resolution	0.1 °C
Shelf cool down rate	From + 40 °C to 0 °C ... 18 min From 0 °C to - 40 °C ... 45 min
Heat up rate	From - 40 °C to + 40 °C ... 50 min
Cooling	Air cooled compressor system
Heating	Electrical
User interface	Fully programmable 50 recipes each with up to 50 process steps
Software	Windows compatible History & full remote control via virtual user interface
Door	Fully transparent single handed closing with el. lock
Power supply	3 x 400V / 50 Hz / 26.5 A
Wattage (W)	11000
Interface	RS 232 / USB
Temperature probe	PT-100 – shelf temperature PT-100 – condenser temperature PT-100 Material 1 PT-100 Material 2
Vacuum probe	Pirani - chamber Pirani - vacuum pump (optional)
Weight	480 kg

User Interface:



Dimensions:

