

# CryoPump 2000A

## Automatic LN<sub>2</sub> Dispenser

CryoPump 2000A is an automatic liquid nitrogen dispenser, to discharge liquid nitrogen from dewar to the application.

CryoPump 2000A is an ideal device to cool detectors of Bruker or Shimadzu Fourier Transform Infrared Spectrometer (FTIR), and compatible with most FTIR detectors.



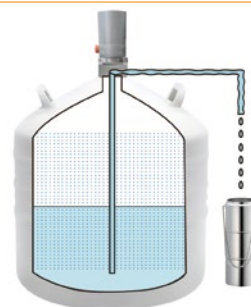
### Features

- Time interval can be preset for automatic fill
- Gentle liquid nitrogen flow, free of splashing or vibration
- No direct contact with liquid nitrogen for safety
- Full automatic control for easy operation
- Low evaporation rate during standby
- Can be connected to a computer for monitoring and data record
- Compatible with Antech CryoTrans 35P (standard) or CryoTrans 50 (customized) liquid nitrogen dewar

### Working principle

By heating liquid nitrogen in bottom of the dewar, an overpressure is built inside of dewar, to allow liquid nitrogen rise out of the pipeline and create a gentle liquid flow.

Filling time interval is adjustable, to match holdover time of detector. The filling flow is stable and gentle. As soon as the detector is full, the filling stops.



## Controlling System

Touch screen controller on top of pump, displaying running status. All parameters can be set on touch screen, which is convenient to use.

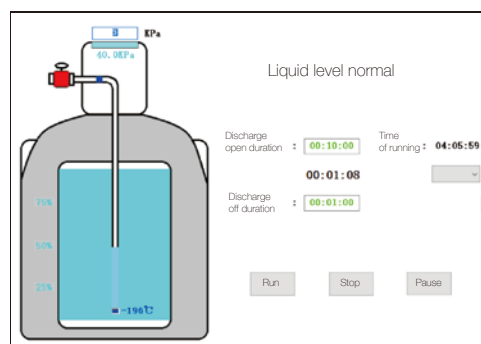
- 1.Td: temperature of Dewar (liquid nitrogen source)
- 2.Setting
- 3.Pressure value
- 4.Liquid lever value
- 5.Wi-Fi status
- 6.Temperature sensor failure
- 7.Running information



Control on PC:

CryoPump 2000A is also supplied with controlling program for computer, to monitor its working status and make settings according to the demand.

Therefore, CryoPump 2000A offers the remote control without operator on site.



## Specification

Model	CryoPump 2000A
Static evaporation rate	< 0,5 liters per day
Flow rate	Pre-set on 4KPa (adjustable)
Maximum working pressure	< 300 KPa
Reaction time	+/- 1 minutes for cooling down the fill line (with 1.6 meters fill line)
Power connection	100-240V AC with supplied power supply, the operating voltage is 24V
Power consumption	average 10W, during pumping 50W
Standard fill line	6.25 mm OD, 4 mm ID PTFE tube, with 32mm foam insulation
System includes	Pump, fill line 1.6 m, phase separator, power supply, cables, 1 level sensor 1 temperature sensor, PC software.
Working modes	Automatic fill control with timer (1 sensor)
External control	5 volt signals for ON, OFF and RS232 signals for ON, OFF
PC software	Monitor software, to monitor pump and data logging
Alarms/warning acoustical/ visual / mechanical	Dewar empty, Dewar 5 liters LN <sub>2</sub> left, broken sensor(s), frozen alarm, mechanical overpressure protection valve.
Options	Adaptor with sensor for Bruker detectors Adaptor for Shimadzu AIM8800 or similar Custom built adaptor to fixate sensor(s) on application Transport trolley 5 wheels (10 cm height) Stand for pump (when Dewar is refilled)
Net weight(kg)	3.5
Dimensions(mm)	210*240*750