

# Operating Instruction & Manual

## Alagonia-8 pump unit



Version 1.5  
2018 February

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## 1. Pre-face

Stand-alone pump for supply of either air under pressure or vacuum – **not both at the same time!**

### 1.1 Product purpose

- Pump for supply of air under pressure.
- Pump for supply of vacuum.

## 2. Device Overview

The Alagonia is a standard product designed and manufactured by [www.perfusecell.com](http://www.perfusecell.com)

Alagonia is housed in a Hephaestus U2 cabinet. The front panel is equipped with:

1. 110-230 VAC power inlet, IEC standard male **with ground**, max 1 amp 5x20 mm fuse.
2. 8 mm hose one-touch fitting for pressure.
3. 8 mm hose one-touch fitting for vacuum.

Important procedure to follow before any Power-On, start-up:

1. Insure correct power cabling with correct ground from wall power plug to Alagonia.
2. Insure the combined intake filter / noise damper is mounted on the free port fitting.
3. Alagonia-8 is on the pressure side equipped with an electromagnetic valve releasing pressure when turned off. The valve is closed during operation and open when pump is shut off.

General precautions:

- Newer block rear panel against a wall. Avoid blocking functionality of the fan.
- If Alagonia is used as a vacuum source, then the pressure port is to be equipped with a noise damper, **clean filter** fitted onto the 8 mm one-touch fitting.
- If Alagonia is used for supplying pressurized air then the vacuum port is to be equipped with a noise damper, **clean filter** fitted onto the 8 mm one-touch fitting.

## 2.1 Alagonia internal design

Important components inside Alagonia are:

- One [www.electroad.es](http://www.electroad.es) model EVO10 dual rubber diaphragm pump driven by a fixed RPM asynchronous motor for either 110 or 230 VAC. **Don't mix up the voltages !!!**
- For temperature control one constant operating Sunon 70 m3/hour MagLev magnetic bearing axial ventilator.
- Pressure releasing valve for easy start up.

## 2.2 Requirement

The system must be properly installed and connected in accordance with the specifications. Make in particular sure that the wall power plug has a **ground connection** fully functional.

## 2.3 Maintenance

Inlet or exhaust noise damper, filter must be exchanged each 2.000 hour operation.

## 2.4 Specification – 230 VAC

Product specifications pn 43230-8

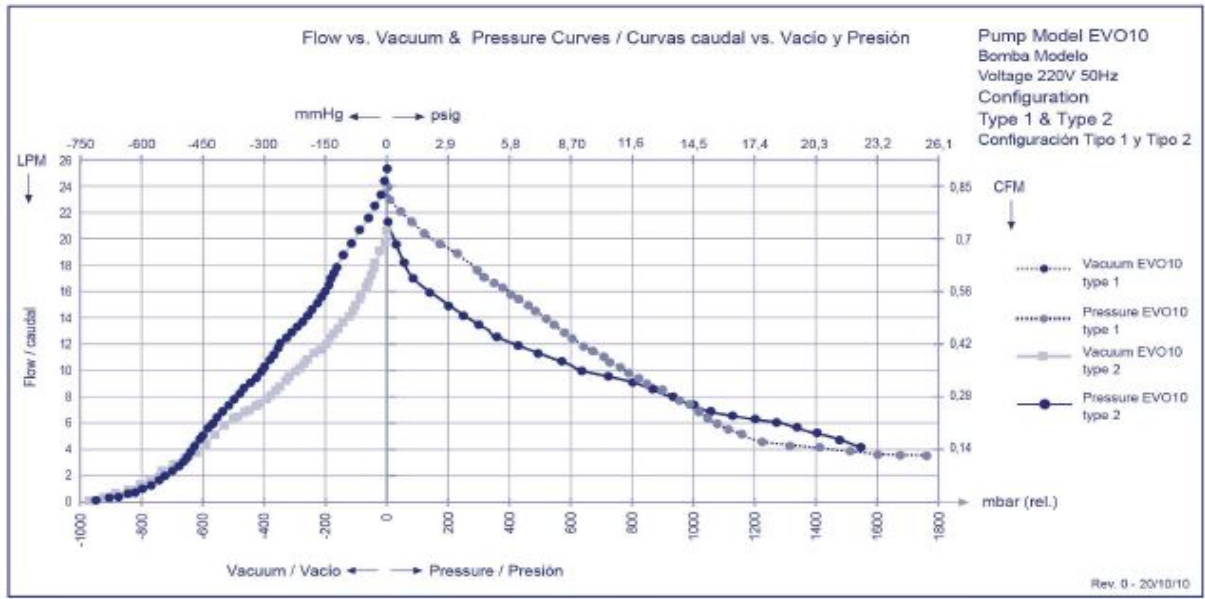
Product, model name	Alagonia-8
Purpose	Vacuum or pressure
Max capacity vacuum, nl/min/ + 0,1 Bar	4
Rated capacity, nl/min/ 1 bar	8
Drive gas pressure	Maximum 1,2 Bar
Drive gas vacuum source	<0,1 bar absolute
Power supply	230 VAC, 0,4 amp, 50 Hz, 100 watt
Noise level, dBa	<60
Duty cycle	100%
Orientation	any
Life time, estimated, hours	20.000
Cabinet size and material	U2 – AISI304
Weight, kilo	6,5

## 2.5 Specification – 110 VAC

Product specifications pn 43110-8

Product, model name	Alagonia-8
Purpose	Vacuum or pressure
Max capacity vacuum, nl/min/ + 0,1 Bar	4
Rated capacity, nl/min/ 1 bar	8
Drive gas pressure	Maximum 1,2 Bar
Drive gas vacuum source	<0,1 bar absolute
Power supply	110 VAC, 0,8 amp, 50-60 Hz, 100 watt
Noise level, dBa	<60
Duty cycle	100%
Orientation	any
Life time, estimated, hours	20.000
Cabinet size and material	U2 – AISI304
Weight, kilo	6,5

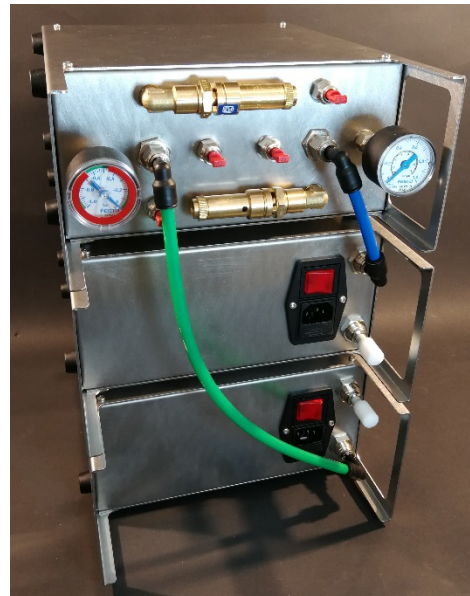
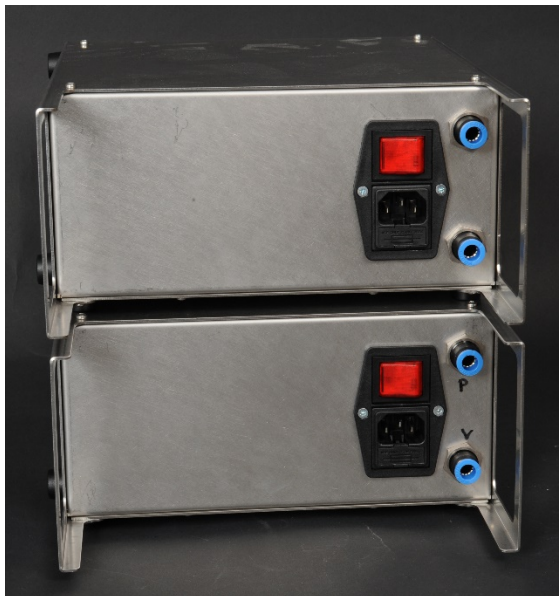
## 2.6 Performance diagram



*Pressure relative to volume for the EVO10 pump inside Alagonia. NOT operating both pressure and vacuum at the same time! Pressure cannot be delivered if the pump cannot suck in air!*

## 2.7 Operation

Assuming a correct assembly of all systems, connections, instruments, the 1,2 bar over-pressure safety regulator in both Sarpedon and Clotho insure safety and a minimum of gas noise.



*Alagonia and Sarpedon are designed to interconnect. If both vacuum source and pressure source is needed, then two Alagonia-8 easily supply via 8 mm coloured tubing to one Sarpedon unit.*

**PerfuseCell**