



# Flamco

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## Vacumat Eco

Technical Information



The quality of the water determines the performance of cooling and heating systems. A system with oxygen-rich water works less efficiently. Oxygen penetrates systems in various ways, resulting in corrosion and the formation of sludge. In turn, this produces resistance losses, additional wear and tear, unnecessary faults, disruption to the systems, reduced pump performance and irritating noises. Consequences: a lack of comfort, unnecessary loss of energy and a shorter service life of the system. It is therefore important to deaerate as quickly and efficiently as possible.

### **Vacumat Eco**

This pressure-temperature controlled degasser degasses extremely accurately and effectively. The Vacumat Eco degasses at least seven times faster through the much greater and fully continuous degassing capacity. Removing gases more quickly limits as much damage to the system as possible, avoids unnecessary faults and expensive repairs, and extends the life of the system. The Vacumat Eco is also eight times more energy efficient than the deaeration systems currently available on the market.

### **How does it work?**

The Vacumat degasses the installation using vacuum and can be set to three different gas content modes in the installation, namely 15 ml/l, 12 ml/l, 8 ml/l (in accordance with VDI 2035 and 4708). Degassing is carried out continuously using a variable speed pump. In addition, this device will provide automatic water back-up, which will itself be degassed before being re-injected into the installation. It can be placed in installations with a variable pressure expansion vessel or a pressure maintenance group (in the latter case the automatons will be connected to each other to ensure communication).

### **What is the device made of?**

The Vacumat consists of a variable speed pump module, a microprocessor control unit with digital display (permanently indicating the operating pressure, fluid temperature, degassing mode status, water top-up status), a vacuum tank topped by a purging device and a pressure switch that controls the gas content of the installation, a pressure sensor that controls the installation and a second pressure sensor that controls the vacuum vessel, a tank level switch (prevents the pump from running dry), a temperature sensor and finally a three-way valve.

### **What happens once the network is degasified?**

As soon as the gases have been extracted by the degassing automat and checked by the pressure switch located on the purging device, the control unit will take the decision according to the programmed parameters (Low, normal or high degassing) to continue the cycle or to go into standby and periodically check the gas content of the installation.

The standby mode can also be decided by connecting the dry contact located on the control unit, which will make it possible to disable remote degassing or interrupt it if the circulation pumps are stopped (to avoid inefficient degassing). During the day before, the water supply will always be functional.

The assembly is ready to be connected hydraulically (connections with a ball valve waiting to be installed and from the installation) and electrically.

## How to select the right Vacumat model?

There are three different models of Vacumat:

- Vacumat 300 (0.6 - 2.7 bar)
- Vacumat 600 (0.8 - 5.4 bar)
- Vacumat 900 (0.8 - 8.7 bar)

Depending on the operating pressure of the network, the Vacumat corresponding to this operating range must be selected.

### Example:

For a heating or cooling network that operates at a working pressure of 3 bar, a Vacumat 600 must be chosen (operating range 0.8 to 5.4 bar)

For more information on the Flamco Vacumat Eco, please contact Thibault Bruneliere via: [thibault@kekelit.co.nz](mailto:thibault@kekelit.co.nz) or +64 27 526 2090

