



### Heating: the certainty of complete disinfection

The ECOSTER drainwater disinfectant stands out from other disinfectants because it guarantees effective disinfection and low operating costs.

Good quality water is one of our planet's scarcest raw materials. In a modern nursery, which is operated on a sustainable basis, a closed water cycle is an absolute must. This is because the discharging of excess drainwater is irresponsible, both in relation to society and the environment. It is also a waste of water and fertilizer.

## Drainwater disinfectors

ECOSTER

8.04 EN



## Complete disinfection

In order to avoid the spread of plant diseases and infections in the business, disinfection of the drainwater in a closed cultivation system is absolutely vital. Van Dijk heating has been supplying the ECOSTER drainwater disinfectors for this purpose since 1990. This ECOSTER product works on the basis of the heating principle and is guaranteed to kill 99.9% of all bacteria, viruses and fungi.

### Duration and temperature

Disinfection effected on the basis of the heating process must meet two conditions: the water must be kept at a certain temperature for a certain length of time. Scientific research has established two criteria:

- A) Heating at 95°C for a duration of 30 seconds.
- B) Heating at 85°C for a duration of 180 seconds.

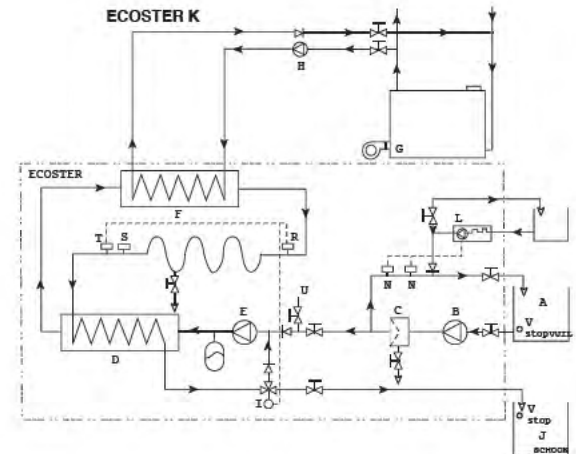
We apply these treatments (A or B) in our systems.

In the ECOSTER drainwater disinfectors, drainwater will be heated up to the temperature required as part of a continuous process and will be kept at this temperature in a so-called buffer vessel for a certain length of time. After this process, the disinfected drainwater will throw out the heat produced to the incoming cold drainwater via a heat exchange. In a continuous process, this makes it possible to achieve energy-saving disinfection.

## Different types

Van Dijk heating is able to supply ECOSTER drainwater disinfectors in capacities ranging from 1.5 up to and including 50 m<sup>3</sup>/hour. Many different models are available and they can be used in combination with any type of heating system:

- Type ECOSTER with a gas burner for natural gas, propane or LPG
- Type ECOSTER E with electric heating elements
- Type ECOSTER K with the central heating system for the boiler, combined heat and power system or surge tank as the source of heat.



## European approval

**CE** The ECOSTER drainwater disinfectors supplied by Van Dijk heating are in full compliance with ISO publication 87 Quality requirements for water systems in horticultural greenhouses. KIWA has awarded the CE quality mark for the ECOSTER equipment and process.

Especially for the Russian market, the Russian Ministry of Health and Social Development has issued a so-called 'Letter of Refuse' for all ECOSTER models. Because of the GOST-R certificate attained by Van Dijk heating, ECOSTER drainwater disinfectors can be imported into Russia without any problems at all.

## ECOSTER drainwater disinfectors benefits

- 99.9% disinfection of your drainwater
- All oxygen and fertilizer are retained
- The transmission value of the water is not important
- A long working life with low maintenance costs
- A simple and verifiable process
- Energy-saving
- The heating process is an unchallenged disinfection process; Louis Pasteur was using the same process right back in 1862
- Applicable anywhere in the world