

# UVC

UV radiation makes it easy to combat algae and bacteria.

## UV in ponds:

The UV force on (in)organic material is determined by the strength of the UV radiation and its duration. In simple terms, for a lamp that is twice as strong, half the irradiation time produces the same effect. A lamp is normally assessed on the basis of the radiation dose. The radiation intensity of a good lamp does not decrease much during its lifetime (maximum 20-30%).

Algae will already die off from a relatively small radiation dose. Dead algae clumps together and can then easily be removed with a filter. A significantly higher radiation dose is needed to kill (i.e. inactivate) bacteria. This radiation dose also differs per type of bacteria. So it is important to adjust the desired UV capacity to the application and circumstances.

Air-Aqua supplies a very complete range of T5 amalgam lamps of varying lengths (357–885 mm) and fully cast UV-units. Air-Aqua also has all corresponding lengths of quartz glass available in two different diameters (ø23 and ø25 mm). Air-Aqua also supplies almost all available Philips UV lamps. For a complete and current overview: [www.air-aqua.com](http://www.air-aqua.com).

In addition to the to UV lamps, Air-Aqua offers electronic ballasts for different applications. The Air-Aqua ballast is characterized by the wide range of T5 amalgam lamps that can be connected (40-105 Watt): this makes the ballast widely applicable. The ballast has an hour counter so that the user knows when the lamp needs to be replaced. There is also a built-in alarm that detects whether the lamp is still operating correctly.

- very high efficiency and therefore energy-efficient
- lamp life 13000 – 16000 hours
- stable UV radiation during service life

## SPECIFICATIONS OF THE SUPER-UV AMALGAM

| Dimension (mm) | Degree of protection | Cable length (m) | Pond (m <sup>3</sup> ) | Swimming-pond/pool (m <sup>3</sup> ) | Max. live (hour) | Power (W) | UV output @254 nm(W) |
|----------------|----------------------|------------------|------------------------|--------------------------------------|------------------|-----------|----------------------|
| ø25 x 440      | IP68                 | 5                | 25                     | 35                                   | 13.000           | 40        | 11                   |
| ø25 x 560      | IP68                 | 5                | 30                     | 45                                   | 13.000           | 55        | 15                   |
| ø25 x 730      | IP68                 | 5                | 35                     | 60                                   | 13.000           | 75        | 22                   |
| ø25 x 940      | IP68                 | 5                | 60                     | 80                                   | 13.000           | 105       | 35                   |



# Heat exchangers

These stainless steel heating coils are made for full immersion in the water. This avoids unnecessary resistance and guarantees perfect heat transfer.

- Easy to connect to domestic boilers, district heating system, heat pumps or solar collectors
- Full heat transfer to the water
- No loss of pumping capacity

Air-Aqua has two lengths available, for heat transfer of about 15 kW and 30 kW respectively at a temperature difference of approx 50 °C.



# Springless Non-Return Valves

These virtually resistance-free non-return valves are ideal if you do not want water to flow back. The pump encounters very little counter-pressure because the valves have no spring that presses the valve disc against the valve seat. As a result, the pumping losses are negligible.

The models can be supplied in both metric and imperial units. The 32 (1"), 50 (1½"), 63 (2") and 90 (3") mm models are all supplied with a coupling on both sides. They are therefore easy to disassemble and you do not need an extra 3-part coupling. The 110 (4") mm version can be bonded directly, without couplings.

The internal connections are:

- 32 mm / 1" valve - 27 mm
- 50 mm / 1½" valve - 42 mm
- 63 mm / 2" valve - 54 mm
- 90 mm / 3" valve - 75 mm
- 110 mm / 4" valve - 102 mm

