

## AQUAFORTE KOIZO<sup>3</sup> OZONE CELL

### The new Ozone Cell is our long-awaited, revolutionary ozone product!

Ozone has traditionally been a topic of hot debate among professional koi keepers. The fact is that ozone possesses loads of highly valuable characteristics, it removes colourants from the water; it converts toxic nitrite into relatively harmless nitrate; it removes bacteria, viruses and other pathogens; it kills green algae; and it raises the oxygen content of the water.

To date, however, ozone has been prohibitively expensive. Nor has its use been 100% safe. Conventional ozone generators produce ozone from the oxygen in the air. In order to do its job, the ozone then needs to be mixed with water, in a process that requires a huge amount of energy. Because some of the ozone goes to waste, the generator produces more ozone than is strictly required, to make sure that enough of it reacts with the water. As a result, too much ozone may end up in the pond water - a dangerous overdose for the fish living in the pond. In order to prevent this, a second unit needs to be installed alongside the ozone generator that is capable of breaking down the excess ozone. All in all, it's a process that is not just pretty complex, but extremely expensive to boot.

Alternatively, ozone can be produced with the aid of UV lamps like a UVOX lamp. It does have the advantage, though, of being less dangerous than generator-based production, although it still involves producing ozone from air.

### The AquaForte KOIZO<sup>3</sup> Ozone Cell, on the other hand, produces ozone from WATER!

A process of electrolysis is used to break down water into its two component parts: oxygen and hydrogen. The Ozone Cell also releases single oxygen atoms (i.e. O rather than O<sub>2</sub> atoms) that instantly combine with oxygen molecules (O<sub>2</sub>) to form ozone (i.e. O<sub>3</sub>). Ozone is a highly reactive substance and tries to revert straightaway to its original form, thus causing the extra oxygen atom to react with an organic substance such as nitrite, a colourant, algae or a virus, which are then 'incinerated' by oxidation. The substance that remains after this oxidation process is pure oxygen. The ozone leaves the Micro Ozone Cell in the form of tiny bubbles of gas. This is the great advantage of a successful water-based reaction: the smaller the particles, the better.

### Advantages of the KOIZO<sup>3</sup> OZONE-CELL

- Slow development of an increased redox-potential – optimum levels of all water parameters are maintained through the continuous presence of oxygen.
- Permanent micro-disinfection prevents a one-sided increase of e.g. pathogenic germs like *Aeromonas salmonicidae*, that have a detrimental effect on the equal expansion of an aerobe environment.
- No immediate threat to fish from increased ozone input compared to an ozone generator with electrical discharge.
- Toxic reactions from overdose levels do not occur.
- No surplus ozone produced.
- No personal risks in enclosed filter areas, as tolerated levels are never achieved.
- Capacity can be adapted according to pond size by using multiple OZONE-CELLS.
- Maintenance, requires only the replacement of the cell cores (2 - 4 times a year, dependant on water quality/hardness/pollution).
- This method of ozone production does not require dried air which produces sulphuric acid in the electrode chamber that often causes the pH to drop into the acid range.
- Ozone produced by electrolysis is highly efficient and effective.

### Product description KOIZO<sup>3</sup> OZONE-CELL

For the KOIZO<sup>3</sup> OZONE-CELL the water to be treated is also the fuel source. No other supplements are required. To produce ozone, only electrical energy is required to supply the cell core with power. Dependent on water quality (hardness/pollution) the cell core needs to be replaced (on average 3 - 4 times a year). Changing the cell is a simple process, similar to changing batteries. Replacement cell cores are available in an economically priced spares set. The Ozone-Cell comes in an easy to install 1½" male threaded fitting. This fitting is easy to install with an 1½" female threaded T-piece. The Ozone Cell comes with transformer and control box which indicates the status of the ozone cell ("cell in operation", "replace cell" and "short-circuit"). As there is no maximum flow rate it can run with any pump speed. In case of extreme "hard" water (GH higher than 20°DH) it is not recommended to use the ozone cell due to the high maintenance of cleaning the cell from heavy calcium deposits.

TYPE	ARTNR.	EURO incl. 19% VAT
Ozone Cell KOIZO <sup>3</sup> 4 cells	SL206	580,00
Ozone Cell cores (5 pcs)	SL100	105,00

