Company flyer

# Aquaworx

clear solution

Aquaworx

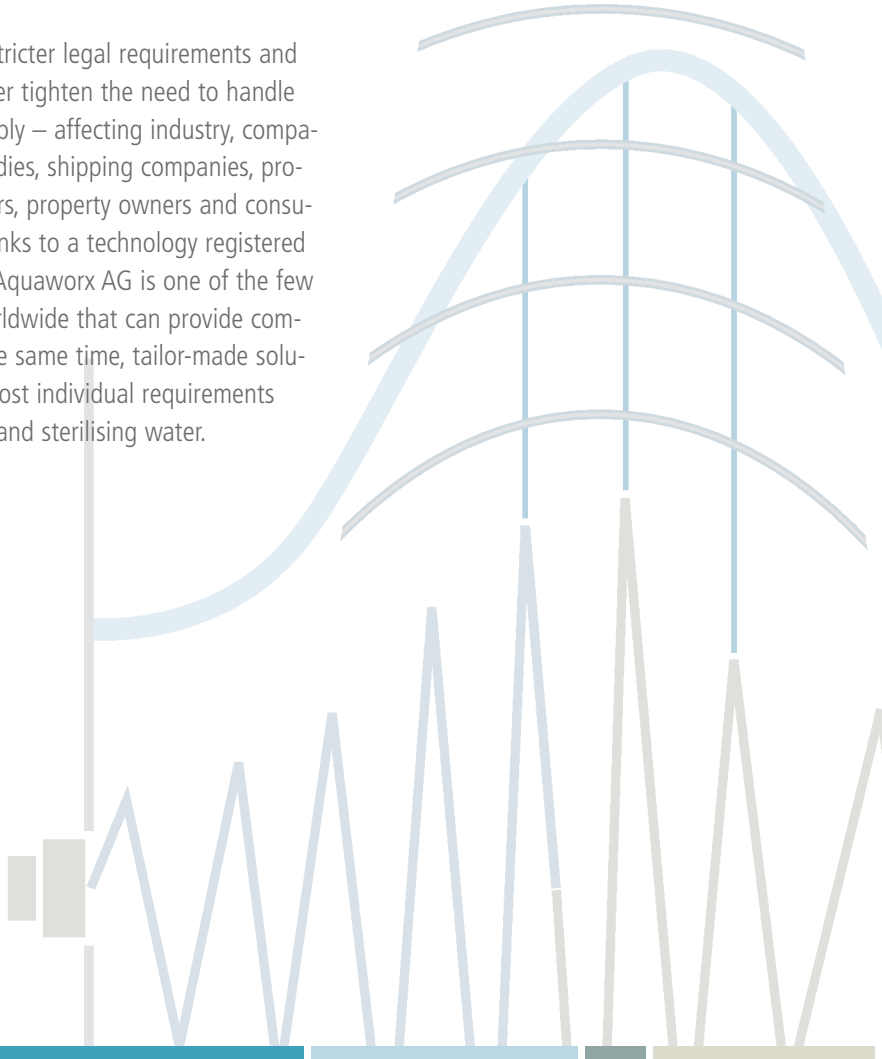
# Aquaworx
# system solutions for special applications

## :: Water – the limited resource

Water is one of the most valuable of the earth's resources. Yet more than 4 thousand million people have inadequate or no access to clean water, 700 million fall ill because of contaminated water each year. The problem does not only affect developing and newly industrialising countries, but also, to a large extent, industrial countries.

The "raw material" water has become a cost factor that can no longer be ignored in industrial production and various other market segments. Increasing energy prices combined with exponential growth in demand for water make conservative handling of the resource necessary in order to secure competitiveness.

In the future, stricter legal requirements and rules will further tighten the need to handle water responsibly – affecting industry, companies, public bodies, shipping companies, property developers, property owners and consumers alike. Thanks to a technology registered for patenting, Aquaworx AG is one of the few companies worldwide that can provide complex and, at the same time, tailor-made solutions for the most individual requirements when filtering and sterilising water.



# Aquaworx
# Disinfection and Filtration

Drinking Water | Process Water | Ballast Water | Waste Water | Legionella Management

## :: Company

**Solutions by Aquaworx combine constant high performance with long-term efficiency that has yet to be equalled.**

We make a substantial contribution to sustainable resource management through the development and production of technologies to disinfect and filter water and other liquids. The functionality of the platform technology is based on the ingenious combination of UV-radiation and ultrasound in one system, so that germs are effectively eliminated and their multiplication prevented.

Our developers have succeeded in employing ultrasound and UV-radiation efficiently whilst meeting the demands of our customers – a world-wide first. The main advantages are:

- Low maintenance
- Requires little space
- Easy to operate
- Fast return-on-investment due to low operating costs
- 15% higher performance compared to conventional technologies
- Flow-through sizes from 10 m³/h to 8,000 m³/h
- Ecologically sound

Among the main possible uses in the water and filtration sector are: the disinfection of drinking water and wastewater purification, the industrial filtration of process water (e.g. cooling cycles), the treatment of ballast water in the nautical sector, the treatment of pool, drinking and household water in holiday homes, as well as legionella prophylaxis in homes for the elderly, hospitals and hotels.

**The Aquaworx vision:**

*»Sufficient clean water; accessible and affordable for everyone«*

The combination of UV-light and ultrasound unites the advantages of both technologies in a way unknown until now.

## :: Water disinfection through UV-light

The disinfection of water is carried out by utilizing ultra-violet light to damage the DNA of micro-organisms.

The process of UV water purification is common knowledge and already in use worldwide.

The problem in the past was the increasing drop in power due to reduced radiation power. This is caused by the Biofilm formed on the casing tube of the UV-lamp.

**Solution:**
The combination of UV-light and ultrasound.

## :: Ultrasound – how does it work

Through the intensive near-field exposure to radiation by ultrasound, germ clots and amoebas which serve as host cells for legionella are damaged. As a result of this pre-treatment, the germs can be reached more effectively by the UV-light.

The ultrasonic waves clean the casing tube of the UV-lamp and the reactor walls.

In addition, the ultrasonic sound prevents the development of bio-film on the casing duct of the lamp.

**Advantage:**

- Higher performance (15%)
- Lower energy consumption
- Less maintenance
- Without the use of chemicals

# Aquaworx
## Disinfection and Filtration

| Product | Performance | Impact | Application | Fig. |
|---|---|---|---|---|
| :: AquaTriLight | ■ 10 m³/h<br>■ 100 m³/h<br>■ 500 m³/h<br>■ 1000 m³/h<br>■ freely scalable up to 8000 m³/h | ■ Ultrasonic<br>■ UV-light | ■ Drinking water disinfection/ water purification (to DVGW)<br>■ Process water treatment<br>■ Waste water treatment<br>■ Legionella management |  |
| :: MicroSintFilter | ■ 10 m³/h to 8000 m³/h | ■ Ultrasonic<br>■ filter module | ■ Drinking/waste/process water filtration<br>■ Filtration of chemicals<br>■ Duplex- & Multiplex Operation<br>■ Microfiltration (0,1µm)<br>■ Particle and coarse filtration (200µm) of fluids<br>■ Ideal add-on for AquaTriLight |  |
| :: AquaHomeCare | ■ 10 m³/h | ■ Ultrasonic<br>■ UV-light<br>■ membrane filter | ■ Drinking water disinfection/ water purification<br>■ Legionella prophylaxis<br>■ Pool disinfection<br>■ Sand filtration (optionally)<br>■ Hot water circulation disinfection<br>■ Dechlorination/decalcification (optionally)<br>■ Cistern water disinfection |  |
| :: AquaTriComb | ■ 250 m³/h to 8000 m³/h | ■ Ultrasonic<br>■ UV-light | ■ Ballast water disinfection and filtration |  |
| :: AquaLegioCon | ■ 10 m³/h<br>■ 100 m³/h<br>■ 500 m³/h<br>■ 1000 m³/h | ■ Ultrasonic<br>■ UV-light | ■ Integrated Legionella Management System<br>■ Drinking water disinfection<br>■ Hot water disinfection<br>■ Purification of pipework |  |

## :: Production & Distribution

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