

A close-up, underwater photograph showing a diver's leg and fins moving through clear blue water, creating a trail of bubbles and ripples. The scene is dynamic and captures the movement of the diver.

PURE WATER BY ZAHNEN

REVOLUTIONARY
INNOVATIVE
PIONEERING





Everyone has a right to clean water –
with the development of various solutions, we realise
this vision step by step.

The technology of the various Pure Water by zahnen processes
is installed in regular shipping containers.

This makes our basic design highly adaptable and easily
retrofitted to any wastewater treatment plant – plug & play.

The modular container-based solutions can be linked to the
Control Cloud by zahnen so that the data are always available
for online monitoring and evaluation.

SOLUTION APPROACHES PURE WATER BY ZAHNEN

1

WITHOUT ANY ADDITIONAL FILTER TECHNOLOGY

With **Pure Water by zahnen^{MP}** microplastic particles can be removed completely and without residue.

2

COMBINATION OF PROVEN PROCESSES

Pure Water by zahnen^{SE} stands for the elimination of trace contaminants (drug residues, X-ray contrast media, pesticides, etc.)

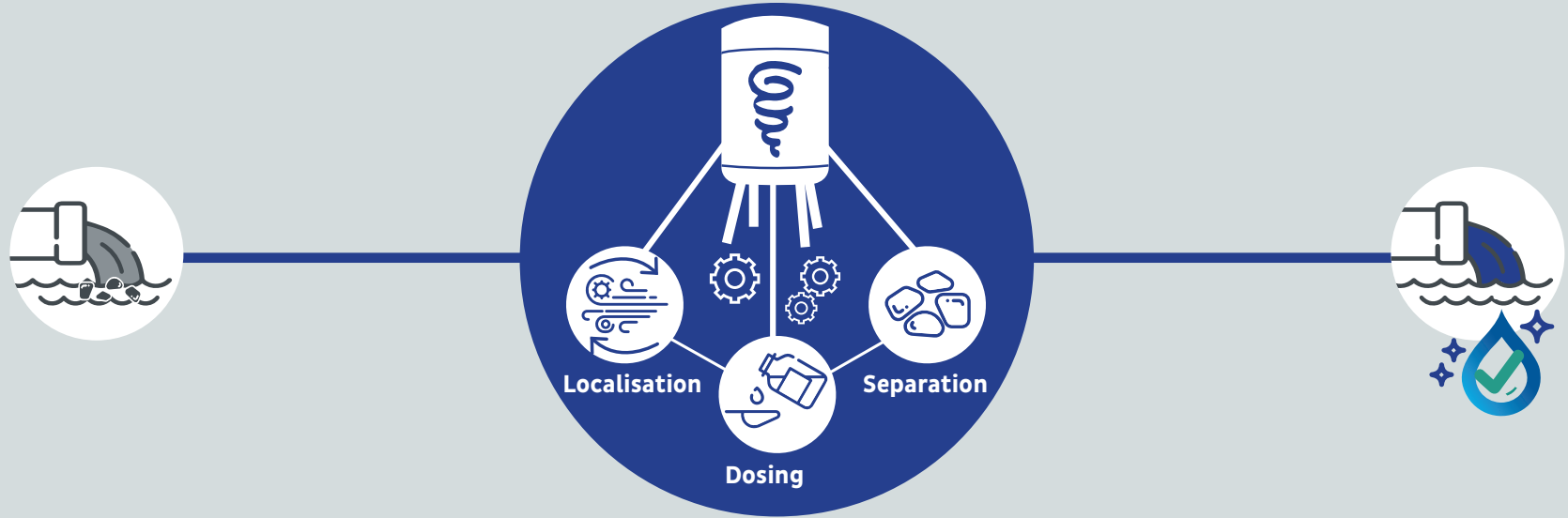
3

PREVIEW FOR OUR RESEARCH WORK

Pure Water by zahnen^{PSM} – Furthermore, we are currently developing a mobile system for the decontamination of pesticide-laden rinse water from agricultural equipment.

Their modular nature allows the container-based solutions to be implemented exactly where the contamination occurs.

A LIFE WITHOUT MICROPLASTICS – THIS IS HOW THE INNOVATIVE SOLUTION WORKS!



LOCALISATION

Through the innovative combination of stirring and aeration, all microplastic particles in the water converge in one place.

DOSING

Agglomeration agent is added to the water with precise amount and timing.

SEPARATION

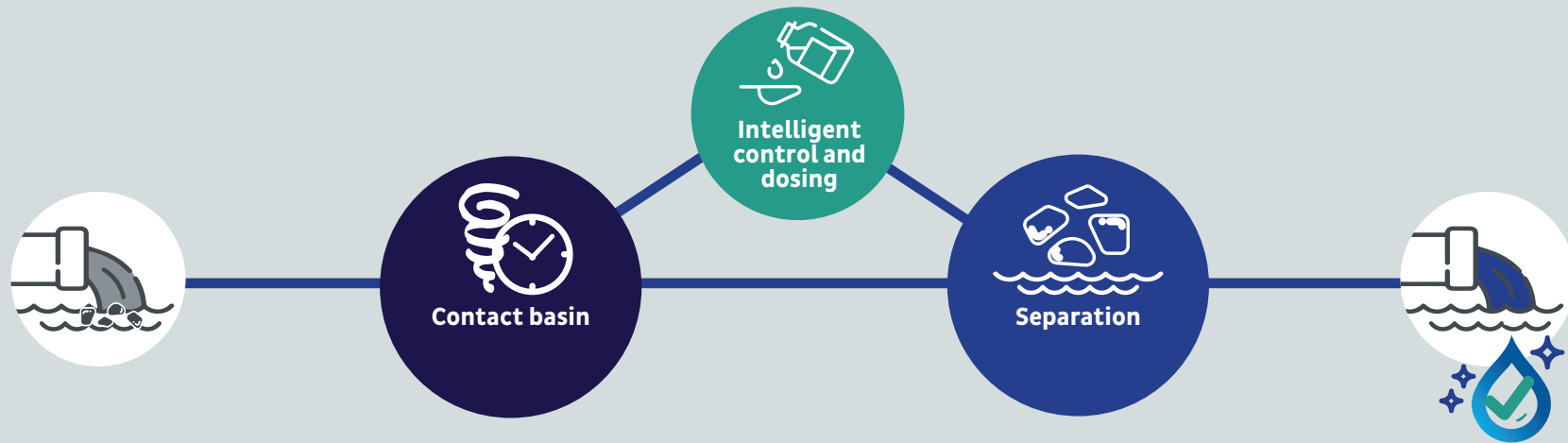
The centimetre-sized agglomerates can be completely removed from the treated water without leaving any residue.

PURE WATER BY ZAHNEN^{MP}

WHAT MAKES OUR PROCESS SO SPECIAL?

- 💧 Filterless microplastics removal
- 💧 Environmentally friendly process
- 💧 Mobile container-based solution can be used worldwide
- 💧 Scalable to the amount of water and to the exact degree of contamination
- 💧 Low operational cost achieves economical solution
- 💧 Increased environmental performance within environmental management systems
- 💧 High operational reliability through fully automated, monitored and documented processes
- 💧 Easy integration into existing processes
- 💧 Image gain for the wastewater treatment plant

A LIFE WITHOUT TRACE SUBSTANCES - THIS IS HOW THE INNOVATIVE SOLUTION WORKS!



DOSING

Powdered activated carbon is dosed precisely as required.

ADSORPTION

An optimal flow regime in the contact basin achieves optimal micropollutant removal with the powdered activated carbon.

SEPARATION

Filtration of the powdered activated carbon without residue through modern filter technology.

PURE WATER BY ZAHNEN^{SE}

WHAT SETS US APART FROM OTHER PLANTS OF THIS KIND?

- 💧 Efficient and environmentally friendly process for the elimination of trace substances
- 💧 Additional reduction of total suspended solids (TSS) and phosphorus
- 💧 Compact and mobile container-based solution can be used worldwide
- 💧 Low operating costs (low construction cost, small footprint, demand-driven dosing of powdered activated carbon (PAC) and precipitant)
- 💧 Advantages of PAC adsorption plant even for small wastewater treatment plants
- 💧 Increasing environmental performance within environmental management systems
- 💧 High operational reliability through fully automated processes

BECAUSE EVERYONE HAS A RIGHT TO CLEAN WATER!



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Find more
information here