



URBAN WASTEWATER TREATMENT PLANTS



Urban Water



Reuse and Drinking Water

TECHNOLOGY IN SUPPORT OF URBAN WASTEWATER TREATMENT

Our company

Salher supplies standard or customized solutions depending on the requirements of the project.

Our engineering department designs global solutions from water research and specifications of the installation to accommodate the design of the plant and manufacture.

Our main clients are from these areas:

♦ Small and medium populations

♦ Hotels and Resorts

♦ Hospitals and health centers

♦ Modular Camps

OUR PRODUCTS FOR URBAN WATER TREATMENTS

Pretreatments

- Manual, semi-automatic and automatic sieves with dehydration and compaction system and waste transport. Opening sizes from 0,25 to 30 mm.
- · Manual and automatic grease separators.

Pumping stations

- <u>Standard</u>. Readily available for wastewater and rainwater from 5 to 200 m³/h. Manufactured in accordance with standard UNE-EN-12050-1.
- <u>Customized</u>. We design solutions to meet the needs of wastewater pumping. Manufactured in accordance with standard UNE-EN-12050-1.

Secondary biological treatments

- WWTP with trickling filter.
- Activated sludge.
- Moving bed biological reactor (MBBR).
- Membrane bioreactor technology (MBR).





Helical screw screen TA-HEL

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Sludge dewatering by use filter bags FILSA

Tertiary treatments

- Filtration.
- Ultrafiltration.
- Disinfection.
- Reverse osmosis.

Purification treatments

- Treatments for contaminated surface water: physical and bacteriological treatment.
- Treatments for sea or brackish water: physical chemical treatment and bacteriological treatment.
- Unitary operations*: chlorination, coagulation, flocculation, settling, silex filtration, carbon filtration, anti-fouling, micro/ultra filtration, reverse osmosis, residual chlorination.
- * Modifiable processes according to the water analytics.

Sludge dehydration

- Thickeners.
- Filtering bags.
- Press filters.

Manufacturing of modular, compact equipment in GFRP and stainless steel

European certified equipment in accordance with ISO 9001:2008, UNE-EN-12566 and CE.

The structural and chemical resistance and hydrostatic proof are certified in accordance with UNE-EN-976 and 858. Installation available in remote areas, in above and underground or any other setting.





Modular and prefabricated wastewater treatment plants

Complete treatment lines for flows from 10 to $2.000 \, \text{m}^3/\text{day}$.

Manufacturing and mounting of reactors of 1.000 to 100.000l. Modular solutions with volumes suitable for maritime transport in standard containers 20' and 40'.

Variables considered in wastewater treatment: different sizes flows, water with different discharge levels, seasonable activity, restricted available space, isolated populations, low visual and environmental impact.

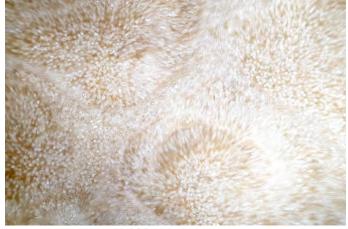
Our plants are designed for a quick installation and fast commissioning.

Compact lines for waste water reuse

We design and manufacture grey water reuse systems for responsible water resources use and consumption as well as rainwater collection.

Our equipment is in accordance with energy and sustainable efficiency certifications for an added value to buildings and real estate installations, making them easier to rent or sell.

Easy to operate. Staff training for plant maintenance is available.



MBBR biological reactor

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Automation

Control equipment available to ensure the correct maintenance and good quality of the water treated.

Control panel board of the plant: automaton available, SCADA with possibility of remote control and SMS alarms sending.

Purification plants

We provide technological solutions which meet the specific requirements of water for human consumption. Storage in containers or compact structures for a quick and efficient operation.

Compact plants can supply populations of up to 15.000 population equivalent.



Our services

Engineering and project management

- Project development.
- Study of treatment solutions.
- Improvement of existing plants.
- Complete design of new plants.

Design and consulting

- Sampling and discharge characterization.
- Study of solutions according to the available area, the degree of automation of the plant, the needed degree of sludge dehydration, etc.
- Our designs are adapted to the specific needs of the customer.
- Our purpose is to provide a full solution by choosing adapted equipment and instrumentation.

Manufacturing

- Fabrication of complete and / or modular plants.
- Our equipment is manufactured in GRP and stainless steel.
- All products are in accordance with ISO 9001:
- 35 years of experience in WWTP production.

Commissioning

- Technical assistance.
- Electromechanical and electrical control by our technicians.

Maintenance

 A qualified technical staff is in charge of maintenance and control.

Training courses and technical manuals

- Theoretical and practical training.
- Operation and maintenance manuals are provided with all our plants.





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