Solutions for the circular economy

Optimize your wastewater treatment plant
Finding the right path

More and more wastewater treatment plants are discovering the benefits of a circular, holistic approach to wastewater treatment. Cost savings, reduced environmental impact and new income streams from recovered resources are but a few.

Every wastewater treatment plant is unique and has its own set of challenges and opportunities. With our expertise in processing and our broad range of products, we can support your shift to a circular resource flow. Regardless of whether you are a contractor, designer or plant operator we can help you find the optimum solution for your specific project.
Many factors must be taken into consideration when building or revamping a wastewater treatment plant: lifecycle costs, the possibility of recovering valuable resources such as water and nutrients, environmental legislation, processing conditions, capacity requirements, investment costs, projected future demands, energy, polymer and disposal costs.

With Alfa Laval as your partner the process is simplified because you gain the dual advantage of access to leading wastewater expertise as well as one of the widest equipment ranges for wastewater treatment.

For contractors and plant designers, we give support in analysing your specific situation and suggest smart solutions for turning waste into value, optimizing lifecycle costs and meeting project requirements. This helps reduce technical uncertainties, while identifying components that will work well together for optimum plant efficiency at the lowest possible operating costs.
Process and product overview

Influent

Fat and grit removal

Primary clarifier

Thickening

Digester

Heating of anaerobic digester and pasteurization

Pasteurization

Heat recovery

Membrane bio reactor (MBR)

Sequencing batch reactor (SBR)

Conventional activated sludge (CAS)

Secondary clarifier

Tertiary treatment

Waste activated sludge

Primary sludge

Preheating

Dewatering

Solids containing valuable nutrients

Final effluent for water reuse
Filtration
- MBR membranes
- Cloth media filters for tertiary treatment

Biological wastewater treatment
- Package plants

Sequencing batch reactor
- Sequencing batch reactors

Thickening
- Drum thickeners
- Gravity belt thickeners
- Decanters

Dewatering
- Belt presses
- Decanters
- Plate presses

Heat exchangers
- Spiral heat exchangers
- Tube-in-tube heat exchangers
Our wastewater treatment experts are happy to assist contractors, designers and plant operators by giving advice on how to optimize operations, adopt a circular approach and maximize recovery of resources. Regardless of whether it is a municipal or industrial wastewater plant, new or old, we can help you:

- lower the total operating costs (energy, maintenance, etc.)
- maximize resource reuse (water, nutrients)
- reduce energy use, polymer consumption and disposal costs
- optimize cake dryness and effluent quality
- increase capacity
- minimize engineering and investment costs
- reduce installation and start-up costs
- ensure on-time project completion
- optimize investment and operational costs.

Products and knowledge for circular solutions
For the long run

Our obligation to you as a customer does not stop at delivery. Continuous service is critical for plant efficiency and low lifecycle costs. With a global network of service centres, spare parts distribution hubs and field service engineers, we support you whenever and wherever you need us.

If conditions change we can provide advice on how to improve operations and supply the necessary equipment upgrades. Our services also include training.

Performance Agreements, tailored to your needs, allow you to accurately budget service costs, while simultaneously maximising uptime, improving cost-efficiency and boosting performance.

The bottom line is the comfort and confidence that both contractors and operators get in choosing fully-integrated workable solutions from a single source; all backed by expert local maintenance and spare parts services.
Alfa Laval in brief
Alfa Laval is a leading global provider of specialized products and engineering solutions.

Our equipment, systems and services are dedicated to helping customers to optimize the performance of their processes. Time and time again.

We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuffs, starch and pharmaceuticals.

Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

How to contact Alfa Laval
Contact details for all countries are continually updated on our web site. Please visit www.alfalaval.com to access the information.