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MILK INDUSTRY



Water and wastewater
technology for the milk-
processing industry and
dairies



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Water and wastewater technology for the milk-processing industry and dairies

Wastewater quality and process concepts

Milk-processing businesses include dairies, milk farms, milk factories and milk industry firms as well as cheese dairies and drying facilities. The main areas in which wastewater is produced include the pretreatment, the actual production, the cleaning of pipes, tanks and basins, plant surfaces and parts of the operational buildings as well as in-house water treatment.

The quantity and degree of loading of the wastewater produced depends decisively on the product type and production quantity, the processing equipment within the production and in-house work assignments and specifications.

The wastewater of milk-processing businesses mainly contains protein, lactose, milk fat, cleaning products and disinfectants. Wastewater from this industrial sector is readily biologically degradable. Apart from the high organic load it has several production-specific particularities, which are decisive for targeted wastewater treatment.

The following **process steps** are used generally for direct discharge of **wastewater from the milk-processing industry**:

- Mechanical wastewater pretreatment
- Grease separation/flotation
- Storage and homogenisation
- Neutralisation
- Biological treatment
 - Anaerobic wastewater treatment
 - Aerobic wastewater treatment (SBR/MBR plants)
- MAP precipitation
- Filtration
- Sludge treatment and energy generation from biogas
- Waste air treatment
- Automation (E-I&C technology, process and remote monitoring, etc.)

We have the optimum solution

The **wks group** offers **turnkey, integrated solutions** and **individual concepts** for water and wastewater treatment in the **milk-processing industry**.

The optimum process technology is selected, taking into consideration the operational requirements, the need to minimise disposal quantities and energy consumption and/or to generate energy. This technology can be used for the respective wastewater composition and results in the required discharge limits.

Process engineering, mechanical engineering and automation: The **wks group** of companies unites all technical know-how required to implement technical industrial water treatment tasks.

From individual advice, development, to production, installation, commissioning, through to maintenance/service and optimisation, we work with strong partners.

The **wks group** supplies **products and plant components from its own production facility**. Here the focus is on fittings, pipes and vessels made of stainless steel. Experienced engineers, and specialised fitters and welders ensure effective project completion, from the production of individual products through to mechanical equipment for complete, turnkey plants. In all projects we guarantee reliability, on schedule completion and flexibility.



Range of services

- Turnkey plant construction
- Consulting and planning
- Process engineering
- Construction work
- Mechanical engineering
- Automation
- Installation
- Maintenance and service
- Training
- Optimisation
- Operation management

Range of products

- Mixing and balancing tanks/neutralisation
- Grease separators/flotation plants
- Anaerobic pretreatment of highly loaded partial flows
- Energy generation from biogas
- Aerobic biological treatment (incl. nitrification and denitrification, bio P) with SBR process
- MAP precipitation plant
- Chemical P precipitation
- Flocculation filtration
- Chemical metering and storage
- Sludge treatment
 - Sludge dehydration
 - Sludge thickening
 - Sludge drying



Our experience – your advantage

Our know-how acquired from almost **25 years' of successful water industry plant construction**, our knowledge, our technologies and innovations in **industrial water treatment** are the **guarantor** for an important part of **your economic business success!**

We develop and offer cross-product and cross-system solutions for new build, reconstruction and optimisation of **water and wastewater plants for the milk-processing industry.**

Your advantage: Our expertise in processing and mechanical engineering, automation systems, products and plants – we have precisely what you need or develop it for you!



Products and systems

