

## Applications

### Industrial Effluent Treatment is only the Beginning

For industrial production facilities, WEHRLE goes the step beyond the treatment of industrial effluents:

#### Smart Water Reuse

- ▶ Smart Water Reuse, balanced between ecology and economy, improves the factory's water footprint and saves money.

#### Zero Liquid Discharge

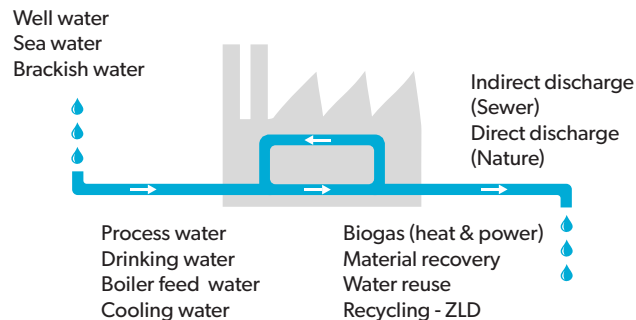
- ▶ Zero Liquid Discharge (ZLD) gives full control over the production factor WATER and reduces wastewater and the dependency on water supply.

#### Material Recovery

- ▶ Resource Efficiency: valuable materials in the effluent can be recovered with WEHRLE technology rather than being drained.

#### More...

- ▶ Biogas from (even toxic) organic waste
- ▶ Thermal utilization of production waste
- ▶ Raw water treatment / process water
- ▶ Water Mapping & treatment plant benchmarking
- ▶ Plant efficiency analysis and optimization
- ▶ Treatment plant extensions and upgrades



## WEHRLE Umwelt GmbH

### The Experts for Complex Wastewater & Water Reuse

As pioneer and technology leader WEHRLE has been setting benchmarks for the treatment of complex and difficult wastewaters since 1982. The broad portfolio of available treatment technologies allows smart process combinations to get the Best Solution for every treatment task.

WEHRLE engineers, builds and operates treatment plants and offers services, such as piloting, efficiency optimization and upgrades of existing plants.



WEHRLE's industrial effluent treatment plants, decentralized, on factory level, are designed to reach the discharge quality you require – either to fulfil legal requirements or for the reuse of water in your production process or other purposes within your factory.

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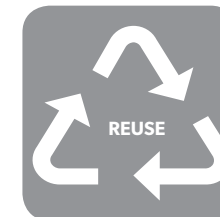


Company video

08/04/2020

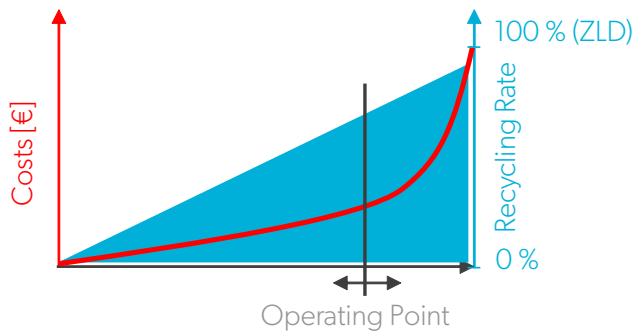


## INDUSTRIAL WASTEWATER UTILIZATION



## Smart Water Reuse Ecology & Economy in Balance

Wastewater treatment costs money. Thus, to drain treated water is a waste, especially if the water quality is good enough for other purposes in the factory, and even if it is only used for the sanitation or the cleaning of trucks.



In a factory-wide water mapping, we identify the recycling and reuse potentials at your production site. In a second step, we assess the options and work out an ecologically and economically balanced water recycling concept.

### Benefits:

- ▶ treat only as much water as you need and to the quality you require
- ▶ improve your water footprint at reasonable costs

### ALSCO Kaiserslautern/DE: Laundry

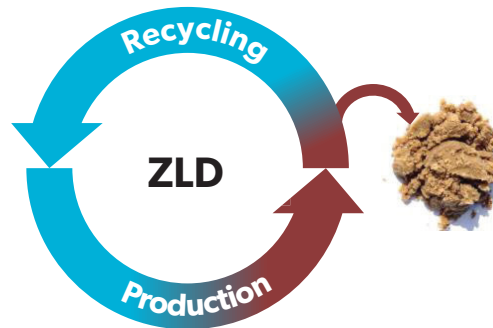


Smart Water Reuse saves money:

- ▶ water
- ▶ energy
- ▶ water chemicals
- ▶ sewage fees

## Zero Liquid Discharge Full Control over the Production Factor WATER

Complete water recycling is ideal to help you to achieve near independence from local water supply and wastewater disposal with the benefit of reducing your environmental footprint.



With a combination of biological elimination and separation technologies we create a system that will recycle as much water as possible, leaving only a super-concentrated fraction for disposal.

### Benefits:

- ▶ independence from water suppliers & municipal sewage plants
- ▶ produce exactly the process water you need
- ▶ no sewage fees

### L'Oréal Kaluga/RU: Cosmetics

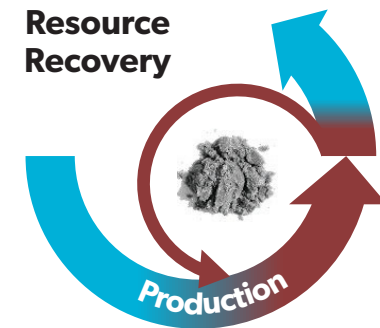


Zero Liquid Discharge:

- ▶ no more wastewater
- ▶ improving KPI
- ▶ sustainability

## Resource Recovery Save Resources – Don't Drain Valuables

Water is used as a solvent in many processes – and many valuable resources are drained along with the wastewater. Innovative strategies help to recover these resources and prevent the waste of raw materials.



By using a variety of processes and process combinations, we retrieve your valuables from wastewater, brines or concentrate.

### Benefits:

- ▶ good return on investment
- ▶ reduced procurement of raw substances
- ▶ reduced dependence on supply chains
- ▶ increased effluent quality

### Alteo/MU: Sugar industry



Recovery of brines:

- ▶ procurement costs for raw material reduced by > 70 %
- ▶ ROI after 7 months