



DEDICATED EQUIPMENT

# Water treatment

**#REUSE**

Filtration, de-oiling, treatment & recycling of fluids

Acid regeneration plants

Electrodialysis and electrolysis systems

Cross-flow filtration

Ultra-violet antibacterial treatment

Ozone oxidation & disinfection

Customised Designs

Filtration consumables





DEDICATED EQUIPMENT

Water treatment



## COMPANY

For over 60 years, in the heart of the French Alps, we have been developing filtration, transfer and fluid treatment solutions for industry. Our expertise has enabled us to develop innovative solutions for the treatment and recycling of industrial water #REUSE.

## LABORATORY



Our laboratory makes its measurement resources available and provides scientific support for your wastewater treatment needs. We determine the characteristics of the fluid and the concentrations of the various pollutant loads: pH, suspended solids (particles), COD (chemical oxygen demand), metals (iron, copper, zinc, lead, etc.), conductivity, bacteriological analysis, TOC (total organic carbon), etc. Our experts carry out treatment experiments in the laboratory to determine the effectiveness of SIEBEC technologies.



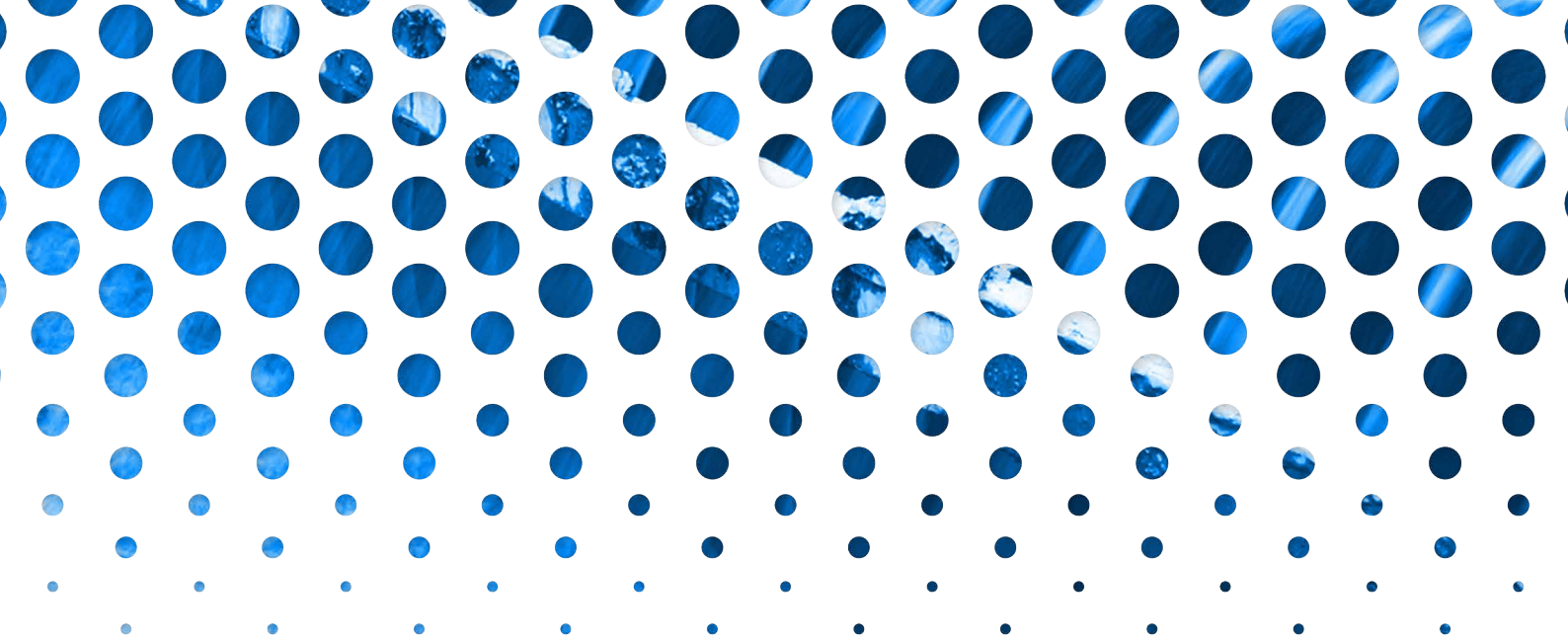
## DESIGN OFFICE

Our design office takes over to design the complete treatment solution that meets your installation, automation and use constraints (REUSE or discharge in compliance with legislation)..

## We offer you tailored solutions



- Treatment of industrial effluents
- Treatment of chemical effluents
- Treatment of laundry water
- Treatment of careening water
- Treatment of food and drink industry effluent
- Treatment of cosmetic and pharmaceutical effluents
- Treatment of run-off water from industrial sites
- Treatment of vehicle wash water



## Stations & solutions

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## Customised Designs

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## Filtration consumables

<b>Media</b>	Filter bags, cartridges, filter press cloths, activated carbons, microfibres, ion exchange resins	<b>15</b>
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# Filtration & de-oiling of liquids

This filtration skid offers a simple, self-contained solution for treating particulate and oily pollution in your fluids.



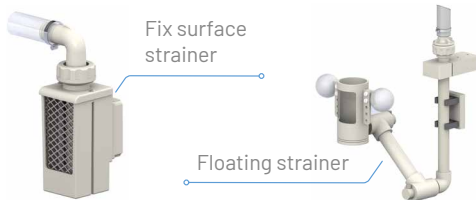
### Complete filtration

Removes solid particles (coarse and fine) and supernatant or emulsified whole oils.



### Self-contained

A seal or magnetic drive pump transfers the liquid.



Boxed version of the MINIPURE™



### Options

SAFTECH : dry run protection

- Mobile cart or skid
- Carterised station
- Fixed surface skimmer for collecting supernatant oil

# High-capacity de-oiling

This skid enables you to treat and recover large quantities of supernatant oils from your effluents.



### Excellent phase shift

Optimised coalescence provides high-performance phase shifting for sensitive applications.



### High-capacity pre-filter

BAGTECH technology combined with MAGTECH magnetic filtration for high-efficiency pre-filtration.

### Principle

The oil present in the liquid in the form of micro-droplets accumulates on the PP coalescing media, then migrates to the surface before being recovered.

### Options

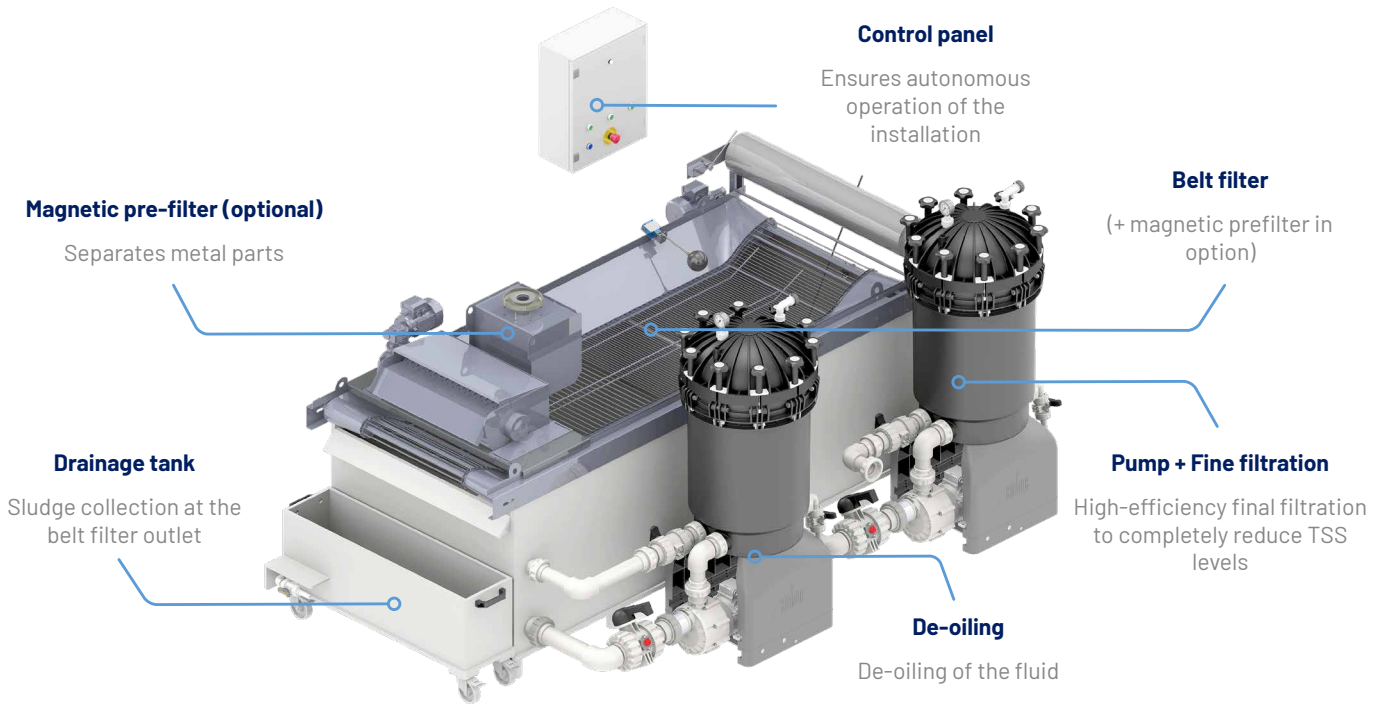
- Programmer: automatic extraction
- Mobile version with rolling chassis
- Floating skimmer for variable levels
- Fixed skimmer for stable levels





# High-capacity liquid filtration

This treatment skid incorporates automatic pre-filtration with unrolling media.



### Temperature control

The COOLTECH™ option



### Custom-made design.

Because our clients have different needs, we design CENTRIPURE™ following your specifications.

## CUSTOM FILTRATION

# Compatible interchangeable media



### BAGTECH™

Pre-filtration bag  
Filtration from 150 to 600 µm. Washable and reusable. No tools required for installation.



### FILTECH™

Highflow pleated cartridge.  
Filtration 1 to 100 µm. Washable and reusable. No tools required for installation.



### MAGTECH™

Magnetic filtration.  
5 kg of particles captured. Easy to install and clean. 3000 to 11000 Gauss power.



### OILTECH™

De-oiling microfibres. Hydrophobic fibres. 500 g captures 6 l of oil. High retention capacity.



### BANDTECH™

Roll media for belt filters. Wide range of materials and porosities.

EASYPURE™

# Autonomous fluid recycling and effluent treatment station

Dedicated to effluent recycling, EASYPURE™ is a compact and autonomous station operating by batch, adaptable to all types of liquids for discharge or recycling thanks to its modular design.

## Features

Automatic and/or manual operation via touchscreen interface. Alarm settings (pH, temperature, filter clogging, level detection).



### Rapid return on investment

Reduces wastewater reprocessing costs.



### Optimal properties

SIEBEC filtration eliminates particles.



### Physico-chemical treatment

Very low treatment costs compared with evaporation or removal by a service provider.



### Easy maintenance

Our ergonomic closure system simplifies the manual replacement of filtration media.

## APPLICATIONS

EASYPURE™ treatment plants can be used for:

Wash water

Rinsing water

Penetrant testing water

Test water

Hydraulic test water

Metal-laden water

Hydrocarbon-laden water

Particle-laden water

...

### Daily volume treated

Up to 20 m<sup>3</sup>/day

### Volume per cycle

500 or 1000 litres as standard. Up to 6000 litres (customised)

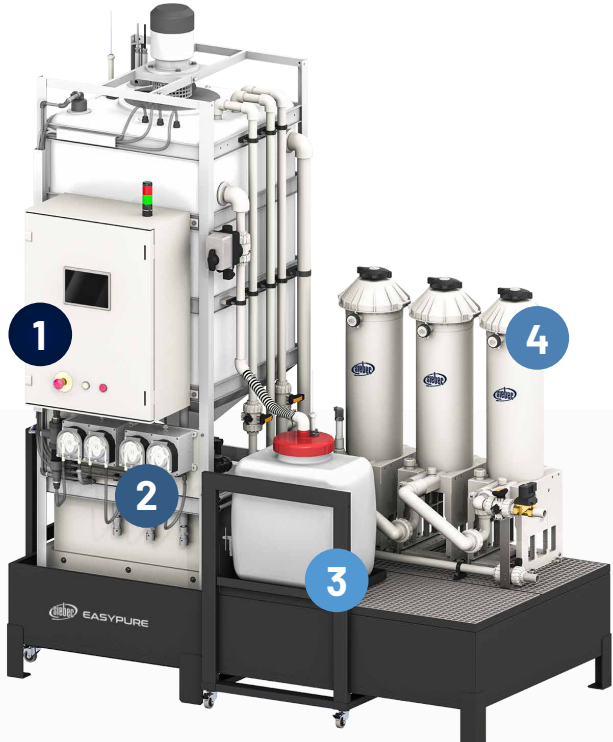
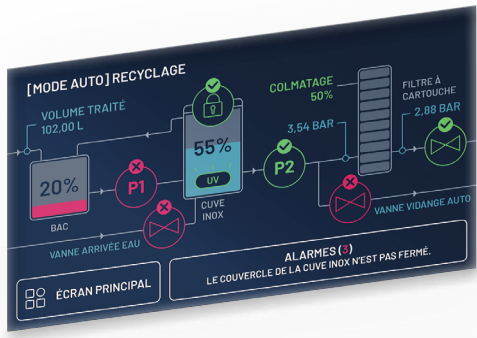
### Dimensions

2000 x 1000 x 2400 mm (W x D x H)

### Power consumption


< 1 kWh - *Nearly 100 times less than an evaporator!*

**AUTOMATIC MODE**




**1 Configuration**  
 EASYPURE™ is designed for the targeted treatment of a specific pollutant, according to your requirements. The treatment process is initiated using a touch-sensitive control interface integrated into the station.

**2 Batch treatment**  
 Once the liquid has entered the main tank, a dosing pump system ensures effective treatment of the specific pollutant, tailored to the required application.



**pH adjustment**  
 Addition of soda or acid to regulate the pH.



**Coagulation - flocculation**  
 Allows very fine colloidal particles to settle.

**3 Recovery modules**  
 Pollutants can be recovered from different modules.







**Sludge separation**  
 Recovery of sludge in filter bags mounted on trolleys, or in big-bags for large volumes.

**Oil separation**  
 Oil recovery in cart-mounted canister.

**4 Final filtration**  
 Integrated filtration modules



**Fine filtration**  
 Separation of suspended matter on cartridges & filter bags.

**Activated carbon**  
 Captures organic compounds and traces of hydrocarbons.

**Ion exchange resin**  
 Recovers dissolved metals (pollutants or precious metals)

**Anti-bacterial (optional)**  
 UV treatment for process water reuse.

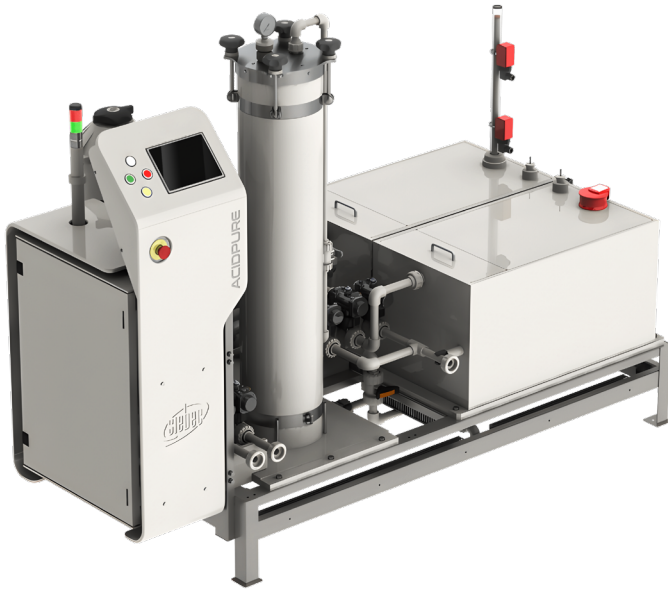
**REUSE** OR **DISCHARGE**

ACIDPURE™

# Acid regeneration station

Acidpure™ is a self-contained treatment station for purifying and extending the life of acid solutions.

Dissolved pollution (Aluminium, Iron...) is removed during regeneration cycles.



## A sustainable and profitable investment

Eliminates a significant proportion of maintenance and servicing costs.

Reduced environmental impact thanks to acid recycling.

**94%** of acid recoverable thanks to ACIDPURE™

### Applications

Purification of sulphuric, hydrochloric, nitric, phosphoric acid solutions ...

## ULTRAFILTRATION

# Cross-flow filtration

Cross-flow filtration causes the liquid to flow along a semi-permeable membrane, separating particles while minimising the risk of clogging.



### Fine filtration from 0.1 µm to 15 kDa

Extreme filtration accuracy, enabling effective separation of viruses and small particles.



### High chemical resistance

Ceramic membranes compatible with various delicate agents (acids, bases, solvents).



### Self-cleaning

Membranes maintained by automated cleaning cycles.

### Applications

Recycling of rinsing baths.  
Recycling of degreasing baths.  
Resin suspension filtration.



## ELECTRODIALYSE

# Electrodialysis treatment station

Electrodialysis solution for recovery of process baths, demineralisation and pre-concentration of your fluids.



### Recovery of dissolved metals

Maximise your resources by recovering metals from rinsing baths (nickel, copper, gold, silver, etc.).



### Water purification

Highly purified water that can be reused in your industrial processes, preserving water resources.



### Process optimisation

Pre-concentration of dissolved metals, improving overall efficiency, reducing costs and saving energy.

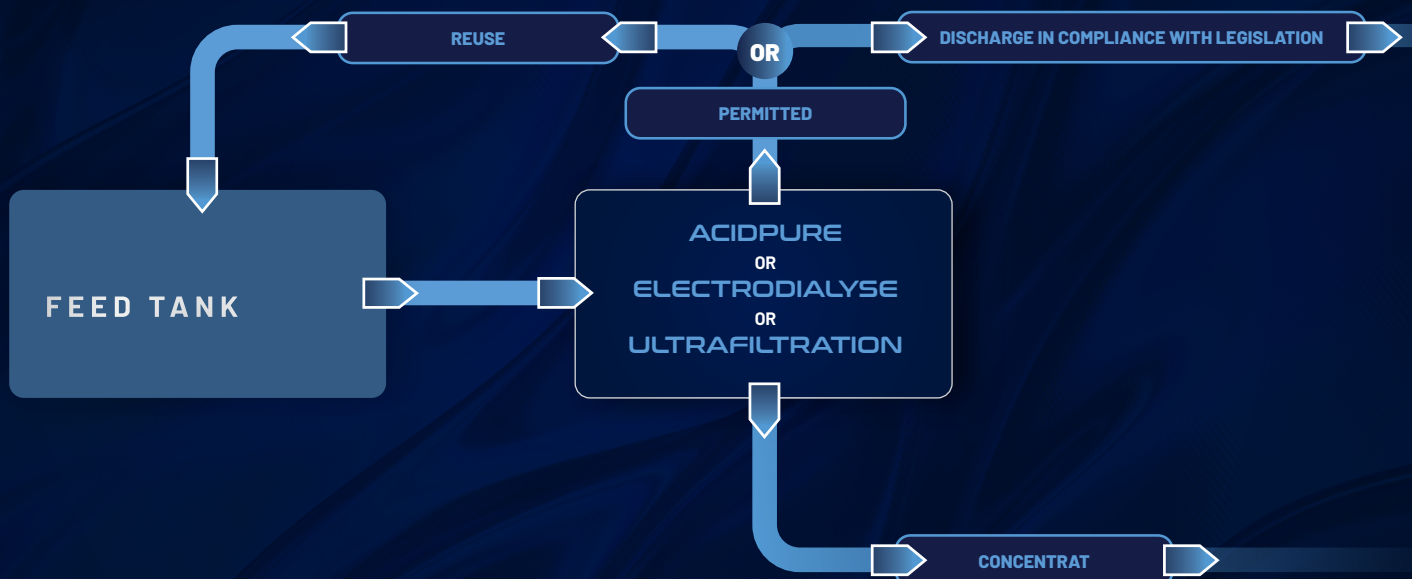
### Applications

Recovery of metals from rinsing baths (nickel, copper, gold, silver, etc.)

Demineralisation of water leaving the plant for reuse.

Pre-concentration before evapo-concentration of rinsing baths.

## SIMPLIFIED OPERATING PRINCIPLE



ELECTRUM™

# Electrolysis treatment system

Apparatus designed to recover metals contained in dilute or concentrated solutions.



## Specifications

Flow rate (m<sup>3</sup>/h)

1.8 - 3

Materials

PP

Max. temperature (°C)

60

Filtration

Cartridge

## Advantages

Capable of recovering very low concentrations (<5 ppm) depending on the application.

No metal loss.

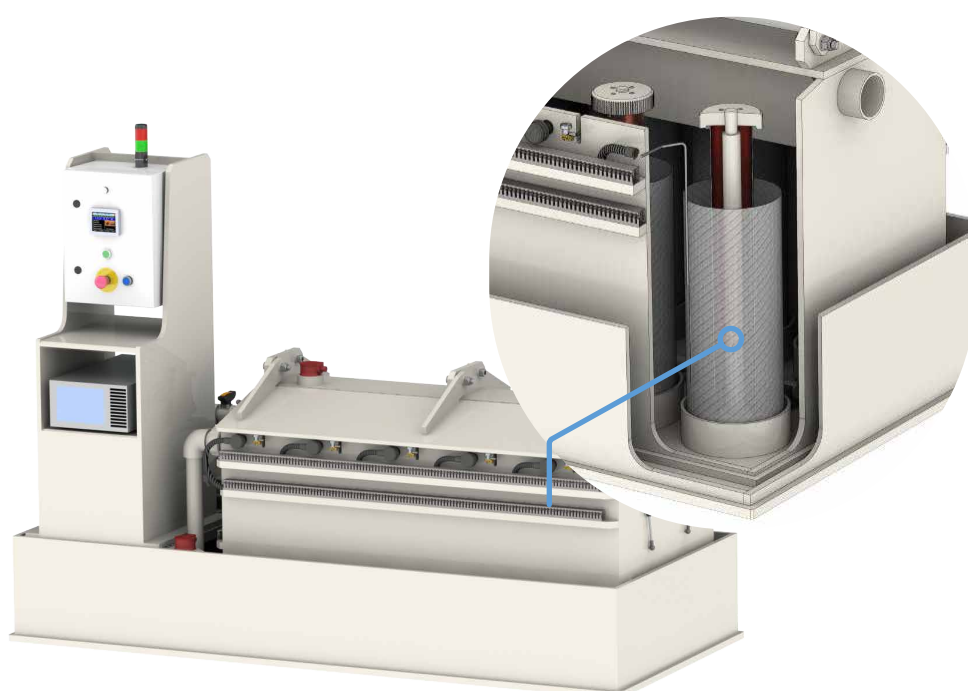
Effective on all metals: gold, palladium, rhodium, ruthenium, silver, copper, nickel, etc.

Easy to melt and refine: quick cartridge change and easy recovery.

Continuous destruction of cyanides during the recovery process by adding ECN.

ELECTRUM

## LARGE CAPACITY VERSION



NANOREACTOR™

# Ultraviolet antibacterial treatment

Prevents bacterial growth within the fluid to preserve its properties.



## Patented technology

The gravitational design enables efficient treatment of even turbid fluids, without clogging the lamp.



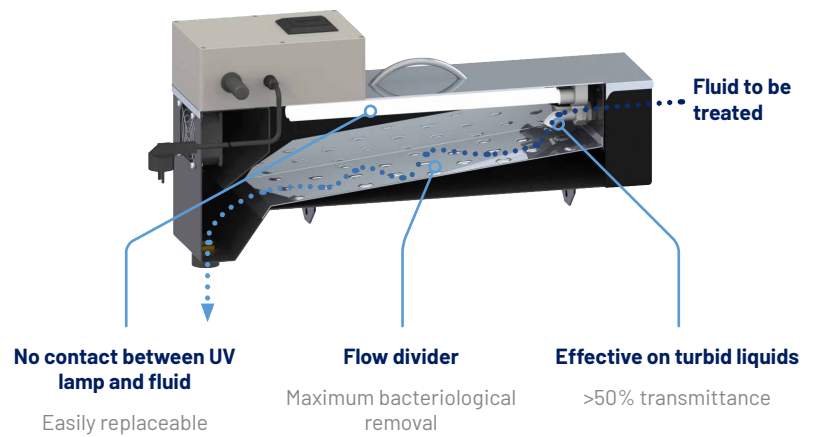
## Numerous benefits

Reduced need for biocide, lower bacterial count (3 log), elimination of unpleasant odors, dermatitis...



## Various applications

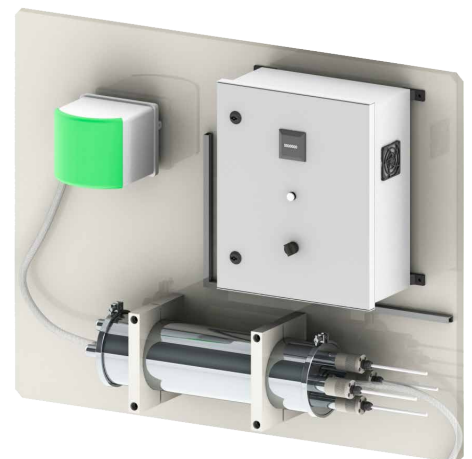
Swarf juices, washing water, tribo-fining machine effluents...



## OZONATION

# Ozone oxidation and disinfection

A powerful oxidizing agent capable of transforming complex organic molecules into simple ones. Ozone breaks down toxic compounds and prevents bacterial growth.



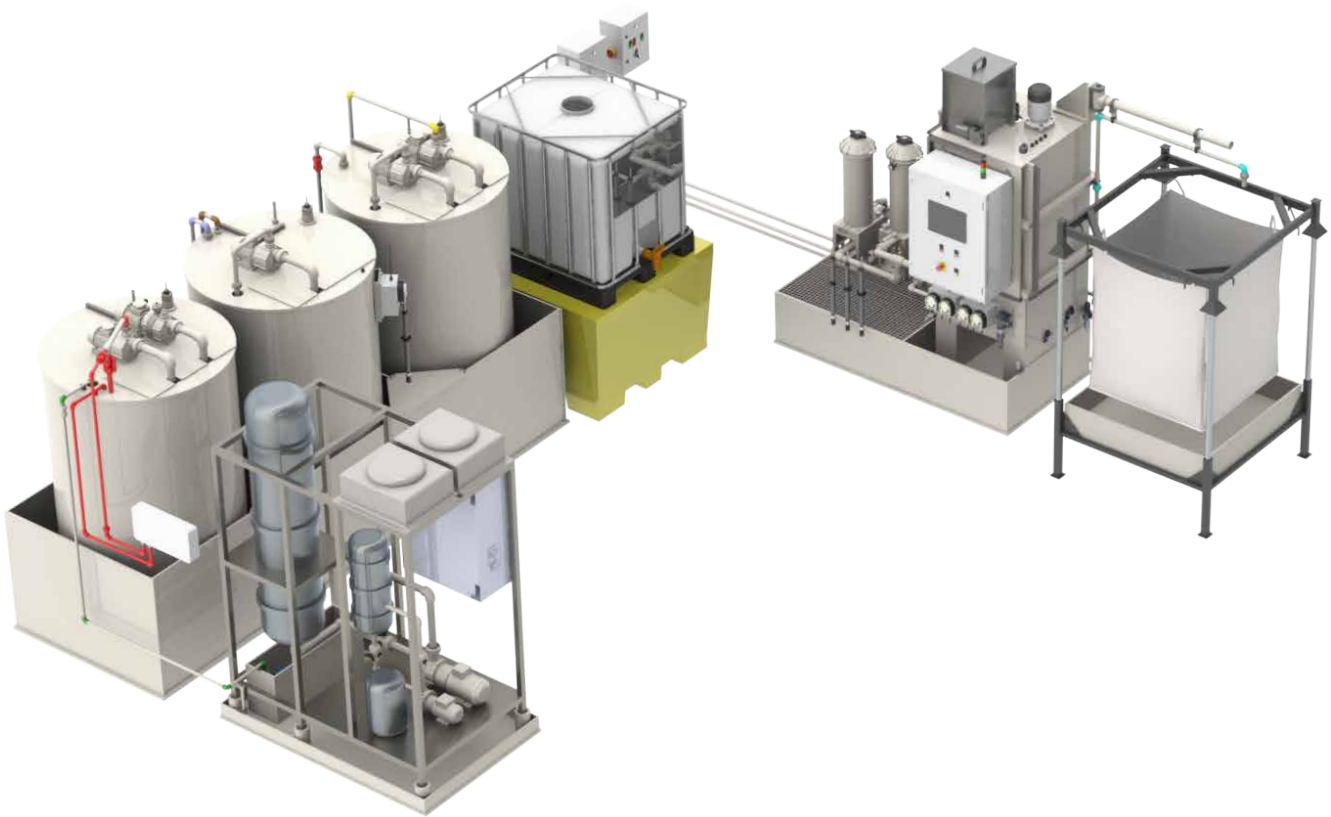
## Applications

- Disinfection & bacterial population reduction
- Elimination of micropollutants and hard COD.
- Decolourisation.
- Cyanide oxidation
- Iron precipitation...

# Customisation design & projects

Our engineering and design department specializes in designing plants to meet specific customer requirements.

## INDUSTRIAL WATER TREATMENT



### Features

Flow

500L / day

Application

Treatment and recycling of cosmetics industry processes

Technical solutions

Physico-chemical pre-treatment

Evapoconcentrator

Supervisory automate

Storage tank for reuse

Ozone treatment for reuse



## TREATMENT OF CAREENING WATER

Containerised skid



### Features

Flow

10 m<sup>3</sup>/h

Application

Treatment of careening water before discharge into the sea

Technical solutions

Pre-filtration on rolling media filter  
Filtration on FILTECH™ 10µm and 1µm cartridges  
Ion exchange resin treatment  
Activated carbon treatment

## STRIPPING WATER TREATMENT FOR INDUSTRIAL PIPES

Helicopter skids



### Features

Flow

5 m<sup>3</sup>/h

Application

Stripping water treatment for REUSE

Technical solutions

Pre-filtration on rolling media filter  
Filtration on FILTECH™ 10µm and 1µm cartridges  
Ion exchange resin treatment  
Activated carbon treatment

# Customisation design & projects

Our engineering and design department specializes in designing plants to meet specific customer requirements.

## VIBROFINISHING WATER TREATMENT / RESSUAGE



### Features

Flow

1000L / day

Application

vibrofinishing process treatment before discharge

Technical solutions

Decanter (conical tank)  
Physico-chemical treatment  
Automatic supervision  
Final filtration (10µm)

## PAINT WASH WATER TREATMENT



### Features

Flow

3000L / day

Application

Paint production wash water treatment

Technical solutions

Physical-chemical treatment  
Sludge dewatering in big-bags  
Automatic supervision  
Final filtration (10µm)

# Filtration consumables

A wide selection to meet all water treatment needs.



## QUALITHERM™

### Standard heat-welded cartridge

- 0.5 to 150 µm (nominal)
- High-performance depth filtration thanks to density gradient



## QUALIMAX™

### Extruded activated carbon cartridge

- Activated carbon
- Chlorine and odor reduction



## L-TECH™

### Pleated cartridge with large filter area

- 0.2 to 100 µm (nominal & absolute)
- Washable & reusable



## QUALICONTOUR™

### Large-surface pleated cartridge

- 1 to 100 µm (nominal & absolute)
- Inner to outer filtration



## QUALIPOCHE™ F

### Felt pocket

- 1 to 200 µm
- Tool-free insertion



## QUALIPOCHE™ M

### Monofilament pouch

- 0.5 to 1500 µm
- Tool-free installation



## PRESSTECH™

### Filter cloth press

- Grammage: 140 to 1000 g/m<sup>2</sup> Permeability
- Permeability: 2 to 1000 l/dm<sup>2</sup>/min



## ACTIVATED CARBON

### Granules

- Made from coconut, whose pore structure offers optimal adsorption
- Special Nickel formulation available



## RESIN

### Ion exchange resin

- Strong cationic, strong anionic, weak anionic
- Special precious metals resin
- Resin for specific applications



## PP MICROFIBERS

### De-oiling microfibers

- Material: polypropylene
- 500 g captures 6 liters of oil
- Unlimited storage life in dry conditions
- Safe to incinerate



A question?  
Need advice?  
Our experts answer you.

Discover all our innovations on  
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