



*Environmentally friendly water treatment technologies
For industry and municipalities*



Introduction

Hidrofilt Group has been carrying out its activities in the fields of industrial water treatment, drinking water and industrial wastewater treatment since 1990.





Introduction

From idea to implementation

General contracting - Technology delivery

Innovation

International experience

Long-term partnerships



„We are building a world, where all human and living beings have access to healthy drinking water and where all industrial companies recycle and reuse their wastewater.”

Borsos Ferenc - founder of Hidrofilt Group

A handwritten signature in white ink, appearing to read "Borsos Ferenc", set against a dark blue background with a subtle pattern of white water droplets.

Together for our future...



SINCE
1990

**> 30 years of
experience**



**100% private
company**



**> 6200 m²
production area**



**100% solar energy
fueled production**



**> 4000 references
in 35 countries**



**> 160 employees
> 70 engineers**



**> 100 monitored
systems**



**> 200 containerized
water treatment systems**

Environmentally friendly water treatment technologies

- energy efficiency
- exploiting water recycling possibilities
- the recycling of built-in materials according to the principles of a circular economy to increase system lifespan
- the use of natural absorbents and biodegradable chemicals
- environmentally friendly implementation and operation
- applying “Plant Lifecycle” management

Together for our future...



Products

Membrane separation systems

Reverse osmosis desalination /RO, DPRO, SWRO, STRO/

Nanofiltration /NF/

Ultrafiltration /UF/

Microfiltration /MF/

Membrane degassing equipment /MC/

Electrodeionization equipment /CEDI/

Membrane bioreactors /MBR/

Membrane cleaning systems /CIP/

Electrodialysis systems /ED, EDR/

Forward osmosis systems /FO/



Products

Ion exchange systems

Softeners /SAC/

Carbonate removers /WAC/

Complete desalination /SAC, SBA/

Mixed-bed desalination /MX/

Condensate treatment systems

Organic scavenger resins

Selective ion exchangers, heavy metal removers

Nitrate, boron and fluoride content reduction



Products

Industrial media filtration systems

Gravitational and pressurized multimedia filters

/RGF, MMF/

Activated carbon filters /CF/

Iron and manganese removal /AMF/

Arsenic removal

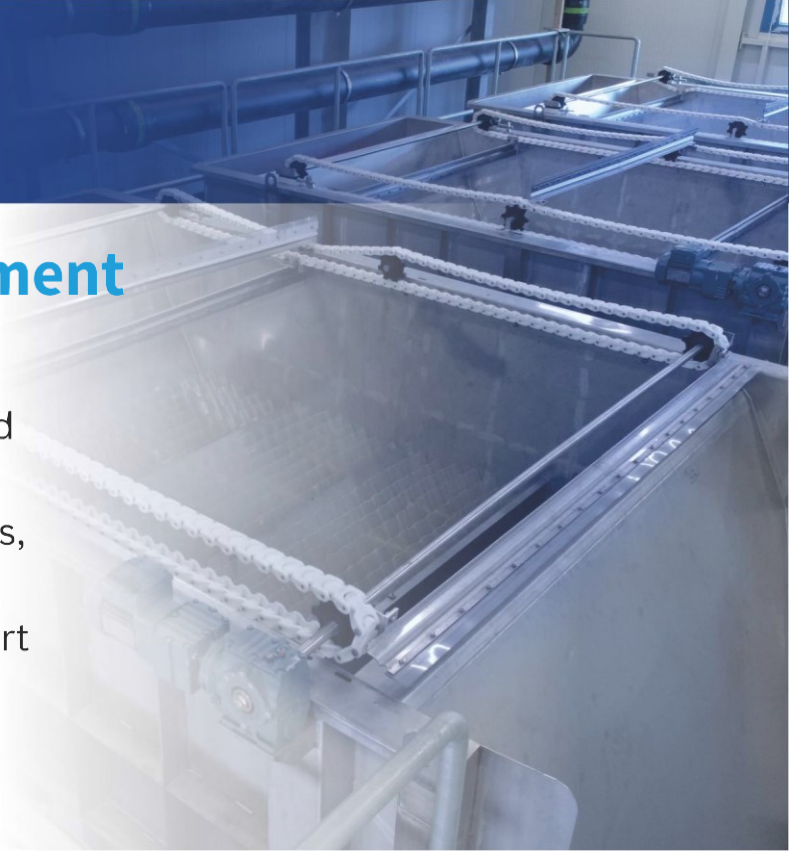
Coagulation filters /Hidrobead/



Products

Pre- and post-treatment

Chemical dosing stations,
polyelectrolyte dissolving and
dosing systems
Clarifiers, homogenizers, settlers,
plate settlers
Multi-chamber reactors with inert
material aid /IBS/
Dissolved air flotation /DAF/
Oil separators



Products

Pre- and post-treatment

Neutralizing systems

Plastic storage and buffer tanks for storing corrosive hazardous chemicals

Gas scrubbers, degassers /DG/, vacuum degassers

Pressurized and gravitational stainless steel tanks

Stainless steel filter housings for bag, candle and cross flow filtration

Evaporators, vacuum evaporators



Products

Sludge treatment

Gravitational thickeners

Dewatering equipment

Filter presses

Centrifuges



Products

Disinfection systems

Chlorine gas, chlorine dioxide,
hypochlorite feed stations,
electro-chlorinators

Ozone generators

UV disinfection equipment

Chemical and thermal sanitation
equipment



Products

Chemicals

Oxidizing agents

Reducing agents

Flocculants and coagulants

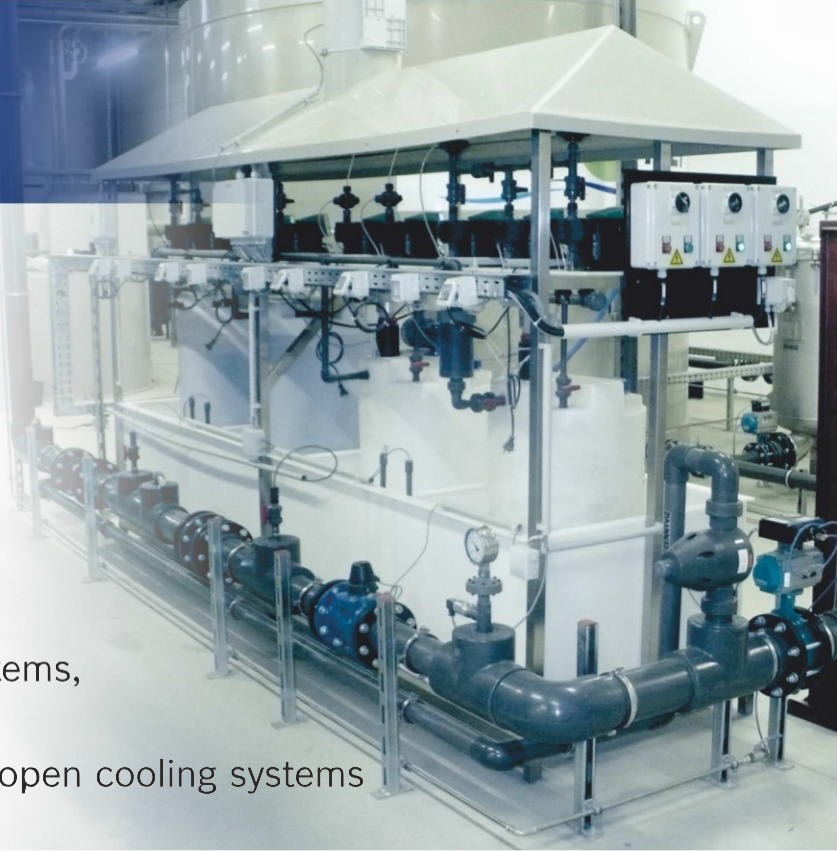
Biocides

Antiscalants

Inhibitors

Conditioners for heating systems,
boilers, steam generators

Conditioners for closed and open cooling systems



All services under one roof



ECO
ENGINEERING

Project management

Expertise - Professionalism – Integrity

Technology provision

General contracting

Project implementation

according to FIDIC contracts



All services under one roof



GREEN
DESIGN

Design

Creativity – Precision – Innovation

Complete construction,
technological, mechanical,
electrical and control
engineering design

- Licensing
- Production plans
- Construction plans



All services under one roof



ECO
PRODUCTION

Production

Efficiency – Quality – Customized

Manufacturing of customized treatment technologies and containerized mobile water treatment systems

- Stainless steel workshop with electropolishing
- Equipment assembly plant
- Plastic tank manufacturing and cutting workshop
- Electrical assembly workshop



All services under one roof



GREEN
CONSTRUCTION

Project implementation and commissioning

Flexibility – Professionalism – Security

Delivery, installation, testing and
optimization of the various
equipment making up the
water treatment technology

Operator training



All services under one roof



PLUG AND
PUMP

HidroWell mobile water treatment systems

Compact – Mobile – Modular

Water treatment systems in standard containers with quick set-up and easy transport, specifically designed for different fields of application



All services under one roof



Operation and maintenance

Speed – Experience – Reliability

Low operating cost, long lifespan
Maintenance and service,
24-hour availability



All services under one roof



GREEN
MONITORING

Remote surveillance and monitoring system

Performance – Energy efficiency
– Information

HIS / Hidrofilt Information System
Online monitoring and data analysis
Remote monitoring system
Adaptive maintenance control



All services under one roof



ECO FRIENDLY
CHEMICALS

Spare parts and chemical supply

Speed - Cost efficiency
- High Standards

Warehouse supply of:

- Membranes
- Filters
- Spare parts
- Chemicals



All services under one roof



GREEN R+D

Research and development

Sustainability – Environment – Innovation

Accredited laboratory measurements,
quick water analyses

Membrane, resin and filter tests

Technology and product development

Technology testing with pilot equipment

Consulting and feasibility studies

Vocational training



All services under one roof



GREEN
CONTROL

Quality management

Integrated – Versatile – Committed to

ISO 9001, ISO 14001, ISO 45001

VCA/SCC** Workplace and occupational safety

Accredited laboratory according to

ISO/IEC 17025

Plastic and metal welding according to the

ISO 3834

EN 10204 3.1. standard



Oil, gas and chemical industry

Production of fine-desalinated technological water

Water purification and water preparation for power systems /boilers, turbines, cooling systems/

Desalination technologies for hydrogen production

Mobile water treatment systems for EOR application

Purification and filtration of acids, bases, viscous solutions



Oil, gas and chemical industry



Implementation of a treatment system for the production of desalinated process water and boiler feed water from river water for the chemical industry.

BorsodChem Plc. / Hungary

900 m³/h UF + 500 m³/h RO • 250 m³/h RO + 215 m³/h CEDI

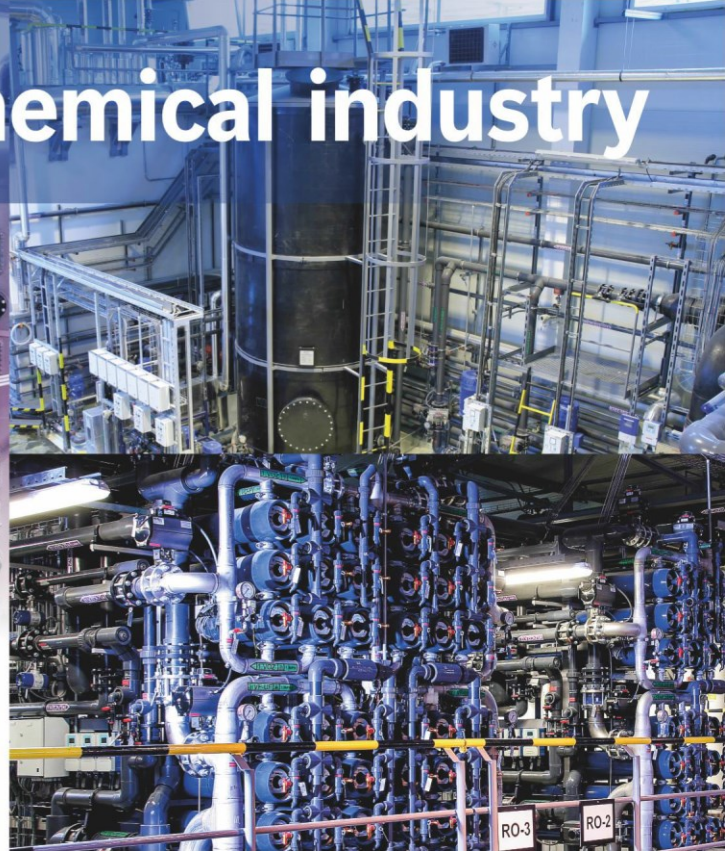


Oil, gas and chemical industry



Complete implementation of a treatment system for the production of fine-desalinated process water from the Danube river for the oil industry.

Slovnaft A.S. CHUV II.-III. / Slovak Republic
750 m³/h UF | 600 m³/h RO • 840 m³/h MX



Oil, gas and chemical industry



dunastyr

Complete implementation of a treatment system for the production of fine-desalinated process water for the production of polysterene.

Dunastyr Zrt. / Hungary • 40 m³/h SAC/SBA

Oil, gas and chemical industry



Complete implementation of a treatment system for the production of fine-desalinated process water from the Danube river for oil refinery and hydrogen production purposes.

MOL Plc. Százhalombatta / Hungary

installed into 14 pcs of 40' standard containers

200 m³/h UF • 520 m³/h RO • 320 m³/h MC • 200 m³/h MX

Oil, gas and chemical industry



Production of fine desalinated water from surface water
using containerized technology for a chemical plant.

MOL Plc. / Polyol Plant / Hungary

12 pcs 40' standard container

336 m³/h UF • 282 + 234 m³/h RO • 217 m³/h CEDI



Oil, gas and chemical industry



Complete implementation of a water treatment system
or the production of fine-desalinated water from surface
water for the production of raw materials for rubber.

JSR MOL Synthetic Rubber Zrt. / Hungary

258 m³/h DAF • 162 m³/h UF

66 + 48 m³/h RO • 40 m³/h MC



Oil, gas and chemical industry



Complete implementation of a water treatment system
for the production of partially desalinated process water from pretreated surface water, using EDR technology.
PCC Rokita S.A. / Poland • 127 m³/h EDR

Oil, gas and chemical industry



ZOLTEK 
Toray Group

Dimethylformamide filtration with membrane
chnology for the production of carbon fibre.

Zoltek Plc. / Mexico • 10 m³/h

Zoltek Plc. Toray Group / Hungary • 10 m³/h



Oil, gas and chemical industry

Fine-desalinated process water system for tire manufacturing.

Apollo Tyres Ltd. / Hungary

2 x 30 m³/h DPRO

apollo
TYRES

Fine-desalinated process water system for tire manufacturing.

Hankook Tire Hungary Ltd. / Hungary

135 m³/h MMF / RO

 **HANKOOK**

Lime sludge thickening system with sludge pressing for chemical plant.

Anwil Group / Poland

 **GRUPA ORLEN**

Energy sector

Demineralized water production for power plants:

Demi water

- Specific electrical conductivity: $< 0,2 \text{ S/cm}$
- TOC: $< 200 \text{ g/l}$

Water treatment for heating systems: turbines,
boilers, cooling and air conditioning systems

Geothermal energy use with desalination

Treatment of high-temperature wastewaters and
condensates

High capacity chlorine dioxide disinfection systems for
cooling towers



Energy sector



Installation of a system for the
production of fine-desalinated water
from the Danube river for nuclear power plant use.
MVM Paks Nuclear Power Plant Plc. / Hungary
400 m³/h UF • 360 m³/h RO • 250 m³/h CEDI

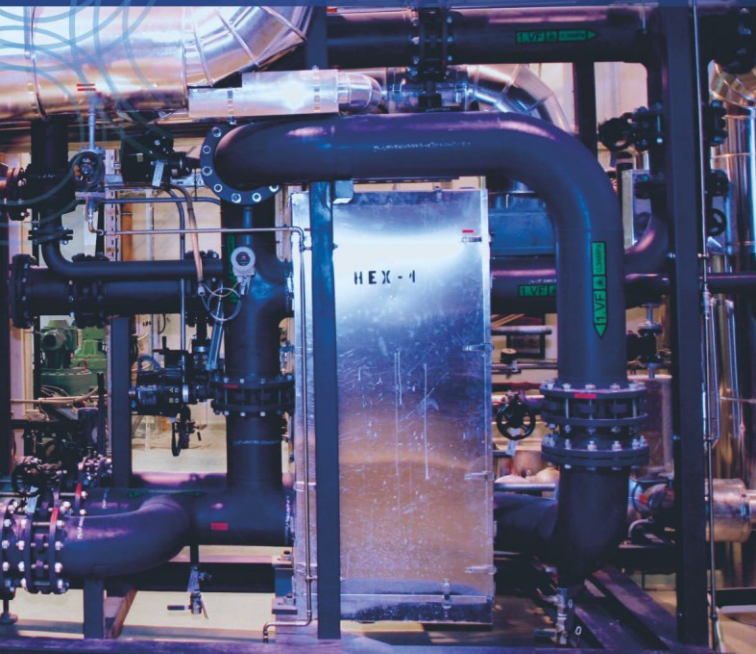
Energy sector



Design and manufacturing of
a water treatment system for the
production of process water from pre-treated seawater.
Alpha Utilities LLC / United Arab Emirates
 $20 \text{ m}^3/\text{h}$ MMF / DPRO / CEDI • $25 \text{ m}^3/\text{h}$ RO / CEDI



Energy sector



Complete implementation of a water treatment plant for the production of fine desalinated water from pre-treated surface water for power plant use.

PGE Górnictwo i Energetyka S.A. / Poland

3 x 30 m³/h DPRO / UV / MX

Energy sector



SZÉPHŐ

Production of makeup water with
conditioning chemical dosing for district heating
utility company using well-water and condensate water.

Széphő Plc. / Hungary

6 x 2,5 m³/h degassing / AMF / CF / DPRO / MC

Energy sector



THE LINDE GROUP

Complete implementation of a water purification plant for H₂ production.

Water quality: Ultrapure water (UPW) Electro conductivity: 0.06 $\mu\text{S}/\text{cm}$

H₂ production: 4000 m³/h, 24 MW

Linde Engineer / Germany Leuna

Energy sector



Complete implementation
of a water purification plant, treating surface water
to produce technological water for power plant use.

Tauron Wytwarzanie S.A. / Poland

2 x 80 m³/h IBS / RGF / UF • 200 m³/h IBS / RGF / UF / DPRO / EDI



Energy sector



Complete implementation of fine-desalinated
technological water production system.

Kazatomprom Plc. / Kazakhstan

16 m³/h RO / CEDI

Electronics industry



Complete implementation of water treatment systems for the electronics industry based on SEMI PV3 and ASTM D5127 standards:

- Ultrapure water
- High-purity water

Water treatment for humidifier systems

Technological water and wastewater treatment for the production of copper foil.

Electronics industry



Production of demi water and highly-purified water from drinking water and purified wastewater for the microelectronics industry.

Complete implementation of the water treatment system.

Ecosolifer Ltd. / Hungary

12 m³/h demi water • 12 m³/h high-purity water



Electronics industry



Complete implementation of a treatment system for the production of ultrapure water from well water for the electronics industry.
Samsung Engineering Hungary Ltd. / Hungary
254 m³/h MMF + 162 m³/h CF / RO
+ 54 m³/h RO / CEDI
60 m³/h MMF + RO + CEDI



Electronics industry



Technological water
and industrial wastewater
treatment for copper foil production.

Doosan Hungary Ltd. / Hungary

Technological water treatment
90 m³/h DPRO / CEDI + 20 m³/h MMF / RO

Industrial wastewater treatment
50 m³/h chemical treatment / UF / DPRO / evaporation

Pharmaceutical industry

A male scientist with a beard, wearing a white lab coat, safety glasses, and blue gloves, is working in a laboratory. He is holding a petri dish with a green agar medium. In the background, there are several other petri dishes, some of which are also containing green agar. The background is slightly blurred, showing a laboratory setting with shelves and equipment.

Complete implementation of high-quality and high-purity water treatment systems for the pharmaceutical industry based on USP and EP standards.

- Purified water
- Highly purified water
- Water for injection

Pharmaceutical industry



RICHTER GEDEON

Design, manufacturing and on-site installation of a water treatment system for the production of pharmacopeial, PW and HPW grade purified water from potable water. FAT, SAT IQ/OQ testing and commissioning.

Richter Gedeon Plc. / Hungary, Romania

2 x 30 m³/h RO / CEDI RO+CEDI Budapest • 3 x 6 m³/h DPRO / CEDI DPO+CEDI Dorog

2 x 5 m³/h DPRO / CEDI DPRO+CEDI Târgu Mureș



Pharmaceutical industry



Pharmacopeial quality HPW grade purified water treatment system.

Béres Gyógyszergyár Plc. / Hungary
1,5 m³/h DPRO



Pharmacopeial quality PW and HPW grade purified water treatment systems with sanitation system.

Human Bioplasma Ltd. / Hungary
8 m³/h DPRO - PW
8 m³/h DPRO / EDI / UF - HPW



Pharmacopeial quality HPW grade purified water treatment systems with sanitation system.

Becton & Dickinson Plc. / Hungary
2 x 4 m³/h RO / CEDI



Purifying and reusing industrial wastewater

Concentrate treatment

Leachate treatment

Treatment of wastewaters containing high concentration of heavy metals, oil, paint, ammonia and organic solvents

Industrial wastewater treatment and recycling /ZLD and MLD technologies/

Wastewater treatment for glass production and surface coating plants

Soil remediation

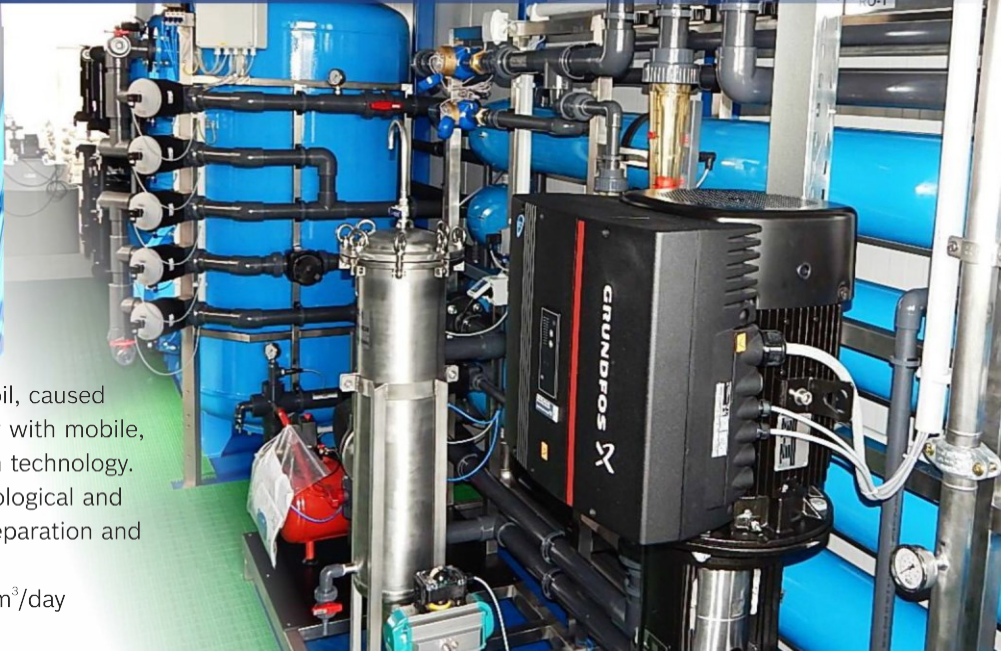


Purifying and reusing industrial wastewater



Treatment of contaminated soil, caused by the operation of a tannery with mobile, containerized soil remediation technology. Application of complex technological and media filtration, membrane separation and ion-exchange technology.

Hungary/ Simontornya • 400 m³/day



Purifying and reusing industrial wastewater



Design, production and installation of a containerized, mobile wastewater purification plant for the treatment of wastewaters from galvanizing processes.
Sil Stich Industrie-Lackierung GmbH. / Germany

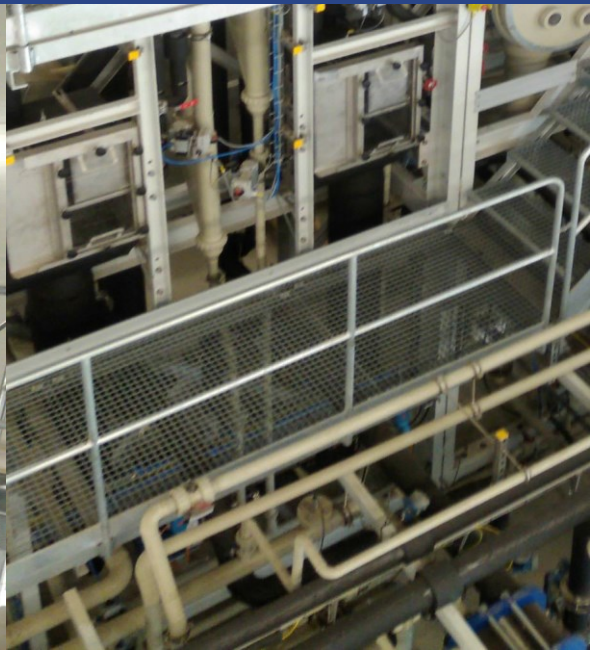
Purifying and reusing industrial wastewater



Purification and recycling of waste water from the manufacture of aircraft parts with ZLD technology.
GE Aviation Hungary Ltd. / Hungary
100 m³/day



Purifying and reusing industrial wastewater



LTD Low-temperature distillation. Doosan Hungary Plc. / Hungary

Purifying and reusing industrial wastewater



Treatment of leachate water from fermented communal wastewater sludge with forward osmosis (FO) and reverse osmosis (RO) technology.

UTB Envirotec Plc. / Hungary

ZLD-type treatment of glass factory wastewater with water recycling.

Guardian Orosháza Ltd. / Hungary

440 m³/day

Treatment of landfill leachate with a mobile, containerized treatment plant. Complex water treatment process with membrane separation.

Romania / Hungary

50 m³/day, 80 m³/day

Agriculture and food industry

Treatment of irrigation water, removal of sodium, desalination

Water treatment for aquaculture-based gardens and farms

Treatment of drinking water for animals

Water treatment for the production of pet food



Agriculture and food industry

Process and product water treatment, waste water treatment for the food industry:

- Dairy industry, Mineral water and soft drink production, Spirits and brewing industry, Vegetable oil and aroma production, Slaughterhouses and meat processing plants

Steam production for food industry

Food technology solutions:

- Juice thickening using membrane technology
- Removing color from sugar syrup

Cleaning and recycling of technological wastewater



Agriculture and food industry

Irrigation and feed-water production for greenhouse tomato cultivation.

Greencoop Group / Slovakia
30 m³/h



Production of desalinated water and boiler feed water treatment in pet food production.

Piko-Pet Food Ltd. / Hungary
20 m³/h



Irrigation and feed-water production for greenhouse tomato cultivation.

Majsai Garden Ltd. / Hungary
40 m³/h



Water treatment system for iron, manganese and ammonia removal from well water for aroma production.

Givaudan Hungary Ltd. / Hungary
58 m³/h



Irrigation and feed-water production for greenhouse tomato cultivation.

Farma Ráječek / Czech Republic
16 m³/h



Complex water treatment using surface water for starch production. Treatment of cooling-cycle makeup water, boiler feed water and technological water

Viresol Ltd / Hungary
100 m³/h



Agriculture and food industry

Product and technological water for the pasteurization process during the production of energy drinks.

Hell Energy Hungary Ltd. / Hungary

365 m³/h



Product and technological water for the pasteurization process during beerproduction.

Dreher Breweries Plc. / Hungary

100 m³/h



Production of technological water with ultrafiltration for the food canning industry.

Globus Cannery Plc. / Hungary

150 m³/h



Treatment of well water and implementation of technological desalination systems for animal farms, slaughterhouses and meat processing plants.

Bonafarm Group / Hungary

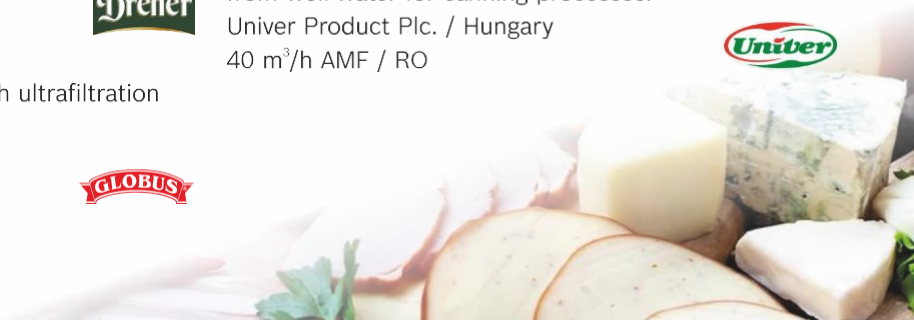
182 m³/h



Provision of food industry grade desalinated water from well-water for canning processes.

Univer Product Plc. / Hungary

40 m³/h AMF / RO



Drinking water treatment

During the past decades, Hidrofilt Group has constructed hundreds of water treatment plants that provide healthy drinking water for cities, towns and villages.

- Production of drinking water from surface and underground water sources
- Reduction and removal of suspended solids, iron, manganese, ammonia, arsenic, boron, nitrite, nitrate and methane
- Seawater and brackish water desalination
- Swimming pool and thermal water treatment with ultrafiltration technology



Drinking water treatment

DRINKING WATER WITH HIDROFILT TECHNOLOGY



**> 1.2 million
people**



**> 2.7 million
people**



Drinking water treatment

An aerial photograph of a large-scale drinking water treatment plant. The facility features several large, rectangular concrete basins, some of which are filled with water and others with green floating coverings. There are numerous wooden walkways and metal railings around the basins. Several industrial buildings with blue roofs and brick walls are situated around the basins. The plant is surrounded by lush green trees and a paved road is visible on the left side.

Water Board Sri Lanka

Rehabilitation of Labugama and
Kalatuwawa Water Treatment

Plants: removal of suspended solids, iron, manganese, ammonia and color from the reservoir water. Complete implementation of the technology, including the provision of continuous plant operation.

90 000 + 60 000 m³/day

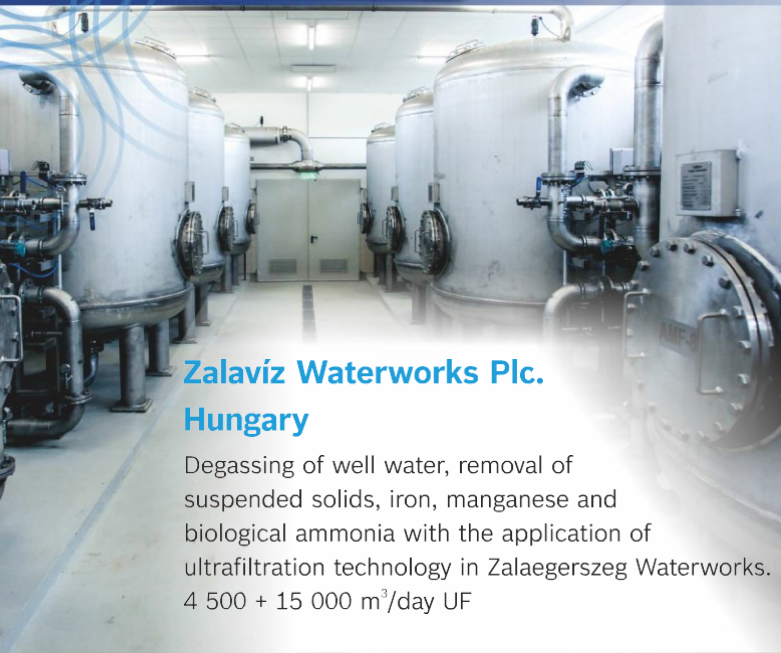
Drinking water treatment

The image shows a large-scale industrial water treatment facility. In the foreground and middle ground, there are several rows of ultrafiltration modules, which consist of numerous vertical cylindrical vessels mounted on metal frames. These modules are interconnected by a complex network of large-diameter pipes, valves, and control systems. Some pipes are labeled, such as 'SZURT V2'. The facility is housed in a large, open hall with a high ceiling. The overall scene conveys a sense of large-scale industrial engineering and infrastructure.

Mivíz Waterworks Ltd. / Hungary

Removal of suspended solids from well water
and application of ultrafiltration system
for safety reasons at Miskolc Waterworks.
33 000 m³/day UF

Drinking water treatment



Zalavíz Waterworks Plc. Hungary

Degassing of well water, removal of suspended solids, iron, manganese and biological ammonia with the application of ultrafiltration technology in Zalaegerszeg Waterworks.
4 500 + 15 000 m³/day UF



Drinking water treatment

DRV Waterworks Plc. Hungary

Removal of suspended solids, iron,
manganese and ammonia
from well water in several communities.
30 118 + 4 080 + 270 m³/day AMF / CF

Drinking water treatment



Vasivíz Waterworks Plc.
Hungary

Removal of suspended solids, iron, manganese and ammonia from well water in several communities.

2 272 + 719 + 625 + 252 + 248 m³/day

HidroWell© mobile water treatment plants

Compact Mobile

Small footprint, optimal space utilization

Simple transportation, as the containers are standardized for marine transport

Modular

Capacity can be expanded by combining several containers

Fast

Quick availability, applicable in crisis and disaster situations

Intelligent

Fully instrumented, automated, integrated PLC, remote monitoring system



HidroWell© mobile water treatment plants

Economical

Directly from the supplier

Reliable

Long product life ensured by premium quality components.

Efficient

Low energy consumption and operating costs

Innovative

Alternative energy sources
/generator, solar panels/

Versatile

Ability to extend with bottled or packaged water production system



HidroWell© mobile water treatment plants



HidroWell mini

Pallet-sized, mobile water treatment system that can be transported by helicopter or speedboat. It can also be widely used in disaster situations. A combined system capable of producing drinking water from surface water, well water and seawater.

HidroWell© mobile water treatment plants



HidroWell-A3 mobile seawater desalination plants

Systems using ultrafiltration /UF/ and reversed osmosis /SWRO/ including an energy recovery system and remote monitoring.

Tunisia / EU • 50 m³/day



Agence des Ports et des
Installations de Pêche



HidroWell© mobile water treatment plants



HidroWell-A2 mobile drinking water treatment plants for well water

Fully automated systems for reduction of iron, manganese, arsenic and boron content.

More than 180 settlements / EU

200 m³/day MMF / AMF / AS

Kyrgyzstan, Iraq • 200 m³/day MMF / RO



General Staff of the Armed
Forces of the Kyrgyz Republic



Hungarian
Interchurch Aid

HidroWell© mobile water treatment plants



HidroWell-A1 mobile drinking water treatment plants for surface water

Widely applicable mobile drinking water treatment units with ultrafiltration technology.

EU / Peru / Cuba / Ecuador • 200 m³/day

International group at your service

Hidrofilt chemical products

Heating systems, boilers, steam generators

- **HIDROKOND** conditioners
- **HIDROSTREAM** steam and condensate conditioners

Closed and open cooling systems

- **HIDROCOOL** conditioners

Drinking water treatment and swimming pools

- **HIDROCID** biocides, algaecides
- **HIDROXIDE** disinfectants

Membrane separation and pre-treatment

- **HIDROTREAT** antiscalants
- **HIDROCLEAN** membrane cleaners
- Flotation chemicals and deoilers
- Flocculants and coagulants
- Oxidants, reductants and neutralizing agents

Wastewater treatment

- **HIDROSTOP** odor control • antifoam and defoamer chemicals • conservation
- Dyes removal from wastewater

International group at your service

Comprehensive service for efficient operation of water systems

- Water treatment with Hidrofilt water treatment systems
- Chemical treatment with environmentally friendly products
- Regular inspections with a mobile laboratory and highly experienced professionals
- Continuous monitoring and analysis with a self-developed monitoring system



Our partners, who have chosen Hidrofilt Group to maintain and operate their water treatment system during the past decades:



Contact



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H-2030 Érd, Fuvaros str. 14.

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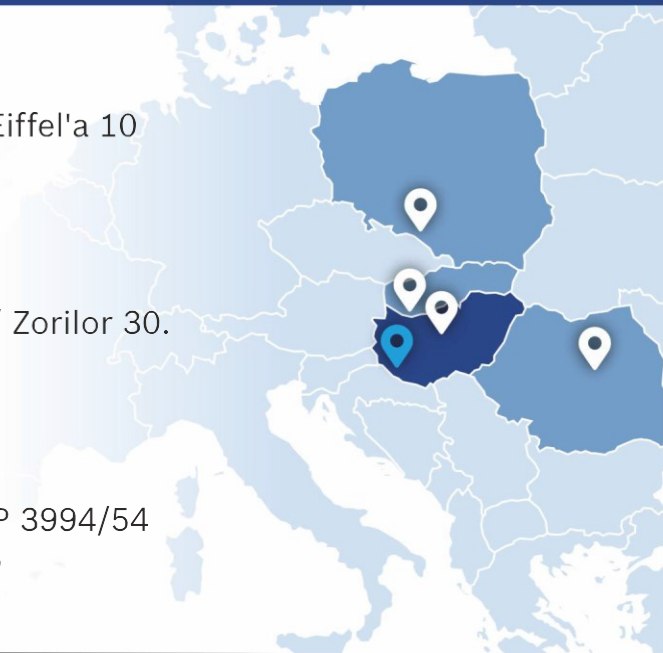
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HIDR *FILT*



Hungarian
Water
Technology
Corporation



HUNGARIAN CHAMBER
OF COMMERCE
AND INDUSTRY



POLSKO-WĘGIERSKA
IZBA GOSPODARCZA



South West Hungarian
ENGINEERING CLUSTER