



Innovation für Wassertechnik



ENVIROCHEMIE

FACILITIES AND SERVICES

For industrial water

Energy- and resourcesaving

→ EnviroWater Group

The network of specialists



ENVIROCHEMIE

Waste water and cooling water
treatment, waste water recycling



ENVIROFALK

treatment of water,
Process water and ultrapure water

ENVIROPROCESS

Water technology for
Swimming Pool & Spa

Technology for Water
ENVIROCHEMIE

Water-Wastewater Technology
ENVIRODTS



Prozesswasser-Technik
ENVIROFALK

PharmaWaterSystems
ENVIROFALK



ENVIROPROCESS
TECHNOLOGY FOR WATER TREATMENT

→ Our target groups

Our industry experts take a holistic view of processes



Food · Beverages
Gastronomy



Transportation ·
Automotive



Chemical industry ·
Oil · Gas



Steel · Metal ·
Surface technology



Life Science ·
Pharma



Textiles ·
Industrial Laundry



Mining ·
Ore processing



Optical industry ·
Glass



Renewable energy ·
Solar



Cosmetics ·
Detergent

→ Our services for the industry





Virtual Plant Tour – Pilot Plant for Cow Water Purification

Tibor Kretschmann / EnviroChemie GmbH



b-watersmart.eu

Treatment of vapour condensate for reuse

Feed Water

Vapour condensate from whey

Feed characteristics

- TOC 5 - 25 mg/L
- Nitrogen up to 6 mg/L
- Phosphorous < 0,5 mg/L

Treatment goal

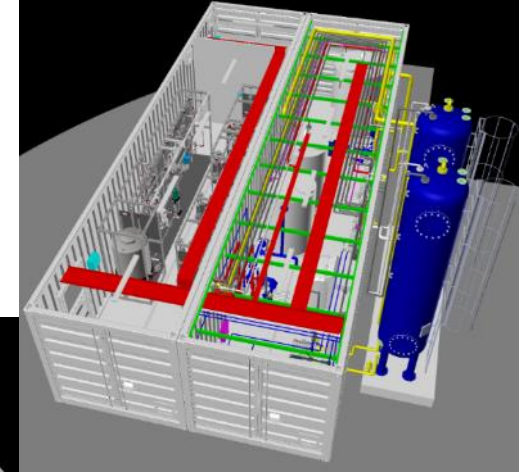
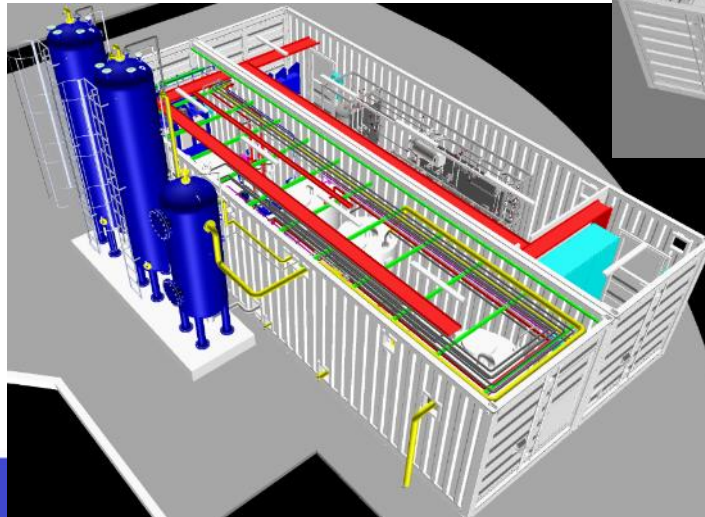
Purified water needs to fit the german law requirements for drinking water

Achieved characteristics

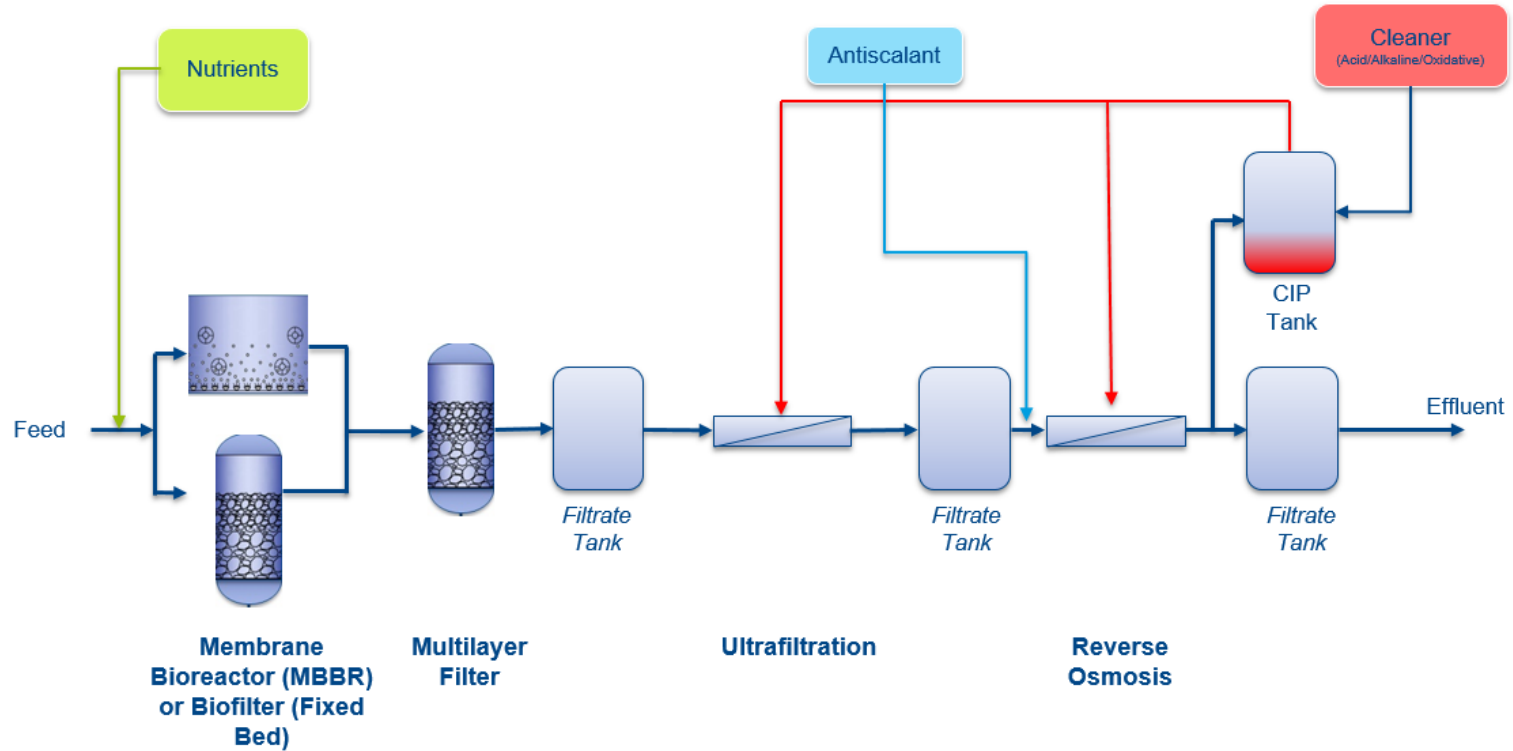
- hygienically safe
- TOC < 0,1 mg/L
- low el. Conductivity < 5 μ S/cm

General overview

- footprint: < 75 m²
- 2x 40"-Container + 3 GRP tanks (outside installation)
- treatment capacity 6 m³/h
- fully automated operation
- remote access
- Digital data acquisition and evaluation (WaterExpert)



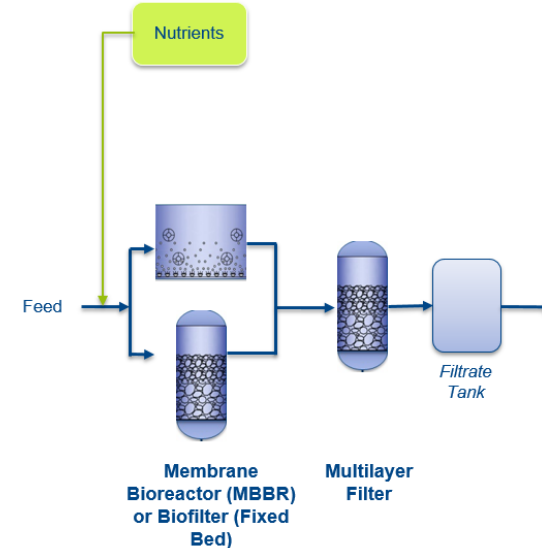
Process overview



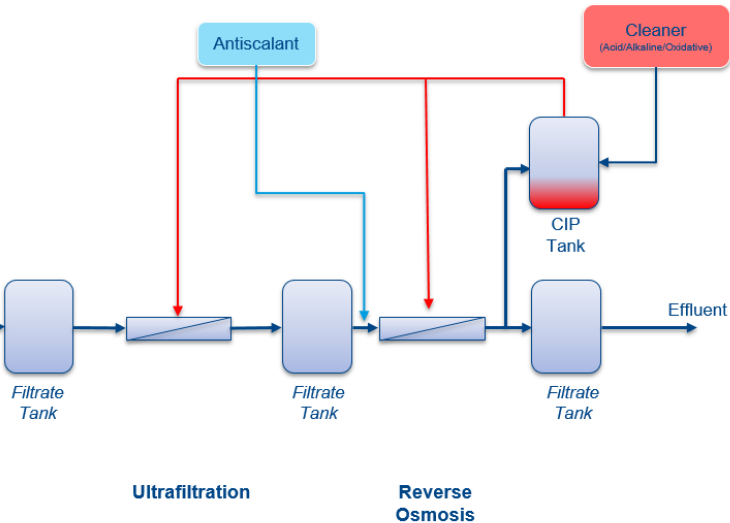
Assigned tasks for each process step

Treatment is a combination of biological, bio-physical and membrane treatment steps

- the biological step eliminates C, N and P
- Der bio-physical process retains the excess sludge from the biological stage and further reduces residual concentrations of C, N und P
- dosification of trace-elements optimizes the metabolic processes



Assigned tasks for each process step



- The first membrane stage removes microorganisms and reduces higher molecular weight carbon compounds of the inert COD fraction.
- The second membrane stage removes low molecular weight carbon compounds and serves as a second barrier for microorganisms. Additionally, it can be sanitized with hot water.
- The UV irradiation protects the containment system where the generated water is temporarily stored from recontamination, for example, from the introduction of microorganisms from the atmosphere.

DMK Edewecht, installation nearby the whey powder production



Inner view of the “Biomar Module”



Inner view of the “Biomar Module”



Inner view of the “Biomar Module”



Membrane step 1, ultrafiltration



Membranstep 2, HSRO and product water tank



2 x TOC online monitor for the feed and product water quality





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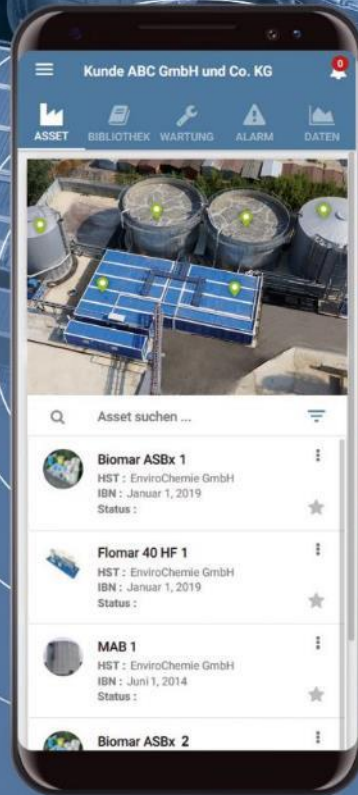


ENVIROCHEMIE

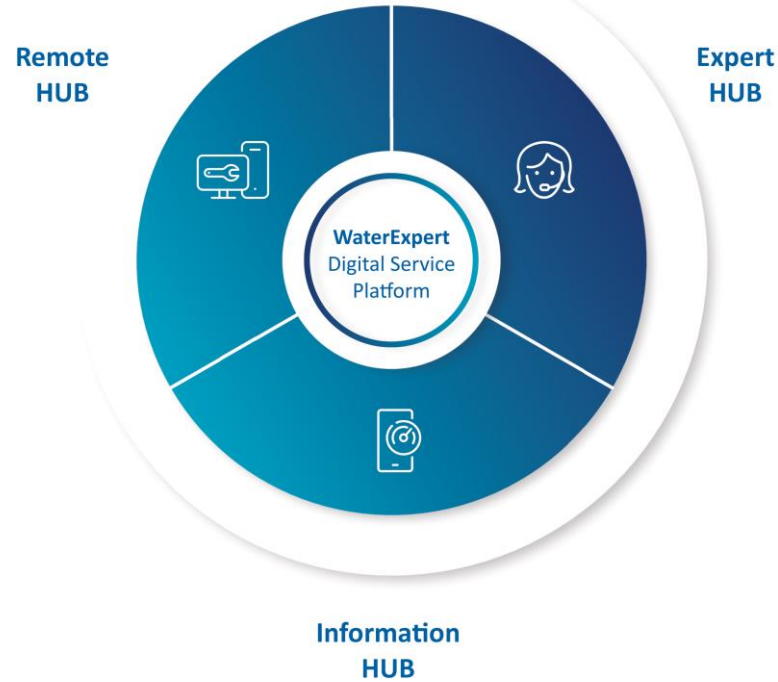
WATER EXPERT

Digital Service Platform

Make processes smart and
easy for everyone



→ WaterExpert Digital Service Platform



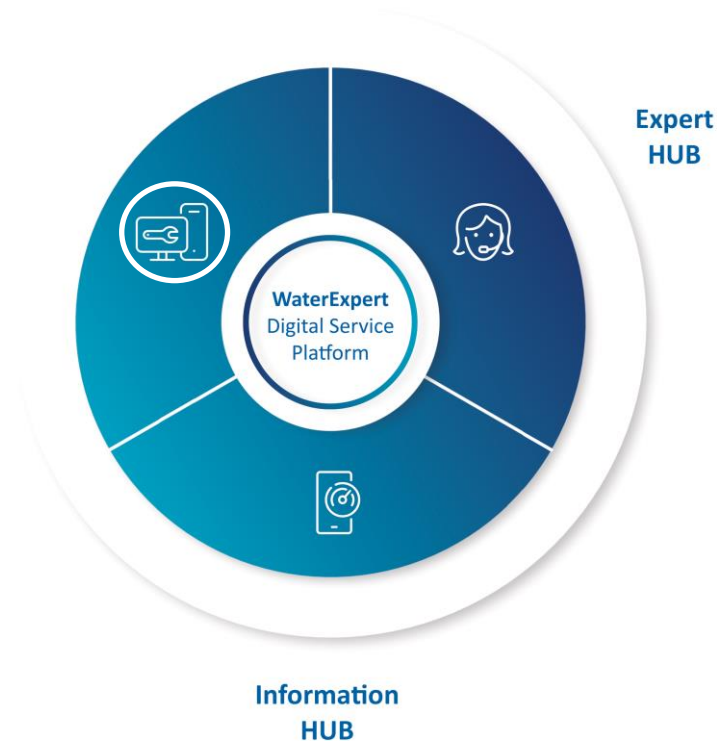
→ WaterExpert Digital Service Platform



Remote HUB

“Proximity even in the distance”

Remote Control Settings
& Smart Glasses



→ WaterExpert Digital Service Platform



Remote HUB

“Proximity even in the distance”

Remote Control Settings
& Smart Glasses



Information HUB

Expert HUB

“Your direct line to expertise”

Process Optimization &
In-Depth Analysis and Reports



→ WaterExpert Digital Service Platform



Remote HUB

“Proximity even in the distance”

Remote Control Settings
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Information HUB

“Data from one source”

Expert HUB

“Your direct line to expertise”

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→ WaterExpert Information HUB

*Quick access to all plant-related data
and information via one platform*

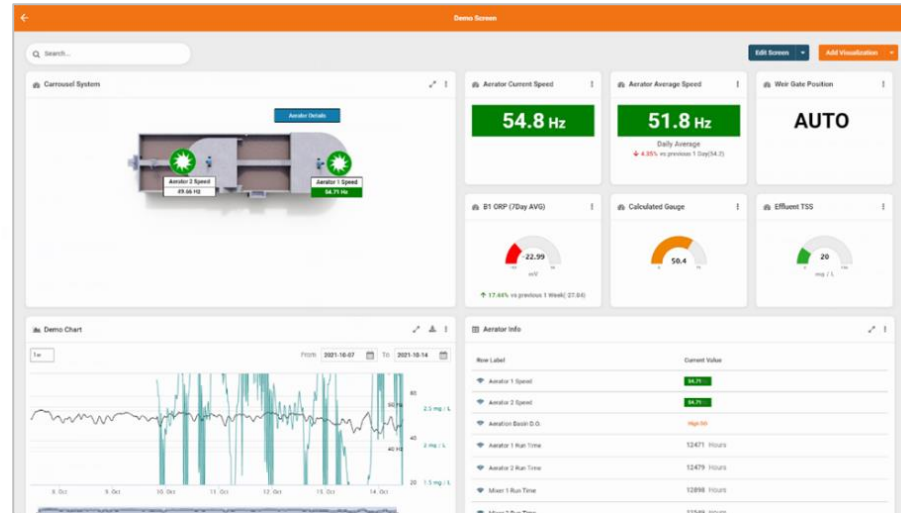


→ WaterExpert Information HUB



Quick access to all plant-related data
and information via one platform

💧 Current Status & Trends:
Dashboards



→ WaterExpert Information HUB



*Quick access to all plant-related data
and information via one platform*

- 💧 Current Status & Trends:
Dashboards
- 💧 Documentation:
Asset-specific Library

The screenshot displays the '02_Durchlaufanlage' asset details and its associated 'Media Library'. The asset details include:

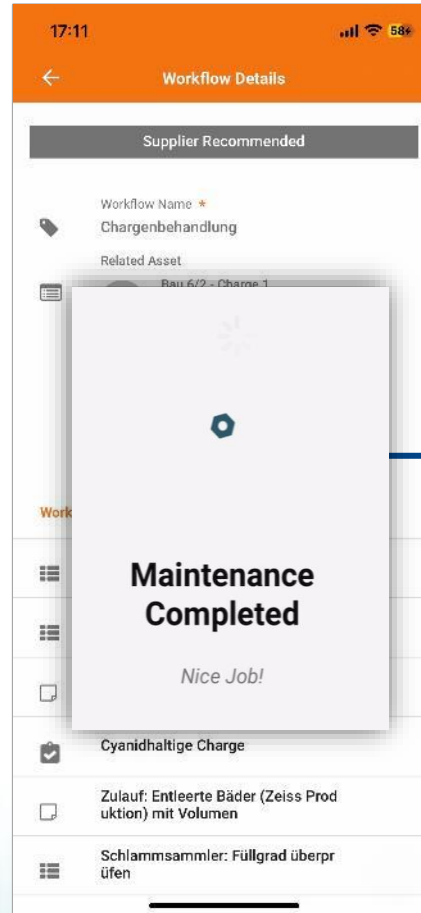
- Asset Details:**
 - Type: Zone
 - Name: 02_Durchlaufanlage
 - Startup Date: July 12, 2021
- Media Library:**
 - Magnetdosierpumpe ProMinent gamma/L Betriebsanleitung** (6.6 MB PDF)
 - Membranpumpe sera 409_410 Betriebsanleitung** (1.5 MB PDF)
 - Messumformer für pH und Redoxpotential Liquisys M CPM223/253 Betriebsanleitung** (2.9 MB PDF)



→ WaterExpert Information HUB

Quick access to all plant-related data and information via one platform

- 💧 Current Status & Trends: Dashboards
- 💧 Documentation: Asset-specific Library
- 💧 Daily Rounds & Maintenances:
 - Quick data collection
 - Dynamic Step by Step Workflows



← Cyanide present?

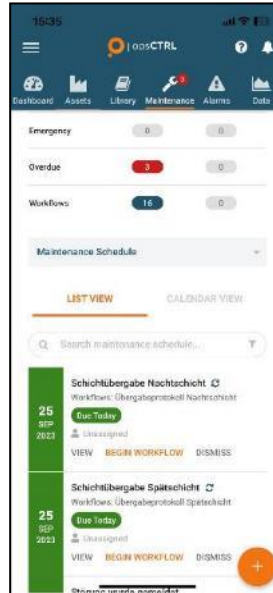


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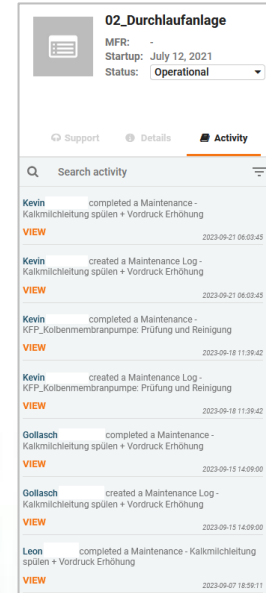
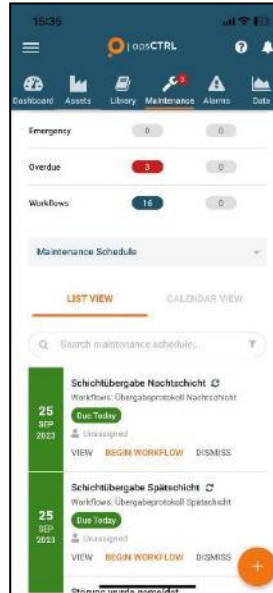


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 - Quick data collection
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Workflows
 - Schedule & History of
Undertaken Measures
- 💧 Process Analysis & Reporting:
 - Automated Data
Distribution & Reports



24h-Protokoll

2023-09-24 to 2023-09-25

Plant Name

Asset Name



0 alarm(s) triggered in the last day.


DLA1	
Row Label	Current Value
pH Sollwert Grobneutralisation (6-10.5)	5.0
pH Sollwert Feinneutralisation (6-10.5)	10.2
pH Wert Endkontrolle (9-10)	9.1
Temperatur Endkontrolle (max. 35°C)	23.9 °C
24h-Abwassermenge	41.0 m ³



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- 💧 Process Analysis & Reporting
 - Automated Data Distribution & Reports
 - Alarms




24h-Protokoll

2023-09-24 to 2023-09-25

🏠 Plant Name

🏷️ Asset Name



⚠️ 0 alarm(s) triggered in the last day.

DLA1	
Row Label	Current Value
📄 pH Sollwert Grobneutralisation (6-10.5)	5.0
📄 pH Sollwert Feinneutralisation (6-10.5)	10.2
📄 pH Wert Endkontrolle (9-10)	9.1
📄 Temperatur E	
📄 24h-Abwasse	

Priority	Active	Return to Normal	Unacknowledged
Critical	0	0	0
High	0	0	0
Medium	0	0	0
Low	3	0	0
Warnings	0		

🔍 Search events...

Pumpenschacht Vollmeldung
Alert Triggered.
Triggered: 2023-09-24 22:42:40
Value: 1.0000

Lauge Leer Alarmierung
Alert Notifications Sent
SMS sent to : +491716216421
Triggered: 2023-09-24 20:47:24



→ WaterExpert Summary



Transparency



Safety



Velocity



Sustainability

→ Contact

Questions and Inquiries



Moritz Krämer

Team Digital Service

Mail: waterexpert@envirochemie.com

