

Light Air Water



Prolog

Since 1993, Rotasystem has been a specialist and service provider for industrial and commercial enterprises and has focused on the planning, construction, and consultation of sustainable and energy efficient solutions for all things light, air, and water.

Rotasystem provides tailor-made, high-quality solution to optimize the processes of industrial and commercial enterprises, making sure they're the most energy efficient and economical possible. We are continuously working on offering the best value-for-money for our products while keeping all environmental concerns and our customer happiness in mind.



Karl Gasser | CEO

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A perfect room climate is the prerequisite for increased productivity, more profitable operations, and employees' well-being. Our solutions create a steady climate and perfect conditions for your materials, men, and machinery.



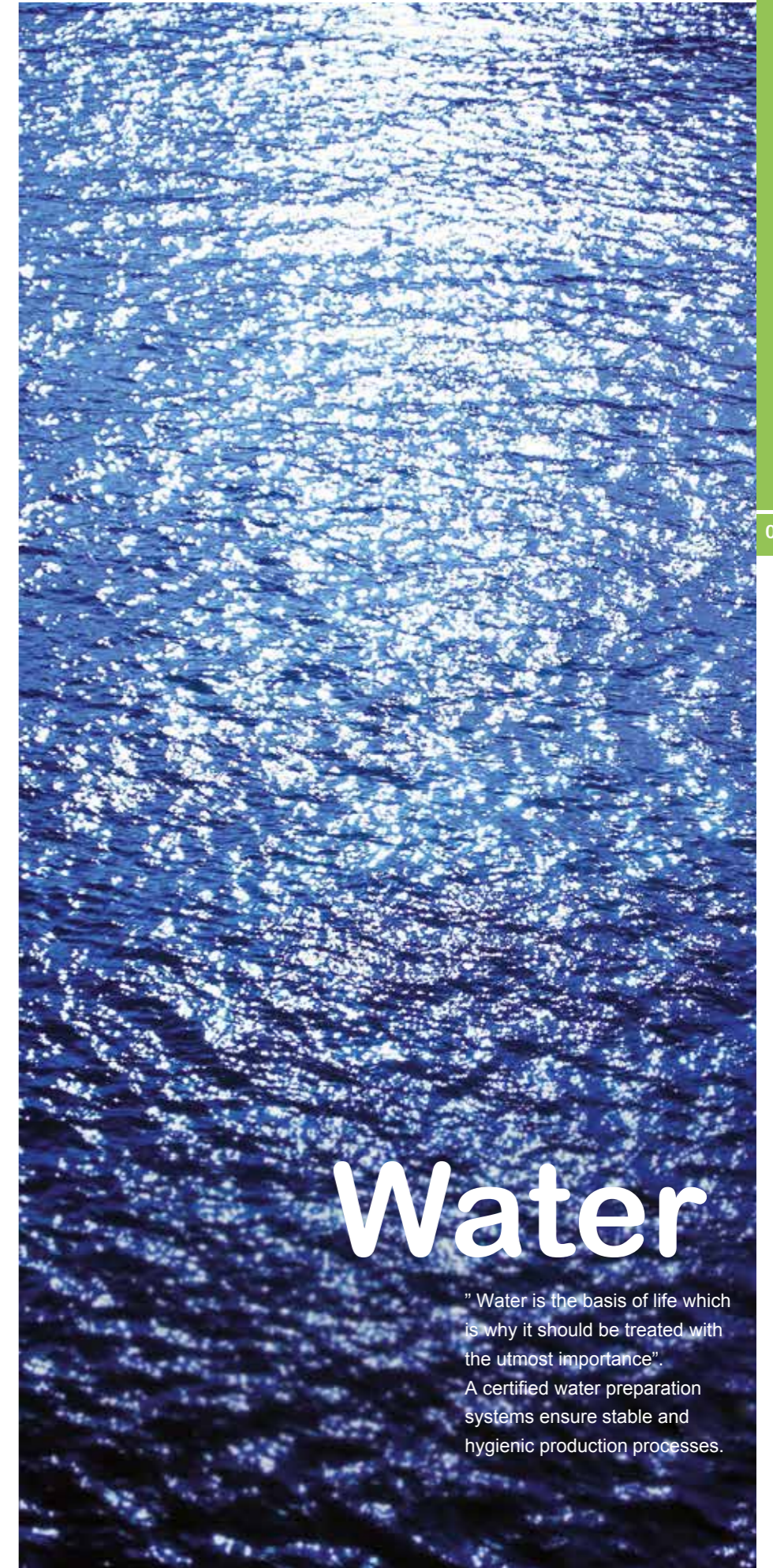
Light

Efficient lighting solutions, tailor-made lighting design, and sustainable lighting technology through selected, safe, and durable LED products.



Air

Humidification systems and fans create constant, climatic conditions for increased productivity by reducing climate-related factors such as electrostatic discharge (ESD), dehydration, dust and heat.



Water

"Water is the basis of life which is why it should be treated with the utmost importance". A certified water preparation systems ensure stable and hygienic production processes.



Light

LED-Lighting

We offer high quality LED products, lighting consulting, conceptual design with lighting design and calculation of cost effectiveness. We have developed and selected our LED illuminants specifically for sustainable, commercial, and industrial use.

LED-Lighting for the Industry

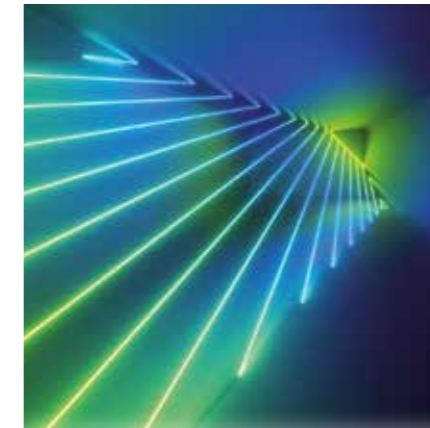
Industrial lighting stands out from the lighting in private houses due to its high demands and performance parameters. Sustainability, ambient temperature, color temperature and color rendering values are important factors to consider when planning lighting. In addition, the energy balance and the requirements of the workplace regulations must be taken into account.

Lighting Control

Lighting control in the field of LED lighting are important accompanying systems. The integration of presence control and daylight control as well as DALI, KNX or ZigBee radio controls are flexible solutions for energy saving in lighting planning.

Lighting design

A good concept starts with a qualified lighting design and the coordination of the correct lighting layout, while taking into account legal requirements.



„Turnkey Solutions“

Our customers come from trade and Industry. We plan lighting in workshops, production plants, industrial halls, office buildings, public facilities, and sports parks.

High quality Illuminants

The selection of the right illuminant with consideration of radiation angle, glare, color temperature, color rendering and the ratio of energetic power to light output is an important factor in the design of lighting concepts.

Air

Air Humidification

Humidification systems allow for a constant indoor climate, regardless of external weather conditions. 365 days a year, consistent, productive air conditions. Whether high-pressure humidification, steam humidification, compressed air humidification, ultrasonic humidification or evaporation humidification, we design the right humidification system for you.

Air Humidification

For a productive and healthy climate

Humidity, the most forgotten factor in ventilation technology. A constant humidity level creates regulated production processes, reduces the number of sick leaves and increases the company profitability.

Process Optimization

Optimization through humidity regulation. While you have no influence over the outdoor climate you do have influence over the indoor climate and can thus improve production processes with humidification. By optimizing the consistency of the material, you not only increase the quality of your products, you also reduce the number of rejects, the error rate and overall production costs.



Adiabatic cooling

Due to the physical effect of evaporative cooling (adiabatic cooling), systems, rooms, and halls can be cooled very energy-efficiently. As water changes its aggregate state from the liquid to gaseous state, it removes energy in the form of heat from the environment. This creates a cooling effect which can be used for cooling down rooms and offices; industrial processes in the chemical, pharmaceutical, or food industry; or, as an energy efficient pre-cooling process for cooling towers.

Air Humidification

Reasons for air humidification

Paper, wood, leather, tobacco, textiles, food, and other semi-finished and finished products are all hygroscopic to a certain extent. These products are in an exchange relationship with the indoor air humidity and take either Steam from their environment or give off steam. This happens until they are in equilibrium with their environment. The quality and processability of the products therefore depend very much on the moisture content of the fabric.

Perishables Temperature / Cooling

- Moisture exchange
- Consistent quality
- Optimum storage conditions
- Less losses
- Adiabatic cooling
- Energy saving



Feel-good Climate Home and Office

- Optimal climate
- Increased motivation
- Constant room climate
- Lower sickness
- Higher concentration
- More productivity

Dust Control Contamination

- Dust control
- Consistent quality
- Reduction of odors
- Better air
- Less dust
- More quality



Textiles, Materials and Fabrics

- Sensitive materials
- Better processing
- Moisture balance
- Less committee
- Consistent quality
- More profit

Pulp & Papers

- Consistent paper quality
- Better printing results
- Brilliant colors
- Higher output
- Less failures



Wood, Furniture and Veneer

- Improved warehouse ownership quality, better quality.
- Reduced dust formation.
- Improved binding and adhesive properties.
- Less tension and cracking.

Paint & Surface Coating

- Stable surface tension of the paints.
- Fewer drying problems
- Consistent Quality = more profit

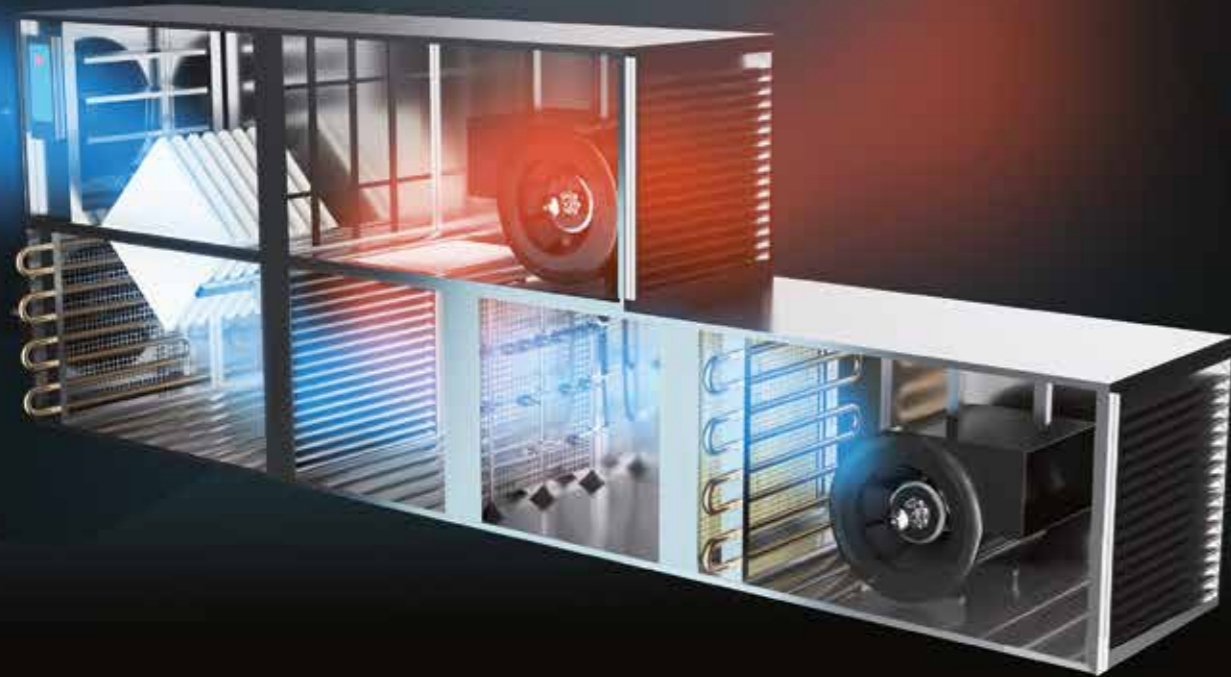


Electronics & ESD

- Prevention of static discharge
- Constant room climate at any season
- Adiabatic cooling
- Consistent production environment.

High pressure air humidification

AHU duct humidifier



High pressure air humidification

InRoom direct humidifier



High pressure duct humidifier AHU

High-pressure humidification systems for duct integration are the most efficient, safest and most effective humidification systems thanks to the frequency-controlled high-pressure pump with approx. 6 watts / liter of atomized humidifier water.

A channel system consists of a pump station with PLC control, a nozzle for channel integration and a separator wall for evaporation acceleration and droplet separation.

A high-pressure system can optionally control up to 3 units in-stallations independently.



As a hybrid variant, it is optionally possible to operate the system for channel humidification and direct humidification with atomizer units.

A variety of interfaces allow for easy system integration or "stand alone" control. All system pressures and settings are monitored and documented by the PLC.

The system design complies with ISO 22000 HACCP and VDI 6022.



High-pressure InRoom direct humidification

High-pressure humidification for direct room air conditioning via fan-assisted atomizers for rapid aerosol evaporation or directly via a high-pressure stainless steel nozzle.

The system can be extended as required via independently adjustable zones. As a closed system, it is hygienically questionable and has a variety of safety features. The frequency-controlled high-pressure pump and the integrated PLC Controls enable safe and hygienic operation.

The system design complies with ISO 22000 HACCP and VDI 6022.

Steam humidifier

For hygienic use in steam saunas, Turkish baths, hotels, SPA facilities and medical cleanrooms and laboratories.

Steam humidifier

Direct humidifier | Duct humidifier | Wellness

Electrode steam humidifier for a hygienically harmless claim. Direct steam humidifier with blower attachment for use in small to medium-sized rooms, humidors, laboratories, hospitals or medical areas.

Channel steam humidifier for the supply and integration of steam distributors in ventilation ducts. Expandable by means of master-slave up to 288 kg / h steam output.



Wellness OEM steam humidifier for integration in system solutions of different manufacturers for the bathrooms, saunas and SPA area.

VisonTouch display and control especially for use in wellness. Steam humidifiers with immersion electrodes use the conductivity of the drinking water for the production of steam by heating water. Steam is generated between the electrodes integrated in the steam cylinder by electric current at the immersion electrodes, which heat the water and thereby bring it to the boiling point.

Evaporation

HomEvap - humidification and cooling

The HomEvap evaporator units are hygienic safe, energy-efficient humidifiers, coolers and combined solutions for offices, homes, hotels and public facilities. The operating principle is based on the natural process of water evaporation.



Humidifier

Der Rotasystem HomEvap ist ein sicherer und energieeffizienter Luftbefeuchter. Das System arbeitet mit Frischwasser und ohne Umlaufwasser, Die Wasserversorgung erfolgt über einen Legiosafe®-Legionellenfilter. Ein integriertes Vorheizsystem kompensiert den adiabaten Kühleffekt.



Cooler

The Rotasystem HomEvap Cooler cools the extracted air of the ventilation system, by means of the cross-flow effect, the intake air is cooled.

Advantages: noiseless, works automatically directly to HRV or between connected air ducts.



Combi Comfort

The Rotasystem HomEvap Combi Comfort is a combination of humidifier and cooler. Ideal for integration into residential ventilation with cross air heat exchanger. In summer, the radiator cools the intake air via the exhaust air. In winter, the humidifier conditions the supply air.



Direct

The Rotasystem HomEvap Direct is equipped with a quiet, energy-efficient fan. As a result, the moisture can be sucked out of the room and conditioned without a ventilation system in recirculation mode.

The evaporation principle of the HomEvap evaporator is based on a regulated water supply via a Legionella filter to prevent nucleation in the process water and an evaporator unit with an inorganic, non-combustible glass fiber coating. The lamella arrangement of the evaporator allows optimal evaporation of the supplied water without much pressure loss. A variety of interfaces allow any system integration.



Areas of application

The HomEvap systems are used in offices, hotel rooms, suites, residential buildings, wooden houses, kindergartens, schools and senior citizen housing complexes.



Easy integration

Many areas can be equipped with the compact and easy to integrate HomEvap solutions. The easiest way is the integration in air heating systems or domestic ventilation.



Atomization

AirHum - compressed air humidifier

The compact AirHum air humidification system allows a very flexible and easy installation for room conditioning. The connection of the compressed air line and the water pipe is made via a simple plug-in system. AirHum stands out for its low energy consumption and high performance, high flexibility and humidification performance.

Ultrasonic

Duct / Direct / Universal Humidifier

Atomization by ultrasound has gained considerable importance and led to new applications. In commercial, service and industry, humidification is a crucial component for optimal air conditioning. The aerosols have a very small diameter (~ 0.001-0.005 mm). They are discharged through the air flow and mix very quickly with the ambient air.



The AirHum system finds ideal application in animal husbandry (cow, pig and Poultry farms), as well as in plant breeding. Even smaller carpentry and textile companies appreciate the pragmatic and inexpensive use. Dual-fluid systems are compressed air, water and air humidification solutions. The AirHum system requires only one power connection, double air connection and water connection. A classic plug & spray system.



Ultrasonic direct humidifier for use in small to medium-sized rooms for direct humidification of rooms.
Ultrasonic duct humidifier for integration in ventilation systems for small and medium air volumes.
Ultrasonic universal humidifier for individual humidification solutions, such as in measuring stations, testing facilities, humidors, vegetable and fruit counters.

HVLS Fan

High Volume, Low Speed

Großes Luftvolumen bei geringer Geschwindigkeit. HVLS Ventilatoren werden in großen Industrie- und Gewerbehallen, Hotels, Atrien und Außenanlagen eingesetzt. Durch die langsame und automatisch durch Temperaturfühler anpassbare Geschwindigkeit mittels frequenzgesteuerter Motoren, wird eine sanfte Luftbewegung erzeugt und ein optimales Klima generiert.



HVLS Fan

for Industry

The HVLS fans are an economical, effective and effective solution for the air conditioning of large rooms and halls. We offer the right, most economical and most efficient fan solutions for industrial and commercial use.



The summer / winter operation allows an energetically favorable and extremely economical, climatic regulation. In summer, large air masses are moved downwards during normal operation. By controlling the speed of rotation, warm pent-up air is gently guided from the ceiling to the ground in winter (destratification).

Room / ceiling fans for commercial and industrial companies

Compact ceiling fans, ideal for commercial, catering or office space.
By means of a speed control and remote control, the speed can be adapted to the desired needs.
The noise emission is very low and barely perceptible.



Mobile Fans for events and mobile use

The mobile large fan for flexible use - indoor or outdoor.
Events and outdoor areas can be supplied very simply and effectively temporarily or permanently with the Jumbo fan.



Water

Basic Know How

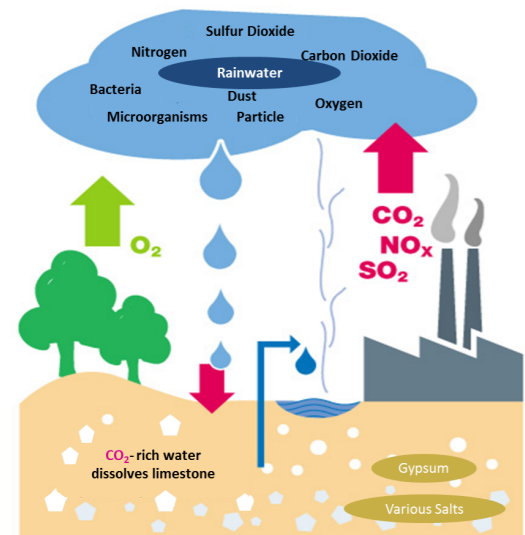
Water is a food, so it should be treated as such. Water treatment systems such as water softening systems or hygiene filtrations in the ultra- or nano range, such as reverse osmosis systems, ensure stable and hygienic processes for the operators of air handling systems. Also, a stable process water for various production requirements is provided.



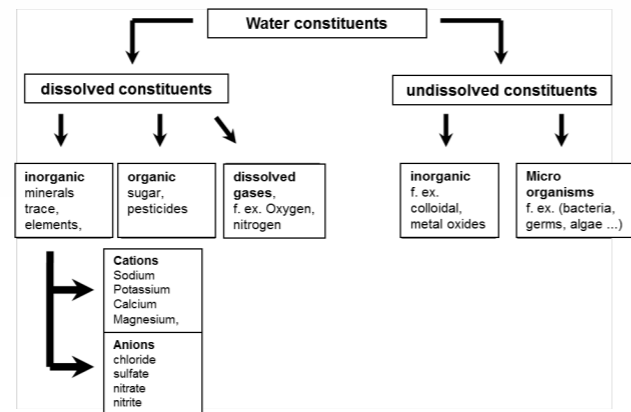
Water treatment

Hygienically safe

For stable productions, process requirements, certified water treatment offers safety and consistent quality.



Water contains many substances



Water origin and water quality

Drinking water comes from different sources of supply and composite systems, the consequence can be a strongly fluctuating water quality. The quality may vary several times a day.

Requirements for processes

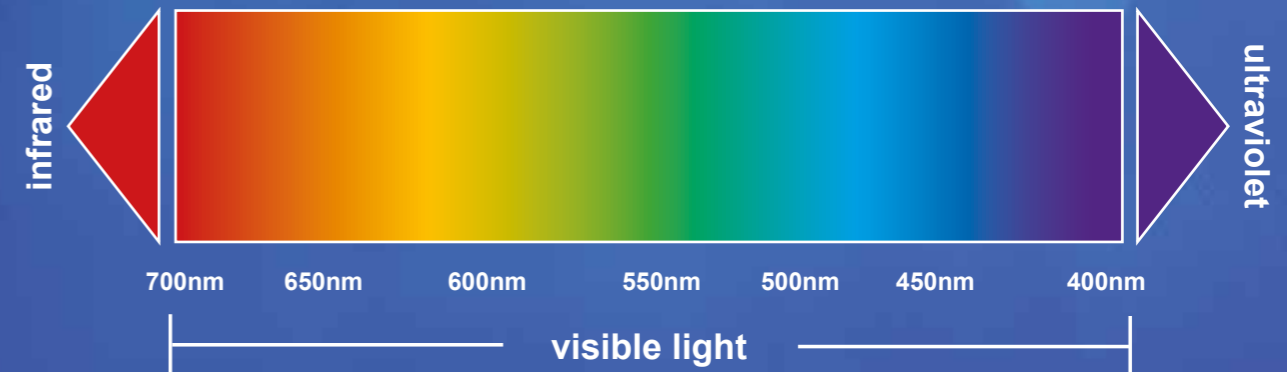
Various systems in technical facilities are dependent on stable and uniform conditions. Production reliability and quality can only be maintained with stable and consistent quality. Water hygiene is an important cornerstone for atomizer systems and evaporation systems.

For a hygienically safe environment, appropriate water treatment systems are an important element in the overall solution. There are a number of different systems for treatment. Rotasystem offers all components from "small to large".

Water hygiene

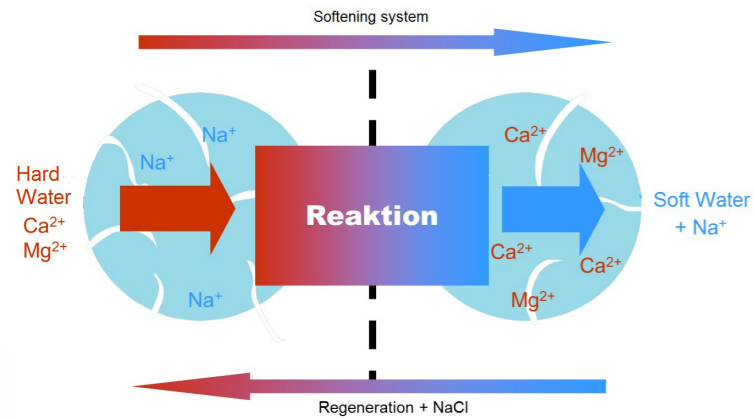
UV-Disinfection

In UV disinfection or UV sterilization, the water is irradiated with ultraviolet light and thus used as a bactericide. UV light destroys the DNA, the cell membrane and the enzymes of the microorganisms by forming free radicals in the water. The UV radiation with a wavelength of 254 nm is the strongest for the antibacterial effect.



Softening

The water softening system removes the hardening components of the water such as lime by means of ion exchange and thus ensures soft water. From simple ion exchangers, to timed 1-column water softening systems, to 2-column softening systems with high yield for continuous non-stop operation.



Hygiene filter

Ultrafiltration / Legionella Filter Systems HFRO
Automatically backwash membrane filter for water disinfection, especially for the safe retention of Legionella from the feed water for humidifiers or for the domestic connection. An ideal supplement for the supply of humidification systems for process optimization or conditioning.



Filters

Good prefiltration ensures trouble-free supply of process water for various applications.

Pre-filter units in different sizes and filtration spectra.

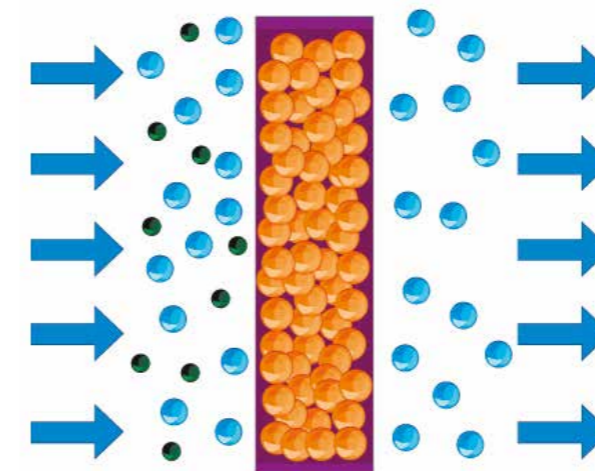
Activated carbon filter and deicing filter systems are also part of the scope, as are fully automatic backwash filter units or water filter stations.



Reverse osmosis

Reverse osmosis from small to large

Hyperfiltration is a common form of water filtration for stable process water production. Different applications require different solutions. Therefore, we offer from small systems for demineralisation from 4 kg/h to large-scale plant > 2000 kg/h and larger depending on requirements.



Our References



Toyota Motor Manufacturing Ltd. • W. L. Gore & Associates GmbH • Deutsche Post AG • Nokia Siemens Networks • Bella Boats • Megatech Automotive Europe GmbH • Dräxlmaier Group Axel Springer Verlag AG • Hella GmbH & Co. KG • Airbus EADS Mondi Ascania GmbH • Abeking & Rasmussen • Landestheater Linz • Gondwanaland Zoo • Botanischer Garten Berlin • Zoo Dortmund • SCA Packaging • Heidelberger Druckmaschinen AG Anawood GmbH • Schwörer Haus KG • Fellbacher Weinkeller Weingut Fritz Waßmer • Trützschler GmbH • Mondi JSC MSY AO BWF Tec GmbH & Co. KG • Audi AG • Meyer Werft GmbH & Co. KG Frauenkirche Dresden • Hoch GmbH Oblaten • Tecuplast GmbH Astorplast GmbH • Markus Kaffee GmbH & Co KG • Druckhaus Haberbeck GmbH • Druck & Verlag Hermann Bösmann GmbH ontec Automation GmbH • RAWE Elektronik GmbH • Demmel AG

Service and customer service



Assembly and commissioning

Planning and scheduling of assemblies and Service appointments has been our business since inception. We have an international, motivated technician team. Our decentralized organization is close to the customer, which shortens travel times, travel expenses and response times.

Maintenance contracts

With the conclusion of a maintenance contract, they always have all the costs in view and we have their equipment in sight. We know the peculiarities of the light, air, water systems and can thus always react quickly. In conjunction with a maintenance contract, we offer you warranty extensions and regular service intervals.

Service

Service Hotline +49 89 4530920

24 hours available, Freecall

For our customers we offer an online portal with all information about our facilities, plans, operating instructions, exploded views, spare parts lists and prices.

www.rotasystem.com/kunden-partnerportal/

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