

# Pure water for health – with ProMinent

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Reliable drinking water treatment from a single source

**ProMinent®**

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# Complete solutions from a single source

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Pure water is an essential requirement for health and well-being. ProMinent has made it its business to treat available water reserves with suitable processes to produce the finest quality drinking water. The main focus here is on provision of technologically suitable solutions for municipal drinking water suppliers and private customers, such as hotels. ProMinent is one of the few suppliers worldwide to offer both desalination and all disinfection processes, and hence can choose the optimum technologies to be used for each customer individually.

- Advice, planning, engineering, service, maintenance and training from a single source
- Complete product range with chlorine dioxide, ozone, UV, reverse osmosis, chlorine electrolysis and dosing systems, polyelectrolyte mixing stations, gravity filters, storage and control and measurement technology
- Worldwide service through ProMinent branches and agencies
- Compliance with all necessary legal framework requirements such as WHO standards or the German Directive on drinking water



Further information:  
[www.prominent.com/potable\\_water](http://www.prominent.com/potable_water)



**A** Disinfecting raw water pretreatment

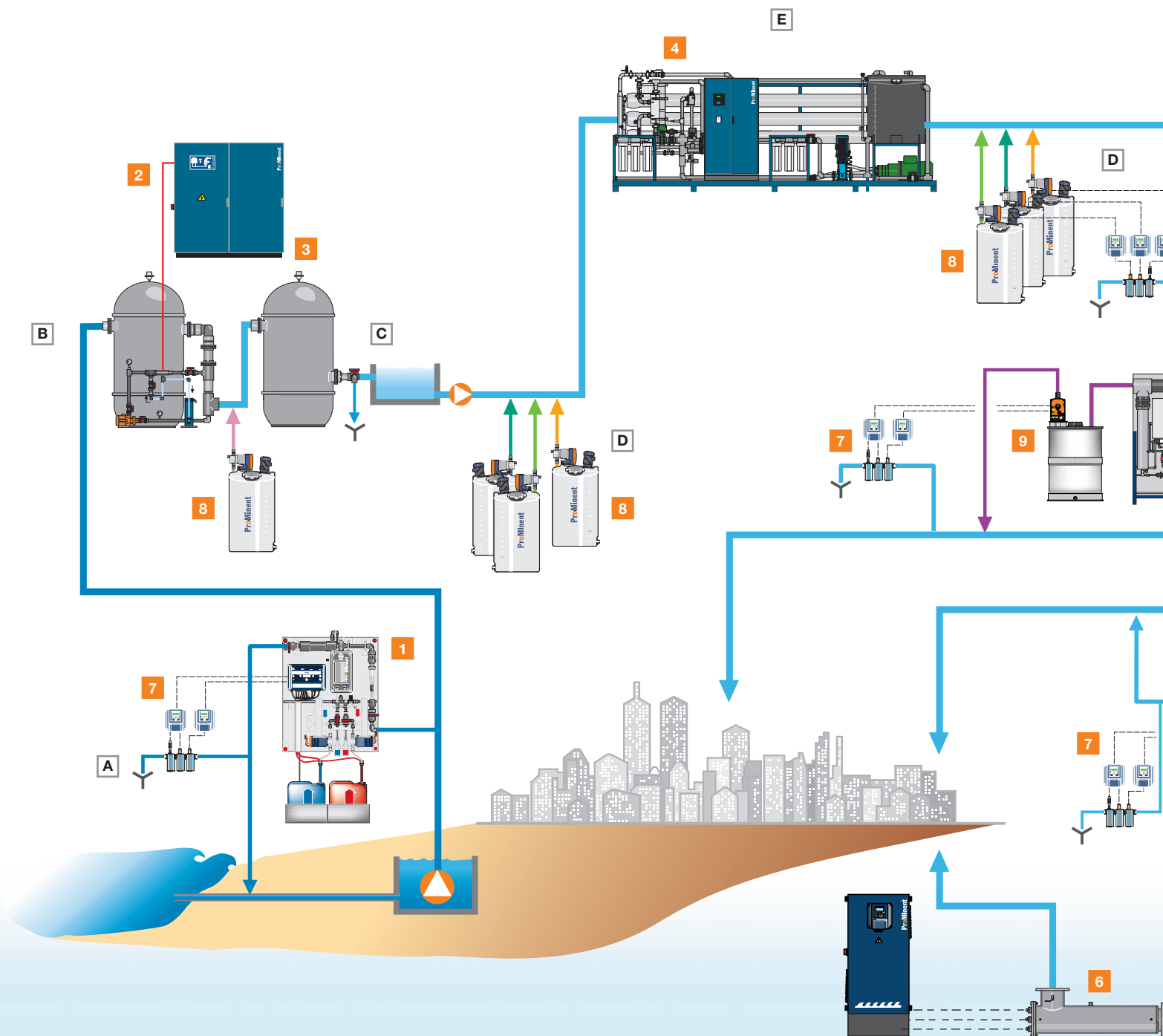
**B** Oxidation

**C** Filtration

**D** Chemical conditioning

**E** Desalination

**F** Disinfection



**1** Chlorine dioxide plant  
Bello Zon®

**2** Ozone systems  
OZONFILT®  
and Bono Zon®

**3** Pressurised/  
gravity filter  
Interfilt® SK

**4** Reverse osmosis  
Dulcosmose®

**5** Membrane electrolysis  
Dulco® Zon

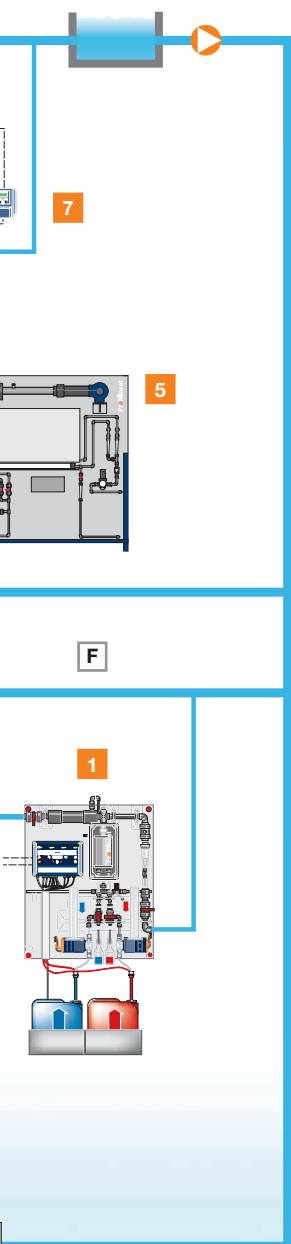
**6** UV systems Dulcodes

**7** DULCOMETER®/  
DULCOTEST®

**8** ProMinent®  
dosing stations

**9** Chemical storage  
vessels and tanks

# Turning water into food



ProMinent offers the complete drinking water treatment process from a single source: from consulting to operation to achieve the optimal technical and economic solution within given limiting conditions and requirements, the entire system must be individually planned. The solutions are then implemented with ProMinent products optimally matched with one another. Complete solutions are available for standard applications.

## Raw water

- Sea water and brackish water
- Surface water from lakes and rivers
- Ground water and spring water

## Drinking water treatment

- Flocculation
- Precipitation
- Filtration and adsorption
- Removal of iron, manganese and arsenic
- Softening and stabilisation
- Microfiltration and ultrafiltration
- Desalination
- Hardening
- Deacidising and pH adjustment
- Oxidation
- Disinfection using a wide range of processes

## Drinking water distribution

- Disinfection and stabilisation in the water reservoir, in the pipework system and in the building installation



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### UV systems Dulcodes

Oxidation and disinfection without chemicals. The low operating costs of this process of irradiation with UV-light are another powerful argument for its use. DVGW (German Gas and Water Authority) certified performance also ensures safe protection against parasites such as Giardia and Cryptosporidium.



### Chlorine dioxide plants Bello Zon®

Reliable, low-maintenance production of the highly reactive gas chlorine dioxide, with the highest levels of safety, direct on site. Disinfection with chlorine dioxide is an effective method and because of its residual effect, provides permanent protection in the drinking water supply.



### Ozone systems OZONFILT® and Bono Zon®

Pure water using ozone. The decision whether to use the OZONFILT® pressurised systems or the Bono Zon® vacuum system depends entirely on the quantity of this oxidising agent, the strongest one permissible, required. The systems are ideally suited for chemical free iron and manganese removal in the drinking water sector, for example, or for removal of arsenic.



### Membrane electrolysis Dulco®Zon

The alternative to bleach. Chlorine produced directly on site by electrolysis, from harmless common salt, represents an extremely economical alternative to other chlorine products, and without the need to store hazardous chemicals.



### Reverse osmosis plants Dulcosmose®

The most effective desalination process. Low investment and operating costs are additional pluses of this hyperfiltration process, which uses no chemicals. Integrated cleaning and flushing concepts ensure reliable, round-the-clock operation for continuous water production.



# A solution for every problem



## Compact water treatment units Dulcoclean®

This compact unit combines several water treatment processes. Chemically and bacteriologically contaminated mains water or brackish water is converted to high-quality drinking water.



## Chemical storage vessels/tanks

ProMinent storage tanks and vessels guarantee the highest reliability in storage and handling of chemicals. Precisely matched to the dosing equipment, designed and constructed for each individual use, they store alkaline solutions, acids and other additives reliably and safely.



## Dosing stations and pumps

It almost goes without saying: ProMinent dosing stations and pumps are used everywhere where precise quantities must be dosed – whether with disinfectants, pH adjustment, or in many other applications. Dosing with chlorine for disinfection is a simple, safe and convenient variant of the disinfection process. ProMinent® metering pumps are standard in water treatment.



## Measurement, control and sensor technology

### DULCOMETER® and DULCOTEST®

Many measured variables, one technology. The controllers receive data from the widest range of sensors. As well as pH, redox, conductivity and chlorine, sensors are also available for chlorine dioxide, chlorite, ozone, hydrogen peroxide and other parameters. Seamless integration into a ProMinent® total solution eliminates interface problems.



## Gravity filter Interfilt® SK

Economical water treatment with gravity filters: open sand filter plants with differential pressure-controlled backwash and integrated backwash water reservoir work automatically and with no maintenance or wear and tear.



Further information:  
[www.prominent.com/potable\\_water](http://www.prominent.com/potable_water)



Reference: Porto Carras Grand Resort

# Healthy water in the hotel



**“ProMinent offered us a complete solution based on the very latest technology and comprehensive services, and with the best performance/price ratio”**

George M. Hadijosif, Porto Carras Grand Resort, Greece

In the course of renovation of a 4-star hotel on the Greek peninsula of Chalkidiki/Sithonia, the drinking water supply also had to be brought up to modern standards. The solution had to be independent of the municipal water supply, as there were repeated supply shortages in the main holiday season.

## Challenge

- Design and implementation of a decentralised drinking water treatment plant using raw water with the qualities available locally
- Complete process planning and fast project handling, partially during the high season
- Supplying the 2000-bed establishment with high-quality drinking water for human consumption, personal hygiene, swimming pools, golf courses and other facilities
- Supply to be independent of the municipal drinking water supply system

## Solution

- Conversion of sea water to drinking water by reverse osmosis, together with pretreatment by disinfection and filtration and post-treatment by pH adjustment and disinfection

- Automatic process control by means of PLC monitoring complete with ProMinent® measurement and control equipment
- On-site training for the plant operator and remote maintenance by ProMinent
- Provision of a service engineer for operation of the plant in the high season

## Customer benefits

- Complete solution from a single source
- Quick implementation without affecting the running of the hotel
- Optimal technical and economical solution and trouble-free operation

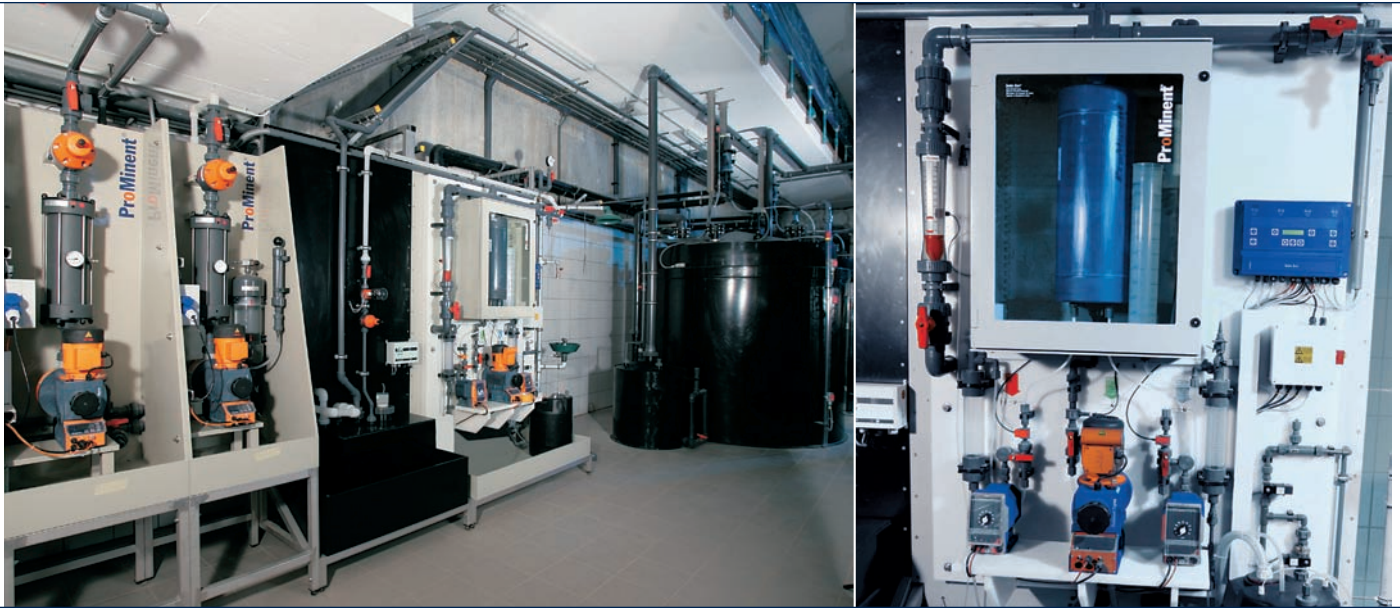


Further information:  
[www.prominent.com/references](http://www.prominent.com/references)



Reference: Koerich waterworks

## Safe and controlled disinfection



**“This technically-advanced disinfection plant was professionally designed and constructed. People living in the region will be able to enjoy their drinking water with a pleasant, neutral taste and with no fear of pathogens.”**

Tom Levy, technical director, Koerich waterworks, Luxembourg

Koerich water works near Luxembourg City is one of the Grand Duchy's most important water works. A high-level tank with a volume of 15,000 m<sup>3</sup> plus an additional 2,000 m<sup>3</sup> was newly constructed for storage. ProMinent's task was to design and construct a plant which would ensure safe and reliable disinfection of drinking water, round the clock, 365 days a year.

### Challenge

- Efficient disinfection of the drinking water without impairing taste or odour, within the framework of legal requirements
- Safe, continuous, automatic operation with the lowest possible expenditure on operation and maintenance
- Safeguarding the quality of the drinking water all the way to the consumer's tap

### Solution

- Dosing and supply concept with chemical storage vessels, chlorine dioxide generating plant, collection module for intermediate storage of stock solution and volume-proportional dosing into various pipelines using Sigma pumps

- Dosing points with diaphragm valves and complete monitoring of the entire system by PLC maintain the highest levels of safety
- In addition, chlorine dioxide, redox and pH are measured and monitored

### Customer benefits

- Safe disinfection of the water and permanent neutral-tasting and odourless water quality through the residual effect of chlorine dioxide
- Automated operation of the plant reduces costs and ensures 24-hour operation, 365 days a year
- Operating parameters can be reported to the control room



Further information:  
[www.prominent.com/references](http://www.prominent.com/references)

# Global service locally



We offer ProMinent® Service even before you become one of our customers. Our pre-sales services ensure that you get the optimum solution for your individual needs:

- **Advice in choosing the products**
- **Application and process optimisation**
- **Project planning**

However, our commitment does not end with delivery. We offer you a comprehensive after-sales service, which lasts for the entire service life of your equipment.

That maximises your productivity and minimises your operating costs:

- **Assembly/installation**
- **Commissioning**
- **Maintenance**
- **Spare parts service**
- **Repair**
- **Troubleshooting**

Thanks to our worldwide presence in over 100 countries, our service is available wherever you need it.



Further information:  
[www.prominent.com/service](http://www.prominent.com/service)

# World-wide contact



ProMinent is at home in more than 100 countries of the world. This guarantees world-wide availability of the products and short distances to the customer. All over the world, ProMinent offers identical quality standards for products and services. ProMinent is where you need it: experience and know-how in water treatment and chemical fluid handling are available world-wide.

**For detailed information, please visit our website [www.prominent.com](http://www.prominent.com)**

**ProMinent Dosiertechnik GmbH**

Im Schuhmachergewann 5-11

69123 Heidelberg

Germany

Phone: +49 6221 842-0

Fax: +49 6221 842-419

[info@prominent.com](mailto:info@prominent.com)

[www.prominent.com](http://www.prominent.com)





**ProMinent Dosiertechnik GmbH**

Im Schuhmachergewann 5-11

69123 Heidelberg

Germany

Phone: +49 6221 842-0

Fax: +49 6221 842-419

[info@prominent.com](mailto:info@prominent.com)

[www.prominent.com](http://www.prominent.com)

