



# MEMBRANE SALT ELECTROLYSIS

WATERDISINFECTION WITH NATURAL SALT





Elektrolyse in Betrieb 24  
Leistung 1.4  
Zirkulationszeit 1.8 Min  
Pufferkapazität 180l  
Leistung Menu

ON/OFF

CE

BUEMA UN RD

BUEMA UN RD

beta/4  
Profiliment



### WHY WATER DISINFECTION?

Since poolwater is a good carrier of micro-organisms and every swimmer brings in several million bacteria, viruses, fungi and other micro-organisms into the poolwater despite washing their body before swimming, the poolwater must be continuously disinfected to prevent the risk of an infection.

The best way to do this is with chlorine, as it acts quickly due to its reactivity and is the only disinfectant with a depot effect. It is also the least problematic for the human organism.

### WHATS THE ISSUE?

The typical, unpleasant chlorine smell occurs when there is too few active chlorine and too many chloramines (combined chlorine) in the water.

This can also cause eye burning and skin irritation.

The correct pH value is essential for perfect disinfection performance and one of the most important factors for swimmingpool owners.

The optimal pH value should be 7-7.5.

### WHY ELECTROLYSIS?

In short words: With an electrolysis unit, the required amount of disinfectant can be produced on site in a simple and inexpensive way from harmless common salt tablets and the dosage can be adjusted perfectly.

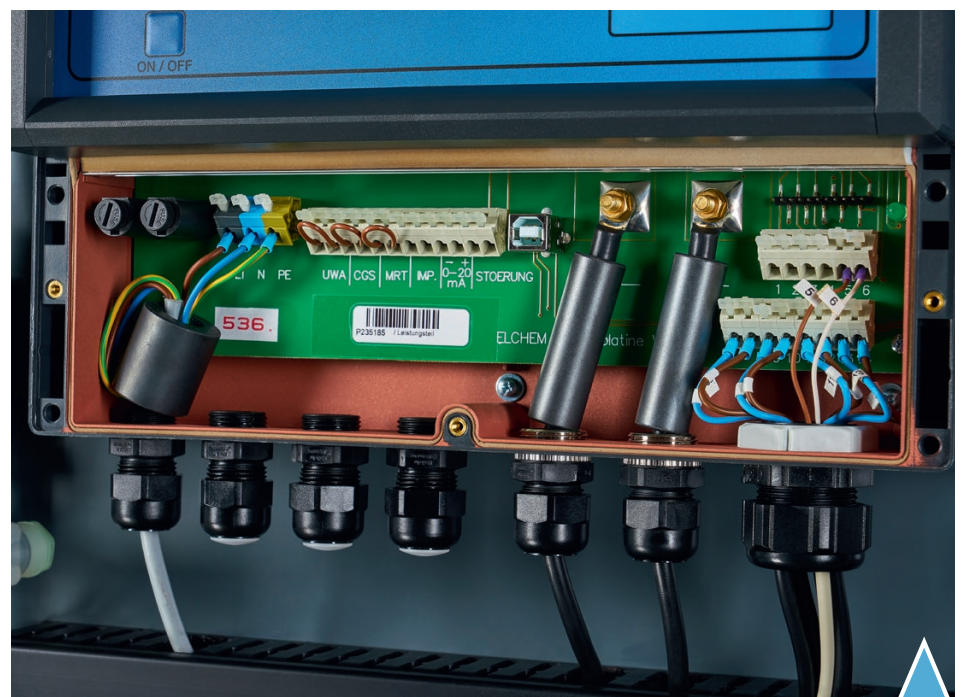
### BENEFITS

The continuous dosing of highly effective chlorine in the form of hypochlorous acid ensures that the right amount of active chlorine is present in the water at all times.

This means that even people with empfisible skin can get into the poolwater. Eye and skin irritations as well as unpleasant swimming pool odours are avoided.

The cost of producing active chlorine with an electrolysis plant is significantly lower than the price of procuring commercially available chlorine bleaching lye. The need for pH-regulating chemicals is drastically reduced.

This reduces the risk of accidents. Due to the modern membrane cell technology, the poolwater is not salinated.



## FUNCTIONAL DESCRIPTION

### **ELECTROLYSER** **TYPE 24** **TYPE 48**

#### **APPLICATIONS:**

Outdoor swimming pools, private / public  
Indoor swimming pools, private / public  
Therapy pools  
Whirlpools

The electrolysis unit is connected to the poolwater and does not require a fresh water connection. Part of the poolwater is used to absorb the produced disinfectant, which is fed into the circulation line by an injector. This means that no additional dosing pump is necessary.

The extraction is monitored and if the quantity falls below a minimum level, production is switched off. Due to the arrangement of the cell under water, there is no danger from escaping chlorine. In addition, there is an optional chlorine gas sensor for monitoring the room air.

The unit can be mounted using the optionally available wall brackets and the salt dissolving tank placed underneath. This means that the space requirement is low and installation is simple.

### **ELECTROLYSER** **TYPE 100** **TYPE 250** **TYPE 500**

#### **APPLICATIONS:**

Public Outdoor swimming pools  
Public Indoor swimming pools  
School swimming pools  
Therapy pools

The electrolysis system is connected to fresh water and to the poolwater. The poolwater is used to absorb the produced disinfectant, which is fed into the circulation line by an injector. This means that no additional dosing pump is necessary.

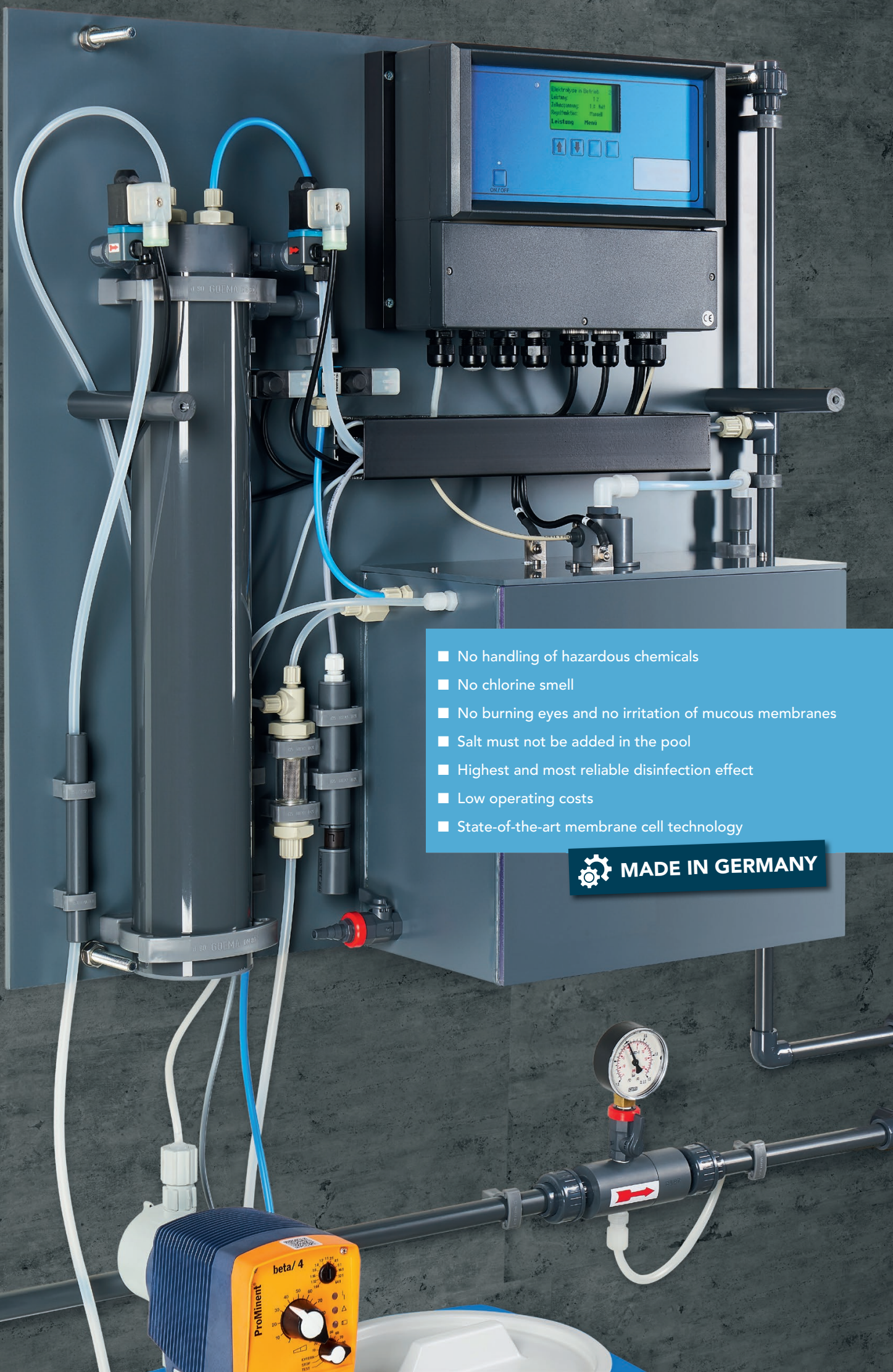
The extraction is monitored and production is switched off if the quantity falls below a minimum level. The fresh water is used exclusively for production and is softened to a value between 0 and 1° dH by means of an independent softener.

The system is pre-assembled on a free-standing frame. This considerably reduces the installation effort on site.

For safe operation of the system, it has a pre-installed chlorine gas sensor. The hydrogen produced in the cathode chamber is discharged into the open air. (with type 200 by means of a fan)

A pressure reducer reduces the pre-pressure of the fresh water to 1 bar and ensures constant conditions inside the electrolysis cell.





- No handling of hazardous chemicals
- No chlorine smell
- No burning eyes and no irritation of mucous membranes
- Salt must not be added in the pool
- Highest and most reliable disinfection effect
- Low operating costs
- State-of-the-art membrane cell technology

 **MADE IN GERMANY**

# ELECTROLYSIS UNIT WITH MEMBRANE CELL

		TYPE 24	TYPE 48
Nominal power	g Cl <sub>2</sub> /h	24	48
Water consumption 1 bar at 100%	l/h	1,0	2,0
Salt consumption 24h with 100%	kg/Tag	3	6
Concentration of the solution (Cl)	g Cl <sub>2</sub> /l	0,6	0,8
Hydrogen at 100%	l/h	10	20
Flow rate through float chamber	l/h	40	60

## PVC MOUNTING BOARD

Height	mm	740	740
Width	mm	755	820
Depth	mm	300	300
Weight	kg	25	30

## HOUSING FOR POWER SUPPLY / CONTROL

Height	mm	220	220
Width	mm	280	280
Depth	mm	112	125
Weight	kg	5	6

## SALT DISSOLVING TANK

Content salt dissolving tank	l	90	90
Salt capacity	kg	75	75
Height	mm	950	950
Width	mm	450	450
Depth	mm	300	300

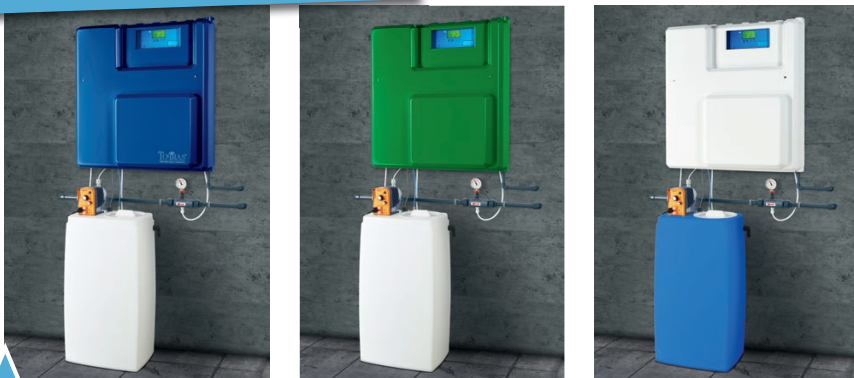
## FULLY AUTOMATIC SOFTENER 0.1 DH

integrated      integrated

## CONNECTIONS

Fresh water supply	DN	10	10
Duct connection Installation site/salt dissolving tank	DN	10/20	10/20
Brine hose fitting		8/6	8/6
Hydrogen discharge	DN	10	10
Mains connection (50Hz)	V/AC	230	230
electrical power consumption	VA	100	260

## DIFFERENT COLOURS AVAILABLE



## ELECTROLYSIS UNIT WITH MEMBRANE CELL

		TYPE 100	TYPE 250	TYPE 500
Nominal power	g Cl <sub>2</sub> /h	100	250	500
Fresh water consumption 1 bar at 100%	l/h	5	12,5	25
Salt consumption 24h with 100%	kg/Tag	10	25	50
Concentration of the solution (Cl)	g Cl <sub>2</sub> /l	0,8	0,8	0,8
Hydrogen at 100%	l/h	50	125	250
Flow rate through float chamber	l/h	120	300	600

### STEEL MOUNTING FRAME

Height	mm	1.860	2.010	2.010
Width	mm	1.020	1.300	1.020
Depth	mm	500	500	500
Weight	kg	40	50	45

### ENCLOSURE FOR POWER SUPPLY / CONTROL (UP TO TYPE 250 INSTALLED IN MOUNTING FRAME)

Height	mm	600	700	1.800
Width	mm	380	500	600
Depth	mm	210	250	400
Weight	kg	25	40	140

### SALT DISSOLVING TANKS (UP TO TYPE 250 INSTALLED IN MOUNTING FRAME)

Content salt dissolving tank	l	90	90	210
Salt capacity	kg	75	75	175

### FULLY AUTOMATIC SOFTENER 0.1 DH

Contents Salt dissolving tank Softener	kg	30	30	30
Height	mm	650	650	650
Width	mm	400	400	400
Depth	mm	300	300	300

### CONNECTIONS

Fresh water supply	DN	10	10	10
Duct connection Installation site/salt dissolving tank	DN	10/20	10/20	10/20
Brine hose fitting		8/6	8/6	8/6
Hydrogen discharg	DN	10	50	50
Mains connection (50Hz)	V/AC	230	400	400
electrical power consumption	kVA	1,2	2,3	5,0





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