







# **MINICHLORGEN T**

**Product information** 

### **Sodium hypochlorite systems**

### Safe generation of sodium hypochlorite

MINICHLORGEN T sodium hypochlorite systems produce sodium hypochlorite from brine and water. The generated product has a concentration of approx. 0.5-0.7%. This sodium hypochlorite solution is very low in minerals. This eliminates the extensive cleaning and descaling of the injection nozzles.

Conventional sodium hypochlorite losses up to 20 % of the active chlorine it contains within a few days during storage. The sodium hypochlorite generated by MINICHLORGEN T does not require any additives to stabilise it; its chlorine content remains stable for months.

Production and storage of sodium hypochlorite from a brine solution in close proximity to the process eliminates the need to transport and store chemicals. This rules out the risk of accidental leakage and contact between sodium hypochlorite and personnel. No chemicals need to be transported, only salt. Safe operation is rounded off by monitoring of the ambient air using a hydrogen detector. A single MINICHLORGEN T system fitted with a standard product tank can supply several dosing pumps with sodium hypochlorite for disinfection.

### **Functions**

- Chlorine capacities of 30, 60 and 90 g/h available
- Colour LED operating status display
- Log with recording
- Exclusive use of salt as a starting chemical
- On-site generation and intermediate storage of the sodium hypochlorite
- Safe and sealed electrolysis process
- Considerable health & safety benefit to operators
- Integrated touchscreen control
- Select from a wide range of menu languages
- Intuitive and simple operation
- Visualisation of the system in the display
- Improved error management
- Forwarding of alarm messages via digital contact or Modbus TCP/IP
- No exhaust gases as with conventional sodium hypochlorite solutions in dosing pumps
- Eliminate injection point scaling associated with commercial sodium and calcium hypochlorites
- Simple maintenance and longer maintenance intervals
- Skid versions of MINICHLORGEN T available

## General

### **Easy handling**

The operator need only fill the salt dissolving container with salt. From the resulting saturated brine, MINICHLORGEN T generates a diluted brine solution that is optimally adapted to electrolysis. The diluted brine is fed into the electrolytic cell, where electrical energy is applied to produce sodium hypochlorite. This procedure is repeated until the supply tank has been filled. Lutz-Jesco GmbH provides a wide range of dosing pumps and accessories as well as complete dosing solutions to transport the sodium hypochlorite safely to the process.

In continuous operation, the MINICHLORGEN T can detect irregularities in its process. Instead of stopping hypochlorite production immediately, the system automatically adjusts itself and continues to operate whilst the corresponding warning is displayed. The warnings are displayed in a comprehensible fashion, so that the operator can easily identify and remedy problems without interrupting operation. This avoids unnecessary and costly shutdowns.

A major advantage of MINICHLORGEN T over competitor systems is its extremely compact design. There is often very little space available particularly in basements near the building water connection.

Another advantage is its vacuum dosing technology. The number of wearing parts has been reduced to a minimum. This enables a long service life and low-cost operation with comparatively long maintenance intervals.

## **Application areas**

- Chlorination in domestic drinking water supplies
- Chlorination of water in public buildings (nursing homes, hospitals, town halls, schools, universities and administrative buildings)
- Food washing / processing treatment
- Dairies / Breweries cleaning in place (CIP)
- Cooling tower biocide treatment
- Industrial process and wastewater treatment
- Swimming & Spa pool disinfection

## **Technical data**

MINICHLORGEN	l T Modular		30	60	90
Chlorine performance		g/h	30	60	90
Chlorine concentration		g/l	6 ±1		
Energy consumption		kWh	0.15	0.30	0.45
Power supply		V~	110 – 230		
Operating pressure		bar	2 – 8		
Nominal water consumption		l/h	5	5 10	
Nominal salt consumption		kg/h	0.1	0.2	0.3
Protection class			IP54		
Permissible ambient temperature		°C	5 – 40		
Permissible feed water temperature		°C	8 – 23 (power output is automatically reduced above 23 °C)		
MINICHLORGEN T Skid			I II		II
Volume	Salt dissolving container	1		30	50
	Product storage tank	1		30	200
Power consumption of water softener		W	10		
Connections	Raw water		Ø15 mm outside / 1/2" BSP outside		
	Venting		20 mm / 1/2"		
	Waste water		Ø13 mm inside x 19 mm outside (1/2" inside)		
Weight		kg		40	64

#### **Biocide Ordinance**

The MINICHLORGEN T is a system for the "in situ" production of the biocide active agent "active chlorine produced from sodium chloride via electrolysis". In accordance with the biocide ordinance, as of 01/09/2015, the member states of the European Union may only use precursors for biocidal active agents produced "in situ" and which are used as disinfectants. These precursors must satisfy the quality requirements made of these substances by DIN EN and be sourced from a manufacturer or supplier listed in accordance with article 95 of the biocide ordinance. Please ask your supplier to confirm conformity with the biocide ordinance (certificate).

### **Biocidal active agent:**

active chlorine generated from sodium chloride by electrolysis

EC No. mixture; CAS no. not applicable

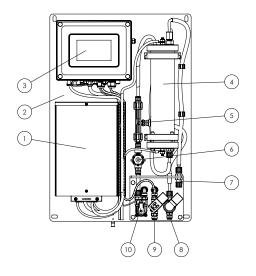
### **Precursors:**

Sodium chloride

ECNo. 231-598-3; CAS no. 7647-14-5; Special salt for electrolytic cells DIN EN 16401 and 14805

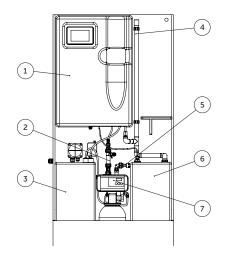
# **Product description**

### **MINICHLORGEN T Modular**

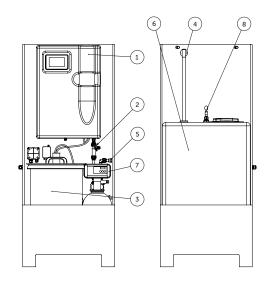


No.	MINICHLORGEN T Modular		
1	Water-cooled power supply unit		
2	Mounting plate		
3	Touch display		
4	Electrolytic cell		
5	Brine injector		
6	Pressure reducing valve		
7	Product outlet		
8	Inlet (brine)		
9	Inlet (softened water)		
10	Water flow meter		

### MINICHLORGEN T Skid I



### MINICHLORGEN T Skid II

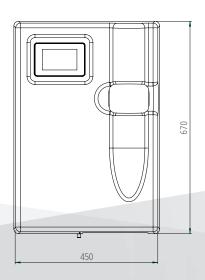


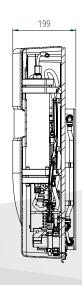
No.	MINICHLORGEN T Skid		
1	MINICHLORGEN T Modular		
2	Soft water sampling		
3	Brine tank		
4	Venting		
5	Water inlet		
6	Product storage tank		
7	Water Softener		
8	Level switch		

# **Dimensions**

### **MINICHLORGEN T Modular**

All dimensions in mm

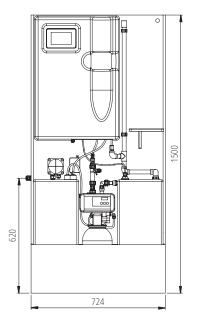


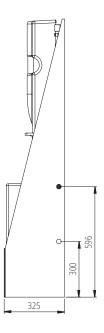


## **Dimensions**

#### **MINICHLORGEN T Skid I**

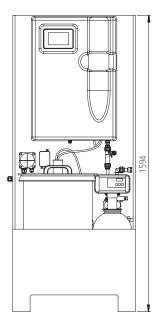
All dimensions in mm

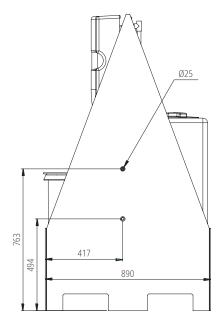


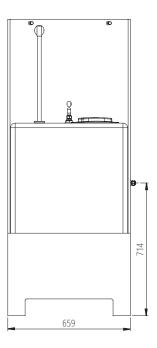


### **MINICHLORGEN T Skid II**

All dimensions in mm







## **Standard accessories**

- Water Softener
- Level switch
- Brine and product tanks
- Modbus interface module