

MINICHLORGEN

Safe, reliable & efficient on-site generation of sodium hypochlorite



The safe generation of sodium hypochlorite

MINICHLORGEN sodium hypochlorite systems generate sodium hypochlorite from brine by electrolysis. The sodium hypochlorite has a concentration of approx. 0.5 – 0.7 %.

As the sodium hypochlorite solution produced is very low on minerals, extensive cleaning and de-scaling of the injection nozzles is no longer required.

During storage conventional sodium hypochlorite losses up to 20 % of its active chlorine. The 1 % sodium hypochlorite generated by MINICHLORGEN does not require any additives; its chlorine contents remains stable over months.

Process-oriented production, direct storage and dosing of sodium hypochlorite rules out accidental leakage and contact of sodium hypochlorite with the operating personnel. Safe operation is rounded off by room air monitoring using a hydrogen sensor.

A single MINICHLORGEN system with a conventional product tank and dosing pumps enables chlorine disinfection at multiple places of use.

Easy handling

The operator only needs to fill the salt dissolving container with salt. MINICHLORGEN generates from the saturated brine a diluted brine in the correct concentration which is optimally matched to electrolysis. The diluted brine is guided to the electrolytic cell in which sodium hypochlorite is generated using electric current. 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.

Functions

- Chlorine capacities of 30, 60 and 90 g/h available
- Robust and attractive plastic cover
- Colored LED operating status indicator
- Alarm event log with real-time recording
- Only use of salt as a chemical
- Eliminate delivery and handling of hazardous chemicals
- Needs-tailored production and on-site storage
- Safe and completely sealed electrolysis procedure
- Considerable health & safety benefit to operators
- Integrated control with OLED screen and simple 3-button operation
- Multilingual operating display
- External alarms and data logging possible
- No exhaust gases in contrast to conventional sodium hypochlorite solutions in dosing pumps
- Eliminate injection point scaling associated with commercial sodium and calcium hypochlorites
- Easy maintenance and low maintenance frequency
- Remote transfer of the fault message, data logging and RS485 options

Areas of Application

- Chlorination in water works and domestic drinking water supply
- Food washing / processing treatment
- Dairies / Breweries cleaning in place (CIP)
- Cooling tower biocide treatment
- Secondary disinfection
- Industrial chlorination treatments
- Swimming and spa pool disinfection

Technical data

MINICHLORGEN		30	60	90
Chlorine performance*	g/h	30	60	90
Chlorine concentration	g/l	5 – 7		
Energy consumption	kWh	0.15	0.30	0.45
Voltage supply		110/240 V, 1ph , 50/60 Hz		
Operating pressure	bar	2 – 8		
Water consumption	l/h	5	10	15
Salt consumption	kg/h	0.1	0.2	0.3
Protection class		IP54		
Permissible ambient temperature	°C	5 – 45		
Permissible feed water temperature	°C	8 – 25		
Weight	kg	18		

MINICHLORGEN SKID			I	II
Capacity	Salt dissolving container	kg	30	50
	Product storage tank	l	30	200
Energy consumption of water softener	W	10		
Operating pressure	bar	2 – 8		
Connections	Raw water		Ø15 mm a / 1/2" BSP a	
	Venting		20 mm / 1/2"	
	Waste water		Ø13 mm i x 19 mm a (1/2" i)	
Weight	kg	40	64	

* Chlorine capacities from 240 – 8500 g/h can be found in the product information "EASYCHLORGEN"

The MINICHLORGEN 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:

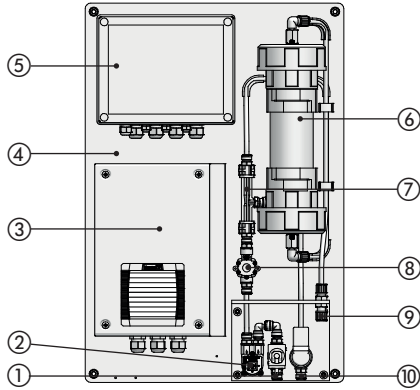
Active chlorine produced from sodium chloride via electrolysis EC no. mix;
CAS no. not applicable

Precursors:

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

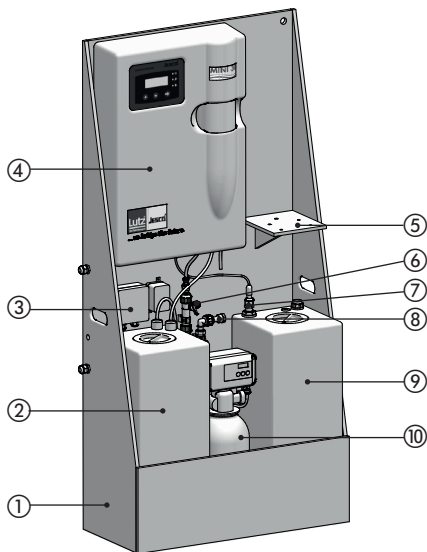
Product description

MINICHLORGEN (Chlorine capacity 30, 60 or 90 g/h)



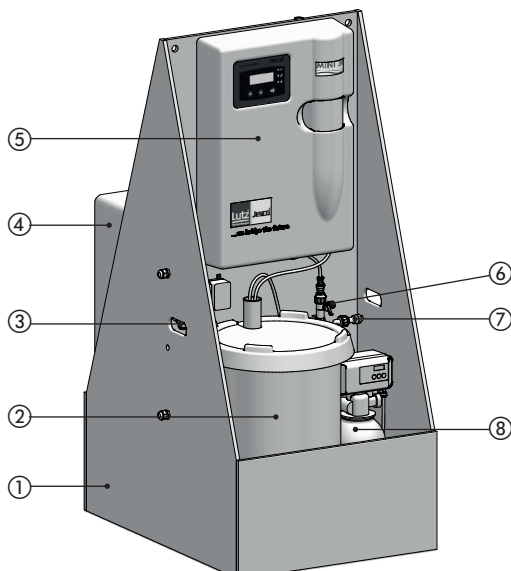
No.	Description
①	Connection for softened water
②	Flow meter for the dilution water
③	Power supply for electrolytic cell
④	Sturdy rear wall
⑤	Control box
⑥	Electrolytic cell
⑦	Injector for brine
⑧	Pressure reducer
⑨	Product outlet connection
⑩	Solenoid valve for brine control
without illustration	Hydrogen gas detector

MINICHLORGEN SKID I (Chlorine capacity 30, 60 or 90 g/h)



No.	Description
①	Frame
②	Salt dissolving container incl. accessories
③	Power supply
④	MINICHLORGEN
⑤	Wall bracket for dosing pump
⑥	Sampler tap for softened water
⑦	Level monitoring
⑧	Fresh water inlet softener
⑨	Product tank
⑩	Water softener
without illustration	Hydrogen gas detector

MINICHLORGEN SKID II (Chlorine capacity 30, 60 or 90 g/h)

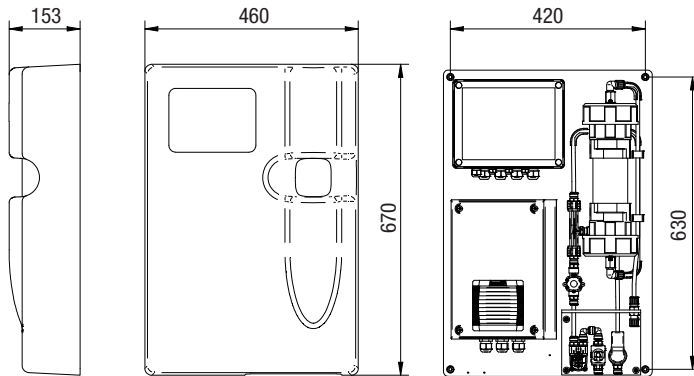


No.	Description
①	Frame
②	Salt dissolving container incl. accessories
③	Power supply
④	Product tank
⑤	MINICHLORGEN
⑥	Sampler tap for softened water
⑦	Fresh water inlet softener
⑧	Water softener
without illustration	Hydrogen gas detector

Dimensions

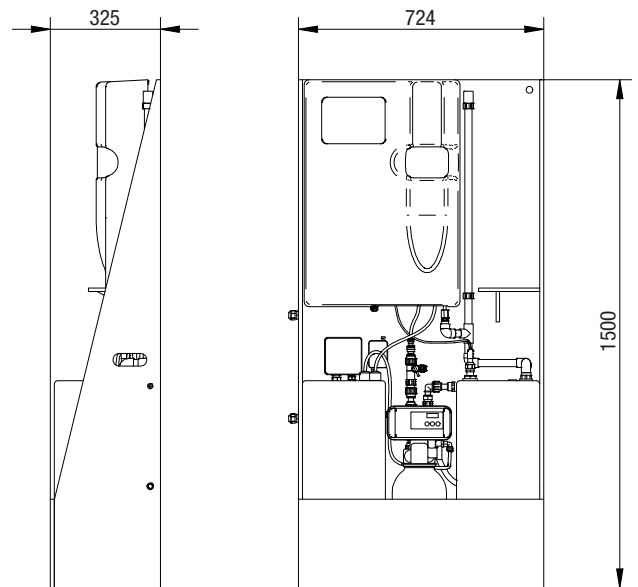
MINICHLORGEN (Chlorine capacity 30, 60 or 90 g/h)

All dimensions in mm



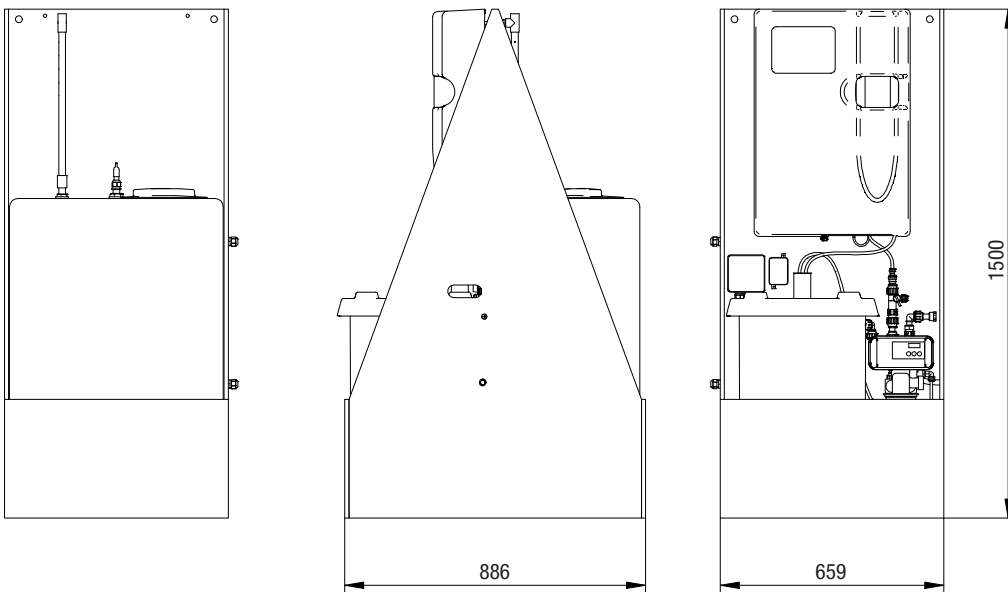
MINICHLORGEN SKID I (Chlorine capacity 30, 60 or 90 g/h)

All dimensions in mm



MINICHLORGEN SKID II (Chlorine capacity 30, 60 or 90 g/h)

All dimensions in mm



MINICHLORGEN standard accessories

- Water softener
- Test set for commissioning
- Tanks
- Acidification set
- Modbus interface module