

iPOQLOR[®]

IN SITU CHLORINE GENERATOR

by saltwater chlorination

Production capacity : 70 to 560 g/h

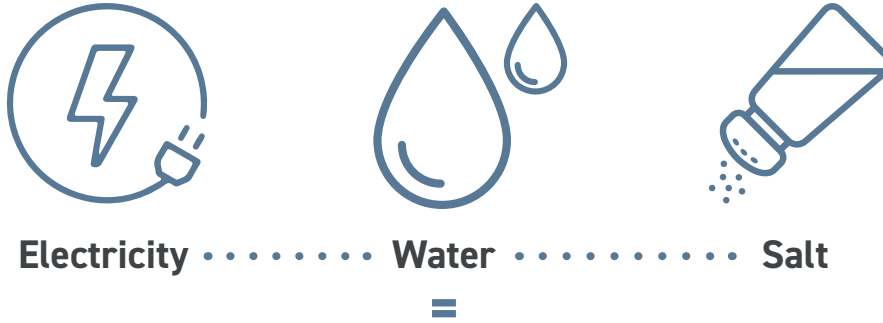


CONVERSO

CREATE YOUR OWN CHLORINE !

Aware of the environmental challenges and changes in standards at local level, our **water treatment** offer must be in line with the sobriety made essential by the ever-increasing threat of global warming.

With over 30 years' experience in saltwater chlorination, **Converso** has developed a simple, safe and in-situ chlorine generator by saltwater chlorination: iPOQLOR®. The healthy and effective alternative to disinfection with chemical products chemical products :



Disinfectant chlorine solution

3KG OF SALT = 1KG OF ACTIVE CHLORINE

Produced on site and on demand, the disinfectant solution comes with a host of benefits and a **reduced carbon** footprint, a requirement at a time when ecological choices are crucial for the future:

- Production of fresh chlorine of constant concentration.
- Salt and water as the only raw materials.
- A reduced carbon footprint.
- Greater handling safety.
- Small footprint, ideal for small technical rooms.

THE EFFICIENCY OF CHLORINE WITHOUT THE DISADVANTAGES



QUALITY

- . On-site production of fresh chlorine with a constant concentration without degradation
- . Less clogging of injection points due to the low mineral content of the solution produced



SAVINGS

- . Low cost of salt
- . Reduced labour



SIMPLICITY

- . Plug & Play commissioning
- . Low maintenance
- . Integration into existing installations



SAFETY

- . Suppression of the transport/storage of dangerous products
- . No more handling of chemicals
- . No chlorine fumes
- . Remote monitoring (GSM, Internet)

A SINGLE SOLUTION FOR MULTIPLE APPLICATIONS

Fish farming

Water quality is essential for the healthy development of flora and fauna, to guarantee healthy livestock and prevent the intrusion of pathogens. The In Situ Converso chlorine generator provides effective disinfection for animal protection. It simplifies maintenance processes and daily operations thanks to its automated system and ensures a better environment for both fish and maintenance technicians.



Potabilisation/Animal drinking

Converso is the chemical-free treatment solution for all pathogenic bacteria. Thanks to its process, raw water from local resources (wells, boreholes, water catchments) can be treated for drinking water purification. It is also the solution for disinfecting rainwater recycled for sanitary use. Often applied to isolated areas, *Converso* can also be used in the hotel and catering sector, in hospitals, schools and sports halls.



Cooling towers

There are three types of problem that cooling circuits can face: dirt, bacterial proliferation and corrosion. It is vital to anticipate these problems in order to improve efficiency while at the same time to reduce costs. *Converso* has a major role to play in a wide range of applications in maintaining good hygiene in circuits such as air conditioning systems and cooling towers.



Sanitary hot water - Commercial

The proliferation of bacteria, legionella and other biofilms are recurrent problems in the hot and cold water distribution networks in a number of buildings open to the public: hospitals hotels, public buildings and offices. The sodium hypochlorite solution iPOQLOR effectively eliminates biofilm, legionella and other bacteria without the need to handle chemicals in the internal secondary distribution circuits in these buildings.



Irrigation

Recycling wastewater is a major challenge for sustainable development. More economical, it allows seawater to be desalinated, transported or even pumped in large quantities. Use in industrial circuits *Converso* is the treatment solution for disinfecting raw water of raw feed water and drainage water. For isolated sites, wastewater treatment reduces discharges into the sea and helps to protect bathing sites. to protecting bathing sites.



FRESH CHLORINE PRODUCED ON DEMAND AND CONSTANT CONCENTRATION



THIS LOW CONCENTRATION HAS MULTIPLE ADVANTAGES :

- Because of its low concentration of active chlorine, iPOQLOR sodium hypochlorite solution is much less sensitive to oxidation phenomena, resulting in a loss of active chlorine concentration and an increase in by-products such as chlorates.
- Its pH of 9 (compared with 12 for liquid chlorine) will significantly reduce the use of acid to lower the pH of the pool: up to 30% reduction in consumption.
- Significant improvement in swimming comfort: crystal-clear water, no irritation to the skin or eyes.

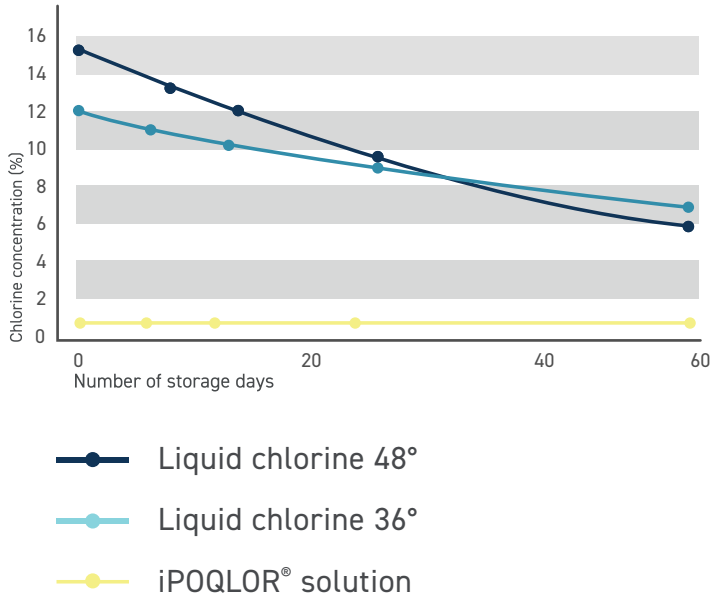
Storage time has a huge impact on the loss of concentration of liquid chlorine, which can be as much as 50% after 30 days. This loss of concentration will be amplified by a high storage temperature.

Low-concentration chlorine will lose much less of its qualities over time.

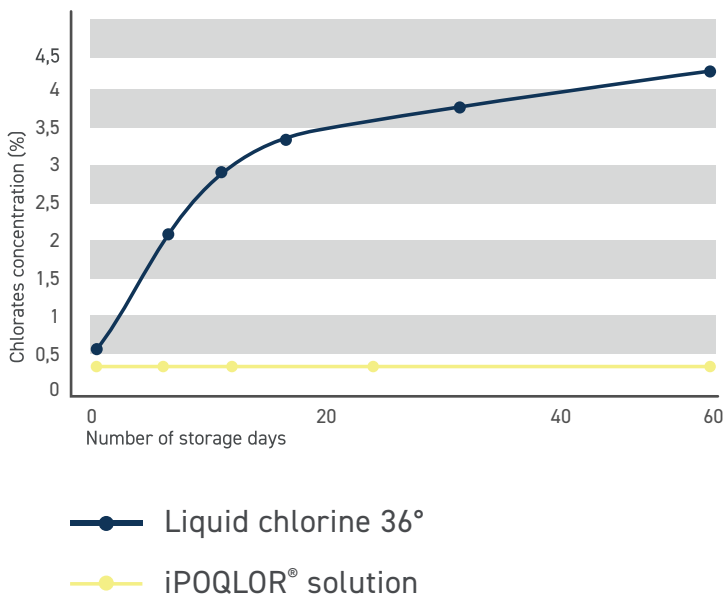
Over time, chlorine will generate by-products, some of which are harmful to human health, such as chlorates. Storage time will significantly encourage the formation of these by-products.



CHLORINE CONCENTRATION VS STORAGE



CHLORATES CONCENTRATION VS STORAGE



A SIMPLE INNOVATIVE, HIGH-PERFORMANCE SYSTEM !



The system is permanently supplied with mains water connected to a softener **1** (single or double depending on the model). The softened water will feed the brine tank **2** and the production circuit. **4**.

The brine tank 2 is fed by the softened water coming from the softener and allow the blend with the salt previously poured at the bottom of the tank. The salt used must comply with one of the 4 standards thereafter: NF EN 973 Quality, NF EN 14805 Type 1 - NF EN 16401 Quality A - NF EN 16370

The dosing pump 3 will inject the brine created at the entrance of the production circuit **4**. This brine is mixed with softened water before entering the production cells **5**.

The mixture obtained is injected into the production cells **5**, through which an electric current flows. Based on the same principle as saltwater chlorination, the cells will create a naturally chlorinated solution: sodium hypochlorite.

The hydrogen lighter than air, generated during production will be evacuated to the outside of the room with the help of a turbine **6** for models with a production of more than 280 g/h. A hydrogen extraction system is available as an option on models 70 and 140 to complete the safety in the technical room.

The solution created is poured into a storage tank **7** secured by level sensors. The volume of the storage tank varies according to the model. Average concentration: 4 g/L of active chlorine.

The control and production unit 8 controls all the modules. The box controls the production reactor, manages the levels and the safety devices, allows to program the production periods in a simple and intuitive way thanks to a simple menu architecture.

Consult the parameters of your pools remotely be alerted thanks to the two communication systems **9** installed on our devices: Real-time remote information: thanks to the insertion of a SIM card (not supplied) in the system, a set of administrators (pool managers) receive real-time alerts via SMS.

Remote pool management with Connect Pro®: thanks to a simple connection to the local network, you can centralise all the information on the operating status of the installations.

KEEP AN EYE ON YOUR CHLORINE PRODUCTION !

iPOQLOR® IS THE IDEAL SOLUTION TO THESE PROBLEMS IN THE FIELD !



**REAL-TIME VIEW
OF YOUR DEVICE'S
VARIOUS**
parameters

HISTORY
of data and
alarms

Physical RJ45 Ethernet connection to access all equipment operating data via the **CONNECT PRO** platform (included as standard) :

- . Production time
- . Sodium hypochlorite solution temperature
- . Events,
- . Alarms
- . Graphs
- . Production curves (daily, weekly, monthly)

GSM CONNECTION : A dedicated slot for a SIM (not supplied) is provided in the control box.

The user can assign up to 3 telephone numbers to receive any alarms detected by the system by text messages.

TECHNICAL SPECIFICATIONS

iPOQLOR® RANGE

iPOQLOR® MODELS

REFERENCE

iPOQLOR70	iPOQLOR140	iPOQLOR280	iPOQLOR560
PURE230EM70	PURE230EM140	PURE230EM280	PURE230EM560

PRODUCTION SPECIFICATIONS

Maximum production (L/h)	9	17,5	35	70
Active chlorine maximum production (g/h)	70	140	280	560
Active chlorine maximum production per day (kg/day)	1,7	3,4	6,7	13,4
Active chlorine concentration (g/L)	6-8	6-8	6-8	6-8
Calcium hypochlorite equivalent 68%. (kg/day)	4	8	16	32
Liquid chlorine equivalent 48° chl (L/day)	11	22	44	88
Hydrogen generation (L/h)	24	48	95	190

GENERAL CONSUMPTIONS

Water (L/l)	9	17,5	35	70
Salt (with softener) (g/h)	225	450	900	1800

1 KG ACTIVE CHLORINE PRODUCTION CONSUMPTIONS

Electricity (kW)	3,75	3,75	3,75	3,75
Certified biocide salt (kg)	3,1	3,1	3,1	3,1
Softened water (L)	125	125	125	125

CONDITIONS OF USE

Environmental temperature (°C)	< 40	< 40	< 40	< 40
Input water temperature (°C)	< 20	< 20	< 20	< 20
Input water hardness (with softener) (°f)	< 10	< 10	< 10	< 10
Pressure (bar)	1 to 3	1 to 3	1 to 3	1 to 3

CARACTERISTICS

Frame dimensions (WxDxH mm)	765 x 717 x 230	765 x 717 x 230	900 x 2138 x 790	900 x 2138 x 790
Weight (kg)	70	70	150	200
Production tank and retention tank material	UV-treated polyethylene			
Production tank volume (L)	100	250	500	1000
Brine tank volume (L)	100	100	200	200

ELECTRICAL SPECIFICATIONS

General supply	230 V - 50/60 Hz	230 V - 50/60 Hz	230 V - 50/60 Hz	230 V - 50/60 Hz
Internal circuit breaker rating (A)	6	6	15	20
Section of the general supply cable	3G 1,5	3G 1,5	3G 2,5	3G 2,5
Length of main power cable (m)	2,5	2,5	2,5	2,5
Maximum power (kW)	0,4	0,8	1,6	3,2
Mains current rating (A)	1,25	2,5	5	10
Maximum current on mains (A)	2,1	4,2	8,4	16,8
Maximum current on each electrode (A)	< 20	< 20	< 20	< 20
Voltage on each electrode (V)	< 20	< 20	< 20	< 20

EQUIPMENTS / FEATURES

Number of electrodes	1	2	4	8
Operation modes	Automatic and programmable operating ranges			
Communication	SMS alerts - Connect Pro remote control			



CONVERSO

Pool Technologie

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MADE IN FRANCE

