

Pure Chlore®

In situ chlorine generator
by saltwater chlorination

Pure Chlore®

Create your own chlorine !

The use of packaged chlorine for the disinfection of swimming pools, whether liquid, solid or gaseous, has many disadvantages:

- **Dangerousness of the products**
- **Alteration of chlorine quality over time**
- **High operating and transport costs**
- **Regular maintenance of installations**
- **Non-negligible environmental impact**

Pure Chlore® is the ideal solution to these problems experienced in the field!

Pure Chlore® allows you to produce your chlorine on site from salt and softened water, in an economical way and in complete autonomy:

3Kg of salt are enough to produce 1Kg of active chlorine. 9Kg of salt is enough to produce the equivalent of a can of chlorine.

With 10 years of experience since the installation of the first unit in 2011, Pure Chlore® benefits from all our French know-how. It is the only in situ chlorine generator to be entirely designed and manufactured in France.

Pure Chlore® can be used in all types of public swimming pools: aquatic centres, municipal swimming pools, hotels, campsites, co-ownership, etc...

An economical and eco-responsible solution for the chlorine treatment of public pools:



- A greatly reduced carbon footprint: almost no transport
- A limited environmental impact: very little packaging to recycle
- A reduction in the cost of chlorination

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
- Less chloramines

Savings

- Low cost of salt
- Reduced labour
- Less use of pH corrector products
- One production unit, several ponds treated

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
- H2 detector supplied as standard
- Remote monitoring (GSM, Internet)

A simple and efficient principle!



1 Control and production unit

Easy to use: the BOOST mode allows you to launch an automatic filling programme manually or with programmed times
Practical: a LED status indicator allows you to quickly check that the system is working properly (PC280, PC560, PC1050)

2 Production cells

Long life: the lifespan of the cells is estimated at 10,000 hours of operation
Cell maintenance alert: thanks to the hour meter, a message appears to check the condition of the plates

3 Water softener

High filtration capacity: less frequent regeneration thanks to a large volume of resin

4 Saturated brine tank

Easy maintenance: wide opening of the tank to add the maximum amount of salt quickly and easily
Large storage capacity: punctual salt supply

5 Production tank

Available in 100, 250, 500 and 1000 L according to model

Anti-UV treated tank

Preservation of pure and fresh chlorine

Suction pipe

Allows the suction of hypochlorite

Level probe

Prevents the dosing pump from defrosting

Overflow detector

In case of chlorine overflow, the detector automatically shuts down the system

Simplified maintenance

Disconnectable level sensors for easy for easy maintenance or replacement

6 Pump

Consumption optimization: the pump automatically injects the optimal amount of brine into the production cells

7 Hydrogen evacuation system

H2 detector: in the event of an anomaly, a safety mode is triggered and automatically cuts off the chlorine production

8 Connectivity

Real-time remote information: thanks to the insertion of a SIM card (not supplied) in the system, a group of administrators (pool managers, maintenance technicians, hotel managers, etc.) receive real-time alerts by 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 remotely and in real time.

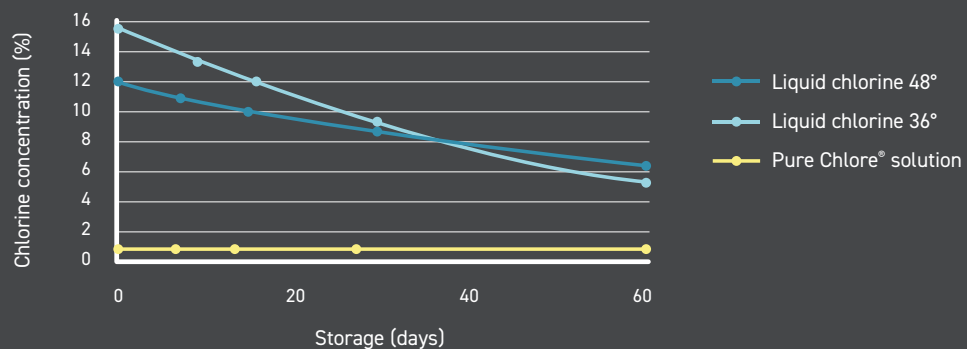
Always fresh chlorine, produced on demand and of constant concentration

Pure Chlorine manufactures sodium hypochlorite or liquid chlorine (NaClO) with an average concentration of 0.8 g of active chlorine per litre. By comparison, the concentration of active chlorine in liquid chlorine is 15 g/l and that of calcium hypochlorite is 68 g/l. This low concentration has multiple advantages:

- Due to its low mineral concentration, the sodium hypochlorite thus generated will greatly limit the scaling of injection points and limit the development of chlorine consumption.
- Its pH of 9 (whereas the pH of liquid chlorine is 12) will significantly reduce the use of acid to lower the pH of the pool: up to 30% reduction in consumption.
- Significant improvement in bathing comfort: crystal clear water, skin is not attacked and eyes are not irritated.

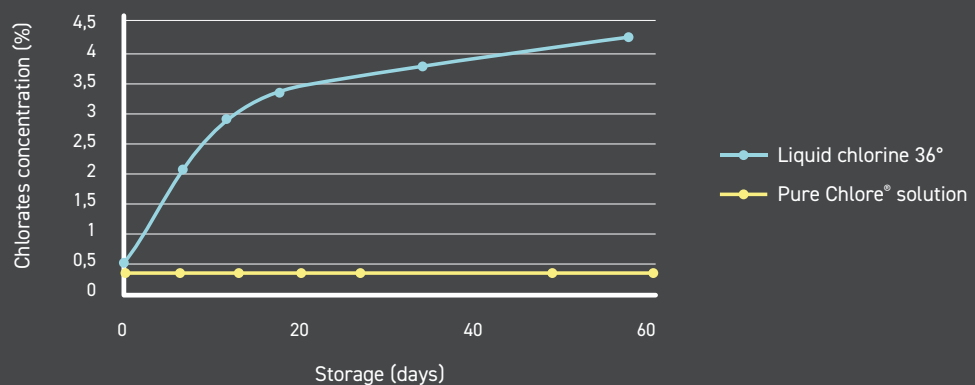
Storage time has a huge influence on the loss of concentration of liquid chlorine, which can be as much as 50% after 30 days. This loss of concentration will be amplified by a high storage temperature. A low concentration chlorine will lose much less of its qualities over time.

Chlorine concentration vs storage

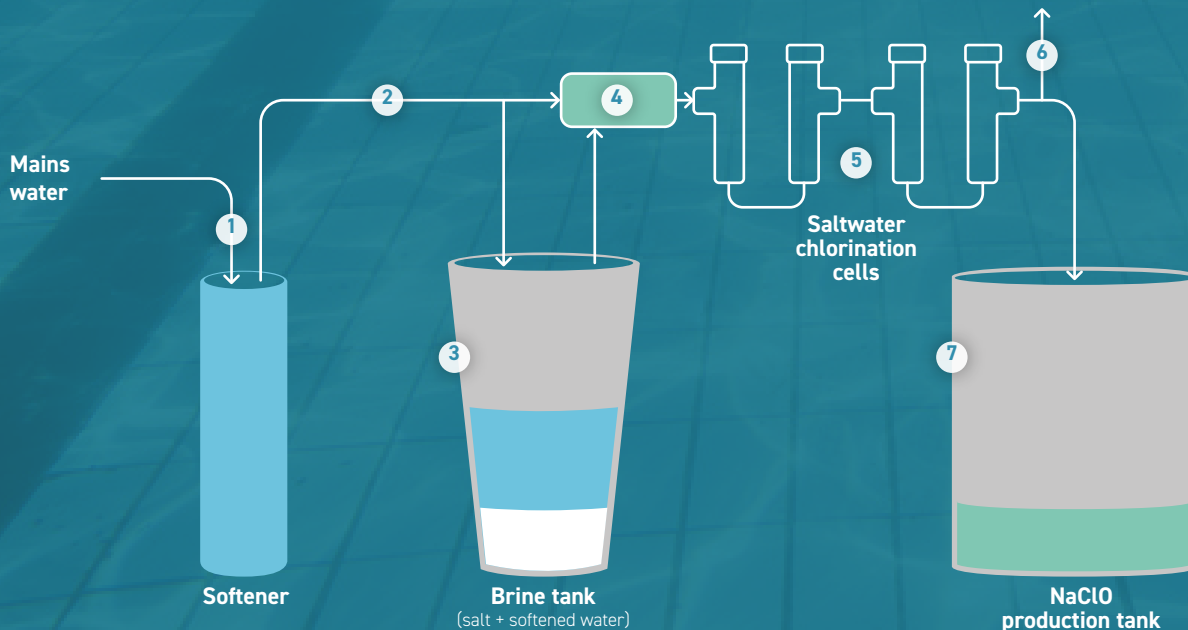


Over time, chlorine will generate by-products, some of which are harmful to human health, such as chlorates. The duration of storage will strongly favour the formation of these by-products.

Chlorates concentration



Operation



- 1 The system is permanently supplied with mains water connected to a softener (single or double depending on the model).
- 2 The softened water will feed the brine tank and the production circuit.
- 3 Brine tank: the salt used must comply with one of the 3 standards below: NF EN 973 Quality A - NF EN 14805 Type 1 - NF EN 16401 Quality A.
- 4 The brine is mixed with softened water at the entrance to the production circuit.
- 5 The mixture obtained is injected into the production cell circuit at a very low flow rate, depending on the model, between 9 and 130 l/h. Sodium hypochlorite is thus produced continuously.
- 6 The hydrogen, a gas lighter than air, generated during production will be evacuated to the outside of the room with the help of a blower for models with a production of more than 250 g/h. To complete the safety, a hydrogen detector is present in the technical room.
- 7 The sodium hypochlorite thus produced is discharged directly into the production tank ready to be used for the pool treatment. Average concentration: 0.8 g/l of active chlorine.

A complete range for all your needs!



PC70



PC140



PC280



PC560



PC1050

Keep an eye on your chlorine production!

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).



Real time view
of the different parameters of your device

History
of data and alarms

Pool TECHNOLOGIE

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.

The solution for all your projects!

Complete your Pure Chlore® solution with Pro Dosing (automatic dosing system) or Pro pH (pH regulator for collective pools) for a more efficient disinfection.



Pure Chlore®

Pure Chlore is suitable for all areas requiring disinfection by chlorine injection: drinking water treatment, irrigation, animal feed, cooling towers, domestic hot water... Our teams will help you choose the most suitable module by carrying out a technical study. On-site training is also available.

Technical characteristics

of the Pure Chlore range



Pure Chlore models	PC070	PC140	PC280	PC560	PC1050
Reference	PURE21P0070	PURE17P00140	PURE17P00280	PURE17P00560	Consult us*

PRODUCTION FEATURES

Maximum production (L/h)	9	17,5	35	70	130
Maximum active chlorine production (g/h)	70	140	280	560	1050
Maximum active chlorine production per day (kg/day)	1,7	3,4	6,7	13,4	25,2
Active chlorine concentration of the solution (g/L)	8	8	8	8	8
Calcium hypochlorite equivalent 68% (kg/day)	2,5	5	10	20	37
Liquid chlorine equivalent 48° chl (L/day)	11	22	44	88	165
Hydrogen generation (L/h)	24	48	95	190	380

GENERAL CONSUMPTION

Water (L/h)	9	17,5	35	70	130
Salt (with softener) (g/h)	225	450	900	1800	3600

CONSUMPTION FOR A PRODUCTION OF 1KG ACTIVE CHLORINE

Electricity (kW)	2,8	2,8	2,8	2,8	2,8
Certified biocidal salt (kg)	3,1	3,1	3,1	3,1	3,1
Softened water (L)	125	125	125	125	125

CONDITIONS OF USE

Ambient temperature (°C)	< 40	< 40	< 40	< 40	< 40
Inlet water temperature (°C)	< 20	< 20	< 20	< 20	< 20
Inlet water hardness (with softener) (°f)	< 10	< 10	< 10	< 10	< 10
Operating pressure (bar)	< 1 à 3	< 1 à 3	< 1 à 3	< 1 à 3	< 1 à 3

TECHNICAL FEATURES

Dimensions (LxWxH) mm	1139 x 383 x 779	1139x383x779	1255x655x2044	1155x760x2069	Consult us*
Total weight (kg)	70	70	150	200	Consult us*
Material production tank and retention tank	Anti-UV treated polyethylene				
Volume of production tank (L)	100	100	250	250	1000L
Volume of brine tank (L)	100	100	200	200	200
Softener resin volume (L)	15	15	15	15	2x15

ELECTRICAL FEATURES

General power supply	230 V - 50/60 Hz				
Internal circuit breaker rating (A)	6	6	12	20	Consult us*
Section of the general supply cable	3G 1,5	3G 1,5	3G 2,5	3G 4	Consult us*
Length of mains cable (m)	2,5	2,5	2,5	2,5	2,5
Maximum power (kW)	0,4	0,8	1,6	3,2	6,4
Mains current rating (kW)	1,25	2,5	5	10	20
Maximum current on mains (kW)	2,1	4,2	8,4	16,8	34
Maximum current on each electrode (A)	20	20	20	20	20
Voltage on each electrode (V)	< 24	< 24	< 24	< 24	< 24

EQUIPMENTS / FEATURES

Number of electrodes	1	2	4	8	15
Operating modes	Automatic and programmable operating times				
Communication	SMS alert - Connect Pro remote management				

*NC = Consult us - Volumes and sizes can be modified as an option. The characteristics of the PC070 and PC1050 are not definitive and may be subject to change.

Pure Chlore®

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WARRANTIES

Electronic box

2 years

Electrode(s)*

2 years

*up to 10,000 operating hours

Pool

TECHNOLOGIE

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by saltwater chlorination

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