

SATTE Salt Chlorinator S20CL / S30L / S50L



Description

SATTE salt chlorinators are an alternative means of sanitising a pool with chlorine using the process of electrolysis. Pool water containing a low concentration of dissolved salt is passed through an electrolytic cell fitted in the return line, where a small, safe electrical charge on the titanium cell plates (anode / cathode) converts sodium chloride into chlorine gas. Dissolved in the water this becomes sodium hypochlorite - liquid chlorine - which sanitises the pool and then reverts to salt, so the salt is never consumed.

The control unit is wall-mounted in the plant room and sets the chlorine output, run time and cell cleaning cycle; the transparent cell body allows the plates to be inspected without dismantling the pipework.

Benefits

- **Relaxation:** the pool is disinfected automatically, with no daily dosing.
- **Safety:** reduces the storage and handling of chlorine chemicals.
- **Comfort:** clean, safe and crystal-clear water.
- **Health and well-being:** therapeutic saltwater that does not irritate the eyes or dry the skin.
- **Low running cost:** the salt is recycled continuously and only topped up after backwashing or dilution.

Typical Applications

- Private and residential swimming pools, from 50 m³ up to 100 m³ depending on model.
- Hotel, apartment and club pools where automatic, unattended sanitising is required.
- Spas, plunge pools and hydrotherapy pools (with a suitably small cell).
- Retrofit to existing pools: the cell is fitted in the filtered return line after the filter and any heater.

Operating Conditions

- Salt concentration 3 - 4 g/l (3,000 - 4,000 ppm) of pool-grade sodium chloride; check with a salt test before commissioning.
- Cell installed horizontally in the return line, after the filter, heater and any other equipment, and before the pool inlets.
- Run only with water flowing through the cell: interlock the control unit with the filtration pump.
- Water temperature +5 C to +40 C; ambient temperature 0 C to +40 C; control unit mounted indoors, out of direct sun and spray.
- Maintain pH 7.2 - 7.6 and stabiliser (cyanuric acid) 30 - 50 mg/l for outdoor pools; run the cell cleaning cycle to remove scale.
- Supply 1~ 220-240 V, 50 Hz; connect to an earthed, RCD-protected circuit.

Materials of Construction

- **Cell body:** Transparent, UV-stabilised polymer
- **Electrodes:** Titanium plates, ruthenium / iridium oxide coated
- **Cell unions:** PVC, 50 mm solvent-weld / union
- **Control housing:** ABS, wall-mounted
- **Display:** Digital output and salt-level indication
- **Cable:** Low-voltage DC cell lead, 2 m

SATTE Salt Chlorinator Technical Data

Technical Data

		Chlorine output	Pool volume	Salt	Supply		Cell	
		g/h (Cl ₂)	m ³ (max)	g/l	Voltage		Connection	Max. flow (m ³ /h)
S20CL	8543300090	20	50	3 - 4	1~ 220-240 V 50 Hz	200	50 mm (1 1/2") union	15
S30L	-	30	70	3 - 4	1~ 220-240 V 50 Hz	300	50 mm (1 1/2") union	18
S50L	-	50	100	3 - 4	1~ 220-240 V 50 Hz	500	50 mm (1 1/2") union	25

Chlorine output is the nominal production of the cell at 100 % setting with 4 g/l salt and water at 25 C. Output falls at lower salt concentration and water temperature; the digital display indicates when salt should be added.

Pool volume is the maximum recommended for a residential pool with 8 - 10 hours filtration per day in a temperate climate. For hot climates, heavily used or commercial pools, or where the filtration run is shorter, select the next model up.

SIZING: required output (g/h) = pool volume (m³) x daily chlorine demand (about 2 - 4 g per m³ per day in a warm climate) divided by the daily filtration hours. Example: 60 m³ x 3 g / 8 h = 22.5 g/h - select S30L.

Approximate power draw is at full output and includes the control unit. Cell maximum flow is the recommended limit through the cell body; fit a bypass on installations with larger pumps.

Salt Requirement

Initial salt charge to reach 4 g/l, using pool-grade sodium chloride (min. 99 % NaCl). Add through the skimmer with the pump running, or spread evenly around the pool, and run filtration for 24 hours before starting the chlorinator.

Pool volume (m ³)	20	30	40	50	60	70	80	100
Salt (kg) to 4 g/l	80	120	160	200	240	280	320	400

Installation

- Mount the control unit vertically on a wall, at least 1.5 m from the pool edge and above any flood level; keep the cell lead within reach.
- Fit the cell horizontally in the return line after the filter and heater, with unions either side and an isolating valve for cleaning.
- Power the control unit from the pump circuit or interlock it with a flow switch so the cell cannot run dry.
- Set the output at commissioning and adjust after the first week to hold 1 - 3 mg/l free chlorine.
- Inspect the cell monthly; remove scale with a dilute acid wash (1 part hydrochloric acid to 10 parts water) only when the self-clean cycle is insufficient.
- Winter or low-use periods: reduce the output setting rather than stopping the unit, and top up salt after heavy rain or backwashing.

Product code shown for S20CL as supplied; codes for S30L and S50L to be confirmed. Cell dimensions and drawings available on request.