



WATER TREATMENT



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Salt Chlorinator	



WATER TREATMENT Chlorine Feeders





CHLORINE FEEDERS

Chlorine Feeder manufactured from unalterable ABS plastic matrial. Fixed with double safety system cover with built-in, manual air relief valve. Easy to use adjustment regulation valve and drain plug. Has mounting fixture for safe operation and correct installation. Comes with 1½" internal in-and outlet thread connection. Flow direction indicator or housing for correct installation. Feeders are available in inline-models.



CHLORINE AND BROMINE FEEDER IN-LINE

Capacity 4.21 LBS/2kg Max. Output 16 LBS/Hr.

Max. working pressure 50 PSI - 3.44 bar - 3.51 kg/cm²

Total height 20 cm. Base diameter 14 cm.

Code	Description	m ³
00751050	Inline chlorine feeder	0.03



CHLORINE AND BROMINE FEEDER IN-LINE

Capacity 9 LBS/4.08kg Max Output 32 LBS/Hr.

Max. working pressure 50 PSI - 3.44 bar - 3.51 kg/cm²

Total height 36 cm. Base diameter 18 cm.

Code	Description	m ³	
00751051	Inline chlorine feeder	0.03	



FLOATING DISPENSER

Allows easy dosage of pool chemicals with capacity for 4 tablets of 200 grams each.

Code	Pkg.Unit	Standard Wt. (Kg)	m ³	
00751053	1	-	-	







PROTEAM Europa'



SOLENOID DRIVEN DOSING PUMPS

KEY FEATURES

- •Double scale pulse frequency selector 0-100% and 0-20%
- •PTFE diaphragm
- •Constant / On-Off dosing control
- •2 LED display status
- •Analogue Controls
- •Economically priced
- •On-Off power switch
- •Dosing Head with intergrated priming valve
- •Double Ball valves
- •Wall Mount with bracket & fixing kit
- •Reinforced plastic PP housing
- •Supplied complete with hose accessory kit
- On request Low Level Facility Switch

On request how hever racinty by						
Liquid Ends Material HC1 & HC3						
	Standard Version	Upon Request				
Pump Head	PP	Up to 18 L/H - PVDF Up to 10 L/H - PVC Self Degassing Head				
Diaphragm	PTFE	-				
Balls	Glass Pyrex	PTFE - Ceramic				
Connection Fitting	PP	PVDF				
Seals/O-Rings	Viton	Dutral [®]				
Spring Loaded Injection Valve	Hastelloy/Pirex	Hastelloy/(PFTE, AISI 316, Ceramic)				
Injection Fitting	PP	PVDF				
Foot Valve/ Filter Fitting	PP	PVDF				
Suction Hose/Air Bleed Hose	PVC	-				
Discharge Hose	PE	-				



PTM100 - SOLENOID DRIVEN DOSING PUMPS

The PTM100 is a solenoid driven dosing pump, diaphragm actuated, designed for standard duties where rugged features and constant dosing operation guarantee a reliable performance. PTM100 is an excellent price quality product suitable for simple applications such as swimming pools, boilers, cooling towers, water treatment systems. Also available PTM100 PRED LIV which includes the level control and is not provided with low level probe. PTM100 is the dosing friend that will always makes sure the job gets done!

Code	Max Flov l/h	v/ Pressure Bar	Stroke Freq. (Per Min)	Stroke Valume (ml/l)	Hose SIze (mm)	Max Suction (Lift m)
00753108	1	8	105	0.16	4x6	1.5
00753207	2	7	105	0.32	4x6	1.5
00753212	2	12	105	0.32	4x6	1.5
00753405	4	5	105	0.64	4x6	1.5
00753508	5	8	105	0.79	4x6	1.5

PTM300 - SOLENOID DRIVEN DOSING PUMPS

The PTM300 is a solenoid driven dosing pump, diaphragm actuated, for standard duties where a constant dosing operation with a reliable performance is required. Designed for either continuous or intermittent operation, they are a reliable means of conveying strong chemicals under precise control into water treatment and process systems. They operate on the well proven principle of electromagnetic drive, with electronic frequency control. Their frequency (stroking speed) is adjustable in 2 speed ranges selectable via a two position switch which is also mounted on the front face. Also available a plastic support bracket for horizontal mounting.

Code	Max Flow I/h	/ Pressure Bar	Stroke Freq. (Per Min)	Stroke Valume (ml/l)	Hose Slze (mm)	Max Suction (Lift m)
00753209	2	9	120	0.27	4x6	1.5
00753509	5	9	120	0.69	4x6	1.5
00753409	10	4	120	1.38	4x6	1.5
00753108	10	8	120	1.38	4x6	1.5
00753804	18	4	120	2.77	4x6	1.5
00753002	30	2	120	4.16	10x14	1.5
00755005	50	0.5	120	6.94	10x14	1.5







AUTOMATIC DOSING SYSTEM

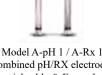
PROTEAM EUROPA TOP PRO - Pool closing system complete assembled panel Complete pool Panel System with Multifunction Controller and Proportional Regulation of PH, Redox, Free Chlorine, and pH Temperature compensation control, comprised of

KEY FEATURES

- •1 x acid dosing pump AT300mA 05-09
- •1 x chlorine dosing pump AT300mA 10-04
- •1 x controller A-MULTI PHRXCLT Intrument
- •1 x Water filter with 80 micron cartridge
- •1 x Ampere-metric free chlorine cell ACG3 series
- •1 x pH electrode 1M. cable
- •1 x Rx electrode 1M. cable
- •1 x Proximity switch
- •1 x Temperature sensor STE2
- •2 x Low level switch
- •3 x Buffer solutions bottles for (pH/Rx)

230 vAC





Model A-pH 1 / A-Rx 1 Combined pH/RX electrodes Coaxial cable & Epoxy body Max pressure 5 bar Max temperature



Model A-SPH4 / A-SPH7 / A-SRX Buffer solution pH 4 Buffer solution pH 7 Buffer solution 475 mV (Bottles of 75 ml.)



Model A-SP2 Proximity switch to detect incoming flow, suitable for amperemetric chlorine cell



MULTIFUNCTION CONTROLLER MODEL PROTEAM-MULTI PHRXCLT

Multifunction Instrument for measurement & proportional control of pH, ppm free chlorine (residual), Redox (ORP), temperature. Microprocessor and SMD Digital Controlled Technology & LCD alphanumeric back-lit display 2x16.

5 Set-Points each adjustable with ON/OFF Volt Free outputs (2/ph, 2/CL, 1/Rx)

Times pulse proportional volt free relay output

3 x 4-20mA outputs for chart recording

3 x 4-20mA proportional outputs with galvanic isolation for dosing pumps.

Hysteresis adjustment of ON/OFF set-points

Programmable Delay setting for each set-point at 99 sec

Proportional pulse timed output for each set-point

Block of relays outputs with proximity switch signal

Function to control "Shock treatment" via programmable timer

Automatic temperature compensation and reading through temperature probe

Plastic enclosure IP65

Upon request serial ouput RS232 for PC remote control

Technical Characteristics						
	рН	Free Chlorine	RX	Temperature		
Range	0-14.00pH	0-10.00ppm	0-1999mv	0-100°C		
Resolution	0.001pH	0.01ppm	1mV	0-1°C		
Input Probes	pH Electrode	Ampere-metric Cells	Rx Electrode	Temp.Prob PST2		
Connections	BNC Connector	Connections Clamp	BNC Connector	Connections Clamp		
Set-Points	2 On-Off	2 On-Off	1 On-Off	-		

Each **PROTEAM**-series pump is provided standard with the following accessories:

1 x Injection Valve with hastelloy spring and ball Pyrex

1 x Foot Valve/Filter

2M x Delivery Hose PE

2 x 1.5M of suction and priming

Clear PVC hose

1 x Low Level probe switch

Set of screws, Wall mounting bracket and rawplugs

Power supply 230 Vac-1 phase-50/60 Hz / + 10% Power cable 1.5 m grounded with plug

Panel dimensions mm 600 x 1000 x 155

Panel material PVC

SOLENOID DRIVEN DOSING PUMP MODEL AT300 MA

PTFE diaphragm

Flow rate control by stroke frequency 0,100% Proportional control via 4-20 mA signal Microprocessor Technogy & Digital controls

2 LED display status

On-Off power switch

Low Level control and Probe

Air Bleed valve for priming



Liquid Ends Material AT3- series Dosing Pump				
	Standard Version	Upon Request		
Pump Head	PP	PVDF		
Diaphragm	PTFE	-		
Balls	Glass Pyrex	PTFE - Ceramic		
Connection Fitting	PP	PVDF		
Seals/O-Rings	Viton	Dutral		
Spring Loaded Injection Valve	Hastelloy/Pirex	Hastelloy/(PFTE, AISI 316, Ceramic		
Injection Fitting	PP	PVDF		
Foot Valve/ Filter Fitting	PP	PVDF		
Suction Hose/Air Bleed Hose	PVC	-		
Discharge Hose	PE	-		
	AT3 Characteristiscs			
Model	l/h	Bar		
AT-500	5	9		
AT-600	15	5		







CHEMTROL 255 - PPM/PH DIGITAL CONTROLLER

The CHEMTROLTM 255 PPM/pH Controller introduces a technological breakthrough in automated water treatment with a new sensor for Free Chlorine.



TRUE PPM READINGS

The new PPM Sensor is a solid state sensor with a selective membrane that provides direct readings of Free Chlorine in water at concentrations ranging from 0.1 to 10 ppm (parts per million) or mg/l (milligrams per litre). These are true readings of Free Chlorine and not approximate values derived from ORP readings. A significant advantage of this sensor is that it's not affected by cyanuric acid (CYA) stabilizer and/or oxidizers, thereby assuring constant Free Chlorine levels at all times. Extensive laboratory and field test have shown it to be very accurate and reliable. The CHEMTROL TM 255 PPM/pH Controller automatically maintains both Free Chlorine concentration and pH of the water. All operating functions are clearly labelled and accessible from the front panel, with safety and easy-reset features not found on other controllers. The Free Chlorine concentration can be adjusted from 0.1 to 10 ppm (or mg/l) based on local Health Department and National Spa and pool Institute (NSPI) values for prevention of germs and bacteria (or from 0.01 to 2.0 for low chlorine level applications). The standard pH control level is 7.5. Below 7.4, the water is too acidic and causes corrosion and eye irritation. Above 7.6, It is too alkaline and cause eye irritation plus water cloudness, scaling, stains and reduced sanitizer efficiency.

SPECIFICATIONS

PPM control Standard from 0.1-10 ppm (mg/l). Optional from 0.01 to 2.0 ppm (mg/l)

pH control Adjustable from 7.0 to 8.0

PPM sensor
pH sensor
Glass electrode with 10 10-ft (3 m) cable
Readouts
PPM (3 digits) and pH (2 digits) LEDs
Feed modes
Adjustments
Indicators
Solid state with selective membrance
with 10 10-ft (3 m) cable
(2 digits) LEDs
Manual, automatic, proportional
Setpoint, calibration, limits, feed rate
LEDs for feed mode, feed status, alarms

Safety Audio, visual and remote alarms. Out-of-range limits and overfeed safety timers

Cabinet Polystyrene 9x7x4 in. (22x18x10 cm)
Electrical 110V, 230V or 24 VAC (specify)
Plumbing PVC tees for 1-1/2" or 2" line

Warranty 5 years on electronic module. 1 year on all other parts

Shipping 9 lbs (4 kg) without pumps. 18 lbs (8 kg) with 2 chemical feed pumps

EASY AS 1-2-3 Continuities C

THE CHEMTROL™ 250 ORP/PH - ORP/PH DIGITAL CONTROLLER

Digital Controller automatically maintains both sanitizer ORP (oxidation-reduction potential or Redox) and water pH in pools and spas. All operating functions are clearly labelled and accessible from the front panel, with safety and easy reset features not found on other controllers. The standard pH control level is 7.5 Below 7.4, the water is too acidic and causes corrosion and eye irritation. Above 7.6, it is too alkaline and causes eye irritation plus water cloudness, scaling, stains and reduced sanitizer efficiency. The standard ORP control level is 700 mV, based on World Health Organization (WHO) and Health Department and National Spa and pool Institute (NSPI) values for prevention of germs and bacteria.

SPECIFICATIONS

PPM Control Adjustable from 400 to 900 mV pH control Adjustable from 7.0 to 8.0

ORP sensor
pH sensor
Platinum electrode with 10-ft (3 m) cable
Glass electrode with 10-ft (3 m) cable
Readouts
PPM (3 digits) and pH (2 digits) LEDs
Feed modes
Manual, automatic, proportional
Adjustments
Setpoint, calibration, limits, feed rate
LEDs for feed mode, feed status, alarms

Safety Audio, visual and remote alarms. Out-of-range limits and overfeed safety timers

Cabinet Polystyrene 9x7x4 in. (22x18x10 cm)
Electrical 110V, 230V or 24 VAC (specify)
Plumbing PVC tees for 1-1/2" or 2" line

Warranty 5 years on electronic module. 1 year on all other parts

Shipping 12x12x12-in (30x30x30 cm) carton. 9 lbs (4 kg) without pumps. 18 lbs (8kg) with 2 chemical

feed pumps



















ELECTRONIC/AUTOMATIC SOLENOID DRIVEN DOSING PUMPS

The PTM300 PH/RX electronic solenoid driven dosing pump has an integral pH/Redox controller with a single control set point which monitors the pH/Redox level of water. Its main purpose is to operate the pump if this level goes above or below the set point. This set point can be adjusted and features a digital display of the value at any time. Connection to the electrode is made via a BNC connector. PTM 300 PH/RX is designed to feature closing pumps duties and the function of top quality controller.

PR300 PH/RX

KEY FEATURES

- •Built-in pH-Rx instrument
- •pH measuring range: 0/14 pH
- •Redox/RP range +/- 1000 mV
- •Electronic Frequency control
- •PTFE diaphragm
- •2 Lines LCD display
- •Stop/Start button
- •Proportional and ON/OFF control modes
- •Dosing Head with integrated priming valve
- •Microprocessor technology
- •Digital keypad controls
- •Double Ball valves
- •Wall Mount with bracket & fixing kit
- •Optional Horizontal mount bracket at extra cost
- •Reinforced Plastic PP housing IP65
- •Supplied complete with hose accessory kit
- •Provided standard with Low level Facility

	Liquid Ends Material HC1&HC3			
	Standard Version	Upon Request		
Pump Head	PP	Up to 18 L/H - PVDF Up to 10 L/H - PVC Self Degassing Head		
Diaphragm	PTFE	-		
Balls	Glass Pyrex	PTFE - Ceramic		
Connection Fitting	PP	PVDF		
Seals/O-Rings	Viton	Dutral		
Spring Loaded	Hastelloy/Pirex	Hastelloy/(PFTE,		
Injection Valve	riasielloy/rilex	AISI 316, Ceramic)		
Injection Fitting	PP	PVDF		
Foot Valve/ Filter Fitting	PP	PVDF		
Suction Hose/	PVC			
Air Bleed Hose	, , 0			
Discharge Hose	PE	-		



DOSING PUMPS

Code	Max Flow	w/ Pressure Bar	Stroke Freq. (Per Min)	Stroke Valume (ml/l)	Hose SIze (mm)	Max Suction (Lift m)
00750209	2	9	120	0.27	4x6	1.5
00750509	5	9	120	0.69	4x6	1.5
00751004	10	4	120	1.38	4x6	1.5
00751008	10	8	120	1.38	4x6	1.5
00751804	18	4	120	2.77	4x6	1.5
00753002	30	2	120	4.16	10x14	1.5
00755051	50	0.5	120	6.94	10x14	1.5

POLYETHYLENE CYLINDERICAL DOSING TANK

Code	Description	Tank (L)	Dia
00753005	Dosing Tank	100	500
00753004	Dosing Tank	200	625
00753003	Dosing Tank	300	675
00753001	Dosing Tank	500	880
00753002	Dosing Tank	1000	1100



Code	Description	Execution	Lenght (mm)	Tank (L)	Motor Type
00751010	Manual Strrier	PVC	600	100	
00751011	Agitatore 1400	PVC	600	200/300	Monophase
00751012	Agitatore 1400	PVC	900	500/1000	Monophase
00751013	Manual Strrier	PVC	900	500/1000	







AUTOMATIC DOSING SYSTEM FOR CHLORINE - PH AND ORP

•With Touch - screen - Monitor And Internet Connection

The WATERFRIEND exclusive Chlorine MRD-3 system is the new improved version of the successfull model WATERFRIEND exclusive MRD-3. It features a large colour touch screen display with a comfortable graphic user interface and an integrated web server. This innovative technology allows the remote access via internet, computer network or a smartphone.

49th Years of Excellence

FEATURES

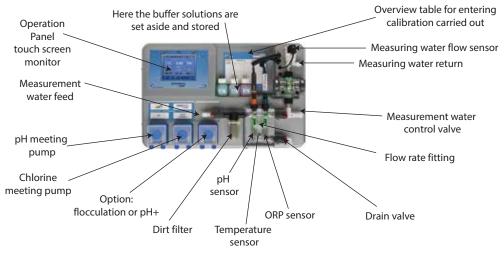
- •MRD-3 control unit (plastic housing, wall-mounting installation)
- •Chlorine level control sensor (amperometric)
- •2 electrodes mit osf-amplifiers with RGB coloured light indicator
- •1 water flow rate meter
- •2 dosing pumps (max 10 l/h) with variable speed motors
- •2 suction lances with floating switch
- •Illuminated osf flow chambers (transparent) with colour-coded calibration
- •2 teflon injectors
- •3 different buffer solutions (50 ml)
- •Test water pipe and dosing pipe, 10 m each
- •2 test water collection faucets
- Measuring cup
- •Fittings and small parts

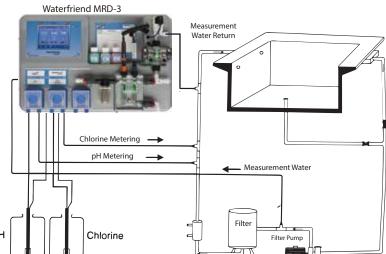
The high performance dosing pumps are driven by the speical motors with adjustable speed. It is possible to adjust the flow rate from 0 to 10 l per hour. The new MRD-3 system is available with 2 or 3 dosing pumps. The intelligent speed control allows to flexibly suit the system to various size swimming pools, different water temperature and user profiles.



MRD-3













pH and Cl sensor











AUTOMATIC DOSING SYSTEM PH AND ORP

The WATERFRIEND exclusive system delivers the latest technology of automatic water quality control. Several microprocessors are responsible for control of different parameters. Apart from that they also control each other, thus providing the optimal reliability and safety in use. Colour LED provide information about calibration state.



FEATURES

- •Control unit with the large LCD display (multi-language support)
- •2 dosing pumps (max 10 l/h) with variable speed motors
- •2 electrodes mit osf-amplifiers
- •High quality flow rate control unit
- •2 teflon injectors
- •Illuminated osf flow chambers (transparent) with colour-coded calibration indication
- •2 suction lances with floating switch
- •3 different buffer solutions (50 ml)
- •Test water side and dosing side tubes, 10 m each
- •2 test water collection faucets
- •Fittings and small parts

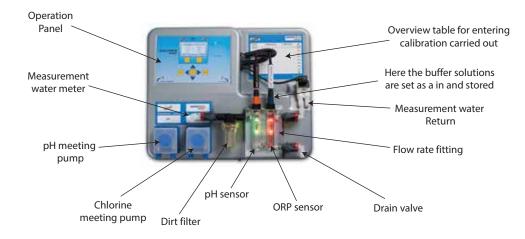
The high performance dosing pumps are driven by the speical motors with adjustable speed. It is possible to adjust the flow rate from 0 to 10 ltr per hour. This intelligent speed control allows to flexibly suit the system to various size swimming pools, different water temperature and user profiles. The unit is serially equipped with the RS-485 connector for connection to the osf system and to our Pool-Control-TOUCH controls. In such combination the remote monitoring of the WATERFRIEND exclusive System can be done via computer network, mobile phone or WLAN.



MRD-2



pH and Redox sensor







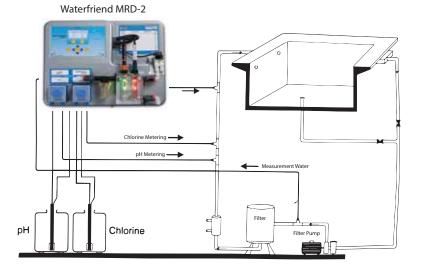














UV STERILIZER TR ULTRA

The T R2 Ultra series of ultraviolet units are designed to provide residential swimming pools and with a cost effective UV system for disinfection and improved water quality. One to four high output, low pressure UV lamps can be incorporated within the same unit, providing a maximum flow capacity of 40m³/h with a powerful UVdose of 30m³/cm² at the end of the lamp life.



UV TECHNOLOGY

The TR2 ultra range is designed for disinfection of residential Pool and spa water and provides cost effective treatment and improved water quality. One, two, three or four low pressure UV lamps are incorporated, treating flows of up to $40 \text{m}^3/\text{cm}^2$. This is sufficient for disinfection of the water, providing complementary protection against chlorine resistant organisms, as well as enhanced algae control. UV treatment is compatible with all other sanitizers, including chlorine, bromine, active oxygen, peroxide and copper based compounds, and allows for the levels of these to be significantly reduced. UV treatment introduces no by-product into the water, but also has no residual effect. Therefore a small background level of disinfectant should always be maintained. TR2 ultra systems have a small footprint and low power consumption. They are easily installed, having selectable inlet outlet positions.

MAIN BENEFITS

Suitable for indoor and outdoor applications System can be upgraded to treat additional flow capacity Simple installation Low capital and running costs Reduction in skin, eye and respiratory irritation Energy efficient Easy maintenance Improved algae control Long term compatibility with salt and chlorinator pools

MAIN FEATURES

100% corrosion resistant UV inhibited polymeric reactor vessel Low pressure UV system

Sized to provide the stated UV dose - a factor of the internal UV intensity and water contact time Over the whole of the lamp life for 99.99% disinfection

Automatic pre - set pressure flow switch

Inlets and outlets 63mm

Center ring indicates lamp operation at a glance

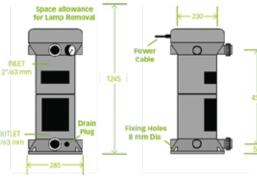
13,000 hour operational lamp life

External pressure gauge

2 years warranty

CE and UL approved





MATERIALS

UV Reactor Body UV inhibited polymer Intel/outlet uPVC unions High purity quartz sleeve

Code	Max.Flow Rate (m³/h)	Performance in mj Per Cm ³	Pressure Max	UV Lamp Power	Diameter of Reactor (mm)	Total Height (mm)	Inlet/Outlet Diameter PVC Union
			E & ES Series				
TR2-1	11	30mJ/cm ²	40 psi - 3 bar	1*58W	230	1245	2"
TR2-2	22	30mJ/cm ²	40 psi - 3 bars	2*116W	230	1245	2"
TR2-3	32	30mJ/cm ²	40 psi - 3 bars	3*174W	230	1245	2"
TR2-4	40	30mJ/cm ²	40 psi - 3 barss	4*232W	230	1245	2"











Orfinecon

WATER TREATMENT - UV STERILIZERS

APPLICATIONS

Private pools Water features Commercial pools

MAIN FEATURES

- •Poly chromatic 8,000 hour medium pressure UV lamp system.
- •Advanced lamp efficiency.
- •Elctropolished 316L stainless steel vessel
- •Vessel and wetted parts available in titanium.
- •Quick release lamp powerhead and thimble assembly.
- •Wall mounted control panel with display.
- •Power and operation indicators.
- •CE Certified, manufatured to ISO 9001:2015
- •CF LT Model version available with reduced features.

MATERIALS

- •Reactor Vessel 316L stainless steel.
- •Flanges uPVC sub flanges with galvanised steel backing rings
- •(BS table D or ANSI 150flanges available)
- •Lamp high purity quartz
- •Thimble high purity quartz
- •Panel Polyester coated mild steel.

OPTIONS

- •316L stainless steel strainer
- •Water flow switch
- •Titanium construction

REMOTE CONTROL AND SIGNALS

2Line LCD controller mounted to control panel, incorporating lamp ON/OFF button and lamp hours screen. Auto lamp OFF Function. Lamp current Displayed. System control Screen (switch between manual or remote) Reactor and panel temperatures displayed. Low and high current alarms can be set within the controller. Alarm screen displays: lamp high current, lamp RCD trip, lamp MCB trip, lamp low current, Reactor high temp, panel high temp, lamp change required, pump interlock. Lamp cooling screen. (countdown to next start)

Technical Data Model	Flow Rate (1)	Flow Rates (2)	Lamp power	Supply rating	Inlet/Outlet Connections	Maintenance Area	Control panel Dimensions
	m³/h	m³/h	KW	V/ph/HZ	mm/inches	mm(LxWxH)	mm(LxWxH)
SPA UV 15	15	22	1.5	220-230/1/50	50/2"	2060x100x320	500x200x500
SPA UV 25	25	37	3	380-415/3/50	75/3"	2100x150x400	500x200x500
SPA UV 50	50	75	3	380-415/3/50	75/3"	2100x150x400	500x200x500
SPA UV 75	75	112	3	380-415/3/50	100/4"	2110x200x510	500x200x500

Flow rates based on a dose of 60mj/cm^2 at 95% UVT, end of lamp life 8,000 hrs based on 3 on/off cycles per day. Flow rates based on a dose of 40mj/cm^2 at 95% UVT, end of lamp life 8,000 hrs based on 3 on/off cycles per day. Electrical supply must be confirmed at time of order.











UV STERILIZER

The UVARAY CF series of medium pressure ultraviolet units is designed to be uneasy to install system giving a cost effective solution for commercial pool disinfection and chloromine reduction.

APPLICATIONS

- Commercial swimming pools and spas
- Water Features
- Lakes and ponds

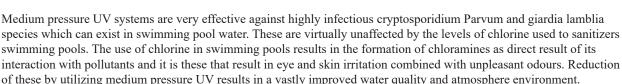
MAIN CHARACTERISTICS

- •Easy to install with in-line vessel design
- •Higher UV efficiency
- ·Lower capital cost
- •Lower power consumption

MAIN FEATURES

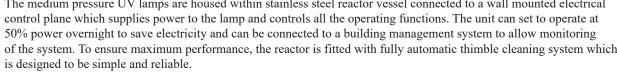
- •Substantial reduction in chloramines
- •Medium pressure UV lamp for maximum oxidation
- •Tpuch screen microprocessor control with data logging
- •Connects to building management systems
- •Automatic "smartdrive" wiper system as standard
- •Simple lamp replacement
- •CE approved
- •316 L Stainless steel reactor vessel

UV TECHNOLOGY UVARAY CF



HOW IT WORKS

The medium pressure UV lamps are housed within stainless steel reactor vessel connected to a wall mounted electrical control plane which supplies power to the lamp and controls all the operating functions. The unit can set to operate at 50% power overnight to save electricity and can be connected to a building management system to allow monitoring of the system. To ensure maximum performance, the reactor is fitted with fully automatic thimble cleaning system which is designed to be simple and reliable.















PROTEAM Europa'

PANEL DISPLAY OPTIONS

- •Lamp hours run
- •UV intensity %
- •UV intensity mw/cm
- •UV intensity mj/cm

ALARMS

- •Lamp failure alarm
- •Lamp change required alarm
- •Reactor high temperature alarm
- •Low UV intensity alarm

CONTROLS

- •Remote Start / Stop
- •Remote lamp power



UVARAY CF MODELS	Flow m³ / h	Rates US gpm	Lamp Power KW	Supply Rating	Control Panel Dimension mm(LXWXH)
CF20	20	88	1.0	220/1/60	600x600x200
CF40	40	175	1.0		600x600x200
CF60	60	264	1.5	230/1/50	600x600x200
CF105	105	460	2.0		600x600x200
CF145	145	640	2.5		600x600x200
CF170	170	750	3.0		600x600x200
CF220	220	970	2x2.0=4.0	380/3/50-60*	800x800x300
CF300	300	1320	2x2.5=5.0	400/3/50*	800x800x300
CF355	355	1560	2x3.0=6.0	415/3/50*	800x800x300
CF415	415	1825	2x3.5=7.0	480/3/60*	800x800x300
CF530	530	2330	3x3.0=9.0	Other Voltages	1000x1000x300
CF620	620	2730	3x3.5=10.5	On Request	1000x1000x300
CF710	710	3125	4x3.0=12.0		800x1400x400
CF830	830	3650	4x3.5=14.0		800x1400x400
CF1000	1000	4400	5x3.5=17.5		1000x1600x400

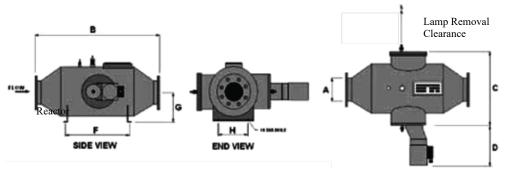




DIMENSIONS

Reactor	Reactor Dimension (mm/inch)								
	А	В	С	D	Е	F	G	Н	
CF20	75/3.0	250/9.8	320/12.6	195/7.7	400/15.7	-	-	-	
CF40	75/3.0	740/29.1	380/15.0	195/7.7	400/15.7	300/12.0	175/6.9	150/6.0	
	100/4.0		380/15.0	195/7.7	400/15.7	300/12.0			
CF105-145	150/6.0	900/35.4	480/18.9	195/7.7	500/19.7	400/15.7	225/8.8	200/8.0	
	150/6.0		580/22.8	195/7.7		400/15.7			
CF220-300	200/8.0	820/32.3	480/18.9	285/11.2	500/19.7	400/15.7	225/8.8	200/8.0	
			580/22.8	285/11.2		450/17.7			
CF530-620	300/12.0	970/38.2	580/22.8	285/11.2	600/23.6	450/17.7	275/10.8	250/10.0	
CF710-830	350/14.0	970/38.2	580/22.8	285/11.2	600/23.6	450/17.7	275/10.8	250/10.0	
CF1000	400/16.0	870/34.3	580/22.8	285/11.2	600/23.6	450/17.7	300/11.8	250/10.0	

Note uv intensity mj/cm required a 4-20mA signal from a water flow rate measuring device (not supplied)









UV STERILIZER FOR POOLS AND PONDS

1705

1920

2240

2560

2880

UV-130

UV-150

UV-180

UV-200

150

130

150

180

200

220V/50Hz

220V/50Hz

220V/50Hz

220V/50Hz

220V/50Hz

304/316SS

304/316SS

304/316SS

304/316SS

304/316SS

The reactor use 304/316 polished stainless steel, the smooth interior leaves no blind spot for sterilization. The ultraviolet light tube is equipped with a quartz sleeve, to ensure optimal working temperature. The electrical configuration of the devise is suitable to most electrical specifications. Special exterior design makes the devise convenient to use. All rounded sterilization highly efficient, sterilization rate up to 99.9%. High output, physical sterilization, no side effects, No secondary pollution. The amount of water that can be sterilized ranges from 5.5-250T/H. The devise



adapts to swimming pools, Spa and water parks of various sizes.



1630x325x1500

1630x325x1500

1630x377x1500

1630x377x1500

1630x377x1500

painted carbon steel

155Wx11

320Wx6

320Wx7

320Wx8

320Wx9

200mm

150mm

200mm

200mm

200mm



WATER TREATMENT Ozone Generators



Ozone is a gas that is a highly active form of oxygen that is hundreds of times more effective than chlorine. Dissolving ozone gas in the circulating pool water kills virtually all bacterias and viruses and produces a pool water that is sparkling, clear and free of odours associated with conventional chlorine treatment. Ozone gas is not stable and quickly decomposes to normal oxygen. It therefore must be generated in-situ and introduced immediately into the water stream. Two types of generators available depending on the pool usage. For domestic pools, ozone is produced using a generator that synthesis ozone from air using ultra-violet light. For hotel and club pools, which usually have a higher bather loading, ozone is generated using a corona discharge generator. Many indoor family pools use a Triogen ozone system as the only source of water disinfection. An occasional dose of compatible algaecide is all that is required to prevent algae growth in the pool. On occasions when the pool is to be used by visitors, It is recommended that a little chlorine - based disinfectant be added to avoid cross contamination. In smaller commercial pools, it is mandatory to maintain a disinfectant residual in the pool as a safeguard against cross infection. Most of the organic contaminants are oxidised by the ozone treatment and therefore the residual disinfectant is able to give protection with minimal formation of chloramines. In addition, the consumption of the secondary disinfectant is reduced.



Domestic pool application

UV250 System - Compact UV Ozone Generator Model UV250 Volume up to 70m³

UV500 System - Compact UV Ozone Generator Model UV500 Volume up to 140m³

Each Ozone System includes Injector, Water Check Valve and 3 metres of interconnecting tubing.



T2 System - Compact CD Ozone Generator Model TOGB2 Volume up to 100m³

T4 System - Compact CD Ozone Generator Model TOGB2 + TAD 1 Dryer Volume up to 200m³

T8 System - Compact CD Ozone Generator Model TOGB2 (2 off) + TAD BI Dryer Volume up to 400m³

Each ozone system includes injector, water trap assembly, air flowmeter and 3 metres of interconnecting tubing.

OPTIONAL EXTRAS

Injector Booster Pump Model CH2-50-1 (All systems excluding T8 System)

Injector Booster Pump Model CH4-50-1 (T8 System only)

Degassing System Model TDG A1 (Suitable for all systems)

Each degassing system includes contact tank, vent valve, water trap assembly and carbon destruct unit.

TECHNICAL INFORMATION

	Product	Model	
	Code: 00750250 UV250 & UV500 Ozone Generators Wall Mounted Ozone Generators Utilising High Intesity UV Lamps to Produce Ozone By Photosynthesis. Specifically Designed for Residential Pools	Voltage (v/ph/hz) Power (Watts) Dimension(mm) Weight(Kg)	230/1/150 16(UV250) 32 (UV500) 410 Hx 155Wx I00D 2.8
4	Code: 00750500 TOG B2 Ozone Generators Wall Mounted Ozone Generators Utilising High Voltage Corono Discharge to Produce Ozone. Specifically Designed For Large Domestic Pool And Commercial pools And Spas.	Voltage (v/ph/hz) Power (Watts) Dimension(mm) Weight(Kg)	110/230/1/50-60 85 (T2) 440 Hx 155Wx 100D 4.4
	Code: 00750083 TAB B1 Air Dryer Wall Mounted Fully Automatic Twin Column Air Dryer Designed ForContinuous Operation. The Air Dryer is Used in Conjunction with thef2 Ozone System to increase Output.	Voltage (v/ph/hz) Power (Watts) Dimension(mm) Weight(Kg)	110/230/1/50-60 60 440 Hx 305W x 110D 10.0
	Code: 00750085 TDG A1 Degasser System A Floor Mounted Contact tank with Automatic Vent Ensure Adequate Ozone Contact Time And Removal of Excess Ozonised Air From the System.	Diameter (mm) Height (mm o/all) Connections Weight(Kg)	250 1600 1" or 11/42"PVC union 29 kg Empty
68	Code: 07570012 Injector Booster Pumps Two Sizes of Booster Pumps Used to drive the Venturi Injectors Which draw the Air Through The Ozone System Under Vacuum And Introduces The Ozone Gas Into The Water Stream.	CH2-50-1 Voltage (V/ph/hz) Power (Watts) CH4-50-1 Voltage (V/ph/hz) Power (Watts)	230/1/50 710 230/1/50 1250















WATER TREATMENT Ozone Generators



COMMERCIAL OZONE GENERATORS - M6 and M7

Both the air drying system and the ozone generation system operate under vacuum conditions, thereby eliminating the risk of ozone gas escape. The ozone gerating modules incorporate the patented "Free Tube" design which gives excellent dielectric reliability and decreases maintenance requirements. The ozone modules have a PVC outer body fitted with stainless steel liner tubes which give excellent resistance to chlorinated water allowing pool water to be used in the ozone generator cooling system. The dielectric tubes and electrodes are suspended within the liner tubes which removes all expansion stresses from the dielectric which results in maximum reliability and long life. All models can be supplied either with constant ozone output or with totally automatic ozone output variation and easy to operate electrical controls. The M6 Range of ozone generators are specifically designed for swimming pool water treatment applications and are totally complete with integral air dryer, ozone generation equipment and full electrical controls. All the components are housed within one enclosure which has internal partitioning to separate the components and is fitted with removable access doors for ease of maintenance.





FEATURES

- •Ozone module "Free Tube" design
- •Totally self contained unit
- •Vacuum operation for safety
- •Pool water can be used for cooling and returned
- •To the system
- •Simple to install and operate
- •Proven ability to safely lower the free chlorine
- •Residual
- •Effective against chlorine resistant micro-organism
- •Very low THM levels
- •Significant improvement in water quality
- •Reduced skin and eve irritation with enhanced
- Atmospheric conditions for bathers and staff

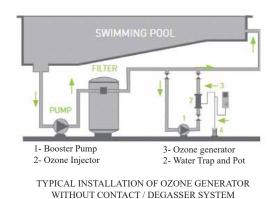
Code	Feed Gas (m ³ /h)	Ozone Output (g/h)	Cooling water flow (I/h<30 ^O C)	Power Consumption (av kw))
07570015	0.7	15	100	0.60
07570025	1.3	25	150	0.89
07570050	2.7	50	250	1.47
07570100	5.4	100	500	2.85
07570150	8.1	150	750	4.20
07570200	10.8	200	1000	5.70

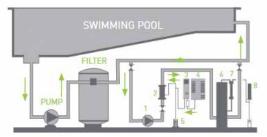
The M7 Range of ozone generators are totally complete with air pre-chiller, intergral air dryer, dewpoint monitoring system, ozone generation equipment and full electrical controls. The ozone power supply system incorporates a frequency inverter that increases the mains frequency to maximise ozone production and also allows fully variable automatic control of the ozone output.

FEATURES

- •Ozone module "Free Tube" design
- •Refrigerated pre-dryer for high plantroom
- Temperatures
- •Vacuum operation for safety
- Constant dewpoint monitoring of dry air feedgas
- •Totally self contained unit
- •Proven ability to safely lower the free chlorine
- •Residual
- •Effective against chlorine resistant micro-organism
- •Very low THM levels
- •Significant improvement in water quality

Code	Feed Gas (m ³ /h)	Ozone Output (g/h)	Cooling water flow (I/h<30 ^O C)	Power Consumption (av kw))
07590065	2.7	65	250	2.4
07590130	5.4	130	500	3.9
07590190	8.1	190	750	5.4
07590260	10.8	260	1000	7.6
07590320	13.5	320	1250	10.0
07590390	16.2	390	1500	12.2
07590450	18.9	450	1750	14.4
07590520	21.6	520	2000	16.2
07590580	24.3	580	2250	18.0
07590650	27.0	650	2500	20.6





- 1- Booster Pump
- 2- Ozone Injector
- 3- Ozone Generator
- 5- Water Trap and Pot 6- Contact Tank
- 7- Automatic Vent Valve 4- Air Driver





TYPICAL INSTALLATION OF OZONE GENERATOR WITH AIR DRYER AND CONTACT / DEGASSER SYSTEM



SALT CHLORINATOR

HEALTHY COMFORTABLE

• ECOLOGICAL

This system saves 80% in maintenance and 100% in buying unnecessary chemical products. once the equipment is being amortized, the manufacturing costs are only 10% of the cost of a conventional chlorination system. The installation, even in big swimming pools, is very simple and no construction is required.

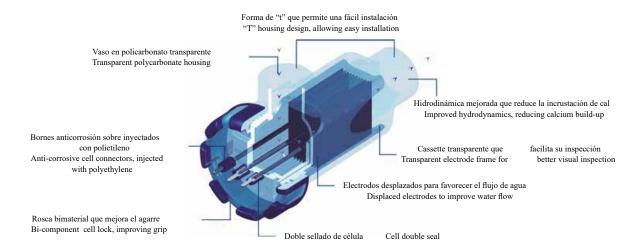
TECHNICAL FEATURES

- •New sealed power supply of high performance
- •Elimination of forced air ventilation, high resistance to corrosive.
- •Atmosphere ,notable decrease faults IP65
- •New easy user interface with backlit LCD display.
- •New wall mounting with independent stainless steel brackets.
- •Detachable lead plug that allows faster and easier technical services installation.
- •Self cleaning cell.
- •Cell connection without nuts using thermo rubber waterpoof connector.
- •External control included





Model	Cell dimensions L*W*H (mm)	Chlorine output(g/h)	Voltage	Total power(Max)	Pump power(Max)	Light power (max)	Recomanded Pool volume (m3)
0080020	370265*145	15	AC230-240V	1.70Kw	1.5KW/6.9A	AC12V/100W	75
0080030	370*265*145	25	AC230-240V	1.75Kw	1.5KW/6.9A	AC12V/100W	125
0080040	370*265*145	32	AC230-240V	1.80KW	1.5KW/6.9A	AC12V/100W	170
0080050	370*265*145	40	AC230-240V	1.85KW	1.5KW/6.9A	AC12V/100W	200











SALT CHLORINATOR

The PROTEAM Saltwater chlorinator combines cutting edge technology and sleek design to provide you with a reliable and fully featured salt water chlorinator, easy to install and program, all at affordable cost. Developed in Australia for extreme working condition, the PROTEAM chlorinator was developed by one of the leader in the field, whose design is renowned for the quality and reliability. We specify the highest quality electrodes and polymer incorporating the latest nanotechnology to provide a renowned and cost effective sanitizing system. Reverse polarity, self cleaning, automatic electrode monitoring are only some of key feature common to all models.



FEATURES

- •Models range from 20,000 lts to 150,000 lts.
- •Reverse polarity cleaning.
- •Output set points low 40%, medium 70%, High 100%.
- •Manual and automatic settings.
- •Low salt alarm.
- •Emergency Low salt function.
- •Water flow alarm.
- •Automatic Electrode condition monitoring.
- •Output control of voltage and current using state of the art feedback technology.
- •Soft start function during polarity reversal to increase operation life of electrode.
- •Software and hardware protection against power spikes.
- •Efficient flow characteristics in the electrode design.
- •Very high electrode effeciency and hence high chlorine output.
- •Weather proof to IP24

Model	CL Output	Pool SIze (Its)	Plates	Min.Salt(ppm)	Notes
CL20 PUP	7 g/hr	20,000	2	4000	Standard
CL 40 PUP	14 g/hr	40,000	3	6000	Standard
CL 40 H	14 g/hr	40,000	4	4000	High Endurance
CL60	20 g/hr	60,000	4	6000	Standard
CL 60 H	20 g/hr	60,000	7	3000	High Endurance
CL 90	30 g/hr	90,000	7	4000	Standard
CL 90 H	30 g/hr	90,000	9	4000	High Endurance
CL 120	40 g/hr	120,000	9	6000	Standard
CL 120 H	40 g/hr	120,000	11	4000	High Endurance
CI 150	50 g/hr	150,000	11	6000	Standard











LOW COST

• EFFECTIVE HEALTHY

COMFORTABLE

• ECOLOGICAL

This system saves 80% in maintenance and 100% in buying unnecessary chemical products. Once the equipment is being amortized, the manufacturing costs are only 10% of the cost of a conventional chlorination system. The installation, even in big swimming pools, is very simple and no construction is required.



EFFECTIVE

The disinfectant power of pure chlorine gas which is generated by the system is much superior as of the commercial hypochlorites. This chlorine is completely dissolved in water at a precise and constant rate with no addition of byproducts and preservatives. The high chlorine concentration existing in the cell destroys contaminants which cannot be eliminated adding commercial hypoclorites, such as chloramines and other remains of body lotions . A second disinfectant effect is given by the strong electric field exisiting In the cell The result is a double and more powerful process of disinfection . Acting continously the system provides with an exceptional water quality even without any residual chlorine level in the pool as in the conventional chlorination . This is better seen in the astonishing crystal clear water of salt water chlorination.



HEALTHY

After completing its disinfection and oxidising process . Chlorine converts back to salt in the pool. Chemical storage is no longer needed as in conventional chlorination . The strong oxidizing conditions in the cell are able to destroy chloraminated compounds which are not eliminated in traditional chlorination . Chloramines are responsible for the skin and ocular irritaion and procedure this characteristics chlorine odor of conventional treated swimming pools. The presence of some salt in the swimming pool water acts as natural antiseptic against bacteria and algae, acting smoothly over the skin of the swimmer.



COMFORTABLE

This low salt concentration provides a very pleasant isotonic sensation. The skin no longer swells or dehydrates, the hair does not get dry and the eyes can be opened into water without sting. There is no chlorine odor over the skin and no need to take a shower immediately after the bath. Besides, salt composition accelerates tanning. Chlorine is produced and immediately dissolved in water. The manipulation and storage of chemical toxic products disappears eliminating the risk of fire or explosion. The corrosive atmosphere and the bad smells of filter room are eliminated, in that way also the working conditions and the equipment maintenance are improved.

ECOLOGICAL

Chlorine is generated through a renewal process and at the end it returns to its initial state of salt. Water is treated without adding any external compound on preservative . The local production of chlorine avoids CO2 and any due to transport energy consumption.

SALT ELECTROCHLORINATION

Innowater manufactures domestic and industrial salt chlorination which adapt to any kind of place or necessity. The range of products of innowater is an electrochlorination system in line of highest efficiency developed in order to produce chlorine in fresh water. Innowater uses the most sophisticated electrolysis technology and it means a step forward in electrochlorination. Its cell incorporates a catalyst which increases definitely the chemical efficiency of the electrolytic process and generates chlorine remains in low salt concentration waters. For the first time this unique capacity of innowater chlorinator allows electrochlorination treatment in the different applications of fresh water. Swimming pool, waste water treatment, drinkable water, cooling circuits etc. The range of chlorinates has been planned for any application and can be measured depending on the water composition to produce from 10 to 1.000 gr of chlorine per hour. We can manufacture higher capacity machines by order.





PROTEAM Europa'

SMC DOMESTIC MODELS - SMC10, SMC20, SMC30, SMC50

TECHNICAL FEATURES

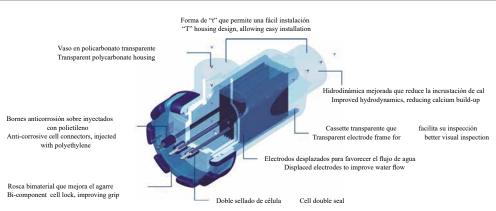
- •New sealed power supply of high performance
- •Elimination of forced air ventilation, high resistance to corrosive.
- •Atmosphere ,notable decrease faults IP65
- •New easy user interface with backlit LCD display.
- •New wall mounting with independent stainless steel brackets.
- •Detachable lead plug that allows faster and easier technical services installation.
- •Self cleaning cell.
- •Cell connection without nuts using thermo rubber waterpoof connector.
- •Includes software and electronics for pH and redox measurement.
- •External control included

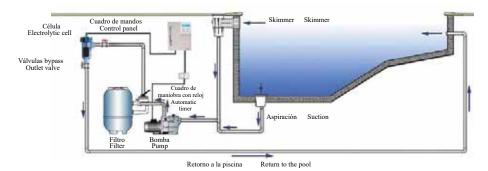




TECHNICAL SPECIFICATION

Model	smc 10	smc 15	smc 20	smc 30	smc 50
Chlorine production per hour	10gr/h	15gr/h	20gr/h	30gr/h	50gr/h
Recommended volume	0-30m3/spa	30-50m3	50-90m3	90-150m3	150-200m3
Recommended salt level	4gr/l sea water				
Cell expected life span	14.000h	14.000h	14.000h	14.000h	14.000h
maximum flow rate	450 I/min	450 I/min	450 I/min	450 l/min	600I/min
Maximum operating pressure	480kpa	480kpa	480kpa	480kpa	480kpa
cell housing pressure drop	2.5kpa	4kpa	5kpa	5kpa	5kpa
voltage output	24vdc	24vdc	24vdc	24vdc	24vdc
current output	1.5 amp	2.5amp	3.5amp	5amp	7.5amp
power requirment	220vac	220vac	220vac	220vac	220vac
Watt	50watt	60watt	90watt	130watt	190watt
cell cassette material	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
cell material	titanium grade 1				
reversal time	Programmable 1 to 12h				









Ver instalación de pH en la página 49.

See pH controller installation on page 49.



SALT WATER CHLORINATOR BASIC SMC + PH CONTROLLER BASIC

CHLORINATOR

Sealed power supply of high performance

Elimination of forced air ventilation: high resistance to corrosive atmosphere,

notable decrease faults easy user interface with back lit LED display

Wall mounting with independent stainless steel bracket.

Datachable lead plug that allows faster and easier technical services installaion.

Self cleaning cell cell connection without nuts, using thermo rubber waterproof connector

WIRELESS PUMP

Standalone wireless controlled longe range dosing pump.

perisaltic pump head easy to disassemble and replace

allows its installation move away from the chlorinator or outside the filtration room to avoid damages by the acid

quick and easy installation

easy calibration and configuration through the chlorinator LCD

Propotional dosage control Flow:4 l/min. pressure :2.5 bar

Acid level control

Manual push button



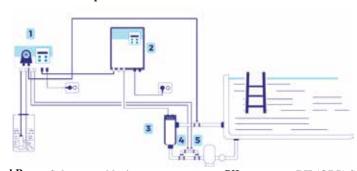
Model	smc 10	smc 15	smc 20	smc 30	smc 50
Chlorine production per hour	10gr/h	15gr/h	20gr/h	30gr/h	50gr/h
Recommended volume	0-30m3/spa	30-50-m3	50-90m3	90-150m3	150-200m3
Weight	4.5kg	4.5kg	4.5kg	5kg	13kg
Packaging dimensions	610x370x340mm	610x370x340mm	610x370x340mm	610x370x340mm	610x370x340mm

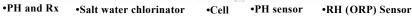
KITS OPTIONS

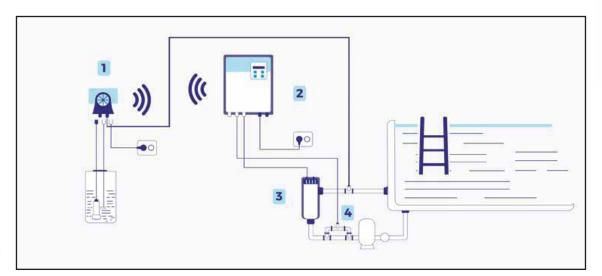
SALT WATER CHLORINATOR PH AND RX CONTROLLER

рН	Rx
smc10pHb	smc10pHRx
smc15pHb	smc15pHRx
smc20pHb	smc20pHRx
smc30pHb	smc30pHRx
smc50pHb	smc50pHRx

pH and Rx Basic Structure















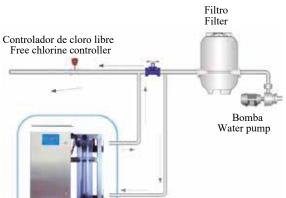
HOW TO CALCULATE YOUR PUBLIC POOL SALT CHLORINATOR

To assure the correct performance of our units in your public swimming pool, we do have to consider only volume as in private pools. But we have to know other parameters .Use as a guide the following chart we recommend you if you have any doubts send us mail, our technical department will point out the suitable chlorinator for your application.

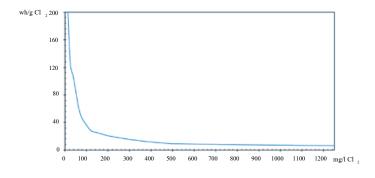


Election G	uide			Volume m ³			
	100	200	400	500	750	1000	1500
Bathers	Minimum						
per day	chlorinator						
50	smc75.smc50	smc100.smc75	smc150.smc150	smc150.smc150	smc250smc250	smc300smc300	smc500smc500
100	smc100.smc75	smc150.smc100	smc150.smc100	smc250.smc180	smc250smc250		
200	smc150.smc100	smc250.smc180	smc250.smc180	smc300.smc250	smc250smc250	smc500smc500	
300			smc300.smc150		smc250smc250		smc750smc500
400	·	·		smc500smc250	smc500smc300	·	·
500						smc750smc500	smc1000smc500













A la piscina To the pool

