

DOSING PUMP
for swimming pools



**ASSEMBLY AND MAINTENANCE
INSTRUCTIONS**

Thank you for selecting a dosing pump for your swimming pool.

The BIO-UV dosing pump is an essential addition to BIO-UV ultraviolet treatment, allowing completely automated water treatment for swimming pools.

This system provides great user comfort thanks to its reliability and simplicity and is, of course, always chlorine and without any toxic chemical residues.

Our equipment has been designed to provide you with many years of reliable and safe operation.

Our dosing pumps have been designed for quick and easy installation, combined with easy maintenance.

Read these instructions carefully in order to get the best results from your dosing pump.

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A. TECHNICAL CHARACTERISTICS

DOSING PUMP	
CONTROL UNIT	
Dimensions	190 x 140 x 70 mm
Power supply	230 Volts 50 Hz
Power	6 Watts maximum
Protection Index	IP 54
Measurement scale	0 to 14
Temperature probe	CAT 2600
Measurement scale	0 to 40°C
Dosing pump output	0.375 liter/hour
Dosing pump outlet pressure	1.5 Bars
Day timer	with 10 minute programmable operation segments
On/Off switch	Yes
Internal adjustment range	2 to 18 minutes
ACCESSORIES	
1 x Clamp	Diameter = 50 or 63 or 75 mm* outlet ½'' F
1 x Connector for pump valve	½'' M x 3/8'' F
1 x Polyethylene discharge pipe	4X6 mm Length = 2 metres
1 x Crystal PVC suction pipe	4X6 mm Length = 2 metres
1 x Suction strainer	For 4X6 mm pipe
1 x Pump injection valve	3/8'' M
1 x Santoprene tube	0.375 liter/hour
OPTIONAL	
1 x Temperature probe	½'' M
1 x Connector for temperature probe	1'' M x ½'' F
1 x Clamp for the temperature probe	Diameter = 50 or 63 or 75 mm* Outlet 1'' F

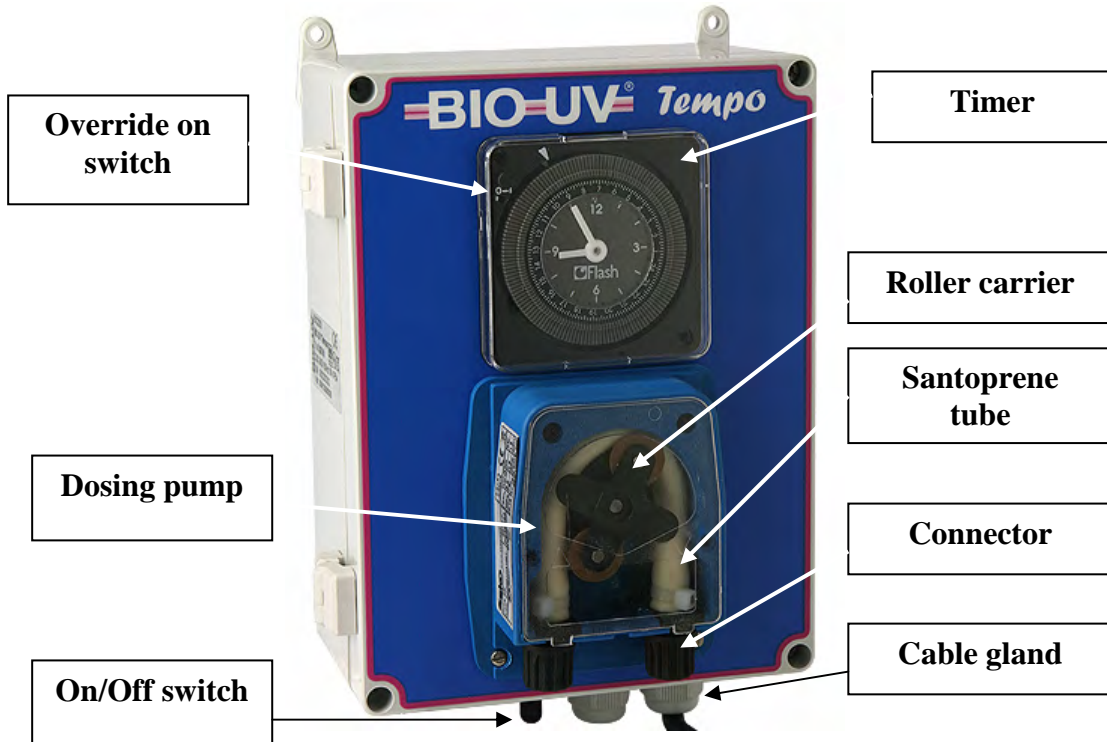
* depending on the order

B. PARTS LIST

Dosing pump with accessories Code: PPE000167		PVC Crystal Suction tube Code: PDP000055		Polyethylene Discharge tube Code: PDP000054	
					
Roller carrier Code: PDP000048	Timer Code: PDP000213	Suction strainer Code: PDP000045	Santoprene tube Code: PDP000053	Injection valve Code: PDP000044	
					
1 x Securing Clamp Codes: Ø 50: RAC000363 Ø 63: RAC000790 Ø 75: RAC000348		Connector for pump valve Code: PDP000107	1 x Clamp for temperature probe Codes: Ø 50: RAC000176 Ø 63: RAC000177 Ø 75: RAC000178	1 x connector for temperature probe Code: RAC000270	Temperature probe Code: PDP000214
OPTIONAL					
					

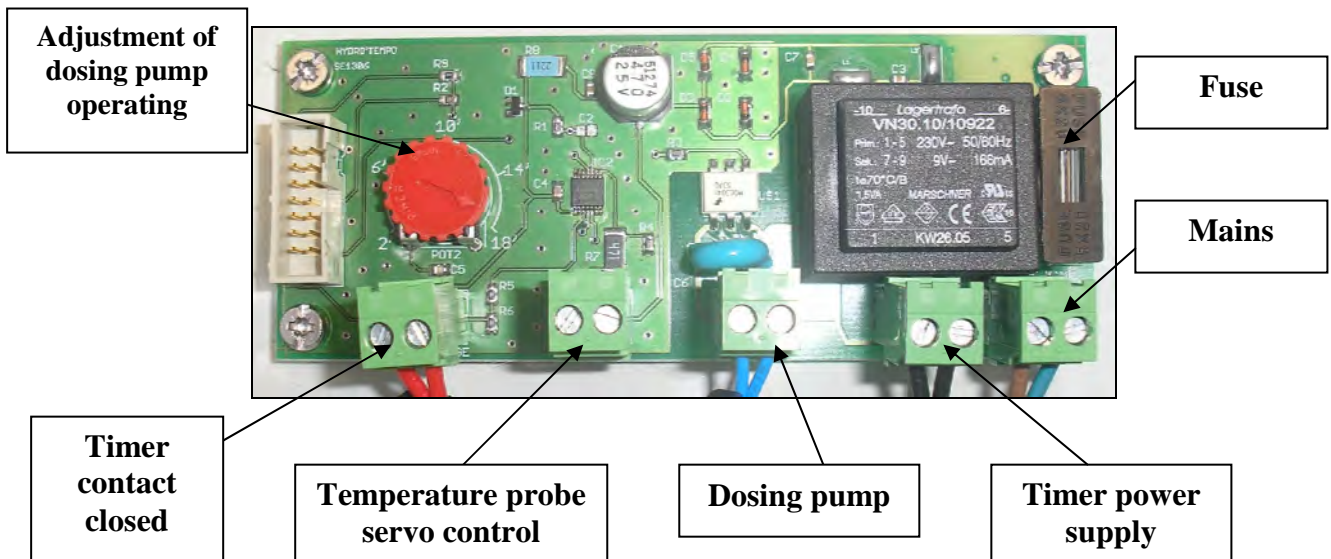
C. CONTROL UNIT

External view



Internal view

Locations of the different internal terminal strips



D. WARNINGS AND SAFETY

**READ ALL THE INSTRUCTIONS IN THIS MANUAL BEFORE
OPERATING THE DOSING PUMP**

INSTALLATION

RECOMMENDATIONS



Before carrying out ANY work on the inside of the dosing pump unit, disconnect it from the power source

Before starting to install the dosing pump **check that you have all the components required for the installation**

The power supply voltage must correspond to the voltage marked on the label fixed to the side of the equipment

The **pressure at the point of injection** must not exceed **1.5 Bars**

The pump's **protective housing** must be properly clipped in position

The suction tube (PVC Crystal) is immersed in the tank for the product to be injected (persistent BIO-UV or persistent Oxygen), and connected to the pump (mark ▲ on the cover), with the connector nut properly tightened

The injection tube (white Polyethylene) is connected to the pump (▼ mark on the cover), and correctly fixed to the other end of the clamp via the injection valve

E. INSTALLATION PROCEDURES



THE POWER SUPPLY MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND MUST BE PROTECTED BY A THERMAL CIRCUIT BREAKER OR A FUSE



STOP THE FILTRATION AND BLEED THE PIPEWORK BEFORE FITTING CLAMPS

CONNECTION AND POWER SUPPLY	
1	Fix the unit to the wall
2	Open the unit
3	Set the pump operating time using the potentiometer (2 to 18 min)
4	Connect the filtration servo-control to the pump (Power must be off the dosing pump) Connect up the wires : blue (Neutral), brown (Phase) and green (Earth) to the filtration unit (coming from the pump power supply)
5	Close the unit
6	Adjust the frequency of pump starting using the timer segments The pins engage from the inside outwards.
7	Fit the clamp for the dosing pump injection
8	Assemble the valve with its connector onto the clamp using Teflon
9	Connect the pump and the valve with the Polyethylene tube provided
10	Connect the suction strainer to the pump with the PVC crystal tube provided (Max 2 m)
11	Immerse the strainer in the drum of product to be used
12	Carry out Well the phase of starting of the injection and suction pipes so that with the startup, the desired amount is well injected
13	Switch the equipment on
14	Set the timer to the correct time

F. THE TEMPERATURE PROBE (option)



STOP THE FILTRATION AND BLEED THE PIPEWORK BEFORE FITTING THE CLAMPS

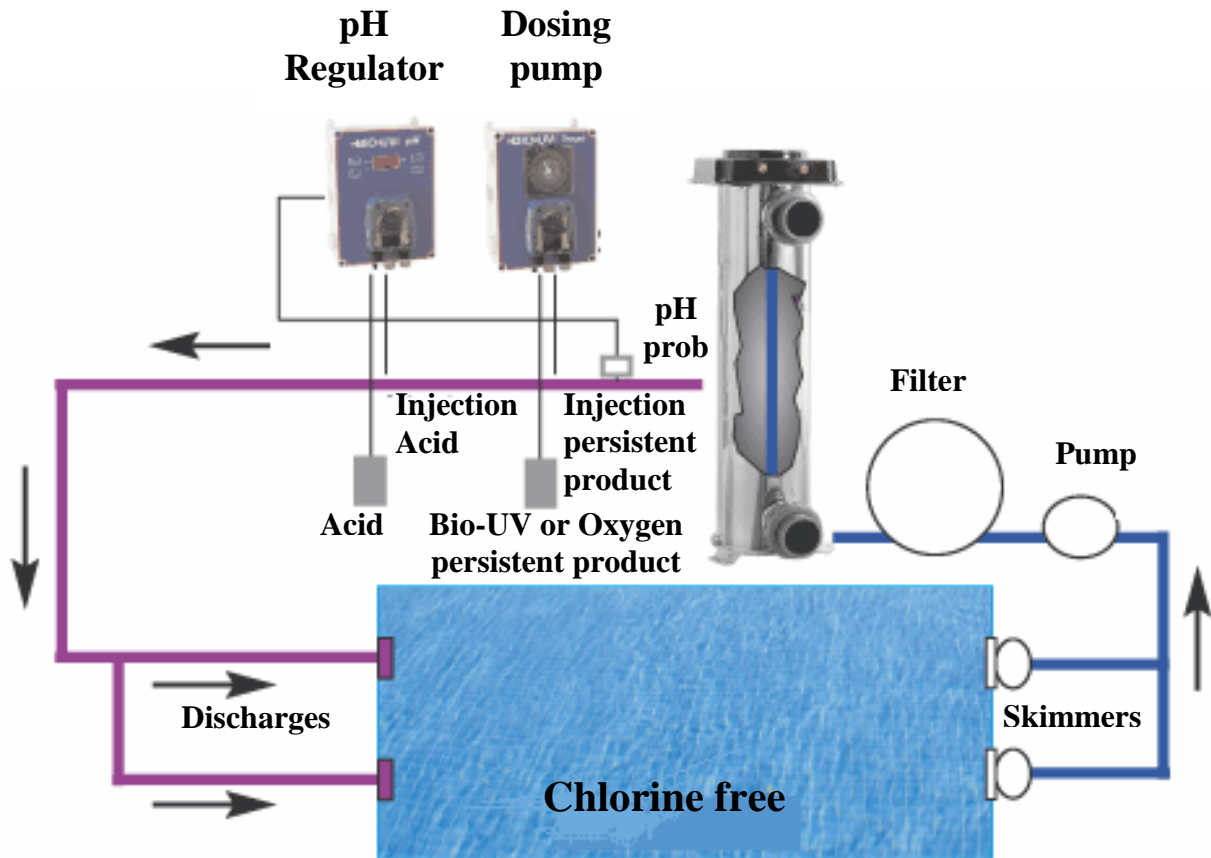


CONNECTION OF THE TEMPERATURE PROBE	
1	Fit the clamp for the temperature probe
2	Assemble the connector (for the temperature probe) and the probe onto the clamp with Teflon
3	Open the unit
4	Pass the temperature probe cable through the cable gland
5	Connect the two wires to the “Temperature input” terminal strip
6	Close the equipment again
7	Switch the equipment on

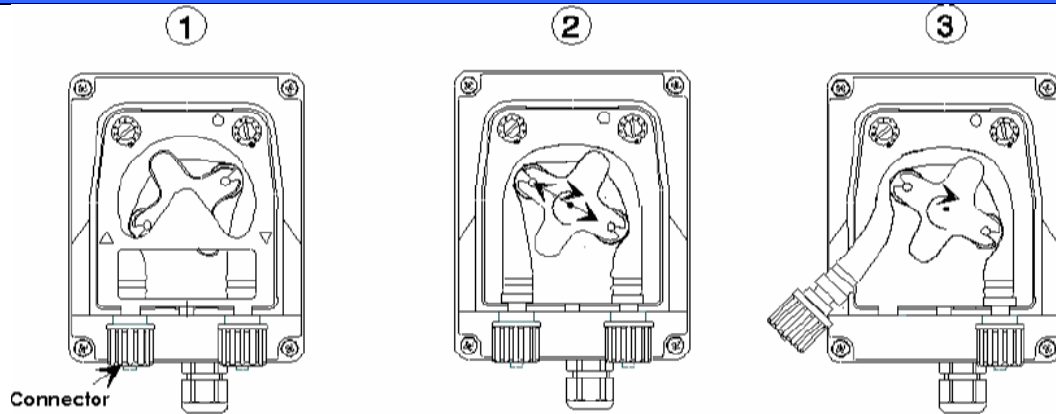
Compensation value for the temperature probe

Water temperature	Probe injection time
< 24°C	Injection time X 1
24 to 30°C	Injection time linear depending on temperature (E.g. at 27°C, injection time X 1.5)
> 30°C	Injection time X 2

TYPICAL INSTALLATION



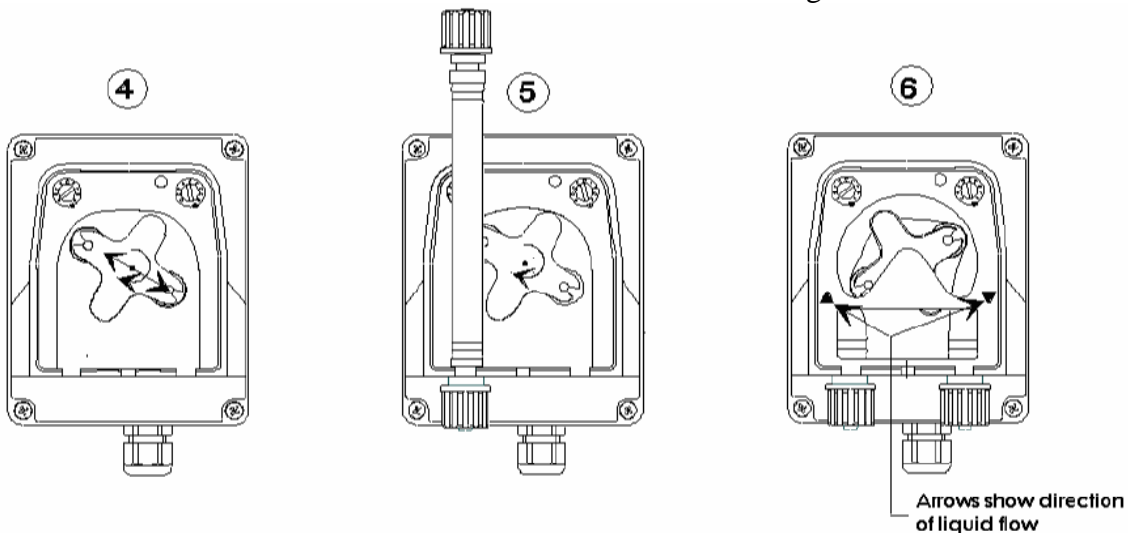
CONNECTION AND MAINTENANCE OF THE PERISTALTIC PUMP



Unclip the cover by pulling the left side connector upwards

Set the roller carrier to the 1020 position by turning in the direction shown by the circular arrow

Completely remove the left side connector by holding it taut towards the exterior, then turn the roller carrier in the direction shown by the circular arrow in order to remove the tube as far as the right side connector



Set the roller carrier to the 1020 position by turning in the direction shown by the circular arrow

Insert the left side connector in its socket then pass the tube under the roller carrier guide. Turn the roller carrier in the direction shown by the circular arrow, taking the tube with it inside the pump head as far as the right side connector.

Place the cover on the pump, making sure that the arrows (▲▼) are facing in the correct direction, and then press firmly until it clicks securely into place.

G. SETTING THE TIMER TO THE CORRECT TIME

Turn the central disc to set the needles to the correct time.



H. SETTING THE OPERATING RANGE

After defining the operating range for the unit, set the segments according to the range. To engage a segment, push it outwards.



Do not engage 2 adjoining segments.
(Leave at least 1 segment unengaged between 2 engaged segments, otherwise the 2nd or 3rd segment will not be taken into account)

BIO-UV Remanent:

It is best to position the segments in the morning, at the start of the filtration cycle.

Oxygène remanent:

**It is best to position the segments in the evening, one hour before filtering stops.
(TAKE CARE WITH THE DURATION OF INJECTION)**

I. SETTING THE PUMP'S OPERATING TIME

1	Switch off the unit
2	Open the unit
3	Use the internal potentiometer to set the pump's operating time (2 to 18 min) Factory setting: 15 min or 100 ml/day
4	Close the unit
5	Switch the unit back on

J. RECOMMENDATIONS FOR INJECTION OF BIO-UV PERSISTENT PRODUCT

Outdoor swimming pool for family use:

Pool volume (m ³)	Number of segments	POSITION on the potentiometer	INJECTION
35	1	9 min.	60 ml/day
50 to 80	1	15 min. (Factory setting)	100 ml/day
90 to 100	2	12 min.	2 x 80 ml i.e. 160 ml/day
110 to 120	2	15 min.	2 x 100 ml i.e. 200 ml/day

Contact us for advice on swimming pools with smaller or larger volumes.



If the swimming pool is temporarily subject to **greatly increased use** you can engage 1 or several **extra** timer segments

For lightly-used indoor swimming pools not subject to pollution:

Reduce the injection time to **half** the dose recommended above by setting the potentiometer to the required doses.

For swimming pools which are surrounded by dense vegetation and/or with average water flow levels and/or with an old filter, a reinforced algicide treatment with BIO-UV ALGICIDE may be required to increase the efficiency and optimise the use of BIO-UV REMANENT

Reminder: Filtration

It is essential to:

- **filter** during the day (**while swimming takes place and when the sun is shining**)
- **comply** with the filtering times:
 - o **Water temperature less than 26°C:**
Filtering time = half water temperature
 - o **Water temperature greater than 26°C:**
Filtering time = half water temperature + 2 hours

K. RECOMMENDATIONS FOR INJECTION OF OXYGEN PERSISTENT PRODUCT

Pool volume (m ³)	Number of segments	POSITION on the potentiometer	INJECTION
35	1	15 min. (Factory setting)	100 ml/day
50	2	2 x 15 min.	200 ml/day
75	3	3 x 15 min.	300 ml/day
100	4	4 x 15 min.	400 ml/day

Contact us for advice on swimming pools with smaller or larger volumes




If the swimming pool is temporarily subject to **greatly increased use and/or in the case of very high temperature (exceeding 26°C)** we recommend **injecting an extra 50% of dose**

Reminder: Filtration

It is essential to:

- **filter** during the day (**while swimming takes place and when the sun is shining**)
- **comply** with the filtering times:
 - o **Water temperature less than 26°C:**
Filtering time = half water temperature
 - o **Water temperature greater than 26°C:**
Filtering time = half water temperature + 2 hours

L. PROTOCOL AND ADVICE CONCERNING TREATMENT USING BIO-UV REMANENT AND OXYGENE REMANENT

<h3>Setting to work</h3>	
1	<p>Brush the sides and bottom and clean the skimmers Do not forget to carefully back-clean the filter to flush all dirt and various pollutants into the sewage system</p>
2	<p>Check that the BIO-UV dosing pump is correctly connected up and installed and check the condition of the pump casing and suction and injection pipework</p>
3	<p>Carry out a shock dose treatment using BIO-UV CHOC (hydrogen peroxide) 1 L/10m³ (in front of the outlets with the Filtration pump running) in order to ensure complete oxidization and clean the water, pool and pipework thoroughly</p>
4	<p>Use the correct number of pins on the BIO-UV dosing pump (see Injection Recommendations) Start the BIO-UV dosing pump</p>
5	<div style="display: flex; align-items: center; justify-content: center;">  <p>72 hours after the shock dose...you must</p> </div> <p>... add 1 x 5L drum of BIO-UV ALGICIDE SPECIAL for every 50 m³ (i.e. 2 x 5L drums for 100m³) directly into the pool in order to reinforce the prevention of algae. Carry on this treatment for several weeks.</p> <p>Depending on the number of persons using the pool and its environment, it may be preferable to add the same dose in mid-season when the pool is most used.</p>
6	<p>If the water is hard or very hard,(bore-hole water not recommended) add BIO-UV STOP CALCAIRE at the start and middle of the season if necessary (TH > 25 °F or 25 ppm)</p>

BIO-UV REMANENT OR OXYGENE

REMANENT

supplements suited to the BIO-UV Ultraviolet concept

OXYGENE REMANENT	BIO-UV REMANENT
Its disinfectant and anti-algae qualities make it possible to prolong the bactericidal, virucidal and algaecidal efficiency of the ultra-violet light in the pool between two filtration cycles	Its disinfectant, anti-algae and anti-scaling qualities make it possible to prolong the bactericidal, virucidal and algaecidal efficiency of the ultra-violet light in the pool between two filtration cycles
Use with all types of filtration systems , (sand, cartridge and diatom filters).	Use ONLY sand filtration systems
In order to reduce the premature consumption of OXYGENE-REMANENT it is recommended that you add BIO-UV CLEAR regularly, in order to retain all the particles and suspended matter in the filter	It may be desirable to clarify the pool using BIO-UV CLEAR, particularly in the case of very turbid water. BIO-UV CLEAR is compatible with all types of filter and all water treatments; it is a 100 % natural product
<ul style="list-style-type: none"> - CHLORINE-FREE - ELIMINATED NATURALLY - LEAVES NO TOXIC CHEMICAL RESIDUE - MAKES THE WATER DISINFECTANT - PREVENTS THE APPEARANCE OF ALGAE - MAKES THE WATER CRYSTAL CLEAR - RISK-FREE FOR BATHERS - USED IN SMALL QUANTITIES - DOES NOT CHANGE THE WATER'S pH - EFFICIENCY LESS DEPENDENT ON THE pH (it is nevertheless recommended that you control the water's pH to keep it within the standards values: around 7 to 7.5 for reasons of bather comfort, so as not to encourage the growth of algae and to prevent scale deposits from forming). - ODOUR-FREE - EFFECTIVE IRRESPECTIVE OF THE TEMPERATURE OF THE WATER - CORROSION-FREE - COMPATIBLE WITH ALL TYPES OF COATING AND ALL MATERIALS - SOFT, HEALTHY WATER GUARANTEED 	



These recommendations are the fruit of studies, developments and validations in order to ensure remanence and an algaecidal effect with OXYGENE REMANENT plus anti anti-scaling effect with BIO-UV REMANENT.



The BIO-UV Company declines all responsibility for any other product used as a replacement.




Furthermore, its recommendations are valid for swimming pools that are regularly maintained, with a filtration system that complies with professional standards

M. PROBLEMS LIABLE TO OCCUR AND ACTIONS REQUIRED

Symptoms	Probable causes	Actions
Sides of pool green Presence of algae Sides of pool sticky Turbid water	Insufficient remanent product, poor filtration, high pH, absence of algaecide	Correct the pH Carry out a shock treatment Filter 24/24 Flocculate Carry out preventive algaecidal treatment
Turbid water Milky water	Excessive pH Defective filtration Filtration period too short (t°c/2+2h) Powdery limestone	Adjust the pH in stages Flocculate Use descaling agent & metal Check the filter (descale) Sand too old (5 years max.)
Stinging eyes	Poor pH	Correct the pH
Water coloured and clear	Presence of oxidized metal ions	Shock treatment using 30 g/m³ of chlorinated lime
Persistent foam	Excessive use of algaecide	Add new water to dilute
Excessive pH-consumption Poor operation of pH regulator	Methyl orange alkalinity less than 10°F pH probe not calibrated Probe unserviceable	Check and, if necessary, correct the minimum methyl orange alkalinity to 10°F If pH regulated, check the probe (service life +/-3 years) Calibrate the probe at least twice per year

N. MAINTENANCE OF THE DOSING PUMP

MAINTENANCE OF THE DOSING PUMP	
	Every year at the start of the season, check the flexibility of the tube in the pump body and the suction and injection tubes for the BIO-UV PERSISTENT PRODUCT or OXYGEN PERSISTENT PRODUCT
	We recommend replacing these 3 components every two years

WINTER STORAGE OF THE DOSING PUMP	
	We recommend pumping water through the dosing pump to RINSE the PUMP BODY tube
	Set the roller carrier to 0705 by turning in the direction shown by the circular arrow (clock wise)
	Stop the dosing pump



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