

# Blue lagoon

UV-C and Pool equipment



[www.bluelagoonuvc.com](http://www.bluelagoonuvc.com)

## PRODUCT CATALOGUE 2018/2019



MEMBER OF:  Sinvest Group BV





## Company Introduction

### VGE International B.V.

VGE International B.V. is a prominent company focused on improving people's lives through timely innovations. As a manufacturer of a unique range of swimming pool equipment, we provide high-quality products and harmonious collaboration with customers from our premises at the Ekkersrijt industrial area in Son, the Netherlands. We're proud to be a part of Holland's top technology region, the Brainport Region.

VGE International B.V. is a worldwide leading player in development and production of UV-C equipment for all kinds of water treatment. We regularly introduce new products and we continuously improve our existing products. Our customers get the best price-quality rated products due to large scale production — while sustainable thinking is at the heart of our production and development process.

Environmental friendliness and saving energy are major points of interest at VGE International B.V.

Years of experience (since 1982) have resulted in technically advanced products that are in use in more than 70 countries around the globe. Our sales team is looking forward to provide you with smooth order processing and the best service and advice.


### **VGE International B.V.**

Ekkersrijt 4304  
5692 DH Son & Breugel  
The Netherlands

Tel. +31(0) 499 461 099  
info@vgebv.nl  
www.vgebv.com

 [www.facebook.com/bluelagoonuvc](https://www.facebook.com/bluelagoonuvc)

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On the product pages you can find technical information about the Blue Lagoon products. You can recognize it by the symbol as you can see above. Besides the product pages, the Blue Lagoon catalogue has spare parts pages at the back of the catalogue.



#### Stainless steel housing

A stainless steel interior provides a reflection of UV radiation and this increases the efficiency of the radiation by up to 35%. In addition, the stainless steel ensures a longer life of the housing.



#### UL certified

UL is a world leader in product safety testing and certification. For more than 100 years, manufacturers have had their merchandise evaluated and tested for safety risks by an independent, third-party safety certification organization.



#### PVC

A PVC housing is highly resistant to corrosive water, and therefore very suitable for salt chlorinated pools.



#### ETL certified

The ETL Listed Mark is proof that your product had been independently tested and meets the applicable published standard. The ETL Mark is proof of product compliance to North American safety standards.

## General information on the use of UV-C disinfection for pool water

UV-C light at a particular wavelength (253,7nm) is a very powerful germicide. It deactivates and renders harmless waterborne pathogens that are completely unaffected by chlorine based disinfectants. Examples of dangerous pathogens (viruses and cysts) neutralised by UV-C light are *Cryptosporidium parvum* and *Giardia lamblia*; chlorine will not affect these.

UV-C cannot, however, be used on its own. This is because after the pool water has been subjected to treatment with UV-C, it is disinfected but not disinfectant. A secondary disinfectant must be added to the water to ensure that the water actually in the pool is disinfectant as well as disinfected. The most commonly used secondary disinfectants are chlorine based chemicals.

Although chlorine is a good disinfectant (however not as powerful as UV-C), it has one major drawback. As a by-product of the disinfection process, chlorine

combines with bathers body fluids in the pool water and forms chloramines. Chloramines are unpleasant substances that cause eye, skin and nose irritation, breathing difficulties for young children, an unpleasant swimming pool "chlorine" smell and last but not least, damage to the fabric of the pool such as tiles, grouts, handrails and other fittings.

A second advantage of the treatment of pool water with UV light is that it destroys chloramines, thus reducing or even practically eliminating the undesirable side effects mentioned above of the use of chlorine based disinfectants.

VGE's "Blue Lagoon" range offers the solutions mentioned above. The economical comparison of the various solutions depends very much on pool size, design and usage. The capital and running costs and capital costs of disinfection systems should be considered for every pool on a case by case basis.



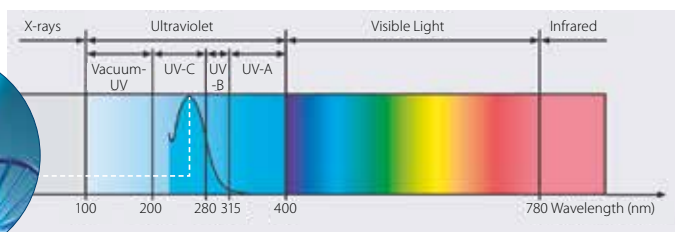
Viruses



Moulds



Bacteria

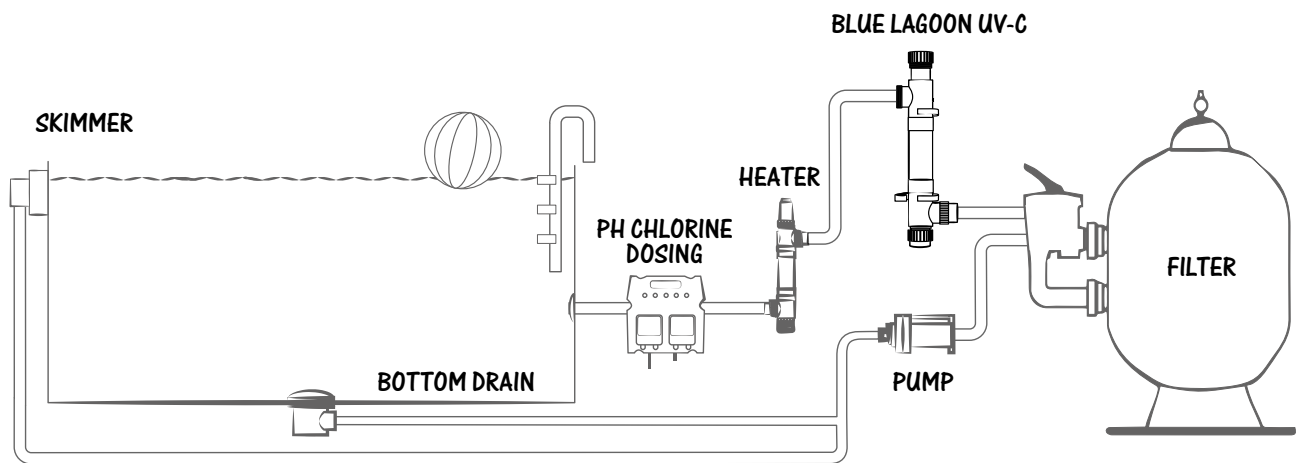


MODEL		RECOMMENDED FLOW RATE FOR 30MJ/CM <sup>2</sup>	MAX. WORKING PRESSURE IN BAR	MAXIMUM FLOW RATE IN M <sup>3</sup> /H	UV-C LAMP	BRAND LAMP	INLET/OUTLET DIAMETER (MM)	HEIGHT OF REACTOR IN CM ±	DISTANCE BETWEEN INLET / OUTLET IN CM ±	WEIGHT IN KG ±
BE02162	Tech UV-C 16W	5	2	23	1 x 16W	VGE - LightTech	63	56	34	2,8
BE02402	Tech UV-C 40W	11	2	23	1 x 40W	VGE - LightTech	63	100	77	3,6
BE02752	Tech UV-C 75W	16	2	23	1 x 75W	VGE - LightTech	63	100	77	3,9
BE03132	Tech UV-C 130W	22	2	23	1 x 130W Amalgam	Philips	63	100	77	5,0
BE06402	Saltwater UV-C 40W	9	2	23	1 x 40W	Philips Smart Cap	63	100	77	3,0
BE06752	Saltwater UV-C 75W	14	2	23	1 x 75W	Philips Smart Cap	63	100	77	3,2
BE07402	Saltwater short UV-C 40W	8	2	23	1 x 40W	VGE - LightTech	63	48	37	2,5
BE06402	Signal UV-C 40W	11	2	23	1 x 40W	VGE - LightTech	63	100	77	4,1
BH11752	Signal UV-C 75W	16	2	23	1 x 75W	VGE - LightTech	63	100	77	4,3
BH11402	Signal UV-C 130W	22	2	23	1 x 130W Amalgam	VGE - LightTech	63	100	77	4,5
BH01402	Timer UV-C 40W	11	2	23	1 x 40W	Philips	63	100	77	4,1
BH01752	Timer UV-C 75W	16	2	23	1 x 75W	Philips	63	100	77	4,3
BH01132	Timer UV-C 130W	22	2	23	1 x 130W Amalgam	Philips	63	100	77	4,5
BH10402	Saltwater Timer UV-C 40W	9	2	23	1 x 40W	Philips	63	100	77	4,0
BH10752	Saltwater Timer UV-C 75W	14	2	23	1 x 75W	Philips	63	100	77	4,2
BP02752	Inox UV-C 75W	18	5	23	1 x 75W	Philips	2"	100	78,5	7,2
BP02132	Inox UV-C 130W	22	5	23	1 x 130W Amalgam	Philips	2"	100	78,5	7,3
BP07132	Buster UV-C 130W	22	2,5	22	1 x 130W Amalgam	VGE - LightTech	2"	100	70,5	9,3
BP07392	Buster UV-C 390W	49*	2,5	49	3 x 130W Amalgam	VGE - LightTech	3"	100	73,5	21
BH03752	AOP Compact Ozone & UV-C 75W	18	2	23	1 x 75W / Ozone	VGE - LightTech	63	100	77	6,0
BH09752	AOP Compact Ozone & UV-C Saltwater 75W	18	2	23	1 x 75W / Ozone	VGE - LightTech	63	100	77	6,0
BE09302	Xpose UV-C 30W	13,5	1,5	20	1 x 30W	VGE	1½"	87,5	87,5/82,1	4,6
BE09552	Xpose UV-C 55W	18	1,5	20	1 x 55W	VGE	1½"	87,5	87,5/82,1	4,6
BH04402	Copper Ionizer UV-C 40W	11	2	23	1 x 40W	Blue Lagoon - LightTech	63	100	77	5,0
BH04752	Copper Ionizer UV-C 75W	16	2	23	1 x 75W	Blue Lagoon - LightTech	63	100	77	5,2
BE21122	Tech Spa UV-C 12W	3	2	23	1 x 12W	Philips	63	42	24,5	2,5
BE21121	Tech Spa UV-C 15W	3	2	23	1 x 15W	Philips	63	42	24,5	2,5
BE01122	Spa UV-C 12W	3	1	13	1 x 12W	Philips	50	40,5	17	1,6
BE01151	Spa UV-C 15W	4	1	13	1 x 15W	Philips	50	40,5	17	1,6
BH07122	Spa Inox UV-C 12W	3	2	13	1 x 12W	Philips	3/4"	40,5	14,3	2,6
BH07151	Spa Inox UV-C 15W	4	2	13	1 x 15W	Philips	3/4"	40,5	14,3	2,6

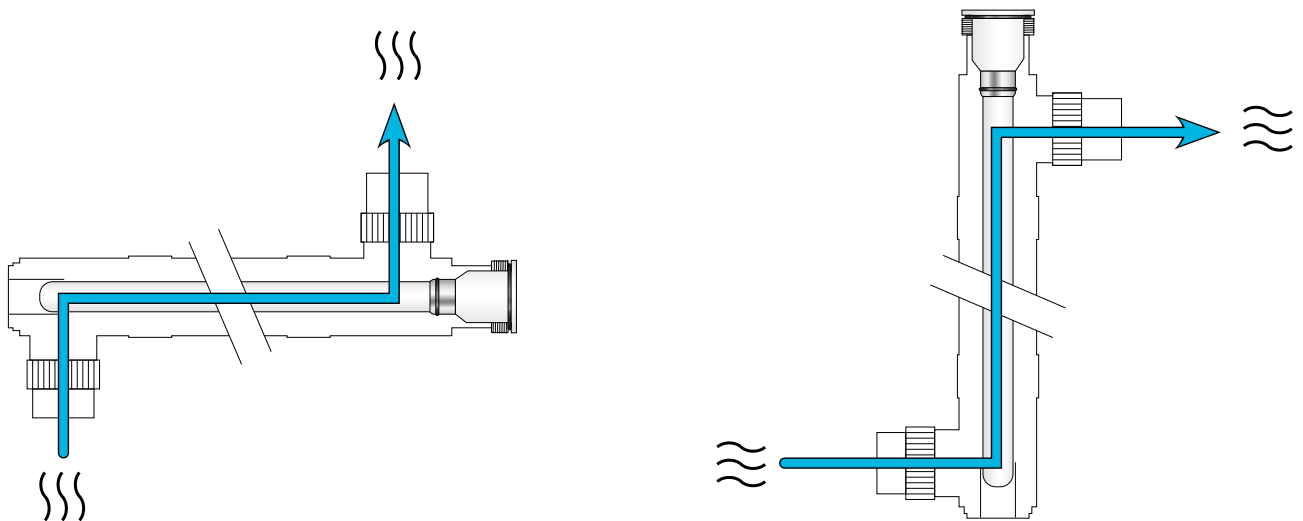
\* Recommended flow rate for 40 mJ/cm<sup>2</sup>



## Possible installation



## Possible installation and flow direction:

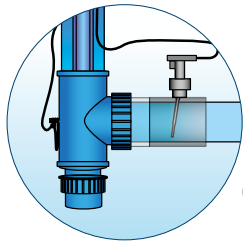




Signal UV-C  
page 10

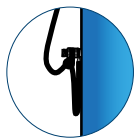


Buster UV-C  
page 15



The amalgam version includes a flow switch that will turn off the lamp when the flow is too low. The UV-C Amalgam lamp is less affected by temperature fluctuations in the water and generates a constant, powerful radiation. Amalgam UV-C light is known as being the most powerful UV-C light available on the UV-C market.

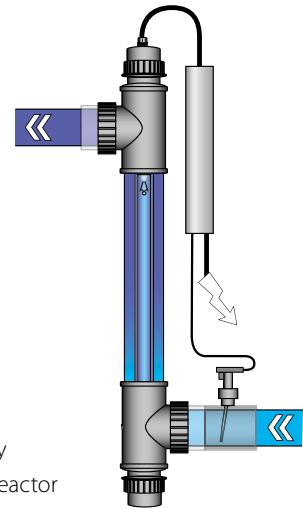
Please notice the correct grounding!



Because of its compact size, the Blue Lagoon Tech is ideal for all filter installations where space is limited but a high disinfection efficiency is required.

### Advantages of the Blue Lagoon Tech UV-C

- A built-in electronic ballast to ensure an efficient and stable power supply
- Up to 35% more UV-C yield as a result of reflection by the stainless steel reactor
- 316L stainless steel housing
- Easy to install and easy to maintain
- Including adapters Ø 63mm to Ø 50mm, 1/2" female threaded
- Made in the Netherlands



### Operation

The Blue Lagoon Tech UV-C will ensure that your pool water is disinfected in an efficient and environmentally-friendly manner. The UV-C radiation inactivates bacteria, viruses and other microorganisms and stops them from multiplying. This device is able to reduce the chlorine concentration up to 50-80%! In addition, the stainless steel reactor ensures the reflection of the UV-C rays, thereby increasing the efficiency up to 35%. Thanks to the Blue Lagoon Tech UV-C, your swimming pool water will be disinfected

efficiently and safely and the quality of your water will remain excellent. The Tech UV-C 16W, 40W and 75W are equipped with a special T5 UV lamp with a unique socket. The amalgam version (Tech UV-C 130W) includes a flow switch that will turn off the lamp when the flow is too low. The UV-C Amalgam lamp is less affected by temperature fluctuations in the water and generates a constant, powerful radiation. Amalgam UV-C light is known as the most powerful UV-C light available on the UV-C market.

### Technical specifications

	TECH UV-C 16W	TECH UV-C 40W	TECH UV-C 75W	TECH UV-C 130W
Type	15.000 /16W	40.000 /40W	75.000 /75W	150.000 /130W
Item code	BE02162	BE02402	BE02752	BE03132
Barcode	8714404034456	8714404034234	8714404034166	8714404029988
Rec. flow for 30 mJ/cm <sup>2</sup>	5 m <sup>3</sup> /h	11 m <sup>3</sup> /h	16 m <sup>3</sup> /h	22 m <sup>3</sup> /h
Max. pressure	2 bar	2 bar	2 bar	2 bar
Max. flow	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h
Diameter unit Ø	70 mm	70 mm	70 mm	70 mm
Length unit	56 cm	100 cm	100 cm	100 cm
Diameter in-outlet Ø	63mm / 50mm / 1 1/2"	63mm / 50mm / 1 1/2"	63mm / 50mm / 1 1/2"	63mm / 50mm / 1 1/2"
Stainless steel	316L	316L	316L	316L
Electronic ballast	230V AC 50/60Hz	230V AC 50/60Hz	230V AC 50/60Hz	230V AC 50/60Hz
Maximum current	0,29A	0,29A	0,57A	1,1A
Lamp power	16W	40W	75W	130W
Lamp	VEGE T5 16W 4P	VEGE T5 40W 4P	VEGE T5 75W 4P	Philips 130W Amalgam lamp
Lifespan lamp	9.000 h	9.000 h	9.000 h	12.000 h
Weight	2,8 Kg	3,6 Kg	3,9 Kg	5,0 Kg
Packing size	32,5 x 12 x 55 cm	106 x 26 x 11 cm	106 x 26 x 11 cm	106 x 26 x 11 cm
Quantity full pallet	40 pcs	30 pcs	30 pcs	30 pcs
Flow Switch	-	-	-	✓
ETL certified	-	✓	✓	✓

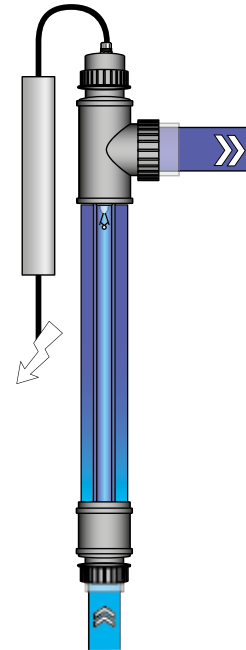
Please refer to page 44 for spare parts



The Blue Lagoon Saltwater is especially developed for disinfection of saltwater. Therefore, the disinfection system is besides chlorinated water also very suitable for salt- and seawater pools.

## Advantages of the Blue Lagoon Saltwater UV-C

- A built-in electronic ballast to ensure an efficient and stable power supply
- Especially developed for saltwater pools
- Philips T5 Smart Cap lamp included
- PVC-housing
- Easy installation and maintenance
- Including adapters Ø 63mm to Ø 50mm, 1½" female threaded
- Made in the Netherlands

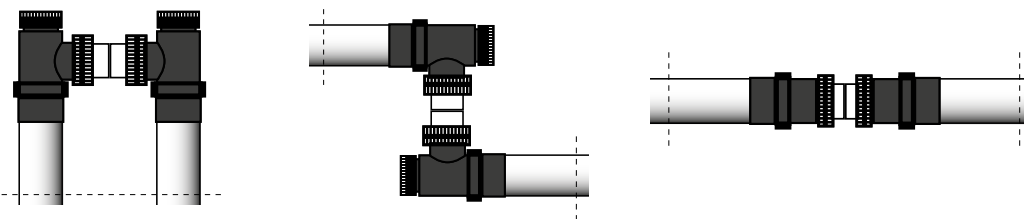


## Operation

The Blue Lagoon Saltwater UV-C is especially developed for saltwater and seawater pools (salt electrolysis). Thanks to the special white PVC-housing the salt has no corrosive influence. The device comes with an electronic ballast which minimizes current fluctuations to protect the lamp. With the Blue

Lagoon Saltwater UV-C you can disinfect your water in an efficient and save way. The result is an excellent water quality. The connection at the bottom allows 360° connection flexibility. This is ideal for corner installations, or for combination with other lamps.

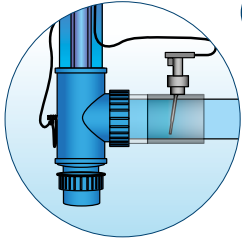
## Installation examples



## Technical specifications

	<b>SALT WATER SHORT 40W</b>	<b>SALTWATER UV-C 40W</b>	<b>SALTWATER UV-C 75W</b>
Type	40.000/40W	40.000 /40W	75.000 /75W
Item code	BE07402	BE06402	BE06752
Barcode	8714404044394	8714404043489	8714404043496
Rec. flow for 30 mJ/cm <sup>2</sup>	8 m <sup>3</sup> /h	9 m <sup>3</sup> /h	14 m <sup>3</sup> /h
Max. pressure	2 bar	2 bar	2 bar
Max. flow	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h
Diameter unit Ø	70 mm	70 mm	70 mm
Length unit	48 cm	100 cm	100 cm
Diameter in-outlet Ø	63mm / 50mm / 1 ½"	63mm / 50mm / 1 ½"	63mm / 50mm / 1 ½"
Housing	PVC	PVC	PVC
Electronic ballast	230V	230V AC 50/60Hz	230V AC 50/60Hz
Maximum current	0,8 A	0,42A	0,8A
Lamp power	40W	40W	75W
Lamp	VGE T5 40W 365mm	Philips Smart Cap 40W	Philips Smart Cap 75W
Lifespan lamp	9,000 h	9,000 h	9,000 h
Weight	2,5 Kg	3,0 Kg	3,2 Kg
Packing size	33 x 12 x 55 cm	106 x 26 x 11 cm	106 x 26 x 11 cm
Quantity full pallet	40 pcs	30 pcs	30 pcs

Please refer to page 45 for spare parts



The Blue Lagoon Signal UV-C is equipped with an integrated LED-timer which accurately monitors and visualizes the remaining operating hours by changing colour! A warning will be given by a blinking LED light when the lamp needs to be replaced.

### Advantages of the Blue Lagoon Signal UV-C

- LED-function to Visualise the remaining lifetime of the lamp
- A built-in electronic ballast to ensure an efficient and stable power supply
- Up to 35% more UV-C yield as a result of reflection by the Stainless Steel reactor
- 316L stainless steel housing
- Easy to install and easy to maintain
- Comes with Ø63mm to Ø50mm fittings, 1½" female threaded
- Made in the Netherlands

### Operation

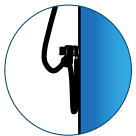
The Blue Lagoon Signal UV-C has a built in High-frequency electronic ballast. This ballast will capture voltage fluctuations to protect the lamp. In addition, the device contains an integrated timer that accurately monitors and visualises the hours by changing colour! A warning will be given by a blinking LED when the lamp needs to be replaced. Thanks to the Blue Lagoon Signal UV-C your swimming pool water will be disinfected efficiently, safely and the quality of your water will remain excellent. The UV-C radiation inactivates bacteria, viruses and other microorganisms

and stops them from multiplying. This device is able to reduce the chlorine concentration up to 50-80%! Max. pressure: 2 bar. Connections: 63mm / 50mm / 1 ½". The amalgam version includes a flow switch that will turn off the lamp when the flow is too low. Amalgam UV-C light is known as the most powerful UV-C light available on the UV-C market. The UV-C Amalgam lamp is less affected by temperature fluctuations of the water and generates a constant, powerful radiation.



The amalgam version includes a flow switch that will turn off the lamp when the flow is too low. The UV-C Amalgam lamp is less affected by temperature fluctuations in the water and generates a constant, powerful radiation. Amalgam UV-C light is known as being the most powerful UV-C light available on the UV-C market.

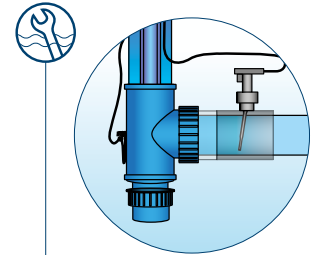
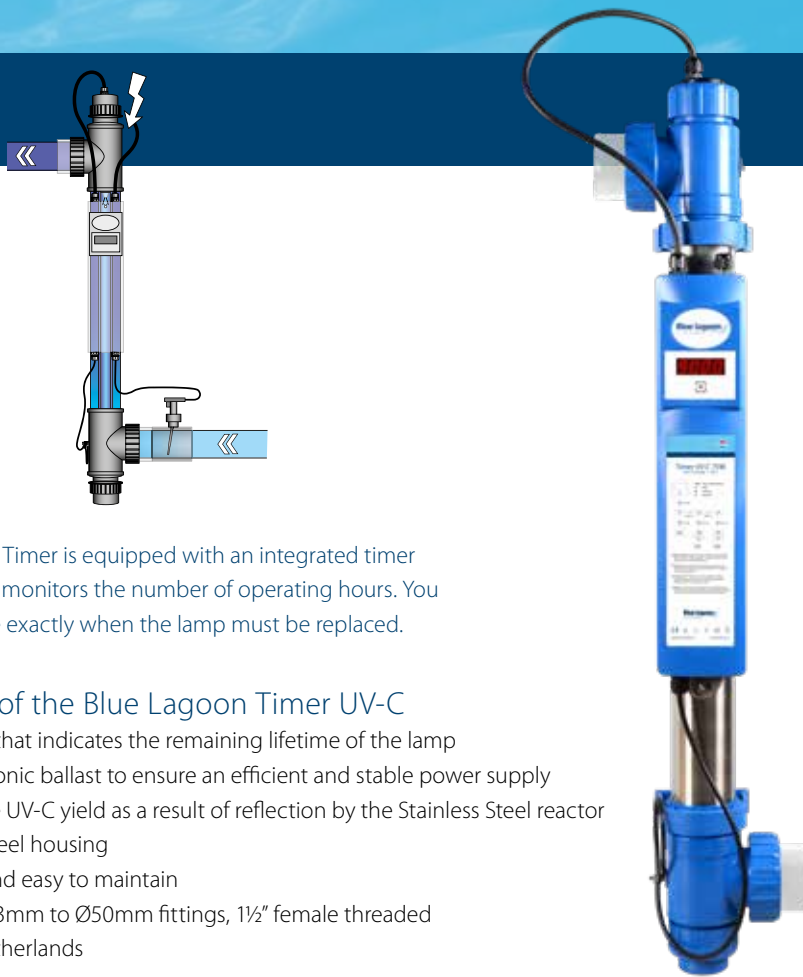
Please notice the correct grounding!



### Technical specifications

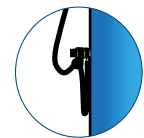
	SIGNAL UV-C 40W	SIGNAL UV-C 75W	SIGNAL UV-C 130W
Type	40.000 /40W	75.000 /75W	150.000 /130W
Item code	BH11402	BH11752	BH11132
Barcode	8714404045193	8714404045261	8714404045124
Rec. flow for 30 mJ/cm <sup>2</sup>	11 m <sup>3</sup> /h	16 m <sup>3</sup> /h	22 m <sup>3</sup> /h
Max. pressure	2 bar	2 bar	2 bar
Max. flow	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h
Diameter unit Ø	70 mm	70 mm	70 mm
Length unit	100 cm	100 cm	100 cm
Diameter in-outlet Ø	63mm / 50mm / 1 ½"	63mm / 50mm / 1 ½"	63mm / 50mm / 1 ½"
Housing	316L	316L	316L
Electronic ballast	230V AC 50/60Hz	230V AC 50/60Hz	230V AC 50/60Hz
Maximum current	0,29A	0,57A	1,1A
Lamp power	40W	75W	130W
Lamp	LightTech T5 40W	LightTech T5 75W	LightTech T6 130W Amalgam
Lifespan lamp	9.000 h	9.000 h	16.000 h
Indicator	✓	✓	✓
Replace lamp alert	✓	✓	✓
Flow switch	-	-	✓
Weight	4,1 Kg	4,3 Kg	4,5 Kg
Packing size	107 x 26 x 16 cm	107 x 26 x 16 cm	107 x 26 x 16 cm
Quantity full pallet	25 pcs	25 pcs.	25 pcs.

Please refer to page 45 for spare parts



The amalgam version includes a flow switch that will turn off the lamp when the flow is too low. The UV-C Amalgam lamp is less affected by temperature fluctuations in the water and generates a constant, powerful radiation. Amalgam UV-C light is known as being the most powerful UV-C light available on the UV-C market.

Please notice the correct grounding!



The Blue Lagoon Timer is equipped with an integrated timer which accurately monitors the number of operating hours. You can therefore see exactly when the lamp must be replaced.

## Advantages of the Blue Lagoon Timer UV-C

- Timer function that indicates the remaining lifetime of the lamp
- A built-in electronic ballast to ensure an efficient and stable power supply
- Up to 35% more UV-C yield as a result of reflection by the Stainless Steel reactor
- 316L stainless steel housing
- Easy to install and easy to maintain
- Comes with Ø63mm to Ø50mm fittings, 1/2" female threaded
- Made in the Netherlands

## Operation

The Blue Lagoon Timer UV-C has a built in High-frequency electronic ballast. This ballast will capture voltage fluctuations to protect the lamp. In addition, the device contains an integrated timer that accurately monitors the number of operating hours. You can therefore see exactly when the lamp must be replaced. Thanks to the Blue Lagoon Timer UV-C your swimming pool water will be disinfected efficiently, safely and the quality of your water will

remain excellent. The UV-C radiation inactivates bacteria, viruses and other microorganisms and stops them from multiplying. This device is able to reduce the chlorine concentration up to 50-80%! Max. pressure: 2 bar. Connections: 63mm / 50mm / 1 1/2". The amalgam version includes a flow switch that will turn off the lamp when the flow is too low. Amalgam UV-C light is known as the most powerful UV-C light available on the UV-C market.

## Technical specifications

	TIMER UV-C 40W	TIMER UV-C 75W	TIMER UV-C 130W
Type	40.000 /40W	75.000 /75W	150.000 /130W
Item code	BH01402	BH01752	BH01132
Barcode	8714404034319	8714404034388	8714404034654
Rec. flow for 30 mJ/cm <sup>2</sup>	11 m <sup>3</sup> /h	16 m <sup>3</sup> /h	22 m <sup>3</sup> /h
Max. pressure	2 bar	2 bar	2 bar
Max. flow	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h
Diameter unit Ø	70 mm	70 mm	70 mm
Length unit	100 cm	100 cm	100 cm
Diameter in-outlet Ø	63mm / 50mm / 1 1/2"	63mm / 50mm / 1 1/2"	63mm / 50mm / 1 1/2"
Stainless steel	316L	316L	316L
Electronic ballast	230V AC 50/60Hz	230V AC 50/60Hz	230V AC 50/60Hz
Maximum current	0,29A	0,57A	1,1A
Lamp power	40W	75W	130W
Lamp	Philips TUV 36T5 4P-SE (40 Watt)	Philips TUV 36T5 HO 4P-SE (75 Watt)	Philips TUV 130 Watt 4P-SE Amalgam
Lifespan lamp	9,000 h	9,000 h	12,000 h
Timer	✓	✓	✓
Replace lamp alert	✓	✓	✓
Flow switch	-	-	✓
Weight	4,1 Kg	4,3 Kg	4,5 Kg
Packing size	106 x 26 x 16 cm	106 x 26 x 16 cm	106 x 26 x 16 cm
Quantity full pallet	25 pcs	25 pcs	25 pcs

Please refer to page 46 for spare parts

# Saltwater Timer UV-C



The Blue Lagoon Saltwater Timer is especially developed for disinfection of saltwater. Therefore, the disinfection system is besides chlorinated water also very suitable for salt- and seawater pools. The unit is equipped with an integrated timer which accurately monitors the number of operating hours. You can therefore see exactly when the lamp must be replaced.

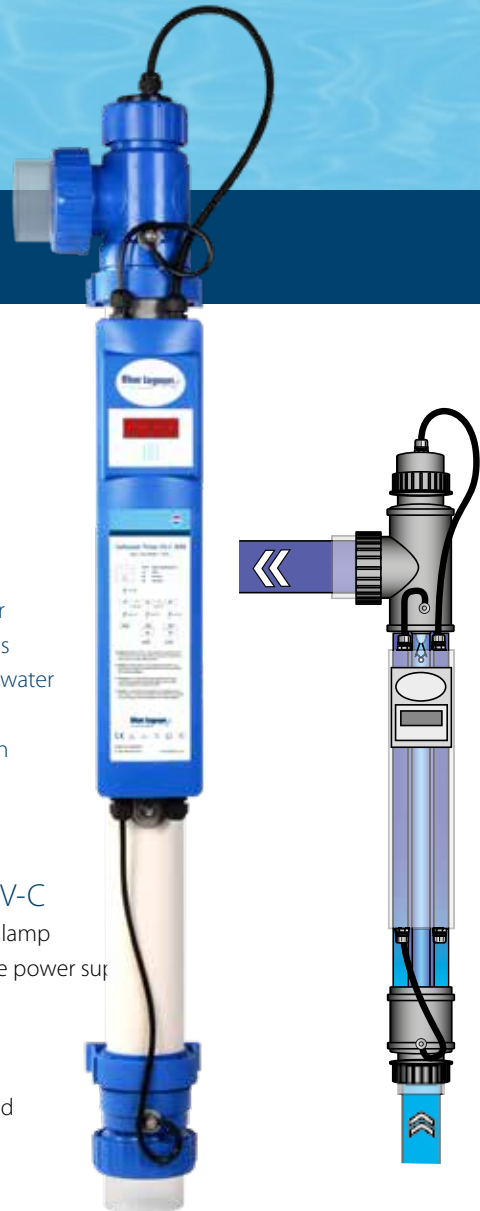
## Advantages of the Blue Lagoon Saltwater UV-C

- Timer function that indicates the remaining lifetime of the lamp
- A built-in electronic ballast to ensure an efficient and stable power supply
- Especially developed for saltwater pools
- PVC-housing
- Easy to install and easy to maintain
- Comes with Ø63mm to Ø50mm fittings, 1" female threaded
- Made in the Netherlands

## Operation

The Blue Lagoon Saltwater Timer UV-C is especially developed for saltwater and seawater pools (salt electrolysis). Thanks to the special white PVC housing the salt has no corrosive influence. The device comes with an electronic ballast. This ballast will capture voltage fluctuations to protect the lamp. In addition, the device contains an integrated timer that accurately monitors the number of operating

hours. You can therefore see exactly when the lamp must be replaced. With the Blue Lagoon Saltwater Timer UV-C you can disinfect your water in an efficient and save way. The result is an excellent water quality. The connection at the bottom allows 360° connection flexibility. This is ideal for corner installations, or for combination with other lamps.



## Technical specifications

	<b>SALTWATER TIMER UV-C 40W</b>	<b>SALTWATER TIMER UV-C 75W</b>		<b>SALTWATER TIMER UV-C 40W</b>	<b>SALTWATER TIMER UV-C 75W</b>
Type	40.000 /40W	75.000 /75W	Maximum current	0,42 A	0,8 A
Item code	BH10402	BH10752	Lamp power	40W	75W
Barcode	8714404046718	8714404046787	Lamp	Philips TUV 36T5 4P-SE (40 Watt)	Philips TUV 36T5 HO 4P-SE (75 Watt)
Rec. flow for 30 mJ/cm <sup>2</sup>	9 m <sup>3</sup> /h	14 m <sup>3</sup> /h	Lifespan lamp	9,000 h	9,000 h
Max. pressure	2 bar	2 bar	Timer	✓	✓
Max. flow	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	Replace lamp alert	✓	✓
Diameter unit Ø	70 mm	70 mm	Flow switch	-	-
Length unit	100 cm	100 cm	Weight	4,0 Kg	4,2 Kg
Diameter in-outlet Ø	63mm / 50mm / 1½"	63mm / 50mm / 1½"	Packing size	106x26x15 cm	106x26x15 cm
Housing	PVC	PVC	Quantity full pallet	25 pcs	25 pcs
Electronic ballast	230V AC 50/60Hz	230V AC 50/60Hz			



Because of its large reactor diameter, the new Xpose UV-C provides the poolwater a long exposure time to UV-C radiation. Ideal for swimming pools where a high disinfection efficiency is needed.

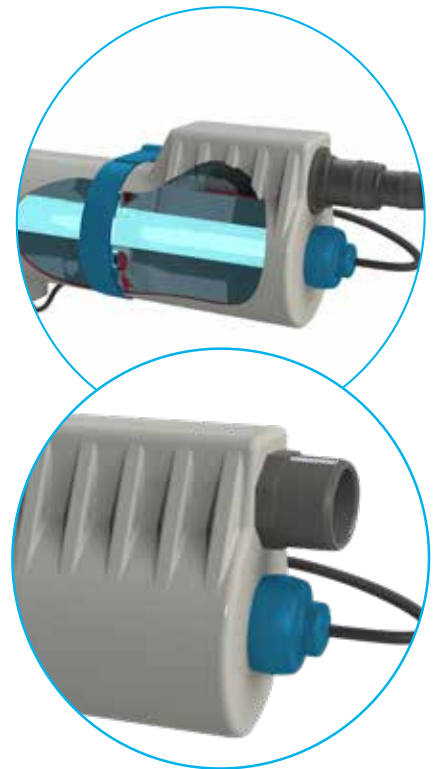
## Advantages of the Blue Lagoon Xpose UV-C

- A built-in (replaceable) electronic ballast to ensure an efficient and stable power supply
- Large reactor diameter for long exposure time to UV-C radiation
- High quality PE housing, which is perfectly suitable for chlorinated and saltwater pools
- Easy to install and to maintain
- Made in the Netherlands

## Operation

Blue Lagoon introduces a new high quality UV-C TL unit with a 30 watt and a 55 watt lamp. The disinfection system has a large reactor diameter for a long exposure time to the UV-C radiation. Besides that, the Xpose UV-C has a special water guidance inside the house for an optimal exposure. Your pool water will be disinfected efficiently, safely and the quality of your water will remain excellent. The special water guidance inside the house will also guide the quartz sleeve for easy replacement. The disinfection systems have splash waterproof rubber end caps for fast lamp (re)placement. The unit can also be mounted in the opposite way. The

position of the inlet and return (left or right) is therefore free to choose. The Xpose UV-C has a complete PE reactor, what makes the device perfectly suitable for chlorinated and saltwater pools. The inlet has 2 x 1 1/2" female threaded connections. The remaining opening will be used for the supplied transparent plug as lamp indicator. The Xpose UV-C comes standard with hose tails 25/32/40 mm. The reactor is grounded for human and pet safety. The unit can also be installed with a socket nipple (not included).

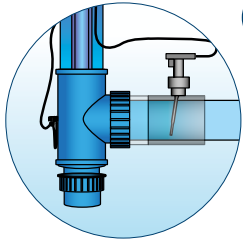


## Technical specifications

XPOSE UV-C 30 WATT	
Item code	BE09302
Barcode	8714404046008
Rec. flow for 30 mJ/cm <sup>2</sup>	13,5 m <sup>3</sup> /h
Max. pressure	1,5 bar
Max. flow	20 m <sup>3</sup> /h
Diameter unit Ø	130 mm
Length unit	875 mm
Diameter in-outlet Ø	1 1/2" fem. thr.
Housing	PE
Electronic ballast	√
Maximum current	0,15 A
Lamp power	30 Watt
Lamp	TL 30W T8 Base I
Lifespan lamp	9.000 h
Weight	4,6 kg
Packing size	103x25x15
Quantity full pallet	24 pcs

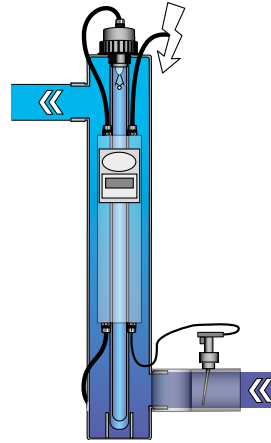
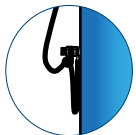
XPOSE UV-C 55 WATT	
Item code	BE09552
Barcode	8714404046077
Rec. flow for 30 mJ/cm <sup>2</sup>	18 m <sup>3</sup> /h
Max. pressure	1,5 bar
Max. flow	20 m <sup>3</sup> /h
Diameter unit Ø	130 mm
Length unit	875 mm
Diameter in-outlet Ø	1 1/2" fem. thr.
Housing	PE
Electronic ballast	√
Maximum current	0,25 A
Lamp power	55 Watt
Lamp	TL 55W T8 Base I
Lifespan lamp	9.000 h
Weight	4,6 kg
Packing size	103x25x15
Quantity full pallet	24 pcs

Please refer to page 50 for spare parts



The Inox UV-C 130 watt amalgam includes a flow switch that will turn off the lamp when the flow is too low. The Inox UV-C 130W includes an amalgam lamp. The UV-C Amalgam lamp is less affected by temperature fluctuations in the water and generates a constant, powerful radiation. Amalgam UV-C light is known as being the most powerful UV-C light available on the UV-C market.

Please notice the correct grounding!



The housing of the Inox UV-C is completely made of 316L stainless steel and is the driving disinfection force for (high-end) pools.

### Advantages of the Blue Lagoon Inox UV-C

- A built-in electronic ballast to ensure an efficient and stable power supply
- Up to 35% more UV-C yield as a result of reflection by the Stainless Steel reactor
- Philips UV-C lamp
- A flow switch will turn off the lamp at insufficient water flow
- Integrated adjustable time meter for the UV-C lamp
- Digital indication when the lamp needs replacing
- Complete 316L stainless steel housing
- Easy installation and maintenance
- Made in the Netherlands

### Operation

The Blue Lagoon Inox UV-C has a built-in high-frequency electronic ballast, which absorbs current fluctuations, thereby protecting the lamp. Thanks to the Blue Lagoon Inox UV-C, your swimming pool water will be disinfected efficiently and safely and the quality of your water will remain excellent. The UV-C radiation inactivates bacteria, viruses

and other microorganisms and stops them from multiplying. This device is able to reduce chlorine concentration up to 50-80%! The Inox UV-C includes a flow switch that will turn off the lamp when the flow is too low. Amalgam UV-C light is known as the most powerful low pressure UV-C light available on the UV-C market. Connection: 2" male threaded.



### Technical specifications

	<b>INOX UV-C 75W</b>	<b>INOX UV-C 130W</b>		<b>INOX UV-C 75W</b>	<b>INOX UV-C 130W</b>
Type	75.000 /75W	150.000 /130W	Maximum current	0,57A	1,1A
Item code	BP02752	BP02132	Lamp power	75W	130W
Barcode	8714404038669	8714404038676	Lamp	Philips TUV 36T5 HO 4P-SE (75 Watt)	Philips TUV 130 Watt 4P-SE Amalgam
Rec. flow for 30 mJ/cm <sup>2</sup>	18 m <sup>3</sup> /h	22 m <sup>3</sup> /h	Lifespan lamp	9.000 h	12.000 h
Max. pressure	5 bar	5 bar	Timer	✓	✓
Max. flow	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	Replace lamp alert	✓	✓
Diameter unit Ø	114 mm	114 mm	Flow switch	✓	✓
Length unit	100 cm	100 cm	Weight	7,2 Kg	7,3 Kg
Diameter in-outlet Ø	2" Male thr.	2" Male thr.	Packing size	26,5x19x106,5 cm	26,5x19x106,5 cm
Stainless steel	316L	316L	Quantity full pallet	21 pcs	21 pcs
Electronic ballast	230V AC 50/60Hz	230V AC 50/60Hz			

Please refer to page 47 for spare parts



The housing of the Buster UV-C has been made out of 316L stainless steel with a 3cm thick -UV-C resistant- PVC lid and bottom. Which makes it the perfect disinfection solution for (higher-end) pools.

## Advantages of the Blue Lagoon Buster UV-C

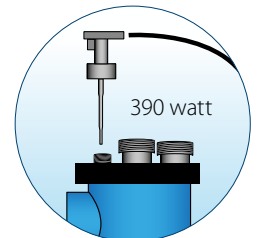
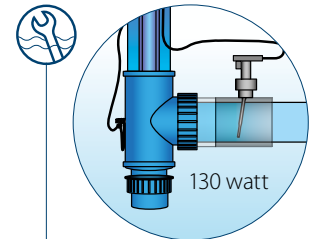
- A built-in electronic ballast to ensure an efficient and stable power supply
- Up to 35% more UV-C yield as a result of reflection by the Stainless Steel reactor
- A flow switch integrated in the lid of the unit (390W version) will turn off the lamp at insufficient water flow
- Integrated LED-Timer for the UV-C lamp(s) with visual indication when the lamp needs replacing.
- Transparent lamphead for easy visual lamp inspection
- 316L stainless steel housing
- Interchangeable supports allow for easy installation horizontally and vertically
- Easy installation and maintenance
- Made in the Netherlands

## Operation

The Blue Lagoon Buster UV-C has a built-in high-frequency electronic ballast, which absorbs voltage fluctuations, thereby protecting the lamp. Thanks to the Blue Lagoon Buster UV-C, your swimming pool water will be disinfected efficiently and safely and the quality of your water will remain excellent. The UV-C radiation inactivates bacteria, viruses and other microorganisms and stops them from multiplying.

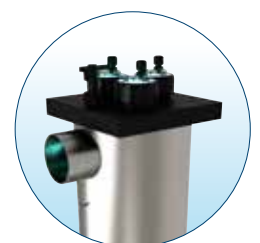


This device is able to reduce chlorine concentration up to 50-80%! The Buster UV-C includes a flow switch that will turn off the lamp when the flow is too low and a LED-timer which warns in advance (visually) when lamps need to be changed. Amalgam UV-C light is known as the most powerful low pressure UV-C light available on the UV-C market.



The Buster UV-C includes a flow switch that will turn off the lamp when the flow is too low. The UV-C Amalgam lamp is less affected by temperature fluctuations in the water and generates a constant, powerful radiation. Amalgam UV-C light is known as being the most powerful UV-C light available on the UV-C market.

Transparent lamphead for easy visual lamp inspection.



## Technical specifications

	BUSTER UV-C 130W	BUSTER UV-C 390W
Type	130W	390W
Item code	BP07132	BP07392
Barcode	8714404045216	8714404045285
Rec. flow for 30 mJ/cm <sup>2</sup>	22 m <sup>3</sup> /h	49 m <sup>3</sup> /h (for 40 mJ/cm <sup>2</sup> )
Max. pressure	2,5 bar	2,5 bar
Max. flow	22 m <sup>3</sup> /h	49 m <sup>3</sup> /h
Diameter unit Ø	114 mm	219mm
Length unit	930 mm	930 mm
Diameter in-outlet Ø	2" male thr.	3" male thr.
Housing	316L	316L
Distance between in-outlet	735mm	705mm
Shape	U	U
Electronic ballast	230V AC 50/60Hz	230V AC 50/60Hz
Maximum current	1,1A	1,1A
Lamp power	130W	130W
Lamp	VGE LightTech T6 130W Amalgam	3x VGE LightTech T6 130W Amalgam
Lifespan lamp	16.000 h	16.000 h
Indicator	✓	✓
Replace lamp alert	✓	✓
Flow switch	✓	✓
Quantity full pallet	24	10

Please refer to page 48 for spare parts

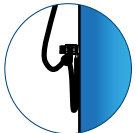
# AOP Compact Ozone & UV-C



The combination of ozone and UV-C, integrated in this smart designed disinfection system, ensures fresh and healthy pool water with the possibility of providing a minimum use of chlorine.

The lamp has a double function, producing ozone and UV-C light at the same time. The ozone in the water will be completely broken down by the UV-C light, because of this so called OH-radicals are being produced which have a high oxidation potential. This result in oxidation of the organic pollution in the water and the UV-C light will also disinfect the water at the same time.

Please notice the correct grounding!



## Advantages of the Blue Lagoon AOP Compact Ozone & UV-C

- This unit provides triple disinfection: ozone, OH radicals and UV-C!
- A built-in electronic ballast to ensure an efficient and stable power supply
- Up to 35% more UV-C yield as a result of reflection
- 100% effective and constant operation
- 316L Stainless steel housing
- The ozone UV-C lamp produces ozone for 4.500 hours and produces UV-C for 9.000 hours
- The device will indicate when the lamp needs replacing
- Easy installation and maintenance
- Made in the Netherlands

## Operation

This revolutionary combination of ozone and UV-C makes it possible to have a pool with minimal chloride usage. Through the supplied venturi, air is sucked in from the outside into the space between the UV-C lamp and the quartz sleeve. The special UV-C lamp generates radiation of both 254nm and 185nm. The 185nm radiation converts the available

oxygen into ozone. The produced ozone (max. 0,6 g/h) is mixed with water through the venturi to perform its disinfecting/oxidising job. Inside the UV-C housing, any residual ozone will be converted by the 254nm UV-C radiation into OH radicals (the so called Advanced Oxidation Process) that have an even stronger oxidising power than ozone.

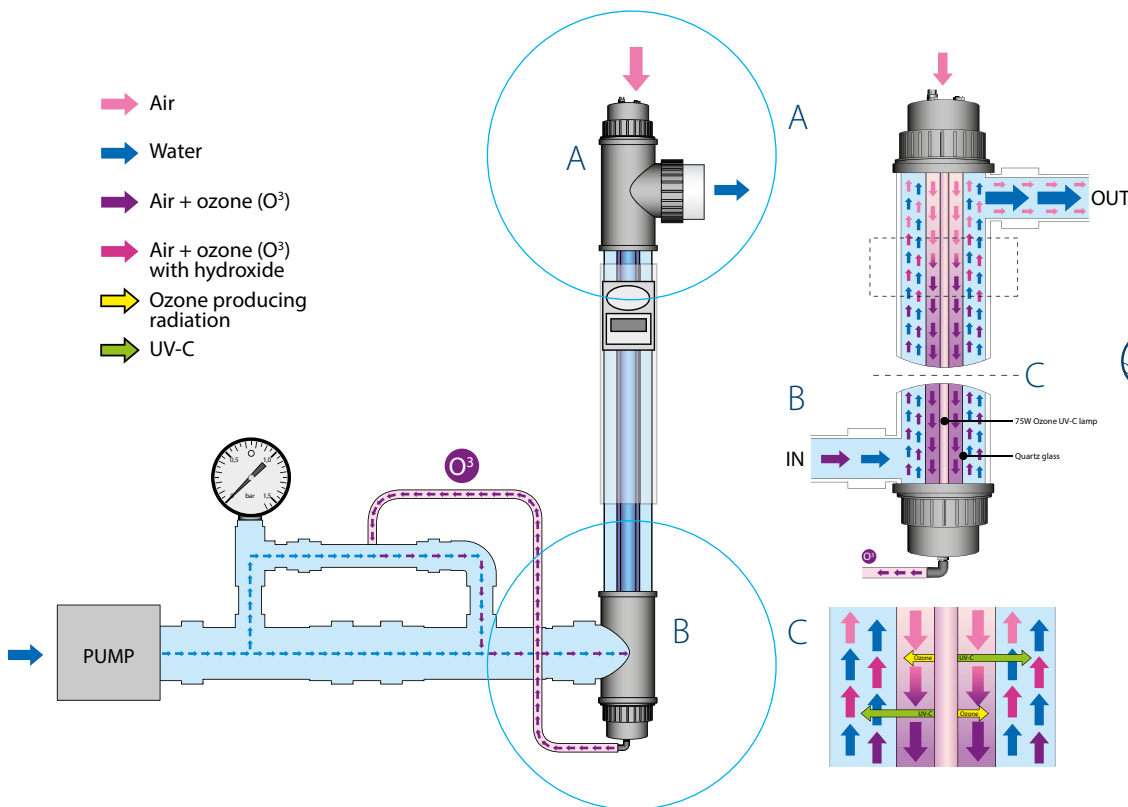


## Technical specifications

AOP COMPACT OZONE & UV-C 75W	
Type	75.000 / 75W
Item code	BH03752
Barcode	8714404034944
Rec. flow for 30 mJ/cm <sup>2</sup>	18 m <sup>3</sup> /h
Max. pressure	2 bar
Max. flow	23 m <sup>3</sup> /h
Diameter unit Ø	70 mm
Length unit	100 cm
Diameter in-outlet Ø	63mm / 50mm / 1 1/2"
Stainless steel	316L
Electronic ballast	230V AC 50/60Hz

AOP COMPACT OZONE & UV-C 75W	
Maximum current	0,57A
Lamp power	75W
Lamp	VGE T5 75W Ozone
Lifespan lamp	4.500 hours ozone - 9.000 hours UV-C
Ozone	0,6 gr/h
Timer	✓
Replace lamp alert	✓
Weight	6,0 Kg
Packing size	37x13x111 cm
Quantity full pallet	24 pcs

Please refer to page 49 for spare parts



### What is AOP?

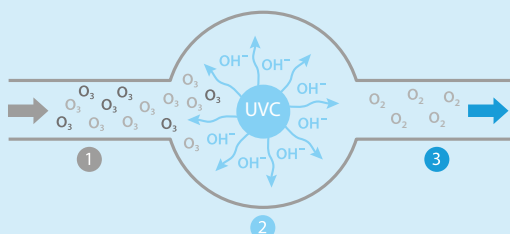
The Advanced Oxidation Process (AOP) combines the benefits of ozone and UV-C into one device. When ozone is used in combination with UV-C light in water, hydroxyl radicals (OH-) are created. These radicals are very effective in oxidizing the water and therefore reduce the organic pollution in the water, also chlorine disinfection by-products such as THM and chloramines are being reduced. The UV-C light not only disinfects the water very effectively (also chlorine

resistant organism like Cryptosporidium and Giardia are being inactivated) but it also reduces the chloramines in the water. Because UV-C light will destroy the residual ozone in the water, there is no deozoneation device needed. AOP is a very effective and efficient way of sanitizing and disinfecting your pool. As a result the amount of chlorine in a pool can be kept to a minimum.

The Advanced Oxidation Process (AOP) is the best available water treatment technology at this moment. AOP uses OH- radicals with a considerably higher oxidation potential compared to other oxidants for water treatment. When dissolved ozone (1) is irradiated by UV radiation in a UV reactor (2), then OH- radicals are created. Lifetime of OH- radicals is extremely short, the entire treatment process takes place inside of the UV reactor, Treated water (3) is without OH- radicals.

### Benefits AOP:

- Strong combination of ozone (oxidation) and UV-C (disinfection)
- Improves the disinfection efficiency
- Makes a pool with a minimal amount of chlorine possible
- Effective against chlorine-resistant microorganisms
- Prevents skin and eye irritation
- Can be quickly added to existing filtration systems



# AOP Compact Ozone & UV-C Saltwater



The combination of ozone and UV-C, integrated in this smart designed disinfection system, ensures fresh and healthy pool water with the possibility of providing a minimum use of chlorine. The Blue Lagoon AOP Compact Ozone & UV-C Saltwater is especially developed for disinfection of saltwater.

## Advantages of the Blue Lagoon AOP Compact Ozone & UV-C Saltwater

- This unit provides triple disinfection: ozone, OH radicals and UV-C!
- A built-in electronic ballast to ensure an efficient and stable power supply
- Especially developed for saltwater pools
- 100% effective and constant operation
- The ozone UV-C lamp produces ozone for 4.500 hours and produces UV-C for 9.000 hours
- The device will indicate when the lamp needs replacing
- Easy installation and maintenance
- Made in the Netherlands

## Operation

The Ozone & UV-C Saltwater is especially developed for saltwater and seawater pools. This revolutionary combination of ozone and UV-C makes it possible to have a pool with minimal chloride usage! Through the supplied venturi, air is sucked in from the outside into the space between the UV-C lamp and the quartz sleeve. The special UV-C lamp generates radiation of both 254nm and 185nm.



The 185nm radiation converts the available oxygen into ozone. The produced ozone (max. 0,6 g/h) is mixed with water through the venturi to perform its disinfecting/oxidising job. Inside the UV-C housing, any residual ozone will be converted by the 254nm UV-C radiation into OH radicals (the so called Advanced Oxidation Process) that have an even stronger oxidising power than ozone.

The lamp has a double function, producing ozone and UV-C light at the same time. The ozone in the water will be completely broken down by the UV-C light, because of this so called OH-radicals are being produced which have a high oxidation potential. This result in oxidation of the organic pollution in the water and the UV-C light will also disinfect the water at the same time.

Please notice the correct grounding!

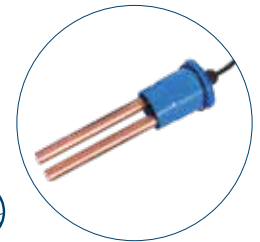
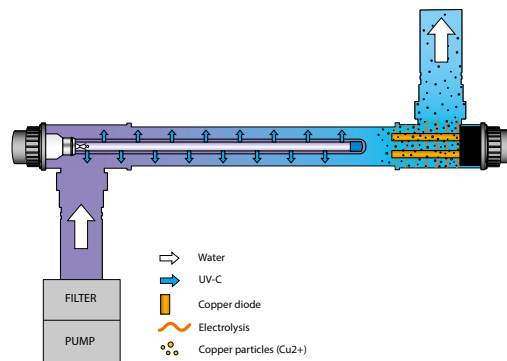


## Technical specifications

AOP COMPACT OZONE & UV-C 75W	
Type	75.000 /75W
Item code	BH09752
Barcode	8714404987349
Rec. flow for 30 mJ/cm <sup>2</sup>	18 m <sup>3</sup> /h
Max. pressure	2 bar
Max. flow	23 m <sup>3</sup> /h
Diameter unit Ø	70 mm
Length unit	100 cm
Diameter in-outlet Ø	63mm / 50mm / 1 1/2"
Housing	PVC
Electronic ballast	230V AC 50/60Hz

AOP COMPACT OZONE & UV-C 75W	
Maximum current	0,57A
Lamp power	75W
Lamp	VGE T5 75W Ozone
Lifespan lamp	4.500 hours ozone - 9.000 hours UV-C
Ozone	0,6 gr/h
Timer	✓
Replace lamp alert	✓
Weight	6,0 Kg
Packing size	37x13x111 cm
Quantity full pallet	24 pcs

Please refer to page 49 for spare parts



This revolutionary combination of UV-C and copper electrolysis in one disinfection system, minimizing the use of chlorine.

## Advantages of the Blue Lagoon Copper Ionizer UV-C

- A built-in electronic ballast to ensure an efficient and stable power supply
- Enables swimming without the use of chlorine
- Up to 35% more UV-C yield as a result of reflection
- Easy installation and maintenance
- Comes with Ø63mm to Ø50mm fittings, 1½" female threaded
- Made in the Netherlands

## Operation

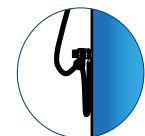
This revolutionary combination of UV-C and copper electrolysis means you can have a chlorine-free pool! With the Blue Lagoon Copper Ionizer UV-C you have to test your pool water once every two weeks. You only need to test your water values with the supplied test strips and, if necessary, adjust the device to the correct level. Other ionizer systems

dose approximately 2 ppm copper in your pool water. With Blue Lagoon Copper Ionizer UV-C, a dose of 0,7 ppm will be enough to fully and safely disinfect your pool. This device is able to reduce the chlorine concentration up to 100%! Max. copper: 0,7 ppm. Connections: Ø63mm / 50mm / 1½".

### What is the disinfection mechanism of copper ionization?

Electrically charged copper ions (Cu<sup>2+</sup>) in the water search for particles of opposite polarity, such as bacteria, viruses and fungi. Positively charged copper ions form electrostatic compounds with negatively charged cell walls of microorganisms. These compounds disturb cell wall permeability and cause nutrient uptake to fail. As a result, bacteria are no longer able to multiply and eventually die. The ions remain active until they are absorbed by a microorganism.

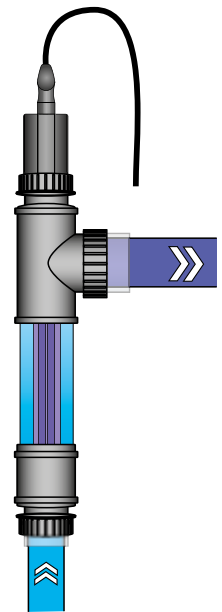
Please notice the correct grounding!



## Technical specifications

	<b>COPPER IONIZER UV-C 40W</b>	<b>COPPER IONIZER UV-C 75W</b>		<b>COPPER IONIZER UV-C 40W</b>	<b>COPPER IONIZER UV-C 75W</b>
Type	40.000 /40W	75.000 /75W	Maximum current	0,29A	0,57A
Item code	BH04402	BH04752	Lamp power	40W	75W
Barcode	8714404034241	8714404036689	Lamp	Blue Lagoon T5 40W Ionizer	Blue Lagoon T5 75W Ionizer
Rec. flow for 30 mJ/cm <sup>2</sup>	11 m <sup>3</sup> /h	16 m <sup>3</sup> /h	Lifespan lamp	9.000 h	9.000 h
Max. pressure	2 bar	2 bar	Copper ionizer	0,7 ppm	0,7 ppm
Max. flow	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	Replace lamp alert	✓	✓
Diameter unit Ø	70 mm	70 mm	Weight	5,0 Kg	5,2 Kg
Length unit	100 cm	100 cm	Packing size	28x15x101 cm	28x15x101 cm
Diameter in-outlet Ø	63mm / 50mm / 1½"	63mm / 50mm / 1½"	Quantity full pallet	25 pcs	25 pcs
Stainless steel	316L	316L			
Electronic ballast	230V AC 50/60Hz	230V AC 50/60Hz			

Please refer to page 51 for spare parts



Because of its compact size, the Blue Lagoon Tech Spa UV-C is ideal for all filter installations where space is limited but a high disinfection efficiency is needed.

### Advantages of the Blue Lagoon Tech Spa UV-C

- Integrated electronic ballast to ensure an efficient and stable power supply
- Includes a special Philips UV-C lamp with integrated electronic ballast
- UV-C lamp specially designed for high-temperatures ( $\pm 40^{\circ}\text{C}$  /  $\pm 104^{\circ}\text{F}$ )
- Compact in size
- 316L stainless steel housing
- 2 bar working pressure
- Multiple size connection materials included
- Easy installation and maintenance
- Made in the Netherlands

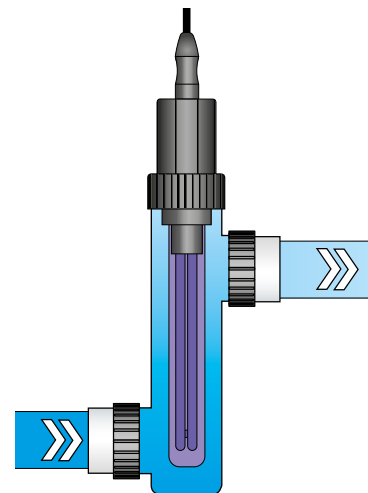
### Operation

The used UV-C lamp is specially designed by Philips for high temperatures ( $\pm 40^{\circ}\text{C}/\pm 104^{\circ}\text{F}$ ). The Blue Lagoon Tech Spa UV-C has a built in electronic ballast to ensure an efficient and stable power supply. In addition, the stainless steel (316L) reactor ensures the reflection of the UV-C rays, thereby increasing the

efficiency. Thanks to the Blue Lagoon Tech Spa UV-C, your spa water will be disinfected efficiently and safely and the quality of your water will remain excellent. The UV-C radiation inactivates bacteria, viruses and other microorganisms and stops them from multiplying. This can reduce your chlorine concentration up to 50-80%!

### Technical specifications

	<b>TECH SPA UV-C 12W 230V</b>	<b>TECH SPA UV-C 15W 120V</b>		<b>TECH SPA UV-C 12W 230V</b>	<b>TECH SPA UV-C 15W 120V</b>
Type	10.000/12W	10.000/15W	Electronic ballast	230V AC 50 Hz	120V AC 60 Hz
Item code	BE21122	BE21121	Maximum current	0,2 A	0,3 A
Barcode	8714404044318	8714404044325	Lamp power	12W	15W
Rec. flow for 30 mJ/cm <sup>2</sup>	3 m <sup>3</sup> /h	3 m <sup>3</sup> /h	Lamp	Philips PLS module	Philips PLS module
Max. pressure	2 bar	2 bar	Lifespan lamp	9.000 h	9.000 h
Max. flow	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	Weight	2,5 Kg	2,5 Kg
Diameter unit Ø	70 mm	70 mm	Packing size	33 x 12 x 55 cm	33 x 12 x 55 cm
Length unit	42 cm	42 cm	Quantity full pallet	40 pcs	40 pcs
Diameter in-outlet Ø	63mm / 50mm / 1½"	2" / 1 ½"	KEMA	✓	✓



The Blue Lagoon Spa is specially designed for water with high-temperatures ( $\pm 40^{\circ}\text{C}/\pm 104^{\circ}\text{F}$ ), such as spas and hot tubs. Also because of its short length and compact size, the Blue Lagoon Spa UV-C is ideal for filter installations where space is limited and a high disinfection efficiency is required. The Spa UV-C has a plastic housing.

### Advantages of the Blue Lagoon Spa UV-C

- A built-in electronic ballast to ensure an efficient and stable power supply
- Includes a special Philips UV-C lamp with integrated electronic ballast
- UV-C lamp specially designed for high-temperatures ( $\pm 40^{\circ}\text{C} / \pm 104^{\circ}\text{F}$ )
- Compact in size
- Easy installation and maintenance
- Made in the Netherlands

### Operation

This UV-lamp is specially designed by Philips for high-temperatures ( $\pm 40^{\circ}\text{C}/\pm 104^{\circ}\text{F}$ ). The Blue Lagoon Spa UV-C has a built-in electronic ballast to ensure an efficient and stable power supply. Thanks to the Blue Lagoon Spa UV-C, your spa water will be disinfected efficiently and safely and the quality

of your water will remain excellent. The UV-C radiation inactivates bacteria, viruses and other microorganisms and stops them from multiplying. This can reduce your chlorine concentration up to 50-80%! Max. pressure: 1 bar. 50mm connections included. The Spa UV-C has a plastic housing.

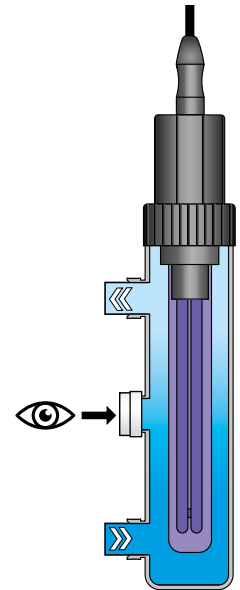
### Technical specifications

	SPA UV-C 12W 230V	SPA UV-C 15W 120V		SPA UV-C 12W 230V	SPA UV-C 15W 120V
Type	10.000/12W	10.000/15W	Maximum current	0,25A	0,25A
Item code	BE01122	BE01151	Lamp power	12W	15W
Barcode	8714404038966	8714404039642	Lamp	Philips PLS module 12W 230V	Philips PLS module 15W 120V
Rec. flow for 30 mJ/cm <sup>2</sup>	3 m <sup>3</sup> /h	4 m <sup>3</sup> /h	Lifespan lamp	9,000 h	9,000 h
Max. pressure	1 bar	1 bar	Replace lamp alert	✓	✓
Max. flow	13 m <sup>3</sup> /h	13 m <sup>3</sup> /h	Weight	1,6 Kg	1,6 Kg
Diameter unit Ø	59 mm	59 mm	Packing size	26x11x55 cm	26x11x55 cm
Length unit	40,5 cm	40,5 cm	Quantity full pallet	60 pcs	60 pcs
Diameter in-outlet Ø	50 mm	50 mm	UL certified	-	✓
Stainless steel	-	-	KEMA	✓	✓
Electronic ballast	230V AC 50Hz	120V AC 60Hz			

Please refer to page 52 for spare parts



The Blue Lagoon Spa Inox is specially designed for water with high-temperatures ( $\pm 40^{\circ}\text{C}/\pm 104^{\circ}\text{F}$ ), such as spas and hot tubs. Also because of its short length and compact size, the Blue Lagoon Spa Inox is ideal for filter installations where space is limited and a high disinfection efficiency is required. The Spa Inox has a stainless steel housing.



### Advantages of the Blue Lagoon Spa Inox

- A built-in electronic ballast to ensure an efficient and stable power supply
- Includes a special Philips UV-C lamp with integrated electronic ballast
- Complete stainless steel treatment chamber
- UV-C lamp specially designed for high-temperatures ( $\pm 40^{\circ}\text{C} / \pm 104^{\circ}\text{F}$ )
- Compact in size
- Easy installation and maintenance
- Made in the Netherlands

### Operation

This UV-lamp is specially designed by Philips for high-temperatures ( $\pm 40^{\circ}\text{C}/\pm 104^{\circ}\text{F}$ ). The Blue Lagoon Spa Inox has a built-in electronic ballast to ensure an efficient and stable power supply. Thanks to the Blue Lagoon Spa Inox, your spa water will be disinfected efficiently and safely and the quality

of your water will remain excellent. The UV-C radiation inactivates bacteria, viruses and other microorganisms and stops them from multiplying. This can reduce your chlorine concentration up to 50-80%! The Spa Inox has a stainless steel housing.

### Technical specifications

	SPA INOX 12W 230V	SPA INOX 15W 120V		SPA INOX 12W 230V	SPA INOX 15W 120V
Type	10.000/12W	10.000/15W	Electronic ballast	230V AC 50HZ	120V AC 60Hz
Item code	BH07122	BH07151	Maximum current	0,25A	0,25A
Barcode	8714404044240	8714404044479	Lamp power	12W	15W
Rec. flow for 30 mJ/cm <sup>2</sup>	3 m <sup>3</sup> /h	4 m <sup>3</sup> /h	Lamp type	Philips PLS module 12W 230V	Philips PLS module 15W 120V
Max. pressure	2 bar	2 bar	Lifespan lamp	9.000 h	9.000 h
Max. flow	13 m <sup>3</sup> /h	13 m <sup>3</sup> /h	Weight	2,6 Kg	2,6 Kg
Diameter unit Ø	60,3 mm	60,3 mm	Packing size	26x11x55 cm	26x11x55 cm
Length unit	40,5 cm	40,5 cm	Quantity full pallet	60 pcs	60 pcs
Diameter in-outlet Ø	3/4" Male thr.	3/4" Male thr.	KEMA	✓	✓
Stainless steel	316L	316L			

Please refer to page 53 for spare parts

## Private label terms and conditions VGE International B.V.

Your product assortment can be easily extended with your own UV-C equipment. Your own packing, your own commercial appearance and your own brand development!

### Options

Private label basic package:

- Blank packing with your own designed product sticker
- Neutral manual
- Your own product labels
- Standard lamp and spare parts

Basic package can be extended with:

- Full colour packing
- Customized product colour
- Your own manual
- Private label UV-C lamp (fitting colour / logo)
- Private label UV-C lamp (with own fitting)
- Other wishes negotiable

## Investment

The customer must make a down payment for the purchase of deviant parts and packaging, depending on the chosen options. This down payment will be deducted from the product retail price. The investment will be fully settled after the complete purchase of the private label products has been made. This means that there will not be any additional costs.

## Minimum purchase

The minimum purchase per order depends on the device type and the chosen package. The minimum order and purchase schedule is to be agreed on.

## UV-C lamp choice

The choice of the UV-C lamp for the device is very important for future aftersales. A UV-C lamp needs to be changed regularly. By choosing a UV-C lamp with a unique fitting, you assure yourself with returning revenue and new sales opportunities. You will be the only retailer that sells the lamp. It is possible to choose for a UV-C lamp with a unique fitting or fitting colour and it is also possible to have your logo printed on the lamp.

## ***'Your own private label UV-C units'***



# Blue Lagoon supports promotional activities

[www.bluelagoonuvc.com](http://www.bluelagoonuvc.com)

## Blue Lagoon promotional activities support

At VGE International B.V., we realize it's not always easy for wholesalers to convince (potential) customers of new technologies and the latest products they have in stock. New and improved technologies emerge at a high pace. It can be difficult to stay up-to-date of the latest innovations of UV-C pool disinfection systems and pool supplies - let alone convince customers why they should buy them. That's why VGE International B.V. came up with Marketing Packages.

To fully prepare for the upcoming pool season and to support promotional activities, Blue Lagoon provides her customers with Marketing Packages. Customers receive files which contain the Blue Lagoon catalogue 2018-2019, UV-C marketing pack and the Pool supplies marketing pack. In the files they can find:

- Brochures
- Catalogue text and pictures in order to update catalogue/website content
- Product flyers to share with the public
- Product sheets to understand the technology
- The 6 benefits of UV-C disinfection systems for pools
- Spare part overviews
- Video's



## Blue Lagoon accelerates your delivery time

As a professional in the pool industry, your challenge is to deliver products in time, all the time. Your challenge is to minimize the time between receipt of a customer order and receipt of the goods from the manufacturer or supplier. That's why at Blue Lagoon, our goal is to accelerate your delivery time and therefore your customer service. One of the top priorities is the continuous increase of our performances. One way to enable this is by constantly improving our time to market. This way you are able to:

- Control your planning more adequately
- Manage your stock better

Currently, we do this in more than 70 countries worldwide. As transparency is highly valued with Blue Lagoon, appointments considering delivery and service are always predetermined.

Our service benefits are clear, now it's time to share them with the world! If you require any other information, knowledge of our products or other promotional material, simply contact us and let us know.

***'If you are curious how an informative seminar from a UV-C specialist can benefit the sale of your product assortment, please don't hesitate to contact us.'***

## Promote Blue Lagoon UV in your store!

B300004



B300005



B300007 +  
BE02752DUMMY



B300007 +  
BH01752DUMMY



B300007 +  
BH01752DUMMY

ARTICLE NUMBER	ART. DESCRIPTION	SIZE	PRICE DUMMY
BE02752DUMMY	Blue Lagoon Tech UV-C 75W (Dummy)	-	€ 50,00
BH01752DUMMY	Blue Lagoon Timer UV-C 75W (Dummy)	-	€ 65,00
BH11752DUMMY	Blue Lagoon Signal UV-C 75W (Dummy)	-	€ 60,00
B300007	Informative mounting plate for dummy	60x120 cm	€ 35,00
B300004	Blue Lagoon Roll up banner 2018	85x200 cm	€ 40,00
B300005	VGE Pro Roll up banner 2018	85x200 cm	€ 40,00

### COMBINATIONS

	PRICE
Dummy Tech + Informative mounting plate + banner Blue lagoon	€ 110,00
Dummy Timer + Informative mounting plate + banner Blue lagoon	€ 125,00
Dummy Signal + Informative mounting plate + banner Blue lagoon	€ 120,00



# Pure pleasure

Swimming pools and spas are the perfect places for sports, fun and relaxing. Unfortunately they are also the perfect breeding place for bacteria, viruses and other primitive organisms. Clean swimming pool water doesn't have to mean high doses of chlorine. With UV treatment the chlorine level can be kept as low as possible, decreasing the unpleasant side effects of it. So you can fully enjoy every swim.

#### The clear choice

Our UV-C lamps significantly reduce the required concentration of chemicals needed to keep the pool clean. So there's no red eyes or skin irritations to worry about. Also unpleasantly intense chlorine aromas that affect hair and skin are avoided, making UV-C treated pools the preferred choice with swimmers.

#### Pure innovation

With a long and reliable lifetime, low energy and maintenance costs and high end of life output, Philips UV-C lamps provide



up to 12,000 hours of clean pool water. And with very low levels of mercury, they're clearly better for the environment when they're disposed of.

#### You're safe with us

Philips has been lighting your world for more than 100 years. Our comprehensive range of UV-C solutions covers water, air and surface disinfection using low and medium pressure mercury lamps.

innovation  you

To find out more dive into our website at  
[www.philips.com/uvpurification](http://www.philips.com/uvpurification)

**PHILIPS**

# UVC Germicidal Lamps

## Global Leaders

Light Sources and Lighttech, global leaders in UVC Germicidal Lamps, offer unmatched innovation in the design and manufacture of our lamp products. With both of our state of the art manufacturing facilities, we can supply the world market with high-quality standard lamp designs as well as custom designed lamp solutions for your specific applications.



- Amalgam Lamps
- Soft Glass
- U Shaped
- Cell Lamps
- Compact Lamps
- Standard Output
- High Output
- Ozone Producing
- Medium Pressure (MPUV/MPHO)
- OEM - Proprietary Base Solutions
- Custom Lamp Configurations

# UV-C Lamps

For the professional market it's also possible to deliver special high quality lamps with a higher wattage.

For example lamps of 325 and 400 watt. Please contact us at +31 499461 099 or by e-mail: info@vgebv.nl for the actual prices and delivery times.

## Lifespan UV-C and Amalgam replacement lamps

To make sure a UV-C disinfection system keeps protecting bathers against pathogens such as moulds, viruses and bacteria, it is important to replace a UV-C lamp in time. The average effective lifespan of a UV-C lamp is 9,000 hours. An amalgam lamp has a longer lifespan of approximately 16.000 hours. Although the lamp will still continue to work after this period, its disinfecting value will rapidly decline from then on. To still guarantee the health of the bathers, it is important to replace the UV-C lamp in time.



**PL-S lamps** are compact UV-C (germicidal) lamps used in residential water and air disinfection units. The compact size of the lamp allows for a small system design and design flexibility. Thanks to the single-ended lamp base, lamp replacement is easy.



**PL-L lamps** are compact UV-C (germicidal) lamps used in water and air disinfection units. The compact size of the lamp allows for a small system design and design flexibility. Thanks to the single-ended lamp base, lamp replacement is easy.



**TL Mini lamps** are slim double-ended UV-C (germicidal) lamps used in residential water and air disinfection units. The small 16 mm diameter of the lamp allows for a small system design and design flexibility.



**TL lamps (T8)** are double-ended UV-C (germicidal) lamps used in professional air disinfection units. Moreover, they have a long and reliable lifetime, which allows maintenance to be planned for in advance.



**T5 lamps** are single ended UV-C (germicidal) lamps used in professional water and air disinfection units. The small 16 mm diameter of the lamp allows for a small system design and design flexibility. T5 lamps offer almost constant UV output over their complete lifetime, for maximum security of disinfection and high system efficiency.



The Philips Smart Cap technology is an innovative development for optimal safety! The lamp base and the fitting, that goes into the housing of the lamp, are both provided with a safety switch. As soon as the lamp is taken out of the housing, the power supply is interrupted causing the lamp to switch off. This guarantees optimal safety during maintenance.



Philips T6 TUV Amalgam XPT system consists of an electronic driver that operates one TUV Amalgam XPT lamp, mounted in a sleeve. The electrical specifications are tailored to the lamp, ensuring an optimized performance of the Philips TUV Amalgam XPT system. Thanks to extensive testing before a lamp system is released, we can ensure maximum reliability and long lifetime.



VGE Smart pin technology SPT makes it possible to replace the lamp safely, although the system remains filled with water. If the lamp is mistakenly not turned off during the replacement, it will switch off automatically as soon as it is removed from the socket. Due to the seal between the lamp socket and lamp, the system can be used in situations where IPx4 is required. The high-quality ceramic is an excellent electrical isolator and is resistant to corrosion. A visual observation of the operation of the lamp is no problem through various transparent parts.

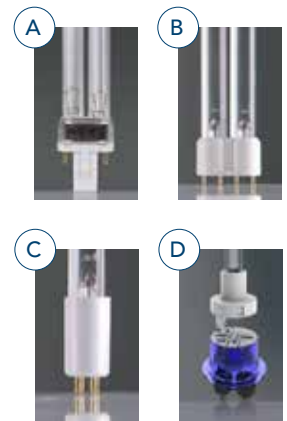
## TL bulbs

ITEM. NR.	BRAND	MODEL	BOX	TYPE	BASE
3903556	Philips	TUV TL-MINI 4W FAM	25	TL	I
3903557	Philips	TUV TL-MINI 6W FAM	25	TL	I
3903558	Philips	TUV TL-MINI 8W FAM	25	TL	I
3903559	Philips	TUV TL 10W 1SL T8	25	TL	I
3903563	Philips	TUV TL-MINI 11W FAM	25	TL	I
3903560	Philips	TUV TL 15W 1SL T8	25	TL	I
3903574	Philips	TUV TL-MINI 16W	25	TL	I
3903561	Philips	TUV TL 25W 1SL T8	25	TL	I
3903564	Philips	TUV TL 30W 1SL T8	25	TL	I
3903565	Philips	TUV TL 36W SLV	6	TL	I
3903562	Philips	TUV TL 55W 1SL HO T8	6	TL	I
3903570	Philips	TUV TL 75W HO T8	6	TL	I
3903070	VGE	TL 25W T8	25	TL	I
3903071	VGE	TL 30W T8	25	TL	I
3903072	VGE	TL 55W T8	25	TL	I

## PL bulbs

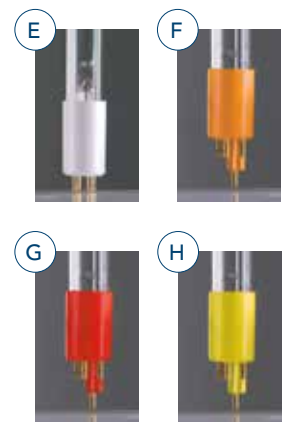
ITEM. NR.	BRAND	MODEL	BOX	TYPE	BASE
3903005	Philips	TUV PL-S 5W /2P	10	PLS-S	A
3903009	Philips	TUV PL-S 7W /2P	10	PLS-S	A
3903010	Philips	TUV PL-S 9W /2P	10	PLS-S	A
3903013	Philips	TUV PL-S 9W /4P	10	PLS-S	-
3903020	Philips	TUV PL-S 11W /2P	25	PLS-S	A
3903030	Philips	TUV PL-L 18W /4P	25	PL-L	B
3903033	Philips	TUV PL-L 24W /4P	25	PL-L	B
3903040	Philips	TUV PL-L 36W /4P	1	PL-L	B
3903050	Philips	TUV PL-L 55W /4P	1	PL-L	B
B212012	Philips	Replacement module 12W 230V	1	PL-S	J
B212012 USA	Philips	Replacement module 15W 120V	1	PL-S	J
4600003	Philips	Replacement lamp Aetair	1	PL-L	-
4610007	Philips	TUV PL-L 60W /4P	1	PL-L	B
3903095	Philips	TUV PL-L 95W /4P	1	PL-L	B
3903006	VGE	PL-S 5W 2P	20	PL-S	A
3903011	VGE	PL-S 9W 2P	20	PL-S	A
3903021	VGE	PL-S 11W 4P	20	PL-S	A
3903034	VGE	PL-L 18W 4P	25	PL-L	B
3903037	VGE	PL-L 24W 4P	25	PL-L	B
3903045	VGE	PL-L 36W 4P	25	PL-L	B
3903054	VGE	PL-L 55W 4P	25	PL-L	B
E801406	LightTech	PL-S 11W Compact4Pool	1	PL-S	-

### Models



## T5 & T6 bulbs

ITEM. NR.	BRAND	MODEL	BOX	TYPE	BASE
E800900	Philips	TUV 16W 4P-SE UNP	1	T5	C
E800901P	Philips	TUV 36T5 40W 4P-SE	1	T5	C
E800902P	Philips	TUV 36T5 HO 75W 4P-SE	1	T5	C
3903567	Philips	TUV 64T5 75W 4P-SE (1.56m)	1	T5	C
B280005	Philips	TUV Smart Cap 75W	1	T5	D
B280006	Philips	TUV Smart Cap 40W	1	T5	D
E800904	Philips	TUV XPT 130W 4P-SE Amalgam	1	T6	E
E801409	Philips	TUV XPT 325W HO-SE Amalgam	1	T6	E
3903022	LightTech	T5 11W 4P-SE	1	T5	C
E800901L	LightTech	T5 40W 4P-SE	1	T5	C
E800902L	LightTech	T5 75W 4P-SE	1	T5	C
F980005	LightTech	T6 130W 4P Amalgam	1	T6	E
F980008	LightTech	T6 130W Amalgam	1	T6	M
F980115	LightTech	T6 200W 4P Amalgam	1	T6	E
4800070AM	VGE - LightTech	T5 40W 4P Amalgam	1	T5	C
4800082AM	VGE - LightTech	T5 80W 4P Amalgam	1	T5	C
3903073	VGE	4P-SE 40W T5	25	T5	C
3903074	VGE	4P-SE 75W T5	25	T5	C



## Unit specific lamps

ITEM. NR.	BRAND	MODEL	BOX	TYPE	BASE
F980065	VGE - LightTech	T5 16W 4P-SE	1	T5	G
F980068	VGE - LightTech	T5 40W 4P-SE, length 365mm (short)	1	T5	F
F980002	VGE - LightTech	T5 40W 4P-SE	1	T5	F
F980004	VGE - LightTech	T5 75W 4P-SE	1	T5	F
F980078BU	VGE - LightTech	T5 40W 4P-SE	1	T5	F
F980079BU	VGE - LightTech	T5 75W 4P-SE	1	T5	G
4800033	VGE - LightTech	T5 75W 4P-SE Ozone	1	T5	H
3903025	VGE - LightTech	T6 325W 4P-SE Amalgam	1	T6	E
B280002	Blue Lagoon - LightTech	T5 40W Ionizer, length 635mm (short)	1	T5	K
B280001	Blue Lagoon - LightTech	T5 75W Ionizer, length 645mm (short)	1	T5	K
F980086	VGE	Replacement lamp Delta EA-3H-5 / 35W	50	T5	C
F980080	VGE	Replacement lamp Delta EA-3/4H-10 / 45W	50	T5	C
F980082	VGE	Replacement lamp Delta EA-4/4H-20 / 90W	50	T5	C
F980084	VGE	Replacement lamp Delta EA-4H-40 / 110W	60	T5	C
F980088	VGE	Replacement lamp BIO-UV 10 / 38W	50	T5	C
F980090	VGE	Replacement lamp BIO-UV 20 / 59W	50	T5	C
F980092	VGE	Replacement lamp BIO-UV 30 / 87W	50	T5	C
F980094	VGE	Replacement lamp BIO-UV 40 / 102W	60	T5	C
F980102	VGE Pro - LightTech	SPT 140W 867mm	1	T6	L
F980103	VGE Pro - LightTech	SPT 200W 1115mm	1	T6	L
F980107	VGE Pro - LightTech	SPT 40W 389mm	1	T5	L
F980108	VGE Pro - LightTech	SPT 75W 867mm	1	T5	L
F980104	VGE Pro - LightTech	SPT 325W 1588mm	1	T6	L
F980112	VGE Pro - LightTech	SPT 400W 2000mm	1	T6	L



## Overview complete VGE Pro UV INOX or HDPE system

For high volumes and professional applications VGE International offers UV-C disinfection systems under the brand name VGE Pro. VGE Pro UV-C disinfection systems are the finishing touch in a water treatment installation; they have the ability to keep the water free of bacteria, viruses, algae and fungi. It is essential that the UV-C disinfection system seamlessly connects to the design and the components used in the water treatment installation. By choosing VGE Pro, you choose guaranteed quality for a fair price.



### VGE Pro UV-C control units

Each VGE Pro UV-C disinfection system is equipped with a control cabinet. There are several options which can be combined with a suitable VGE Pro unit and several other options like a temperature sensor and a flow switch.



### Smart Pin Technology

The VGE Pro UV-C Disinfection systems are equipped with the unique Smart Pin Technology (SPT). This innovative system is a reliable way to integrate the UV-C lamp(s) in a safe, efficient and smart way in a reactor. The SPT makes it possible to replace the lamp safely, although the system is filled with water and pressurized.

#### BENEFITS

- Prevents the release of harmful UV-C radiation
- Changing the UV-C lamp with water in the system
- Resistant to corrosion
- Splash proof
- Visual inspection for operation of the lamp
- Clamping system for optimal seal function
- Lamp replacement without tools

## MORE INFORMATION



Visit [www.vgepro.com](http://www.vgepro.com) or contact our product specialists at +31 (0)499 461099

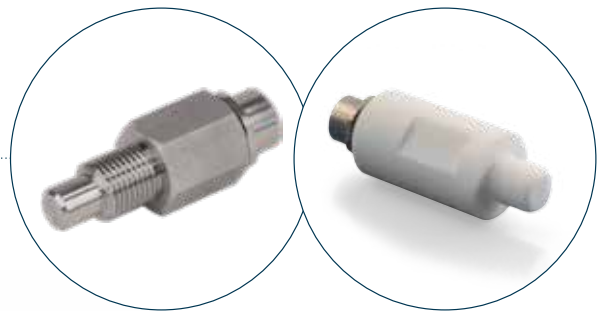
ONLY  
POOL  
PRO

VGE PRO  
UV DISINFECTION SOLUTIONS

31

### UV-C & temperature sensor

VGE Pro UV-C units can be equipped with a UV-C & temperature sensor. These digital sensors can be delivered in teflon (only the UV-C sensor) or stainless steel. The VGE Pro control monitors are designed to work with these UV-C & temperature sensors.



### Reactors

#### INOX

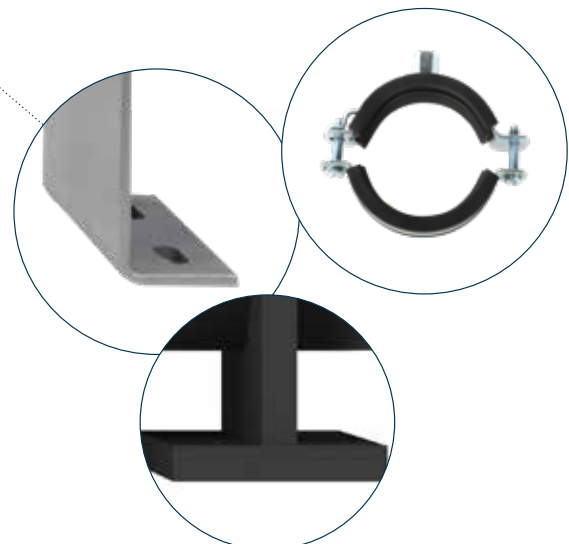
The high quality 316L stainless steel reactor of the VGE Pro INOX series have been designed to perform. After the high quality welding process the units are leak tested. After this process they get a pickling and passivation treatment which drastically improves the corrosion resistance and lifetime of the unit. Another last treatment with glass pearls (shot peening) gives the units a nice, matt grey surface.

#### HDPE

The high quality HDPE reactors of VGE Pro HDPE series have been designed to treat highly corrosive water. They are suited for all kinds of disinfection and UV-C treatment applications and can even be used for the production of ultrapure water, semiconductor-, pharmaceutical- and cosmetic industry. Other applications: swimming pools, saltwater systems, process water treatment and aquaculture.

### Supports

The high quality reactors of VGE Pro series are or can be equipped with supports.



## VGE Pro UV-C control units

For the VGE Pro UV-C systems 4 different control units are available, knowing: Basic, Control Timer, Control Monitor and Control Monitor Plus. The Basic version is suited with an electronic ballast to drive the lamp(s). The Control Timer has additionally a LED display for showing the operational lamp hours. The Control Monitor has a colour display and an optional UV sensor can be connected for monitoring the treatment process. The most complete control panel is the Control Monitor Plus. A UV sensor, temperature sensor and a flowswitch can be connected and the control unit has alarm and warning functions build in.

BASIC



CONTROL TIMER



CONTROL MONITOR



### Electronic lamp drivers

Standard the power supply of the UV-C lamps is realized by electronic ballasts which drive the lamps with a much high frequency (over 30.000 Hz) compared to conventional electromagnetic ballasts (50/60 Hz). This has the following advantages:

- Higher ballast efficiency, so less heat production;
- Longer lamp life of the UV-C lamps;
- Higher UV-C lamp efficiency;
- Direct start, no conventional ignitor required;
- Some UV-C lamps require a short pre-heat time to improve lamp start and to increase lamp life. An electronic ballast can be perfectly set up to take care of this;
- In some versions the power of the UV-C lamps can be adjusted stepless to prevent overdosing (energy loss).



### Hour counter

If a UV-C lamp is in operation natural aging of the lamp will take place which results in a reduction of UV-C radiation and disinfection capacity. Therefore it is important to replace a UV-C lamp in time. An operational hours counter is a usefull tool to make sure that you change the UV-C lamp on time and keep up a reliable UV-C disinfection of your water.

## MORE INFORMATION



Visit [www.vgepro.com](http://www.vgepro.com) or contact our product specialists at +31 (0)499 461099



VGE PRO  
UV DISINFECTION SOLUTIONS



### Communication

Several ways of communication with a control unit are available such as: ModBus connection, analog 4 - 20 mA signal, via potential free contacts and of course via the HMI. By using these options the control of your disinfection process is easy and efficient.



### Control functionality

Depending on the selected control units several control features are available for an optimal and efficient disinfection result. Also options as lamp power adjustment, remote control and communication are available for some control units.

CONTROL MONITOR PLUS



### Temperature monitoring

When there is no flow or water in the treatment chamber when the lamp is switched on, the temperature in the chamber can reach a dangerous level. Choosing for the optional temperature sensor in combination with the Control Monitor Plus the temperature inside the treatment chamber is monitored. If the limit is reached the system will be switched off and an alarm will be activated.



### UV-C intensity measurement

The VGE Pro UV-C systems can optionally be equipped with a UV sensor to measure the UV-C intensity inside the treatment chamber. Depending on the application a certain UV-C intensity must be realized for a reliable disinfection result. The measured UV-C intensity is affected by the natural aging of the lamp, fouling of the quartz sleeve/ measuring window and by a changing water quality. The digital UV sensor is available in a SS or Teflon execution.



### Multilingual

The display language of the Control Monitor and Control Monitor Plus are selectable for an easy configuration and operation.



### Flowswitch

A flowswitch can be connected to the Control Monitor and Control Monitor Plus to switch off the UV-C system when there is no water flow through the treatment chamber. This prevent malfunctioning of the system.



## Overview VGE Pro products and applications

### WHAT MAKES THE VGE PRO UV-C SYSTEMS UNIQUE?

- VGE Pro UV-C units are equipped with a 316L Stainless Steel reactor or a high quality HDPE reactor.
- Lamp (re)placement while unit is pressurised.
- Each unit is equipped with transparent parts to monitor the UV-C lamp.
- VGE Pro units can be equipped with a UV-C sensor and/or watertemperature sensor.
- VGE Pro units are equipped with the unique Smart Pin Technology (SPT) (patented technology) for easy and safe lamp (re)placement without disconnecting electrical connection.
- Low pressure amalgam lamps for high performance levels irrespective of the temperature of the water.
- Extreme high quality lamps with a lifetime up to 16.000 hours!
- Single systems can handle flows ranging from 0,5 m<sup>3</sup>/h up to 550 m<sup>3</sup>/h.
- Customization of the device to your own specifications possible.

### VGE Pro INOX

MODEL	REACTOR SHAPE	MAX. PRESSURE	CONNECTION	CAPACITY <sup>(1)</sup>
		[BAR]		[M <sup>3</sup> /H]
400-54	Z	6 bar	1"	16
40-76	L	6 bar	3/4"	2,6
75-76	L	6 bar	3/4"	5,9
140-76	U	6 bar	1 1/2"	11
200-76	U	6 bar	2"	15
75-114	U	6 bar	2"	8,4
140-114	U	6 bar	2"	17
200-154	U	6 bar	DN80	33
420-168	U	6 bar	3"	43
400-204	U	6 bar	DN100	80
600-219	U	6 bar	DN125	122
975-306	L	6 bar	DN250	290
1950-306	L	6 bar	DN250	568

(1) Capacity based on 400 J/m<sup>2</sup>, T10 mm @ 254 nm = 98 %, MPSSM-average intensity (max. flow of 3 m/s not included)

### VGE Pro HDPE

MODEL	REACTOR SHAPE	MAX. PRESSURE	CONNECTION	CAPACITY <sup>(1)</sup>
		[BAR]		[M <sup>3</sup> /H]
140-110	U	6 bar	2"	15
200-110	U	6 bar	2"	20
200-160	U	6 bar	DN80	30
400-200	U	6 bar	DN100	72
600-225	U	6 bar	DN125	108
975-315	U	6 bar	DN150	263
1950-315	U	6 bar	DN200	515

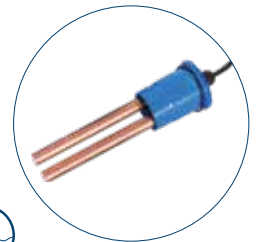
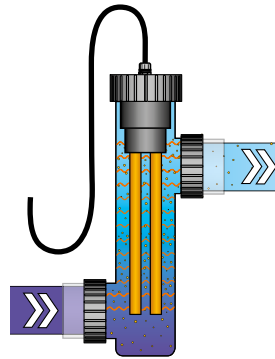
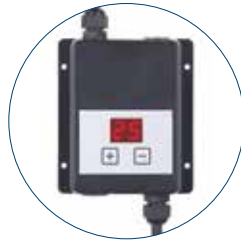
### VGE Pro INOX 3S/3L/8L

MODEL	REACTOR SHAPE	MAX. PRESSURE	CONNECTION	CAPACITY <sup>(1)</sup>
		[BAR]		[M <sup>3</sup> /H]
3S	L	6 bar	3/4"	2,5
3L	L	6 bar	3/4"	5,3
8L	L	6 bar	2"	5,6



#### MORE INFORMATION

Visit [www.vgepro.com](http://www.vgepro.com) or contact our product specialists at +31 (0)499 461099



The Blue Lagoon Copper Electrolyzer ensures clean and healthy pool water through copper electrolysis. It is recommended to use the Copper Electrolyzer in combination with a UV-C disinfection system for optimal results.

## Advantages of the Blue Lagoon Copper Electrolyzer

- The copper unit will last for two swimming seasons (+/- 4000 hours)
- Easy installation and maintenance
- Ideal for use in combination with UV-C
- Made in the Netherlands

## Operation

The Blue Lagoon Copper Electrolyzer will disinfect the water in your swimming pool through copper electrolysis. We recommend to use this device in combination with a UV-C device for the best result. The Blue Lagoon Copper Electrolyzer will, before the water goes back to the pool, be mounted between the pipes. The swimming pool water then flows through the housing of the Blue Lagoon Copper Electrolyzer. A copper unit, or Electrolyzer, is positioned within the housing, and the copper unit discharges a minimal amount of copper into the water flowing through the housing. These copper

ions (Cu<sup>2+</sup>) in the water have a positive charge and destroy the cell walls of algae, bacteria, viruses and other microorganisms. As the cell wall is thereby damaged, these organisms are no longer able to take up any nutrients, and are therefore unable to multiply. The process of applying a positive charge to copper is called copper electrolysis. The copper in the water acts as a disinfecting buffer in your swimming pool. Thanks to the Blue Lagoon Copper Electrolyzer, your swimming pool water will be disinfected efficiently and safely and the quality of your water will remain excellent.

### What is the disinfection mechanism of copper ionization?

Electrically charged copper ions (Cu<sup>2+</sup>) in the water search for particles of opposite polarity, such as bacteria, viruses and fungi. Positively charged copper ions form electrostatic compounds with negatively charged cell walls of microorganisms. These compounds disturb cell wall permeability and cause nutrient uptake to fail. As a result, bacteria are no longer able to multiply and eventually die. The ions remain active until they are absorbed by a microorganism.

## Technical specifications

### COPPER ELECTROLYZER

Item code	BE05752
Barcode	8714404039017
Max. pressure	1 bar
Max. flow	13.000 L/h
Length unit	34 cm
Diameter unit Ø	59 mm
Diameter in-outlet Ø	48/50mm
Electronic ballast	230V AC 50/60Hz
Maximum current	0,1A
Weight	2,32 Kg
Packing size	26x11x55 cm
Quantity full pallet	60 pcs
Copper ionizer	0,7 ppm

Please refer to page 53 for spare parts

# Flow Switch Plus

**'Ideal protection  
for an electrical  
device in your  
pool installation'**



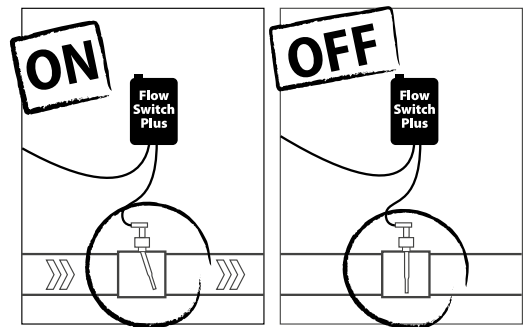
The Flow Switch Plus is the ideal protection for a UV-C disinfection system in your pool installation. It will turn off the lamp at insufficient water flow.

## Advantages of the Blue Lagoon Flow Switch Plus

- Prevents damage caused by running dry of devices, like UV-C disinfection systems
- Easy installation thanks to the compact design
- Easy to combine
- Also suitable for saltwater systems

## Operation

The Flow Switch Plus is the ideal protection for an electrical device in your pool installation, such as a UV-C device or other device rated at up to 10 amps, for which it is desirable that it is switched off once the water flow stops. Thanks to the compact design, the Flow Switch Plus is very easy to install. Using the special tee fitting, the flow switch can be easily integrated into your new or existing piping.



TYPE B



TYPE E



TYPE F



TYPE G

## Technical specifications

	<b>FLOW SWITCH PLUS 120V</b>	<b>FLOW SWITCH PLUS 230V (TYPE E)</b>	<b>FLOW SWITCH PLUS 230V (TYPE F)</b>	<b>FLOW SWITCH PLUS 230V (TYPE G)</b>
Item code	5056584	5056586	5056579	5056587
Type mains socket	Type B	Type E	Type F	Type G
Voltage	120 V AC	230 V AC	230 V AC	230 V AC
Maximum current	10 A (AC-1)	10 A (AC-1)	10 A (AC-1)	10 A (AC-1)
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
IP class	54	54	54	54
Connection size, tee fitting	2"	63 mm	63 mm	2"
Minimum flow	5.8 gpm	1.5 m <sup>3</sup> /h	1.5 m <sup>3</sup> /h	1.5 m <sup>3</sup> /h
Maximum flow	100 gpm	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h

## Advantages of the 2- & 3-way cylinder valve

- High quality ABS cylinder valves
- Moving parts are made of fibreglass reinforced polymer
- Separate 3-piece are available for ease of installation
- Max. working pressure: 3 bar
- Made in the Netherlands



## Product specifications

ART. NUMBER	DESCRIPTION	SIZE
4053731	2-way Cylinder Valve	2"
4053733	2-way Cylinder Valve	Ø 63 mm
4053732	3-way Cylinder Valve	2"
4053734	3-way Cylinder Valve	Ø 63 mm
4053736	3-piece coupling fitting	2"
4053735	3 piece coupling fitting	Ø 63 mm



## Advantages of the automatic 2- & 3-way cylinder valve

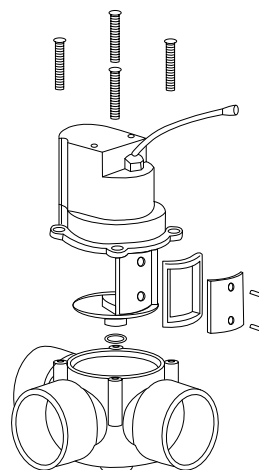
The ABS automatic cylinder valves have a robust, fibreglass reinforced, cylinder. Comes in different models for various applications i.e. suction and pressure pipes, technical filter rooms, valve sets, solar systems etc. Available in 24 volt and 230 volt, 63 mm or 2" solvent connections, 2- or 3-way and as solar- or non-solar version. Due to the simple design and separate available service sets the valves are easy to service on location. The separate available 3-piece couplings make the valve easy to mount/dismount for service and maintenance.

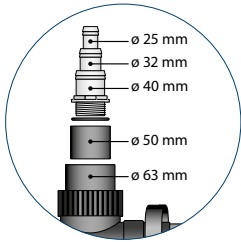
- Speed: 0.4 rpm at 50 Hz
- 230 VAC or 24 VAC 50 / 60 Hz
- Max. working pressure: 3 bar



## Product specifications

ART. NUMBER	DESCRIPTION	SIZE
B200033AUTO2	Automatic 2-way cylinder valve 24V	Ø63 mm
B200032AUTO2	Automatic 2-way cylinder valve 24V	2"
B200033AUTO	Automatic 2-way cylinder valve 230V	Ø63 mm
B200032AUTO	Automatic 2-way cylinder valve 230V	2"
B200035AUTO2	Automatic 3-way cylinder valve 24V	Ø63 mm
B200034AUTO2	Automatic 3-way cylinder valve 24V	2"
B200035AUTO	Automatic 3-way cylinder valve 230V	Ø63 mm
B200034AUTO	Automatic 3-way cylinder valve 230V	2"
B200035AUTO1	Automatic 3-way cylinder valve 230V Solar	Ø63 mm
B200034AUTO1	Automatic 3-way cylinder valve 230V Solar	2"
4053736	3-piece coupling fitting	2"
B200034AUTO1	Automatic 3-way cylinder valve 230V Solar	2"





The Blue Lagoon ProfiHeater is very suitable for warming up bathing water. The heater is very easy to install in and around filter installations and applicable for various pools.

### Advantages of the Blue Lagoon ProfiHeater

- Built-in heating element with thermostat
- 316L stainless steel body
- Universal fittings included
- Made in the Netherlands

### Operation

The ProfiHeater can be used for warming up your swimming pool water. The ProfiHeater is equipped with an adjustable thermostat. Both, the heating element with temperature sensor and the interior of the casing, are manufactured from high-quality 316 stainless steel. The ProfiHeater

can be connected using flexible hose (Ø25, 32 and 40 mm) or PVC tubing (Ø50 and 63 mm). The ProfiHeater is available in 3kW. Max. pressure: 2 bar. It is advised to use a flow switch to prevent overheating of the unit at insufficient water flow.

### Technical specifications

PROFIHEATER 3KW	
Art. Number	E830010
Barcode	8714404034173
Max. pressure	2 bar
Max. flow	10,000 L/h
Connection	Ø63-50-40-32-25mm
Weight	3,5 Kg
Packing size	33x12x55cm
Quantity full pallet	40 pcs

Please refer to page 54 for spare parts

# Compact Pool System

pH/Redox measuring & dosage system



An easy system for wall mounting to monitor and control your pool water. Provided with a pH and redox sensor and 2 built-in dosage pumps to add acid and chlorine to your pool water. The ideal system for swimming pools!

## Advantages of the Blue Lagoon Compact Pool System

- Continuous monitoring and controlling of pH and chlorine levels in swimming pool water
- Cost-effective chlorine control through redox measurements
- Quick and easy wall installation with supplied screws and wall plugs
- Digital control unit with multi-language menu and 2 configuration levels (user and technician, password protected)
- Ready-to-use, supplied with complete accessory kit
- Easy maintenance

## Operation

The Blue Lagoon Compact Pool System is the ideal system for the continuous analysis and adjustment of pH and chlorine levels in swimming pools. The measurement ranges are between 0 and 14.00 pH and 0 and 1000 mV (redox). The Compact Pool has two peristaltic pumps with a Santoprene internal tube; 1,5 l/h for acid dosage and 6 l/h for chlorine dosage. The system dosages chemicals directly into the hydraulic circuit of the pool. The Compact Pool has 2 independent inputs for monitoring the level of reagent tanks and a safety automatic stop in case of reagent lack. It also has an input for a flow sensor / off contact, 230VAC standard power supply (other voltages upon request), and a 2-row alphanumeric LCD with backlight. The system is ready-to-use, supplied with a complete accessory kit with pH and redox electrodes with 2,5 meter cable and BNC connector; 2 electrode-holders with DN50 clamps for direct in-line installation; calibration solutions (pH4, pH7m 220mV; 90 ml each); screws and stoppers for wall mounting and two accessory kits for peristaltic pumps (suction and delivery tubes, foot filters and injection valves). The separate pH and Redox electrodes with BNC connector can be used for other brands too.



ART.NR.	TYPE
BH08001	BL530-1 Compact Pool System pH-chlorine NL-DE-FR-IT
BH08002	BL530-2 Compact Pool System pH-chlorine EN-FR-ES-IT
BH08014	pH Electrode with BNC connector
BH08015	Redox Electrode with BNC connector

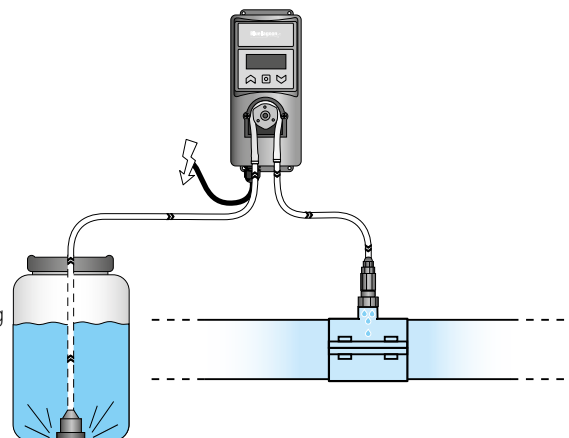
The Blue Lagoon Dosatech is the ideal peristaltic pump for dosing of liquids (flocculant, natrium bicarbonate) into the piping system of your swimming pool. Due to its 3-button controller, the Dosatech is very easy to program and operate.

## Advantages of the Blue Lagoon Dosatech

- Very easy 3-button operation and programming
- External automation possible for one or more dosage pumps
- Dosage up to max. 600 seconds per turn. Maximum 24 runs per day.
- The possibility to change the dosage every hour
- Neoprene hose
- Easy to install and easy to maintain
- Compact design
- Easy to combine with a Blue Lagoon UV-C unit
- Suction and injection nipples supplied
- Made in the Netherlands

## Operation

The Blue Lagoon Dosatech is the ideal peristaltic pump for dosing a liquid solution (flocculant, natrium bicarbonate) into the piping system of your swimming pool. The neoprene hose makes it possible to add various types of chemical solutions to the water of your swimming pool. Due to its new 3-button controller, the Dosatech is very easy to program and operate. The Blue Lagoon Dosatech makes a dosage up to 600 seconds per dosing, up to 24 times a day, possible. In addition, the Blue Lagoon Dosatech is easy to install thanks to the compact design and the supplied suction and injection nipples. Installation is also possible in combination with an (existing) Blue Lagoon UV-C system.



## Technical specifications

DOSATECH	
Art. Number	B210010N
Barcode	8714404987417
Dimensions LxWxH	80x90x215mm
Consumption	5 Watt
Rotation	30 rpm
Voltage	230 V
Frequency	50/60 Hz
Weight	1,5 kg
Packing size	21x 10 x 32cm
Quantity full pallet	120 pcs

The Blue Lagoon Peristaltic dosage pumps are perfectly suited for dosing a liquid solution (flocculant, natrium bicarbonate) into the piping system of a swimming pool. The dosage pumps can also be used in the chemical industry, food industry, disinfection systems etc.

The peristaltic dosage pumps have a PP case, reinforced with glass fiber. Closed case for wall installation. The internal tube is made of Santoprene. The peristaltic dosage pumps have a small size: 8,5 x 10,5 x 12,5 cm. 230 VAC. Max. working pressure 1 bar.



ART.NR.	TYPE	FLOW
BH08004	BL210-15 Dosage pump with fixed flow	1,5 l/h
BH08005	BL210-30 Dosage pump with fixed flow	3 l/h
BH08007	BL212-40 Dosage pump with variable flow	Max. 4 l/h

The Blue Lagoon Peristaltic dosage pump is also available with display and built-in pH & redox meter. With the optional pH or Redox kit the dosage pump can function as a stand-alone pH or redox (chlorine) dosage unit.

You only require one basic model, the pH or Redox kit will determine the application. The measured value is displayed continuously and the alarm will blink in case of errors.

## Specifications of the Blue Lagoon Peristaltic dosage pump with display:

- Fixed flow rate (1.8 l/h at 1 bar)
- Built-in pH/Redox meter
- Measurement range: 0.00 to 14.00 pH and 0 to +999 mV (Redox)
- Input for pH or redox electrode on BNC connector
- Input for level sensor. Alarm LED
- Single-point calibration procedure
- Wall installation. PP case
- Typical applications: water treatment and pools
- 230 VAC standard power supply
- Available kit including pH (or redox) electrode with 2.5 m cable and BNC connector, calibration solutions and electrode-holder with clamp for in-line installation



ART.NR.	TYPE	FLOW
BH08003	BL220-18 Dosage pump with digital display	1,8 l/h
BH08012	Complete pH kit for dosage pump BL220-18	-
BH08013	Complete Redox kit for dosage pump BL220-18	-





Examples of Stainless Steel 316 devices, which are damaged by corrosive water and/or grounding problems. These are no manufacturing or material faults, so they are not covered under warranty.

## Corrosion of metal parts and devices in swimming pools

Although most devices, ladders, etc. in swimming-pools are made of stainless steel, oxidation is still possible. There are two important causes for corrosion:

1. Insufficient grounding of pool water (pool bonding)
2. Corrosive water

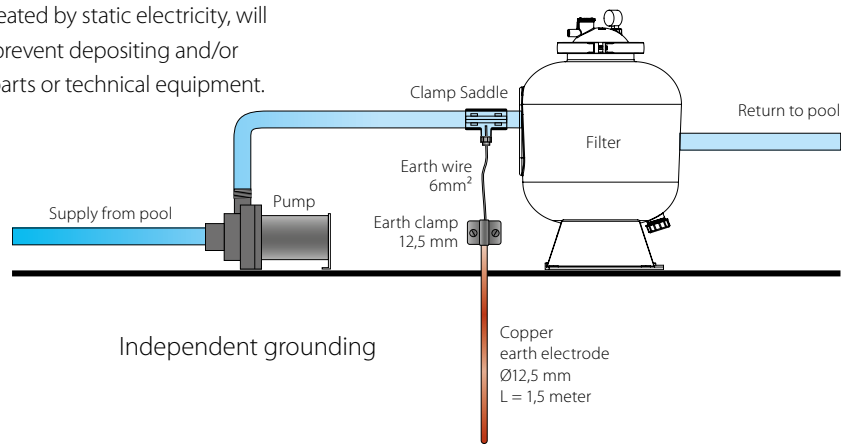


### Grounding

Every pool must be grounded independently (i.e. not to the electricity network). This in particular for fibreglass/polyester pools, pools with salt electrolysis and pools with stainless steel parts (pool ladders, UV-C units, etc.). A special grounding set ensures that potential differences created by static electricity, will be lead away. This will prevent depositing and/or oxidation to the pool, parts or technical equipment.

### Salt

For Stainless steel 316 devices (such as UV-C lamps) the **maximum salt concentration is 5 grams/liter** for salt electrolysis systems.



Independent grounding



### Corrosive water

The tap water that is used to (re)fill up the pools normally has a constant and known composition. By adding chemical products for disinfection, pH regulation and by heating and moving the water, this composition changes. Pool water might turn corrosive (calcium dissolving) and can slowly dissolve the existing lime (in concrete and in joints between the tiles). Metals (ladders, heaters, UV-C devices, etc.) can also be affected.

saturation index (LSI) is a calculated number used to predict the calcium carbonate stability of water. It indicates whether the water will precipitate, dissolve, or be in equilibrium with calcium carbonate. The LSI is expressed as the difference between the actual system pH and the saturation pH.

The formula is as follows:  $pH + TF + AF + CF - 12,1$

Reversely, the water can also have calcium precipitating characteristics that can turn the water cloudy and the walls and floors can be beset by lime scale deposits.

- pH The measured pH-value of the pool water
- TF The influence of the water temperature in the formula
- AF The influence of the alkalinity in the formula (measured as hydrogen carbonate  $HC03$  - or as calcium carbonate  $CaCO3$ )
- CF The influence of the hardness of calcium (measured as calcium carbonate)

To determine, whether the water is neutral, corrosive or calcium precipitating, you can use the so-called "Langelier Saturation Index". The Langelier

## Chart of factors

°C	TF	CAC03 MG/L	AF	CAC03 MG/L	CF
0	0,0	25	1,4	25	1,0
3	0,1	50	1,7	50	1,3
8	0,2	75	1,9	75	1,5
12	0,3	100	2,0	100	1,6
16	0,4	150	2,2	150	1,8
19	0,5	200	2,3	200	1,9
24,5	0,6	300	2,5	300	2,1
29	0,7	400	2,6	400	2,2
34,5	0,8	800	2,9	800	2,5
40,5	0,9	1000	3,0	1000	2,6

- According to this calculation, water in balance should be within the range of -0.3 en +0.3.
- Values below -0.3 indicate corrosive water.
- Values above +0.3 indicate lime precipitating water.

## Examples

PARAMETER	MEASURING VALUE	FACTOR
pH-value	7,4	7,4
Temperature	28	0,7
Total alkalinity	150mg/l CaCO <sub>3</sub>	2,2
Calcium hardness	150mg/l CaCO <sub>3</sub>	1,8
<b>Sum of factors</b>		<b>12,1</b>

$$\text{pH} + \text{TF} + \text{AF} + \text{CF} - 12,1$$

$$(7,4 + 0,7 + 2,2 + 1,8) - 12,1 = 0,0$$

Water is in balance, no correction necessary

## Examples

PARAMETER	MEASURING VALUE	FACTOR
pH-value	7,8	7,8
Temperature	29	0,7
Total alkalinity	195mg/l	2,3
Calcium hardness	127mg/l	1,7
<b>Sum of factors</b>		<b>12,5</b>

$$\text{pH} + \text{TF} + \text{AF} + \text{CF} - 12,1$$

$$(7,8 + 0,7 + 2,3 + 1,7) - 12,1 = 0,4$$

Water is lime precipitating, correction

## Examples

PARAMETER	MEASURING VALUE	FACTOR
pH-value	7,1	7,1
Temperature	30	0,7
Total alkalinity	100mg/l	2
Calcium hardness	150mg/l	1,8
<b>Sum of factors</b>		<b>11,6</b>

$$\text{pH} + \text{TF} + \text{AF} + \text{CF} - 12,1$$

$$(7,1 + 0,7 + 2 + 1,8) - 12,1 = -0,5$$

Water is corrosive, correction is necessary

### Correction in case of a too low saturation index

In case of a negative saturation index, below -0.3, a correction is recommended. The saturation index must be increased. This can be realised by increasing the sum of factors, by increasing one or more parameter values.

### The measuring values are

- pH-value up to max. 7,6
- Alkalinity up to max. 300 mg CaCO<sub>3</sub>/l
- Calcium hardness up to max. 200 mg CaCO<sub>3</sub>/l

### pH-value

An increase of the pH value with caustic soda or soda can be used as a short-time solution. For a good disinfection result a pH value between 7.1 and 7.3 is the best.

### Alkalinity

The increase of alkalinity can be achieved by increasing the hydrogen carbonate content of the water with the help of sodium bicarbonate. If a too low hydrogen carbonate content is the case, it might be caused by a low HCO<sub>3</sub> content or by regular loss of the carbonic acid compounds as consequence of water movement or air geysers, you should add a solution of sodium bicarbonate with a dosing system.

### Calcium Hardness

Tap water with a low hardness often lack carbonic acid compounds, besides low calcium- and magnesium compounds. As a result a negative saturation index might occur. The concentration of calcium compounds in the water can be increased by adding calcium chloride to the water.

### Correction of a too high saturation index

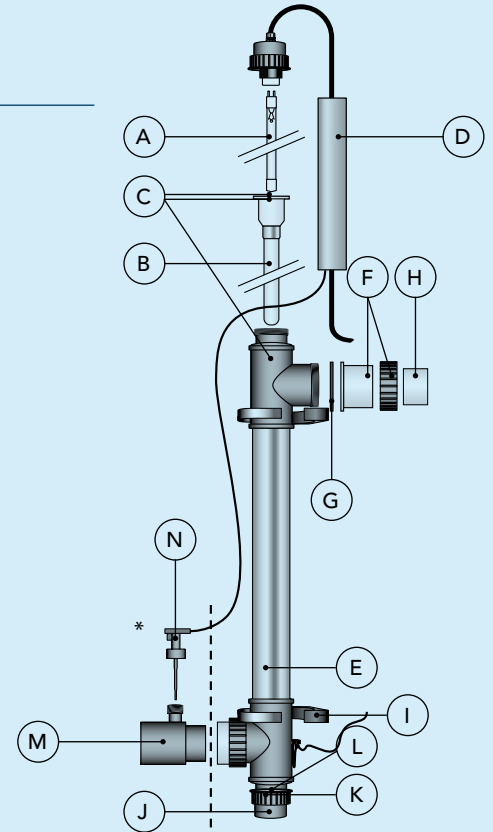
In case of a positive saturation content of more than +0.3, the saturation index has to be reduced to the value preferred. In contrast to the increase of the saturation factor, the possibility of reduction is more restricted. The reduction of the HCO<sub>3</sub> content is possible by intensive aeration in combination with an automatic pH-correction. The reduction of the calcium hardness is only possible through total or partial water softening with a water softener.

**In case of extreme low values for hydrogen carbonate there is a present danger that pH values sink under 5.0. In case of such a value, "chlorine" in the water will be partly available as chlorine gas. Chlorine gases in the water might lead to serious poisoning!**

Please refer to page 8 for the product information

## Blue Lagoon Tech UV-C

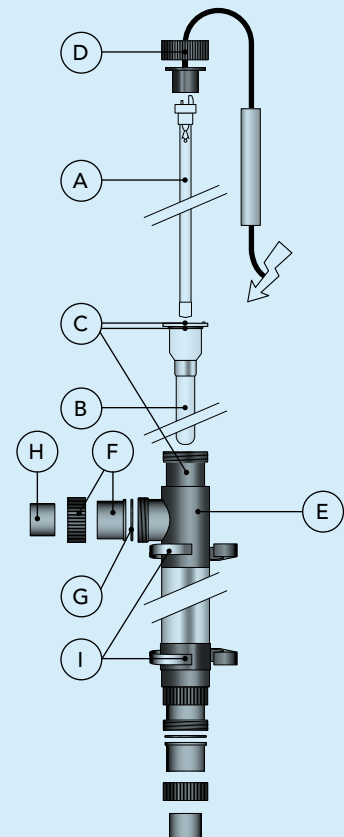
ART. NUMBER	DESCRIPTION
<b>BE02162</b>	<b>Tech UV-C 16 Watt</b>
<b>BE02402</b>	<b>Tech UV-C 40 Watt</b>
<b>BE02752</b>	<b>Tech UV-C 75 Watt</b>
<b>BE03132</b>	<b>Tech UV-C 130 Watt Amalgam*</b>
F980065	Lamp 16 Watt for Blue Lagoon Tech UV-C
F980002	Lamp 40 Watt for Blue Lagoon Tech UV-C
F980004	Lamp 75 Watt for Blue Lagoon Tech UV-C
E800904	Lamp 130 Watt Amalgam for Blue Lagoon Tech UV-C
QG018	Quartz glass sleeve 16 Watt Tech
QG015	Quartz glass sleeve Tech/Timer 40/75 Watt
QG012	Quartz glass sleeve Tech UV-C 130 Watt
E800912	O-Ring for Quartz sleeve (3 pieces)
EP040011	Electrics for Blue Lagoon Tech UV-C 16/40 watt
EP075014	Electrics for Blue Lagoon Tech UV-C 75 Watt
EP130009	Electrics for Blue Lagoon Tech UV-C 130 Watt + flow switch
B910000	Housing for Blue Lagoon Tech UV-C 16 Watt
B910002	Housing for Blue Lagoon Tech UV-C 40/75 Watt
B910003	Housing for Blue Lagoon Tech UV-C 130 Watt
B915000	3-Way connection 63mm (2 pieces)
E800944	3-Way connection size USA / UK (60,5 mm) (2 pieces)
E800941	O-Ring for 3-Way connection (2 pieces)
F990115	Reduction piece 1,5" female threaded x 63 out 50 in ABS
B290006	Installation grip 75 mm for Blue Lagoon Tech UV-C
F990010	End cap Blue Lagoon Tech UV-C 130 Watt Amalgam
F990009	End cap Blue Lagoon Tech 16/40/75 Watt
B290010	Nut for end cap Blue Lagoon Tech UV-C
3902110	O-ring EPDM 59,99 x 2,62 mm
B290020	Reduction piece 63/63 3/4" screw-thread for flow switch (only for 130W Amalgam *)
B290021	Reduction piece 60,3/60,3 3/4" screw-thread for flow switch (only for 130W Amalgam *)
B290018	Flow switch (only for 130W Amalgam *)



Please refer to page 9 for the product information

## Blue Lagoon Saltwater UV-C

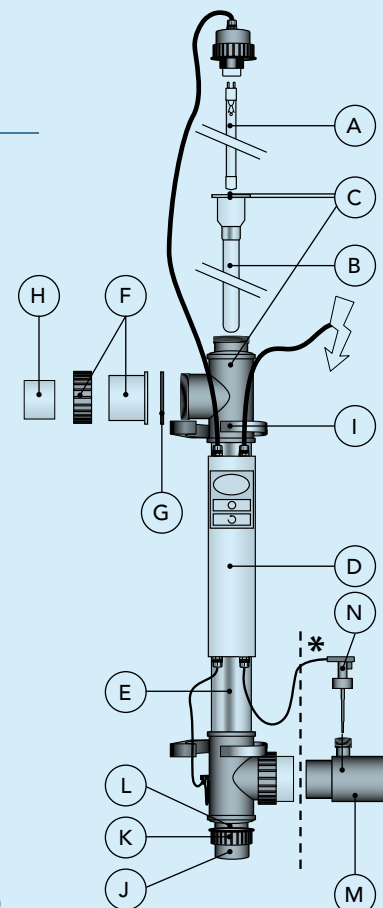
ART. NUMBER	DESCRIPTION
<b>BE06402</b>	<b>Saltwater UV-C 40 Watt</b>
<b>BE06752</b>	<b>Saltwater UV-C 75 Watt</b>
<b>BE07402</b>	<b>Saltwater UV-C Short 40 Watt</b>
B280006	Philips Smart Cap Lamp 40 Watt
B280005	A Philips Smart Cap Lamp 75 Watt
F980068	Lamp 40 Watt, length 365mm
QG020	B Quartz glass sleeve 933x25 mm 40/75 Watt
QG018	Quartz glass 400 x 25 mm 16/40 Watt
E800912	C O-Ring for Quartz sleeve (3 pieces)
EP040019	Electrics for Saltwater UV-C 40 Watt
EP075015	D Electrics for Saltwater UV-C 75 Watt
EP040021	Electrics for Saltwater 40 Watt Short
B910002ZW	E Housing for Saltwater 40/75 Watt
B910004ZW	Housing for Blue Lagoon Salt Water 40 Watt Short
B915000	F 3-Way connection 63mm (2 pieces)
E800941	G O-Ring for 3-Way connection (2 pieces)
F990115	H Reduction piece 1,5" female threaded x 63 out 50 in ABS
B290006	I Installation grip 75 mm for Blue Lagoon Saltwater UV-C



Please refer to page 10 for the product information

## Blue Lagoon Signal UV-C

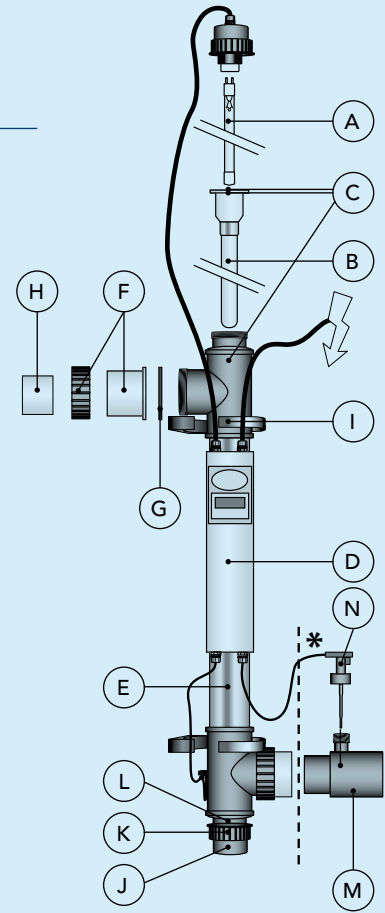
ART. NUMBER	DESCRIPTION
<b>BH11402</b>	<b>Signal UV-C 40 Watt</b>
<b>BH11752</b>	<b>Signal UV-C 75 Watt</b>
<b>BH11132</b>	<b>Signal UV-C 130 Watt Amalgam*</b>
F980002	Lamp VGE T5 40W 4P Base F
F980004	A Lamp VGE T5 75W 4P Base F
F980008	Lamp LightTech T6 130W Amalgam 4P Special Base M AM
QG015	B Quartz glass sleeve Signal UV-C 40/75 Watt
QG012	Quartz glass sleeve Signal UV-C Amalgam 130 Watt
E800912	C O-Ring for quartz sleeve (3 pieces)
EP040035	Electrics for Blue Lagoon Signal UV-C 40 Watt
EP075039	D Electrics for Blue Lagoon Signal UV-C 75 Watt
EP130014	Electrics for Blue Lagoon Signal UV-C 130 Watt with flow switch
B212003	E Housing for Blue Lagoon Signal UV-C 40/75 Watt
B910003	Housing for Blue Lagoon Signal UV-C Amalgam 130 Watt
B915000	F 3-Way connection 63mm (2 pieces)
E800944	G 3-Way connection size USA / UK (60,5 mm) (2 pieces)
E800941	O-Ring for 3-way connection (2 pieces)
F990115	H Reduction piece 1,5" female threaded x 63 out 50 in ABS
B290006	I Installation grip 75 mm for Blue Lagoon Signal UV-C
F990009	J End cap 40/75 Watt
F990010	End cap amalgam 130 Watt
B290010	K Nut for end cap Blue Lagoon Signal UV-C
3902110	L O-ring for end cap Blue Lagoon Signal UV-C
B290020	Reduction piece 63/63 3/4" screw-thread for flow switch (only for 130 Watt Amalgam *)
B290021	Reduction piece 60,3/60,3 3/4" screw-thread for flow switch (only for 130 Watt Amalgam *)
B290018	N Flow switch (only for 130 Watt Amalgam *)



Please refer to page 11 for the product information

## Blue Lagoon **Timer UV-C**

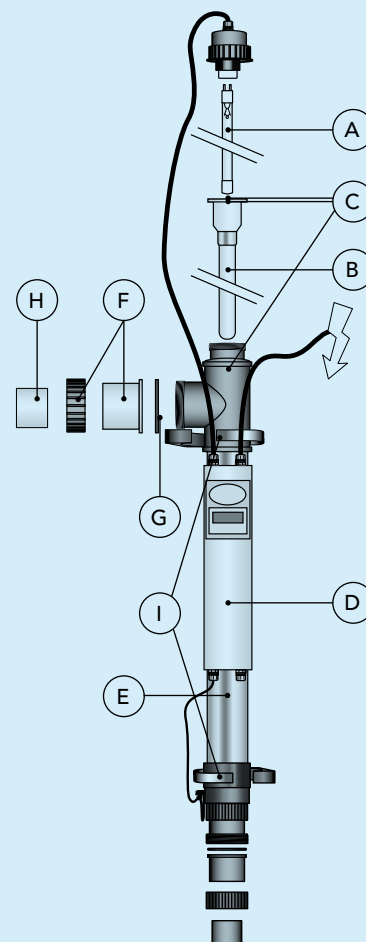
ART. NUMBER	DESCRIPTION
<b>BH01402</b>	<b>Timer UV-C 40 Watt</b>
<b>BH01752</b>	<b>Timer UV-C 75 Watt</b>
<b>BH01132</b>	<b>Timer UV-C 130 Watt Amalgam*</b>
E800901P	Lamp TUV 36T5 4P-SE (40 Watt)
E800902P	<b>A</b> Lamp TUV 36T5 HO 4P-SE (75 Watt)
E800904	Lamp TUV 130 Watt 4P-SE Amalgam
QG015	<b>B</b> Quartz glass sleeve Timer 40/75 Watt
QG012	Quartz glass sleeve Timer UV-C Amalgam 130 Watt
E800912	<b>C</b> O-Ring for quartz sleeve (3 pieces)
EP040004	Electrics for Blue Lagoon Timer UV-C 40 Watt
EP075006	<b>D</b> Electrics for Blue Lagoon Timer UV-C 75 Watt
EP130006	Electrics for BL Timer UV-C 130 Watt with flow switch
B212003	<b>E</b> Housing for Blue Lagoon Timer UV-C 40/75 Watt
B910003	Housing for Blue Lagoon Timer UV-C Amalgam 130 Watt
B915000	<b>F</b> 3-Way connection 63mm (2 pieces)
E800944	3-Way connection size USA / UK (60,5 mm) (2 pieces)
E800941	<b>G</b> O-Ring for 3-way connection (2 pieces)
F990115	<b>H</b> Reduction piece 1,5" female threaded x 63 out 50 in ABS
B290006	<b>I</b> Installation grip 75 mm for Blue Lagoon Timer UV-C
F990009	<b>J</b> End cap 40/75 Watt
F990010	End cap amalgam 130 Watt
B290010	<b>K</b> Nut for end cap Blue Lagoon Timer UV-C
3902110	<b>L</b> O-ring for end cap Blue Lagoon Timer UV-C
B290020	Reduction piece 63/63 3/4" screw-thread for flow switch (only for 130 Watt Amalgam *)
B290021	Reduction piece 60,3/60,3 3/4" screw-thread for flow switch (only for 130 Watt Amalgam *)
B290018	<b>N</b> Flow switch (only for 130 Watt Amalgam *)



Please refer to page 12 for the product information

## Blue Lagoon Saltwater Timer UV-C

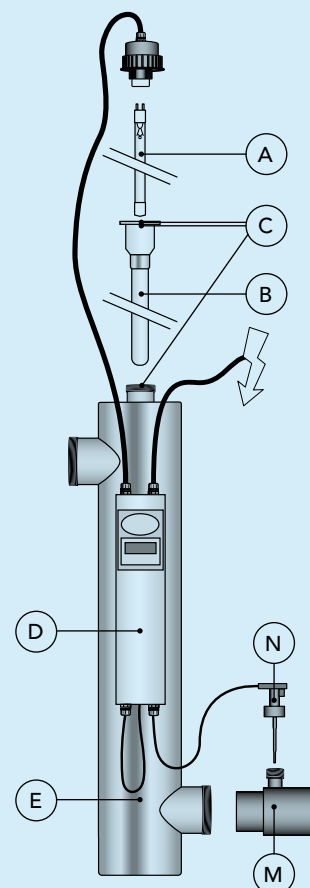
ART. NUMBER	DESCRIPTION
<b>BH10402</b>	<b>Saltwater Timer UV-C 40 Watt</b>
<b>BH10752</b>	<b>Saltwater Timer UV-C 75 Watt</b>
E800901P	Lamp TUV 36T5 4P-SE (40 Watt)
E800902P	Lamp TUV 36T5 HO 4P-SE (75 Watt)
QG015	Quartz glass sleeve Saltwater Timer 40/75 Watt
E800912	O-Ring for quartz sleeve (3 pieces)
EP040008	Electrics for Blue Lagoon Saltwater Timer UV-C 40 Watt
EP075016	Electrics for Blue Lagoon Saltwater Timer UV-C 75 Watt
B910003ZW	Housing for Blue Lagoon Saltwater Timer UV-C 40/75 Watt
B915000	3-Way connection 63mm (2 pieces)
E800944	3-Way connection size USA / UK (60,5 mm) (2 pieces)
E800941	O-Ring for 3-way connection (2 pieces)
F990115	Reduction piece 1,5" female threaded x 63 out 50 in ABS
B290006	Installation grip 75 mm for Blue Lagoon Saltwater Timer UV-C



Please refer to page 14 for the product information

## Blue Lagoon Inox UV-C

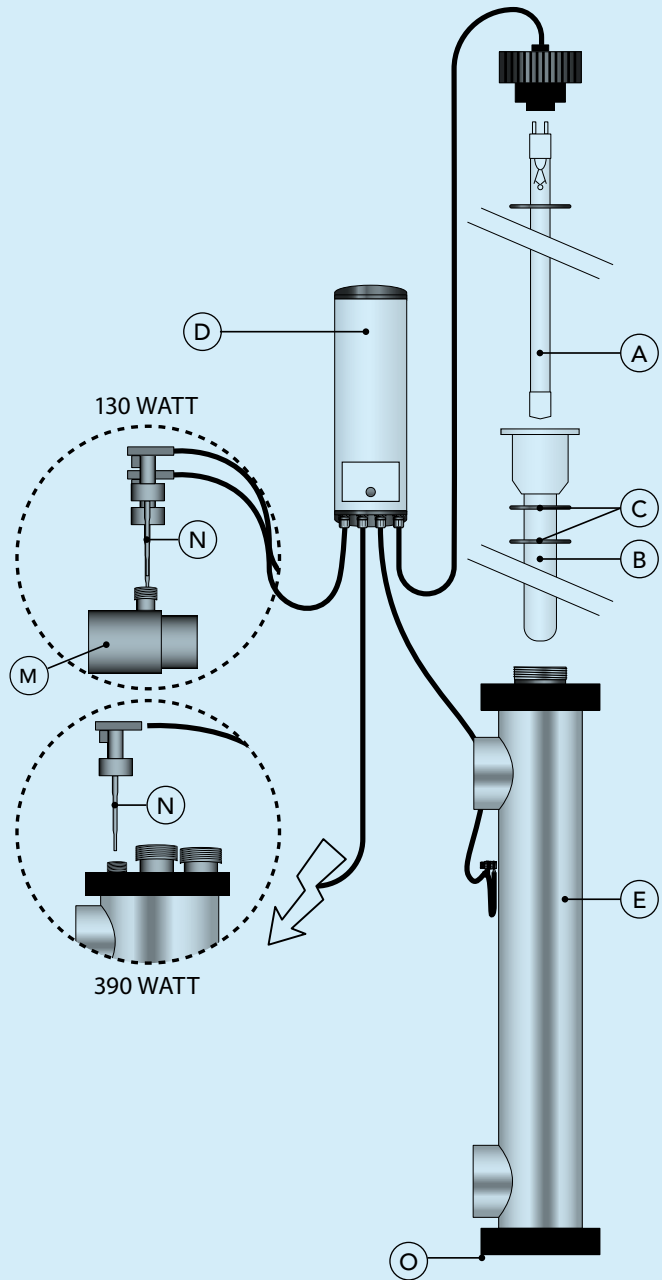
ART. NUMBER	DESCRIPTION
<b>BP02752</b>	<b>Inox UV-C 75 Watt</b>
<b>BP02132</b>	<b>Inox UV-C 130 Watt Amalgam</b>
E800902P	Lamp TUV 36T5 HO 4P-SE (75 Watt)
E800904	Lamp TUV 130 Watt 4P-SE Amalgam
QG015	Quartz glass sleeve Inox UV-C 75 Watt
QG012	Quartz glass sleeve Inox UV-C 130 Watt
E800912	O-Ring for quartz sleeve (3 pieces)
EP075010.1	Electrics for Blue Lagoon Inox 75 Watt incl. flow switch
EP130007	Electrics for Blue Lagoon Inox 130 Watt incl. flow switch
B212002	Housing for Blue Lagoon Inox
B290020	Reduction piece 63/63 3/4" screw-thread for flow switch
B290021	Reduction piece 60,3/60,3 3/4" screw-thread for flow switch
B290018	Flow switch



Please refer to page 15 for the product information

## Blue Lagoon **Buster UV-C**

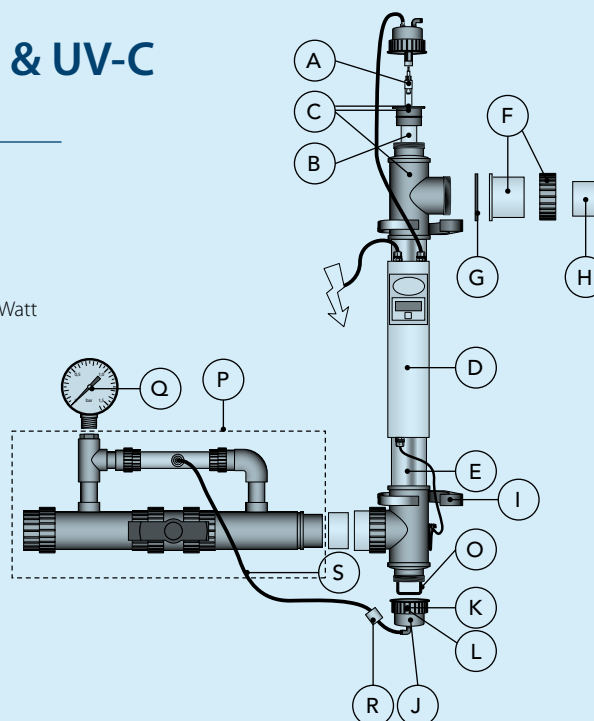
ART. NUMBER	DESCRIPTION
<b>BP07132</b>	<b>Buster UV-C 130W Amalgam</b>
<b>BP07392</b>	<b>Buster UV-C 390W Amalgam</b>
F980008	<b>A</b> Lamp LightTech T6 130W Amalgam 4P Special Base M AM
QG075	<b>B</b> Quartz glass VSC 855x31 mm AM
E800912	<b>C</b> O-Ring for quartz sleeve (3 pieces)
EP130016	<b>D</b> Electrics for Blue Lagoon Buster 130W incl. flow switch
EP390005	<b>D</b> Electrics for Blue Lagoon Buster 390W incl. flow switch
B212089	<b>E</b> Housing for Blue Lagoon Buster 130W
B212090	<b>E</b> Housing for Blue Lagoon Buster 390W
B290020	<b>M</b> Reduction piece 63/63 3/4" screw-thread for flow switch
B290021	<b>M</b> Reduction piece 60,3/60,3 3/4" screw-thread for flow switch
B290018	<b>N</b> Flow switch
E801533	<b>O</b> Adjustable foot



Please refer to page 16 - 17 for the product information

## Blue Lagoon **AOP Compact Ozone & UV-C**

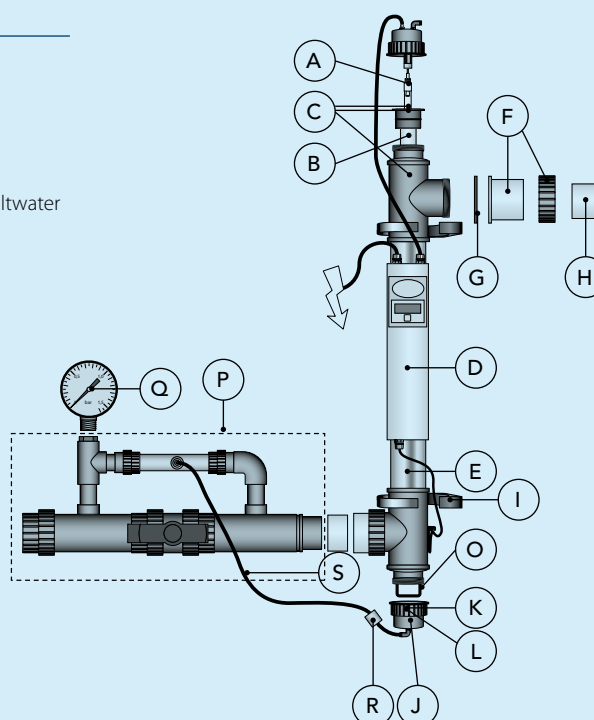
ART. NUMBER	DESCRIPTION
<b>BH03752</b>	<b>AOP Compact Ozone &amp; UV-C 75 Watt</b>
4800033	<b>A</b> AOP Compact Ozone & UV-C lamp 75 Watt
QG025	<b>B</b> Quartz glass sleeve Blue Lagoon AOP Compact Ozone & UV-C 75 Watt
E800912	<b>C</b> O-Ring for quartz sleeve (3 pieces)
EP075008	<b>D</b> Electrics for Blue Lagoon AOP Compact Ozone & UV-C 75 Watt
B220011	<b>E</b> Housing for Blue Lagoon AOP Compact Ozone & UV-C 75 Watt
B915000	<b>F</b> 3-Way connection 63mm (2 pieces)
E800944	<b>F</b> 3-Way connection size USA / UK (60,5 mm) (2 pieces)
E800941	<b>G</b> O-Ring for 3-Way connection (2 pieces)
F990115	<b>H</b> Reduction piece 1,5" female threaded x 63 out 50 in ABS
B290006	<b>I</b> Installation grip 75 mm for Blue Lagoon AOP Compact Ozone & UV-C
F990103	<b>J</b> End cap ozone with 1 air plug
B290010	<b>K</b> Nut 70 mm x 33,5 mm
3902095	<b>L</b> O-ring Viton 60 x 3 mm
4800116	<b>O</b> Handgrip complete for Ozone
4800068	<b>P</b> Venturi unit (excl. Manometer)
4800057	<b>Q</b> Manometer
4800015	<b>R</b> Check valve
4800020	<b>S</b> PE hose black for ozone

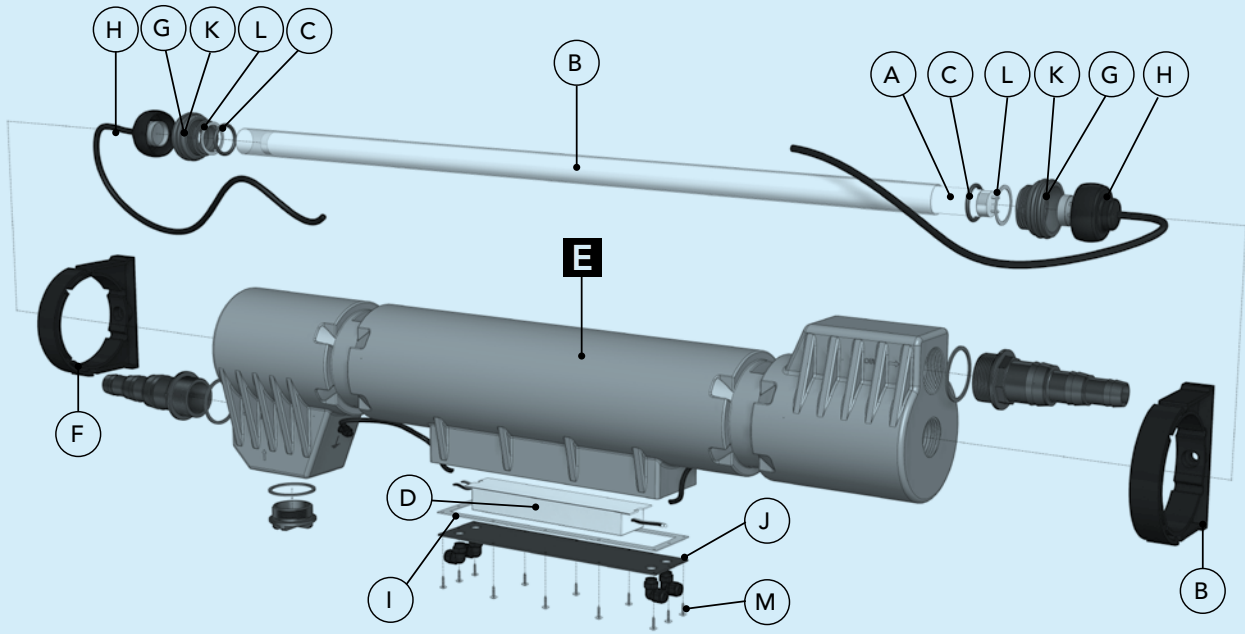


Please refer to page 18 for the product information

## Blue Lagoon **AOP Compact Ozone & UV-C Saltwater**

ART. NUMBER	DESCRIPTION
<b>BH09752</b>	<b>AOP Compact Ozone &amp; UV-C Saltwater 75 Watt</b>
4800033	<b>A</b> AOP Compact Ozone & UV-C Saltwater lamp 75 Watt
QG025	<b>B</b> Quartz glass sleeve Blue Lagoon AOP Compact Ozone & UV-C Saltwater 75 Watt
E800912	<b>C</b> O-Ring for quartz sleeve (3 pieces)
EP075008	<b>D</b> Electrics for Blue Lagoon AOP Compact Ozone & UV-C Saltwater 75 Watt
B220011ZW	<b>E</b> Housing for Blue Lagoon AOP Compact Ozone & UV-C Saltwater 75 Watt
B915000	<b>F</b> 3-Way connection 63mm (2 pieces)
E800944	<b>F</b> 3-Way connection size USA / UK (60,5 mm) (2 pieces)
E800941	<b>G</b> O-Ring for 3-Way connection (2 pieces)
F990115	<b>H</b> Reduction piece 1,5" female threaded x 63 out 50 in ABS
B290006	<b>I</b> Installation grip 75 mm for Blue Lagoon AOP Compact Ozone & UV-C Saltwater
F990103	<b>J</b> End cap ozone with 1 air plug
B290010	<b>K</b> Nut 70 mm x 33,5 mm
3902095	<b>L</b> O-ring Viton 60 x 3 mm
4800116	<b>O</b> Handgrip complete for Ozone
4800068	<b>P</b> Venturi unit (excl. Manometer)
4800057	<b>Q</b> Manometer
4800015	<b>R</b> Check valve
4800020	<b>S</b> PE hose black for ozone





Please refer to page 13 for the product information

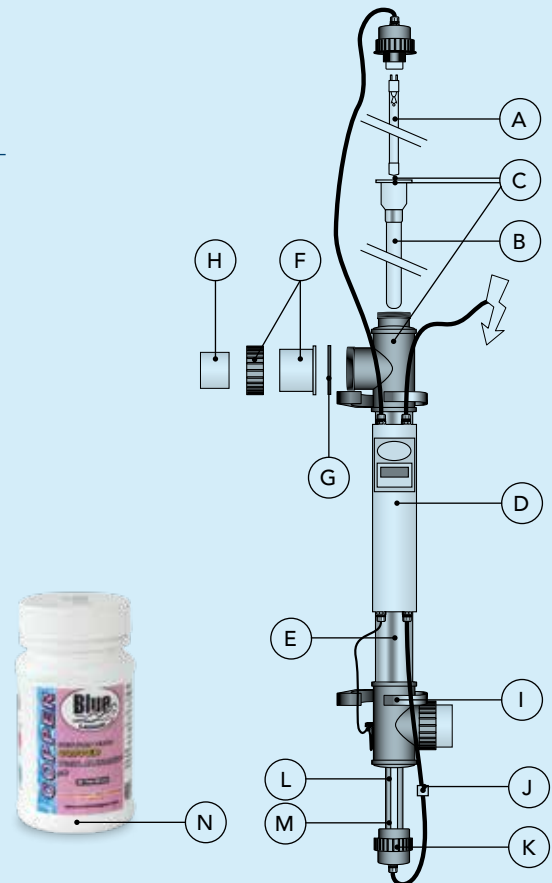
## Blue Lagoon Xpose UV-C

ART. NUMBER.	DESCRIPTION
<b>BE09302</b>	<b>Blue Lagoon Xpose UV-C 30 Watt</b>
<b>BE09552</b>	<b>Blue Lagoon Xpose UV-C 55 Watt</b>
3903071	A Lamp TL 30 Watt T8 Base I
3903072	A Lamp TL 55 Watt T8 Base I
3903012	B Quartz Glass TL 871 x 30 mm AM
3902130	C O-ring 30x4 NBR
EP055005	J/D/H Electrics for TL30/55W Blue Lagoon
3903680	E Housing TL 30/55 Watt PE
E801146	F Mounting bracket 110 mm black
E801523	G O-Ring NBR 45x3
3901107	I Gasket for electrical part TL 30/55
3901008	K Nut QG TL PA Black
3902115	L Ring RX Epramid 6 white 37,5 x 30,5 x 1
3901075	M Screw for lid black electric

Please refer to page 19 for the product information

## Blue Lagoon **Copper Ionizer UV-C**

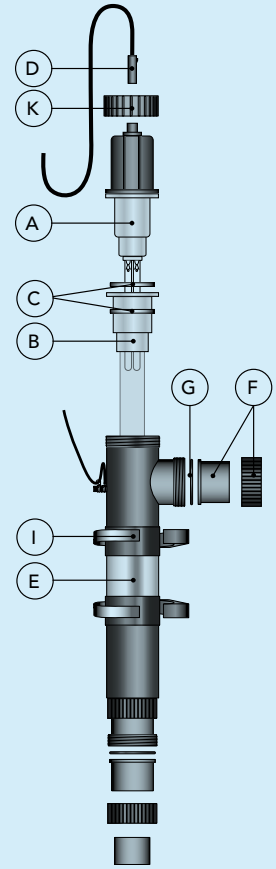
ART. NUMBER	DESCRIPTION
<b>BH04402</b>	<b>Copper Ionizer UV-C 40 Watt</b>
<b>BH04752</b>	<b>Copper Ionizer UV-C 75 Watt</b>
B280002	<b>A</b> Lamp voor Blue Lagoon Copper Ionizer UV-C 40 Watt
B280001	<b>A</b> Lamp voor Blue Lagoon Copper Ionizer UV-C 75 Watt
QG017	<b>B</b> Quartz glass sleeve Blue Lagoon Copper Ionizer UV-C 40/75 Watt
E800912	<b>C</b> O-Ring for Quartz sleeve (3 pieces)
EP040007	<b>D</b> Electrics for Blue Lagoon Copper Ionizer UV-C 40 Watt
EP075011	<b>D</b> Electrics for Blue Lagoon Copper Ionizer UV-C 75 Watt
B220002	<b>E</b> Housing for Blue Lagoon Copper Ionizer UV-C 40/75 Watt
B915000	<b>F</b> 3-Way connection 63mm (2 pieces)
E800944	<b>F</b> 3-Way connection size USA / UK (60,5 mm) (2 pieces)
E800941	<b>G</b> O-Ring for 3-Way connection (2 pieces)
F990115	<b>H</b> Reduction piece 1,5" female threaded x 63 out 50 in ABS
B290006	<b>I</b> Installation grip 75mm for Blue Lagoon Copper Ionizer UV-C
E801215	<b>J</b> Wire connector
B290010	<b>K</b> Nut 70mm x 33,5mm
B290029	<b>L</b> Copper for Blue Lagoon Copper Ionizer UV-C
B200012	<b>M</b> Replacement set: copper, Blue Lagoon lamp 40 Watt & test strips
B200013	<b>M</b> Replacement set: copper, Blue Lagoon lamp 75 Watt & test strips
B200020	<b>N</b> Test strips voor Blue Lagoon Copper Ionizer UV-C



Please refer to page 20 for the product information

## Blue Lagoon Tech Spa UV-C

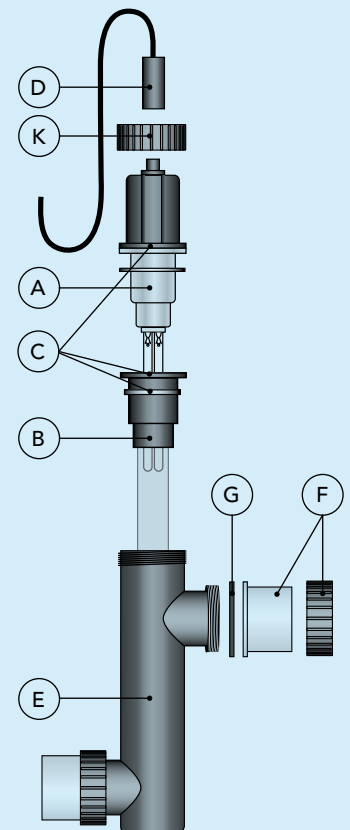
ART. NUMBER	DESCRIPTION
<b>BE21122</b>	<b>Blue Lagoon Tech Spa UV-C 12 Watt 230V</b>
<b>BE21121</b>	<b>Blue Lagoon Tech Spa UV-C 15 Watt 120V</b>
B212012	<b>A</b> PL-S Module 12W Spa UV-C Philips
B212012 USA	<b>A</b> PL-S Module 15W Spa UV-C Philips
QG038	<b>B</b> Quartz sleeve 277 x 40 mm 11W
3902041	<b>C</b> O-Ring 56x3 UV-C housing/glass
E801205	<b>D</b> Cable 230V
B910001	<b>E</b> Housing for Blue Lagoon Tech Spa UV-C
B915000	<b>F</b> 3-way connection 63mm
E800944	<b>F</b> 3-way connection 2" USA/UK
E801507	<b>G</b> O-ring for 3-way connection
B290010	<b>K</b> Nut 70 mm x 33,5mm blue
B290006	<b>I</b> Installation Grip 75mm



Please refer to page 21 for the product information

## Blue Lagoon Spa UV-C

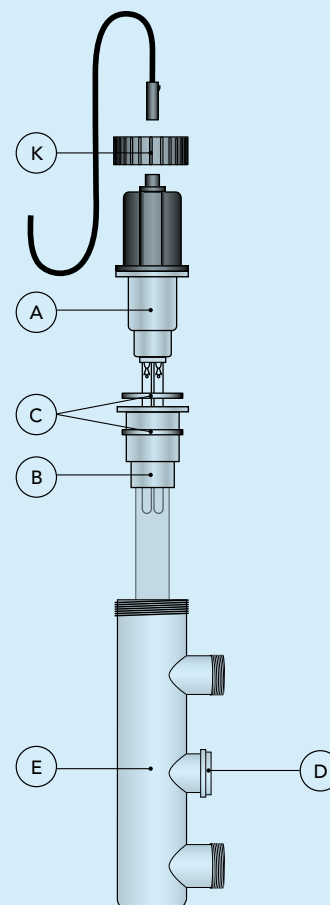
ART. NUMBER	DESCRIPTION
<b>BE01122</b>	<b>Spa UV-C 12 Watt 230V</b>
<b>BE01151</b>	<b>Spa UV-C 15 Watt 120V</b>
B212012	<b>A</b> Lamp PLS module 12 Watt
B212012USA	<b>A</b> Lamp PLS module 15 Watt
QG026	<b>B</b> Quartz glass sleeve UV-C 11/12/15 Watt
E800912	<b>C</b> O-Ring for Quartz sleeve (3 pieces)
E801205	<b>D</b> Cable 230V
B212013	<b>E</b> Housing for Blue Lagoon Spa UV-C PLS Module
B212014	<b>F</b> 3-Way connection 50mm (2 pieces)
B212015	<b>F</b> 3-Way connection 48mm (2 pieces)
E801509	<b>G</b> O-Ring for 3-Way connection (2 pieces)
3901045	<b>K</b> Nut 70mm x 33,5mm black



Please refer to page 22 for the product information

## Blue Lagoon Spa Inox UV-C

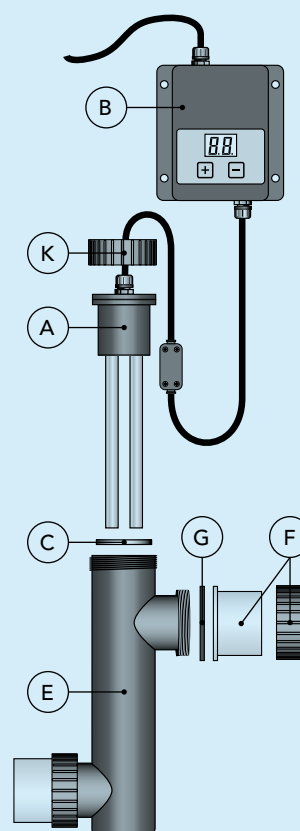
ART. NUMBER	DESCRIPTION
<b>BH07122</b>	<b>Blue Lagoon Spa UV-C Inox 12 Watt 230V</b>
<b>BH07151</b>	<b>Blue Lagoon Spa UV-C Inox 15 Watt 120V</b>
B212012	A Lamp PLS module 12 Watt
B212012 USA	A Lamp PLS module 15 Watt
QG038	B Quartz glass sleeve Spa Inox
3902109	C O-Ring
F990148N	D Plug 1/2" transparent
B212041	E Housing for Blue Lagoon Spa Inox
3901045	K Nut 70mm x 33.5mm black



Please refer to page 35 for the product information

## Blue Lagoon Copper Electrolyzer

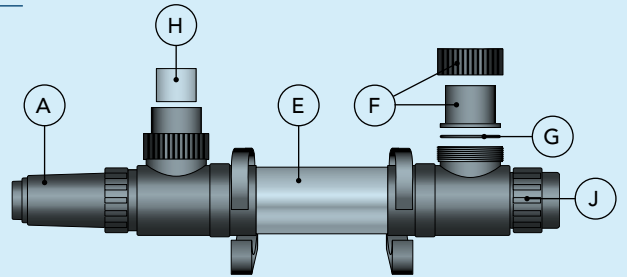
ART. NUMBER	DESCRIPTION
<b>BE05752</b>	<b>Copper Electrolyzer</b>
B290029	A Copper unit for Blue Lagoon Copper Electrolyzer
B290076	B Control Box for Blue Lagoon Copper Electrolyzer
3902041	C O-Ring 56x3 mm Housing-Glass
B212013	E Housing for Blue Lagoon Copper Electrolyzer
B212014	F 3-Way connection 50mm (2 pieces)
B212015	F 3-Way connection 48mm (2 pieces)
E801509	G O-Ring for 3-Way connection (2 pieces)
B290010	K Nut for end cap Blue Lagoon 70mm x 33,5mm
B200020	N Test strips for Blue Lagoon Copper Electrolyzer



Please refer to page 38 for the product information

## ProfiHeater 3kW

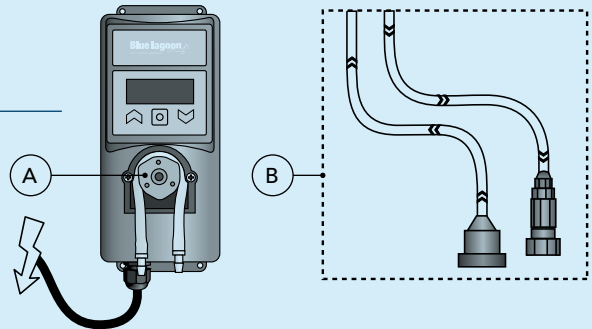
ART. NUMBER	DESCRIPTION
<b>E830010</b>	<b>ProfiHeater 3Kw</b>
6900393	<b>A</b> Heater element for ProfiHeater 3kW
E830011	<b>E</b> Housing for ProfiHeater 3kW
E800940	<b>F</b> 3-Way connection ProfiHeater
E800941	<b>G</b> O-Ring for 3-Way connection (2 pieces)
F990115	<b>H</b> Reduction piece 1,5" female threaded x 63 out 50 in ABS
F990010	<b>J</b> End cap
7201142	- Reduce set 63 mm > 50mm glue / screw + hose adapter 40-32-25 mm (2pcs)



Please refer to page 40 for the product information

## Blue Lagoon Dosatech

ART. NUMBER	DESCRIPTION
<b>B210010N</b>	<b>Dosatech</b>
B290065	<b>A</b> Pump head
B200023	<b>B</b> Dosing pump replacement set



VGE International B.V., domiciled at Ekkersrijt 4304 in Son, the Netherlands  
General conditions of supply and payment

## GENERAL TERMS AND CONDITIONS OF SALE VGE International B.V.

### 1. Orders

- 1.1 VGE International B.V. ("VGE") is allowed to accept and reject orders of Buyer at its sole discretion. An agreement will be deemed to have been concluded after VGE has confirmed an order placed by the Buyer, or has commenced the execution of that order.
- 1.2 All offers of VGE are valid for a maximum of 30 calendar days.
- 1.3 In the event that an agreement is concluded by e-mail, an agreement may be concluded without VGE having to fulfill any conditions provided by law pertaining to electronic communication and/or electronic conclusion of agreements.
- 1.4 The Buyer will be entitled to cancel an order only after receiving written consent from VGE, which consent may be made subject to conditions as deemed appropriate by VGE.

### 2. Delivery

- 2.1 Unless otherwise agreed in writing, the goods will be delivered Ex Works, Incoterms 2010 or, if any, a more recent version of the Incoterms. The Buyer will be obliged to take delivery of the goods upon VGE's request.
- 2.2 Any delivery times quoted or agreed on by VGE may not be considered to be firm deadlines, unless explicitly agreed otherwise in writing between the parties. In the event of late delivery, VGE must be declared to be in default in writing, in which connection VGE will be granted a reasonable term of at least 14 calendar days as of the date of the receipt of notification to fulfill its obligations. In the event that such extended term is exceeded, the Buyer will be entitled to dissolve the agreement or part of the agreement only with respect to the goods not delivered. In such an event, VGE will not be liable to pay damages, unless such damages are the consequence of gross negligence or willful misconduct of VGE's executive management.
- 2.3 VGE is entitled to deliver and invoice the goods in installments, unless the goods in question do not have any stand-alone value in VGE's opinion.
- 2.4 If at the request of Buyer VGE holds a specified stock of goods that the Buyer can order on demand, the Buyer will order such goods within 6 months from the date of the Buyer's request to keep such goods in stock. If the Buyer fails to do so, he will nevertheless be liable to pay the purchase price. Unless agreed otherwise the delivery time for goods that are available on demand is 15 working days from the day of the order.
- 2.5 The Buyer is obliged to accept delivery of the goods upon VGE's request. If Buyer fails to accept delivery, the Buyer will be liable for all costs and damages resulting therefrom, including but not limited to the costs of storing and re-delivering the goods.
- 2.6 VGE will be entitled to charge the costs of any packaging separately. The packaging will not be taken back. Should VGE, however, be obliged by law or any regulations to take packaging back, any costs related to taking back or processing packaging will be borne by the Buyer.

### 3. Price and Payment

- 3.1 Unless explicitly agreed otherwise in writing, all prices are quoted exclusive of VAT, transport and insurance costs and all other costs. A quoted or agreed price is valid for one order only, unless the parties have explicitly agreed otherwise in writing.
- 3.2 VGE will be entitled to adjust prices agreed upon before delivery in the event of increases in cost-determining factors such as fluctuations in exchange rates, raw materials, labor costs or in the event of government measures, provided that such increases or measures occurred after the conclusion of the agreement but before delivery.
- 3.3 Unless explicitly agreed otherwise in writing, the Buyer will pay the entire purchase price in advance upon placement of an order, in euros and by transfer to or deposit into an account indicated by VGE, without any deduction, discount or set-off. Submission of a complaint will not suspend the Buyer's obligation to pay.
- 3.4 If the Buyer fails to timely make a payment in accordance with article 3.3, the Buyer will be in default and all claims of VGE will become fully due and payable immediately, without prejudice to any other rights that VGE may have by under these terms and conditions or the law.
- 3.5 If at any time VGE International B.V. has doubts as to the Buyer's creditworthiness, VGE International B.V. will have the right, before commencing or continuing its obligations, to require the Buyer to provide adequate security in the amount of the sums which are or will be owed to VGE International B.V. by the Buyer, whether or not immediately payable, under the agreement, all at VGE International B.V.'s discretion.
- 3.6 In the event of untimely payment, VGE will be entitled to compensation of all extra-judicial costs, including but not limited to costs involved in sending reminders, one or more notices of default or demand notices, which extra-judicial costs will amount to at least 15% of the total amount payable, subject to a minimum of EUR 500, without prejudice to any other rights that VGE may have by virtue of these terms and conditions or the law.
- 3.7 In the event that VGE is fully or largely successful in legal proceedings against the Buyer, the Buyer will be obliged to compensate all costs incurred by VGE in connection with such proceedings, even to the extent that such costs exceed the cost award made by the court. VGE may invoke this clause irrespective of whether the Buyer has appealed against the relevant judgment at the court of appeal or the Supreme Court.

### 4. Retention of title

- 4.1 VGE will retain title to all goods delivered and to be delivered to the Buyer until full payment of all purchase amounts has been received, as well as any amounts owed by the Buyer pertaining to work performed by VGE in connection with such purchase agreements and any claims pursuant to any failure in the performance of such agreements on the part of the Buyer.
- 4.2 The Buyer will be obliged to store the goods delivered under retention of title with due care, ensuring that they are recognizable as the property of VGE. In addition, it will be obliged to insure such goods against, inter alia, fire and water damage and theft. The Buyer will pledge to VGE any claims it has pursuant to such insurance policies upon VGE's first request, as additional security with respect to VGE's claims against the Buyer.
- 4.3 In the event that the Buyer fails in the performance of any obligation vis-à-vis VGE, or in the event that VGE has good reason to fear that the Buyer will fail in the performance of its obligations, VGE will be entitled to recover the goods delivered under retention of title or to have such recovered, even when the goods have to be detached. The Buyer will cooperate accordingly. The Buyer will bear the costs of recovery, without prejudice to VGE's right to further damages.

### 5. Characteristics of Goods

- 5.1 The goods will comply with any specifications explicitly agreed upon in writing and be free from defects in material and workmanship under normal use consistent with VGE's instructions for a period of 12 months from delivery to the Buyer.
- 5.2 Any and all images and specifications of goods in catalogues, price lists, advertisements, etc. and any samples of the goods must be deemed to be representations by approximation only, unless VGE has explicitly indicated the contrary in writing with regard to a specific delivery.
- 5.3 If the goods are intended to be used in a country outside the Netherlands, VGE is not responsible to ensure that the goods comply within any laws and other requirements applicable in such other

country, unless the parties have (i) explicitly agreed otherwise in writing and (ii) the Buyer has correctly informed VGE on the exact content of such requirements.

- 5.4 VGE is at all times entitled to effect adjustments in the goods to be delivered, in order to improve them or comply with government regulations.
- 5.5 VGE has no obligation and Buyer shall have no rights in relation to any characteristics and/or performance of the goods other than the characteristics and the performance that are applicable or agreed pursuant to this article 5.

### 6. Complaints and Inspection

- 6.1 The goods delivered must be checked by or for the Buyer upon delivery with respect to numbers and visible defects and any shortages or visible defects must be reported to VGE within 3 working days after delivery. The Buyer must report defects not visible upon delivery within 3 working days of their discovery, though in any event within 3 working days after the time that the Buyer should reasonably have discovered them.
- 6.2 The Buyer will be obliged to perform the inspection or to have the inspection performed with due care, upon receipt of the goods. The Buyer will bear the risk for inspecting the goods by means of random checks and may not rely on the fact that it did not observe a defect that was visible and could have been discovered upon delivery because it—or a third party engaged by it—did not inspect the entire shipment.
- 6.3 In the event that a good does not comply with article 5 of these conditions, VGE will only be obliged—to be decided at the VGE's discretion—to repair the defect, to replace the relevant good or to credit or refund the amount charged in connection with the defective good in whole or in part, according to its own reasonable judgment and to the exclusion of any other rights of the Buyer by law.
- 6.4 The Buyer will not be entitled to any claim if the non-compliance with article 5 cannot be attributed to VGE, e.g. results from any transport, incorrect operation, installation, storage or maintenance by the Buyer or a third party.
- 6.5 Any and all claims for payment of an amount of money and/or repair of the relevant good and/or replacement of the good and/or supply of any missing part, on whatever basis, as well as any right to dissolve the agreement will lapse at the earliest of the following times: a) upon late reporting pursuant to article 6.1 or b) 12 months after the delivery date.

### 7. Liability

- 7.1 Without prejudice to article 2.2, any liability on the part of VGE on the basis of an attributable failure with respect an agreement concluded with the Buyer will be restricted to the provisions laid down in article 6.3.
- 7.2 VGE will assume no liability with respect to damage as a consequence of or related to any errors or omissions in advice rendered by it, nor will it assume any liability with respect to damage as a consequence of or related to errors or omissions in the processing instructions recommended by it.
- 7.3 Without prejudice to article 7.1, VGE will not—irrespective of the legal basis of the Buyer's claim—be liable for any consequential damages, including but not limited to losses due to delays or loss of data, lost profits and penalties forfeited by the Buyer.
- 7.4 The above-mentioned restrictions with respect to liability will not apply in the event that the damage is the consequence of gross negligence or willful misconduct on the part of VGE's executive management.
- 7.5 The Buyer will indemnify VGE against any damage resulting from claims by third parties in connection with goods supplied by VGE.

### 8. Force majeure

- 8.1 If VGE fails in the performance of its obligations due to an event of force majeure, it will not be liable. To the extent that the circumstance making performance impossible is not of a permanent nature, VGE's obligations will be suspended. In the event that the period during which performance is not possible due to force majeure exceeds 2 months or is expected to exceed 2 months, both parties will be entitled to cancel the agreement, without any obligation to pay the damages that may arise as a result.
- 8.2 In the event that VGE has already partially fulfilled its obligations upon the occurrence of the situation of force majeure, or is only able to fulfill its obligations in part, it will be entitled to separately invoice the part already supplied or the part that can still be supplied and the Buyer will be obliged to pay that invoice as if it pertained to a separate agreement.
- 8.3 A situation of force majeure affecting VGE within the meaning of this article will be deemed to have occurred in the event of, inter alia, strikes, a shortage of raw materials, delay, transport problems, war or threat of war, full or partial mobilization, riots, sabotage, floods, fire or other forms of destruction within VGE's company, lockouts and industrial actions, breakdowns of machines or tools or other breakdowns within VGE's company. A situation of force majeure must also be deemed to have occurred on the part of VGE in the event that one or more of the above-mentioned circumstances occurs within the companies of VGE's suppliers and as a consequence VGE cannot or could not perform its obligations, or cannot or could not perform such in good time.

### 9. Suspension and dissolution

Without prejudice to VGE's rights under these terms and conditions or under the law, VGE will at any event be entitled to suspend (further) performance or to dissolve any agreement concluded with the Buyer, in whole or in part, if (i) any goods made available by VGE to the Buyer become subject to attachment, (ii) the Buyer is granted a suspension of payments or is declared bankrupt, (iii) any permits or licenses required for the performance of the agreement are withdrawn, (iv) the Buyer fails to fulfill one or more of its obligations ensuing from any agreement with VGE, (v) VGE has sound reasons to believe that the Buyer is or will be unable to fulfill its obligations under any agreement, or (vi) the Buyer ceases its business or if a change occurs in the control of that business. Any right of the Buyer to suspend performance is hereby excluded.

### 10. Applicable law and dispute resolution

- 10.1 These terms and conditions and all quotations from and agreements with VGE will be governed by Dutch law. The UN Convention on Contracts for the International Sale of Goods ("CISG") does not apply.
- 10.2 In the event that the Buyer is domiciled in a Member State of the European Union or in Norway, Switzerland or Iceland at the time that proceedings are commenced, any and all disputes relating to these terms and conditions and/or any quotations or agreements to which these terms and conditions are applicable will exclusively be settled by the competent court in Amsterdam, the Netherlands. The above will not affect VGE's right to submit a dispute to the court that would be competent in the absence of this provision. In the event that the Buyer is not domiciled in a Member State of the European Union or in Norway, Switzerland or Iceland upon the commencement of proceedings, any and all disputes relating to these terms and conditions and/or any quotations or agreements to which these terms and conditions are applicable will exclusively be settled in accordance with the rules of the Netherlands Arbitration Institute [Nederlands Arbitrage Instituut, or NAI]. Arbitration will take place in Amsterdam, the Netherlands. The case will be submitted to three arbitrators and the arbitration proceedings will be conducted in Dutch.

# Blue lagoon

UV-C and Pool equipment



**VGE International B.V.**

Ekkersrijt 4304  
5692 DH Son & Breugel  
The Netherlands

Tel. +31(0) 499 461 099  
info@vgebv.nl  
www.vgebv.com  
www.bluelagoonuvc.com

