

AQVASTAR PRO^{SERIES}

ALL
EUROPEAN
RANGE
WITH **HIGHEST
WARRANTY**



www.aqvastar.in | www.aqvastar.sg

AQVASTAR PROUDLY ASSOCIATES WITH



ALSO PROMOTES PRODUCTS FROM



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FILTRATION SYSTEM

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Features

- Laminated filter manufactured with polyester resin and fiber glass.
- Excellent finish in gelcoat.
- Filter color: RAL 1018
- ¼" air and water drain.
- White top lid with screws.
- Connections to six positions multiport valve with: filtration, backwash, rinse, recirculate, waste and closed operations.
- Maximum pressure: 2.5 bar
- Maximum temperature: 50°C



Filter Details



- Cone diffuser with a drilled lid



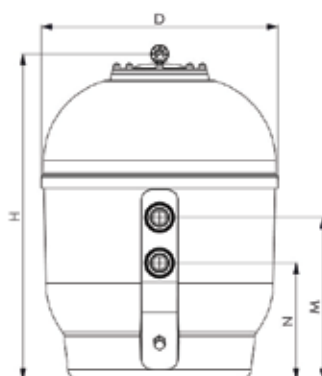
- Fitted with 1" laterals



- White top lid with screws

Technical Specification

Aqvastar Code	Factory Code	Model (mm)	Connections		Filtering Velocity (m³/h/m²)	Filtration Area (m²)	Flow (m³/h)	Maximum Pressure (bar)	Sand (0.4-0.8mm) (kg)	Gravel (Kg)	Net Weight (kg)	D (mm)	H (mm)	M (mm)	N (mm)
PROFL520	ESPHS520VASTAR	520	50	1 ½"	50	0.21	10	2.5	75	25	21	560	850	432	307
PROFL640	ESPHS640VASTAR	640	50	1 ½"	50	0.32	15	2.5	100	50	26	700	890	432	307
PROFL760	ESPHS760VASTAR	760	63	2"	50	0.45	22	2.5	175	50	39	850	1040	507	382
PROFL900	ESPHS900VASTAR	900	63	2"	50	0.64	32	2.5	250	75	51	960	1100	450	325



Tested according
to EN16713-1

POLTANK

ACTIVATED FILTER MEDIA (AFM)

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PRO SERIES

The Best Filtration Media

What is AFM® ?

Result of 35 years of Research & Development, AFM® (Activated Filter Media) is a direct replacement for sand that can be installed in all types of sand filters without modifications.

Manufactured from green and brown glass, AFM® is exposed to a unique activation process to **become self-sterilizing and acquire superior mechanical & electro-static filtration performance.**

Unique Benefits

The safest water : Prevents the transmission of pathogens (E.g. Crypto)

The clearest water : Offers a stable 1 micron filtration rate.

The healthiest air : Prevents the formation of DBPs and chlorine smells.

The lowest operating costs : Saves backwash water and chemicals.

The most sustainable filtration : Outlasts all other filter media.

Powerful Features



Self-sterilizing surface
resistant to bacterial growth



Increased surface area
for superior filtration properties



Activated surface charge
for the adsorption of fine particles and organic matters



AFM® is the only glass filter media certified NSF/ANSI 50, NSF/ANSI/CAN 61 by WQA for pools and drinking water



Tested and certified as the best filtration media by the IFTS.

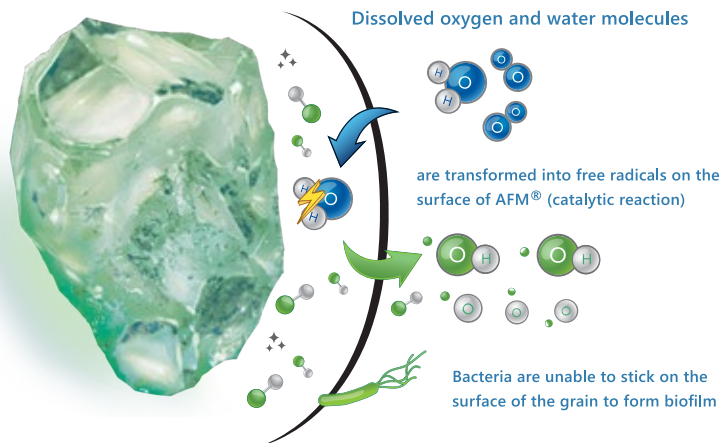
DRYDEN
AQUA
SUSTAINABLE
WATER
QUALITY
Made in Scotland

ACTIVATED FILTER MEDIA (AFM)

AQVASTAR
PRO SERIES

The Healthiest Swimming Experience

Self-sterilizing surface fully resistant to bacterial growth

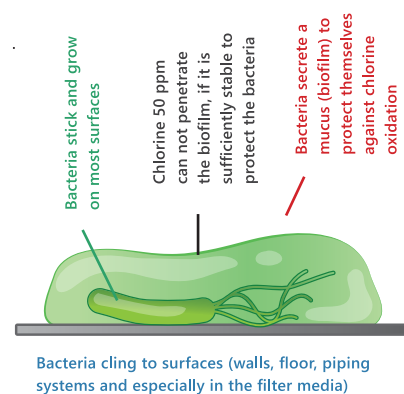


Unique 100% bio-resistant filter media

One of the main differences between AFM® and other filter media such as sand and crushed glass is its bio-resistance. When in contact with water flowing through the filter, a small amount of free radicals ($O^{\cdot-}$ and $OH^{\cdot}$) are formed on the surface of the grains. **Thanks to their strong oxidation potential, free radicals protect AFM® from colonisation by bacteria and fully prevent the formation of biofilm.**

How do bacteria survive in a swimming pool ?

Within just a few days, bacteria will colonise all surfaces in contact with water. **The largest surface in contact with water in a swimming pool is the quartz sand in the filter.** 1 m³ of quartz sand has a surface of 3000m² and it is an ideal breeding ground for bacteria. Bacteria will attach to the surface of the sand grains and, within seconds, will form a biofilm that protects them from oxidants. In this protective biofilm, bacteria can grow and multiply. Even high chlorine concentrations and good backwashing cannot stop this development completely.



ACTIVATED FILTER MEDIA (AFM)

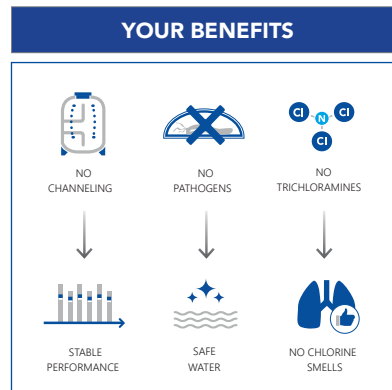
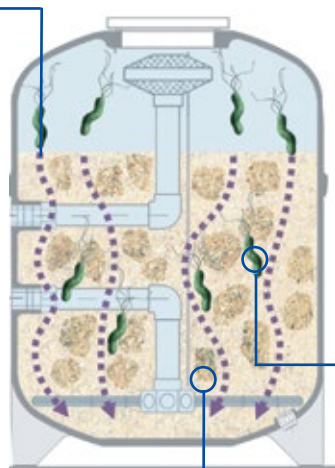
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The 3 main problems of biofilm

Inconsistent and Unreliable filtration 1

After 6 – 12 months, biofilm on the sand has developed to a degree where the grains stick together, forming clumps and causing channelling of the filter bed that reduce filtration performance and allow unfiltered water to reach the bathers.

Filtration performance with AFM® is predictable, reliable, and remains stable over the years. There is no possibility of unfiltered water reaching the pool.



2 Pathogens

The filter develops into a breeding ground for pathogens, such as legionella and pseudomonas. Periodically, bacteria flocs will break through the filter. AFM® prevents the growth and the transmission of these pathogens. Pool water is therefore much safer

Trichloramine - chlorine smell 3

Pool users add sweat and urine in the pool water. They consist of 80% of urea. Bacteria in the biofilm convert this urea into ammonia which then reacts with chlorine to form inorganic chloramines (mono-, di- and tri-chloramine). Trichloramine (NCl₃) is very volatile and is responsible for the unpleasant chlorine smell. It is also a severe health hazard causing skin, eye and lung irritation. With AFM®, there is no biological conversion from urea to ammonia inside your filter : No biofilm ► No trichloramine ► No chlorine smell !

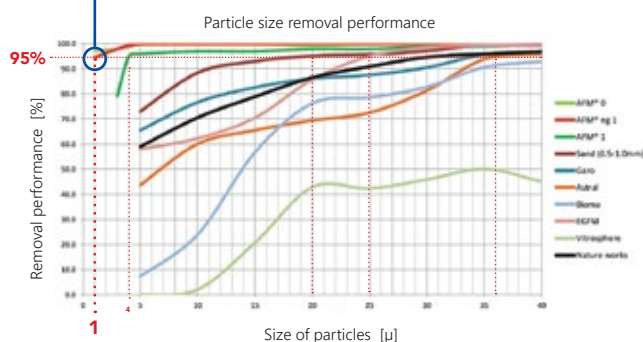
The highest performing filter media

AFM® offers the finest filtration

AFM® filters much finer than quartz or glass sand. The independent and best-known European laboratory for filtration tests IFTS (www.ifts-sls.com) has tested AFM®, quartz sand and various glass sands. The tests were conducted with fresh filter media without any biofilm. At 20m/h filtration velocity, without the addition of flocculants, the following results were achieved:

- **AFM® ng:** Filters 95% of all particles down to **1 micron**.
- **AFM® :** Filters 95% of all particles down to **4 microns**.
- **Sand:** Filters 95% of all particles down to **20 microns**.
- **Glassand:** Filters 95% of all particles **>25 microns**.

AFM® ng : A certified 1 micron filtration rate



DRYDEN
AQUA
SUSTAINABLE WATER QUALITY
Made in Scotland

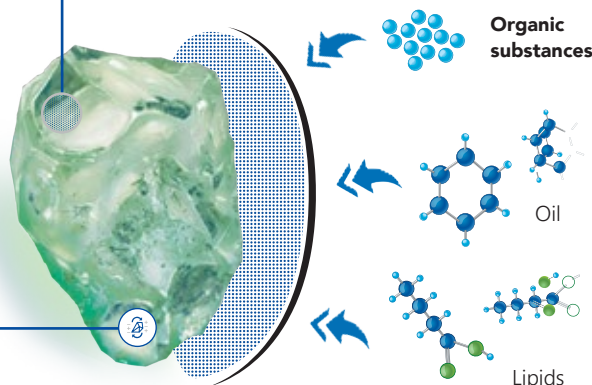
ACTIVATED FILTER MEDIA (AFM)

What makes AFM® perform better than other filter media ?

Superior mechanical filtration and adsorption properties

Mesoporous structure

Our patented activation process creates a mesoporous structure to strongly increase the surface area (m²) of AFM® in contact with water. This feature enables AFM® to **mechanically capture more particles than sand and other glass filter media and offers a much larger surface for the adsorption of fine particles.**



Activated surface charge

Our activation process modifies the surface charge of the glass to give AFM® unique adsorption properties. The activation of the glass enables AFM® to remove particles down to 1 micron and **about 50% more organic substances than sand and other glass filter media.**

Why is activation important ?

Reduced chlorine consumption

It is easy to remove large particles but it is the sub 5 micron that are difficult to remove and in this particle size range AFM® excelled. Everything that can be filtered out and removed in the backwash process doesn't have to be oxidised with chemicals. The greater filtration efficiency of AFM® therefore saves chlorine and acid. **Chemical savings are approximately 20% to 30%.**

Crystal clear water and the best air quality

Chlorine is an excellent disinfectant. But in reaction with organic substances it also produces undesirable, toxic reaction by-products called Trihalomethanes (THMs), including chloroform. Thanks to its very large activated surface, AFM® can remove far more organic substances than sand or glass sand. The better the filtration - the lower the chlorine consumption and less disinfection by-products are produced. **AFM® reduces by up to 50% the formation of chloroform and other THMs.**

BENEFITS

1
MICRON
ULTRA FINE
FILTRATION

↓
EXCEPTIONAL
WATER CLARITY

↓
LESS
CHEMICALS

↓
THMs
UP TO 50%
LESS THMs

ACTIVATED FILTER MEDIA (AFM)

The lowest operating & maintenance costs

Up to 50% less backwash water

Sand needs - according to DIN standards - to be backwashed at 60m/h for 5 minutes or longer. **AFM® only needs 40 to 50 m/h backwash velocity.** The backwash efficiency is higher, because no biofilm is coagulating the grains and a backwash duration of 4 minutes is enough to remove all particles. As a result, approx. 50% of the backwash water can be saved. Water costs are approx 2€/m³ for water and 3€/m³ for heating and treatment.

Filter maintenance

A major cost factor is the cost of replacing the media (removal, disposal and filling with new media). These costs are the same for AFM® and sand, but the life expectancy of AFM® is much higher than sand. **AFM® outlasts all other filter media and offers a guaranteed return on investment.**

Adapted to all types of sand filters

For the best filtration results and energy savings :

Use ideally AFM® with a variable speed pump and set your pump's speeds as follows using a flowmeter :

Filtration speed : 15 to 30m/h
Example: 20 x filter surface (m²)
=Filtration flowrate (m³/h)

Backwash speed : 40 to 50m/h
Example: 40 x filter surface
=Backwash flowrate (m³/h)

Important note:

For smaller filters (<800 mm diameter) and for all filters with nozzle plate beds, irrespective of filter diameter, use **50% of AFM® Grade 1 and 50% of AFM® Grade 2.** AFM® 3 is required for larger diameter filters to ensure adequate water flow. AFM® is supplied in 21 kg and 25 kg bags or 1000 kg big bags. AFM® density = 1'250 kg/m³

BENEFITS



WATER
SAVINGS



ENERGY
SAVINGS



SUSTAINABLE
FILTRATION

GRADE 1

0.4 - 0.8 mm

50%

GRADE 2

0.7 - 2.0 mm

25%

GRADE 3

2.0 - 4.0 mm

25%

25kg of sand
= 21kg of AFM®

PUMPS

MINI (The pump for your home pool)

Pump designed for small and medium size residential pools. The MINI is a pump with great self-priming capacity that makes it ideal for use with filtration equipment and pool cleaners.

Features

- Self-priming up to 4mwh
- Suitable for operation with salt chlorinators and sea water
- Available high efficiency three phase motor class IE3 according to regulation (EU) 2019/1781
- Thermal protection incorporated in single-phase version
- Includes 1.5m cable
- Insulation Class: F
- Protection: IP55
- Motor: 50Hz/2900 rpm.
- Motor painting by cataphoresis
- Specially suitable for use with filtration equipment and pool cleaners
- Tmax: 40°C



Materials

Pump housing: Polypropylene + 30% GF.

Impeller and Diffuser: PPO +30% GF.

Shaft: Stainless steel AISI 416.

Mechanical seal: Carbon + Resin - Ceramics.

Pre-filter cover: Polycarbonate.

Pre-filter basket: Polypropylene

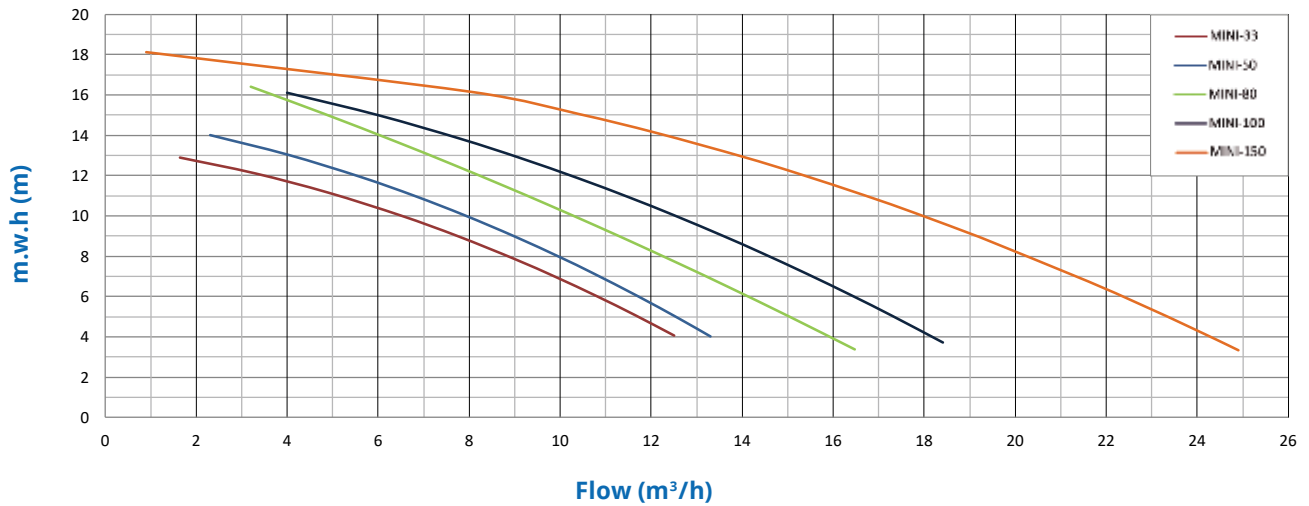
Technical Specification

IE3																				
Aqvastar Code	Factory Code	Power		Capac.	II 230V	III 230V	III 400V	III 230V	III 400V	Head (m)								Connections DN		Weight
										4	6	8	10	12	14	16				
		kW	HP	µF	A	A	A	A	A	Flow rate (m³/h)								IN	OUT	
PROMP33	MINI-33	0.25	0.33	16	2.6	-	-	-	-	12.5	10.8	9.0	6.5	3.3	-	-	1" ½ / Ø50	1" ½ / Ø50	9.4	
PROMP50	MINI-50	0.37	0.50	16	3.2	-	-	-	-	13.3	11.7	10.0	7.9	5.6	2.3	-	1" ½ / Ø50	1" ½ / Ø50	10.0	
PROMP75	MINI-80	0.60	0.80	20	4.2	2.7	1.7	2.6	1.5	16.5	14.4	12.5	10.5	8.6	6.3	3.3	1" ½ / Ø50	1" ½ / Ø50	10.9	
PROMP100	MINI-100	0.75	1	25	4.6	3.1	1.9	3.0	1.7	18.4	16.4	14.4	12.5	10.4	7.8	4.0	1" ½ / Ø50	1" ½ / Ø50	11.8	
PROMP150	MINI-150	1.10	1.50	25	6.2	4.3	2.5	4.0	2.3	24.2	22.4	20.2	18.0	15.3	12.2	8.4	1" ½ / Ø50	1" ½ / Ø50	14.0	

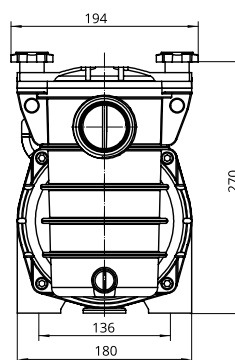
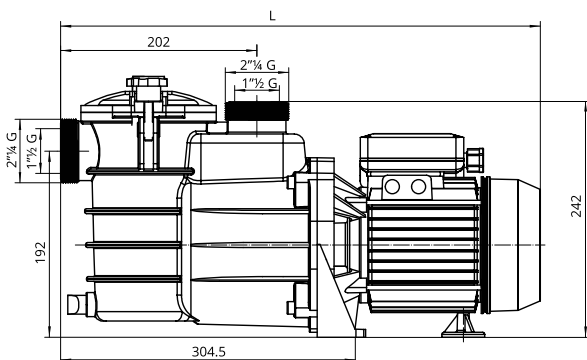
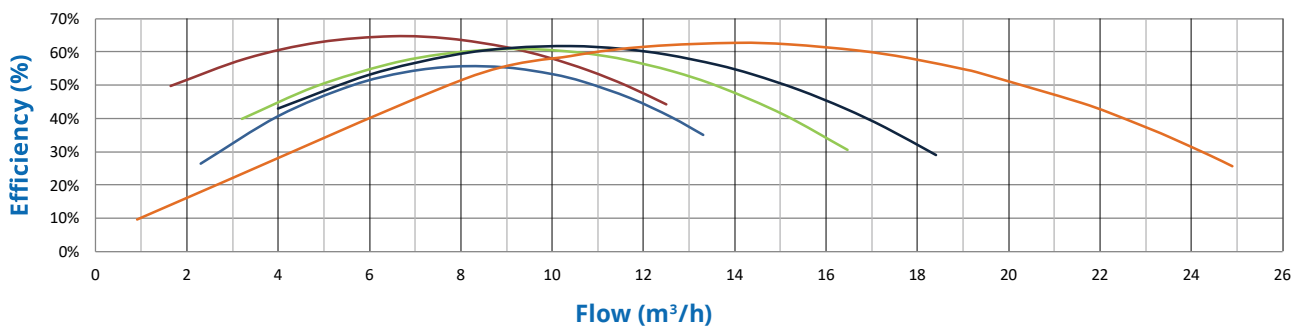
PUMPS

MINI (The pump for your home pool)

Characteristics curve



Hydraulic Performance



Aqvastar Code	Factory Code	L
PROMP33	MINI-33	496
PROMP50	MINI-50	
PROMP75	MINI-80	
PROMP100	MINI-100	
PROMP150	MINI-150	518

PUMPS

MAXI (Versatile pump for domestic and public pools)

The pumps of the MAXI series meet the highest pumping requirements in medium and large pools.

Features

- Self-priming up to 2mwh
- Suitable for operation with salt chlorinators and sea water
- Available high efficiency three phase motor class IE3 according to regulation (EU) 2019/1781
- Thermal protector incorporated in single-phase version
- Insulation Class: F
- Protection: IP55
- Motor: 50Hz/2900 rpm.
- Motor painting by cataphoresis
- Tmax: 40°C



Materials

Pump housing: Polypropylene + 30% GF.

Impeller and Diffuser: PPO +30% GF.

Shaft: Stainless steel AISI 316.

Mechanical seal: Carbon + Resin - Ceramics.

Prefilter cover: Polycarbonate.

Prefilter basket: Polypropylene +30% GF.

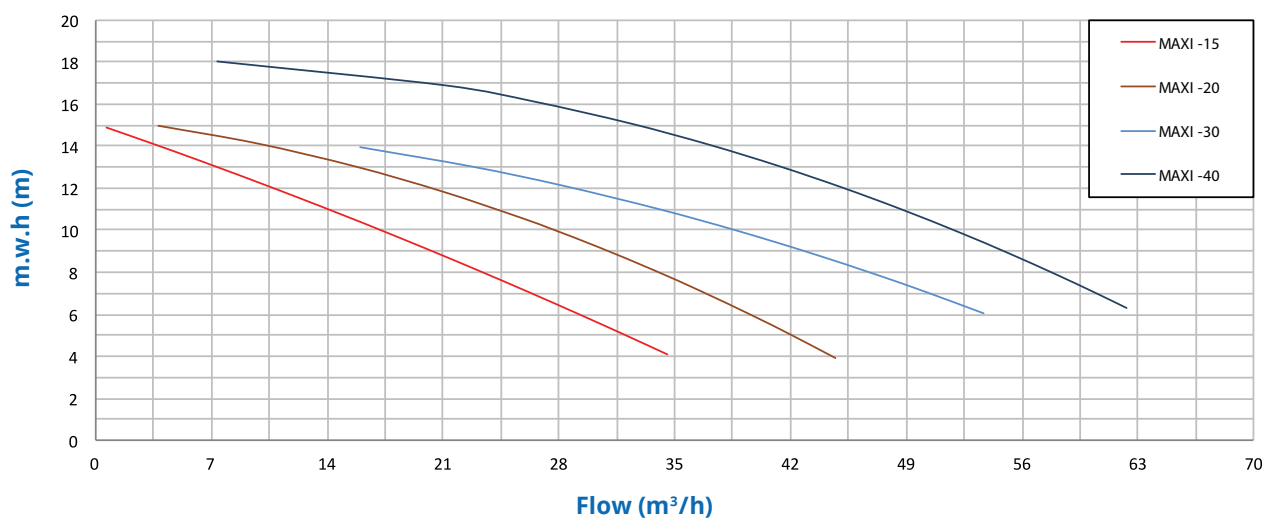


Technical Specification

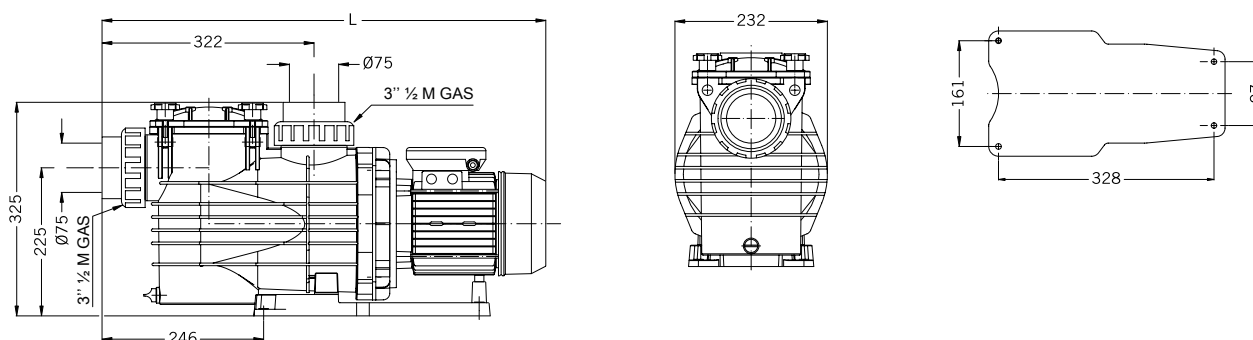
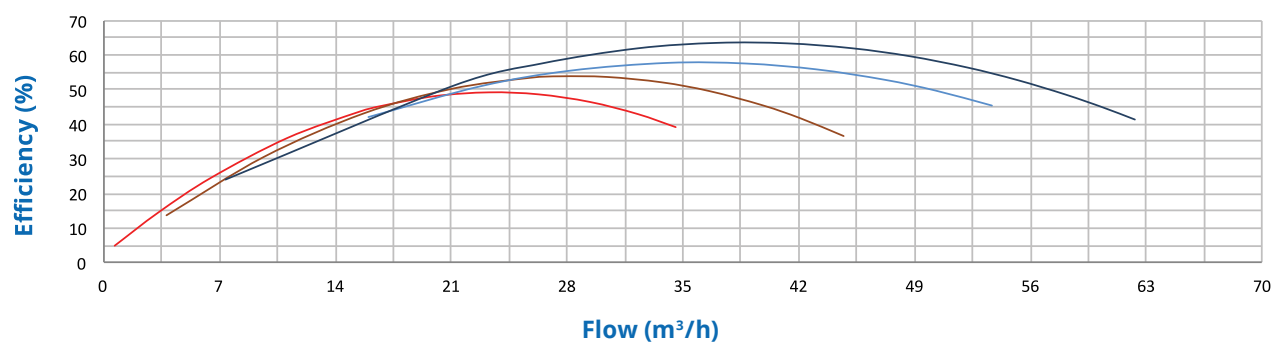
Aqvastar Code	Factory Code	Power		Capac.	IE3						Head (m)								Connections DN		Weight
					II 230V	III 230V	III 400V	III 230V	III 400V	4	6	8	10	12	14	16	18				
		kW	HP	µF	A	A	A	A	A	Flow rate (m³/h)								IN	OUT	Kg	
PROMP150-1	MAXI-15	1.1	1.5	30	6.7	4.2	2.5	4.0	2.3	34.6	29.4	23.3	16.8	11.1	3.3	-	-	Ø75	Ø75	18.3	
PROMP200	MAXI-20	1.5	2	45	9.0	5.6	3.3	5.4	3.1	44.7	39.8	33.7	27.6	21.0	12.0	4.5	-	Ø75	Ø75	19.6	
PROMP300	MAXI-30	2.2	3	2x30	12.9	8.0	4.7	7.6	4.3	-	53.7	47.2	38.8	28.2	16.0	-	-	Ø75	Ø75	22.7	
PROMP400	MAXI-40	3	4	-	-	10.4	6.0	9.6	5.5	-	62.3	58.1	52.2	45.2	37.1	26.5	7.4	Ø75	Ø75	27.0	

MAXI (Versatile pump for domestic and public pools)

Characteristics curve



Hydraulic Performance



Aqvastar Code	Factory Code	L
PROMP150-1	MAXI-15	719
PROMP200	MAXI-20	719
PROMP300	MAXI-30	719
PROMP400	MAXI-40	752

PUMPS

F-Small Giant (Polypropylene + 30% fiberglass construction)

The F-SMALL GIANT series is designed to work with chlorinators, ionizers and seawater. All parts in contact with water are in polypropylene or PA66.

Features

- Power: from 3.5 HP to 5.5 HP
- Motor: 50Hz/2900 rpm
- Available high efficiency three phase motor class IE3 according to regulation (EU) 2019/1781
- Insulation Class: F
- Protection: IP55
- Thermal protection: Included in single phase models



Materials

Pump body and pre-filter housing:

Polypropylene + 30% GF.

Impeller: plastic (PA66).

Shaft: stainless steel AISI 316.

Mechanical seal: Carbon + Resin - Ceramics.

Cover: Polycarbonate.

Basket: Stainless steel 304.



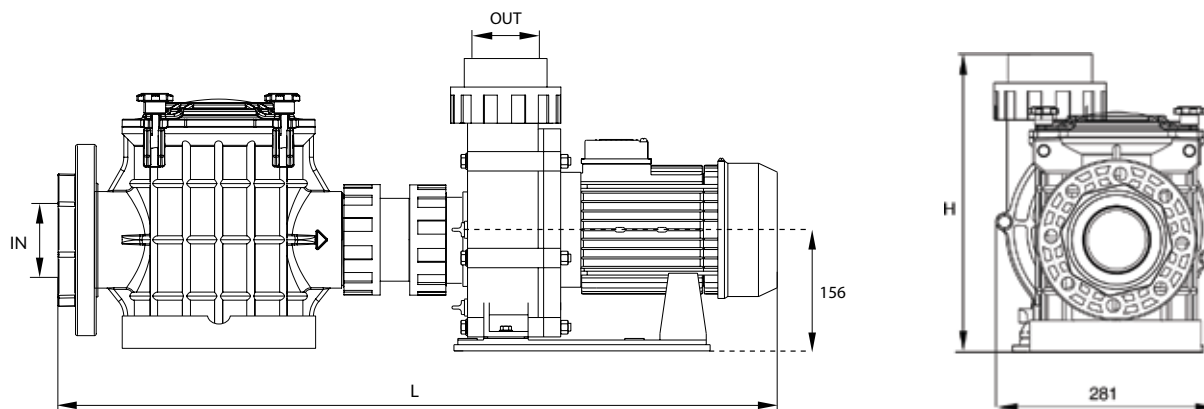
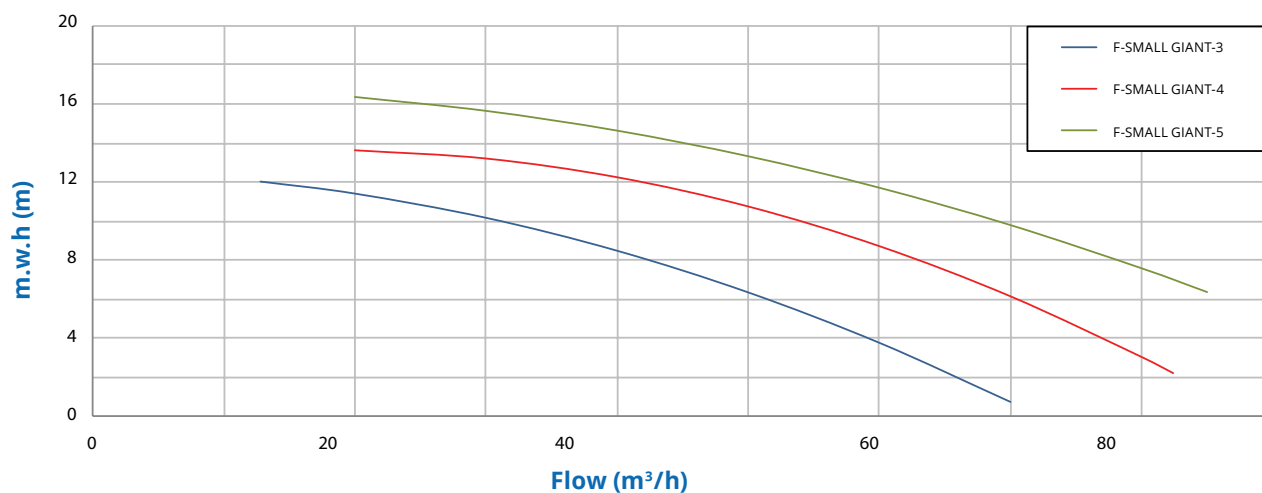
Technical Specification

IE3

Aqvastar Code	Factory Code	Power				Capac.	II	III	III	III	III	Head (m)								Connections DN		Weight
		P1		P2			230V	230V	400V	230V	400V	2	4	6	8	10	12	14	16			
		kW	HP	kW	HP		µF	A	A	A	A	A	Flow rate (m³/h)								IN	OUT
PROGP350	F-SMALL GIANT-3	2.5	3.5	1.85	2.5	50	13.7	8.4	4.9	7.9	4.5	65	58	52	44	32	13	-	-	Ø90/DN100	Ø75/ Ø90	30
PROGP400	F-SMALL GIANT-4	3	4	2.2	3	-	-	9.4	5.4	9.2	5.3	82	77	71	63	53	40	19	-	Ø90/DN100	Ø75/ Ø90	30
PROGP550	F-SMALL GIANT-5	4	5.5	3	4	-	-	12.8	7.4	12.4	7.1	-	-	85	80	70	58	45	25	Ø90/DN100	Ø75/ Ø90	32

F-Small Giant (Polypropylene + 30% fiberglass construction)

Characteristics curve



Aqvastar Code	Factory Code	Dimensions (mm)		L		H	
		IN	OUT	IN ø90	IN DN100	OUT ø75	OUT ø90
PROGP350	F-SMALL GIANT-3	ø90mm connector or DN100 flange	Both included in all models ø75mm connector ø90mm connector	884	848	383	385
PROGP400	F-SMALL GIANT-4			884	848		
PROGP550	F-SMALL GIANT-5			902	866		

PUMPS

F-Giant (Polypropylene + 30% fiberglass construction)

Equipped with one-piece plastic impeller, was designed by PSH technicians. The GIANT range comes equipped with a fully plastic logarithmic shaped pump body, designed by PSH, for greater hydraulic efficiency. The plastic impeller also makes it more resistant to cavitation. Also available with bronze impeller. By measurements it is interchangeable with our FDN-3000 range.

Features

- High efficiency motor class IE3 according to regulation (EU) 2019/1781
- Standard motor
- Suitable for all types of water
- Plastic impeller version is especially suitable for use in large aquariums to preserve the health of the marine fauna
- Independent pre-filter allowing use with other pump's series
- Insulation Class: F
- Protection: IP55
- Flow rate: up to 180 m³/h
- Power rate: from 4 HP to 12.5 HP
- Voltage: 230/400V or 400/690V
- Motor: 50Hz/2900 rpm.



Materials

Pump housing: Polypropylene + 30% GF.

Impeller: One-piece plastic impeller or bronze/aluminium impeller.

Pre-filter: Polypropylene +30% GF.

Shaft: Stainless steel AISI 316L.

Mechanical Seal: Carbon + Resin - Ceramics.

Screws: Stainless steel AISI 304.

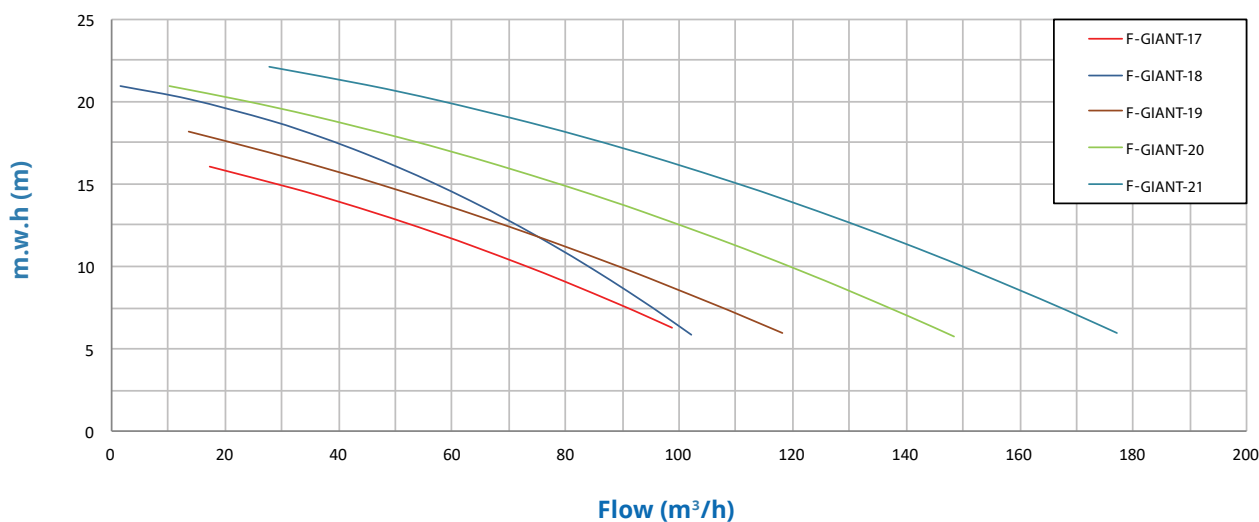
Pre-filter Cover: Polycarbonate.

Pre-filter basket: Stainless steel AISI 304.

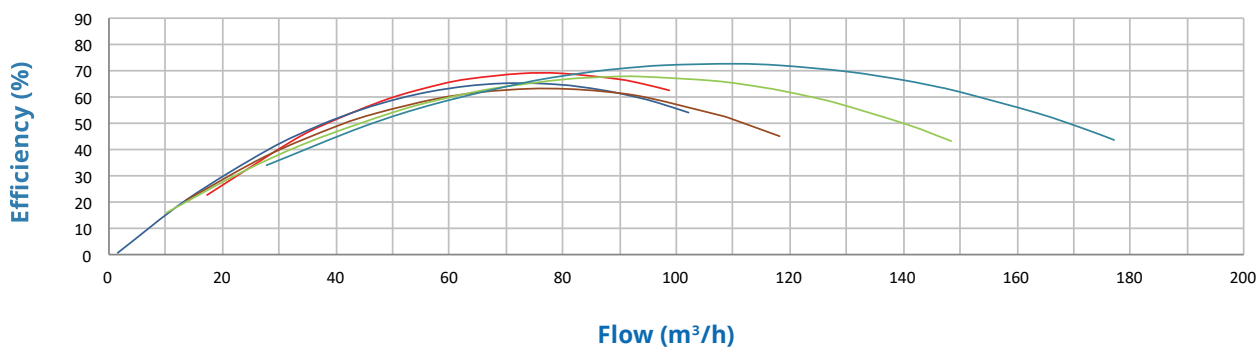
PUMPS

F-Giant (Plastic impeller)

Characteristics curve



Hydraulic Performance

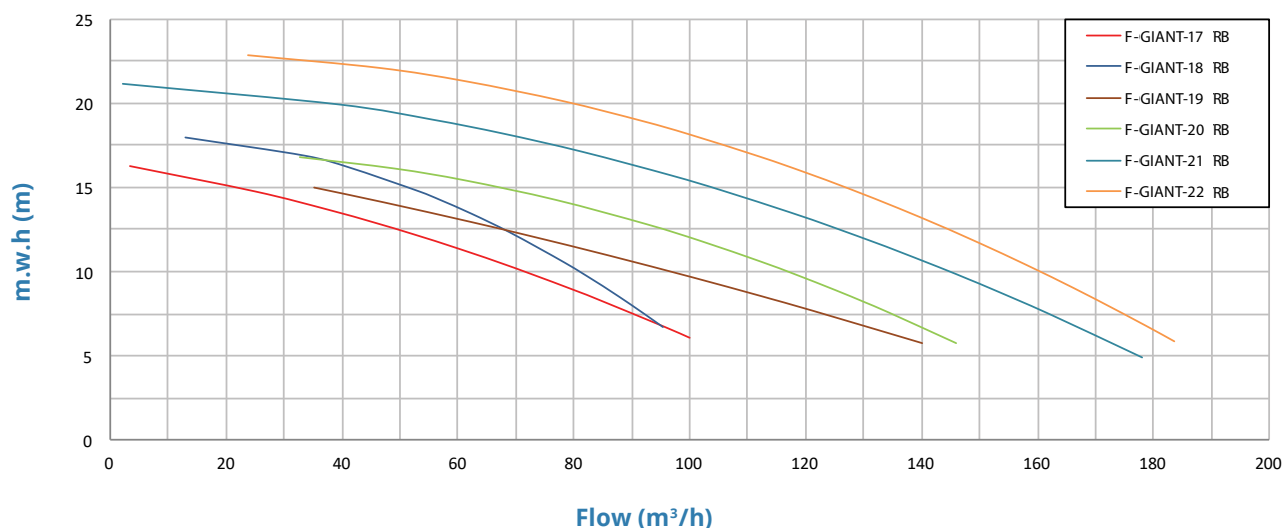


Technical Specification

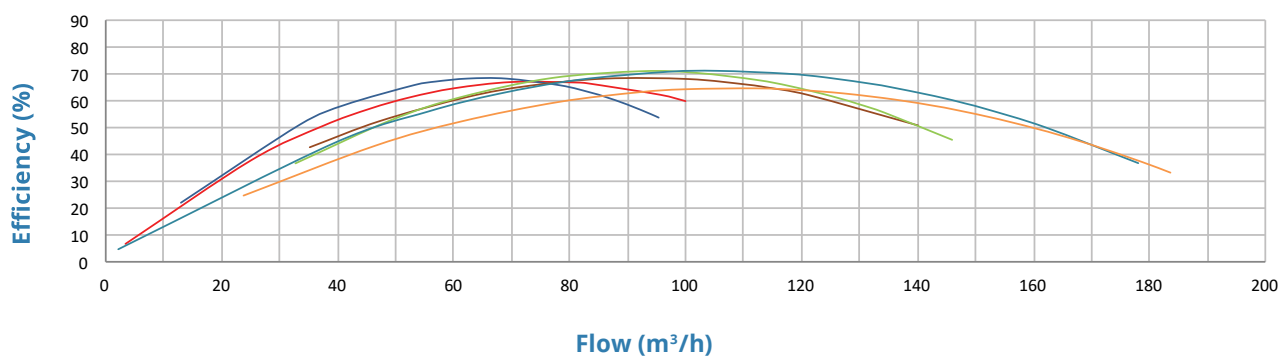
Aqvastar Code	Factory Code	Power		III 230/400V		III 400/690V		Head(m)									Connections DN		Weight Kg
								6	8	10	12	14	16	18	20	22			
		kW	HP	A	A	A	A	Flow rate (m³/h)									IN	OUT	
PROGPP550	F-GIANT-19	4	5.5	13.0	7.4	7.4	4.3	118	108	89	74	57	40	14	-	-	125	100	70
PROGPP750	F-GIANT-20	5.5	7.5	17.6	10.1	10.1	5.9	148	130	119	107	88	68	51	23	-	125	100	81
PROGPP1000	F-GIANT-21	7.5	10	-	-	13.5	7.8	177	164	148	137	119	98	84	58	28	125	100	87

F-Giant (Bronze impeller)

Characteristics curve



Hydraulic Performance

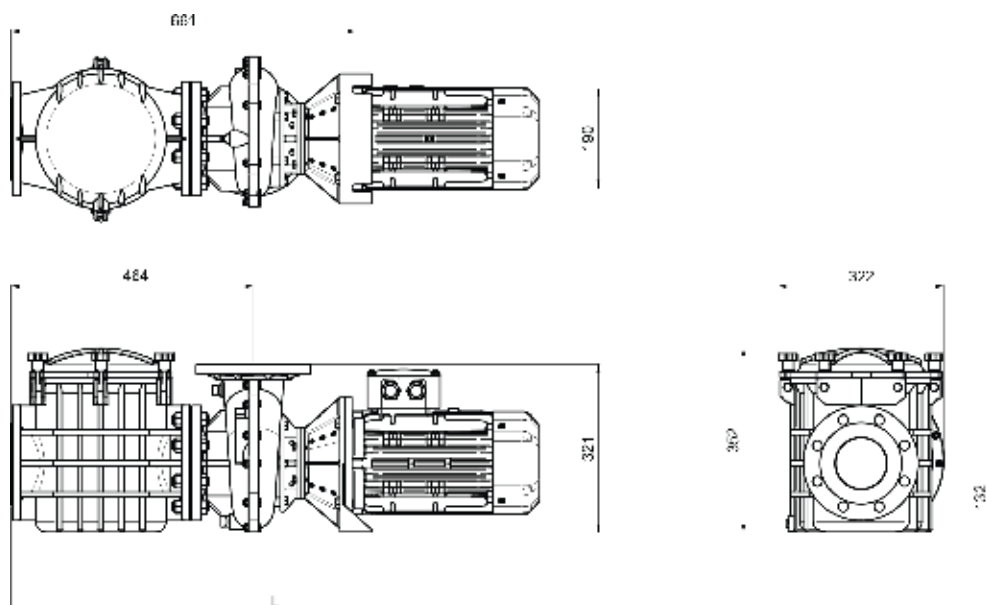


Technical Specification

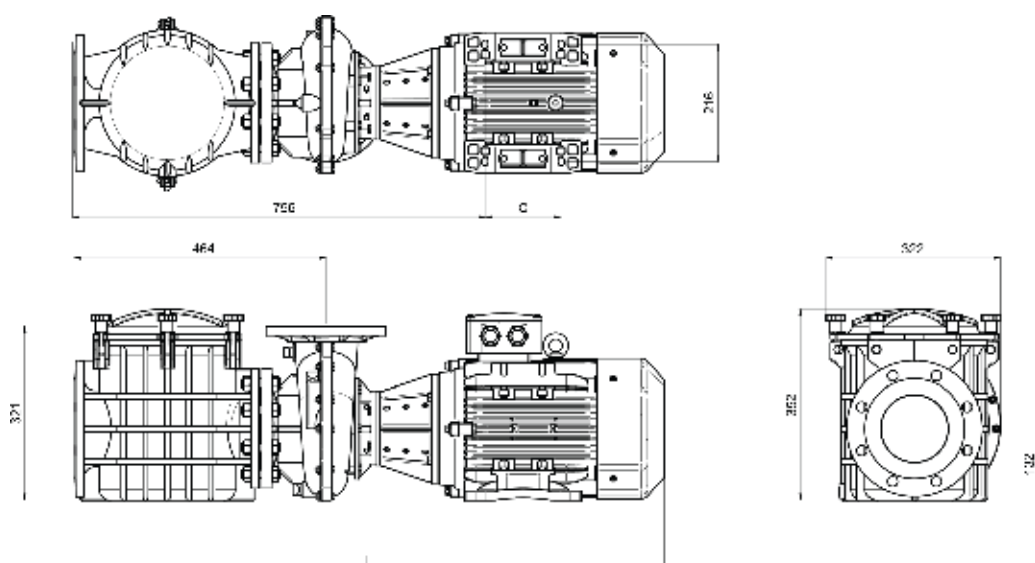
Aqvastar Code	Factory Code	Power		III		III		Head(m)									Connections		Weight
				230/400V		400/690V		6	8	10	12	14	16	18	20	22			
		kW	HP	A	A	A	A	Flow rate (m³/h)									IN	OUT	Kg
PROGP550-1	F-GIANT-19 TRB	4	5.5	13.0	7.4	7.4	4.3	140	119	100	73	47	-	-	-	-	125	100	71
PROGP750	F-GIANT-20 TRB	5.5	7.5	17.6	10.1	10.1	5.9	146	130	118	102	77	49	-	-	-	125	100	82
PROGP1000	F-GIANT-21 TRB	7.5	10	-	-	13.5	7.8	178	160	147	133	117	97	68	40	-	125	100	88
PROGP1250	F-GIANT-22 TRB	9.2	12.5	-	-	16.6	9.6	184	172	162	148	136	120	100	78	47	125	100	90

F-Giant

F-GIANT-17/18/19

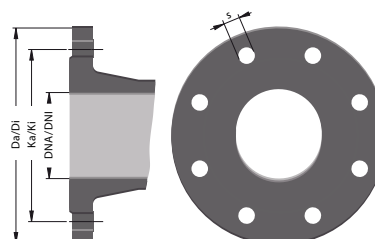


F-GIANT-20/21/22



Factory Code	Dimensions (mm)			
	DNA IN	DNI OUT	C	L
F-GIANT-19	125	100	-	1041
F-GIANT-20	125	100	140	1086
F-GIANT-21	125	100	140	1086
F-GIANT-22	125	100	178	1108

*Dimensions remains same for both plastic and bronze impeller models



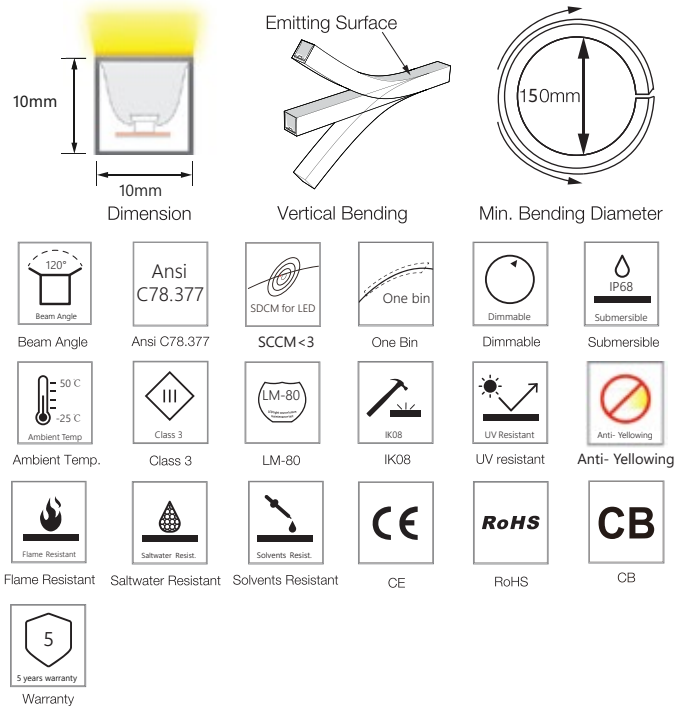
DNA/DNI	Da/Di	Ka/Ki	s	n°
100	220	180	19	8
125	250	210	19	8

STRIP LIGHT

AQVASTAR
PRO SERIES

Mono Color Strip Light

Specification



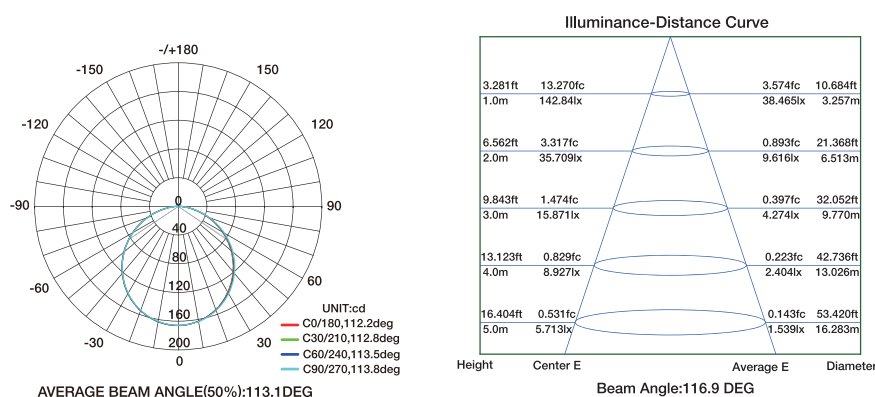
Technical Parameters

Model No.	ASLSL10 + ASSC
Electrical	
Input Voltage	24V DC
Power Consumption	10W/m
Physical	
LED Count	120 LEDs/m
Cutting Unit	12 LEDs
Cutting Unit Length	100 mm
Minimum Bend Diameter	150mm
Output	
LED Light	Epistar SMD LED 2835
CRI	>80, >90
Max Run Length*	
Single Feed	5 M
Double Feed	10 M
Beam Angle	120°
Lumen Maintenance	70,000 Hours L70 @ 25°C 50,000 Hours L70 @ 50°C
Temperature Ranges	
Installation	0°C to 50°C
Operating	-40°C to 55°C
Dependability	
Warranty	5 Years Warranty
IP Rating	IP68 Wet location submersible <2m

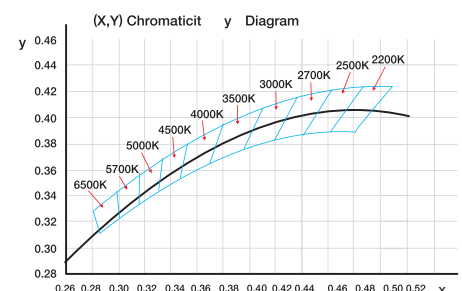


Optional Color	Lumen Output
2200K(2238±102K)	480lm/m
2700K(2725±145K)	480lm/m
3000K(3045±175K)	500lm/m
3500K(3465±245K)	500lm/m
4000K(3985±275K)	500lm/m
4500K(4503±243K)	510lm/m
5000K(5209±283K)	510lm/m
6500K(6532±510K)	510lm/m
Green(520-530nm)	550lm/m
Blue (455-465nm)	90lm/m
Red (620-630nm)	200lm/m

Illuminance Distribution



White Color Charts



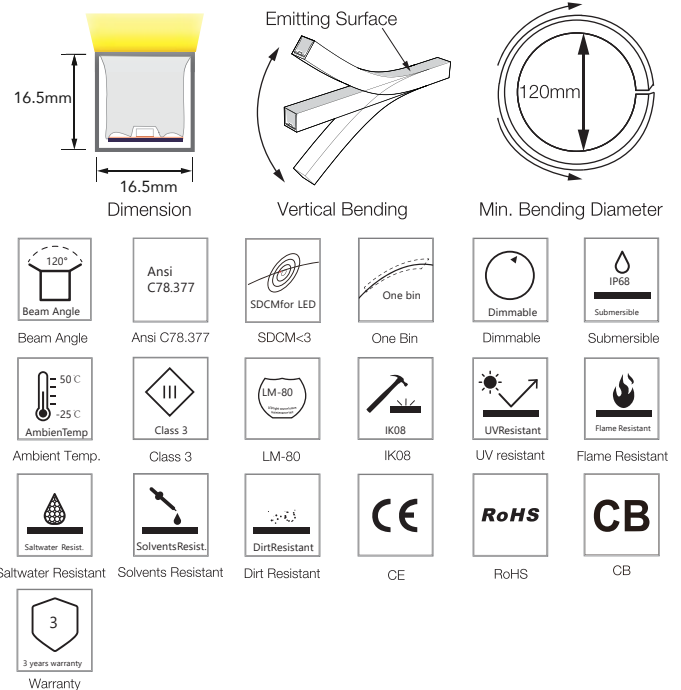
Made in ROC

STRIP LIGHT

AQVASTAR
PRO SERIES

Mono Color Strip Light

Specification



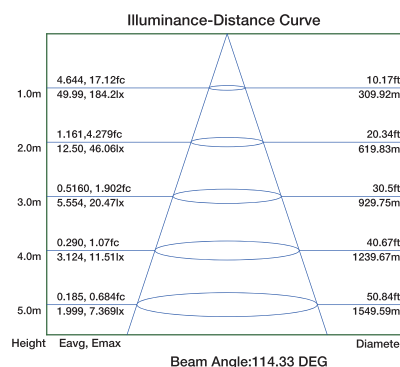
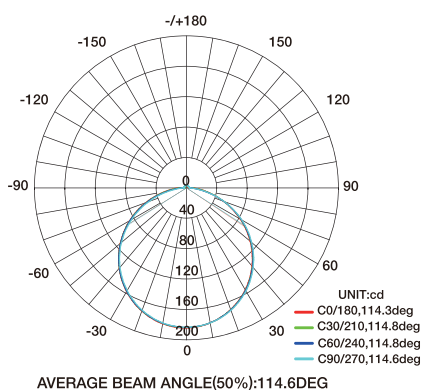
Technical Parameters

Model No:	ASLSL13W + ASSC
Electrical	
Input Voltage	24V DC
Power Consumption	13W/m
Physical	
LED Count	72 LEDs/m
Cutting Unit	2 LEDs
Cutting Unit Length	27.7 mm
Minimum Bend Diameter	120mm
Output	
LED Light	Epistar SMD LED 5050
CRI	>80, >90
Max Run Length*	
Single Feed	10 M
Double Feed	20 M
Beam Angle	120°
Lumen Maintenance	70,000 Hours L70 @ 25°C 50,000 Hours L70 @ 50°C
Temperature Ranges	
Installation	0°C to 50°C
Operating	-25°C to 50°C
Dependability	
Warranty	3 Years Warranty
IP Rating	IP68 Wet location submersible <2m

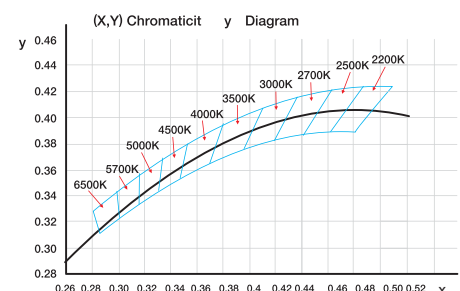


Optional Color	Lumen Output
2200K(2238±102K)	520lm/m
2700K(2725±145K)	535lm/m
3000K(3045±175K)	540lm/m
3500K(3465±245K)	550lm/m
4000K(3985±275K)	565lm/m
4500K(4503±243K)	570lm/m
5000K(5029±283K)	575lm/m
6500K(6532±510K)	580lm/m
Green(520-530nm)	430lm/m
Blue (455-465nm)	50lm/m
Lemon Yellow (520-530nm)	280lm/m
Pink (630-645nm)	160lm/m

Illuminance Distribution



White Color Charts

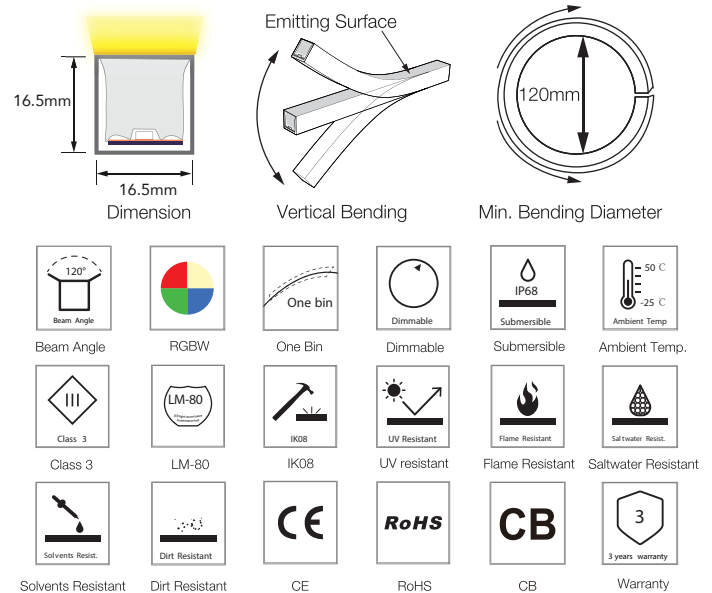


Made in ROC

STRIP LIGHT

AQVASTAR
PRO SERIES

RGBW Strip Light Specification



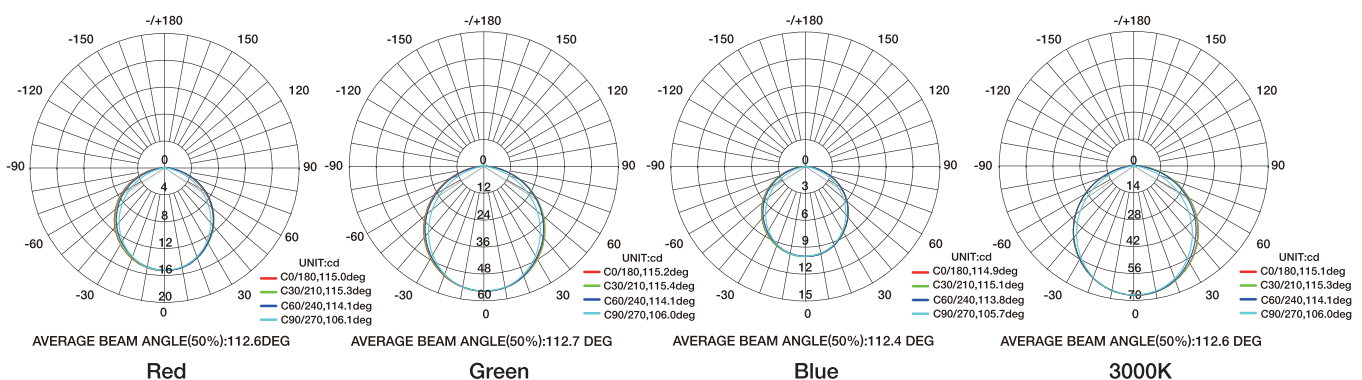
Technical Parameters

Model No	ASLSL17 + ASSC
Electrical	
Input Voltage	24V DC
Power Consumption	17W/m
Physical	
LED Count	72 LEDs/m
Cutting Unit	6 LEDs
Cutting Unit Length	83.3mm
Minimum Bend Diameter	120mm
Output	
LED Light	Epistar SMD LED 5050
Color	RGBW(2700K/3000K/4000K/5000K)
Max Run Length*	
Single Feed	8 M
Double Feed	16 M
Beam Angle	120°
Lumen Maintenance	70,000 Hours L70 @ 25°C 50,000 Hours L70 @ 50°C
Temperature Ranges	
Installation	0°C to 50°C
Operating	-25°C to 50°C
Dependability	
Warranty	3 Years Warranty
IP Rating	IP68 Wet location submersible <2m

Emitting Color Lumen Output

	Red	49lm/m
	Green	196lm/m
	Blue	42lm/m
	RGBW	514lm/m
	3000K	253lm/m

Illuminance Distribution

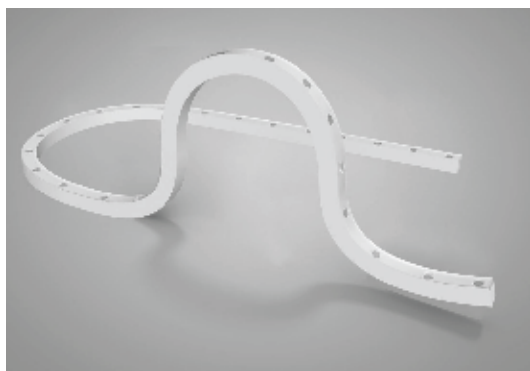


Made in ROC

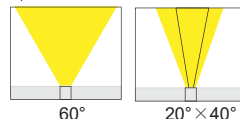
STRIP LIGHT

RGBW Strip Light (Wall Washer)

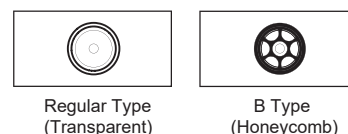
Specification



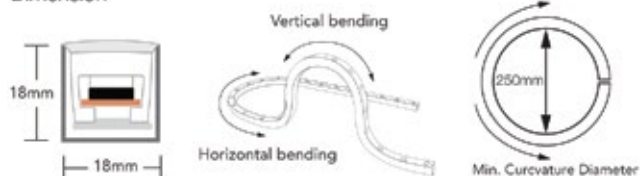
Optional LENS Distribution



Optional Cover:

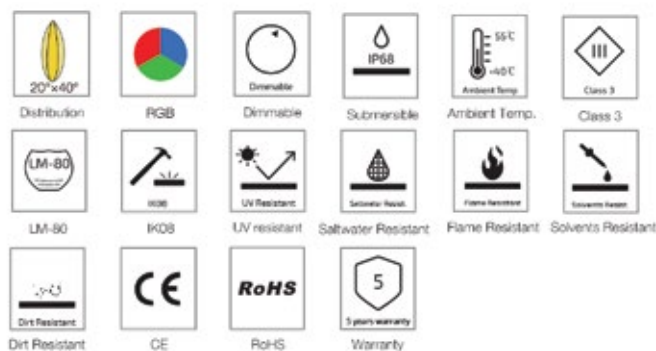


Dimension

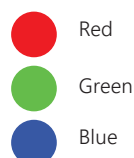


Technical Parameters

Model No	ASLSL18 + ASSC
Electrical	
Input Voltage	24V DC
Power Consumption	18W/m
Physical	
LED Count	24 LEDs/m
Cutting Unit	6 LEDs
Cutting Unit Length	250mm
Mini. Curvature Diameter	250mm(Horizontal)/400mm (Vertical)
Output	
LED Light	Epistar SMD LED 3535
CRI	>80
Max. Length single feed	4 M
Optional Lens	60°, 20° x 40°
Lumen Maintenance	70,000 Hours L70 @ 25°C 50,000 Hours L70 @ 50°C
Temperature Ranges	
Installation	0°C to 50°C
Operating	-40°C to 55°C
Dependability	
Warranty	5 Years Warranty
IP Rating	IP68



Emitting Color



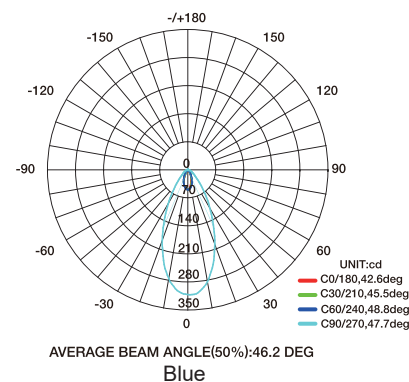
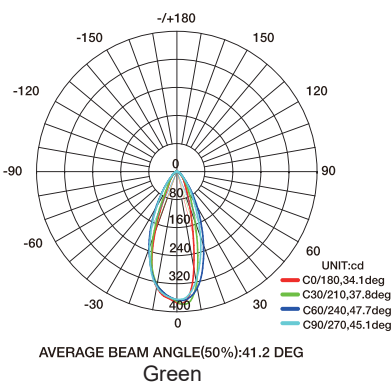
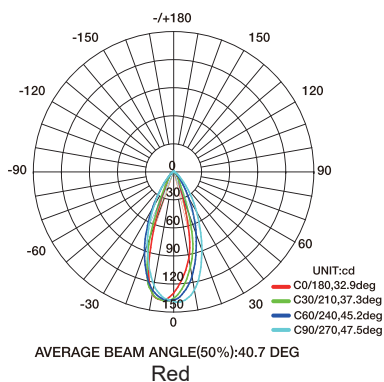
Lumen Output for 60° Lens

Red
24.67 lm/W
Green
78.75 lm/W
Blue
17.79 lm/W

Lumen Output for 20° x 40° Lens

Red
24.60 lm/W
Green
72.67 lm/W
Blue
16.75 lm/W

Illuminance Distribution



LADDERS

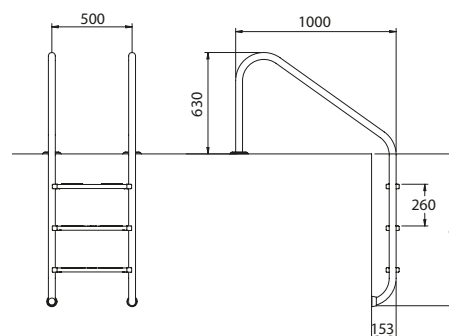
The wide range of ladders of Flexinox Pool offers options both for public and private swimming pool. Three main features sum up its quality: Ø 43 mm x 1,2 mm tube in AISI-304L and AISI-316L qualities, shiny polish finishing and electropolished, different kinds of treads always fixed to the handrail with hidden screws. Non-through holes in the bottom of the handrails are made with the "Flowdrill" technology. The fact that all our ladders are supplied with all the necessary accessories for their installation.

Overflow



AISI 316L

	Aqvastar Code	Factory Code	a.
2	PRO OFF 2	87111720	696
3	PRO OFF 3	87111738	946
4	PRO OFF 4	87111746	1196
5	PRO OFF 5	87111753	1446

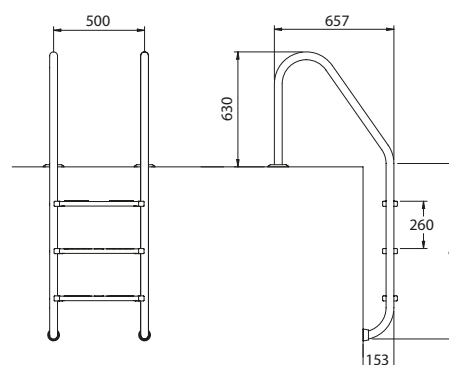


Residential



AISI 316L

	Aqvastar Code	Factory Code	a.
2	PRO STD 2	87111928	696
3	PRO STD 3	87111936	946
4	PRO STD 4	87111944	1196
5	PRO STD 5	87111951	1446



*This model is available only on request

LADDERS

AQVASTAR
PRO SERIES

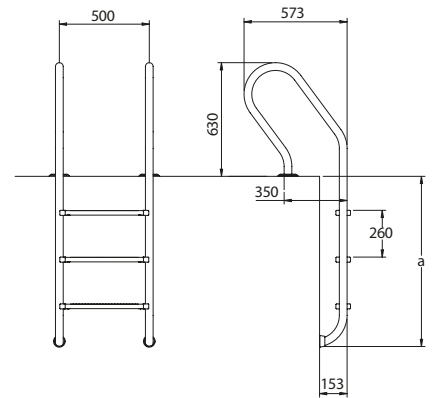
Parallel-Lock



AISI 316L



	Aqvastar Code	Factory Code	a.
3	PROCL 3	87121877	946
4	PROCL 4	87121885	1196
5	PROCL 5	87121893	1446



Protective Spray

Code
05000034

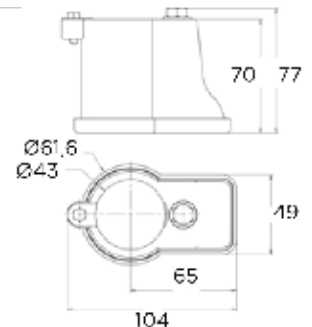
Long-term protection (up to 2 years outdoors) for stainless steel. Waxy film seals out moisture effectively. Highly resistant to humidity and salt spray.



Anchor Socket

Code	Kg.	U
87100335	0.280	x2

Earthing cable included



Sacrificial Anode

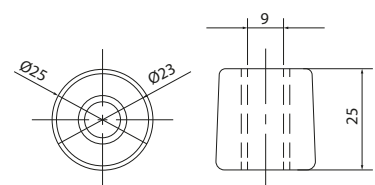
Code	Kg.	U
87170020	0.064	x10

Sacrificial anode

Suitable for swimming pool installations with saline chlorination. Includes A4 Din 933 M8 x 50 bolt. Part included in the ladders in A-316 quality. Helps to prevent corrosion for up to 20 months after installation.



IN A-316 QUALITY



Measurements in mm

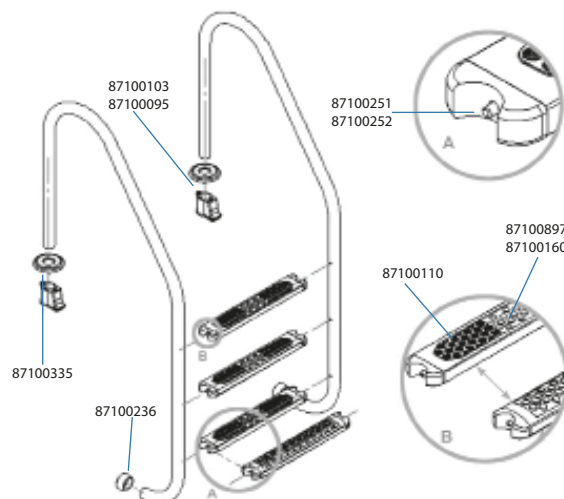
www.aqvastar.in | www.aqvastar.sg

Flexinox
POOL

Made in SPAIN

LADDERS

Code	Description	
87100251	Screws for treads	AISI 304
87100252	Screws for treads	AISI 316
87100160	Non-slip tread	AISI 304L
87100897	Non-slip tread	AISI 316L
87100236	Rubber bumper	
87100095	Escutcheon	AISI 304
87100103	Escutcheon	AISI 316L
87100335	Anchor socket	AISI 316L



Articulated Anchor

AISI 304L

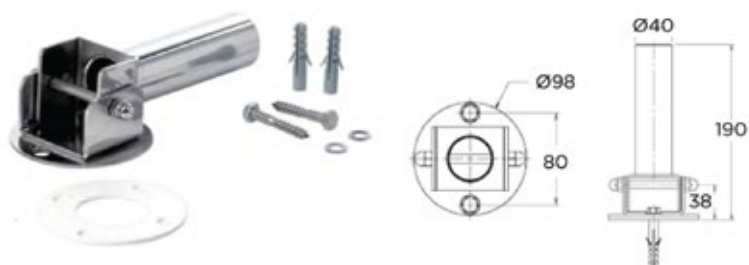
Code	Kg.	U
87100981	3.0	x2



Articulated Anchor with Flange

AISI 304L

Code	Kg.	U
87100980	1.700	x2



IE3 AIR BLOWER

Applications

Pumps designed for bubble baths and swimming pools, water treatment, car drying, ventilation / dust extraction, etc.



Constructive Characteristics

Blower pumps constructed entirely in aluminum and suitable for continuous operation. Single stage side channel pumps, without any maintenance. Includes inlet and outlet silencers.

Motor

Sealed asynchronous IE3 rated motor with external ventilation. Built-in thermal protection. Single phase versions includes capacitor. IP-55 protection. Insulation class F.

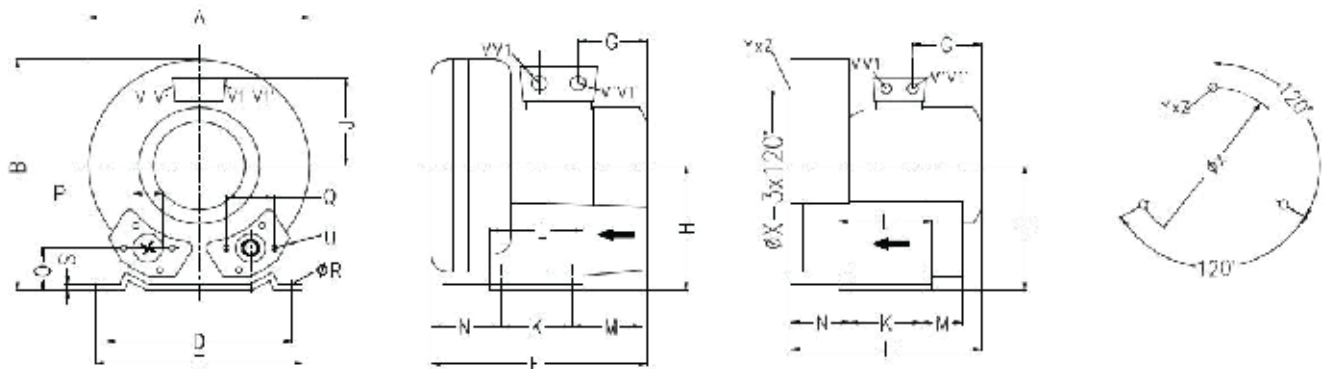
Technical Specification

(2EB)				MOTOR			BLOWER				
Aqvastar Code	Factory Code	single	Frequency	Power	Voltage	Current	Max airflow	Rated Vacuum	Rated compress	Noises	Weight
			HZ	KW	V	A	m3/h	mbar	mbar	dB(A)	Kg
ASABIE750	2EB310A11	Single	50	0.7	220-240V	4.8	100	-150	150	55	14
ASABIE1100	2EB410A21	Single	50	1.3	220-240V	7.3	145	-170	200	63	17
ASABIE1500	2EB510A11	Single	50	1.5	220-240V	9	210	-200	190	64	24
ASABIE2200	2EB510A21	Single	50	2.2	220-240V	10	210	-220	210	64	26

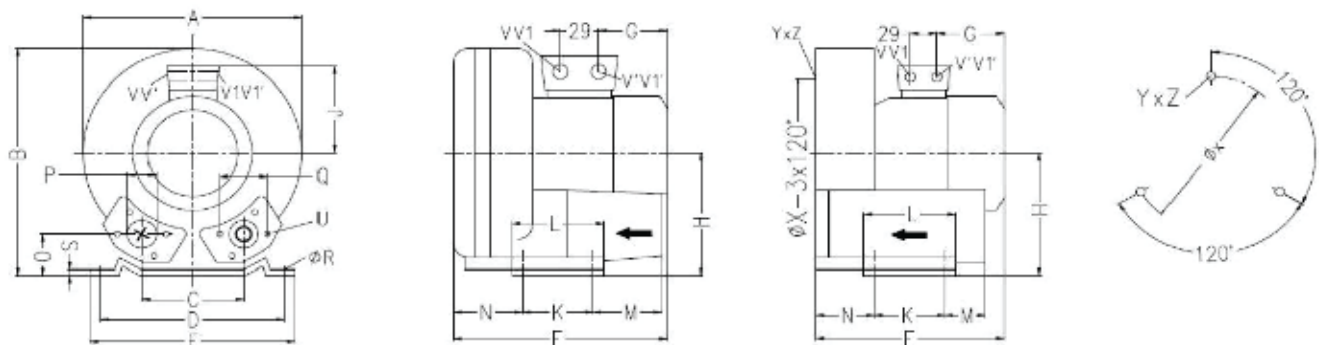
IE3 AIR BLOWER

AQVASTAR
PRO SERIES

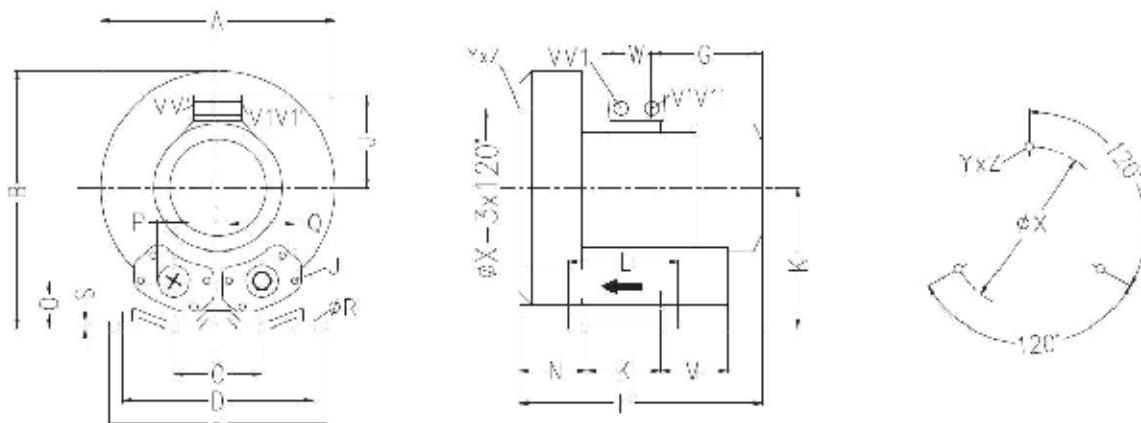
310



410



510



Made in ROC

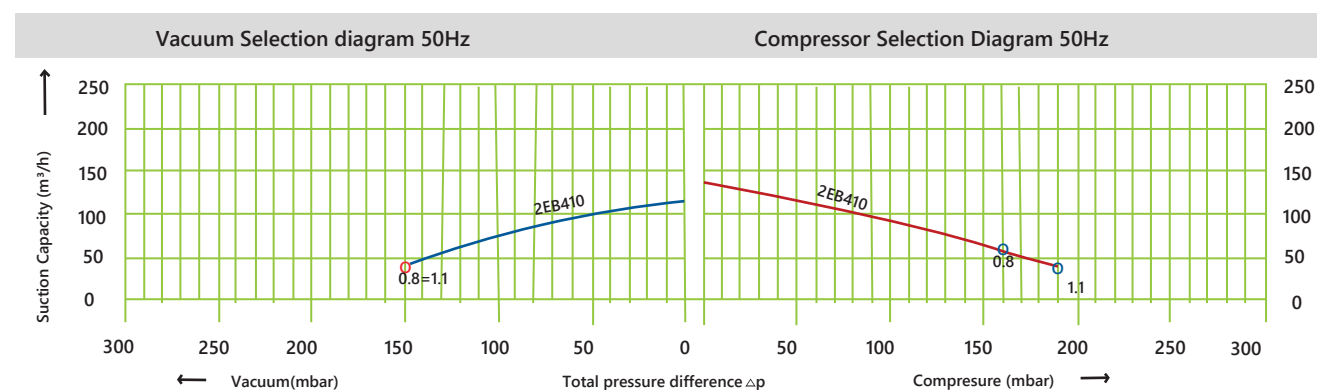
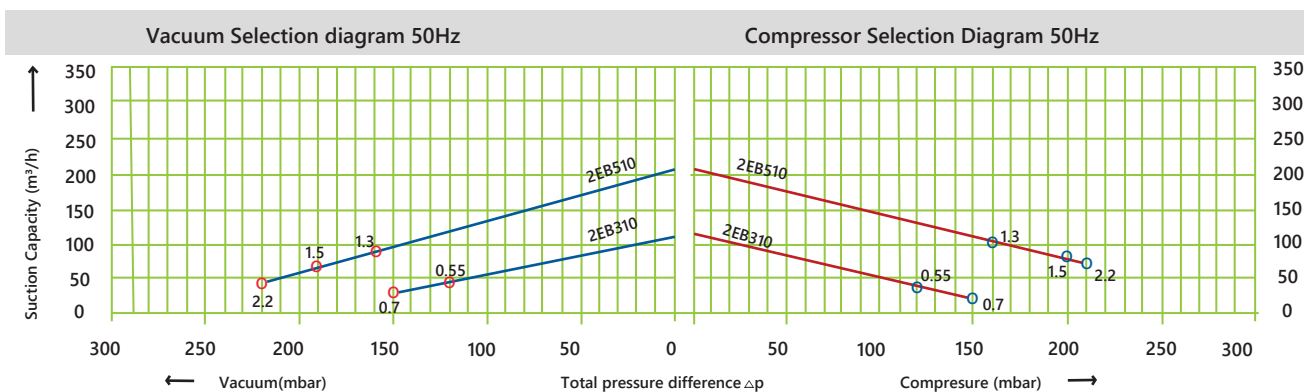
IE3 AIR BLOWER

Dimensions

Aqvastar Code	Factory Code	AC	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	U
ASABIE750	2EB310A11	1AC	268	272	93	205	230	260	135	141	101	83	108	82	69	41	G11/4	64	10	3	M6x17
ASABIE1100	2EB410A21	1AC	286	302	115	225	255	294	160	154	120	95	130	70	75	46	G11/4	72	12	3	M6x19
ASABIE1500	2EB510A11	1AC	334	337	120	260	295	314	160	175	120	115	155	96	87	48	φ55	83	14	4	M8x17
ASABIE2200	2EB510A21	1AC	334	337	120	260	295	345	191	175	128	115	155	96	87	48	φ55	83	14	4	M8x17

Aqvastar Code	Factory Code	V(1~)	V'(1~)	V1(3~)	V1'(3~)	YxZ	X-Holes	φX	W
ASABIE750	2EB310A11	M25x1.5	M16x1.5	-----	-----	M6x15	0°/120°/240°	160	-
ASABIE1100	2EB410A21	M16x1.5	M25x1.5	-----	-----	M6x15	0°/120°/240°	170	-
ASABIE1500	2EB510A11	M16x1.5	M25x1.5	-----	-----	M8x20	0°/120°/240°	200	29
ASABIE2200	2EB510A21	M16x1.5	M25x1.5	-----	-----	M8x20	0°/120°/240°	200	29

Vacuum compression type curve



HEAT PUMP

AQVASTAR
PRO SERIES

Inverter Heat/ Cool Pump - Residential / Semi commercial

Eco-friendly R32

32% GWP comparing to R410A
25% CO2 carbon consumption
25% quota cost

Smart WIFI Control

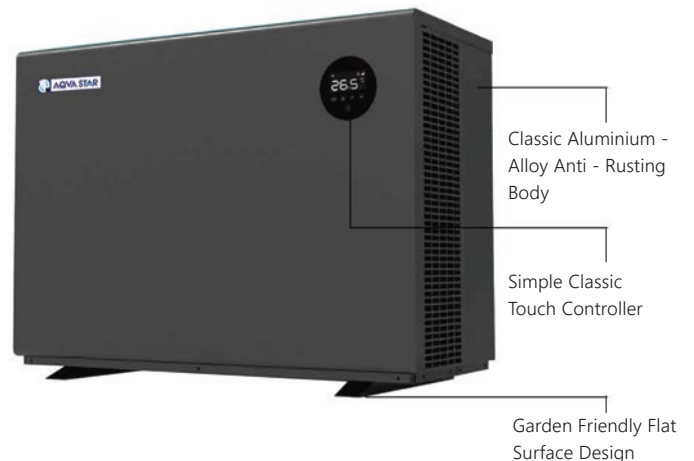
With Mr. Silence's smart APP control you can check or control your Mr. Silence anywhere

Full Protection on Electrical system

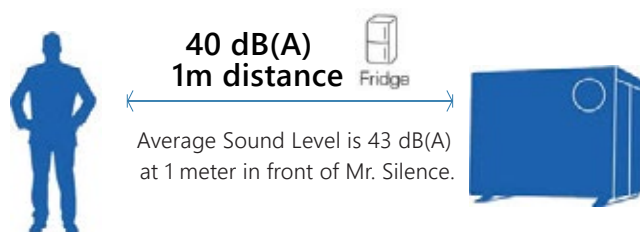
By DC Inverter compressor,
Mr. Silence will start from 0 Amps to rated Amps steadily.
There is no rush to the house electricity system

Wide Voltage Application

Self-adjustment to fit in unstable power supply, therefore voltage range can be 180-260V



12dB(A) lower than traditional on/off HP.



Features of Mr. Silence



EEV

EEV technology: 10 times flexibility to adjust the gas flow and increase the COP by upto 20%



Hot gas defrosting with Saginomiya 4-way valve for quick & efficient defrosting



Twisted titanium heat exchanger: 40% higher efficiency than normal titanium heat exchanger

Thanks to the revolutionary air-flow design & stepless DC inverter system of Inverpad technology, the sound level of Mr. Silence is as low as a fridge.

AQUARK

Made in ROC

HEAT PUMP



Inverter Heat/ Cool Pump - Residential / Semi commercial

Technical Specification

Model	AS70I	AS90I	AS110I	AS130I	AS150I	AS170I	AS210I	AS280I	AS280SI	AS350SI
PERFORMANCE CONDITION: Air 27°C/Water 27°C/Humid. 80%										
Heating capacity (kW)	7.0	9.0	11.0	13.0	15.0	17.5	21.0	28.0	28.0	35.2
COP Range	14~7.2	14~7.2	14~7	14.5~7.0	15~7	15.6~7	14.8~7.1	16~7.2	15.8~7.1	15.5~7
Average COP at 50% Speed	10.5	10.5	10.3	10.5	11.0	11.0	11.0	11.1	10.8	10.5
PERFORMANCE CONDITION: Air 15°C/ Water 26°C/Humid. 70%										
Heating capacity (kW)	5.0	6.6	7.7	9.0	10.5	12.5	14.5	19.0	19.0	24.2
COP Range	7.3~4.5	7.5~4.8	7.3~4.7	7.5~5	7.7~4.9	7.7~5.0	7.1~5.0	8~5.0	8~5.0	7.5~5.0
Average COP at 50% Speed	6.5	6.5	6.6	6.4	6.8	6.6	6.6	6.6	6.5	6.6
PERFORMANCE CONDITION: Air 35°C/ Water 28°C/ Humid. 80%										
Cooling capacity (kW)	3.5	4.4	5.4	6.3	7.4	8.0	10.1	11.9	11.9	16.1
TECHNICAL SPECIFICATIONS										
Advised pool volume (m3)*	15~30	20~45	30~55	35~65	40~70	40~80	50~95	60~120	60~120	85~160
Operating air temperature (°C)	-10°C~43°C									
Compressor	Twin-rotary Mitsubishi DC compressor									
Casing	Aluminium Alloy casing									
Heat exchanger	Twisted Titanium Heat Exchanger									
Power supply	230V 1Ph								400V 3Ph	
Rated input power (kW)	0.14~1.12	0.19~1.38	0.22~1.64	0.26~1.8	0.28~2.15	0.33~2.50	0.38~2.90	0.49~3.80	0.49~3.80	0.65~4.84
Input power at 50% Speed (kW)	0.38	0.51	0.58	0.7	0.77	0.95	1.1	1.44	1.46	1.84
Rated input current (A)	0.61~4.83	0.83~5.98	0.96~7.13	1.13~7.83	1.22~9.32	1.44~10.9	1.66~12.7	2.15~16.53	0.71~5.51	0.95~7.01
Maximum input current (A)	7.5	8.5	10	12	13.5	15	17	20	7	10.5
Power cord (mm ²)	3x1.5	3x2.5	3x2.5	3x2.5	3x2.5	3x4	3x4	3x6	5x2.5	5x2.5
Sound level at 1m dB(A)	36.5~46.0	36.8~46.2	36.6~47.9	40.1~48.7	39.3~52	41.1~51.8	38.9~52.2	41.5~52.9	41.5~52.9	40.6~52.6
Sound level 50% at 1m dB(A)	39.2	39.4	41.3	43.7	44	44.5	44.4	46.4	47	46.1
Sound level at 10m dB(A)	16.5~26.0	16.8~26.1	16.6~27.9	20.1~28.7	19.3~32	21.1~31.8	18.9~32.2	21.5~32.9	21.5~32.9	20.6~32.6
Advised water flux (m ³ /h)	2~4	2~4	3~5	4~6	5~7	6~8	8~10	10~12	10~12	12~18
Water connection (mm)	50									
Net weight (kg)	52	53	55	57	61	66	72	91	96	135
Net dimension LxWxH (mm)	890*430*657	890*430*657	890*430*657	890*430*657	970*430*657	1060*430*657	1060*430*757	1060*430*957	1060*430*957	1314*512*957

Average-COP 10.7

COP range 16.0~7.0 (air 27°C/water 27°C).

When maintaining pool temperature at 95% of pool season, the HP is running by 50% capacity which leads to the best energy saving performance and most silent pool environment.

**THE LOW CARBON FOOTPRINT REDUCE
93% OF YOUR ENERGY BILL**



Made in ROC

HEAT PUMP

Commercial Inverter Heat/ Cool Pump - InverMax

Features

- Reverse Cycle Defrosting
- -10°C~43°C Operation
- Aluminium Alloy Casing
- Mitsubishi Twin-Rotary Inverter Compressor
- EEV Technology - 20% higher efficiency than capillary
- Twisted Titanium Heat Exchanger - 40% higher efficiency
- Gas: Eco-friendly R32

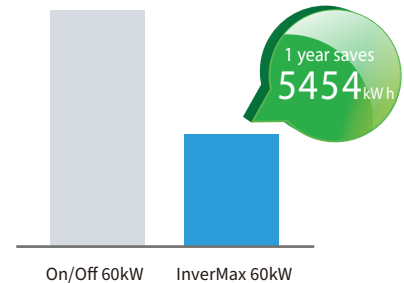
Double energy saving

Energy consumption comparison

Heat pump	InverMax 60kW	On/off HP 60kW
COP (air 27°C/water 27°C)	10.5@50% Capacity	5
Input power	2.86 kW	12 kW
Heating time (for 1°C)	9.67 hours	4.83 hours
Daily consumption	27.66 kWh	57.96 kWh
Yearly consumption (180 days)	4978.8 kWh	10432.8 kWh

*Formula: $kW \cdot h = T \cdot V (m^3) \cdot 1.16$ 250m³ pool volume

Above calculation is just a reference when maintaining pool temp for well isolated pool under air 27°C/ water 27°C



Wi-Fi Built-in Touch Controller

HEAT PUMP

Commercial Inverter Heat/ Cool Pump - InverMax

Technical specification

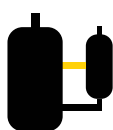
Model	AS600SI	AS1100SI
PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80%		
Heating capacity(kW)	60.0	115.0
COP Range	6.2~15.0	6.3~15.0
Average COP at 50% speed	10.5	10.8
PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70%		
Heating capacity (kW)	40.1	85.0
COP Range	4.7~7.7	4.8~8.0
Average COP at 50% speed	6.8	7.0
PERFORMANCE CONDITION: Air 35°C/ Water 28°C/ Humid. 80%		
Cooling capacity (kW)	24.0	45.0
TECHNICAL SPECIFICATIONS		
Advised pool volume (m ³)	125~260	250~520
Operating air temperature (°C)	-10°C ~ 43°C	
Compressor	DC Inverter Compressor	
Heat exchanger	Twisted Titanium Heat Exchanger	
Fan direction	Vertical	
Power supply	400V/3 Ph/50Hz	
Rated input power (kW)	2.13~8.53	4.43~17.7
Rated input current (A)	3.08~12.36	6.42~25.65
Sound level at 1m dB(A)	53.0~61.0	55.0~64.0
Sound level 50% at 1m dB(A)	55	58
Sound level at 10m dB(A)	33.0~41.0	35.0~44.0
Advised water flux (m ³ /h)	20~25	40~50
Water connection (mm)	75	110
Net dimension LxWxH (mm)	1023x1110x1260	2100x1090x1280
Net Weight (kg)	212	459

HEAT PUMP

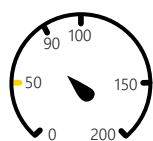
Invermax PRO

Dual Inverter Heating Systems Dual Power, Double Saving

InverMax Pro adopts the industry's leading efficient Stepless DC Inverter control system. With smart conversion of compressor and fan motor, it provides amazing energy saving performance.



Mitsubishi twin-rotary inverter compressor



Stepless comfort speed conversion



DC Brushless Fan Motor



COP up to 15



-15°C~43°C Operation



Stainless Steel Casing

350~750 m³ Pool Available

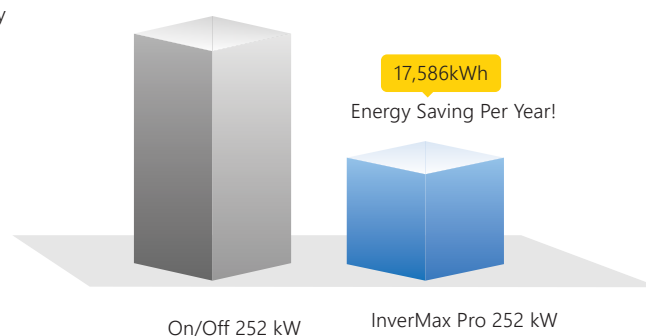
Double Energy Saving Energy consumption comparison

Formula: $kW \cdot h = T \cdot V (m^3) \cdot 1.16$ 500 m³ pool volume

Above calculation is just a reference when maintaining pool temperature for well isolated pool under air 27°C/ water 27°C

Heat Pump	InverMax Pro 252 kW	On/off HP 252 kW
COP (air 27°C/ water 27°C)	11.0 @50% capacity input power	5.7
Input power	11.46 kW	44.21 kW
Heating time (for 1°C)	4.61 hours	2.30 hours
Daily consumption	52 kWh	101 kWh
Yearly consumption (360 days)	19,018 kWh	36,604 kWh

Use a 252 kW InverMax Pro inverter pool heat pump instead of a 252 kW On/Off heat pump to heat up a 500 m³ pool by 1°C and save 17,586 kWh of energy consumption every year. It is nearly double energy saving!



HEAT PUMP

AQVASTAR
PRO SERIES

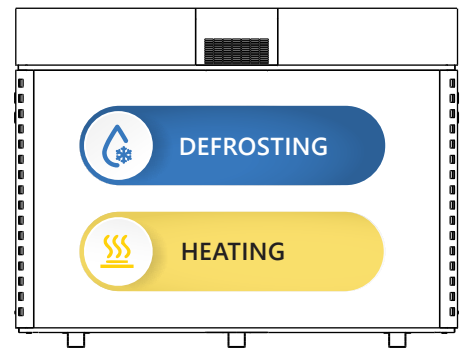
Invermax PRO

Dual Inverter Heating Systems Super Strong Heating Power

Inverter Heating Systems 2 Sets

- ◆ Inverter Control Chipsets 4 Sets
- ◆ High-Quality Evaporators 4 Sets
- ◆ Mitsubishi Twin-Rotary Inverter Compressors 4 Sets

InverMax Pro has two standalone inverter control systems, each equipped with two sets of compressors and evaporators. During defrosting mode, one system will maintain its normal heating operation to ensure constant output into the swimming pool, providing perfect 4 seasons swimming experience in public or commercial use.

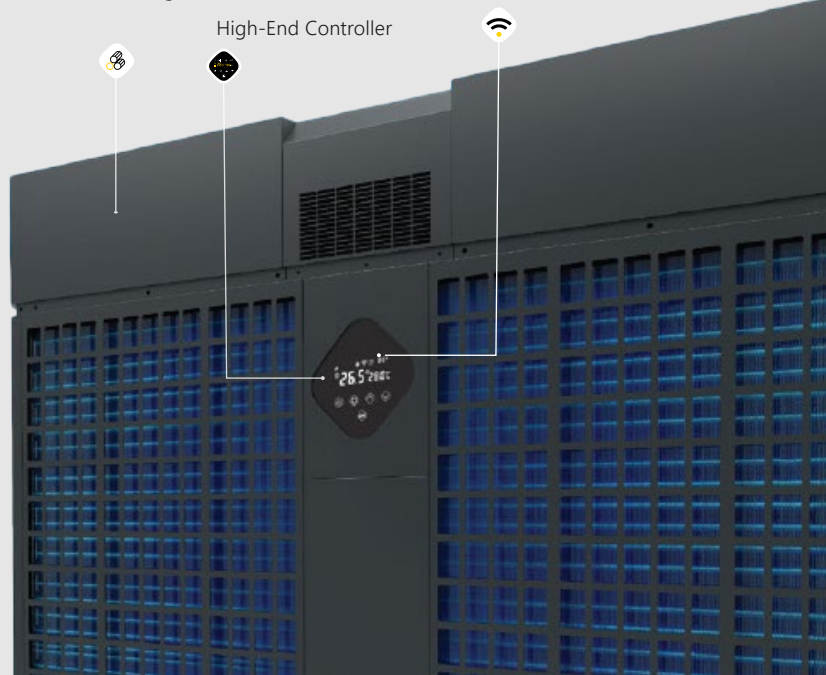


Dual Inverter Heating Systems

Full Stainless Steel Casing
Cool Black Design

High-End Controller

Wi-Fi Connection



AQUARK

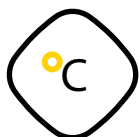
Made in ROC

HEAT PUMP

AQVASTAR
PRO SERIES

Invermax PRO

Other Features



-15°C ~ 43°C Operation



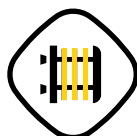
Gas Pressure Monitoring



Heating, Cooling and Automatic Modes



EEV Technology 20% Higher Efficiency Than Capillary

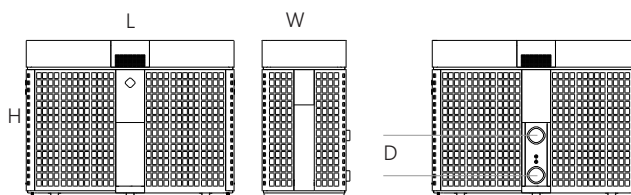


Twisted Titanium Heat Exchanger 40% Higher Efficiency

Parameters of InverMax Pro

Model		AS2500SI
Operating air temperature (°C)		-15°C ~ 43°C
PERFORMANCE CONDITION: Air 27°C/ Water 27°C/ Humid. 80%		
Power Mode	Heating capacity (kW)	252.0
	Heating capacity (kW)	205.0
	COP	15.0~7.0
	Average COP	11.0
PERFORMANCE CONDITION: Air 15°C/ Water 26°C/ Humid. 70%		
Power Mode	Heating capacity (kW)	185.0
	Heating capacity (kW)	152.0
	COP	8.0~5.5
	Average COP	7.5
PERFORMANCE CONDITION: Air 35°C/ Water 28°C/ Humid. 80%		
Cooling capacity (kW)		110.0
TECHNICAL SPECIFICATIONS		
Compressor		Mitsubishi twin-rotary DC compressor
Casing		Stainless steel casing
Power supply		400V/3 Ph/50Hz
Rated input power (kW)		5.7~35.8
Input power at 50% speed (kW)		10.1
Rated input current (A)		8.3~51.9
Sound level at 1m dB(A)		58.0~72.0
Sound level 50% at 1m dB(A)		65.0
Sound level at 10 m dB(A)		38.0~52.0
Advised water flux (m³/h)		60~75
Water connection (mm)		110

Maximum input current (A)	68
Breaker rated current (A)	80
Power cord (mm²)	5*25
R410A Gas Weight (g)	8000×4
Gross Weight (kg)	1260
Packaging dimension LxWxH (mm)	2680*1120*2230



AQUARK

Made in ROC

ELECTRIC HEATERS

Optima Compact (All Titanium)

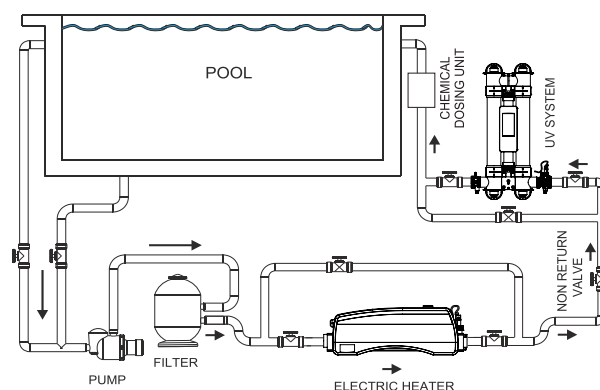
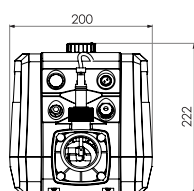
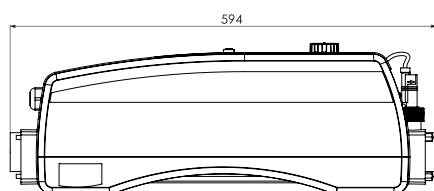
Top of the range comes with touchscreen, ideal for pools and spas. The Optima Compact fully titanium heater ensures maximum safety, reliability and efficiency, the design makes it highly robust and durable.

Features

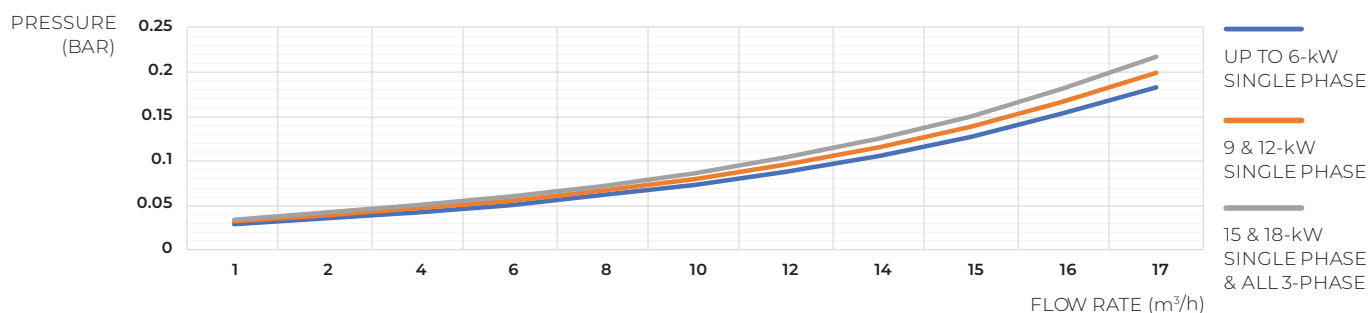
- Nine power options ranging from 2-kW to 24-kW
- 230/400V Versatile (for selected models) shall be used for 1ph/3ph connection.
- Easy installation, fully equipped and pre-wired
- Robust, durable construction
- Ultra-reliable flow switch allows safe operation
- Fitted with temperature thermostat and overheating sensor
- Compact, durable design
- Touchscreen control with soft-start for power supply protection
- Titanium flow tube and titanium heating element(s)
- Can be floor or vertically wall mounted
- Vortex, long life, stay clean heating element technology
- 100% efficiency throughout the product life
- Silent operation



Technical drawings



Pressure drop



ELECTRIC HEATERS

Optima Compact (All Titanium)

Technical specification

Power supply	Single phase or three phase
Flow Requirements	Minimum flow: 2-Kw to 6-KW, 1m³/h Minimum flow: 9-Kw to 24-KW, 4m³/h Maximum flow: 17m³/h
Heating Element	Grade 1 titanium
Flow tube	Grade 1 titanium
Control thermostat	Touchscreen 0 > 45°C (0.5°C differential)
Safety thermal cut out	60°C (manual reset)
Flow switch	Gold tipped reed switch with titanium fulcrum pin
Contactors	Dual Siemens 3RT2023 or 3RT2027
Seals	High temperature special formula EPDM ferrules, TPE end fitting gaskets
Water connections	1.5" BSP female thread supplied with 1½" / 50mm stepped ABS unions for rigid pipe and 1½" / 1¼" stepped hose tails for flexible pipe
International protection marking	IP44
Frequency	50/60 Hz
Working Pressure	4 bar maximum
Mounting	Floor or wall mounting

Models

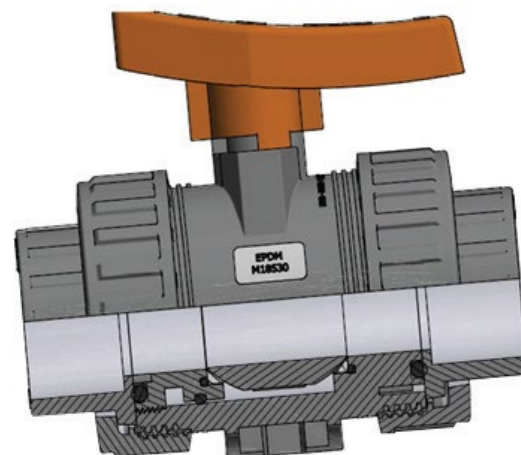
Power Output	Load	Aqvastar code	Factory code	Net weight	Gross weight	Volume
	Amp			Kg	kg	m3
Versatile 230/400V*						
6-kW	27/9	ASOCH6S/T	OCPD-V-6	8.6	9.7	0.059
9-kW	40/13	ASOCH9S/T	OCPD-V-9	8.6	9.7	0.059
12-kW	53/18	ASOCH12S/T	OCPD-V-12	8.6	9.7	0.059
400V 3-Phase*						
18-kW	26	ASOCH18T	OCPD-3-18	8.6	9.7	0.059
24-kW	35	ASOCH24T	OCPD-3-24	8.6	9.7	0.059

U-PVC BALL VALVES

General Properties

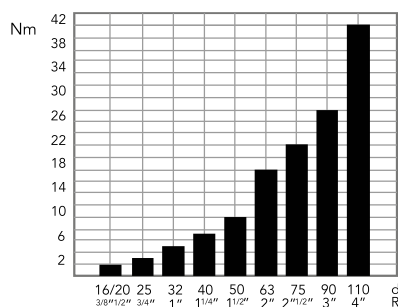
Abbreviations

d	Nominal outside diameter of the pipe in mm
DN	Nominal internal diameter in mm
G	Nominal size of the thread in inches
PN	Nominal pressure in bar (max. working pressure at 20°C – water)
Gr.	Weight in grams
PVC	Polyvinyl chloride
EPDM	Ethylene propylene rubber (DUTRAL®)
FPM	Fluoride rubber (VITON®)
PTFE	Polytetrafluoroethylene

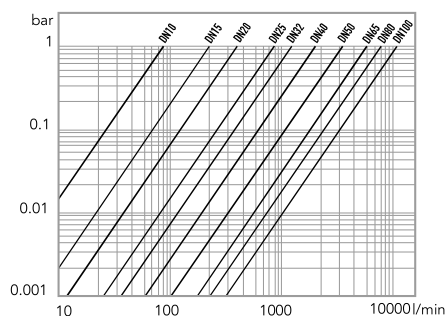


Technical data

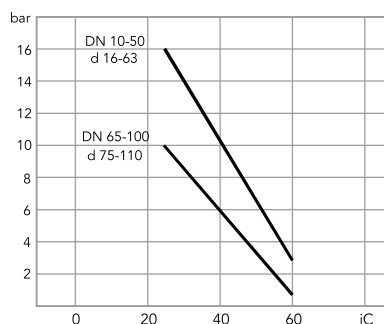
Max torque at maximum working pressure



Pressure chart



Pressure/temperature rating for water and other suitable fluids to which PVC is resistant



FLOW COEFFICIENT KV100: kv100 is the number of litres per minute of water at a temperature of 20°C that will flow through a valve with one-bar pressure differential at a specified rate. The kv100 values shown in the table are calculated with the valve completely open.

d	16	20	32	40	50	63	75	90	110
DN	10	15	25	32	40	50	65	80	100
Kv 100	80	200	385	770	1100	1750	5250	7100	9500

COMER have produced a complete range of ball valves which comply with the following standards:

SOLVENT WELDING ISO 727, DIN 8063, NF T54-028, BS 4346/1, UNI EN 1452

THREADED COUPLINGS UNI ISO 228/1, DIN 2999, BS21

FLANGED COUPLINGS ISO 2084, UNI 7442, DIN 8063



Made in ITALY

U-PVC BALL VALVES

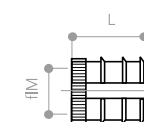
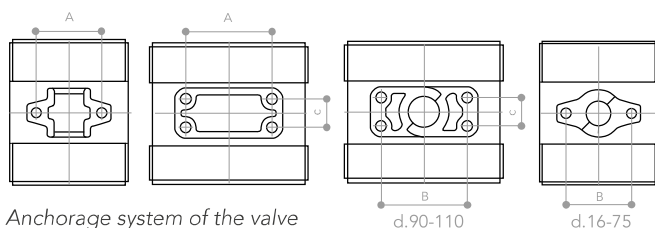
Industrial Series

General characteristics

Double Union Ball Valve characterized by an optimal handling (low torque). Each valve is tested in vacuum conditions and in extremely low pressure, then makes it the ideal valve to be used in industrial plant and with aggressive fluids (see table of chemical resistances of PVC Fittings)

Installation and use

When gluing the end connector on the pipe, care must be taken to prevent the glue or solvent from coming in contact with the valve seats or ball. Threaded ends should not be connected with cone-shaped male threads and the use of hemp or similar materials should be carefully avoided. Special attention should be paid to the correct line-up of the installation and to the pipe length. Tighten the union nut only by hands. The use of wrench is not allowed. It is important that the unions are not used to pull the system together. If there is any leakage from the union nuts, please check the correct line-up of the system and the pipe length. An excessive tightening of the unions could finally break them. Before the valve is cycled all dirt, sand or other material should be flushed from the system. This is to prevent scarring of the ball and/or seats. It is important to avoid rapid closures/opening of the valve to eliminate the possibly of water hammer causing damage to the pipeline. It is necessary that all installation and maintenance personnel become familiar with the proper solvent cement and thread joining procedures.



Brass insert

Instructions for disassembly and reassembly in case of maintenance

The whole body of the valve can be removed from the installation by unscrewing the union nuts **5**. To reach the internal parts of the valve, proceed as follows:

- A** Set the valve open.
- B** Remove the handle **1** from control stem **2**.
- C** Unscrew the sealing bush **7** off the body **3** using the two teeth of the handle **1** unscrewing operations should be done counter-clockwise.
- D** After having unscrewed the sealing bush **7**, it is possible to dismantle all the internal parts of the valve and to check the O-rings. To remove the ball **6**, turn the control stem **90°** to the closed position. The ball can then be removed through the control stem **2**. To remove the control stem push it downwards as far is possible. To reassemble the valve follow the instructions in reverse order, being careful to set the O-ring properly and grease it with silicone grease.

d-G	A	B	C	ØM	L
16 - 3/8"	23	29	-	M5	9.5
20 - 1/2"	23	29	-	M5	9.5
25 - 3/4"	27	32	-	M5	9.5
32 - 1"	32.5	35.5	-	M5	9.5
40 - 1" 1/4	38	46	-	M6	13
50 - 1" 1/2	50	50	-	M6	13
63 - 2"	53	53	-	M6	13
75 - 2" 1/2	70	70	-	M8	13
90 - 3"	80	80	26	M8	13
110 - 4"	100	100	32	M8	13

U-PVC BALL VALVES

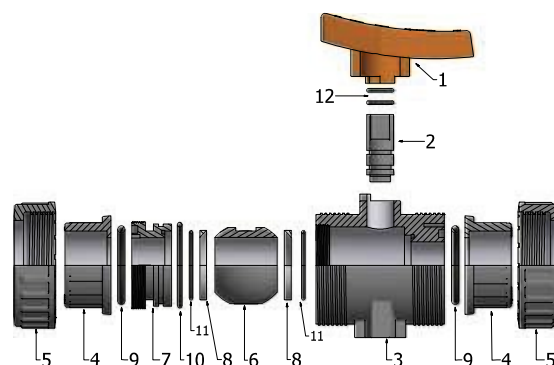
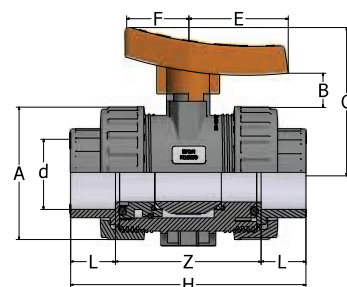
AQVASTAR
PRO SERIES

Industrial Series

Industry ball valve with female plain ends

Aqvastar code	Factory Code	d	DN	L	Z	H	A	B	C	E	F	PN	Gr.
ASDCOM40B	BVI10016	16	10	14	74	102	50	10	54	39	19	16	180
ASDCOM50B	BVI10020	20	15	16	70	102	50	10	54	39	19	16	170
ASDCOM75B	BVI10025	25	20	19	82	120	60	11	64	47	22	16	270
ASDCOM100B	BVI10032	32	25	22	86	130	68	13	74	55	25	16	380
ASDCOM125B	BVI10040	40	32	26	97	149	80	18	87	60	30	16	564
ASDCOM150B	BVI10050	50	40	31	103	165	96	20	100	68	35	16	870
ASDCOM200B	BVI10063	63	50	38	123	199	116	20	118	80	40	16	1,514
ASDCOM250B	BVI10075	75	65	44	130	218	145	25	150	90	45	10	2,345
ASDCOM300B	BVI10090	90	80	51	148	250	166	28	175	100	50	10	3,690
ASDCOM400B	BVI10110	110	100	61	168	290	210	28	200	120	60	10	6,040

Pos.	Components	N°	Mat.
1	Ergonomic handle	1	U-PVC
2	Reinforced stem	1	U-PVC
3	Body	1	U-PVC
4	Union end	2	U-PVC
5	Union nut	2	U-PVC
6	Machined Ball	1	U-PVC
7	Threaded sealing bush	1	U-PVC
8	Ball seat	2	PTFE
9	Union O-ring	2	EPDM
10	O-ring sealing bush	1	EPDM
11	O-ring ball seat	2	EPDM
12	O-ring stem	2	EPDM

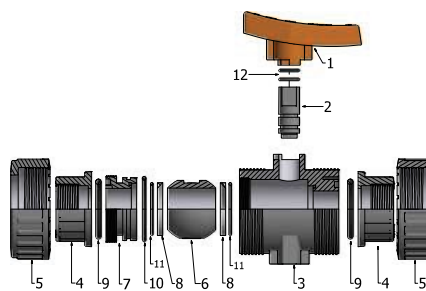
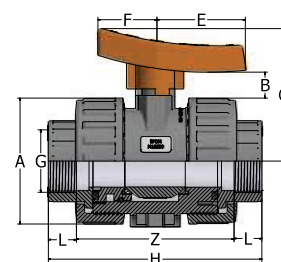


Industry ball valve with female threaded ends

Aqvastar code	Factory Code	G	DN	L	Z	H	A	B	C	E	F	PN	Gr.
ASDCOM40BT	BVI11016	3/8"	10	14	74	102	50	10	54	39	19	16	180
ASDCOM50BT	BVI11020	1/2"	15	16	70	102	50	10	54	39	19	16	170
ASDCOM75BT	BVI11025	3/4"	20	19	82	120	60	11	64	47	22	16	270
ASDCOM100BT	BVI11032	1"	25	22	86	130	68	13	74	55	25	16	380
ASDCOM125BT	BVI11040	1" 1/4	32	26	97	149	80	18	87	60	30	16	570
ASDCOM150BT	BVI11050	1" 1/2	40	31	103	165	96	20	100	68	35	16	900
ASDCOM200BT	BVI11063	2"	50	38	123	199	116	20	118	80	40	16	1,540
ASDCOM250BT	BVI11075	2" 1/2	65	44	130	218	145	25	150	90	45	10	2,400
ASDCOM300BT	BVI11090	3"	80	51	148	250	166	28	175	100	50	10	3,810
ASDCOM400BT	BVI11110	4"	100	61	168	290	210	28	200	120	60	10	6,200

*Available only on request

Pos.	Components	N°	Mat.
1	Ergonomic handle	1	U-PVC
2	Reinforced stem	1	U-PVC
3	Body	1	U-PVC
4	Union end	2	U-PVC
5	Union nut	2	U-PVC
6	Machined Ball	1	U-PVC
7	Threaded sealing bush	1	U-PVC
8	Ball seat	2	PTFE
9	Union O-ring	2	EPDM
10	O-ring sealing bush	1	EPDM
11	O-ring ball seat	2	EPDM
12	O-ring stem	2	EPDM



Made in ITALY

U-PVC ONE FLOW DIRECTION VALVES

General Properties

General characteristics

Compact valve, radial type. All versions are supplied with identical dimensions to our ball valves BVD 10/11/13 and can be removed radially from the installation by simply unscrewing the two nuts.

The CVD allows the fluid to flow in only one direction

The FVD allows the fluid to flow in suction.

The ARV allows to vent the air until the arrival of the fluid, which, by lifting the shutter, will ensure the pressure tightness of the system.

Technical data

Minimum pressure drop in the fully open position

d	16	20	25	32	40	50	63	75	90	110
R	3/8"	1/2	3/4"	1"	1" 1/4	1" 1/2	2"	2" 1/2	3"	4"
bar	0.010	0.010	0.010	0.015	0.015	0.020	0.020	0.030	0.030	0.030

Minimum back pressure for tight service
(valve in closed position)

d	16	20	25	32	40	50	63	75	90	110
R	3/8"	1/2	3/4"	1"	1" 1/4	1" 1/2	2"	2" 1/2	3"	4"
bar	0.010	0.010	0.010	0.015	0.015	0.020	0.020	0.030	0.030	0.030

Installation and use

When gluing the end connectors on the pipe, care must be taken to prevent the glue or solvent from coming in contact with the valve seats or ball. Parallel threaded ends should not be connected with cone-shaped male threads and the use of hemp or similar materials must be avoided. Special attention should be paid to the correct line-up of the installation and to the pipe length. Union nut must be tightened only by hands. The use of a wrench is not allowed. It is important that the unions are not used to pull the system together. If there is a leakage from the union nuts, please check the correct line-up of the system and the pipe length. An excessive tightening of the unions could break them. Before the valve is installed, all dirt, sand or other materials should be flushed from the system. This is to prevent scarring of the shutter and/or seats. It is important that all installation and maintenance personnel become familiar with the proper solvent cement and thread joining procedures

Instructions for disassembly and reassembly in case of maintenance

By unscrewing the union nut **5** it is possible to take out the body of the check valve from the system. To reach the internal parts of the valve proceed as follows:

A Take out the sealing bush **3** from the body **1**.

B After removing the sealing bush **3** it is possible to reach all the internal parts of the valve to check the O-rings.

To re-assemble the valve act in reverse order being careful to set the O-rings properly and grease them with silicone grease.

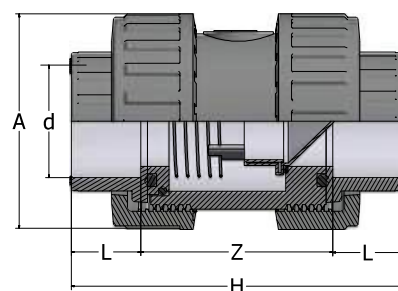
U-PVC ONE FLOW DIRECTION VALVES

AQVASTAR
PRO SERIES

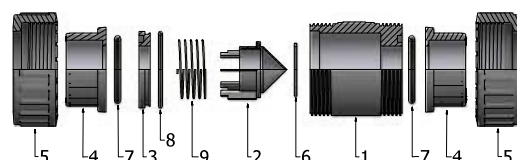
Check valves

Check valve with female plain ends

Aqvastar code	Factory Code	d	DN	L	Z	H	A	PN	Gr.
ASDCCOM40B	CVD10016	16	10	14	53	81	50	16	118
ASDCCOM50B	CVD10020	20	15	16	49	81	50	16	110
ASDCCOM75B	CVD10025	25	20	19	56	94	60	16	170
ASDCCOM100B	CVD10032	32	25	22	63	107	68	16	250
ASDCCOM125B	CVD10040	40	32	26	72	124	80	16	370
ASDCCOM150B	CVD10050	50	40	31	84	146	96	16	560
ASDCCOM200B	CVD10063	63	50	38	94	170	116	16	896
ASDCCOM250B	CVD10075	75	65	44	130	218	145	10	1,724
ASDCCOM300B	CVD10090	90	80	51	148	250	166	10	2,824
ASDCCOM400B	CVD10110	110	100	61	168	290	210	10	4,663



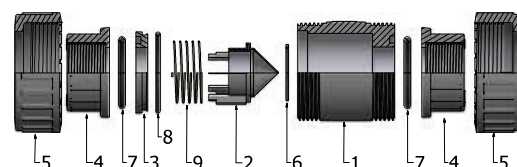
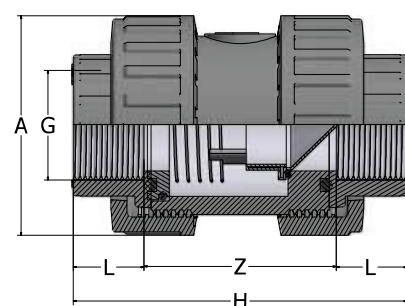
Pos.	Components	N°	Mat.
1	Body	1	U-PVC
2	Shutter	1	U-PVC
3	Sealing bush	1	U-PVC
4	Union end	2	U-PVC
5	Union nut	2	U-PVC
6	Gasket	1	EPDM
7	Union O-ring	2	EPDM
8	O-ring sealing bush	1	EPDM
9	Spring	1	INOX AISI 316



Spring in stainless steel type AISI 316 PTFE coated available upon request

Check valve with female threaded ends

Aqvastar code	Factory Code	G	DN	L	Z	H	A	PN	Gr.
ASDCCOM40BT	CVD11016	3/8"	10	14	53	81	50	16	118
ASDCCOM50BT	CVD11020	1/2"	15	16	49	81	50	16	110
ASDCCOM75BT	CVD11025	3/4"	20	19	56	94	60	16	170
ASDCCOM100BT	CVD11032	1"	25	22	63	107	68	16	250
ASDCCOM125BT	CVD11040	1" 1/4	32	26	72	124	80	16	370
ASDCCOM150BT	CVD11050	1" 1/2	40	31	84	146	96	16	560
ASDCCOM200BT	CVD11063	2"	50	38	94	170	116		896
ASDCCOM250BT	CVD11075	2" 1/2	65	44	130	218	145	10	1,726
ASDCCOM300BT	CVD11090	3"	80	51	148	250	166	10	2,900
ASDCCOM400BT	CVD11110	4"	100	61	168	290	210	10	4,671



Spring in stainless steel type AISI 316 PTFE coated available upon request

*Available only on request

Pos.	Components	N°	Mat.
1	Body	1	U-PVC
2	Shutter	1	U-PVC
3	Sealing bush	1	U-PVC
4	Threaded union end	2	U-PVC
5	Union nut	2	U-PVC
6	Gasket	1	EPDM
7	Union O-ring	2	EPDM
8	O-ring sealing bush	1	EPDM
9	Spring	1	INOX AISI 316



Made in ITALY

U-PVC VALVES

Butterfly valve

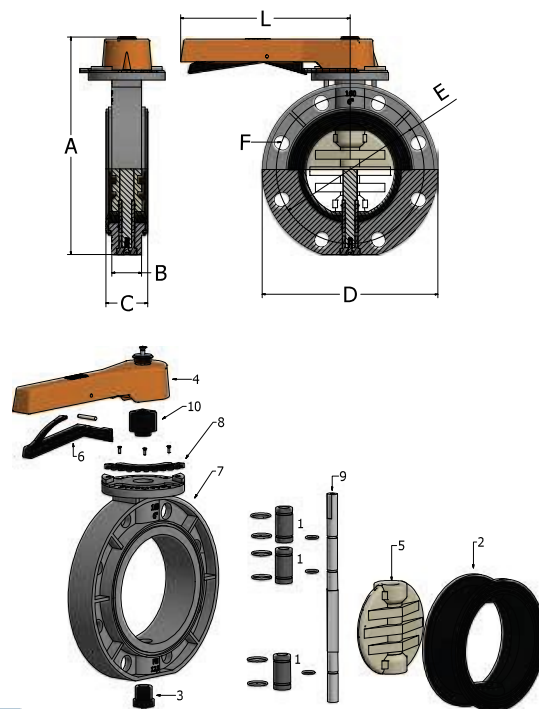
General characteristics

New Butterfly Valves extend COMER wide range of PVC, ABS, PE, PP, GFPP fittings, valves and technical tools. COMER Butterfly Valve represents the latest evolution within the market and fits for different applications, in particular: water treatment, irrigation, pools and industrial.

Main features are:

- Rubber gasket on the body with dual function of forming an hydraulic seal and isolating the body from any aggressive fluid circulating in the plant
- PP disc with reinforcement ribs allowing better chemical and mechanical resistance whilst ensuring low pressure drop in the full opening position
- Drilling pattern using oval slots allowing coupling of flanges according to: EN ISO 1452; EN ISO 15493; DIN 2501; ISO 7005-1; EN 1092-1: ASTM B16.5 Cl. 150
- Possible security block on the handle through the hole on the locking/unlocking device

U-PVC Butterfly valve – EPDM O-ring



Aqvastar code	Factory Code	A	B	C	D	E	F	L	Gr.
BFTCOM250F	BUT10075	240	38	50	185	135	19.5 X 29.5	219	1,380
BFTCOM300F	BUT10090	250	40	54	191	152.5	19 X 26.5	239	1,555
BFTCOM400F	BUT10110	284	43	57.3	227	185	19 X 24.5	239	2,220
BFTCOM401F	BUT10125	325	48	67.3	255	210	21.9 X 27	274	3,400
BFTCOM500F	BUT10140	325	48	67.3	255	210	21.9 X 27	274	3,400
BFTCOM600F	BUT10160	349	48	67.5	284	239	22 X 25	274	3,870
BFTCOM800F	BUT10225	412	55	77	347	289	23 X 32	327	6,440

Pos.	Components	N°	Mat.
1	Bush	3	POM
2	Gasket	1	EPDM
3	Plug	1	POM
4	Handle	1	U-PVC
5	Disc	1	PP
6	Locking handle device	1	POM
7	Body	1	U-PVC
8	Graduated plate	1	POM
9	Stem	1	Steel HR
10	Insert	1	POM

BUT19 Flanged version available upon request

BUT30 version with Viton® gaskets available upon request

MAINTENANCE EQUIPMENTS

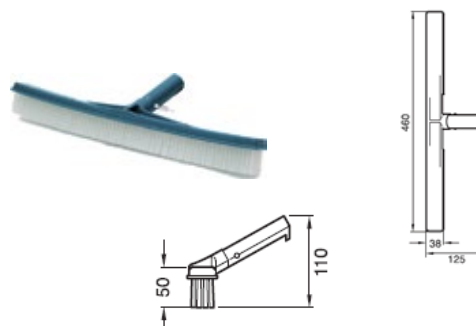
AQVASTAR
PRO SERIES

Cleaning the swimming pool is a necessary but arduous task, Aqvastar Pro's range of pool care equipment aims to make it as easy and pleasurable as possible.

Pool Brush

Four rows of superior nylon bristle on a tough shaped polypropylene stock give the Pool brush the edge over all other brushes on the market. Guaranteed to give many years of service and not to be compared with cheaper alternatives.

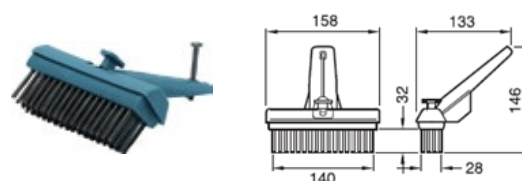
Ref.Code	Product Details
PROWB	18" (450 mm) Pool brush, Made in the UK



Algae Brush

Specially designed swivel head for easy cleaning of walls and floors. The high quality stainless steel bristles are ideal for removing algae from pool wall surfaces.

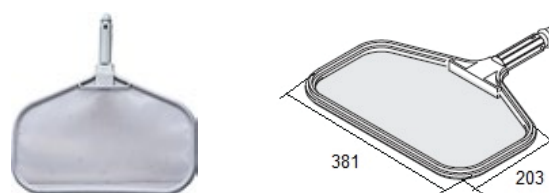
Ref.Code	Product Details
PROAB	6" Algae brush, Made in the UK



Leaf Net

Very durable frame and integral Pine-mesh net for removing floating debris on the surface of your pool.

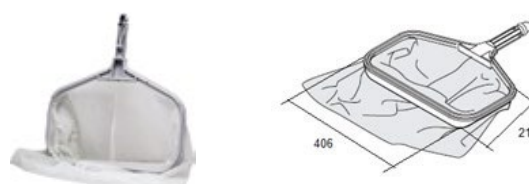
Ref.Code	Product Details
PRODN	Flat leaf net, Made in the UK



Leaf rake

Virtually unbreakable frame with moulded-in net and scoop for cleaning the bottom of the pool

Ref.Code	Product Details
PRODN	18" Deep leaf net, Made in the UK



Transflot Bicolor Pool Hose

Transparent piping with a spiral reinforcement in blue, highly flexible, manufactured from EVA (ethyl-vinyl-acetate)

- Its corrugated shape, rounded contours and its specific weight of 0.93 ensure its floatation when in operation
- Non-toxic material, but not for use with food
- Equipped with two connection terminals for bottom cleaning devices, one of them rotational, allowing for easy operation in manual as well as automatic modes
- Its Curvature Radius is two times its interior diameter
- High adhesion of the nozzles to the tube in case of mounting
- Withstands temperatures between -25°C and 60°C
- Available in lengths of 8, 10, 12 and 15 meters

Ref.Code	Product Details
PRO HS09	Highly flexible, opaque, UV resistant, self floating EVA Hose - 9 mtr
PRO HS12	Highly flexible, opaque, UV resistant, self floating EVA Hose - 12 mtr
PRO HS15	Highly flexible, opaque, UV resistant, self floating EVA Hose - 15 mtr



Telescopic pole

The grip lock mechanism enables easy adjustment of pole length and the comfortable hand grip makes use of the poles a real pleasure. The poles are designed for use with any of the Aqvastar Pro accessories as well as those manufactured by others. Available in size 8'-16' (2.44-4.88m).

Ref.Code	Product Details
PRO816	8-16' (2.4- 4.8 m) Telescopic handle, Made in the UK



Commercial Telescopic pole

Supplied in 10mtr (5-10 mtr) lengths, the poles may be used for commercial pools.

Ref.Code	Product details
PRO1030	5-10 mtr Telescopic handle



MAINTENANCE EQUIPMENTS

The Fairlocks vacuum head

Streamlined for speed - hinged for angles & walls.
1 1/2 and 2 inch hose.

The most efficient pool cleaning system

The tough polycarbonate streamlined shape enables faster sweeping to the best effect.
The centrally mounted 19" brush even enables solid debris to enter the suction stream that others leave behind.



As the head meets the pool side, the leading wheels force it to articulate, so that the brush cleans right into the corner.



From the corner, the head rises up the wall with no loss of efficiency. It works on both vertical and horizontal surfaces without need for adjustment.

The Fairlocks unique design makes it the most efficient pool cleaning system in its class.

We have given it a carefully streamlined shape to move faster without stirring up nearby leaves and debris so it uses all the power from the pool's filtration pump to best effect.

The 19" wide centrally mounted brush even enables solid debris to enter the suction stream which others leave behind. The Fairlocks unique articulation makes sure the brush gets right into the corners as well as the sides.

Aqvastar Code	Product details
PROVH	Fairlocks 19" (483 mm) Plastic Vacuum head, Made in the UK



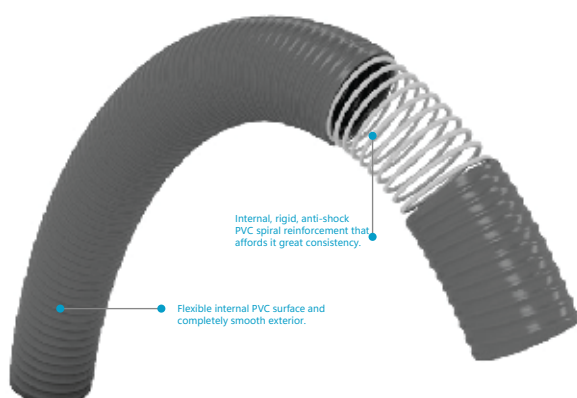
Made in the UK

MAINTENANCE EQUIPMENTS

AQVASTAR
PRO SERIES

Hidrotubo®

Flexible, reinforced hose with rigid, anti-shock PVC spiral, manufactured in accordance with UNE-EN ISO 3994.



Applications

Discharge, hydro-sanitary piping, swimming pool filtration systems, hydro-massage bathtubs, drains, condensation and air conditioning facilities.



USE
IN POOLS



SANITARY
USE



INDUSTRIAL
USE



CONSTRUCTION



TEMPERATURE
-10°C TO 60°C



HIGH QUALITY
CONTROL



FREE FROM
Cd / Pb / Ba

Features

- For industrial, sanitary and special use in swimming pools.
- Smooth internal and external surfaces. Highly flexible and light.
- External diameters adjusted to ensure easy assembly on PVC fittings with adhesive and PVC with elastic seal, as well as PP fittings.
- Hermetically sealed and resistant at joint up to pressure of 30 bar.
- Good chemical resistance associated with PVC's resistance chart.
- Great resistance to waste water and chlorinated swimming pool water.
- Withstands temperatures between -10°C and 60°C.
- Hose with AENOR N MARK product certification in accordance with UNE-EN ISO 3994, category T2.



Technical Specification

Int Ø mm	Int Ø in	Ext Ø mm	Weight g/m	Operating Pressure bar	Minimum Burst Pressure bar	Bending Radius mm	Vacuum m H ₂ O
27	1"	32	334	5	15	81	9
34	1 ³ / ₈	40	480	5	15	102	9
35	1 ³ / ₈	40	400	5	15	105	9
42	1 ³ / ₄	50	710	5	15	126	9
43	1 ³ / ₄	50	685	5	15	129	9
55	2 ¹ / ₈	63	1000	5	15	165	9
63	1 ¹ / ₂	75	1400	4	12	195	9
80	3 ¹ / ₈	90	1800	4	12	240	9
102	4"	110	2200	3	9	300	9
110	4 ⁵ / ₁₆	125	3700	3	9	330	9

BWT ROBOTIC POOL CLEANERS

AQVASTAR
PRO SERIES

Excellence inside!

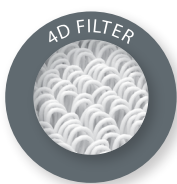
BWT Robotic Pool Cleaners, For simply perfect pools

Your pool reflects your lifestyle.

You always choose the best.

So does BWT.

For your robotic pool cleaner, the best is the BWT **P LINE** range. Built for performance, a blend of beauty, functionality and intelligence, created for you.



A WORLD MADE FOR YOU!

EXCELLENCE, INTELLIGENCE, INNOVATION

The BWT world is made for you, and its robotic pool cleaners are designed with you in mind.

Don't hesitate, step into an exceptional world.

BWT ROBOTIC POOL CLEANERS

AQVASTAR
PRO SERIES

Unmatched suction power

BWT robotic cleaners feature the most powerful suction of any robot on the market. They can double their suction power through precise adjustment of the intake valves.

The closer they are to the surface being vacuumed, the more powerful the suction. Suction can be adjusted to efficiently capture the type of debris to be picked up. Thus, close to a beach for example, the intake valves can be set down low to effortlessly remove every grain of sand.



Precision inside !

Among the finest filtration performances on the market

The 4D filter consists of elastic 3D microfibres loops, which, coupled with the vibrating motion, maximises water throughput. The vibration improves the suction power and prevents clogging of the filters. The 4D filter traps even the tiniest impurities. From leaves to grains of sand, nothing escapes.



4D Filter !

Ideal for your pool

BWT robotic pool cleaners are perfect for every pool of any shape up to 15 m long.

With their high density foam brushes, BWT robotic pool cleaners adapt to every pool finish.



PVA inside !

Top access and easy cleaning

BWT robotic pool cleaners are intuitive and easy to use. With the touch of a button the P600+ APP gets to work all by itself. An indicator light located on the transformer alerts you when the filter is full and needs to be cleaned. Freedom is yours!.

Simplicity inside !



BWT ROBOTIC POOL CLEANERS

AQVASTAR
PRO SERIES

Safe and reliable

The safety of users is of utmost importance.

This is why BWT robotic pool cleaners run off a low voltage transformer and are **fitted with an automatic stop**, as required by European standards.

The devices are also equipped with in water and out of water safety mechanisms.



Agile on any surface, with an excellent grip

BWT robotic pool cleaners easily climb the steepest slopes. Always astonishing to see!



Fast cleaning

BWT robots move quickly and clean fast.

They feature the intelligent and exclusive **Smart navigation system**.

Comprised of a gyroscope and an algorithm, the navigation system scans and detects obstacles, and then **computes the cleaning path**.

The cleaning cycles are shorter and the entire surface to be cleaned is covered.

The pool floor, walls and waterline are perfectly clean **with a minimum number of passes**, and in record time.

Smart Navigation!

BWT
BEST WATER TECHNOLOGY

Made in ISRAEL

BWT ROBOTIC POOL CLEANERS

AQVASTAR
PRO SERIES

BWT **P LINE** 600+ 



Model No	APC P600
Pool size	For pools up to 15 m (all shapes and surface finishes)
Cleaning type	Floor, walls & water line
Duration of the cleaning cycle	1.5 hours, 2 hours, 2.5 hours
Remote control	Smartphone app
Filter type	4D, microfibre hyperfine, transparent filter lid
Navigation system	Smart Navigation
Gyroscope	Yes
Suction intake rate	19m ³ /h
Cable length	23 m, high quality grey
Anti-tangle swivel	Yes
Dimensions (L x W x H)	39.1 x 43 x 23.4 cm
Weight	11 Kg
Storage accessory	High quality trolley
Guarantee	3 years

Connected

The **BWT P600+ APP** model includes a Bluetooth module. Using the **BWT Best Water Home** app that you can download free of charge from the AppleStore or PlayStore, control is at your fingertips.

Ideal for focusing on problem areas. You can navigate freely to pick up small stones your children just threw into the pool. Your pool, clean in an instant with little or no effort.

Wireless connection inside!

BWT
BEST WATER TECHNOLOGY

Made in ISRAEL

BWT ROBOTIC POOL CLEANERS

AQVASTAR
PRO SERIES

Breezer technology & Ultimate power

BWT robotic cleaners are equipped with **Breezer technology**, an efficient and **hardwearing gear transmission**; paired with two drive motors and a **powerful pump** to collect debris, the BWT P600+ APP is one of the most reliable pool cleaning robots on the market.

This is the **Ultimate Power** system, the ideal solution for fast, optimised travel, unrivalled reliability, and unmatched cleaning.

Energy savings

With their fast and logical travel mode and powerful suction, BWT robotic pool cleaners work fast. Cleaning cycles are short, consume less energy and yield an impeccable result.

Ergonomic

The robotic cleaners are designed and created to be comfortable and easy to use:

- The filter is top loaded for easy access. A lever allows the filter to be released and pulled out from above and then cleaned without getting your hands dirty. In addition, an easy view transparent lid allow you to monitor filter fouling, you can easily see if the filter needs to be cleaned without removing it from its housing.
- An indicator light located on the transformer alerts you when the filter is full and needs to be cleaned.
- Transport and storage are effortless, thanks to the robust, practical and attractive trolley.
- The power cable features an anti-tangle electrical swivel that allows the robot total freedom of movement.



BWT ROBOTIC POOL CLEANERS

Magnum JR. PVA

Cleans commercial pools

For small commercial swimming pools

Model No:	APC COMM
Pool type	Small to mid-sized commercial pools up to 20m long
Surface type	Any shape, any surface
Wall climbing	Yes
Filter loading	Easy clip bottom access
Filter type	4D hyperfine microfiber XL bag
Brushes	4 PVA brushes
Cable length	30 m
Guarantee	3 Years
Transport / storage	Exclusive trolley
Dimensions	390mm x 435mm x 260mm
Internal timer	Yes
Filter indicator	Yes
Swivel	Tangled release handle
Cleaning cycle	3, 4, 5 hours
Filtration	<19m ³ / h
Power consumption	230V / 180W
Infrared sensor	Yes
Remote control	Yes



Ultramax Junior

The best public pool cleaning solution

Designed to clean public, semi-olympic and olympic sized swimming pools

Model No:	APC SOLY
Pool type	Semi olympic sized pools up to 35m long
Surface type	All pool surfaces
Platform	Dual drive motors, Dual pump
Wall climbing	No
Filter loading	Easy clip bottom access
Filter type	4D hyperfine microfibre XL bag
Brushes	4 PVA brushes
Cable length	36m
Guarantee	2 Years
Transport / storage	Commercial trolley
Dimensions	400mm x 540mm x 315mm
Internal timer	No
Filter indicator	No
Swivel	Tangled release handle
Cleaning cycle	3, 4, 6 hours
Filtration	<38m ³ / h
Power consumption	230V / 180W
Infrared sensor	Yes
Remote control	Yes



BWT ROBOTIC POOL CLEANERS

AQVASTAR
PRO SERIES

Ultramax PVA

The best public pool cleaning solution

Designed to clean public, semi-olympic and olympic sized swimming pools

Model No:	APC OLY
Pool type	Large and Olympic size pools up to 50m long
Surface type	All pool surfaces
Platform	Dual Drive motors, Dual pumps
Wall climbing	No
Filter loading	Easy latch bottom access
Filter type	Two 4D hyperfine microfiber 2 XL bags
Brushes	4 wide PVA brushes
Cable length	45m
Guarantee	2 Years
Transport / storage	Commercial trolley
Dimensions	400mm x 810mm x 290 mm
Internal timer	No
Filter indicator	No
Swivel	Tangled release handle
Cleaning cycle	3, 4, 6 hours
Filtration	<38m3 / h
Power consumption	230V / 180W
Infrared sensor	Yes
Remote control	Yes



Cosmy the bot 200

- Cleans the pool floor, walls and water line
- Smartphone app
- 16 m cable
- Planetary gear technology
- Light (less than 6 kg)
- Powerful
- Customisable

Model No	APC RES 200
Pool Size	12 m (all shapes and waterproofing finishes)
Cleaning Cycle	1.5 hrs, 2.0 hrs or 2.5 hrs
Remote Control	Smartphone app
Cleaning Type	Floor, walls and water line
Filter Type	Double layer filtration
Brush Type	PVC brushes
Cable Length	16 m, floating cable
Dimensions (L X W X H)	39.5 x 36.5 x 20 cm
Weight	5.75 kg
Power Supply	29 Volt, Mars + APP
Power Consumption	150 Watt
Duration Of The Guarantee	2 years + 1 additional year



Flexi Tester

- Rapid dissolving Water-i.d. tablet reagents
- Ongoing colour scale on a parameter-stick
- Convenient box for transport and storage
- Easy push through blister

Parameters

Active Oxygen (MPS) | Alkalinity | Aluminium | Ammonia | Bromine | Chloride | Chlorine | Chlorine Dioxide | Copper | Colour (Hazen/Apha) | Cyanuric Acid | DEHA | Fluoride | Hardness | Hyd. Peroxide | Iron | Magnesium | Manganese | Molybdate | Nitrate | Nitrite | Ozone | pH | PHMB | Phosphate | Potassium | QAC | Silica | Sulphide | Sod. Hypochl. | Zinc



Water-i.d.® FlexiTester®

A flexible, semi-professional way to test on many water parameters.

Features

Water-i.d.® FlexiTester® provides you with access to semi-professional water analysis.

While FlexiTesters® are – like Pooltesters – visual measurement devices, the arrangement of the measured colour to the scale – and the determination of the measurement value – is much more precise with FlexiTesters® because the measurement is compared to an ongoing colourscale on a parameter-stick. There are no measurement results “between” individual colour scales.

Ergonomic design and high quality materials also simplify measurements. So far, 43 different parameter-methods can be tested with the same basic model. Just a different parameter-stick and reagents are needed to extend your FlexiTester® kit.

Content

Each Water-i.d.® FlexiTester® comes in a plastic case with a parameter-stick magazine including the required parameter- stick and reagents.

Parameter	Measurement Range
Active Oxygen MPS	0 – 20 mg/l
Alkalinity	0 – 250 mg/l
Aluminium	0.00 – 0.30 mg/l
Ammonia	0.00 – 1.00 mg/l
Bromine	0.0 – 10.0 mg/l
Carbohydrazide	0.00 – 0.65 mg/l
Calcium Hardness	0 – 500 mg/l
Chloride	0 – 40 mg/l
Chlorine	0.00 – 1.00 mg/l
Chroine HR	0.2 – 5.0 mg/l
Chlorine VHR	10 – 300 mg/l
Chlorine Dioxide LR	0.00 – 1.90 mg/l
Chlorine Dioxide	0.00 – 6.65 mg/l
Copper	0.0 – 5.0 mg/l
Copper/Zinc LR	0.00 – 1.00 mg/l
Copper/Zinc HR	0.0 – 5.0 mg/l
Colour (Hazen/Apha)	15 – 500
Cyanuric Acid	20 – 80 mg/l
DEHA	0.0 – 0.5 mg/l
Fluoride	0.00 – 2.00 mg/l
Hyd. Peroxide	5 – 50 mg/l
Iron LR	0.05 – 1.00 mg/l

Parameter	Measurement Range
Iron HR	1.0 – 10.0 mg/l
Magnesium	1 – 100 mg/l
Manganese	0.0 – 5.0 mg/l
Molybdate HR	0 – 100 mg/l
Molybdate VHR	0 – 500 mg/l
Nitrate HR	1 – 100 mg/l
Nitrite LR	0.00 – 0.50 mg/l
Ozone	0.0 – 3.4 mg/l
pH 6.5 - 8.4	6.5 – 8.4 pH
pH 4 - 10	4 – 10 pH
PHMB	10 – 100 mg/l
Phosphate LR	0.00 – 4.00 mg/l
Phosphate HR	0 – 80 mg/l
Potassium	0.8 – 12.0 mg/l
QAC HR	0 – 200 mg/l
Silica HR	0 – 100 mg/l
Silica LR	0.00 – 5.00 mg/l
Sodium-Hypochlorite	2 – 18 %
Sulphide	0.04 – 0.50 mg/l
Total Hardness	20 – 500 mg/l
Zinc	0.00 – 1.00 mg/l

WATER TESTING EQUIPMENT

AQVASTAR
PRO SERIES

Pool Lab 2.0 Photometer

- Measures 3 Parameters In Parallel
- 24 Pool Parameters
- Bluetooth® And Wifi
- Large Color Display
- Exchangeable Cuvette
- 4-Wavelengths (460 | 525 | 565 | 625nm)
- IP68 Waterproof
- Free Software | App | Cloud
- Tablets | Liquids | Powder Reagents

24 Pool Parameters

Chlorine (free, combined, total)	Iron*
pH value	Nitrate*
Alkalinity (Acid Capacity)	Phosphate*
Cyanuric Acid (Stabilizer)	PHMB*
Active Oxygen (MPS)* Bromine**	Potassium*
Chlorine Dioxide**	Nitrite*
Ozone**	Sulfate*
Hydrogen Peroxide* Aluminum*	Total Hardness*
Ammonium*	Urea*
Calcium Hardness*	Zinc*
Chloramine*	
Copper*	



SOFTWARE & APP



CLOUD



SCAN ME!



*Requires reagents not included in the basic Kit **Requires Glycine tablets if chlorine is Present in the Sample
Glycine tablets are not included in the basic Kit

WATER TESTING EQUIPMENT

AQVASTAR
PRO SERIES

Pool Lab 2.0 Photometer

Product Description

The PoolLab® 2.0 is the perfect solution for professional water analysis of pools and spas. The fixed but exchangeable triple measurement-cuvette allows quick sampling by simply dipping the IP68 waterproof PoolLab® into the water.

9 keys give direct access to the ZERO operation (only required 1 x per measurement batch) and to the 24 different pool water parameters. The PoolLab® 2.0 has both Bluetooth® and WiFi built-in to either actively connect to the free LabCom® software and app, or to automatically synchronize data with the LabCom® Cloud.

Test results are always assigned to the measurement source accounts individually created by the user. In the LabCom® software and app, one can, among other things, print reports, calculate the active chlorine content and even receive dosage recommendations based on individually entered water treatment products. LSI index calculation is also offered via the software and app.

A free cloud service - with which PoolLab® 2.0 can automatically synchronize data via WiFi - ensures that the software and app always work with the same database.

PoolLAB 2.0
PHOTOMETER



The PoolLab® 2.0 for
24 pool water parameters.
With Bluetooth®, WiFi
and a triple measure-
ment cuvette



Parameters

Parameter	Tablet-method	Liquid-method	Parameter	Tablet-method	Liquid-method
Active Oxygen (MPS)	0.00 - 20.0 mg/l (ppm)*	--	Iron LR	0.00 - 1.00 mg/l (ppm)*	single
Alkalinity	0 - 200 mg/l (ppm)	--	Nitrate	1- 50 mg/l (ppm)*	single
Aluminum	0.00 - 0.30 mg/l (ppm)*	single	Nitrite (LR)	0.00 - 1.50 mg/l (ppm)**	single
Ammonia	0.00 - 1.20 mg/l (ppm)*	single	Ozone	0.00 - 4.00 mg/l (ppm)**	0.00 - 2.70 mg/l (ppm)* **
Bromine	0.00 - 13.0 mg/l (ppm)**	0.00 - 9.00 mg/l (ppm)* **	pH	6.50 - 8.40 pH	6.50 - 8.40 pH*
Calcium Hardness	single	0 - 500 mg/l (ppm)*	PHMB	5 - 60 mg/l (ppm)*	--
Chloramines	0.00 - 6.00 mg/l (ppm)*	--	Phosphate {LR}	0.00 - 4.00 mg/l (ppm)*	single
Chlorine (fCl I cCl I tCl)	0.00 - 6.00 mg/l (ppm)	0.00 - 4.00 mg/l (ppm)*	Phosphate (HR)	0 - 80 mg/l (ppm)*	single
Chlorine (HR)	5 - 200 mg/l (ppm)*	--	Potassium	0.70 - 12.0 mg/l (ppm)**	--
Chlorine dioxide	0.00 - 11.0 mg/l (ppm)**	0.00 - 7.50 mg/l (ppm)* **	Sulphate	5 - 100 mg/l (ppm)*	--
Copper	0.00 - 5.00 mg/l (ppm)*	--	Total Hardness	—	0 - 500 mg/l (ppm)*
Cyanuric Acid	0 - 100 mg/l (ppm)	--	Urea	0.10 - 2.50 mg/l (ppm)*	single
Hyd. Peroxide (LR)	0.00 - 2.40 mg/l (ppm)*	--	Zinc	0.00 - 1.00 mg/l (ppm)*	--
Hyd. Peroxide (HR)	0 - 180 mg/l (ppm)*	--			

*Reagents not included in the basic kit **Requires Glycine tablets if Chlorine is present in the sample water - Glycine tablets are not included in the basic kit.

Content of the Kit

BASIC KIT

1 x PoolLab® 2.0 with Bluetooth® and WiFi IP68 waterproof
1 x Triple measurement cuvette (exchangeable)
1 x Light protection cap
3 x Plastic stirring rod
1 x 10ml syringe
3 x AA batteries
1 x Printed user manual
1 x Collecting bag
Free LabCOM® software
Free LabCOM® App
Free LabCOM® Cloud Service

PARAMETERS

All parameters from the
above shown table.
Possible future parameters can
easily be imported by running an
update (LabCOM® App/ Software).

REAGENTS

20 Tablets Phenol Red
20 Tablets DPD N° 1
10 Tablets DPD N° 3
10 Tablets Alkalinity-M
10 Tablets CYA-Test
All tablets are Photometer grade

WATER-I.D.
WATER TESTING EQUIPMENT
Made in Germany

DECK LOUNGER

AQVASTAR
PRO SERIES

Sunbed Maris

Sunlounger Maris with arm and comes in two different colors; wood and white. Tubular frame produced from polypropylene, stackable up to 25 pieces, back reclining in 5 different positions



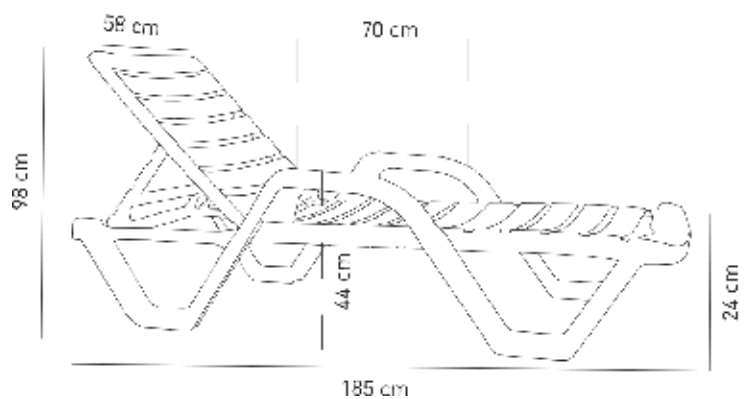
Tilia

Made in TURKEY

DECK LOUNGER

AQVASTAR
PRO SERIES

Sunbed Maris



	Sunbed Maris	Cushion Maris
Net	9.80 kg	2.00 kg
Gross	10.00 kg	2.10 kg

Tilia

Made in TURKEY

DECK LOUNGER

AQVASTAR
PRO SERIES

Sunbed Maris

- Body in Polypropylene Resin (PP5)
- Stackable up to 25 pcs
- Hidden Wheels
- 5 Positions
- For indoor / outdoor



Made in TURKEY

DECK LOUNGER

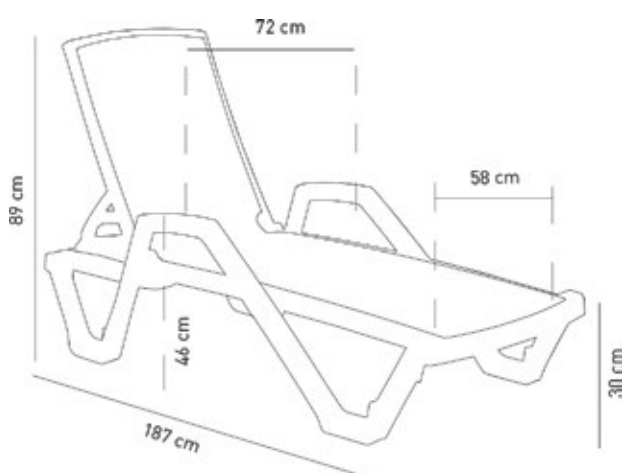
AQVASTAR
PRO SERIES

Sunbed Mare - with armrest

It is a charming model from Tilia. Sunbed Mare consists of 100% virgin polypropylene mixed with breathable and flexible synthetic fabric (net). It comes in with various matching colours such as; ivory white/ beige, white/blue, wenge/beige, ivory white/yellow and green/beige. Stackable up to 20 pieces, back reclining in 4 different positions.



	Sunbed Mare - with armrest
Net	10.50 kg
Gross	10.70 kg



Made in TURKEY

DECK LOUNGER

AQVASTAR
PRO SERIES

Sunbed Mare - with armrest

- Body in Polypropylene Resin (PP5)
- Stackable up to 21 pcs
- Hidden Wheels
- 4 Positions
- For indoor / outdoor
- Changeable Plastic Fabric by **Plastitex**
ITALIAN TEXTILE PROJECTS



Ivory White & Beige



Ivory white & Blue



Ivory white & Yellow



Ivory white & Turquoise



Wood & Beige



Green & Beige

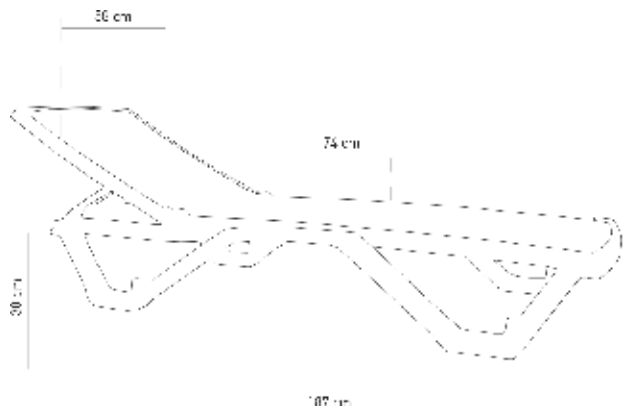


Made in TURKEY

DECK LOUNGER

Sunbed Mare - without armrest

It is a charming model from Tilia. Sunbed Mare consists of 100% virgin polypropylene mixed with breathable and flexible synthetic fabric (net). It comes in with various matching colours such as; ivory white/ beige, ivory white/blue, wenge/beige, ivory white/ yellow and green/beige. Stackable up to 20 pieces, back reclining in 4 different positions



	Sunbed Mare - without armrest
Net	10.30 kg
Gross	10.50 kg



Made in TURKEY

DECK LOUNGER

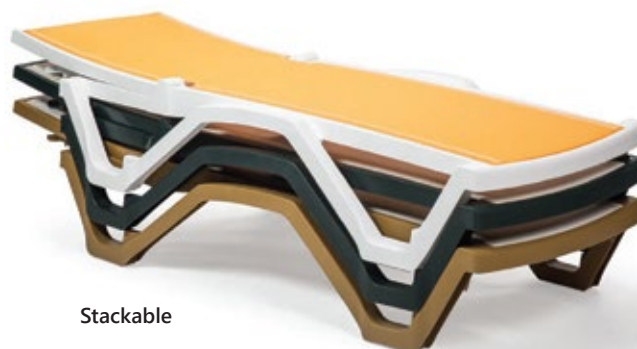
AQVASTAR
PRO SERIES

Sunbed Mare - without armrest

- Body in Polypropylene Resin (PP5)
- Stackable up to 22 pcs
- Hidden Wheels
- 4 Positions
- For indoor / outdoor
- Changeable Plastic Fabric by **Plastitex**
ITALIAN TEXTILE PROJECTS



Foldable



Stackable



Coffee & Beige



Ivory white & Blue



Ivory white & Yellow



Ivory white & Turquoise



Wood & Beige



Green & Beige

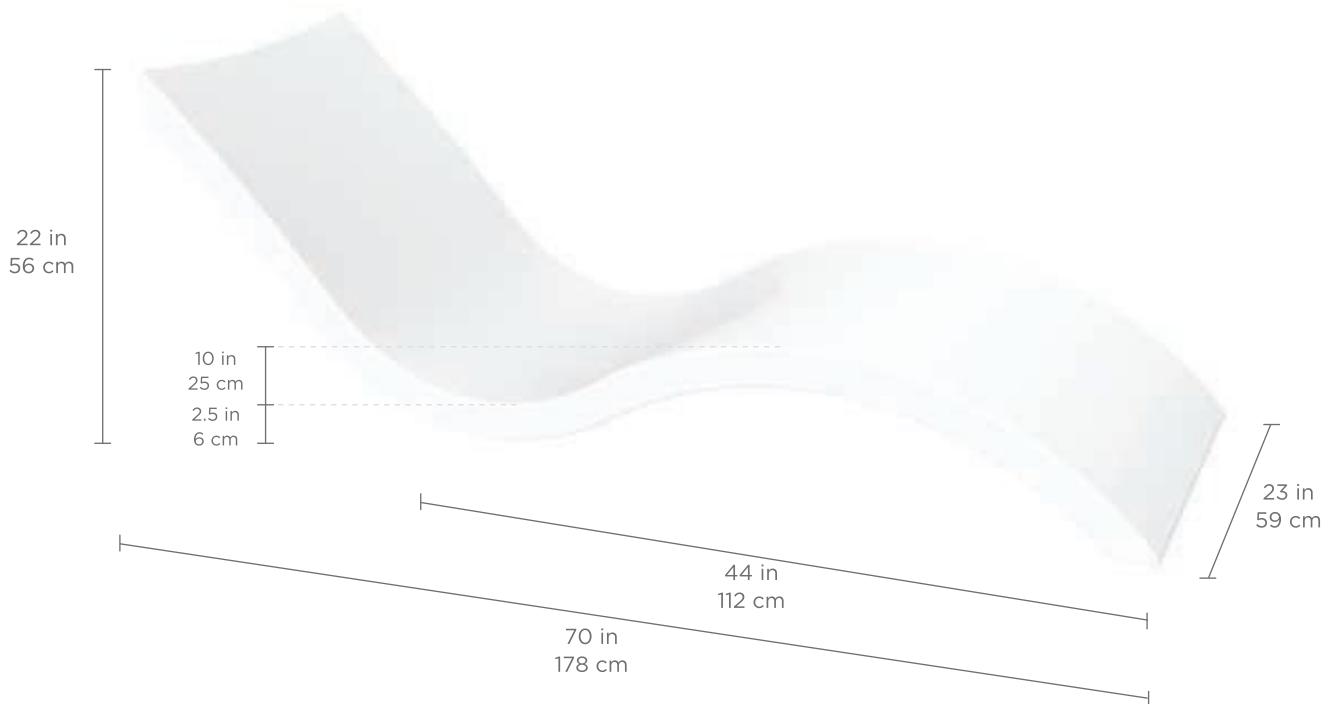
Tilia

Made in TURKEY

LEDGE LOUNGER

AQVASTAR
PRO SERIES

Signature Chaise



Features

- Designed for up to 9 inches of water or on-deck
- Perfect for residential or commercial settings
- Built to withstand sun, weather, and chemicals of any pool or outdoor environment
- Compatible with all pool types, including vinyl
- Crafted from a high-quality, UV20 rated resin, color stabilized for up to 20,000 hours of direct sunlight
- Easy set up via threaded plug system
- No assembly required
- Available in multiple colors

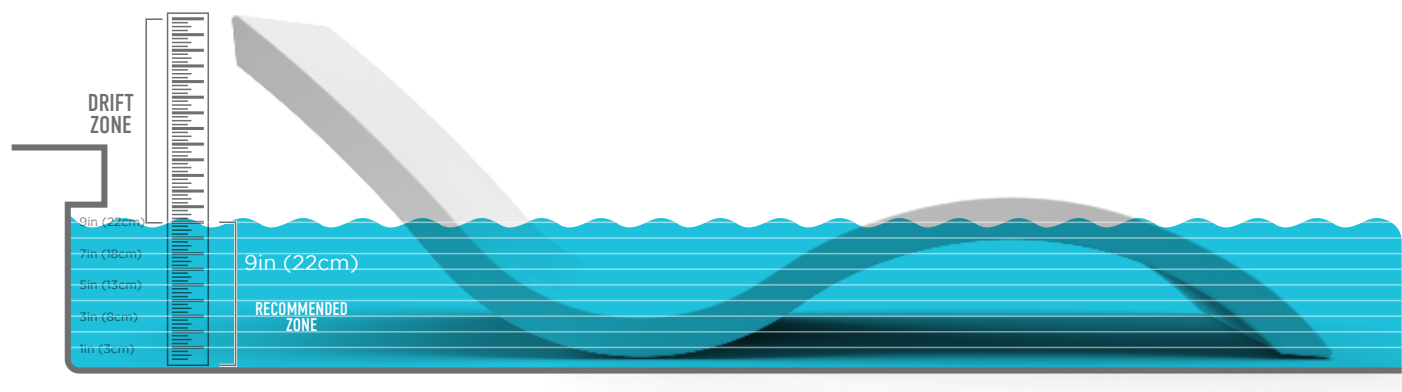
Specifications

- Overall Length: 70 in | 178 cm
- Overall width: 23 in | 59 cm
- Overall Height: 22 in | 56 cm
- Footprint Length: 44 in | 112 cm
- Seat Height: 2.5 in | 6 cm
- Knee Height: 10 in | 25 cm
- Water Depth: Designed for up to 9 in | 23 cm of water
- Weight Empty: 34 lbs | 16 kg
- Weight Full: 144 lbs | 65 kg

LEDGE LOUNGER

AQVASTAR
PRO SERIES

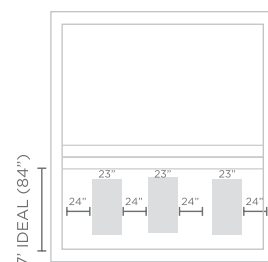
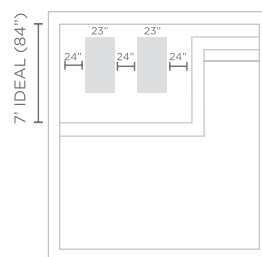
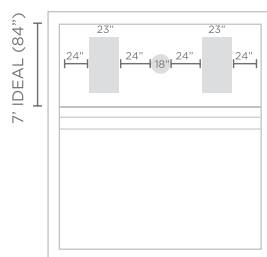
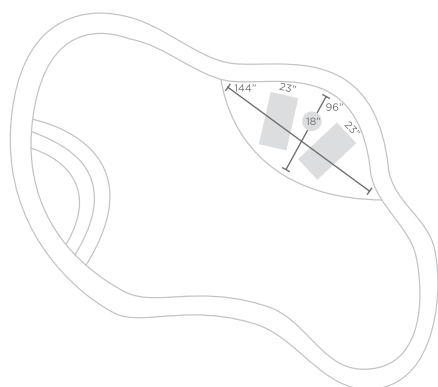
Signature Chaise



- For water depths of more than 9 in | 22 cm, we recommend the Signature Chaise Deep
- Product may drift, float, or bob in the drift zone

Layout suggestions

- Minimum tanning ledge length is dependent on water depth
- 3 in | 8 cm ledge depth requires a minimum ledge length of 58 in | 147 cm
- 6 in | 15 cm ledge depth requires a minimum ledge length of 61 in | 155 cm
- 9 in | 23 cm ledge depth requires a minimum ledge length of 64 in | 163 cm

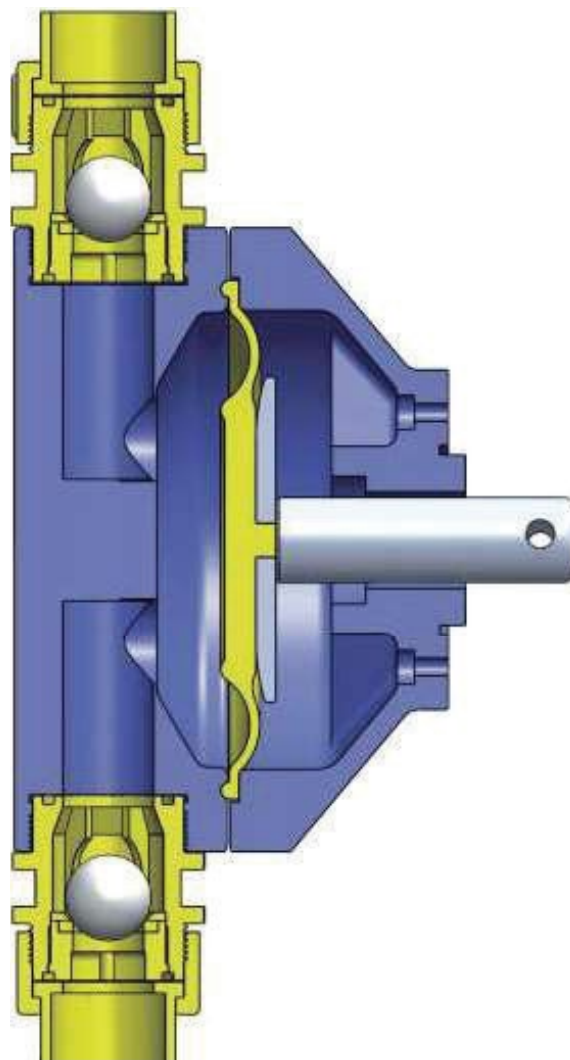


Working Principle

The diaphragm type metering pump uses a diaphragm to replace the piston, realizes reciprocating motion under the action of the driving mechanism, and completes the pump for the suction and discharge processes.

Features

- No moving seal, no leakage.
- It can transport high viscosity media, abrasive pastes and hazardous chemicals.
- Cast aluminum housing, high heat dissipation and light overall weight.
- The diaphragm is pressed into a multi-layer composite structure, the first layer of super tough Teflon acid-resistant film, the second layer of EPDM elastic rubber, the third layer of thickness 3mm SUS304 supporting iron core, the fourth layer is reinforced with nylon fiber reinforcement, the fifth layer It is fully packaged with EPDM elastic rubber, which can effectively improve the service life of the diaphragm.
- The pressure is generally less than 1.2Mpa.



Pump Head Configuration According To Different Applications



PVC



SS304/316



PVDF/PTFE

OPTIONAL

DOSING PUMPS

JLM - Solenoid Metering Pump

Features

- Wear-free solenoid driving with no bearing.
- Adjustment both by stroke length and stroke speed.
- Intelligent LED display the stroke speed in percentage.
- **Power:** 220V 50~60Hz.
- **Material:** PVC; PVDF; SS304; SS316
- **Optional:** PVDF Head

Material Construction

Material	PVC
Diaphragm	PTFE
Valve Body	PVC
Valve Ball	Ceramic
Valve Seat	PTFE
O Ring	Viton



Technical Specification

Code	Flow (LPH)	Pressure (BAR)	Flow (GPH)	Pressure (PSI)	SPM	Diaphragm (mm)	Power (W)	Connection
JLM0110	1.0	10	0.26	145	80	34	30	5*8mm PE hose
JLM0210	2.0	10	0.52	145	140			
JLM0408	4.0	8.0	1.0	116	180			
JLM0505	5.0	5.0	1.3	73	140	41		
JLM0804	8.0	4.0	2.1	58	170	52		
JLM1003	10	3.0	2.6	44	130			
JLM1203	12	3.0	3.1	44	150			
JLM1502	15	2.0	3.9	29	160			
JLM2001	20	1.0	5.2	15	180			

Note: In product code, first two digits represent the flow rate in LPH, and the last two digits represent the pressure in bar

DOSING PUMPS

JBB-Mechanical Diaphragm Metering Pump

Features

- **Flow range:** 15-150LPH@50Hz/18-180LPH@60Hz
- **Pressure range:** 4-10 Bar
- **Power:** 380V/220V @50Hz on standard, others on request, DC12V or 24V is available
- **Material:** PVC; PVDF; SS304; SS316; PTFE
- **Optional:** PVDF Head



Technical Specification

Code	50Hz			60Hz			Pressure		Diaphragm (mm)	Power (W)	
	Flow (LPH)	Flow (GPH)	SPM	Flow (GPH)	Flow (LPH)	SPM	BAR	PSI			
JBB15/1.0	15	3.9	100	4.7	18	120	10	145	60	60W	
JBB25/1.0	25	6.6		7.9	30		10	145			
JBB40/0.7	40	10	150	12	48	180	7	102			
JBB60/0.6	60	60	100	19	72	120	6	87	84		60W
JBB80/0.5	80	21		25	96		5	73			
JBB100/0.4	100	26	150	32	120	180	4	58			
JBB130/0.4	130	34		41	156		4	58			
JBB150/0.3	150	39		47	180		3	43			

Connection

Code	PVC	PVDF/PTFE	SS304/316
JBB15-JBB40	6*9 mm hose	RC1/2" F	10*16mm welding union
JBB60-JBB150	DN15 glue union	RC1/2" F	

10*14mm hose connection is also optional for JBB60-JBB150.

Note: In product code, first two digits represent the flow rate in LPH, and the last two digits represent the pressure in bar

LUXURY SPA

AQVASTAR
PRO SERIES

AQ9696

Size: 2150x1600x900mm



SPECIFICATIONS

Control system: 1set
Water pump: 2pcs
Jet total: 43pcs
Filter pump: 1pc
Led: 1pc
Small led: 22set
Total power: 6.25kW



AQ9596E

Size: 2200x2200x900mm



SPECIFICATIONS

Control system: 1set
Air pump: 1pc
Water pump: 1pc
Jet total: 35pcs
Filter pump: 1pc
Led: 2pcs
Small led: 12set
Total power: 5.85kW



AQ9595E

Size: 2000x1500x800mm



SPECIFICATIONS

Control system: 1set
Air pump: 1pc
Water pump: 1pc
Jet total: 21pcs
Filter pump: 1pc
Led: 1pc
Small led: 12set
Total power: 5.05kW



TEMPERATURE
SETTING



AIR
BUBBLE JET



POP-UP
WATER
COLUMN



WATER JETS



LED LIGHT



OZONATOR



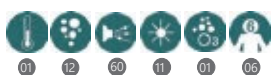
WATERFALL



SEATS

AQ9593

Size: 2360x2260x900mm



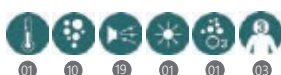
SPECIFICATIONS

Control system: 1set
Air pump : 1pc
Water pump: 2pcs
Jet total: 65pcs
Filter pump: 1pc
Led: 1pc
Small led: 10set
Total power: 6.65kW



AQ9095C

Size: 1860x1310x780mm



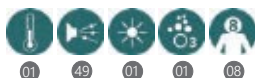
SPECIFICATIONS

Control system: 1set
Air pump : 1pc
Water pump: 1pc
Jet total: 19pcs
Filter pump: 1pc
Led: 1pc
Total power: 5.05kW



AQ9097

Size: Ø 2200x910mm



SPECIFICATIONS

Control system: 1set
Water pump: 2pcs
Jet total: 49pcs
Filter pump: 1pc
Led: 1pc
Total power: 6.25kW



LUXURY SPA

AQVASTAR
PRO SERIES

AQ9194

Size: 2200x2200x890mm



SPECIFICATIONS

Control system: 1set
Air pump : 1pc
Water pump: 2pcs
Jet total: 59pcs
Filter pump: 1pc
Led: 1pc
Total power: 6.95kW



AQ9292

Size: 2000x1500x790mm



SPECIFICATIONS

Control system: 1set
Air pump : 1pc
Water pump: 2pcs
Jet total: 59pcs
Filter pump: 1pc
Led: 1pc
Small Led : 13set
Total power: 6.65kW



LUXURY SPA

AQVASTAR
PRO SERIES

AQ9296

Size: 1960x1960x800 mm



SPECIFICATIONS

Control system: 1set
Air pump : 1pc
Water pump: 2pcs
Jet total: 57pcs
Filter pump: 1pc
Led: 1pc
Small led: 22set
Total power: 6.65kW



AQ9299

Size: 2160x2160x800 mm



SPECIFICATIONS

Control system: 1set
Air pump : 1pc
Water pump: 3pcs
Jet total: 70pcs
Filter pump: 1pcs
Led: 1pc
Small led: 16set
Total power: 9.15kW



E-POOL CONNECT

AQVASTAR
PRO
SERIES



Web Platform

Mobile app

 <http://myindygo.com>

The myindygo web platform allows you to control your pool entirely from a web browser.



Simple and intuitive, the application makes it easy to manage and maintain your pool.

Pool
TECHNOLOGIE
Made in FRANCE

E-POOL CONNECT

AQVASTAR
PRO SERIES



* Brand owned by Aqua Solar AG



IPX protocol

Bluetooth connection between the connected pool timer and all devices of the JUST and PREMIUM ranges. The auxiliary connectors remain available to connect 2 other devices to the connected pool timer.

- Pool Management
- Alarm feedback
- Control of all treatment system functions
- Setpoint adjustments
- Log of events

indygo
BY SOLEM



Pool TECHNOLOGIE
Made in FRANCE

E-POOL CONNECT

AQVASTAR
PRO SERIES

Electrical box + connected pool timer



Benefits

- **Bluetooth connection** between the connected pool timer and the treatment device (Just or Premium)
- **Control of a Besgo® hydraulic valve** for backwash by auxiliary connection
- **Pre-assembled electrical box** with terminal block on rail
- **Park management:** real-time monitoring and optimization of interventions
- **MyINDYGO application and web platform**
- **Easy installation and connection** of the modules

*Brand owned by Aqua Solar AG



Features

- **Smart filtration control**
(thermoregulated mode, time programming, boost function)
- **Control/ programming of 2 auxiliaries**
(lighting, heat pump, pool cleaner, backwash hydraulic valve)
- **Cover position sensor input**
- **Frost protection in thermoregulated mode**
- **Log of events: measurements and alarm feedback**
- **Continuous water temperature analysis**
- **Alerts** with push notifications on MyINDYGO app & emails
- **Tips for optimizing treatment and filtration**
- **Long range LoRa™ radio communication of the modules** > 250 m (in option)
- **WiFi connection to the home network** (in option)

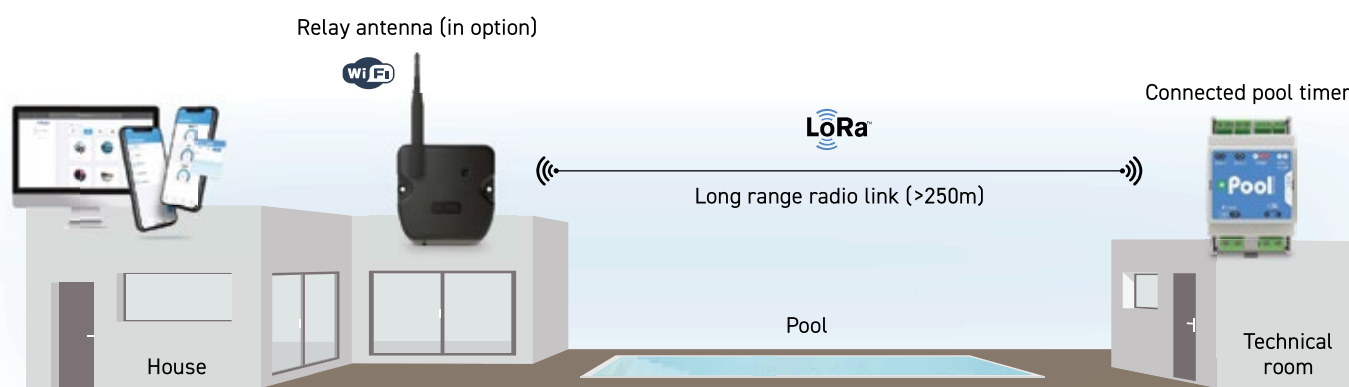
E-POOL CONNECT

Electrical box + connected pool timer

Model	Reference
Connected pool timer	KIT20CMDSOL
Electrical box + connected pool timer	KIT20COFCONSOL
Electrical box e-pool® Connect: connected pool timer + relay antenna	KIT22COFCONSOL
Connected pool timer + relay antenna	KIT20COMSOL
Relay antenna	KIT20WiFISOL
4 relays extension module	KIT23EXTSOL

Technical Specifications	
Power supply for connected pool timer	230V 50 Hz
Pump current compatibility	Mono and three-phase
Pump relay	250 VAC-16 A
Relay AUX 1&2	250 VAC-10 A
Rail mounting	DIN (3 modules)
Temperature range (connected pool timer)	-10°C to 60°C
Connected pool timer dimensions (mm)	W 54 x H 90 X D 63
Box sealing index	IP65
Box resistance index	IK08
Pump power	Up to 1 CV
Lighting power	Transformer 12 V 100 VA
Box dimensions (mm)	W 310 x H 246 x D 148

Operating Diagram



Content

- Pre-assembled box
- Connected pool timer
- Probe holder 1/2 + collar Ø 50 mm
- Temperature probe (PT100)
- Transformer 230 V 12 VDC

Options

- Relay antenna
- 4 relay extension modules

Warranties

2 years
Connected pool timer

2 years
Box

1 year
Temperature probe

E-POOL CONNECT

AQVASTAR
PRO SERIES

Electrical box + connected pool timer (for variable speed pump)



Benefits

- Bluetooth connection between the connected pool timer and the treatment device (Just or Premium)
- Smart control of variable speed pump
- Control of a Besgo®* hydraulic valve for backwash by auxiliary connection
- Pre-assembled electrical box with terminal block on rail
- **Park management:** real-time monitoring and optimization of interventions
- MyINDYGO application and web platform
- Easy installation and connection of the modules

*Brand owned by Aqua Solar AG



Features

- **Control of variable speed pumps**
(3 speed, skimming, thermoregulated mode, time programming, boost function)
- **Control/ programming of 2 auxiliaries**
(lighting, heat pump, pool cleaner, backwash hydraulic valve)
- **Cover position sensor input**
- **Frost protection in thermoregulated mode**
- **Log of events: measurements and alarm feedback**
- **Continuous water temperature analysis**
- **Alerts** with push notifications on MyINDYGO app & emails
- **Tips for optimizing treatment and filtration**
- **Long range LoRa™ radio communication of the modules > 250 m**
- **WiFi connection to the home network (in option)**

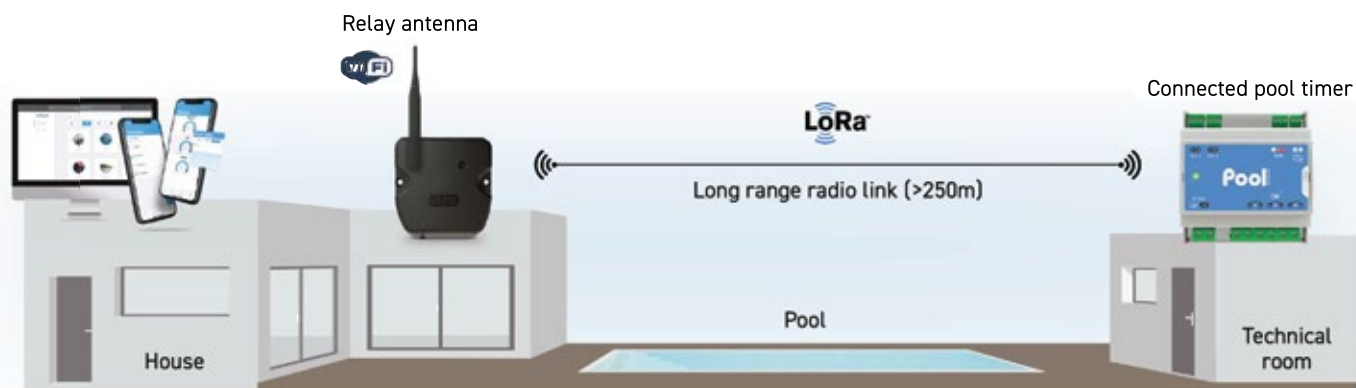
E-POOL CONNECT

Electrical box + connected pool timer (for variable speed pump)

Model	Reference
Connected pool timer for variable speed pump	KIT20PVVSOL
Electrical box + connected pool timer for variable speed pump	KIT20COFPVVSOL
Electrical box e-pool® Connect VS: connected pool timer for variable speed pump + relay antenna	KIT22COFPVVSOL
Connected pool timer for variable speed pump + relay antenna	KIT20WiFiPVVSOL
Relay antenna	KIT20WiFiPVVSOL
4 relays extension module	KIT23EXTSOL

Technical Specifications	
Power supply for connected pool timer	230V 50 Hz
Pump current compatibility	Mono and three-phase
Pump relay	250 VAC-16 A
Relay AUX 1&2	250 VAC-10 A
Rail mounting	DIN (3 modules)
Temperature range (connected pool timer)	-10°C to 60°C
Box sealing index	IP65
Box resistance index	IK08
Pump power	Up to 1 CV
Lighting power	Transformer 12 V 100 VA
Box dimensions (mm)	W 310 x H 246 x D 148

Operating Diagram



Content

- Pre-assembled box
- Connected pool timer
- Probe holder 1/2 + collar Ø 50 mm
- Temperature probe (PT100)
- Transformer 230 V 12 VDC

Options

- Relay antenna
- 4 relay extension modules

Warranties

2 years
Connected pool timer

2 years
Box

1 year
Temperature probe

E-POOL CONNECT

AQVASTAR
PRO SERIES

Connected Float



Benefits

- Continuous water quality analysis
- Real-time alerts and feedback
- Easy float connection



Requires a
relay antenna

Features

- Continuous pH analysis
- Continuous disinfectant analysis by ORP probe
- Continuous water temperature analysis
- Log of events: measurements and alarm feedback
- Alerts with push notifications on MyINDYGO app & emails
- Tips for optimizing treatment and filtration

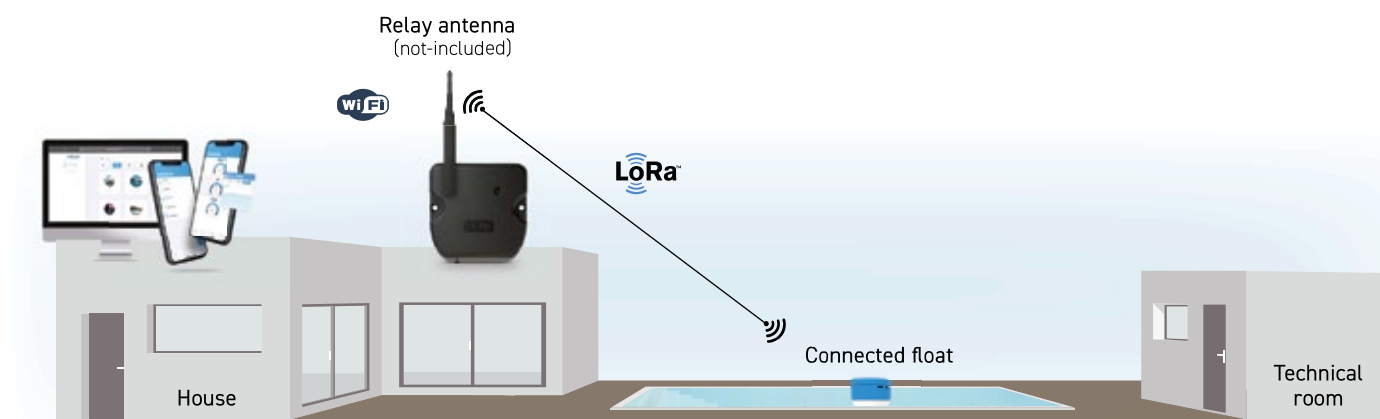
E-POOL CONNECT

Connected Float

Model	Reference
Connected float	KIT20SENSOL
Relay antenna	KIT20WiFiSOL

Technical Specifications	
Power supply	4 AAA batteries
Autonomy	Up to 2 seasons
Roller cover compatibility	yes
Probe (chlorination compatible)	Combined pH/ORP
pH probe calibration	2 points pH 7 & pH 10
Float watertightness index	IP68
Sensor holder compatibility (mm)	Ø 50 and Ø 63
Temperature range (float)	0 °C to 50 °C
Dimensions (mm)	Ø 110 x H 190

Operating Diagram



Content

- Connected float
- pH 7 & pH 10 calibration solutions
- 4 AAA batteries

Warranties

2 years Connected float

1 year Probe pH / ORP

1 year Temperature probe

E-POOL CONNECT

AQVASTAR
PRO SERIES

Indoor Analyzer



Benefits

- Analyzes water quality
- Analyzes filter pressure
- Real-time alerts and feedback
- Easy module installation and connection in the pool house



Requires a
relay antenna

Features

- Continuous pH analysis
- Continuous disinfectant analysis by ORP probe
- Continuous water temperature analysis
- Permanent control of the flow in the pipe
- Log of events: measurements and alarm feedback
- Alerts with push notifications on MyINDYGO app & emails
- Tips for optimizing treatment and filtration

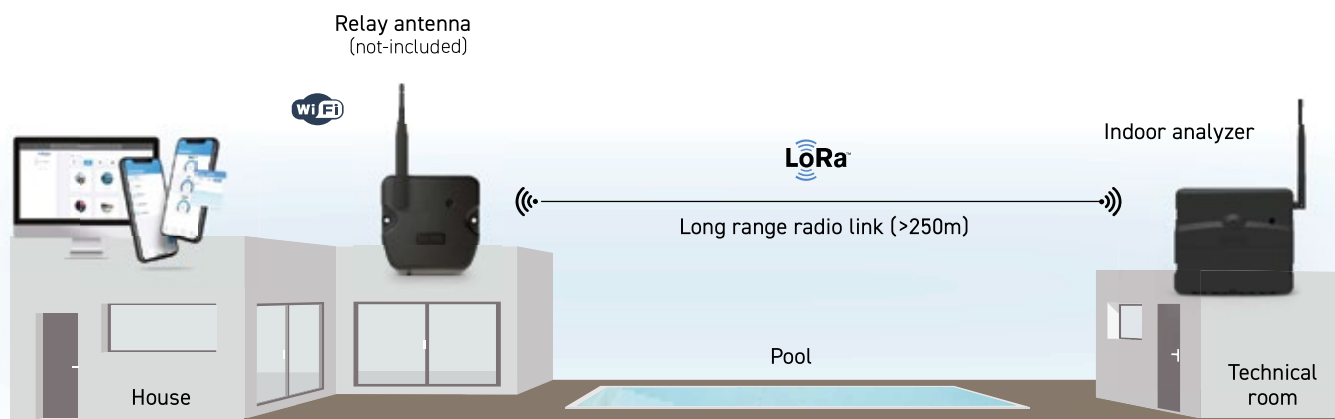
E-POOL CONNECT

Indoor Analyzer

Model	Reference
Indoor analyzer	KIT20GUARDSOL
Relay antenna	KIT20WiFiSOL

Technical Specifications	
Power supply	230 V 50 Hz
pH probe connector type	BNC
pH probe diameter	12 mm
ORP probe connector type	BNC
ORP probe diameter	12 mm
Temperature range (analyser)	0 °C to 50 °C
Analyser dimensions (mm)	W 160 x H 145 x D 36

Operating Diagram



Content

- Indoor analyzer
- pH probe
- ORP probe
- Temperature sensor
- Flow sensor
- Compatible sensor holder
Ø50 mm and Ø63 mm

Options

- Filter pressure analysis module
- Relay antenna

Warranties

2 years	Indoor analyzer
1 year	pH probe
1 year	ORP probe
1 year	Temperature probe

Pool
TECHNOLOGIE

Made in FRANCE

E-POOL CONNECT

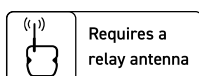
AQVASTAR
PRO SERIES

Filter pressure analysis module



Benefits

- Continuous filter pressure analysis
- Automatic alert for filter cleaning
- Feedback via relay antenna
- Long battery life (one season)
- Easy installation in place of pressure gauge



Features

- Continuous filter pressure analysis
- Backwash warning threshold
- Over-pressure and under-pressure warning thresholds (discharge closed, pump defrosted...)
- Log of events: measurements and alarm feedback
- Alerts with push notifications on MyINDYGO app & emails

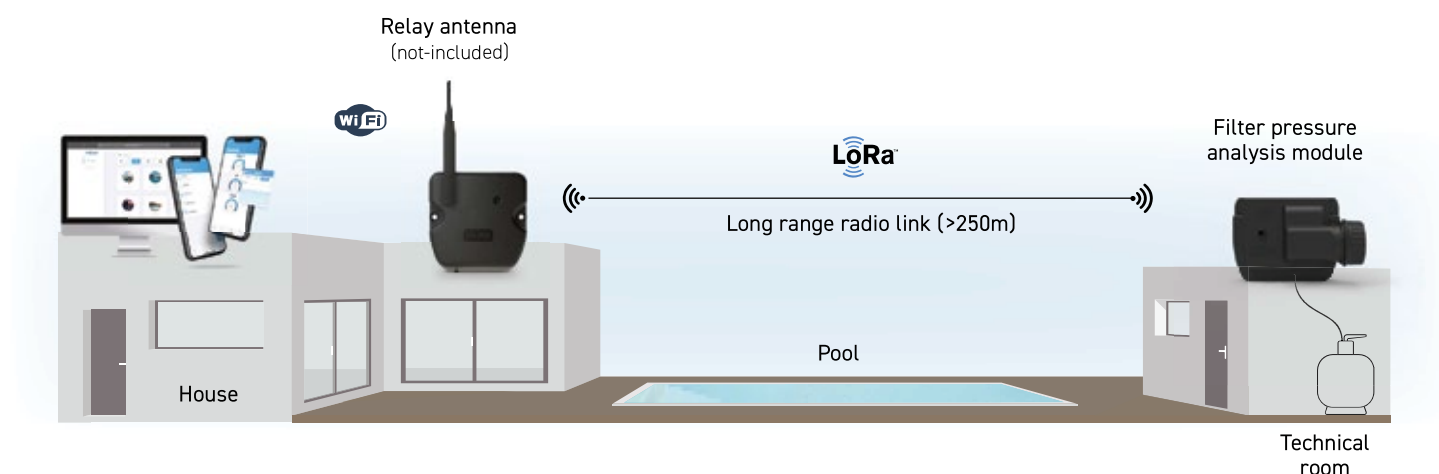
E-POOL CONNECT

Filter pressure analysis module

Model	Reference
Filter pressure analysis module	KIT22ANASOL
Relay antenna	KIT20WiFiSOL

Technical Specifications	
Power supply	1 x 9 V Lithium battery
Pressure sensor connection	¼ NPT
Measuring range (bar)	0 to 4
Max overpressure (bar)	8
Measurement accuracy	+/- 30 mbar
Sealing index	IP68
Temperature range (analysis module)	0 °C to 50 °C
Dimensions analysis module (mm)	W 140 x H 90 x D 55

Operating Diagram



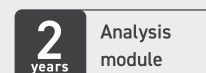
Content

- Analysis module
- Pressure sensor 0-4 bar ¼ NPT
- 1 x 9 V Lithium battery

Option

- Relay antenna

Warranty



Saltwater chlorinator



Benefits

- Intuitive navigation on LED display
- Light warning alarm
- High quality self cleaning cell
- Low Salt / Normal Salt mode (depending on model)
- Easy installation and assembly

Features

- **Smart Power:** current monitoring ensuring stable production
- **Self-cleaning cell with memory polarity inversion, adjustable according to water hardness**
- **Operate at any salt level from 2,5 g/l (NS) and 1,5 g/l (LS) without high limit**
- **Boost mode:** 100% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Low mode** to reduce chlorine production, when cover closed or bubbles cover installed
- **Safeties:** lack of water, low salt, cell fault

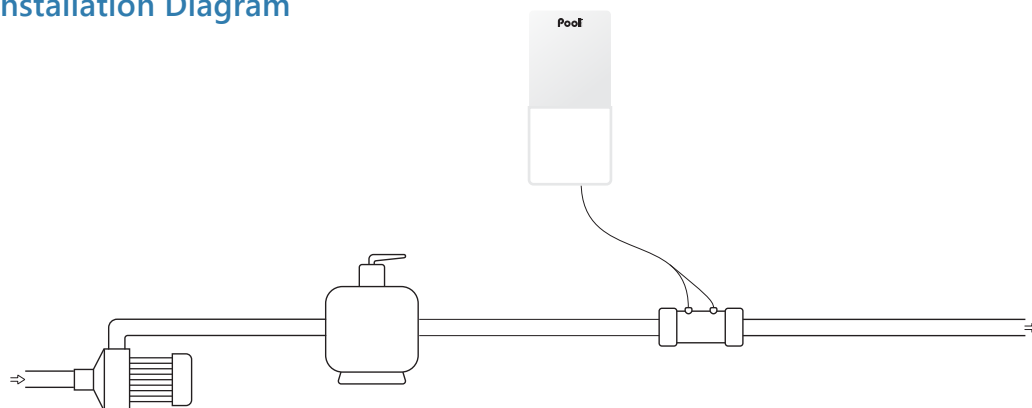
Technical specification

Model	Pool volume* (m³)	Chlorine production (g/h)	Reference
Minisalt 4	20	4	ELLY20NPSB-G0NM04
Minisalt 8	40	8	ELLY20NPSB-G0NM08
Minisalt 12	60	12	ELLY20NPSB-G0NM12
Minisalt 16	NS 80 / LS 60	NS 16 / LS 12	ELLY20NPSB-G0HX16
Minisalt 23	NS 120 / LS 80	NS 23 / LS 16	ELLY20NPSB-G0HX23
Minisalt 30	NS 160 / LS 120	NS 30 / LS 23	ELLY20NPSB-G0HX30

Display	LED display
Cell installation	in line
Cell orientation	horizontal or vertical
Cell length (mm)	225
Maximum pressure in the cell (bar)	2
Maximum flow in the cell (m³)	22 or By-pass
Maximum water temperature (°C)	40
Control panel size (mm)	W 140 x H 300 x D 97

*In hot climates, reduce the volume by 20% - NS : Normal Salt (5 g/l) / LS : Low Salt (1,5 g/l)

Installation Diagram



Warranties

2 years Box

2+2 years Cell

Saltwater chlorinator



Model	Pool volume* (m³)	Chlorine production (g/h)	Reference
Justsalt 8	40	8	ELLY24NPSA-G4NM08
Justsalt 12	60	12	ELLY24NPSA-G4NM12
Justsalt 16	NS 80 / LS 60	NS 16 / LS 12	ELLY24NPSA-G4HX16
Justsalt 23	NS 120 / LS 80	NS 23 / LS 16	ELLY24NPSA-G4HX23
Justsalt 30	NS 160 / LS 120	NS 30 / LS 23	ELLY24NPSA-G4HX30

*In hot climates, reduce the volume by 20% - NS : Normal Salt (5 g/l) / LS : Low Salt (1,5 g/l)

Benefits

- Intuitive navigation on backlit LCD display
- In line or dashboard display
- Adjustable chlorine production from 0 to 100%
- Low Salt / Normal Salt mode (depending on model)
- High quality self cleaning cell
- Bluetooth remote control with e-Pool® app
- Transparent accessories holder

Features

- **Smart Power:** current monitoring ensuring stable production
- **Self-cleaning cell with memory polarity inversion,** adjustable according to water hardness
- **Operate at any salt level from 2,5 g/l (NS) and 1,5 g/l (LS)** without high limit
- **Superboost mode:** 125% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Low mode to reduce chlorine production,** when cover closed or bubbles cover installed
- **Multilingual alarm message:** written message display of malfunction cause
- **Automatic winterization and restart from 15°C**
- **Display of pool salt level, water temperature and cell lifespan**
- **Self-diagnosis programme for easy maintenance**
- **Log of events**
- **Easy installation and assembly**

Technical specification

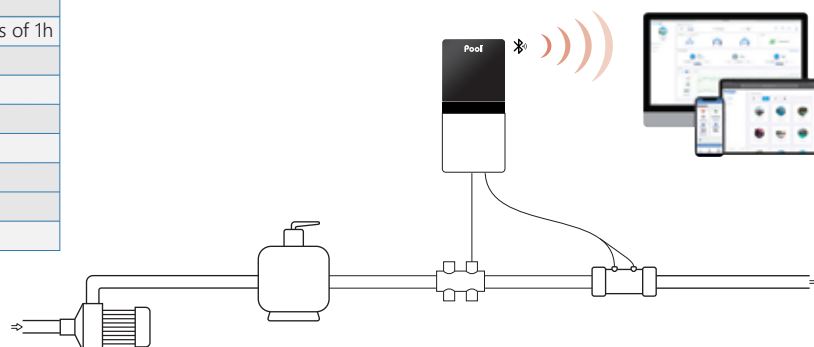
Display	LCD 2 Lines
Polarity inversion adjustment	from 2h to 24h in increments of 1h
Cell installation	in line
Cell orientation	horizontal or vertical
Cell length (mm)	225
Maximum pressure in the cell (bar)	2
Maximum flow in the cell (m³)	22 or By-pass
Maximum water temperature (°C)	40
Control panel size (mm)	W 140 x H 300 x D 97

Warranties

2 years Box

2⁺2 years Cell

Installation Diagram



Pool TECHNOLOGIE
Made in FRANCE

Saltwater chlorinator



Benefits

- **IPS HD panel** for optimal display quality
- **Dynamic backlit capacitive keys** for easy navigation
- **Automatic brightness adjustment** via light sensor
- **Automatic standby output** by presence sensor
- **Intelligent user guidance** by written message
- **Colour-coded display of the pool status:** blue: optimal water quality, orange: information message, red: alarm
- **Indicators of the status of the device's functions** using pictograms (OFF, STOP, INJ...)
- **Simultaneous display** of setpoints and measured values: production rate, water temperature and salt level
- **Low Salt / Normal Salt mode** (depending on model)
- **Bluetooth remote control** with e-Pool® app

Features

- **Smart Power:** current monitoring ensuring stable production
- **Self-cleaning cell with memory polarity inversion,** adjustable according to water hardness
- **Low mode** to reduce chlorine production, when cover closed or bubbles cover installed
- **Superboost mode:** 125% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Automatic winterization and restart from 15°C**
- **Safeties:** lack of water, low salt, cell fault
- **Multilingual alarm message:** origin of the malfunction indicated by written message
- **Log of events**
- **Self-diagnosis programme** for easy maintenance

Saltwater chlorinator

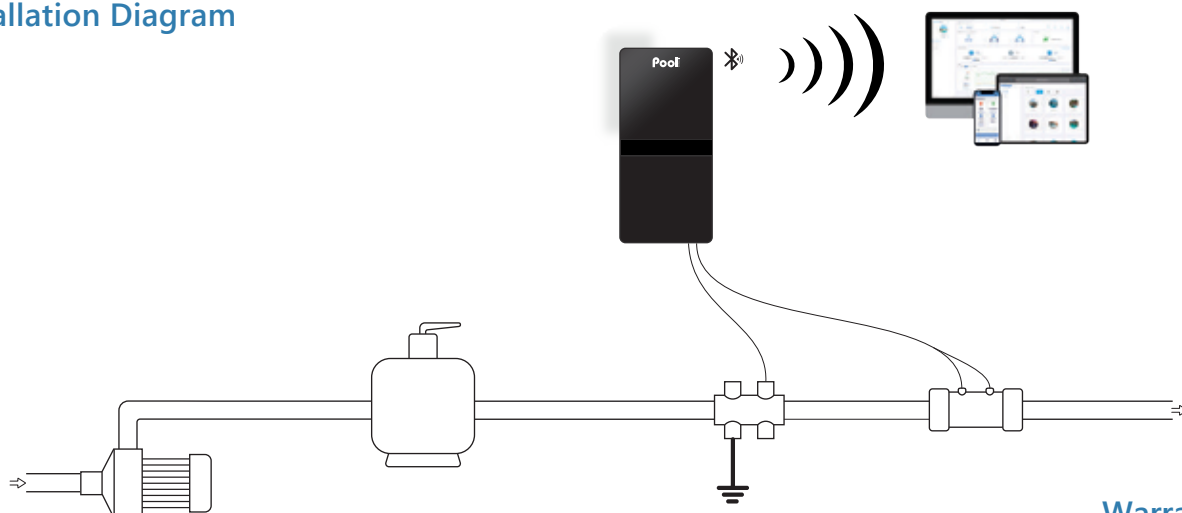
Model	Pool volume* (m ³)	Chlorine production (g/h)	Reference
Poolsquad Uno 8	40	8	ELLY23NPSP-G5NM08
Poolsquad Uno 12	60	12	ELLY23NPSP-G5NM12
Poolsquad Uno 16	NS 80 / LS 60	NS 16 / LS 12	ELLY23NPSP-G5HX16
Poolsquad Uno 23	NS 120 / LS 80	NS 23 / LS 16	ELLY23NPSP-G5HX23
Poolsquad Uno 30	NS 160 / LS 120	NS 30 / LS 23	ELLY23NPSP-G5HX30

*In hot climates, reduce the volume by 20% - NS : Normal Salt (5 g/l) / LS : Low Salt (1,5 g/l)

Technical specification

Display	IPS HD panel
Screen size	4,3 inches
Keyboard type	Capacitive keys
Presence sensor range (cm)	20
Polarity inversion adjustment	automatic Smart Reverse
Cell installation	in line
Cell orientation	horizontal or vertical
Cell length (mm)	225
Maximum pressure in the cell (bar)	2
Maximum flow in the cell (m ³)	22 or By-pass
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram



Warranties

2 years Box

2+2 years Cell

pH Regulator



Benefits

- Digital display of pH level
- Integrated silent dosing pump
- Quality pH probe, factory tested and calibrated
- Compatible with new european regulation (N°2019/1148) pH correcting agent adjustable concentration

Features

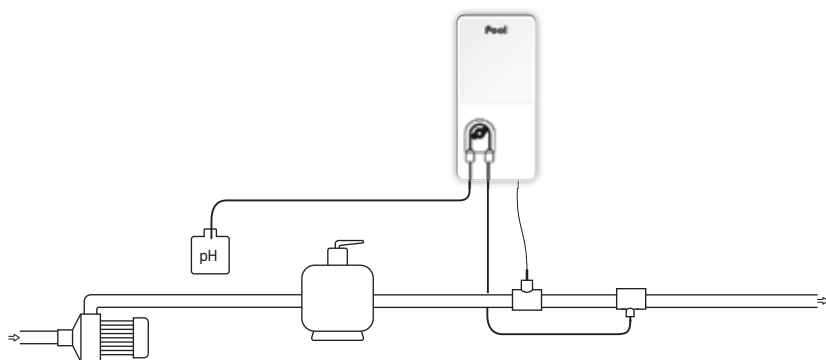
- Proportional pH regulation according to pool volume
- Regulation of all types of water, acid (pH-) or base (pH+)
- Safety: alarms for setpoint overrun and overfeeding
- Warning indicator light
- Easy installation and assembly

Technical specification

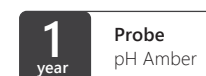
Model	Pool volume (m ³)	Pump flow (l/h)	Reference
Mini pH	160	1,8	REGU20NPSB-G1

Display	digital display
Corrective solution	pH- or pH+
Type of pH regulation	proportional
Setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 & pH 10
pH probe	Amber
Control panel size (mm)	W 118 x H 231 x D 78

Installation Diagram



Warranties



pH Regulator



Benefits

- Permanent digital display of pH value
- Integrated silent dosing pump
- High quality pH probe, factory tested and calibrated
- Accessories holder for an easy installation
- Compatible with new European regulation (N°2019/1148): pH correcting agent adjustable concentration

Features

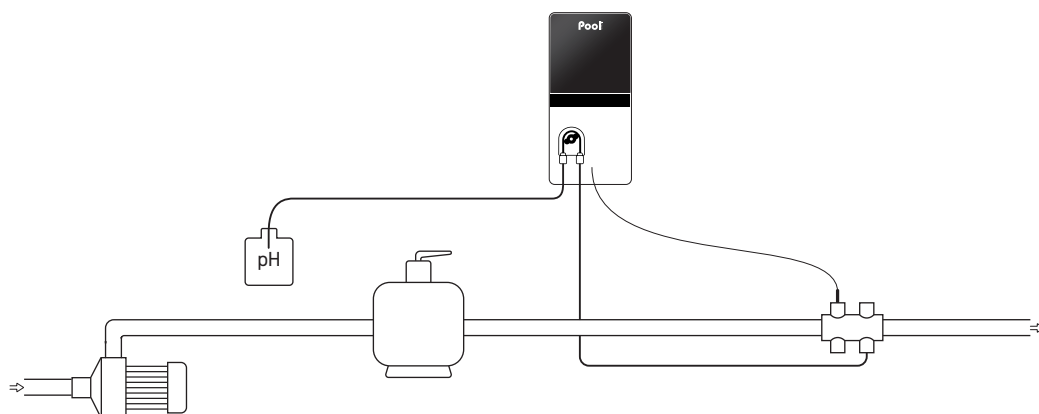
- Smart and proportional pH regulation according to the pool volume
- Automatic injection of correcting agent, acid (pH-) or base (pH+)
- Safeties: alarms for setpoint overrun and overfeeding
- Warning indicator light
- Easy installation and assembly

Technical specification

Model	Pool volume (m³)	Pump flow (l/h)	Reference
JustpH	160	1,8	REGU20NPSA-G1

Display	digital display
Corrective solution	pH- or pH+
Type of pH regulation	smart
pH setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 & pH 10
pH probe	Blue
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram



Warranties

2 years Box

2 years Probe pH Blue

pH Regulator



Benefits

- **Smart pH:** predictive regulation according to the history for a perfectly stable pH
- **IPS HD panel** for optimal display quality
- **Dynamic backlit capacitive keys** for easy navigation
- **Automatic brightness adjustment** via light sensor
- **Automatic standby output** by presence sensor
- **Colour-coded display of the pool status:** blue: optimal water quality, orange: information message, red: alarm
- **Indicators of the status of the device's functions** using pictograms (OFF, STOP, INJ...)
- **Simultaneous display** of setpoints measured pH value and water temperature
- **High quality, factory tested and calibrated Black pH probe**
- **Bluetooth remote control** with e-Pool® app

Features

- **Predictive and proportional pH control based on injection history**
- **Automatic injection of correcting agent**, acid (pH-) or base (pH+)
- **Safeties:** pH setpoint overrun and overfeeding : cause of malfunction indicated by written message
- **Log of events**
- **Multilingual communication interface**
- **Easy installation and assembly**

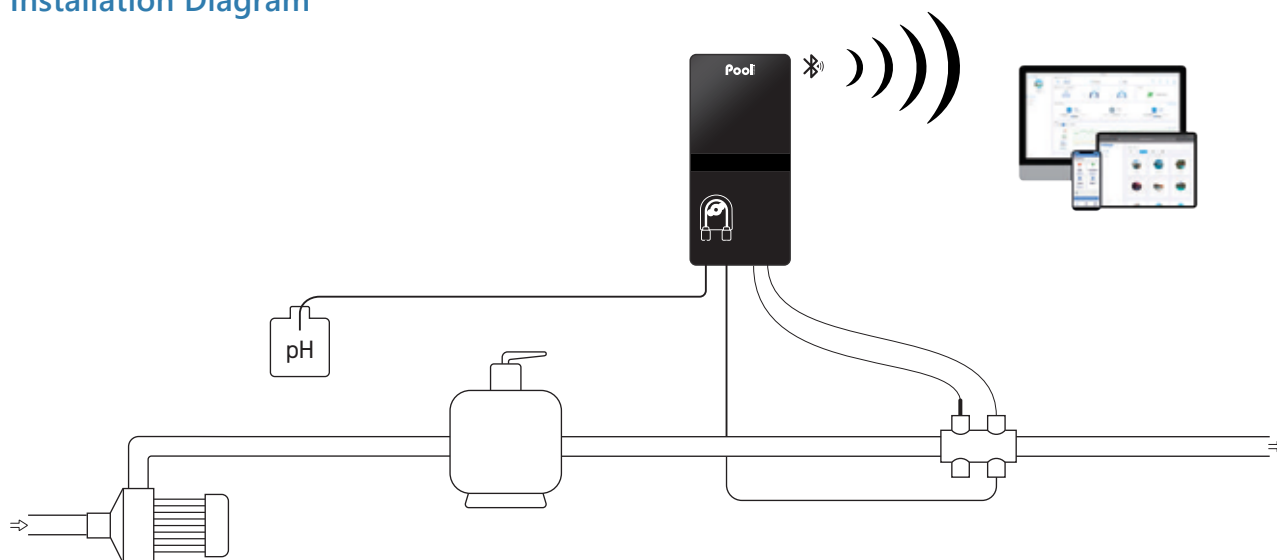
pH Regulator

Model	Pool volume (m ³)	Pump flow (l/h)	Reference
Poolsquad pH	160	1,8	REGU23NPSP-G5

Technical specification

Display	IPS HD panel
Screen size	4,3 inches
Keyboard type	capacitive keys
Presence sensor range (cm)	20
Corrective solution	pH- or pH+
pH regulation type	predictive
pH pump type	peristaltic
Setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 and pH 10
pH probe	Black
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram



Warranties

2
years

Box

3
years

Probe
pH Black

Automatic chlorine dosage by ORP probe



Benefits

- Digital display of ORP value
- Integrated silent dosing pump
- High quality ORP probe

Features

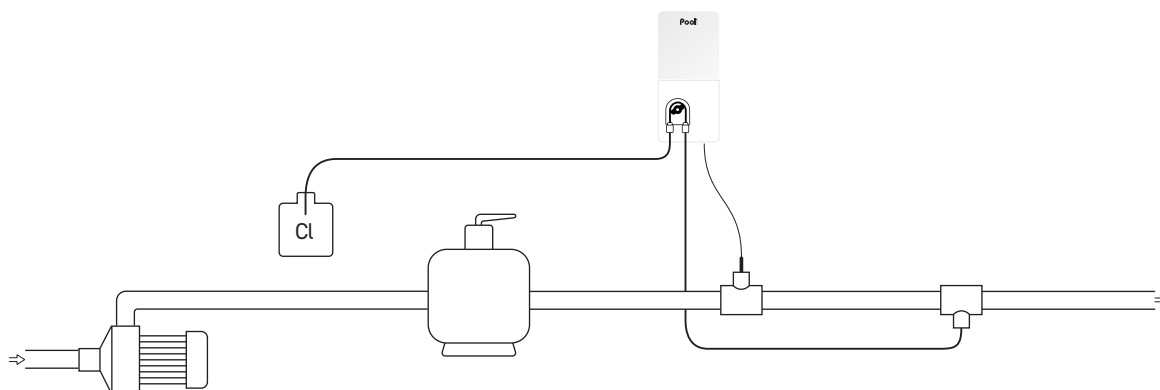
- Chlorine dosage regulation by ORP probe
- Adjustable ORP setpoint
- Safeties: high and low ORP values, overfeeding
- Easy installation and assembly

Technical specification

Model	Pool volume (m³)	Pump flow (l/h)	Reference
Mini Dosing	120	1,8	DOOR20NPSB-G1

Display	digital display
Disinfectant dosage	liquid chlorine
Smart injection	by ORP control
ORP setpoint adjustment (mV)	200 to 900
ORP probe calibration	1 point 475 mV
ORP probe	ORP Gold
Control panel size (mm)	W 118 x H 231 x D 78

Installation Diagram



Warranties

2 years	Box
1 year	Probe ORP Gold

Production ORP controller + pH regulator for Saltwater chlorinator



Benefits

- Intuitive navigation on backlit LCD display
- In line or dashboard display
- Soft touch keyboard with quick access keys
- Permanent display of ORP and pH values
- High quality ORP and pH probes, factory tested and calibrated
- Integrated silent dosing pump
- Suitable for all type of saltwater chlorinators
- Bluetooth remote control with e-Pool[®] app
- Compatible with new European regulation (N°2019/1148) pH correcting agent adjustable concentration
- Transparent accessories holder

Features

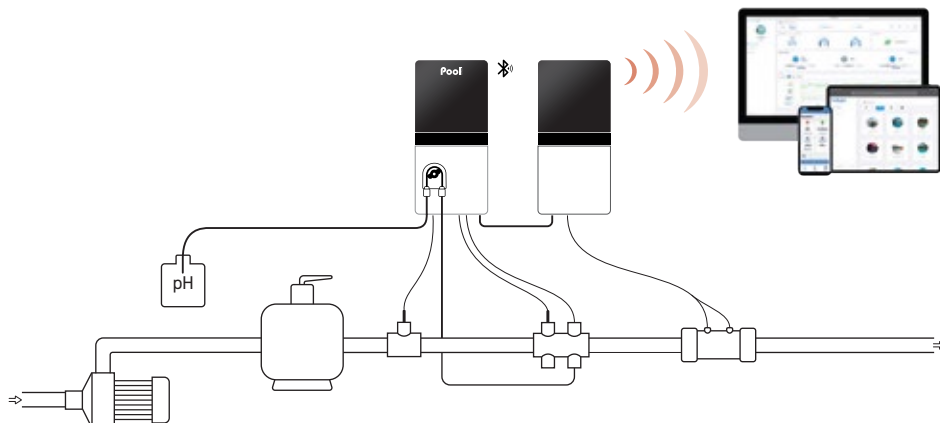
- Control and optimization of chlorine production thanks to ORP probe, specifically designed
- Smart and proportional pH regulation according to the pool volume in acid (pH-) or base (pH+) mode
- Limitations of chlorination issues and protection of pool equipments (cover, liners, etc...)
- Water temperature and salt level display
- Multilingual communication interface
- Multilingual alarm message: written message display of malfunction cause
- **Safeties:** high and low ORP values, unreached setpoint, pH setpoint overrun and overfeeding
- Adjustable ORP and pH setpoints
- Easy installation and assembly

Technical specification

Model	Pool volume (m ³)	Pump flow (l/h)	Reference
Just Regul	160	1,8	COOP20NPSA-G2

Display	LCD 2 lines
Corrective solution	pH- or pH+
Type of pH regulation	smart
pH setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 & pH 10
pH probe	Blue
ORP setpoint adjustment (mV)	200 to 900
ORP probe calibration	1 point 475 mV
ORP probe	ORP Gold
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram



Warranties

2 years Box

2 years Probe pH Blue

1 year Probe ORP Gold

Saltwater chlorinator + pH regulator



Model	Pool volume* (m ³)	Chlorine production (g/h)	Reference
Justsalt Duo 8	40	8	ELPH24NPSA-G4NM08
Justsalt Duo 12	60	12	ELPH24NPSA-G4NM12
Justsalt Duo 16	NS 80 / LS 60	NS 16 / LS 12	ELPH24NPSA-G4HX16
Justsalt Duo 23	NS 120 / LS 80	NS 23 / LS 16	ELPH24NPSA-G4HX23
Justsalt Duo 30	NS 160 / LS 120	NS 30 / LS 23	ELPH24NPSA-G4HX30

*In hot climates, reduce the volume by 20% - NS : Normal Salt (5 g/l)
/ LS : Low Salt (1,5 g/l)

Technical specification

Display	LCD 2 lines
pH pump flow (l/h)	1,8
Corrective solution	pH- or pH+
Type of pH regulation	smart
Setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 & pH 10
pH probe	Blue
Polarity inversion adjustment	from 2h to 24h in increments of 1h
Cell installation	in line
Cell orientation	horizontal or vertical
Cell length (mm)	225
Maximum pressure in the cell (bar)	2
Maximum flow in the cell (m ³)	22 or By-pass
Maximum water temperature (°C)	40
Control panel size (mm)	W 140 x H 300 x D 97

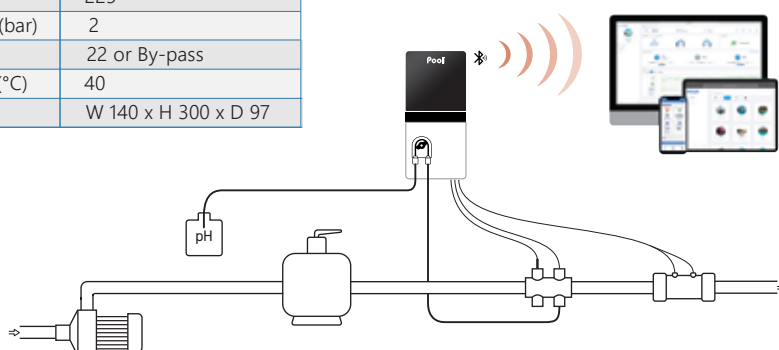
Benefits

- Intuitive navigation on backlit LCD display
- In line or dashboard display
- Soft touch keyboard with quick access keys
- Low Salt / Normal Salt mode (depending on model)
- High quality pH probe, factory tested and calibrated
- Integrated silent dosing pump
- Bluetooth remote control with e-Pool® app
- Compatible with new European regulation (N°2019/1148): pH correcting agent adjustable concentration
- Transparent accessories holder

Features

- **Smart Power:** current monitoring ensuring stable production
- **Smart and proportional pH regulation according to the pool volume** in acid (pH-) or base (pH+) mode
- **Self-cleaning cell with memory polarity inversion**, adjustable according to water hardness
- **Operate at any salt level from 2,5 g/l (NS) and 1,5 g/l (LS)** without high limit
- **Superboost mode:** 125% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Automatic winterization and restart from 15°C**
- **Multilingual communication interface**
- **Multilingual alarm message:** written message display of malfunction cause
- **Safeties:** alarms for setpoint overrun and overfeeding
- **Display of pool salt level, water temperature and cell lifespan**
- **Log of events**
- **Self-diagnosis programme for easy maintenance**

Installation Diagram



Warranties

2 years	Box
2 + 2 years	Cell
2 years	Probe pH Blue

Pool TECHNOLOGIE
Made in FRANCE

Saltwater chlorinator + pH regulator



Benefits

- **Exclusive Smart Reverse technology:** self-cleaning of the cell according to the hardness of the water without any time adjustment or parameter setting
- **Smart pH:** predictive regulation according to the history for a perfectly stable pH
- **IPS HD panel** for optimal display quality
- **Dynamic backlit capacitive keys** for easy navigation
- **Automatic standby output** by presence sensor
- **Colour-coded display of the pool status:** blue: optimal water quality, orange: information message, red: alarm
- **Indicators of the status of the device's functions** using pictograms (OFF, STOP, INJ...)
- **Simultaneous display** of setpoints, production and pH values, salt level and water temperature
- **Low Salt / Normal Salt mode** (depending on model)
- **High quality, factory tested and calibrated Black pH probe**
- **Bluetooth remote control** with e-Pool® app

Features

- **Smart Power:** current monitoring ensuring stable production
- **Smart Reverse polarity inversion:** self cleaning cell according to water hardness without any adjustment nor settings
- **Predictive and proportional pH regulation** in acid (pH-) or basic (pH+) mode
- **Low mode to reduce chlorine production**, when cover closed or bubbles cover installed
- **Superboost mode:** 125% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Automatic winterization and restart from 15°C**
- **Safeties:** lack of water, low salt, cell fault, unreachd setpoint, pH setpoint overrun and overfeeding
- **Multilingual alarm message:** origin of the malfunction indicated by written message
- **Log of events**
- **Self-diagnosis programme** for easy maintenance

Saltwater chlorinator + pH regulator

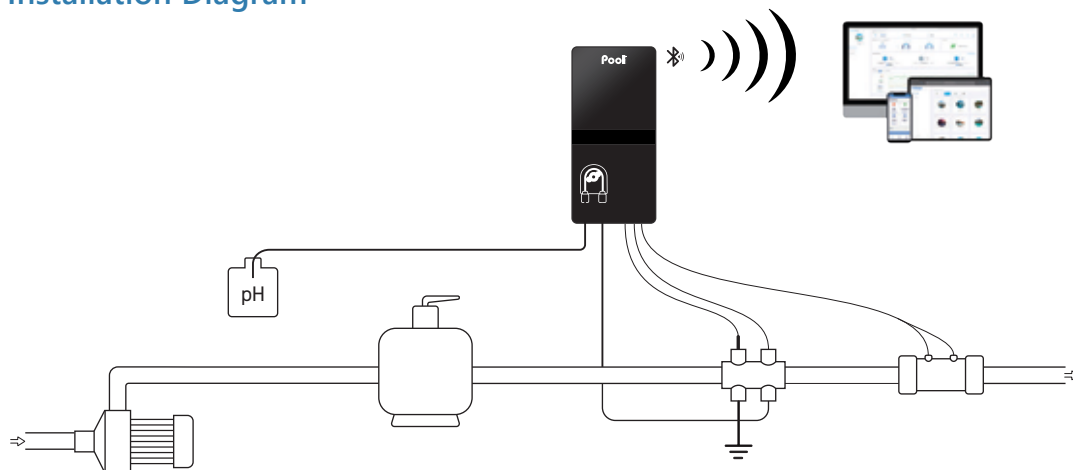
Model	Pool volume* (m³)	Chlorine production (g/h)	Reference
Poolsquad 8	40	8	ELPH23NPSP-G5NM08
Poolsquad 12	60	12	ELPH23NPSP-G5NM12
Poolsquad 16	NS 80 / LS 60	NS 16 / LS 12	ELPH23NPSP-G5HX16
Poolsquad 23	NS 120 / LS 80	NS 23 / LS 16	ELPH23NPSP-G5HX23
Poolsquad 30	NS 160 / LS 120	NS 30 / LS 23	ELPH23NPSP-G5HX30

*in hot climates, reduce the volume by 20% - NS : Normal Salt (5 g/l) / LS : Low Salt (1,5 g/l)

Technical specification

Display	IPS HD panel
Screen size	4,3 inches
Keyboard type	capacitive keys
Presence sensor range (cm)	20
pH pump flow (l/h)	1,8
Corrective solution	pH- or pH+
pH pump type	peristaltic
pH regulation type	predictive
Setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 and pH 10
pH probe	Black
Polarity inversion adjustment	automatic Smart Reverse
Cell installation	in line
Cell orientation	horizontal or vertical
Cell length (mm)	225
Maximum pressure in the cell (bar)	2
Maximum flow in the cell (m³)	22 or By-pass
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram



Warranties

2 years	Box
2+2 years	Cell
3 years	Probe pH Black

Saltwater chlorinator + pH regulator + ORP controller

Benefits

- Intuitive navigation on backlit LCD display
- In line or dashboard display
- Soft touch keyboard with quick access keys
- Bluetooth remote control with e-Pool[®] app
- Low Salt / Normal Salt mode (depending on model)
- High quality pH and ORP probes, factory tested and calibrated
- Integrated silent dosing pump
- Compatible with new European regulation (N°2019/1148): pH correcting agent adjustable concentration
- Transparent accessories holder

Features

- **Smart Power:** current monitoring ensuring stable production
- **Smart and proportional pH regulation according to the pool volume** in acid (pH-) or base (pH+) mode
- **Chlorine production control by ORP probe**
- **Self-cleaning cell with memory polarity inversion**, adjustable according to water hardness
- **Operate at any salt level from 2,5 g/l (NS) and 1,5 g/l (LS)** without high limit
- **Superboost mode:** 125% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Low mode to reduce chlorine production**, when cover closed or bubbles cover installed
- **Automatic winterization and restart from 15°C**
- **Display of pool salt level, water temperature and cell lifespan**
- **Multilingual communication interface**
- **Multilingual alarm message:** written message display of malfunction cause
- **Safeties:** high and low ORP value, unreached setpoint, pH setpoint overrun and overfeeding
- **Log of events**
- **Self-diagnosis programme for easy maintenance**



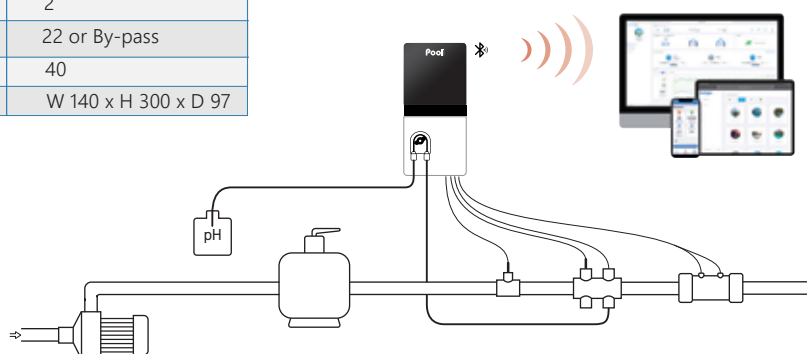
Model	Pool volume* (m ³)	Chlorine production (g/h)	Reference
Justsalt Pro 8	40	8	ELPO24NPSA-G4NM08
Justsalt Pro 12	60	12	ELPO24NPSA-G4NM12
Justsalt Pro 16	NS 80 / LS 60	NS 16 / LS 12	ELPO24NPSA-G4HX16
Justsalt Pro 23	NS 120 / LS 80	NS 23 / LS 16	ELPO24NPSA-G4HX23
Justsalt Pro 30	NS 160 / LS 120	NS 30 / LS 23	ELPO24NPSA-G4HX30

* In hot climates, reduce the volume by 20% - NS : Normal Salt (5 g/l) / LS : Low Salt (1,5 g/l)

Technical specification

Display	LCD 2 lines
ORP setpoint adjustment (mV)	200 to 900
ORP probe calibration	1 point 475 mV
ORP probe	ORP Gold
pH pump flow (l/h)	1,8
Corrective solution	pH- or pH+
Type of pH regulation	smart
Setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 & pH 10
pH probe	Blue
Cell installation	in line
Cell orientation	horizontal or vertical
Cell length (mm)	225
Maximum pressure in the cell (bar)	2
Maximum flow in the cell (m ³)	22 or By-pass
Maximum water temperature (°C)	40
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram



Warranties

2 years	Box
2+2 years	Cell
2 years	Probe pH Blue
1 year	Probe ORP Gold

Pool TECHNOLOGIE

Made in FRANCE

Saltwater chlorinator + pH regulator + ORP controller



Benefits

- **Exclusive Smart Reverse technology:** self-cleaning of the cell according to the hardness of the water without any time adjustment or parameter setting
- **Smart pH:** predictive regulation according to the history for a perfectly stable pH
- **IPS HD panel** for optimal display quality
- **Dynamic backlit capacitive keys** for easy navigation
- **Automatic standby output** by presence sensor
- **Presence sensor** to detect the approach of the user
- **Colour-coded display of the pool status:** blue: optimal water quality, orange: information message, red: alarm
- **Indicators of the status of the device's functions** using pictograms (OFF, STOP, INJ...)
- **Simultaneous display** of setpoints ORP and pH values, salt level and water temperature
- **Low Salt / Normal Salt mode** (depending on model)
- **High quality pH Black and ORP Gold probes**, factory tested and calibrated
- **Bluetooth remote control** with e-Pool® app

Features

- **Smart Power:** current monitoring ensuring stable production
- **Smart Reverse polarity:** the self-cleaning of the cell automatically adapts to the hardness of the water without the need for professional or private intervention
- **Predictive and proportional pH control** in acid (pH-) or basic (pH+) mode according to injection history
- **Chlorine production control by ORP probe**
- **Low mode** to reduce chlorine production, when cover closed or bubbles cover installed
- **Superboost mode:** 125% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Automatic winterization and restart from 15°C**
- **Safeties:** lack of water, low salt, cell fault, high and low ORP value, unreached setpoints, pH setpoint overrun and overfeeding
- **Multilingual alarm message:** origin of the malfunction indicated by written message
- **Log of events**
- **Self-diagnosis programme** for easy maintenance

Saltwater chlorinator + pH regulator + ORP controller

Model	Pool volume* (m ³)	Chlorine production (g/h)	Reference
Poolsquad Pro 8	40	8	ELPO23NPSP-G5NM08
Poolsquad Pro 12	60	12	ELPO23NPSP-G5NM12
Poolsquad Pro 16	NS 80 / LS 60	NS 16 / LS 12	ELPO23NPSP-G5HX16
Poolsquad Pro 23	NS 120 / LS 80	NS 23 / LS 16	ELPO23NPSP-G5HX23
Poolsquad Pro 30	NS 160 / LS 120	NS 30 / LS 23	ELPO23NPSP-G5HX30
Poolsquad Pro 8 panel	40	8	ELPO23NPSP-G5NM08 PANORP
Poolsquad Pro 12 panel	60	16	ELPO23NPSP-G5NM12 PANORP
Poolsquad Pro 16 panel	NS 80 / LS 60	NS 16 / LS 12	ELPO23NPSP-G5HX16 PANORP
Poolsquad Pro 23 panel	NS 120 / LS 80	NS 23 / LS 16	ELPO23NPSP-G5HX23 PANORP
Poolsquad Pro 30 panel	NS 160 / LS 120	NS 30 / LS 23	ELPO23NPSP-G5HX30 PANORP

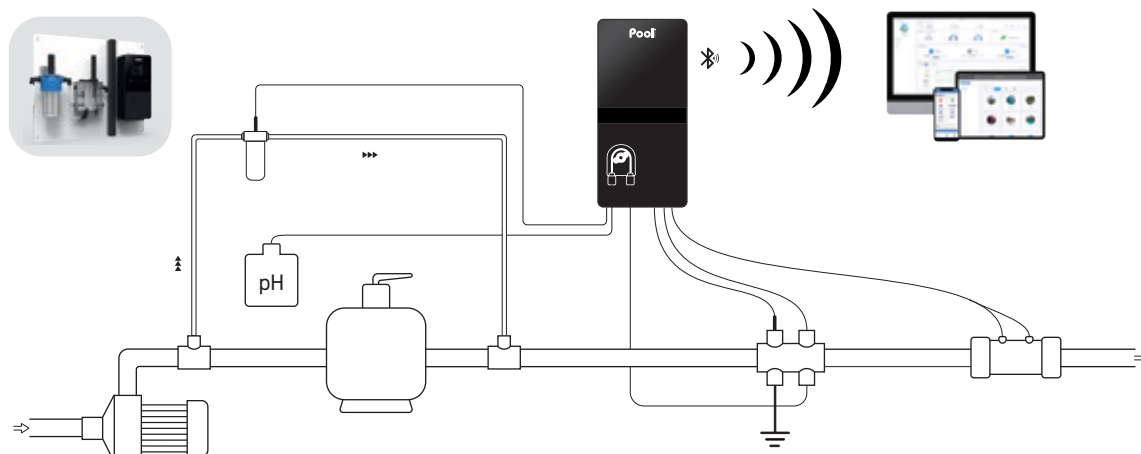
*in hot climates, reduce the volume by 20% - NS : Normal Salt (5 g/l) / LS : Low Salt (1,5 g/l)

Technical specification

Display	IPS HD panel
Screen size	4,3 inches
Keyboard type	capacitive keys
Presence sensor range (cm)	20
pH pump flow (l/h)	1,8
Corrective solution	pH- or pH+
pH pump type	peristaltic
pH regulation type	predictive
ORP setpoint adjustment (mV)	200 to 900
Calibration ORP probe	1 point 475 mV
ORP probe	ORP Gold
Polarity inversion adjustment	automatic Smart Reverse
Cell installation	in line
Cell orientation	horizontal or vertical
Cell length (mm)	225
Maximum pressure in the cell (bar)	2
Maximum flow in the cell (m ³)	22 or By-pass
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram

Panel mounting



Warranties

2 years	Box
2+2 years	Cell
3 years	Probe pH Black
1 year	Probe ORP Gold

Pool TECHNOLOGIE
Made in FRANCE

Saltwater chlorinator + pH regulator + Amperometric controller



Benefits

- **Exclusive Smart Reverse technology:** self-cleaning of the cell according to the hardness of the water without any time adjustment or parameter setting
- **Smart pH:** predictive regulation according to the history for a perfectly stable pH
- **IPS HD panel** for optimal display quality
- **Dynamic backlit capacitive keys** for easy navigation
- **Automatic standby output** by presence sensor
- **Intelligent user guidance** by written message
- **Colour-coded display of the pool status:** blue: optimal water quality, orange: information message, red: alarm
- **Indicators of the status of the device's functions** using pictograms (OFF, STOP, INJ...)
- **High quality pH Black and Chlorine Salt probes,** factory tested and calibrated
- **Simultaneous display** of setpoints and measured values (Cl, pH)
- **Bluetooth remote control** with e-Pool® app

Features

- **Smart Power:** current monitoring ensuring stable production
- **Smart Reverse polarity:** the self-cleaning of the cell automatically adapts to the hardness of the water without the need for professional or private intervention
- **Predictive and proportional pH control** in acid (pH-) or basic (pH+) mode according to injection history
- **Analysis and regulation using an amperometric probe measuring the free chlorine level in the pool (in ppm)**
- **Low mode** to reduce chlorine production, when cover closed or bubbles cover installed
- **Superboost mode:** 125% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Automatic winterization and restart from 15°C**
- **Safeties:** lack of water, low salt, cell fault, high and low ORP value, unreachd setpoints, pH setpoint overrun and overfeeding
- **Multilingual alarm message:** origin of the malfunction indicated by written message
- **Log of events**
- **Self-diagnosis programme** for easy maintenance

Saltwater chlorinator + pH regulator + Amperometric controller

Model	Pool volume* (m ³)	Chlorine production (g/h)	Reference
Poolsquad Ampero 8	40	8	ELPA23NPSP-G5NM08
Poolsquad Ampero12	60	12	ELPA23NPSP-G5NM12
Poolsquad Ampero 16	NS 80 / LS 60	NS 16 / LS 12	ELPA23NPSP-G5HX16
Poolsquad Ampero 23	NS 120 / LS 80	NS 23 / LS 16	ELPA23NPSP-G5HX23
Poolsquad Ampero 30	NS 160 / LS 120	NS 30 / LS 23	ELPA23NPSP-G5HX30
Poolsquad Ampero 8 panel	40	8	ELPA23NPSP-G5NM08 PANAMP
Poolsquad Ampero 12 panel	60	12	ELPA23NPSP-G5NM12 PANAMP
Poolsquad Ampero 16 panel	NS 80/ LS 60	NS 16 / LS 12	ELPA23NPSP-G5HX16 PANAMP
Poolsquad Ampero 23 panel	NS 120 / LS 80	NS 23 / LS 16	ELPA23NPSP-G5HX23 PANAMP
Poolsquad Ampero 30 panel	NS 160 / LS 120	NS 30 / LS 23	ELPA23NPSP-G5HX30 PANAMP

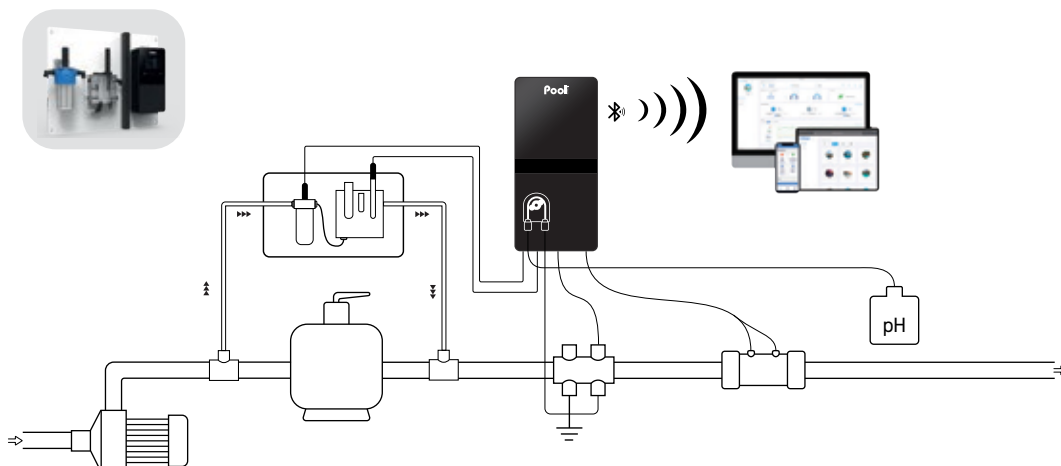
*in hot climates, reduce the volume by 20% - NS : Normal Salt (5 g/l) / LS : Low Salt (1,5 g/l)

Technical specification

Display	IPS HD panel
Screen size	4,3 inches
Keyboard type	capacitive keys
Presence sensor range (cm)	20
Free chlorine setpoint	0,1 to 5 ppm
Amperometric probe	Salt
pH pump flow (l/h)	1,8
Corrective solution	pH- or pH+
pH pump type	peristaltic
pH regulation type	predictive
pH setpoint adjustment	6,8 to 7,6
Calibration pH probe	2points pH 7 and pH 10
Polarity inversion adjustment	automatic Smart Reverse
Cell installation	in line
Cell orientation	horizontal or vertical
Cell length (mm)	225
Maximum pressure in the cell (bar)	2
Maximum flow in the cell (m ³)	22 or By-pass
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram

Panel mounting



Warranties

2 years Box

2+2 years Cell

3 years Probe
pH Black

1 year Probe
CI Salt

Pool TECHNOLOGIE
Made in FRANCE

Automatic ORP dosage + pH regulator + ORP controller

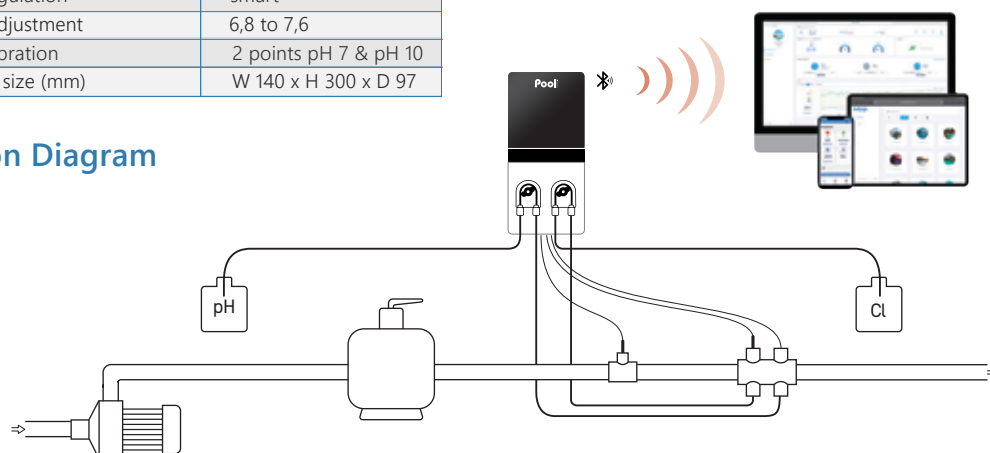


Model	Pool volume (m ³)	Pump flow (l/h)	Reference
Just Dosing	120	1,8	DOOP20NPSA-G2

Technical specification

Display	LCD 2 lines
ORP probe	ORP Gold
Disinfectant dosage	liquid chlorine
Smart regulation	by ORP control
ORP setpoint adjustment (mV)	200 to 900
ORP probe calibration	1 point 475 mV
pH probe	Blue
Corrective solution	pH- or pH+
Type of pH regulation	smart
pH setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 & pH 10
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram



Benefits

- Intuitive navigation on backlit LCD display
- In line or dashboard display
- Soft touch keyboard with quick access keys
- Permanent display of ORP and pH values
- High quality ORP and pH probes, factory tested and calibrated
- Integrated silent dosing pumps
- Bluetooth remote control with e-Pool® app
- Compatible with new European regulation (N°2019/1148): pH correcting agent adjustable concentration
- Transparent accessories holder

Features

- Automatic chlorine dosage by ORP probe
- Smart and proportional pH regulation according to the pool volume in acid (pH-) or base (pH+) mode
- Water temperature display
- Multilingual alarm message: written message displays of malfunction cause
- Adjustable ORP and PH Setpoints
- Safeties: high and low ORP values, unreachd setpoint, pH setpoint overrun and overfeeding

Warranties

2 years Box

2 years Probe pH Blue

1 year Probe ORP Gold

Pool TECHNOLOGIE
Made in FRANCE

Automatic ORP dosage + pH regulator + ORP controller



Benefits

- **Smart pH:** predictive regulation according to the history for a perfectly stable pH
- **IPS HD panel** for optimal display quality
- **Dynamic backlit capacitive keys** for easy navigation
- **Automatic brightness adjustment** via light sensor
- **Automatic standby output** by presence sensor
- **Intelligent user guidance** by written message
- **Colour-coded display of the pool status:** blue: optimal water quality, orange: information message, red: alarm
- **Indicators of the status of the device's functions** using pictograms (OFF, STOP, INJ...)
- **Simultaneous display** of setpoints ORP and pH value and water temperature
- **High quality pH Black and ORP Gold probes**, factory tested and calibrated
- **Bluetooth remote control** with e-Pool® app

Features

- **Automatic chlorine dosage** by ORP probe
- **Limits over/under chlorination** issues and protects pool equipments (cover, liners, etc...)
- **Intelligent, predictive and proportional pH control** in acidic (pH-) or basic (pH+) mode according to injection history
- **Safeties:** high and low ORP values, unreached setpoints, pH setpoint overrun and overfeeding
- **Multilingual alarm message:** origin of the malfunction indicated by written message
- **Adjustable ORP and pH setpoints**
- **Log of events**
- **Easy installation and assembly**

Automatic ORP dosage + pH regulator + ORP controller

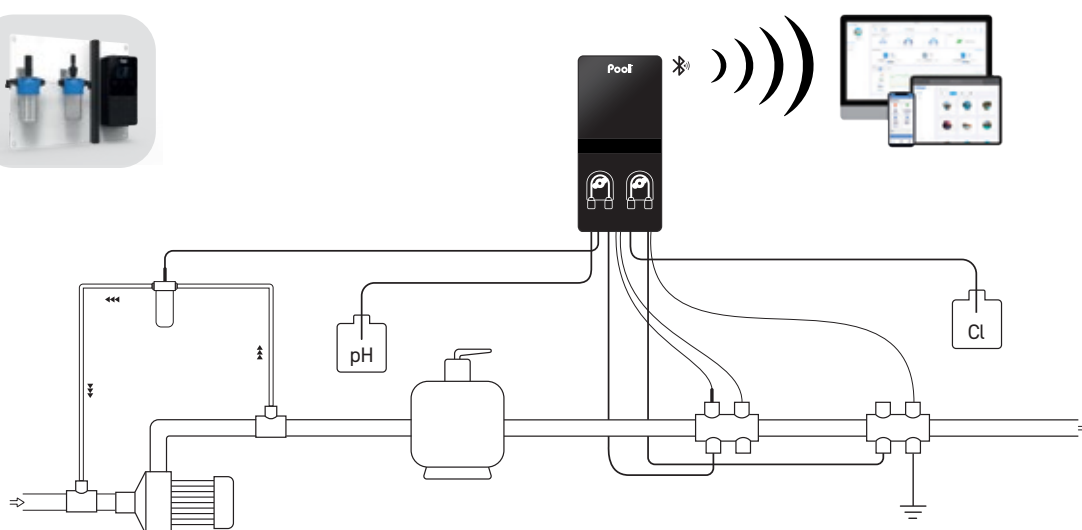
Model	Pool volume (m³)	Pump flow (l/h)	Reference
Dosipool Pro	120	1,8	DOOP23NPSP-G5
Dosipool Pro panel	120	1,8	DOOP23NPSP-G5 PANORP

Technical specification

Display	IPS HD panel
Screen size	4,3 inches
Keyboard type	capacitive keyboard
Presence sensor range (cm)	20
ORP setpoint adjustment (mV)	200 to 900
ORP probe calibration	1 point 475 mV
ORP probe	ORP Gold
pH pump flow (l/h)	1,8
Corrective solution	pH- or pH+
pH pump type	peristaltic
Type of regulation	predictive
pH setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 and pH 10
Control box size (mm)	W 140 x H 300 x D 97

Installation Diagram

Panel mounting



Warranties

2 years	Box
3 years	Probe pH Black
1 year	Probe ORP Gold

Automatic chlorine dosage + pH regulator + Amperometric regulation



Benefits

- **Smart pH:** predictive regulation according to the history for a perfectly stable pH
- **IPS HD panel** for optimal display quality
- **Dynamic backlit capacitive keys** for easy navigation
- **Automatic brightness adjustment** via light sensor
- **Automatic standby output** by presence sensor
- **Intelligent user guidance** by written message
- **Colour-coded display of the pool status:** blue: optimal water quality, orange: information message, red: alarm
- **Indicators of the status of the device's functions** using pictograms (OFF, STOP, INJ...)
- **Simultaneous display** of setpoints, Cl and pH values, and water temperature
- **High quality pH Black and Chlorine Fresh probes** factory tested and calibrated
- **Bluetooth remote control** with e-Pool® app

Features

- **Automatic chlorine dosage** by amperometric probe
- **Chlorine regulation** by efficient free chlorine probe specifically designed for fresh water
- **Limits the risk of over-chlorination** and protects equipment (shutters, liner, etc.)
- **Intelligent, predictive and proportional pH control** in acid (pH-) or basic (pH+) mode according to injection history
- **Safeties:** high and low ampero values, unreachd setpoints, pH setpoint overrun and overfeeding
- **Multilingual alarm message:** origin of the malfunction indicated by written message
- **Adjustable free chlorine and pH setpoints**
- **Log of events**
- **Easy installation and assembly**

Automatic chlorine dosage + pH regulator + Amperometric regulation

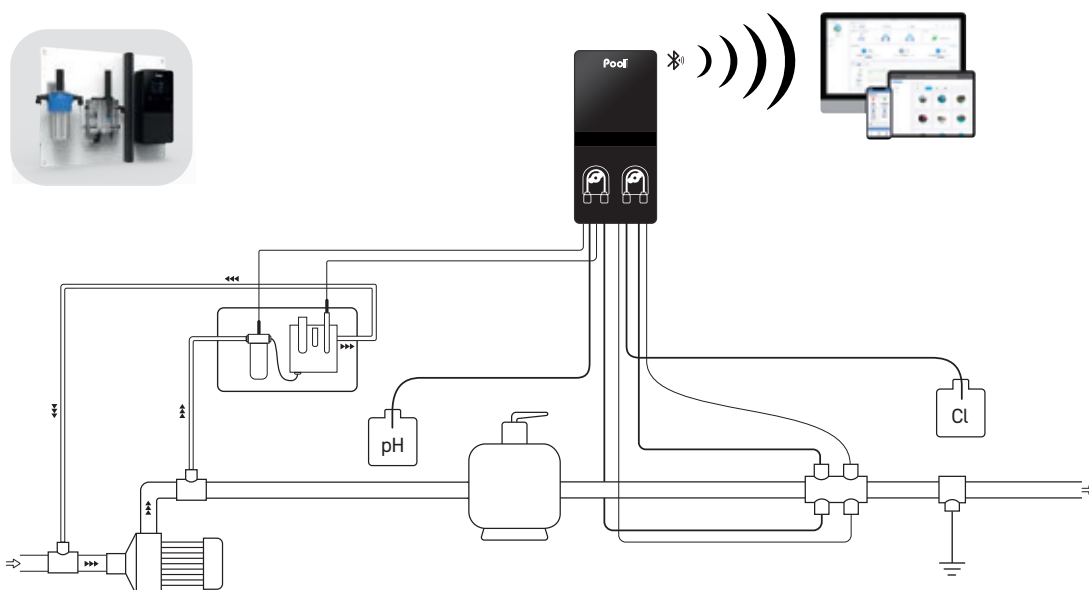
Model	Pool volume (m ³)	Pump flow(l/h)	Reference
Dosipool Ampero	120	1,8	DOAP23NPSP-G5
Dosipool Ampero panel	120	1,8	DOAP23NPSP-G5 PANAMP

Technical specification

Display	IPS HD panel
Screen size	4,3 inches
Keyboard type	capacitive keys
Presence sensor range (cm)	20
Free chlorine adjustment setpoint (ppm)	0,1 to 5 ppm
Amperometric probe	Cl Fresh
pH pump flow (l/h)	1,8
Corrective solution	pH- or pH+
pH pump type	peristaltic
pH regulation type	predictive
pH setpoint adjustment	6,8 to 7,6
pH probe calibration	2 points pH 7 and pH 10
Control panel size (mm)	W 140 x H 300 x D 97

Installation Diagram

Panel mounting



Warranties

2
years

Box

3
years

Probe
pH Black

1
year

Probe
Cl Fresh

Saltwater chlorinator for UV treatment



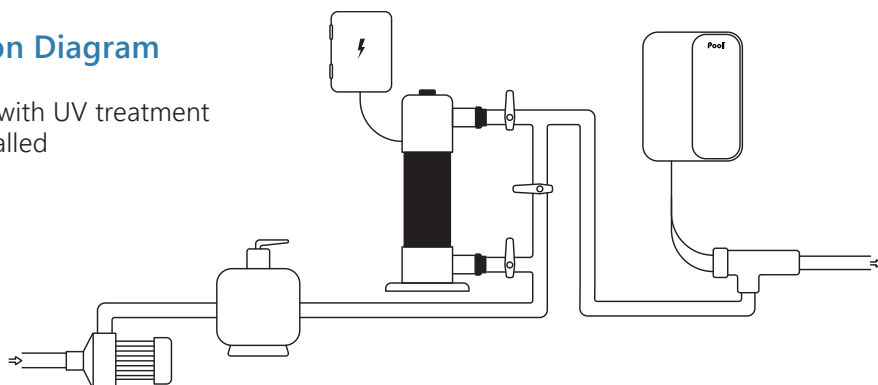
Model	Pool volume (m ³)	Flow (m ³ /h)	Reference
Minisalt UV 50	50	15	ELLY24NPSB-G0VX15
Minisalt UV 100	100	25	ELLY24NPSB-G0VX25
Minisalt UV 150	150	35	ELLY24NPSB-G0VX35

Technical specification

Display	LED display
Cell installation	in T
Cell orientation	horizontal or vertical
Cell length (mm)	291
Maximum pressure in the cell (bar)	2
Maximum flow in the cell (m ³)	22 or By-pass
Maximum water temperature (°C)	40
Control panel size (mm)	W 266 x H 360 x D 167

Installation Diagram

Only works with UV treatment already installed



Benefits

- Saltwater chlorinator specially designed for UV system
- Only works with an installed UV treatment system
- Exemption from the use of persistent chemicals (hydrogen peroxide, etc.)
- Ensures the persistence of water disinfection
- Disinfected and disinfecting water without adding chemicals
- Compatible with our Mini UV sterilizer
- Soft and odorless bathing water
- Environmentally friendly disinfection solution
- 100% automatic and easy-to-use device
- Non-polluting waste water
- Highly reduced maintenance costs
- Easy installation and assembly

Features

- **Smart Power:** current monitoring ensuring stable production
- **Ultra Low Salt[®] technology:** operate at any salt level higher than 0,5 g/l
- **Self-cleaning cell with memory polarity inversion,** adjustable according to water hardness
- **Boost mode: 100% superchlorination for up to 24 hours** overcome an increased need of disinfectant
- **Low mode** to reduce chlorine production, when cover closed or bubbles cover installed
- **Safeties:** lack of water, low salt and cell fault

Warranties



Pool TECHNOLOGIE

Made in FRANCE

MINI UV

UV sterilizer



Benefits

- Up to 35% higher UV-C efficiency due to stainless steel internal reflection
- Duplex stainless steel reactor perfectly adapted to salt water
- High quality softglass UV lamp, 9000 hours
- Compatible with Ø 63 mm and Ø 50 mm pipes (including reducing pieces, 1 1/2 internal thread)
- IP65 ballast
- 2 models available : 40W and 80W lamp
- Compact, ideal for small technical rooms
- Compatible with our ULS Minisalt UV chlorinator to ensure remanence

Features

- Water sterilisation by ultraviolet rays
- Easy installation directly on the hydraulic circuit of the pool
- Simplified maintenance

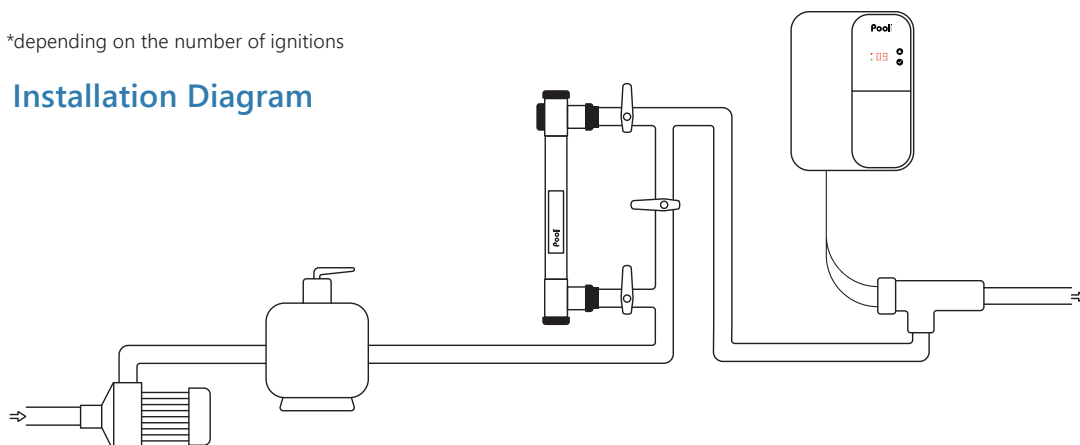
Model	Pool volume (m ³)	Flow (m ³ /h)	Reference
Mini UV 40	50	11	STUV23NPSB-40
Mini UV 80	100	17	STUV23NPSB-80

Technical specification

Reactor material	316 L stainless steel
UV lamp lifespan	9000 hours
UV lamp power (W)	40 or 80
Sealing ballast index	IP65
Reactor diameter (mm)	70
Reactor height (mm)	1000
Reactor weight (kg)	3,3

*depending on the number of ignitions

Installation Diagram



Warranty

2 years Sterilizer

UV / Ultra Low Salt® Hybrid



Benefits

- **Ultra Low Salt® technology:** operate at any salt level higher 0,5 g/l
- **New reactor design** consisting of a UV lamp and a ULS® electrode
- **Installation of the electrode at the reactor** outlet to limit the destruction of chlorine by UV rays
- **Integrated flow sensor**
- **Drain valve at the base of the reactor** for easy replacement of the UV lamp
- **Simplified maintenance of the electrode** without draining the reactor
- Light well for visualising lamp operating status
- **Compatible with 50 or 63 mm pipework** for easy installation
- **Soft and odorless swimming water**

Features

- **Smart Power:** current monitoring ensuring stable production
- **Ultra Low Salt® technology:** operate at any salt level higher 0,5 g/l
- **Ultra-violet sterilization**
- **Low mode to reduce chlorine production,** when cover closed or bubbles cover installed
- **Boost mode:** 100% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Safeties:** low water, electrode or UV lamp failure

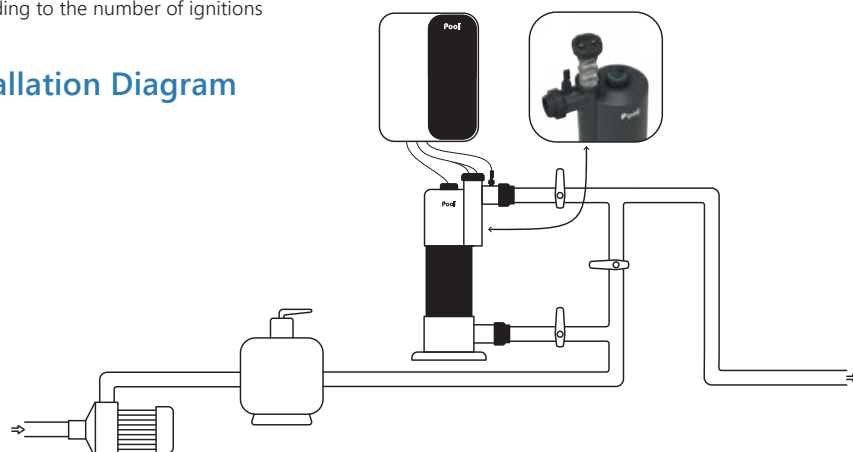
Model	Pool volume (m ³)	Flow (m ³ /h)	Reference
Justsalt UV 15	50	15	ELLY24NPSA-G0VX15
Justsalt UV 25	100	25	ELLY24NPSA-G0VX25

Technical specification

Display	LED display
Polarity inversion adjustment	from 2h to 16h in increments of 2h
UV lamp power (watts)	60 or 90
UV wavelength	254 nm
UV lamp lifespan	16000 hours*
Reactor height (mm)	787 (50m ³) / 1087 (100m ³)
Reactor diameter (mm)	350
Control panel size (mm)	W 266 x H 360 x D 167

*according to the number of ignitions

Installation Diagram



Warranties

2 years Box

2 years Electrode ULS®

Pool TECHNOLOGIE
Made in FRANCE

UV / Ultra Low Salt® Hybrid + pH regulator



Benefits

- **Ultra Low Salt® technology:** operate at any salt level higher 0,5 g/l
- **Installation of the electrode at the reactor outlet** to limit the destruction of chlorine by UV rays
- **Time-based adjustment of UV and electrolysis operation**
- **Integrated flow sensor**
- **Drain valve at the base of the reactor** for easy replacement of the UV lamp
- **Simplified maintenance of the electrode** without draining the reactor
- **Light well for visualising lamp operating status**
- **Compatible with 50 or 63 mm pipework** for easy installation
- **Plug & Play ORP option** and models with amperometric control available
- **Bluetooth remote control** with e-Pool® app

Features

- **Smart Power:** current monitoring ensuring stable production
- **Ultra Low Salt® technology:** operate at any salt level higher 0,5 g/l
- **Ultra-violet sterilization**
- **Predictive and proportional pH regulation** in acid (pH-) or basic (pH+) according to injection history
- **Low mode to reduce chlorine production**, when cover closed or bubbles cover installed
- **Super boost mode:** 125% superchlorination for up to 24 hours to overcome an increased need of disinfectant
- **Automatic winterization and restart from 15°C**
- **Safeties:** lack of water, low salt, cell fault, unreachd setpoints, pH setpoint overrun and overfeeding, UV lamp life, UV lamp fault, flow rate
- **Multilingual alarm message:** origin of the malfunction indicated by written message
- **Log of events**
- **Self-diagnosis programme** for easy maintenance

UV / Ultra Low Salt® Hybrid + pH regulator

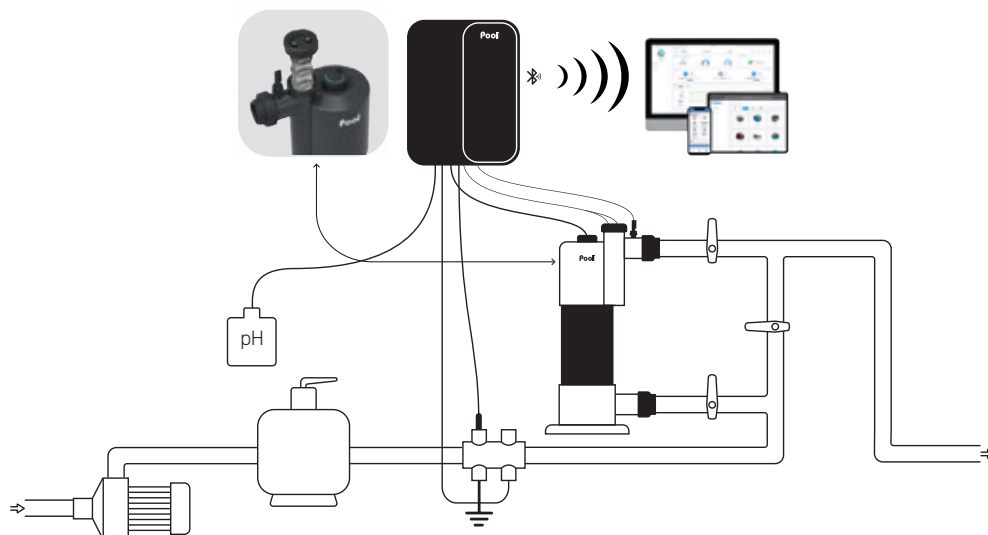
Model	Pool volume (m ³)	Flow (m ³ /h)	Reference
Poolsquad UV 15	50	15	ELPH24NPSP-G5VX15
Poolsquad UV 25	100	25	ELPH24NPSP-G5VX25
Poolsquad UV Ampero 15	50	15	ELPA24NPSP-G5VX15
Poolsquad UV Ampero 25	100	25	ELPA24NPSP-G5VX25
Kit Plug & Play ORP			KIT16ORPPOO1

Technical specification

Display	LCD 2 lines
pH pump flow (l/h)	1,8
pH setpoint adjustment	6,8 to 7,6
Calibration pH probe	2 points pH 7 and pH 10
pH probe	Black
Corrective solution	pH- or pH+
Type of regulation	predictive
pH pump type	peristaltic
Polarity inversion adjustment	from 2h to 24h in increments of 1h
Chlorination setpoint adjustment	time slot
UV lamp power (watts)	60 or 90
UV wavelength	254 nm
UV lamp lifespan	16000 hours*
Minimum UV time slot*	15 min
Minimum electrolysis time slot**	4h
Reactor height (mm)	787 (50m ³) / 1087 (100m ³)
Reactor diameter (mm)	350
Control panel size (mm)	W 266 x H 363 x D 167

*according to the number of ignitions **Excluding ORP and Ampero models

Installation Diagram



Warranties

2 years	Box
2 years	Electrode ULS®
3 years	Probe pH Black

How to maintain SS316

What is stainless steel ?

Stainless steel is a remarkable alloy known for its resistance to corrosion, staining, and rust. Composed primarily of iron, carbon, and chromium.

How to maintain grade 316L stainless steel

The chromium in GRADE 316L stainless-steel creates a film on the surface that protects the metal from harsh conditions. This film can be damaged by scratching or other outside sources. One of the first signs of this process is surface oxidation. Surface oxidation isn't a problem. It can be removed rather easily. And that's the first step of maintaining 316L stainless-steel. Keep the steel surface clear of any surface oxidation.

Another thing you want to look out for is "tea staining". This can be caused over time by the chromium in your 316L stainless-steel. Many people mistake this for corrosion, but it's only a surface-level discolouration.

The solution for tea staining is the application of a metal protector or lubricant. You also may want to create a smoother steel surface to prevent further tea staining from occurring.

When properly maintained, Grade 316 stainless steel pool equipment can last for decades, withstanding the rigors of chlorinated water, sunlight exposure, and fluctuating temperatures without succumbing to corrosion or degradation.

How to maintain grade 316 stainless steel

Here are some steps you can follow to keep your grade 316 stainless steel equipment in top condition:

1. **Regular Cleaning:** Use a mild detergent or soap and warm water to clean stainless steel surfaces regularly. Avoid using abrasive cleaners or scouring pads, as they can scratch the surface of the metal.
2. **Rinse Thoroughly:** After cleaning, rinse the stainless steel products thoroughly with clean water to remove any soap residue.
3. **Dry Fully:** Always dry stainless steel materials thoroughly after cleaning to prevent water spots and corrosion from forming.
4. **Prevent Chlorine Buildup:** Chlorine is commonly used in swimming pools as a disinfectant, but it can cause corrosion on stainless steel if not properly managed. Regularly monitor chlorine levels in the pool water and maintain them within the recommended range. Also, ensure proper water circulation and filtration to prevent chlorine buildup on stainless steel surfaces.
5. **Preventing Corrosion:** While grade 316 stainless steel is highly resistant to corrosion, there are still some measures you can take to prevent it. Firstly, avoid exposing your stainless steel equipment to harsh chemicals or abrasive materials. If you need to add chemicals to your pool, make sure to follow the manufacturer's instructions and avoid direct contact with the stainless steel surfaces.
6. **Regular Inspections:** It's essential to regularly inspect your stainless steel equipment for any signs of damage or corrosion. Look for any pitting, rust spots, or discoloration on the surface. If you notice any issues, address them promptly to prevent further damage.

In addition to these cleaning and maintenance steps, it's also important to keep your swimming pool water properly balanced. Imbalanced water chemistry can accelerate corrosion and damage to your stainless steel equipment. Regularly test your pool water and ensure that pH, alkalinity, and chlorine levels are within the recommended range.

Extract From International Bodies

- The three types of sand filtration work on the same basic principle with the major difference being the water flow rate through the sand as below

Low Rate	upto 10m³ /m²/hr	Medium Rate	11-30m³ /m²/hr	High Rate	31-50m³ /m²/hr
-----------------	---	--------------------	---	------------------	---

- Flow rate for back wash should not be lower than 30m³/m²/hr.
- Low rate sand systems require media of particle size 0.83mm to 1.3 mm.
- Medium and high rate systems require media of particle size 16/30.
- Cartridge filters use a system where the filter internal is re-usable, which removes up to 5 microns.
- The removal of the water from the surface of the pool is an important factor as 70-75% of impurities , e.g. body oils, in the water are found within the top 75mm.
- Drains located at the deepest point of the pool (with suction to ensure velocity is not likely to endanger bathers)
- Surface water skimmers or Overflow channels when deck level design is used with suitably designed outlets to the balance tank.
- Return inlets, sized accordingly to the flow rate volume, capable of passing the total design flow rate (100%). Screws and fittings should be tamper proof with secure face plates.
- Water inlets and fittings should be constructed of non-corroding material and protected by a suitable grille with a maximum width between bars of 8mm.
- Where more than one skimmer is employed, the pipe sizing shall be so balanced as to ensure the optimum efficiency of each skimmer at all times. It should be possible to control each individual skimmer at all times.
- On a skimmer system – recommendations are for 70% - (surface) 30% (main drain) ration. 70:30
- On a level deck system this recommendation changes to a minimum 50%:50%ratio to a maximum 80%:20%ratio
- The main outlet drains should be constructed of non-corroding material, and each should be protected by a suitable grille. The maximum distance between the bars of the grille must not exceed 8mm (6/16 in). At least two outlets should be provided at the lowest point of the floor to drain the entire floor area completely.
- The spacing between 2main drain outlets should not be greater than 2m apart on centres and not more than 3m from each side wall.
- For safety reasons, it is recommended that the flow rate for the sump is split between at least 2 sumps to ensure velocity is not such to create a danger to bathers. The size of the grille should be as large as possible creating a slow even flow through a large area and thus preventing entrapment. A grille gap of 8mm max is advised.
- Vacuum fitting(s) shall be located in an accessible positions(s) below the water line and shall be constructed of non-corroding material. A sealing plug should be fitted when not in use.
- Except when provided as a massage jet or rapid flow inlet, no inlet should provide a velocity greater than 2.4/2.745m/sec in private pool conditions, 1.5-2m/sec in commercial pool conditions

Extract From International Bodies

- Class C (6 bar) is considered suitable for standard residential use whilst for underground pipework for commercial pools and in case of specific stress Class E (16 bar) should be used with following pipe velocities.
- Suctions Velocity (maximum 1.2 meters/sec)
- Return Velocity (maximum 2.0 meters/sec)
- Grille Velocity (maximum 0.3 meters/sec)
- The sizing of the Balance Tank will depend on several, often conflicting, criteria. The tank is provided to hold a volume of water, in excess of the pool volume, to compensate for the displacement of water when bathers enter the pool.
- All pipe work shall be hydraulically tested to a minimum pressure of 10-15 psi (residential) or 35-45 psi (commercial) with a maximum equivalent to 1 ½ times the shut off head of the pump and this pressure shall be maintained for a period of 30 minutes.
- While installing , Sanitiser should be dosed before the filters in the circulation system to avoid mixing with pH control agents and to provide disinfection to the filters.
- PH agents should be introduced after the heat exchanger to avoid mixing with the sanitiser and avoid corrosion of the heat exchanger elements.
- For heated pool, 28°C -30°C (82°F-86°F) appears to be the most common requirement.
- The standard maximum flow rate and water turnover rates shall be
- Commercial pools - 25m³ /m²/hr with 3 hours water turnover rate
- Private pools - 50m³ /m²/hr with 8 hours water turnover rate
- The following table (when used in conjunction with other design criteria) should prove helpful in the sizing of a filter plant.

Type of pool

Turnover period in hours

Leisure water bubble pools/Spas	0.1 – 0.33
Teaching Pools/ Waterslide splash pools	0.5 – 1
Leisure waters up to 0.5m deep	0.2 – 0.6
Leisure waters up to 0.5 – 1m deep	0.6 – 1.2
Leisure waters 1 – 1.5m deep	1 – 1.8
Conventional public pools up to 25m long	2.5 – 3
Competition pools 50m long	3 – 4.5
Domestic Pools/ Diving pools	4 – 8

Balanced Water Analysis

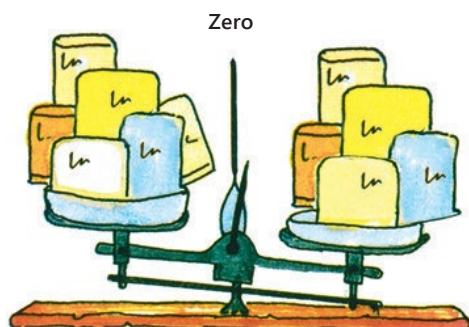
When a water is in balance, it is said to be neither corrosive nor scale-forming. In other words, it will not deposit a layer of calcium scale neither will it dissolve an existing layer of scale.

For most well run pools, the water will be in balance if the pH value is kept within the recommended range, but other factors should be taken into account which can affect the condition of the water. These are the total alkalinity, the calcium hardness, the TDS content and lastly, the temperature of the water. The concentration of chlorine or bromine do not appear in the Balanced Water Calculation.

- In soft water areas where the constant addition of calcium is necessary to maintain a calcium level above the minimum, it could be advantageous to use calcium hypochlorite as the chlorine donor in order to obtain the calcium in addition to the chlorine from this product.
- Also where the natural total alkalinity is low, the use of carbon dioxide gas for pH correction with calcium hypochlorite would be advantageous to produce an increase in the total alkalinity.
- In hard water areas where it may be difficult to reduce total alkalinity and pH to the recommended range, the use of hydrochloric acid (muriatic acid) may be necessary and it may be appropriate to operate with a total alkalinity of around 140 – 150 mg/l

- Balance = Corrosive

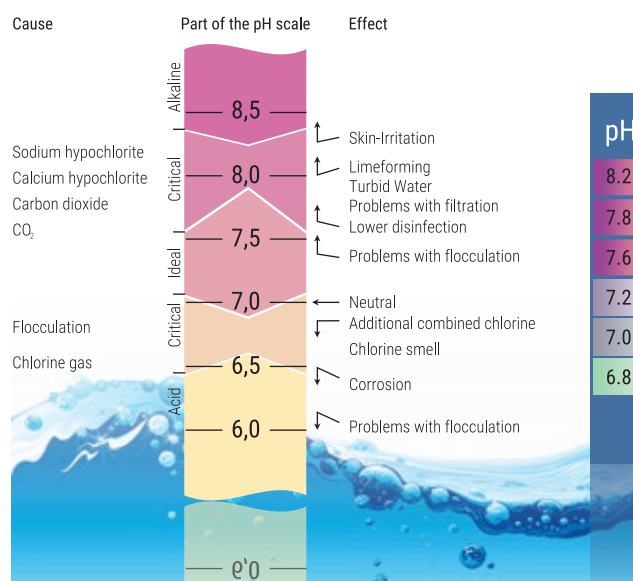
Low pH
Low Alkalinity
Low Calcium Hardness
Low TDS
Low Temperature



+ Balance = Scale Forming

High pH
High Alkalinity
High Calcium Hardness
High TDS
Low Temperature

Causes and effects of pH values



Trouble Shooting Guide for Swimming Pool Water

Symptom	Problem	Possible causes
Green Pool	Algae	Low free chlorine level High stabiliser
Chlorine smell / stinging eyes	Unpleasant bathing	Low or no free chlorine Incorrect pH
Cloudy Water	Suspended particles in water	High pH and or alkalinity Low free chlorine level High stabiliser Poor or inadequate filtration
Coloured water	Excess minerals or metals in water	Overdose of copper based algicide Low pH causing corrosion of metal components.
Foaming	Foam on surface of pool	Detergent soaps or shampoo in pool Excess algicide Excess water clarifier
High pH	pH above 7.6	Source water has high pH, Sanitiser has high pH Excess use of pH plus
Low pH	pH below 7.2	Source water has low pH, Sanitiser has low pH Excess use of pH minus
No apparent chlorine reading	Incorrect chlorine level	No chlorine Too much chlorine
Overstabilisation	Chlorine reading ok but green / cloudy pool	Excess cyanuric acid
pH bounce	Inability to maintain pH level	Low total alkalinity
pH resistant to movement	Inability to alter pH level	High total alkalinity
Scale	Calcium carbonate deposits	Unbalanced water

TECHNICAL INFORMATION

Friction loss chart - for your pipe selection

Dia of pipe		32mm/25mm/1"				50mm/40mm/1.5"				63mm/50mm/2"				75mm/65mm/2.5"			
size in mm		ASTM(SCH40)		BS STD(Class3)*		ASTM(SCH40)		BS STD(Class3)*		ASTM(SCH40)		BS STD(Class3)*		ASTM(SCH40)		BS STD(Class3)*	
Avg. ID Pipe		26.70		29.50		41.00		46.40		52.50		58.50		61.80		69.50	
OD Avg.		33.40		32.00		48.26		50.00		60.32		63.00		73.02		75.00	
wall Min.		3.60		1.30		3.90		1.85		4.30		2.35		6.00		2.75	
wall Flow		3.38		1.20		3.68		1.70		3.91		2.20		5.61		2.60	
M3/hr LPM		Velocity M		Velocity M		Velocity M		Velocity M		Velocity M		Velocity M		Velocity M		Velocity M	
		{m/s} Loss		{m/s} Loss		{m/s} Loss		{m/s} Loss		{m/s} Loss		{m/s} Loss		{m/s} Loss		{m/s} Loss	
1.8	30	0.89	3.55	0.73	2.18	0.38	0.44	0.30	0.24								
2.1	35	1.04	4.72	0.85	2.90	0.44	0.59	0.35	0.32	0.27	0.18	0.22	0.10				
2.4	40	1.19	6.05	0.97	3.72	0.50	0.75	0.39	0.41	0.31	0.22	0.25	0.13	0.22	0.10	0.18	0.06
2.7	45	1.34	7.52	1.09	4.63	0.57	0.93	0.44	0.51	0.35	0.28	0.28	0.17	0.25	0.13	0.20	0.07
3.0	50	1.48	9.14	1.22	5.62	0.63	1.14	0.50	0.62	0.38	0.34	0.31	0.20	0.28	0.15	0.22	0.09
3.3	55	1.63	10.90	1.34	6.71	0.69	1.35	0.54	0.74	0.42	0.40	0.34	0.24	0.30	0.18	0.24	0.10
3.6	60	1.78	12.80	1.46	7.88	0.75	1.59	0.59	0.87	0.46	0.48	0.37	0.28	0.33	0.22	0.26	0.12
3.9	65	1.93	14.85	1.58	9.14	0.82	1.84	0.64	1.01	0.50	0.55	0.40	0.33	0.36	0.25	0.29	0.14
4.2	70	2.08	17.03	1.70	10.48	0.88	2.12	0.69	1.16	0.54	0.63	0.43	0.38	0.39	0.29	0.31	0.16
4.8	80	2.38	21.80	1.95	13.42	1.01	2.71	0.79	1.48	0.62	0.81	0.50	0.48	0.44	0.37	0.35	0.21
5.4	90	2.67	27.12	2.19	16.69	1.13	3.37	0.89	1.84	0.69	1.01	0.56	0.60	0.50	0.46	0.40	0.26
6.0	100	2.97	32.96	2.44	20.29	1.25	4.09	0.99	2.24	0.77	1.22	0.62	0.73	0.55	0.56	0.44	0.31
6.6	110	3.27	39.31	2.68	24.20	1.38	4.88	1.09	2.67	0.85	1.46	0.68	0.87	0.61	0.66	0.48	0.37
7.2	120	3.57	46.18	2.92	28.43	1.51	5.74	1.19	3.14	0.92	1.71	0.75	1.02	0.67	0.78	0.53	0.44
7.8	130					1.64	6.64	1.28	3.63	1.00	1.99	0.81	1.18	0.73	0.90	0.57	0.51
8.4	140					1.76	7.62	1.38	4.17	1.08	2.28	0.87	1.35	0.78	1.03	0.61	0.58
9.0	150					1.89	8.65	1.48	4.74	1.16	2.59	0.93	1.54	0.84	1.17	0.66	0.66
9.6	160					2.01	9.75	1.57	5.34	1.23	2.92	0.99	1.73	0.89	1.32	0.70	0.75
10.2	170					2.15	10.91	1.67	5.97	1.32	3.26	1.05	1.94	0.95	1.48	0.74	0.84
10.8	180					2.27	12.13	1.77	6.64	1.39	3.63	1.11	2.16	1.00	1.65	0.79	0.93
11.4	190					2.40	13.40	1.87	7.34	1.47	4.01	1.18	2.38	1.06	1.82	0.83	1.03
12.0	200					2.52	14.74	1.97	8.07	1.54	4.41	1.24	2.62	1.11	2.00	0.88	1.13
13.5	225					2.84	18.33	2.21	10.04	1.74	5.48	1.39	3.26	1.26	2.49	0.98	1.41
15.0	250					3.15	22.37	2.46	12.2	1.93	6.69	1.55	3.96	1.39	3.03	1.10	1.71
16.5	275							2.71	14.55	2.11	7.98	1.70	4.73	1.52	3.62	1.21	2.04
18.0	300							2.95	17.09	2.30	9.37	1.86	5.53	1.66	4.25	1.32	2.38
19.5	325									2.50	10.87	2.01	6.42	1.81	4.93	1.42	2.77
21.0	350									2.69	12.46	2.17	7.36	1.94	5.65	1.54	3.17
22.5	375									2.88	14.16	2.32	8.36	2.08	6.42	1.64	3.60
24.0	400									3.07	15.96	2.48	9.42	2.22	7.24	1.76	4.06
25.5	425									3.27	17.85	2.63	10.54	2.36	8.10	1.86	4.54
27.0	450									3.46	19.84	2.79	11.72	2.50	9.00	1.98	5.05
28.5	475									3.65	21.94	2.94	12.95	2.64	9.95	2.08	5.58
30.0	500									3.84	24.11	3.10	14.24	2.77	10.94	2.20	6.14
33.0	550													3.05	13.01	2.41	7.34
36.0	600													3.33	15.28	2.63	8.63
39.0	650													3.61	17.72	2.85	10.00
42.0	700													3.88	20.32	3.07	11.48
45.0	750													4.16	23.09	3.29	13.04
48.0	800													4.44	26.02	3.51	14.68
54.0	900																
60.0	1000																
72.0	1200																
84.0	1400																
96.0	1600																
108.0	1800																
120.0	2000																
132.0	2200																
144.0	2400																
156.0	2600																

Sea Green shaded area represents RECOMMENDED velocities lesser than 2M/S.

LIGHT YELLOW shaded area represents velocities over 2M/S. use with caution.

*If you use class 4 UPVC BS STD pipes, please multiply the results with 1.30 for accurate answer

TECHNICAL INFORMATION

Friction loss chart - for your pipe selection

Dia of pipe		90mm/80mm/3"				110mm/100mm/4"				160mm/150mm/6"			
size in mm		ASTM(SCH40)		BS STD(Class3)*		ASTM(SCH40)		BS STD(Class3)*		ASTM(SCH40)		BS STD(Class3)*	
Avg. ID Pipe		77.90		83.50		102.30		102.20		154.50		147.50	
OD Avg.		88.90		90.00		114.30		110.00		168.28		160.00	
wall Min.		6.00		3.25		6.50		3.90		7.70		6.45	
wall Flow		5.49		3.10		6.02		3.70		7.11		6.20	
M3/hr LPM		Velocity	M	Velocity	M	Velocity	M	Velocity	M	Velocity	M	Velocity	M
		{m/s}	Loss	{m/s}	Loss	{m/s}	Loss	{m/s}	Loss	{m/s}	Loss	{m/s}	Loss
1.8	30												
2.1	35												
2.4	40												
2.7	45												
3.0	50												
3.3	55	0.19	0.06	0.17	0.04								
3.6	60	0.21	0.07	0.19	0.05								
3.9	65	0.23	0.08	0.20	0.06								
4.2	70	0.24	0.09	0.22	0.07								
4.8	80	0.28	0.12	0.25	0.09	0.16	0.03	0.16	0.03				
5.4	90	0.31	0.15	0.28	0.11	0.18	0.04	0.18	0.04				
6.0	100	0.35	0.18	0.31	0.13	0.20	0.05	0.20	0.05				
6.6	110	0.38	0.21	0.34	0.15	0.22	0.06	0.22	0.06				
7.2	120	0.42	0.25	0.37	0.18	0.24	0.07	0.24	0.07				
7.8	130	0.46	0.29	0.40	0.21	0.26	0.08	0.26	0.08				
8.4	140	0.49	0.34	0.43	0.24	0.28	0.09	0.28	0.09				
9.0	150	0.53	0.38	0.46	0.27	0.30	0.10	0.31	0.10				
9.6	160	0.56	0.43	0.49	0.31	0.32	0.11	0.32	0.11	0.14	0.02	0.15	0.01
10.2	170	0.60	0.48	0.52	0.34	0.35	0.13	0.34	0.12	0.15	0.02	0.16	0.02
10.8	180	0.63	0.53	0.55	0.38	0.37	0.14	0.36	0.14	0.16	0.02	0.17	0.02
11.4	190	0.67	0.59	0.59	0.42	0.39	0.16	0.39	0.15	0.17	0.02	0.18	0.02
12.0	200	0.70	0.65	0.62	0.46	0.41	0.17	0.41	0.17	0.18	0.02	0.19	0.02
13.5	225	0.79	0.81	0.69	0.58	0.46	0.21	0.46	0.21	0.20	0.03	0.22	0.03
15.0	250	0.88	0.98	0.77	0.70	0.51	0.26	0.51	0.25	0.22	0.04	0.24	0.03
16.5	275	0.96	1.17	0.85	0.83	0.56	0.31	0.56	0.30	0.24	0.04	0.27	0.04
18.0	300	1.04	1.38	0.93	0.98	0.61	0.37	0.61	0.35	0.27	0.05	0.29	0.05
19.5	325	1.14	1.60	1.00	1.13	0.66	0.42	0.66	0.41	0.29	0.06	0.32	0.05
21.0	350	1.22	1.83	1.08	1.30	0.71	0.49	0.71	0.47	0.31	0.07	0.34	0.06
22.5	375	1.31	2.08	1.16	1.48	0.76	0.55	0.76	0.53	0.33	0.08	0.36	0.07
24.0	400	1.39	2.35	1.23	1.66	0.81	0.62	0.81	0.60	0.36	0.09	0.39	0.08
25.5	425	1.49	2.63	1.31	1.86	0.86	0.70	0.86	0.67	0.38	0.10	0.41	0.09
27.0	450	1.57	2.92	1.39	2.07	0.91	0.78	0.91	0.75	0.40	0.11	0.44	0.10
28.5	475	1.66	3.23	1.46	2.29	0.96	0.86	0.96	0.83	0.42	0.12	0.46	0.11
30.0	500	1.74	3.55	1.54	2.51	1.01	0.94	1.02	0.91	0.45	0.13	0.49	0.12
33.0	550	1.92	4.22	1.69	3.01	1.11	1.12	1.11	1.09	0.49	0.15	0.53	0.14
36.0	600	2.09	4.96	1.85	3.53	1.21	1.32	1.22	1.28	0.54	0.18	0.58	0.17
39.0	650	2.27	5.75	2.00	4.10	1.32	1.53	1.32	1.48	0.58	0.21	0.63	0.20
42.0	700	2.44	6.59	2.16	4.70	1.42	1.75	1.42	1.70	0.62	0.24	0.68	0.23
45.0	750	2.62	7.49	2.31	5.34	1.52	1.99	1.52	1.94	0.67	0.27	0.73	0.26
48.0	800	2.79	8.44	2.47	6.01	1.62	2.24	1.62	2.18	0.71	0.31	0.78	0.29
54.0	900	3.14	10.49	2.73	7.48	1.82	2.79	1.80	2.71	0.80	0.38	0.86	0.36
60.0	1000	3.49	12.74	3.04	9.09	2.02	3.38	2.00	3.29	0.89	0.46	0.96	0.44
72.0	1200	4.19	17.86	3.65	12.74	2.43	4.74	2.40	4.62	1.07	0.65	1.15	0.61
84.0	1400			4.26	16.94	2.84	6.30	2.80	6.14	1.25	0.86	1.34	0.82
96.0	1600					3.24	8.07	3.25	8.11	1.43	1.10	1.56	1.08
108.0	1800					3.64	10.04	3.65	10.69	1.60	1.37	1.75	1.42
120.0	2000									1.78	1.66	1.95	2.05
132.0	2200									1.96	1.98	2.14	2.45
144.0	2400									2.14	2.33	2.34	2.88
156.0	2600									2.32	2.70	2.53	3.34

For Class4 BS Std pipe pls multiply by 1.15 to get Loss in Mtr.

For SCH80 ASTM Std pipe pls multiply by 1.35 to get Loss in Mtr.

TECHNICAL INFORMATION

Standard operating procedure

LIGHT INSTALLATION AND COMMISSIONING

SLNO	DESCRIPTION	YES/NO	REMARKS
1	Check light capacity voltage and SMPS voltage		
2	Check SMPS or transformer condition (Input voltage and output voltage) and capacity of watts		
3	Ensure selected SMPS or TRANSFORMER capacity is 30% higher than the total light capacity. Eg:- 50 watts SMPS is suitable for 12 watts light ($12 \times 3 \times 1.25 = 45$)		
4	Check the distance from panel board to Pool/WB deckbox (cable size selection depends on the distance between panel and Pool/WB deckbox)		
5	Check No. of lights and total watts of light		
6	Ensure the cable size is suitable for light		
7	Check the voltage near the light		
8	Check the cable joint is water proof/insulated		
9	Ensure all lights are connected to the ground earth		

FILTER INSTALLATION AND COMMISSIONING

SLNO	DESCRIPTION	YES/NO	REMARKS
1	Please check filter is mounted in proper floor level		
2	Check whether the MPV is fixed to filter properly		
3	Check if there is proper support for IN and OUT pipe line		
4	For side mount filter - check O-ring of MPV and top cover is placed correctly (Not twisted in given location)		
5	For the top mount filter- clamp of top mount MPV is fixed properly (equally tight), and ensure the O-ring is placed correctly (not twisted)		
6	Before filling the filter media, ensure that filter is filled with water to half		
7	Before filling the filter media, cover the internal pipe with the cover given along with the filter		
8	Ensure required quantity of filter media is filled into the filter		
9	If filter media enters the MPV, you must check the condition of filter lateral		
10	Check all accessories are fitted to the MPV properly		
11	Check all pipes are fitted with MPV properly (IN & OUT, Backwash pipe lines)		

TECHNICAL INFORMATION

Standard operating procedure

PUMP INSTALLATION AND COMMISSIONING

SLNO	DESCRIPTION	YES/NO	REMARKS
1	Ensure the pump is mounted on pedestal with vibration pad		
2	Ensure suction & delivery pipe give appropriate support		
3	Ensure suitable cable is selected for the pump		
4	Ensure suitable contactor and OLR is selected for the pump		
5	Check the motor direction (3phase) before filling with water for a few seconds (4 to 5 seconds)		
6	Ensure all pipe lines are properly supported		
7	Ensure the terminal connections in motor are fully tightened with suitable lugs		
8	Ensure all pipe lines are laying under the Hydrosystem		
9	Check ampere levels under both loading and unloading conditions & record		
10	Check for any vibration in pump running condition		
11	If any vibrations occur in the pump immediately stop it. After rectifying the vibration, start the pump		
12	Ensure the motor body is connected to the ground earth		

TECHNICAL INFORMATION

Standard operating procedure

HEAT PUMP INSTALLATION AND COMMISSIONING

SLNO	DESCRIPTION	YES/NO	REMARKS
1	Ensure the Heat pump is mounted on the pedestal with the given vibration pad		
2	Ensure the heat pump is installed according to the manufacturer's instructions, with a minimum 1.5-meter gap on all four sides. For models with a capacity of 35 kW and above, an open ceiling is required to allow free flow of air without any obstruction		
3	Ensure suitable MCCB is installed in panel for the heat pump		
4	Ensure suitable cable (size & material) is laid from power source to Heat pump		
5	Ensure supply voltage is stable in all three phase (R,Y,B)		
6	Ensure the heat pump is connected to the ground earth		
7	Ensure suitable pipe line is connected to the heat pump, comes under the Hydrosystem		
8	Ensure all pipe lines are supported properly		
9	Ensure inlet/outlet valves installed		
10	Ensure bypass valve installed in delivery pipe, enable flow management		
11	Ensure pipe line is connected to the IN & OUT of the Heat pump properly		
12	Ensure the selected circulation pump is matching the heat pump		
13	Before switching on the heat pump ensure the circulation pump is in on condition (Please interlock the heatpump & circulation pump)		
14	After switching on the power to the heat pump, if the display shows EE4 (Error Code), it indicates a wrong power supply. Please interchange the R and Y phases		
15	If the display shows EE3 (Error Code), check for proper water flow. Ensure the circulation pump is on. Please verify that the bypass valve condition. If open, please close / throttle it & ensure sufficient flow		
16	If the display shows any other Error code, please contact Aqvastar		
17	Ensure drain hose is fixed and connected to nearest drain		
18	Check ampere level in each phase during the running condition		
19	Check the gas pressure in the pressure gauge before and after switching on the heat pump & record		
20	If the Pressure gauge display showing high pressure, possibility of low flow. Please check bypass valve		

NOTE:

Refer Heat pump catalogue details for suitable MCCB/cable size for respective models

Suitable Stabilizer is recommended in remote areas where power fluctuations are possible. Pls refer Heat pump catalogue for details.

[illegible]

AQVASTAR SMART FLOW SOLUTIONS

SALES SUPPORT:

For all AQVASTAR products & distributed products lead times, quotes, orders, order monitoring, information on sales operations, samples, sales help tools, technical or sales documentation, contact respective team as below

To request a quote : sales@aqvastar.sg & northsales@aqvastar.sg

For orders : accounts@aqvastar.sg & delhiaccounts@aqvastar.sg

For design request : design@aqvastar.sg

For complaints : service@aqvastar.sg

BENGALURU

Warehouse No 2 on Survey No 49/2,
Maheshwaramma Temple Rd,
Maheswari Nagar, Laxmi Sagar Layout,
Mahadevapura, Bengaluru – 560048
Ph - +91 87545 31665

Sy. No. 97/5, Koralur Village,
Nadavathi Post, Kasaba Hobli,
Hosakote taluk,
Bengaluru Rural District - 560067

NEW DELHI

Ground floor No: B135/5,
Okhla Industrial Area, Phase -1,
New Delhi –110020
Ph - 98218 93050

SINGAPORE

Blk:750 Woodlands Ave 4,
12-329
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