

**SHIVA EXPORTS**  
Importers of complete water management equipments



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IRRIGATION DESIGNERS & SUPPLIERS



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**AQVASTAR**

A COMPETENT PARTNER



# PRODUCT CATALOGUE 2023

[www.aqvastar.in](http://www.aqvastar.in) | [www.aqvastar.sg](http://www.aqvastar.sg)

# Mission

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We strive to exceed our customer's expectations by identifying the right products and technology to build and maintain their dream pools.

# Vision

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In 2025, AQVASTAR strives to become "The most trusted brand in India" for its quality products. Also, we aim to strengthen our camaraderie with Indian swimmers and support them in their quest for international glory.

01

### FILTRATION SYSTEM

Top mounted, Side mounted, Commercial filter, Valve battery, Cartridge filter, Horizontal filter, Trolley mounted filter, Multicyclone filter, FRP Pump room, Pipeless filter, Glass media

14

### PUMPS

Frequency inverter, Residential, Semi commercial, & Counter current models

22

### BASIN FITTINGS

ABS, Skimmers, Water level regulator

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### BASIN FITTINGS -SS

SS fittings – Main drain, Wall inlets, Floor inlet, Vacuum point, Grating & Overflow fitting

30

### SPA FITTINGS

Jacuzzi nozzle, Air controller, Air bubbler nozzle, Spa drain, Push button, Pneumatic switch & Air tube

33

### LED LIGHTS

Wall mounted light, Ring, Niche & Stand mounted Fountain lights, Smart LED lights, Push-fit lights, Deck box

41

### LADDERS

Club, Standard, Overflow & Under cover ladder

43

### AIR BLOWER

Continuous & heavy duty blowers

45

### HEAT PUMP

Domestic, Commercial Heat Pumps, Invertor heat pumps

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Domestic, Commercial Heaters

53

### VALVES

Single, Double union ball valve, Butterfly valve, Wafer & Spring check valve & Flanges

60

### MAINTENANCE KIT

Plastic, Algae Brushes, Plastic, Aluminium Vacuum Head, Telescopic pole, Hose pipe & Test kit

64

## WATERFALL

PVC/ Acrylic & SS Water fall

66

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SS Water Cannon & SS Spout

68

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Jet Swim, Athlete, Motion SS counter currents

71

## FOUNTAIN NOZZLES

Foam, Cascade, Clear Stream, Bell, Bubbler, Finger, Fan jet, Rotating Nozzles, & Laminar Jet, Interactive jet

78

## COMPETITION EQUIPMENTS

Starting block, Lane rope, Roller, Life guard chair

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## POOL COVER

Geobubble manual cover, Roller, Open classic, IMMax Automatic pool covers

85

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Automatic Chlorinator Brominated in line model

86

## DOSING SYSTEM

Dosing Pump, Dosing tank & Stirrer

88

## SANITATION

UV System With timer, Tech, Ozone, Ionizer Commercial & residential models, Ozonator

94

## SPARE PARTS

Top & Side mounted filter, Cartridge filter, Multiport valve, Pumps (QRR, QRC, QRCC & CCU Series), Heat Pump

# CONVERSION CHART

## Length

	Into	Multiply by
Micron	Metres (m)	0.0001
Inches (in)	Millimetres (mm)	25.4
Millimetres (mm)	Inches (in)	0.02937
Inches (in)	Centimetres (cm)	2.54
Centimetres (cm)	Inches (in)	0.3937
Feet (ft)	Metres (m)	0.3048
Metres (m)	Feet (ft)	3.2808

## Area

	Into	Multiply by
Square Inches	Square Centimetres (cm <sup>2</sup> )	6.452
Square Centimetres (cm <sup>2</sup> )	Square Inches (in <sup>2</sup> )	0.155
Square Metres (m <sup>2</sup> )	Square Feet (Ft <sup>2</sup> )	10.764
Square Feet (ft <sup>2</sup> )	Square Metres (m <sup>2</sup> )	0.0929
Square Metres (m <sup>2</sup> )	Feet (ft)	0.000247
Acres	Square Metres (m <sup>2</sup> )	4046.86
Hectares	Square Metres (m <sup>2</sup> )	10
Acres	Hectares	0.4047
Hectares	Acres	2.471

## Weight /Mass

	Into	Multiply by
Pounds (lb)	Grams (g)	453.59237
Grams (g)	Pounds (lb)	0.0022046
Pounds (lb)	Kilograms (kg)	0.45359
Kilograms (kg)	Pounds (lb)	2.20462
Tons	Kilograms (kg)	1016.05

## Pressure

	Into	Multiply by
Tons per Square Inch	Kg Per Square inch	1.575
Kg Per Square Millimetres	Tons per Square Inch	0.635
Bar	Psi	14.504
Psi	Bar	0.0689
Kg Per Square Centimeters	Meter of Head	10
Meter of Head	Kg Per Square Centimeters	0.1

## Power

	Into	Multiply by
Horse Power (hp)	Watts (W)	746
Watts (W)	Horse Power (hp)	0.00134
Kilowatts (kW)	BTU	3412
BTU	Kilowatts (kW)	0.000293

# CONVERSION CHART

## Temperature

	Into	Multiply by
Centigrade (°C)	Fahrenheit (°F)	(°C x 1.80 + 32)
Fahrenheit (°F)	Centigrade (°C)	(°F - 32 x 0.5555)

## Capacity/Volume

	Into	Multiply by
Cubic Inches	Cubic Centimetres (cm <sup>3</sup> )	16.387
Cubic Centimetres (cm <sup>3</sup> )	Cubic Inches	0.06102
Cubic Feet (ft <sup>3</sup> )	Cubic Metres (m <sup>3</sup> )	0.0283
Cubic Metres (m <sup>3</sup> )	Cubic Feet (ft <sup>3</sup> )	35.3147
US Gallons	Litres (L)	3.785
Litres (L)	US Gallons	0.2642
Cubic Inches	Litres (L)	0.01639
Litres (L)	Cubic Inches	61.013
Pounds of Water (lb)	Cubic Feet (ft <sup>3</sup> )	0.016
Cubic feet of water (ft <sup>3</sup> )	Pounds (lb)	62.72
Gallons of water (gal)	Pounds (lb)	10
Pounds of Water (lb)	Gallons (gal)	0.1
Cubic feet of water (ft <sup>3</sup> )	Gallons (gal)	6.24
Gallons of water (gal)	Cubic Feet (ft <sup>3</sup> )	0.1602
Cubic Metres of water (m <sup>3</sup> )	Gallons (gal)	220

## Speed

	Into	Multiply by
Feet Per Second	Meter Per Second	0.3048
Meter Per Second	Feet Per Second	3.2808

## Pump Conversion Values

	Into	Multiply by
0.5 hp	3 amps	0.375 kW
0.75 hp	5 amps	0.56 kW
1 hp	6 amps	0.75 kW
1.5 hp	7 amps	1.12 kW
2 hp	10 amps	1.5 kW

## Pool Capacity / Volume Calculation

Measure the Length (L), Width (W) and average water depth (D)

Square or Rectangular Pools:	Metric = L x W x D x 1 m <sup>3</sup>
Round or Oval Pools:	Metric = Ø x Ø x D x 0.8 m <sup>3</sup>

## Maximum flow rates through pipe

	Suction	Return
1.00" Class C	14 GPM	23 GPM
1.50" Class C	34 GPM	57 GPM
2.00" Class C	54 GPM	90 GPM

# FILTRATION SYSTEM

## High Performance Sand Filter - Top Mounted

High performance top mounted sand filters are manufactured with polyster and glass fiber winding for dependable, durable and all weather operation.

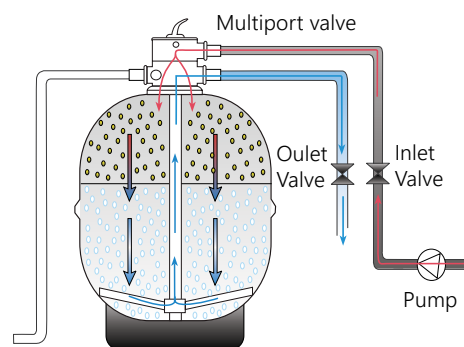
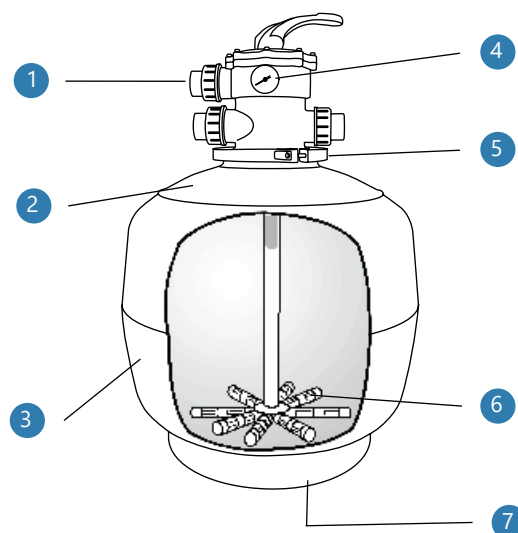
They are economic, but with impressive performance for private pool and Jacuzzi.

### Features:

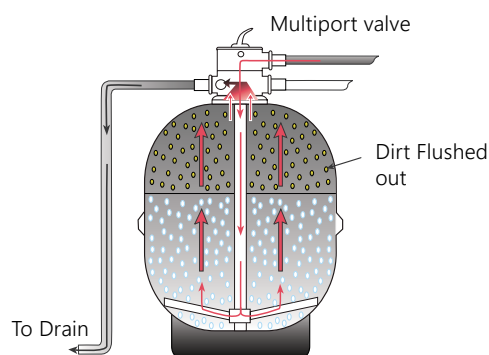
- UV and corrosion resistant.
- Shell thickness over 6mm.
- Hydraulically balanced umbrella - fold laterals for balanced flow, back washing and easy maintenance.
- Multi-port 6-way valve (clamps/bolts mounted) with lever-action handle comes with quick connect unions.
- Integral sight glass for watching backwash cycle.
- Manometer, air-bleed apparatus for monitoring and varying the pressure of filtration system.
- Sand/water drain for rapid winterizing or servicing.
- Maximum working pressure: 2.5 bar.  
(4.0 bar available on request)
- Maximum working temperature: 50 degC
- Product with guarantee for structural integrity & the longevity.

### Diagram

1. Multiport valve with quick connect barrel unions with BS/ASTM connections
2. Non-corrosive design
3. Special polymer construction
4. Clear Sightglass for backwash inspection
5. Multiport valve clamp ensures easy orientation of the Multiport valve and eliminates the risk of cross threading. (For model upto 700mm dia filter) (For larger filters, nut & bolt is provided)
6. Hydraulically balanced laterals to maximise water flow & filtration
7. Threaded base for easy maintenance



Filtration mode



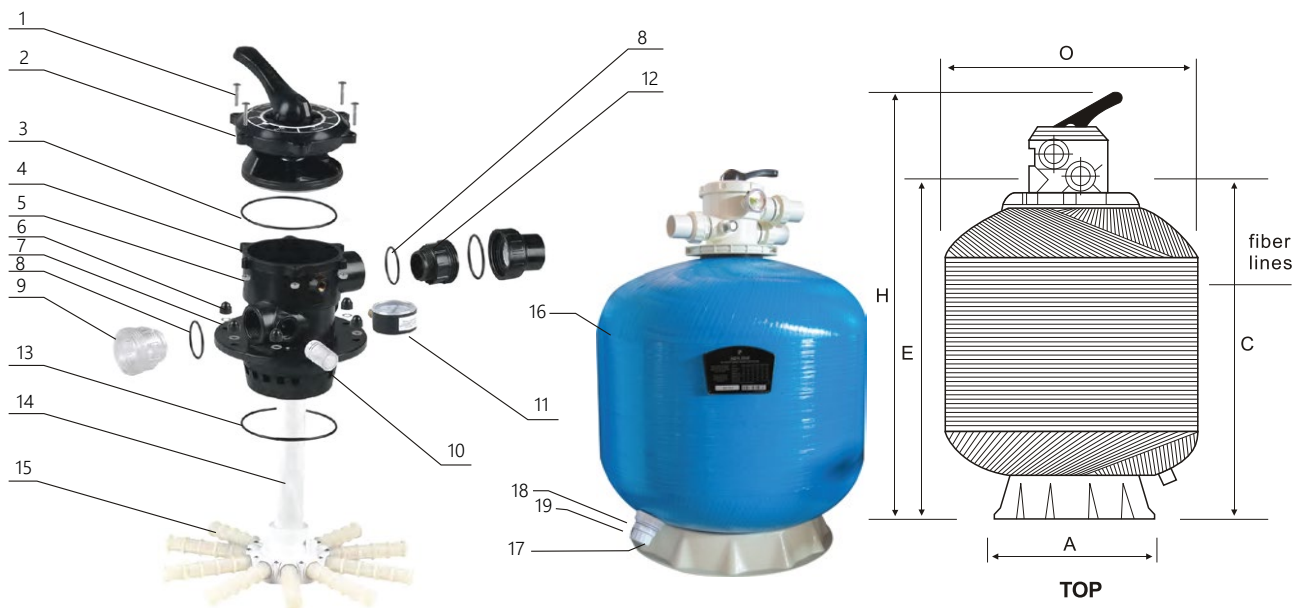
Backwash mode

### Functions of 6 way (Multi-port) valve

1. Filter	2. Waste	3. Close
4. Backwash	5. Re-circulate	6. Rinse



# FILTRATION SYSTEM



## Technical Specification

Ref. Code	Diameter (O)	Connection	Flow	Surface Area	Gravel / Sand weight		Pressure	H	A	C	E
	mm				mm	m <sup>3</sup> /h					
AS400T	400	48/50	6.50	0.13	25	50	2.5	765	320	503	554
AS500T	500	48/50	11.52	0.22	25	75	2.5	870	390	600	654
AS650T	650	48/50	16.20	0.28	50	150	2.5	965	565	700	754
AS700T	700	48/50	20.40	0.37	50	200	2.5	1030	690	770	824
AS800T	800	50/63	24.90	0.50	75	250	2.5	1140	790	840	902
AS900T	900	50/63	33.00	0.64	100	325	2.5	1270	790	970	1032
AS1000T	1000	50/63	39.50	0.79	200	500	2.5	1370	790	1070	1032
AS1200T	1200	50/63	56.50	1.13	300	900	2.5	1540	980	1240	1302

## Diagram

No.	Description	No.	Description	No.	Description	No.	Description
1.	Screw	7.	Seal washer	13.	O Ring	19.	Drain Cap
2.	Valve Cover	8.	O Ring	14.	Piping Assembly		
3.	O Ring	9.	Transparent Nut	15.	Lateral		
4.	Valve Body	10.	Transparent Cover	16.	Assembled Tank		
5.	Nut	11.	Pressure Gauge	17.	Sand Drain		
6.	Nut	12.	Union Adapter	18.	Gasket		

# FILTRATION SYSTEM

## High Performance Sand Filter - Side Mounted

High performance side mounted sand filters are manufactured with polyster and glass fiber winding for dependable, durable and all weather operation

They are economic, but with impressive performance for private pool and Jacuzzi.

### Features:

- UV and corrosion resistant.
- Shell thickness over 6mm.
- Hydraulically balanced umbrella - fold laterals for balanced flow, back washing and easy maintenance.
- Multi-port 6-way valve with lever-action handle comes with quick connect unions.
- Integral sight glass for watching backwash cycle.
- Manometer, air-bleed apparatus for monitoring and varying the pressure of filtration system.
- Sand/water drain for rapid winterizing or servicing.
- Maximum working pressure: 2.5 bar.  
(4.0 bar available on request)
- Maximum working temperature: 50 degC
- Product with guarantee for structural integrity & the longevity.

### Diagram

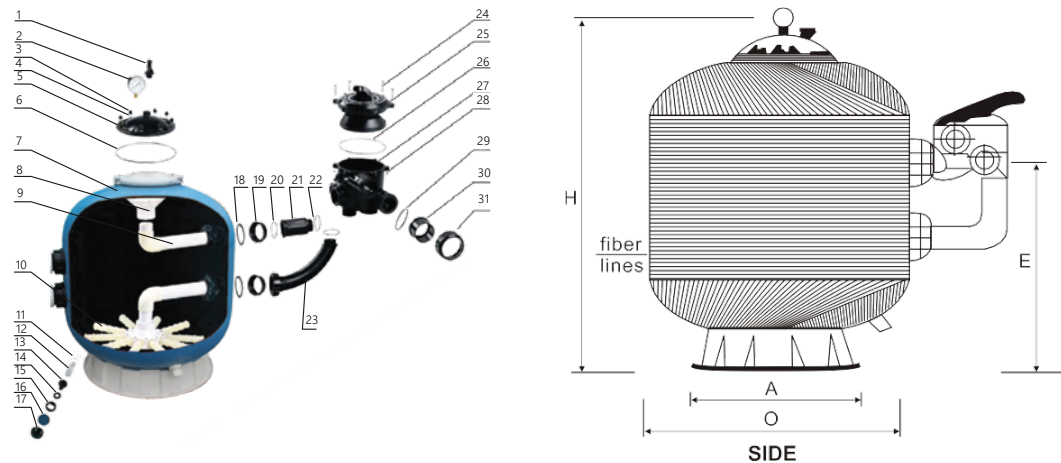
1. Clamp arrangement upto 700mm dia. Nut and bolt arrangement for larger filters.
2. Multiport valve with quick connect unions (BS / ASTM connections)
3. Hydraulically balanced laterals (Inside)
4. Extra strong threaded base



### Functions of 6 way (Multi-port) valve

1. Filter	2. Waste	3. Close
4. Backwash	5. Re-circulate	6. Rinse

# FILTRATION SYSTEM



## Technical Specification

Ref. Code	Diameter (O)	Connection	Flow	Surface Area	Gravel / Sand weight		Pressure	H	A	E
	mm	mm	m <sup>3</sup> /h	m <sup>2</sup>	kg		kg/cm <sup>2</sup>	mm	mm	mm
AS450S	450	48/50	8.00	0.13	25	60	2.5	665	390	385
AS500S	500	48/50	11.52	0.22	25	75	2.5	712	390	405
AS650S	650	48/50	16.20	0.28	50	140	2.5	810	565	435
AS700S	700	48/50	20.40	0.37	50	190	2.5	880	565	485
AS800S	800	50/63	24.90	0.50	70	250	2.5	1020	790	605
AS900S	900	50/63	33.00	0.64	100	310	2.5	1110	790	650
AS1000S	1000	50/63	39.50	0.79	200	475	2.5	1140	790	680
AS1100S	1100	50/63	48.00	0.95	250	850	2.5	1260	790	835
AS1200S	1200	50/63	56.50	1.13	300	875	2.5	1385	980	800

Filters with 75/90mm flange outlet also available in 1000, 1100, 1200mm diameter with same dimensions  
75, 90mm multiport valve available as optional.

## Diagram

No.	Description	No.	Description	No.	Description	No.	Description
1.	Air Release Valve	9.	Piping Assembly	17.	Drain cap	25.	Valve Cover
2.	Pressure Gauge	10.	Lateral	18.	Sealed Ring	26.	O Ring
3.	Nut	11.	Cover	19.	Nut	27.	Valve Body
4.	Sealwasher	12.	Drain Lateral	20.	O Ring	28.	Nut
5.	Valve Cover	13.	Pipe	21.	Piping Assembly	29.	O Ring
6.	O Ring	14.	Sealed Ring	22.	O Ring	30.	Pipe
7.	Filter Tank	15.	Nut	23.	Piping Assembly	31.	Nut
8.	Filter	16.	Sealed Ring	24.	Screw		

# FILTRATION SYSTEM

## Fiberglass Commercial Sand Filter

### Features:

- Commercial filter is manufactured with special resins as anti corrosive coating to work against any chemicals. Also suitable for salted pools
- Fiberglass Bobbin wound tank, UV and corrosion resistant.
- Manual Air Release valve and air tube enables easy release of trapped air during operations and testing.
- Sight glass 3inch and manhole 300 x 400mm are available as options.
- Lateral configuration for maximum hydraulic performance.
- Nozzle plate system ensures uniform flow for both filtering and backwashing, ensuring maximum performance through the media bed. Save up to 25% of backwash water.
- Lateral and nozzle plate are available in option.
- Maximum working pressure: 2.5 bar (4.0 bar available on request).
- Factory testing pressure: 4.0 bar (6.0 bar available on request).
- Size of gravel: 1 mm - 2 mm.



### Technical Specification

Ref. Code	Diameter	Height	Design Flow	Surface Area	Connection	Sand	Gravel
	(mm)	(mm)	(m <sup>3</sup> /hr)	(m <sup>2</sup> )	(mm)	(kg)	(kg)
AS1400C	1400	1600	61	1.54	110	1760	500
AS1600C	1600	1750	80	2.01	110	2450	750
AS1800C	1800	1950	101	2.54	160	3150	750
AS2000C	2000	2140	125	3.14	160	3800	1150
AS2300C	2300	2350	166	4.15	200	5030	1600
AS2500C	2500	2450	200	4.90	200	5950	2200
AS3000C	3000	2650	282	7.07	200	8600	3300

# FILTRATION SYSTEM

## Valve Batteries - Manual

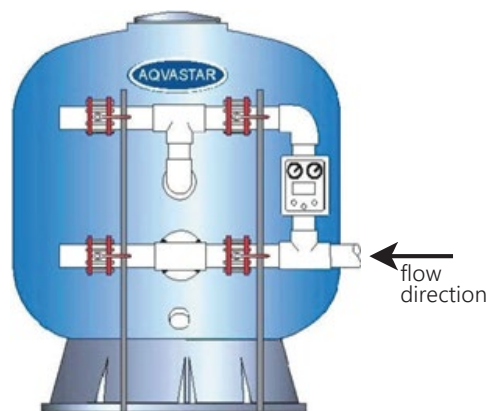
Valve batteries supplied loose for site assembly and include PVC-U fittings, pipes, butterfly valves and 2 x supports with 4 x pipe clips.

### Technical Specification

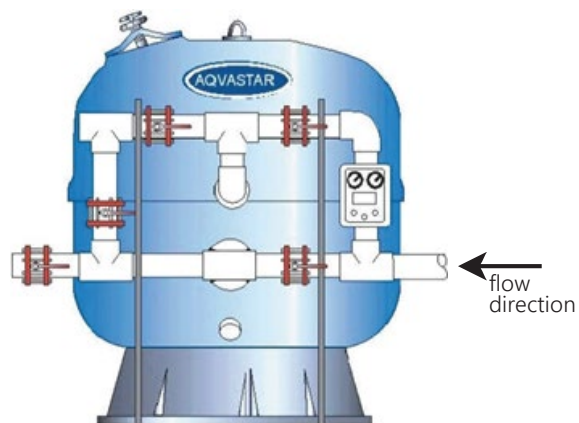
Ref. Code	Conn In (mm)	Filtration Velocity		
		11 -30 m <sup>3</sup> /m <sup>2</sup> /hr	30-40 m <sup>3</sup> /m <sup>2</sup> /hr	40-50 m <sup>3</sup> /m <sup>2</sup> /hr
ASVB 90-5	90	1400	1200	1050
ASVB 90-5	90	-	-	1200
ASVB 110-5	110	1600	1400	1400
ASVB 110-5	110	1800	1600	-
ASVB 125-5	125	2000	1800	1600
ASVB 140-5	140	2350	2000	1800
ASVB 160-5	160	2500	2350	2000
ASVB 200-5	200	3000	2500	2350

#### Note:

- Pressure gauge panel not included.
- Butterfly valves have EPDM seals and ratchet locking lever arms.
- Pipe and fittings are PN 10 rated.



4 VALVE BATTERY



5 VALVE BATTERY

# FILTRATION SYSTEM

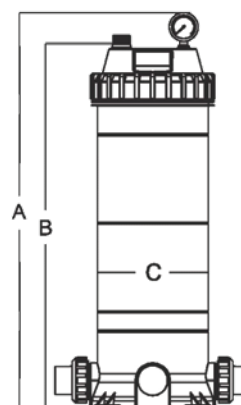
## Cartridge Filters

CF - Series cartridge filters are quick and easy to install. Simply connect the piping and the filters are ready to provide you with crystal clear water. The heavy duty ring - lock lid allows easy cleaning and the replacement of the cartridge element. Ideal for confined spaces and they are compact and light weight.

### Features:

- UV resistant tank.
- Heavy duty ring - lock lid allows easy cleaning and replacement of the cartridge element.
- Screw type air bleeder for easy removal of trapped air inside the filter tank.
- High quality oil filled pressure gauge for easy inspection of the operation pressure.
- Suitable for all domestic swimming pool & spa.
- Quick connect barrel union with BS / ASTM connections.

Maximum Working pressure 2.5bar, Maximum Water temperature 40 °C (100 °F)



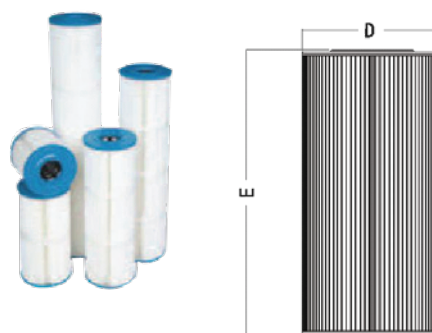
### Technical Specification

Ref. Code	Filter area		Dimensions (mm)			Max flow rate		connection (mm)
	(m <sup>2</sup> )	(ft <sup>2</sup> )	A	B	C	lpm	m <sup>3</sup> /hr	
ASCF25	2.25	25	455	387	225	92	5.5	40/50
ASCF50	4.63	50	625	567	225	190	11.4	40/50
ASCF75	7.00	75	805	747	225	283	17.0	40/50
ASCF100	9.40	100	985	927	225	382	22.9	50/63
ASCF150	13.72	150	1165	1107	225	555	33.4	50/63

### Cartridge Filter Element for Aqvastar Filters

(Dimensions in mm)

Ref. Code	Element Code	D	E	Micron (µm)
		mm	mm	
ASCF25	RE012	Ø 183	184.5	≤ 15
ASCF50	RE016	Ø 183	364.5	≤ 15
ASCF75	RE126	Ø 183	544.5	≤ 15
ASCF100	RE144	Ø 183	724.5	≤ 15
ASCF150	RE168	Ø 183	904.5	≤ 15



# FILTRATION SYSTEM

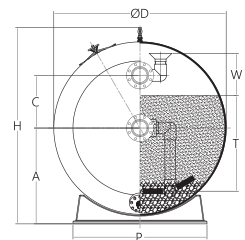
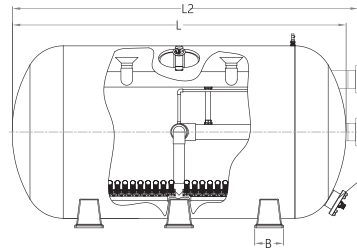
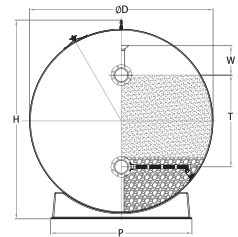
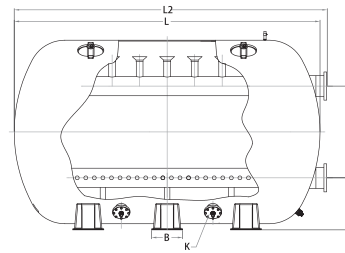
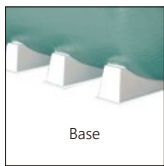
## Horizontal Filter

### Features:

- It is made of multiple layers of anti-corrosion materials. The outer layer is made of CNC multi-axis fiberglass.
- The internal piping system is uniform and reasonable structure.
- Strong fiberglass base can support the big filter body.
- 100% pressure testing before packing.
- Exclusive features for superior performance.
- Offering attractive and reasonable performance.
- Maximum Working Pressure:  
250kpa / 36psi (2.5 bar)  
400kpa / 58psi (4.0 bar)
- Factory Testing Pressure:  
400kpa / 58psi (4.0 bar)  
600kpa / 86psi (6.0 bar)
- Maximum Temperature: 50 °C (122 °F)
- Size of Gravel:  
1mm ~ 2mm (Gravel Weight)  
0.5mm ~ 0.8mm (Sand Weight)



### Product Details



### Dimensions

Ref.Code	ØD	H	A	B	C	K	P	L	L2	T	W
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
HL161900	1600	1830	925	300	450	110	1230	1900	2100	950	250
HL162500	1600	1830	925	300	450	110	1230	2500	2700	950	250
HL163000	1600	1830	925	300	450	110	1230	3000	3200	950	250
HL182500	1800	2050	1040	300	550	160	1400	2500	2700	1000	300
HL183000	1800	2050	1040	300	550	160	1400	3000	3200	1000	300
HL183500	1800	2050	1040	300	550	160	1400	3500	3700	1000	300
HL184000	1800	2050	1040	300	550	160	1400	4000	4200	1000	300
HL202500	2000	2220	1090	330	550	160	1490	2500	2730	1100	400
HL203000	2000	2220	1090	330	550	160	1490	3000	3230	1100	400
HL203500	2000	2220	1090	330	550	160	1490	3500	3730	1100	400
HL204000	2000	2220	1090	330	550	160	1490	4000	4230	1100	400
HL204500	2000	2220	1090	330	550	160	1490	4500	4730	1100	400

# FILTRATION SYSTEM

## Horizontal Filter

### Technical Specification

Ref.Code	Filter Diameter (mm)	Filter Height (mm)	Flow rate (m <sup>3</sup> /h/m <sup>2</sup> )	Connections		Design Flow (m <sup>3</sup> /h)	Filter Area (m <sup>2</sup> )	Sand Weight (kg)	Gravel Weight (kg)
				de(mm)	inch				
HL161900	1600	1830	20	110	4"	49	2.47	2800	600
			30	160	6"	74			
			40	160	6"	99			
HL162500	1600	1830	20	110	4"	67	3.36	3800	850
			30	160	6"	101			
			40	160	6"	134			
HL163000	1600	1830	20	160	6"	82	4.10	4700	1050
			30	160	6"	123			
			40	200	8"	164			
HL182500	1800	2050	20	160	6"	75	3.74	4850	980
			30	160	6"	112			
			40	160	6"	150			
HL183000	1800	2050	20	160	6"	92	4.58	5930	1230
			30	160	6"	137			
			40	200	8"	183			
HL183500	1800	2050	20	160	6"	108	5.41	7000	1480
			30	200	8"	162			
			40	200	8"	216			
HL184000	1800	2050	20	160	6"	125	6.25	8080	1700
			30	200	8"	187			
			40	250	10"	250			
HL202500	2000	2220	20	160	6"	87	4.34	6000	1050
			30	160	6"	130			
			40	200	8"	174			
HL203000	2000	2220	20	160	6"	106	5.30	7450	1300
			30	160	6"	159			
			40	200	8"	212			
HL203500	2000	2220	20	160	6"	125	6.25	8900	1550
			30	200	8"	187			
			40	200	8"	250			
HL204000	2000	2220	20	160	6"	144	7.21	10350	1800
			30	200	8"	216			
			40	250	10"	288			
HL204500	2000	2220	20	200	8"	163	8.16	11800	2080
			30	200	8"	245			
			40	250	10"	326			

#### Note:

Diameter of 1200, 1400, 2350, 2500, 3000 mm are available. Technical details & Prices are available on request.



# FILTRATION SYSTEM

## Trolley Mounted Filters

### Features:

- Aqvastar trolley mounted cartridge filters used as portable maintenance kit where vacuum points not been installed or where the filtration system is not installed.
- Easy to maintain pools & water features.
- Recommended for smaller sizes of water volume. Periodic cleaning of equipment & safe handling is required.

### Technical Specification

Ref.Code	Product Description
ASTMF25	Portable trolley mounted filter with 25 sq.ft cartridge, suitable for 5.5m <sup>3</sup> /hr flow, 50mm solvent connections filter with 0.5 HP pump
ASTMF50	Portable trolley mounted filter with 50 sq.ft cartridge, suitable for 11.4m <sup>3</sup> /hr flow, 50mm solvent connections with 0.75 HP pump
ASTMF75	Portable trolley mounted filter with 75 sq.ft cartridge, suitable for 17.0m <sup>3</sup> /hr flow, 50mm solvent connections 1.0 HP pump
ASTMF100	Portable trolley mounted filter with 100 sq.ft cartridge, suitable for 22.9m <sup>3</sup> /hr flow, 63mm solvent connections 1.5 HP pump
ASTMF150	Portable trolley mounted filter with 150 sq.ft cartridge, suitable for 33.4m <sup>3</sup> /hr flow, 63mm solvent connections 2.0 HP pump

It comes with DOL starter & along with 5 -meter 2.5 square mm 3 core incoming cable with 3 pin 15A plug



# FILTRATION SYSTEM

## Multicyclone Filter

*MultiCyclone is a centrifugal filtration device that is capable of saving water and reducing filter maintenance.*

*The MultiCyclone works on the basis of centrifugal water filtration. There are no moving parts to wear and tear, and no filter media to clean or replace*

### Features :

- No filter media to clean or replace
- No moving parts
- Cuts wasteful backwashing
- Reduces filter maintenance
- Suitable for both new and existing installations
- Supplied with both imperial and metric quick connect unions and purge valve
- Applicable to swimming pool, water treatment and aquaculture industries

### HOW DOES IT WORK?

- Incoming water enters 16 hydro cyclones tangentially, generating a strong centrifugal effect.
- The sediment is spun out to the hydro cyclone's wall, and then spirals down to the sediment chamber.
- The filtered water migrates towards the center of the hydro cyclone where the flow reverses and spirals upwards through the outlet.
- Accumulation of sediment can be visibly monitored through the MultiCyclone's clear sediment chamber.
- The MultiCyclone is easily cleaned by opening its purge valve. Only 15 litres of water is discharged to cleanse the MultiCyclone.
- There is no filter media to clean or replace.

### Technical Specification

Ref. Code	Item Name	Connection	Flow Rate Range m <sup>3</sup> /h	Maximum Pool Volume m <sup>3</sup>	Working Pressure BAR
ASMCF16	MultiCyclone 16	2" / 63 mm	3 - 30	80	3.5



# FILTRATION SYSTEM

## FRP PUMP ROOM

Readymade pump made of FRP body and top cover for quick installation. Also useful for temporary water feature where replacement of location are there.

### Features

- Made of high quality acrylic with fiberglass reinforced.
- This includes sand filter, Circulation pump, UV.
- Water discharge connection for back wash and drainage plug.

### Technical Specification

Ref.Code	Motor Power (HP)	Voltage (v)	Design Flow (m <sup>3</sup> /h)	Filter Area (m <sup>2</sup> )	Volume (m <sup>3</sup> )	Dimensions (mm)
ASRP- 8	1.5	220~240	8	0.16	≤64	1320*1340*985
ASRP- 12	1.5	220~240	12	0.23	≤92	1320*1340*985
ASRP- 16	1.5	220~240	16	0.32	≤128	1320*1340*985
ASRP- 20	2.0	220~240	20	0.40	≤160	1550*1560*1135
ASRP- 25	2.0	220~240	25	0.50	≤200	1550*1560*1135



## PIPELESS FILTER

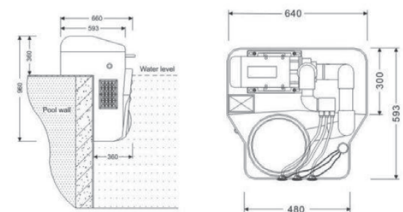
Pipeless Filters are designed keeping small pools/ Residential pools installed where limitation to pump room space.

### Features

- Made of high quality acrylic with fiberglass reinforced.
- Equipment to comply with the filter bag, massage jet, suction and lighting.
- Massage jet delivery design ensures more Air Mixture in to pool
- Comes with 12/18w warm white LED light.
- New feature as outside vacuum fitting for easy access and cleaning

### Technical Specification

Ref.Code	Motor Power (HP)	Voltage (v)	Design Flow (m <sup>3</sup> /h)	Filter Area (m <sup>2</sup> )	Length (mm)	Width (mm)	Height (mm)
ASPF-N	1.2	220	10-13	0.26	640	660	960
ASPF	2.0	220	25	0.297	1120	680	1080



Installation figure



# GLASS MEDIA

Waterco's Glass filter media is manufactured from recycled glass, it is an environmentally friendly and viable alternative to sand. Plus it offers finer filtration than sand.



## High Purity

Whereas other filter media may contain a variety of contaminants, Waterco's Glass filter media is chemically inert for superior purity. In fact, it does not contain any crystalline free silica or heavy metals. Its high purity also greatly reduces its initial backwashing requirements, prior to commissioning a filter, enabling a rapid start up of media filters.



## Recycled

Raw material is taken directly from household recycling schemes and is 100% recycled glass. This offers environmental savings when compared with alternative natural resources which would otherwise be used.



## Efficient

It removes more materials and pollutants than sand, saving on backwashing and resultant water, heating and chemical treatment costs.



## Clean

It is less susceptible to bio-fouling. The heat-treated surfaces are smooth, requiring less remedial action and less chemical treatment to kill pollutants.



## Long Life

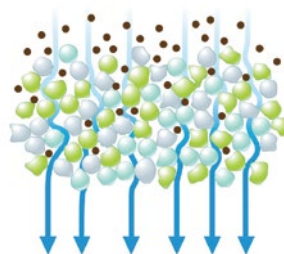
It has undergone specialised heat treatment process, which means that its degradation is slower and it therefore has a longer life span.

## Depth Filtration

Glass filter media operate on the basis of "depth filtration"; dirt is driven through the filter bed and trapped in minute spaces between the particles of filter media allowing the cleansed water to pass through.

## Chemical Compositions

Silicon dioxide (SiO <sub>2</sub> )	72.2%
Sodium oxide (Na <sub>2</sub> O)	13.3%
Calcium oxide (CaO)	10.9%
Magnesium oxide (MgO)	1.65%
Aluminium oxide (Al <sub>2</sub> O <sub>3</sub> )	1.5%



Grade 1 : 0.5 - 1.0mm  
(equivalent to grade 16/30 sand)

Ref. Code	Product Description
ASGM1	Grade 1 Eco Glass Media 20kg in bags 0.5-1.0 mm size (equivalent to 16/30 sand)
ASGM3	Grade 3 Eco Glass Media 20kg in bags 3.0 - 6.0 mm size (equivalent to Pea gravel)

# FREQUENCY INVERTER

## What's a Frequency Inverter

Frequency Inverter is a device that converts alternating current of one frequency to another frequency, the result of this conversion leads to a motor speed change in pool pump application.

The majority of pool pumps installed in the market now are single speed, they are quite powerful for heavy duties like backwash, but this is not constantly needed as in pumping or filtration, changes of motor speed on a single speed pump can meet different application demand for the pump

- Classic touch control
- 4 timers program for 24 hours running
- User friendly interface with power consumption indication
- 35 running speeds from 1200 - 2900 RPM by increment of 50RPM

### Timer program

4 timers for 24 hour operation, each with an individual speed for different pool features, filtration or heating, better take advantage of electricity tariff at different time of day

### Longer lifespan

Lower running speed means a reduction in wear, particularly in mechanical seals

### 80% ENERGY SAVING

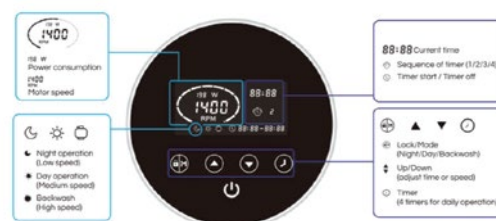
With an ASpower, pump speed can be set to adapt for different operations, running cost will be dramatically reduced.

### Better filtration

Small particles can be removed easier when the water moves more slowly

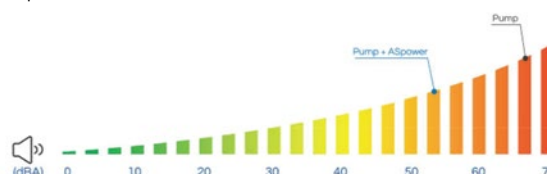
### Eco - friendly

Tremendous greenhouse gas emission decreased due to 80% reduction in electricity consumption



### 25% QUIETER

Running at low speed promises a much more pleasant user experience, sound level can be reduced as much as 25%



## Technical Specification

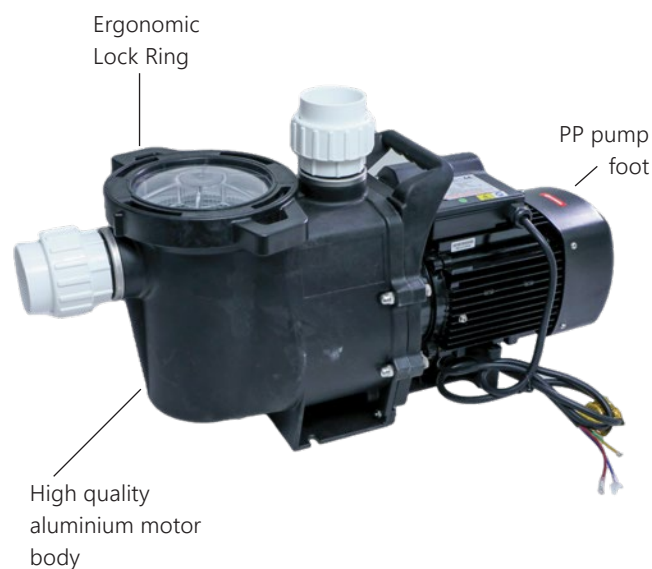
Model	ASpower 1100	ASpower 2200	ASpower 1100C	ASpower 2200C
Operation Condition	-10-40°C	-10-40°C	-10-40°C	-10-40°C
Input Power	1ph AC	1ph AC	1ph AC	1ph AC
Input Voltage	220V-240V	220V-240V	220V-240V	220V-240V
Frequency	50 Hz	50 Hz	50 Hz	50 Hz
Output Voltage	1ph, 0-240V	1ph, 0-240V	3ph, 0-240V	3ph, 0-240V
Output Power	Max 1.1kW	Max 2.2kW	Max 1.1kW	Max 2.2kW
Output Current	Max 6A	Max 12A	Max 4.5A	Max 8A
Pump Type	Single phase	Single phase	Three phase	Three phase
Speed Range	1200-2900rpm			

# PUMPS

## QR Series - Pumps For Private Pools

### Features:

- High efficiency self-priming centrifugal pumps with built-in extra large prefilter.
- Extremely quiet running and great reliability developed for water circulation.
- Pump body, prefilter & pump foot in PP.
- Strainer cover in see through polycarbonate to guarantee constant visibility and easy inspection.
- Pump body with easily removable ergonomic lock ring.
- Diffuser & Impeller in PPO.
- Mechanical seal in SIC.
- Motor casing in die cast aluminum L2521.
- Asynchronous continuous duty 2-pole motor with F class insulation motor and terminal box protection rating: IP55.
- Ball bearings-water-proof, sealed, resistant to water and humidity.
- Standard voltage: Single phase 220-240V 50Hz.
- Liquid temperature range: up to 50°C.
- Maximum ambient temperature: up to 50°C.
- Maximum operating pressure: 2,5 bar.
- Installation: fixed or portable in horizontal position.
- Union connectors with 63/63 mm BS pipe sockets.



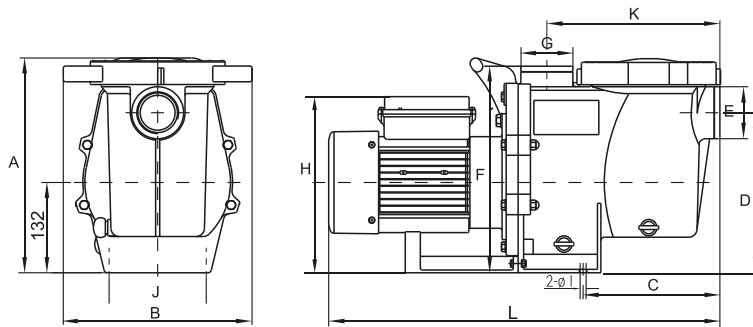
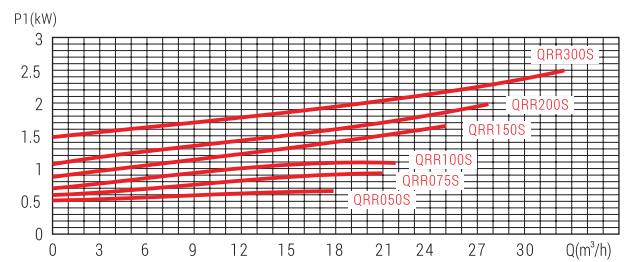
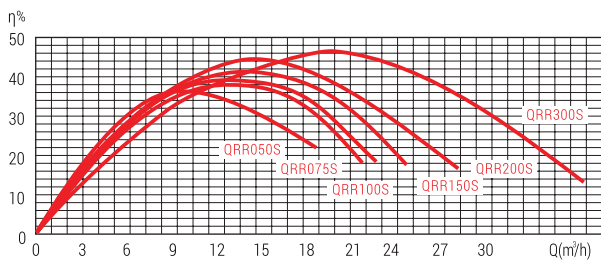
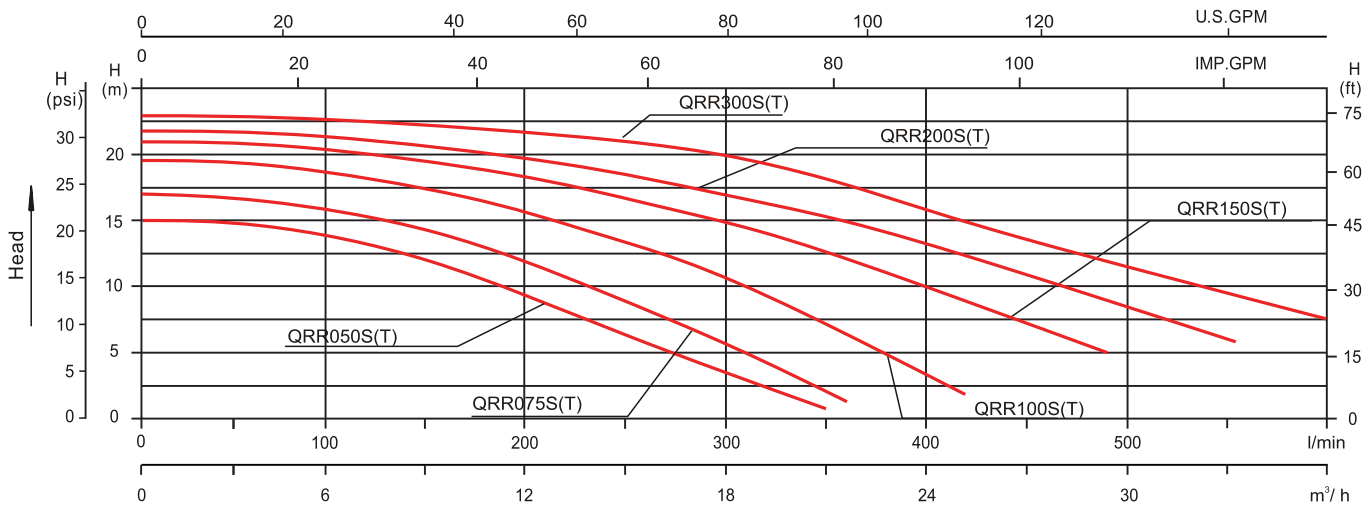
### Technical Specification

Ref. Code	HP	KW	V	A	P1(KW)	Q	L/min M <sup>3</sup> /h	0	50	100	150	200	250	300	350	400	450	500	550	
			1~	1~	1~			0	3	6	9	12	15	18	21	24	27	30	33	
QRR050S	0.50	0.37	220	3.2	0.68	H(m)		12	11.5	11	8.5	7								
QRR075S	0.75	0.55	220	3.8	0.95			17	16.5	15.5	13.5	11.75	8.5							
QRR100S	1.00	0.75	220	5.4	1.15			19	18.5	17.5	16.5	15	13	10.5						
QRR150S	1.50	1.10	220	7.0	1.7			21	20.5	20	19.5	18.5	17	15	12.5	10				
QRR200S	2.00	1.50	220	8.6	2.1			22	21.5	21	20.5	20	19.5	17.5	16.5	14	12	9		
QRR300S	3.00	2.20	220	12	2.6							22	21.5	20	18.5	17	14.5	12.5	10	
QRR300T	3.00	2.20	380	9	2.6								22	21.5	20	18.5	17	14.5	12.5	10

# PUMPS

## QR Series - Pumps For Private Pools

### Performance Curves



### Dimensions (in mm)

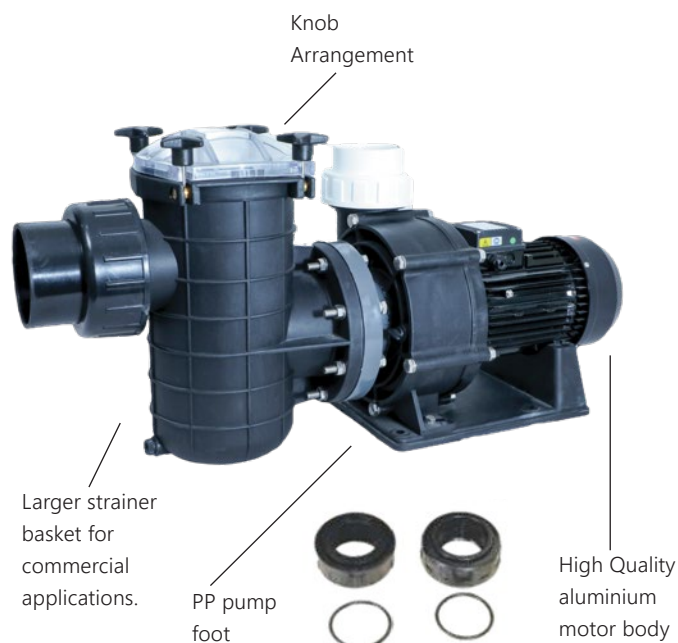
Ref. Code	A	B	C	D	E	F	G	H	I	J	K	L
QRR050S	314	276	200	234	63	302	63	243	11.5	142	253	572
QRR075S	314	276	200	234	63	302	63	243	11.5	142	253	572
QRR100S	314	276	200	234	63	302	63	243	11.5	142	253	572
QRR150S	314	276	200	234	63	302	63	246	11.5	142	253	572
QRR200S	314	276	200	234	63	302	63	270	11.5	142	253	582
QRR300S	314	276	200	234	63	302	63	270	11.5	142	253	582
QRR300T	314	276	200	234	63	302	63	270	11.5	142	253	582

# PUMPS

## QR Series - Pumps For Commercial Pools

### Features:

- High efficiency self-priming centrifugal pumps with built-in extra large prefilter.
- Extremely quiet running and great reliability developed for water circulation.
- Pump body, prefilter & pump foot in PP.
- Strainer cover in see through polycarbonate to guarantee constant visibility and easy inspection.
- Pump prefilter body closed with knob system for easy accessibility.
- Diffuser & Impeller in PPO.
- Mechanical seal in SIC.
- Motor casing in die cast aluminum L2521.
- Asynchronous continuous duty 2-pole motor with F class insulation motor and terminal box protection rating: IP55.
- Ball bearings-water-proof, sealed, resistant to water and humidity.
- Standard voltage: three phase 230/400V 50Hz.
- Liquid temperature range: up to 50°C.
- Maximum ambient temperature: up to 50°C.
- Maximum operating pressure: 2,5 bar.
- Installation: fixed or portable in horizontal position.
- Union connectors with 110/90 mm BS pipe sockets.



### Technical Specification

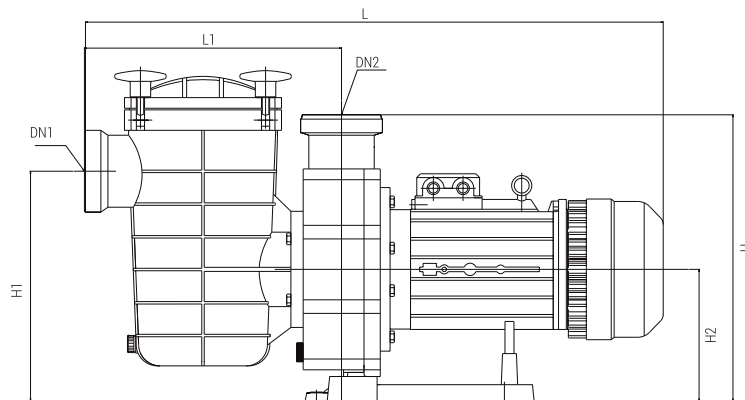
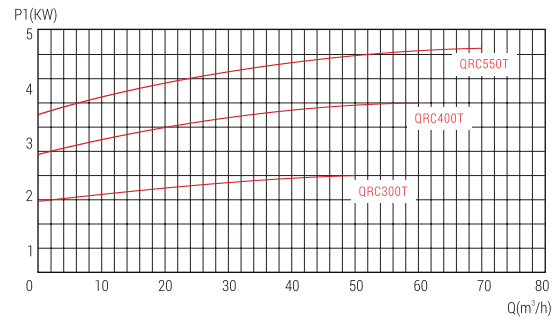
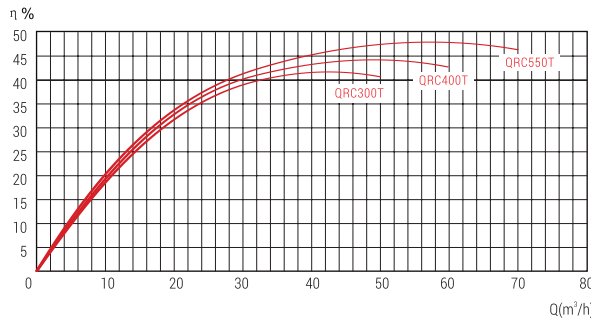
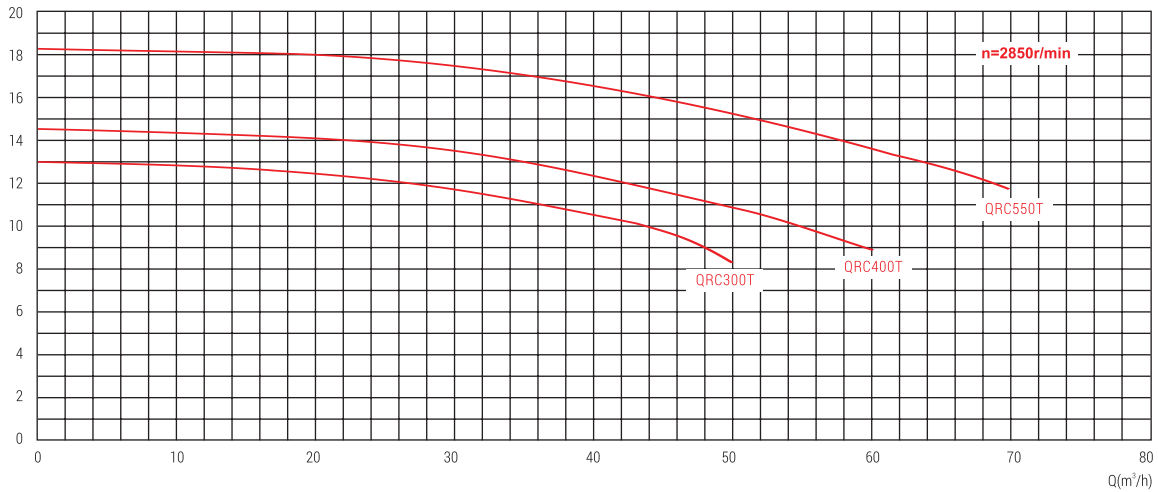
Ref. Code	HP	KW	V	A	P1(KW)	Q	L/min M <sup>3</sup> /h	0	333.3	500	666.7	833.3	1000	1166.3
			3~	3~				0	20	30	40	50	60	70
QRC300T	3.0	2.2	380	4.9	2.8	H(m)	13	12.6	11.8	10.6	9			
QRC400T	4.0	3.0	380	6.4	3.6		14.5	14.2	13.5	12.6	11	9.5		
QRC550T	5.5	4.0	380	8.3	4.7		18.2	17.8	17	16.3	16	13.8	12.2	



# PUMPS

## QR series - Pumps for Commercial pools

### Performance Curves



### Dimensions (in mm)

Ref. Code	L	L1	H	H1	H2	DN1	DN2
QRC300T	833	310	319	286	156	110	90
QRC400T	833	310	319	286	156	110	90
QRC550T	850	310	319	286	156	110	90

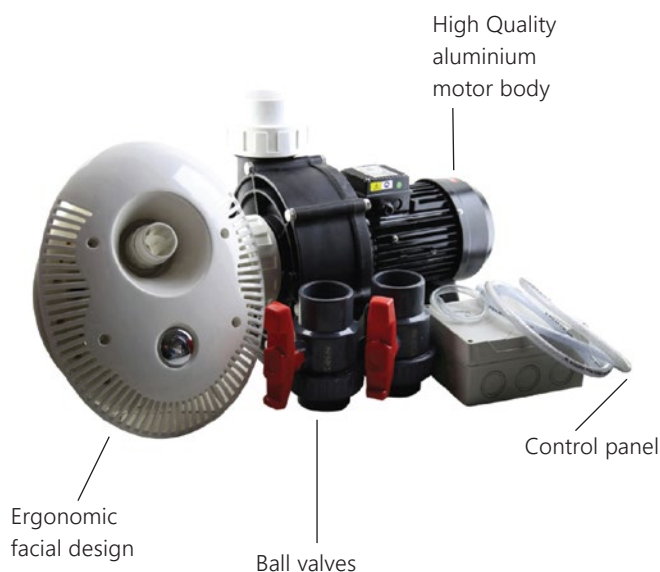
# PUMPS

## QR series - Counterflow systems (Fitness, fun and treatment on demand)

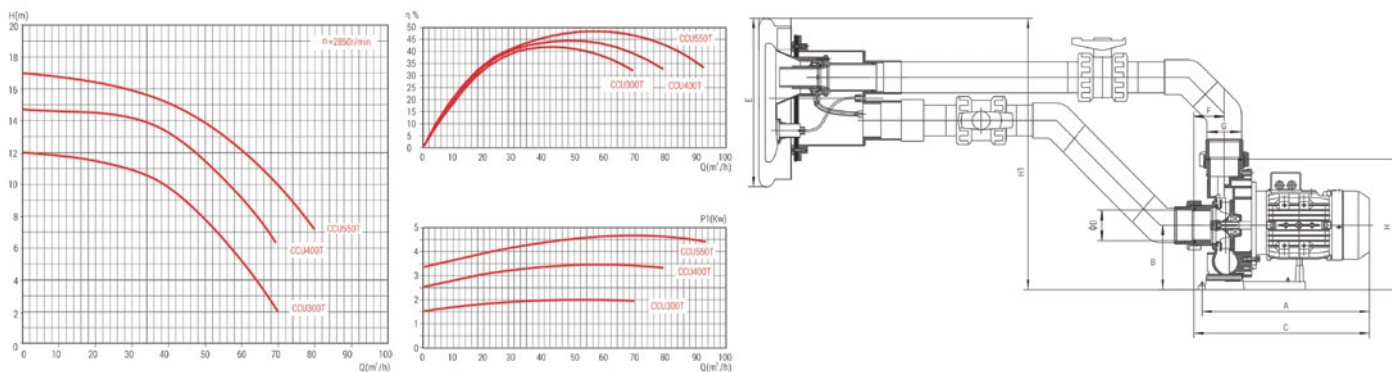
QR countercurrent swimming equipment makes it possible to customize therapeutic, training and fun activities in any kind of pool. The compact plastic design and its reduced size enable it to be fitted in the smallest of spaces and it is fully compatible with any kind of pool surfaces. The multi-directional nozzle makes the jet of water easily adjustable to suit different kinds of exercises.

### Features :

- Supplied in a kit that includes a front panel, nozzle set, wall housing and a pneumatic ON/OFF switch
- Pump body & pump foot in PP
- Pump body without strainer basket
- Asynchronous continuous duty 2-pole motor with F class insulation
- Union connectors with 90/90 mm BS pipe sockets
- Ball bearings- water-proof, sealed, resistant to water and humidity
- Standard Voltage: Three-phase 230/400V 50Hz
- Liquid temperature range: up to 50°C
- Maximum ambient temperature: up to 50°C
- Maximum operating pressure: 2,5 bar



### Performance Curves



### Technical Specification

Model without CCU	Model with CCU	HP	KW	V	A	P1(KW)	Q	L/min M³/h	0	333.3	500	666.7	833.3	1000	1166	1333	
				3~	3~				0	20	30	40	50	60	70	80	
QRCC300T	CCU300T	3.0	2.2	380	4.9	2.8		H(m)	12	11.7	10.5	9.8	7.9	5.8	2.1		
QRCC400T	CCU400T	4.0	3.0	380	6.4	3.6			14.5	14.2	14	13.4	11.5	9.5	6.7		
QRCC550T	CCU550T	5.5	4.0	380	8.3	4.7			18.2	16.2	16	15.3	13.8	12.5	9.5	7.5	

### Dimensions (in mm)

Ref.Code	A	B	C	D	E	F	G	H	H1
CCU300T	370	156	440	90	395	77	90	340	635
CCU400T	410	156	470	90	395	77	90	340	635
CCU550T	440	156	500	90	395	77	90	340	635

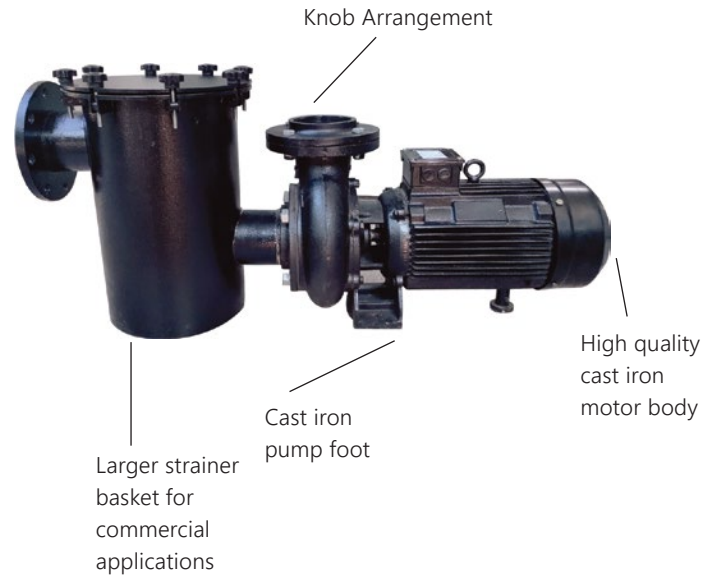
QRCC Models comes with suction and delivery union of 90 and 90 mm Dia

# PUMPS

## QR series - Pumps for Large Commercial pools

### Features :

- High efficiency self-priming centrifugal pumps with built-in extra large prefilter.
- Extremely quiet running and great reliability developed for water circulation.
- Pump body, prefilter & pump foot in specially coated cast iron
- Pump prefilter body closed with a knob system for easy accessibility.
- Diffuser & Impeller in cast iron.
- Mechanical seal in SIC.
- Motor casing in cast iron.
- Asynchronous continuous duty 2-pole motor with F class insulation motor and terminal box protection rating: IP55.
- Ball bearings - water - proof, sealed, resistant to water and humidity.
- Standard voltage: Three-phase 400V 50Hz.
- Liquid temperature range: up to 50°C.
- Maximum ambient temperature: up to 50°C.
- Maximum operating pressure: 2,5 bar
- Installation: fixed in horizontal position only.
- Flange connections (100 x 65 upto 10HP, 125 x 125 for 12.5HP & above).



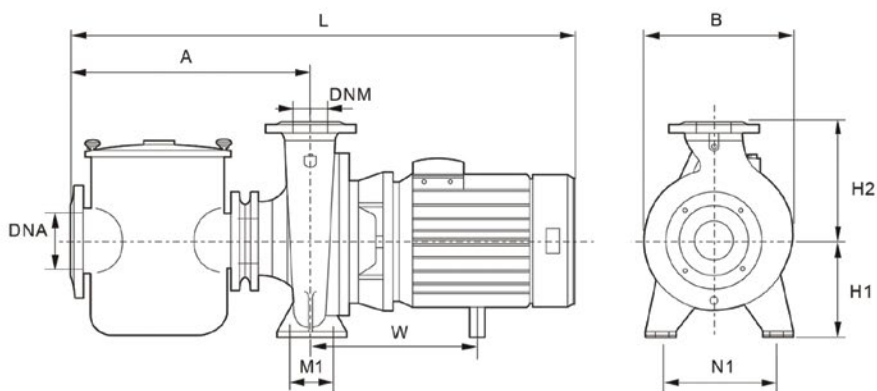
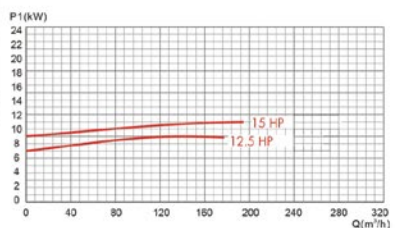
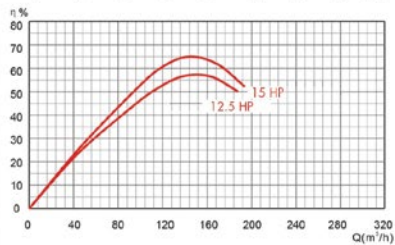
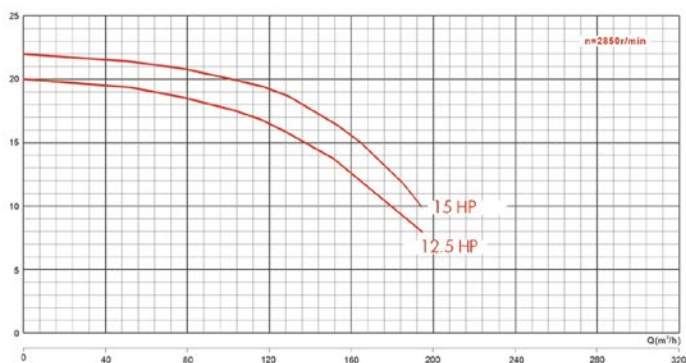
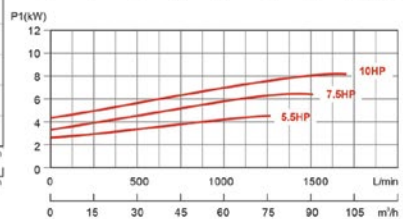
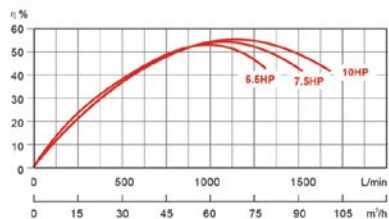
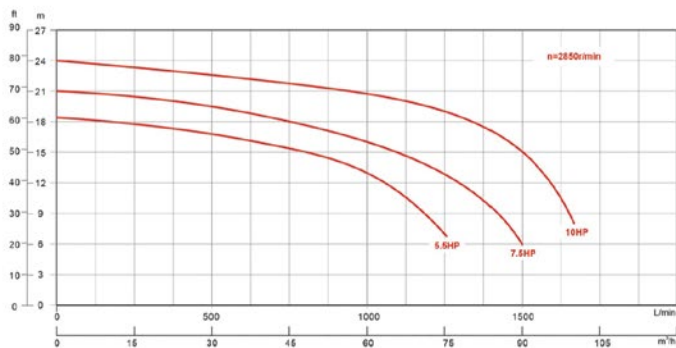
### Technical Specification

Ref. Code	HP	KW	V		A	P1(KW)		Q	L/min M <sup>3</sup> /h	0	500	750	1000	1250	1500	1916	2250	2483	2633	2750	3000	3250	
			3~		3~	3~																	
			50Hz	50Hz	380	220	380																
QRC550T	5.5	4	220	380	8.3	4.7	4.7	H(m)	18.5	17.5	16	14	10										
QRC750T	7.5	5.5	220	380	11.0	6.3	6.3		21	20.5	19.5	17.5	14	8									
QRC1000T	10	7.5	220	380	14.8	8.6	8.6		24	23.5	23	21.5	18	15									
QRC1250T	12.5	9.2		380	17.9		10.5		20					18	17	15	14	13	12	9			
QRC1550T	15	11		380	21.0		12.5		22					20.5	19.5	18	17	16	15	12	10		

# PUMPS

## QR series - Pumps for Large Commercial pools

### Performance Curves



### Dimensions (in mm)

Ref. Code	A	B	M1	W	L	N1	H1	H2	DNA	DNM
QRC550T	495	310	95	292	970	212	162.5	180	Ø100	Ø65
QRC750T	495	310	95	310	995	212	162.5	180	Ø100	Ø65
QRC1000T	495	310	95	310	995	212	162.5	180	Ø100	Ø65
QRC1250T	489	322	95	262	990	187	160	236	Ø125	Ø125
QRC1550T	489	322	95	275	1016	187	160	236	Ø125	Ø125

## POOL BASIN FITTINGS - ABS

### Main Drain - For residential pools

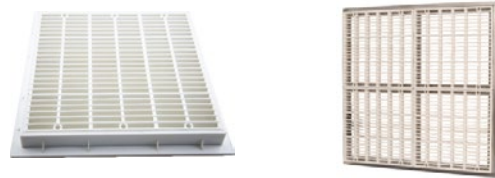
- Manufactured in ABS.
- Main drains available with flat drain grille.
- Recommendation - Main drains must be arranged Properly so that there is no risk of bathers being drawn towards them or trapped there.
- It is recommended that on all installations, a minimum of 2 main drains are installed 2 meters apart.
- Threaded type.



Ref. Code	Product Description
ASCMD200	8" Main drain with anti entrapment grille – 18 m <sup>3</sup> /h – Concrete pools

### Main Drain - For commercial pools

- Manufactured in ABS.
- Main drains available with flat drain grille.
- Recommendation - Main drains must be arranged Properly so that there is no risk of bathers being drawn towards them or trapped there.
- It is recommended that on all installations, a minimum of 2 main drains are installed 2 meters apart.



Ref. Code	Product Description
ASMD225	Square Main Drain 225x225mm - Frame & Grille in ABS 20 m <sup>3</sup> /h
ASMD300	Square Main Drain 300x300mm - Frame & Grille in ABS 33 m <sup>3</sup> /h
ASMD450SF	Square Main Drain 450x450mm - Frame in SS & Grille in ABS 80 m <sup>3</sup> /h
ASMD600SF	Square Main Drain 600x600mm - Frame in SS & Grille in ABS 132 m <sup>3</sup> /h

### Wall Inlets

- Manufactured in ABS.
- Wall inlet allows easy control of flow into the pool by adjusting the angle of the ball.
- Recommended Flow 5 m<sup>3</sup>/h - 9 m<sup>3</sup>/h.
- Solvent /threaded type.
- Dimension: Ø 105 x 58 H mm



Ref. Code	Product Description
ASWIT	Adjustable Wall inlet 2" threaded
ASWIS	Adjustable Wall inlet 63mm - Solvent

### Floor Inlets

- Manufactured in ABS.
- Adjustable floor inlet allows easy control of flow into the pool by adjusting the screw available.
- Recommended flow 9 m<sup>3</sup> /h - 12 m<sup>3</sup> /h.
- Solvent /threaded type.
- Dimension: Ø 107 x 65 H mm



Ref. Code	Product Description
ASFIT	Adjustable floor inlet Standard 2" Threaded
ASFIS	Adjustable floor inlet Standard 63mm Solvent
ASFIDT	Adjustable floor inlet Diffuser 2" Threaded
ASFIDS	Adjustable floor inlet Diffuser 63mm Solvent

## POOL BASIN FITTINGS - ABS

### Vacuum Point

- Manufactured in ABS.
- Vacuum point is installed where an automatic pool cleaner or vacuum hose is to be fitted.
- These fittings are supplied with removable plug.
- Solvent / Threaded type.
- Dimension: Ø 105 x 58 H mm



Ref. Code	Product Description
ASVPT	Vacuum point & Plug 2" Threaded
ASVPS	Vacuum point & Plug 63mm Solvent

**NOTE:** Solvent fittings suitable for 10kg/6kg grey colour pipe.

### Overflow Fitting

- Manufactured in ABS
- Suitable for overflow channels required to drain out water to balancing tank.
- Recommended flow 7 m<sup>3</sup>/h.
- Solvent type.
- Dimension: 110 x 97 H mm



Ref. Code	Product Description
ASOFF	Gutter drain 50mm

### Wall Conduit

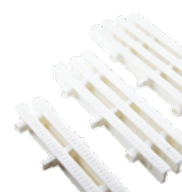
- Manufactured in ABS/PP.
- 300mm Long conduit, can be easily cut to required lengths
- Depending on pool shell thickness, have puddles for positioning within the pool shell.
- Solvent end - Back side to suit pipe of 50mm.
- Threaded end - Front side to suit pools fittings 2"



Ref. Code	Product Description
ASWC	Wall conduit for 2" threaded fitting

### Overflow Grating

- Manufactured in ABS/PP with UV Protection.
- Comes in 250/300mm Wide.
- Single spine connection.
- Anti slip surface.



Ref. Code	Product Description
ASOFF250	Overflow gratings 250mm Wide
ASOFF300	Overflow gratings 300mm Wide

### Main Drain Grille

- Manufactured in ABS
- Available for Concrete & pre fabricated pools
- Grille cover diameter is 150mm



**NOTE:** White & Half white available | All colours made available against orders | Granite & Marble finish fittings available against orders

Ref. Code	Product Description
ASCMD150G	Circular Main Drain- Antivortex Frame & Grille in ABS 18 cu mtr/hr
ASCMD150F	Circular Main Drain- Flat Frame & Grille in ABS 18 cu mtr/hr

## POOL BASIN FITTINGS - ABS

### Corner Grating

- This Corner Grating is used to ensure pool corners finished safely matching over flow gratings.
- 90° overflow corner gratings made in PP, matching grating colour of half white.
- This comes with non slip finish.



Ref. Code	Product Description
ASCG250	Corner gratings 250mm PPG
ASCG300	Corner gratings 300mm PPG

### Overflow grating Profile

- This Profile is used to ensure the grating is inline with deck area.
- Suitable for 22, 24, and 35 mm high gratings.
- Made in PP.
- Supplied in 1.5 mtr lengths.



Ref. Code	Product Description
ASGP	Grating Profile - 1.5 metre Long

# SKIMMER

## Skimmer Standard - Concrete Pools

Skimmer is ideally suited for pools where a full-size, residential performance, ABS Skimmer is desired. The corrosion proof series, Skimmer features a self-adjusting weir, large debris basket, flow control slide valve and auxiliary overflow port, multiple plumbing options allow for 50mm slip, 1-1/2" MTA and 2" FTA includes a vacuum plate for manual vacuuming of the pool with debris collected in the basket.

### Location of Skimmer

To obtain the most effective Skimming action over the entire surface, locate the Skimmer relative to the prevailing wind and drift, shape of pool and water circulation pattern with water level at mid-point of Skimmer opening.

### Adjustable Collar

1" Vertical adjustment to accommodate construction variances.

### Auxiliary Ports

To remove the auxiliary ports drill a small pilot hole in the center of the knock out. Then using a drill up to, but not exceeding, 3/4" remove the remaining material.

### Flow Control Slide Plate

For full flow adjustment move flow control slide plate to full open. To reduce flow, move slide plate across pump outlet as needed.

### Materials

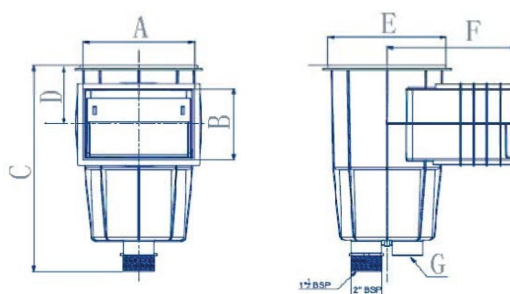
1. Lid
2. Skimmer Collar
3. Vac Plate
4. Skimmer Body
5. Weir Assembly
6. Basket Assembly
7. Flow Control Slide Plate

### Dimensions (in mm)

Ref. Code	A	B	C	D	E	F	G
ASSK15	201	140	416	111	230x230	243	50

### Note:

Wide mouth skimmer & mini skimmer available on request.





# WATER REGULATOR

## Water Level Regulator / Pool Filler

Water level regulator allows fresh water to refill the pool when the pool water level is low due to evaporation, water losses for the bathers, etc.

A float in the water level regulator is connected to the fresh water source through a valve. When the pool water level is low, the float is at a low position and opens the valve letting the fresh water come in. Once the float position reaches to the maximum water level, it closes the valve.

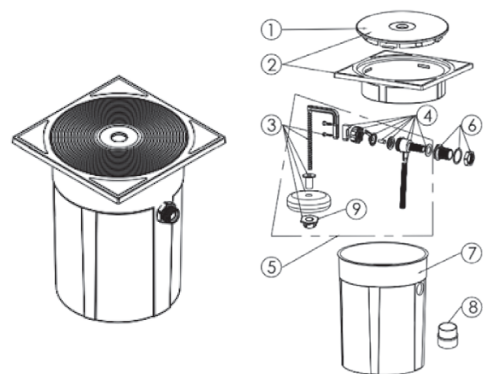
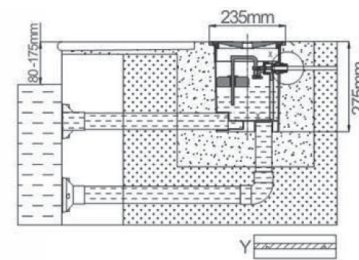
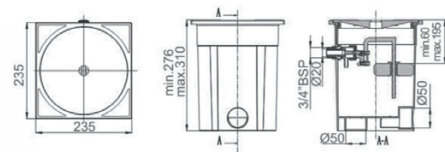
### Installation

Water level regulator is installed near to the pool and connected to the pool through a pipe  $\varnothing 50$  mm (Metric model) or 1 1/2" (Imperial model).

The fresh water pipes connection is  $\varnothing 20$  mm or 3/4" BSP. Maximum working pressure is 2.5 bar. If more pressure expected suggest to use pressure reducing valves.

### Parts

1. Skimmer lid
2. Square Rim with lid
3. Level regulator float arm assembly
4. Adjustable nozzle
5. Valve assembly
6. Fixation valve unit
7. Level regulator
8. 1.5" Conversion Connector
9. Hexagonal foam Buckle



EXPLODED VIEW

# WATER HAS THE ABILITY TO BRING LIFE AND MOVEMENT TO A SPACE AND TO CONTINUALLY CHANGE ITS MOOD

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## DESIGN

Preparing technical design intend in relation with reference Drawings

## DETAILING

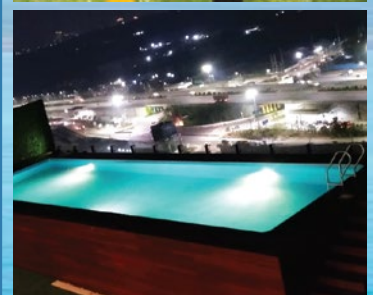
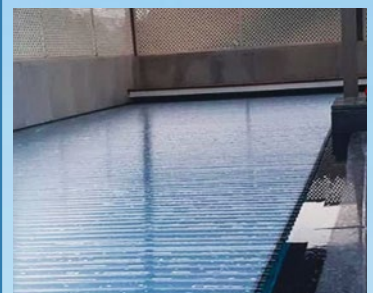
Detailed technical design and specification services for MEP consultants, Architects & Builders

## SUPPLY

High quality product supply to compliments the design intend & detailing to achieve the desired effect of Architect & client.

## INDUSTRY

Swimming pool/ Water feature/ Irrigation



## POOL BASIN FITTINGS - SS

### Main Drain - for Residential pools

- Manufactured in SS.
- Main drains available with Flat grille and a frame.
- Recommendation - Main drains must be arranged properly so that there is no risk of bathers being drawn towards them or trapped there.
- It is recommended that on all installations, a minimum of 2 main drains are installed 2 meters apart.



Ref. Code	Product Description
ASCMD150SS	Circular Main Drain- Frame in ABS & Grille in SS-18 m3/h

### Main Drain - for Commercial pools

- Manufactured in SS.
- Main drains available with Flat grille and a frame.
- Recommendation - Main drains must be arranged properly so that there is no risk of bathers being drawn towards them or trapped there.
- It is recommended that on all installations, a minimum of 2 main drains are installed 2 meters apart.



Ref. Code	Product Description
ASMD225SS	Square Main Drain 225 x 225mm- Frame in ABS & Grille in SS 20 m3/h
ASMD300SS	Square Main Drain 300 x 300mm - Frame in ABS & Grille in SS 33 m3/h
ASMD500SS	Square Main Drain 500 x 500mm - Frame & Grille in SS 100 m3/h

### Wall Inlets

- Manufactured in SS.
- Recommended flow 9 m<sup>3</sup>/hr.
- Threaded type.
- Dimension: Ø 72 x 53 H mm



Ref. Code	Product Description
ASWISC	SS Adjustable Wall inlet Circle 2" threaded
ASWISS	SS Adjustable Wall inlet Square 2" threaded

### Vacuum Point

- Manufactured in SS.
- Vacuum Point is installed where an automatic pool cleaner or vacuum hose is to be fitted. These fittings are supplied with movable plug.
- Dimension: Ø 77 x 58 H mm



Ref. Code	Product Description
ASVPSC	SS Vacuum point & plug circle 2" threaded
ASVPSS	SS Vacuum point & plug square 2" threaded

## POOL BASIN FITTINGS - SS

### Floor Inlet

- Manufactured in SS.
- Floor inlet allows easy control of flow into the pool by adjusting the centre screw.
- Recommended flow 12 m<sup>3</sup>/h.
- Threaded type.
- Dimension: Ø 77 x 58 H mm



Ref. Code	Product Description
ASFISC	SS Adjustable floor inlet circle 2" threaded
ASFISS	SS Adjustable floor inlet square 2" threaded

### Overflow Fitting

- Manufactured in SS Top cover available with flat grille.
- Recommended flow 7 m<sup>3</sup>/h.
- Solvent type.



Ref. Code	Product Description
ASOFFSS	SS Gutter drain Top 50 mm - PVC

### Overflow Grating

- Overflow gratings are available in SS316 with single spine connection
- Suitable for straight/curved pool channels.
- Available in 200, 250, 300 mm as standard.
- Non standard sizes available on request.



Ref. Code	Product Description
ASOFF250SS	Overflow gratings 250mm in SS - in metre
ASOFF300SS	Overflow gratings 300mm in SS - in metre

**Note:** Push-fit with O-ring for 63mm PVC pipe available on request for wall inlet, floor inlet and vacuum point

## SPA FITTINGS

### Jacuzzi Nozzle

- Manufactured in ABS.
- These high performance spa jets shall allow clients to have complete control of pressure and direction. Jets turn on/off by rotating the nozzle or jet face. Jets can be easily removed from inside the tub for servicing or cleaning.
- Flow 4.5 cu mtr/h @ 0.8 BAR.
- Connection size of 50 x 32 mm.
- Nozzle suitable for BS & ASTM pipes (Pls refer while ordering)



Ref. Code	Product Description
ASJN5032	Spa nozzles with a flow rate of 4.5 cu.mtr. water connection 50mm & air connection 32mm

### Wall Mounted Drain

- Manufactured in ABS & top cover chrome plated.
- Wall mounted installations.
- Hi-Flow rating of 128 GPM.
- Available in ABS/ CP FACIA- 1 1/2" sizes.
- Total open Area: 4.01 sq. in.



Ref. Code	Product Description
ASSPD	Antivortex suction in ABS with 1.5" / 2" connections
ASCSPD	Antivortex suction Chrome Plated with 1.5" / 2" connections

### Air Bubbler Nozzle

- Manufactured in ABS.
- Bubbler nozzle allows air into pool with air pipe network.
- Comes with tube/ solvent/ threaded connections so that it is easy to connect with pipe network.



Ref. Code	Product Description
ASBLN	Air Bubbler nozzle with 20 mm Connection

### Air Controller

- Manufactured in ABS.
- Air controller capable of allowing air into the pipe network with the venturi arrangement available in jacuzzi nozzles.
- Comes with solvent/ threaded connections so that it is easy to connect with pipe work.
- Top Portion is adjustable enabling quantity of air movement in to pipe network



Ref. Code	Product Description
ASAVC	Air volume controller to regulate the air flow in the nozzle

**Note:** All Spa fittings available with SS facia on request

## SPA FITTINGS

### Push Button

- Manufactured in ABS.
- These air buttons push air to your controller to operate the blower.
- Air buttons are located at spa-side and are used to control the air switches which are connected to your spa equipment.
- It comes with Threaded connection.
- 3-4 mm Air tube connection.



Ref. Code	Product Description
ASPB	Push button ABS with 1" threaded connections.

### Pneumatic switch

- Manufactured in ABS.
- Single function control switches provide safe actuation of electrical devices from remote locations.
- Connected with 3-4 air tube on one side & other side. connected with pump control panel.



Ref. Code	Product Description
ASPNS	Pneumatic switch for pump control panel to connect the push button.

### Air Tube

- Manufactured in PP.
- Coil of Air tube is 20 mtr length.



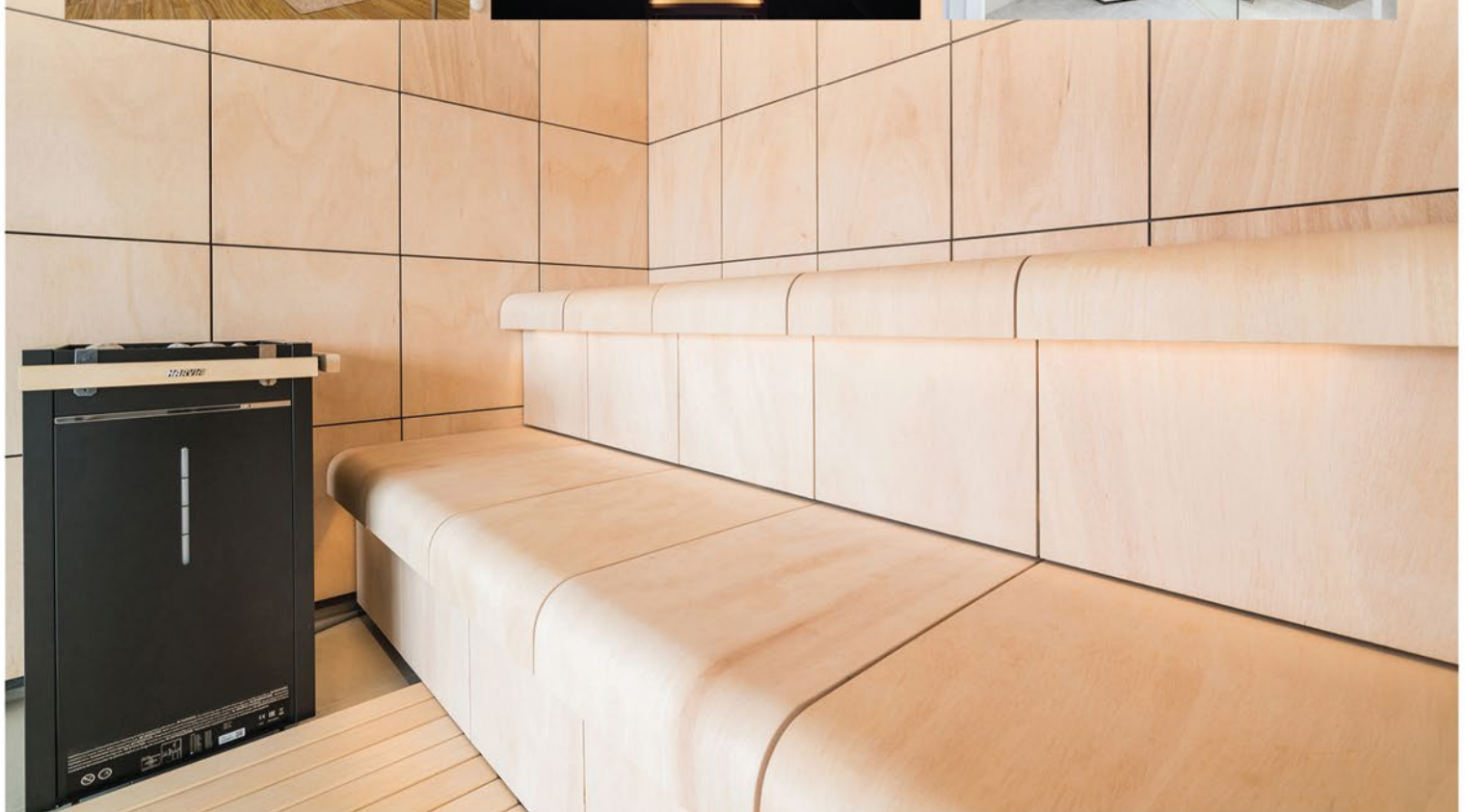
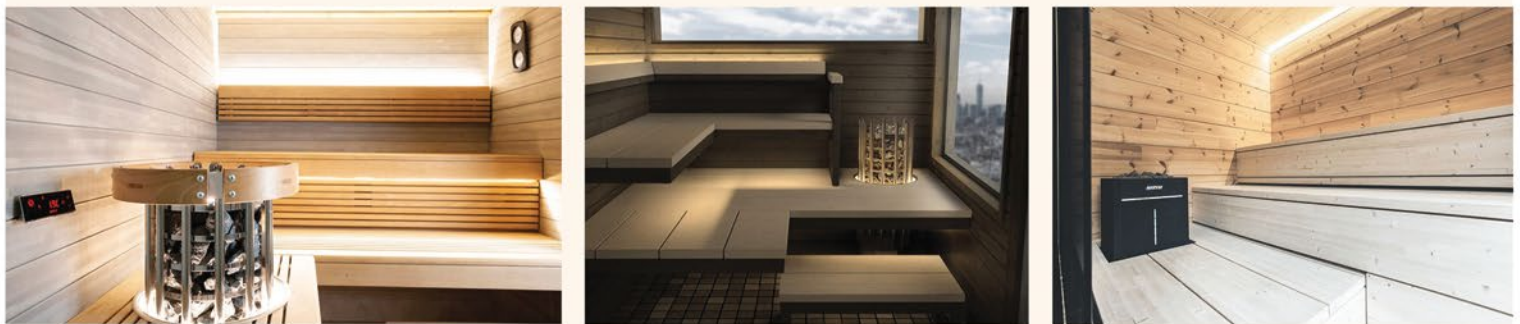
Ref. Code	Product Description
ASAT	Air Tube Per Mir.

# HARVIA



Your **relaxation** is our business  
WHEN IT COMES TO WET LEISURE, WE ARE THE EXPERTS.

We can provide a comprehensive and bespoke design and installation. Ask for the details of superior quality of products we supply and create.



# LED LIGHTS

## Wall Mounted SS Lights with ABS ring

Wall mounted niche less lights are built of stable, heat-resistant plastic materials. This flood lamp has been designed to be used fully submerged it is a class III electric part with low safety voltage & complies with IPX8 degree protection at a normal depth of 2 meters. Cross head mount with screws are supplied as part of light to fix in the wall. This light comes with high quality LED bulb, GEL filled for long life of product.

### Materials

Housing - SS body with ABS plastic/ SS facia ring  
 Gasket - Silicon washer.  
 Diffuser - Polycarbonate.  
 Power - 12 / 25 / 35 watts

### Features:

- Colour - Warm white | Cool white | RGB
- 120 deg Beam angle LED.
- 115 lumens per watt highest in industry.
- Uniform Illumination.
- Long life LEDs up to 50000 working hours.
- 100% Epoxy filled complete sealing.
- Easy installation - these lights can be mounted on all sorts of swimming pool.
- Transformer 230 input/ 12 Volt output.

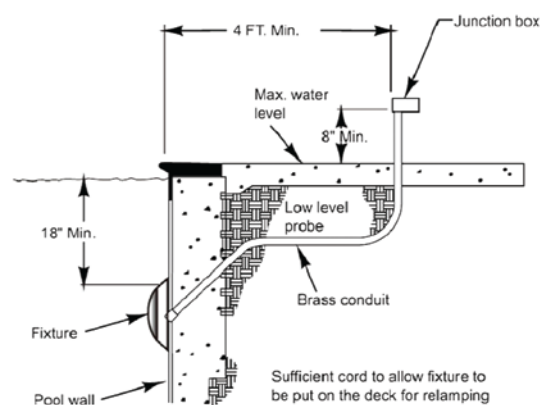
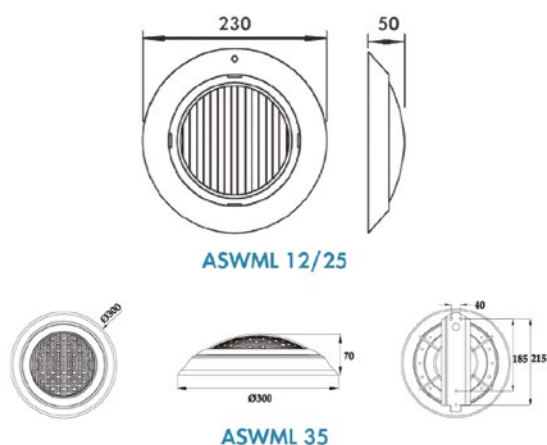


Figure 1 Lamp Housing Installation

### Technical Specification

Type	Ref. Code	Wattage	Volt	Dimensions in cm
Wall mounted light with SS Facia Ring - WW	ASWML12WWSS	12	12	23 X 23 X 5
Wall mounted light with SS Facia Ring - CW	ASWML12CWSS	12	12	23 X 23 X 5
Wall mounted light with SS Facia Ring - WW	ASWML25WWSS	25	12	23 X 23 X 5
Wall mounted light with SS Facia Ring - WW	ASWML35WWSS	35	12	30 X 30 X 7
Wall mounted light with SS Facia Ring - RGB	ASWML12RSS	12	12	23 X 23 X 5



## LED LIGHTS

### Wall Mounted ABS light

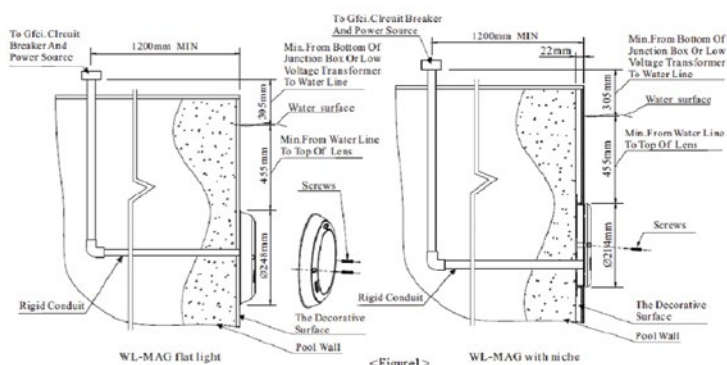
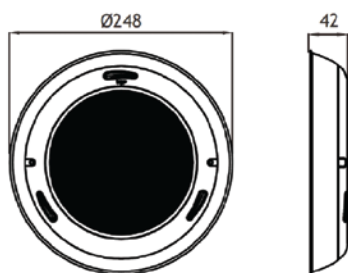
Wall mounted niche less lights are built of stable, heat-resistant plastic materials. This flood lamp has been designed to be used fully submerged. It is a class III electric part with low safety voltage & complies with IPX8 degree protection at a normal depth of 2meters. Cross head mount with screws are supplied as part of light to fix in the wall. This light comes with high quality LED bulb, GEL filled for long life of product.

#### Materials

Housing - ABS plastic with ABS facia  
 Gasket - Silicon washer.  
 Diffuser - Polycarbonate.  
 Power - 6 / 18 watts

#### Features:

- Colour - Warm white | Cool white | RGB
- 163 deg Beam angle LED.
- 115 lumens per watt highest in industry.
- Uniform Illumination.
- Long life LEDs up to 50000 working hours.
- 100% Epoxy filled complete sealing.
- Easy installation - these lights can be mounted on all sorts of swimming pool.
- Transformer 230 input/ 12 Volt output.



#### Technical Specification

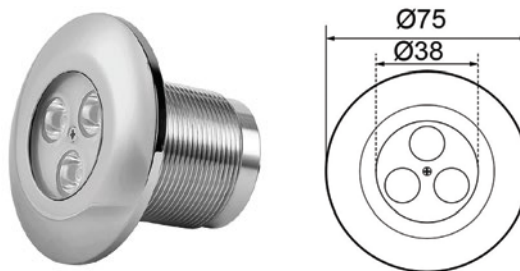
Type	Ref. Code	Wattage	Volt	Dimensions in cm
Wall & Niche mounted light - WW	ASWML18WW	18	12	25x25x4
Wall & Niche mounted light - CW	ASWML18CW	18	12	25x25x4
Wall & Niche mounted light - RGB	ASWML18R	18	12	25x25x4
Wall & Niche mounted light - WW	ASWML6WW	6	12	12x12x3
Wall & Niche mounted light - CW	ASWML6CW	6	12	12x12x3
Wall & Niche mounted light - RGB	ASWML6R	6	12	12x12x3

# LED LIGHTS








## Push fit Lights

### Features :

- Colour - Warm white | Cool white | RGB
- 120 deg Beam angle LED.
- 115 lumens per watt highest in industry.
- Uniform Illumination.
- Long life LEDs up to 50000 working hours.
- 100% Epoxy filled complete sealing.
- Easy installation: Designed to be installed in steps or kids pool with conduit
- Transformer 230 input/ 12 Volt output.



### Product details

-  IP Rating  
IP 68
-  Lens Material  
6mm thickness Tempered glass
-  Color Temperature  
2800K 4000K 6000K
-  Optional Dimmer  
DALI 0/1-10V
-  Body Material  
Stainless Steel 316/304
-  Light Source  
CREE
-  Emitting Color  
RGB RGBW

### Technical Specification

Ref. Code	LED Brand	Power Options	Control Options	Voltage	Beam Angle
ASPF3SS	CREE	3W	RGB RGBW	12V/24V AC/DC	120°
ASPF6SS		6W			
ASPF9SS		9W			

# LED LIGHTS

## Niche Mounted Lights

### Features:

- Colour - Warm white | Cool white | RGB
- 120 deg Beam angle LED.
- 115 lumens per watt highest in industry.
- Uniform Illumination.
- Long life LEDs up to 50000 working hours.
- 100% Epoxy filled complete sealing.
- Easy installation: Designed to be installed in steps or kids pool with conduit
- Transformer 230 input/ 12 Volt output.



### Product details



IP Rating  
IP 68



Lens Material  
6mm thickness Tempered glass



Color Temperature  
2800K 4000K 6000K



Optional Dimmer  
DALI 0/1-10V



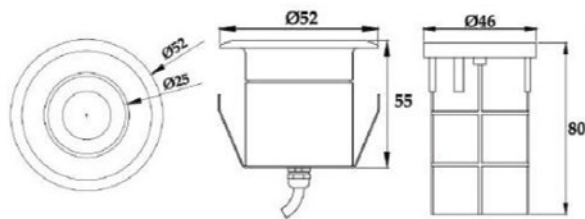
Body Material  
Stainless Steel 316/304



Light Source  
CREE



Emitting Color  
RGB



### Technical Specification


Ref. Code	LED Brand	Power Options	Control Options	Voltage	Beam Angle
ASNSM1SS	CREE	3W	RGB	12V/24V AC/DC	15°
					30°
					45°
					60°

# SMART LED LIGHTS

## Wall Mounted Lights

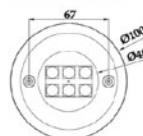
AQVASTAR - All stainless steel sleek design flat wall mounted lights are unique in design with unparalleled finish and quality

### Product Details

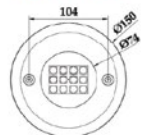
-  **Body Material**  
Stainless steel 316/304
-  **Lifespan**  
≥50,000 Hours
-  **Wire**  
VDE Certification
-  **Lens Material**  
PC
-  **Working Temperature**  
-20°C ~ 40°C
-  **Light Source**  
CREE



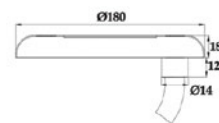
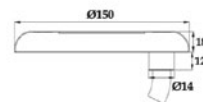
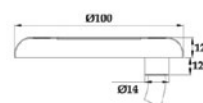
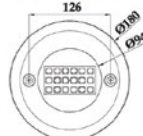
ASWM 6SS



ASWM 18SS



ASWM 35SS



### Technical Specification

Ref. Code	LED Brand	Power Options	Control Options	Voltage	Beam Angle
ASWM3SS ASWM6SS	CREE	3W 6W	Single Color RGB (4 Wires)	12V/24V DC	120°
ASWM10SS ASWM18SS	CREE	10W 18W 35W	Single Color RGB(4 Wires) Single Color	12V/24V DC	120°
ASWM25SS ASWM35SS ASWM60SS	CREE	18W 25W 35W 60W 25W(RGBW)	Single Color RGB RGB (4 Wires) Single Color RGBW (5 Wires)	12V/24V AC/DC 12V/24V AC 12V/24V DC 12V/24V AC/DC 12V/24V DC	120°







**Note:** Standard Angle is 120°

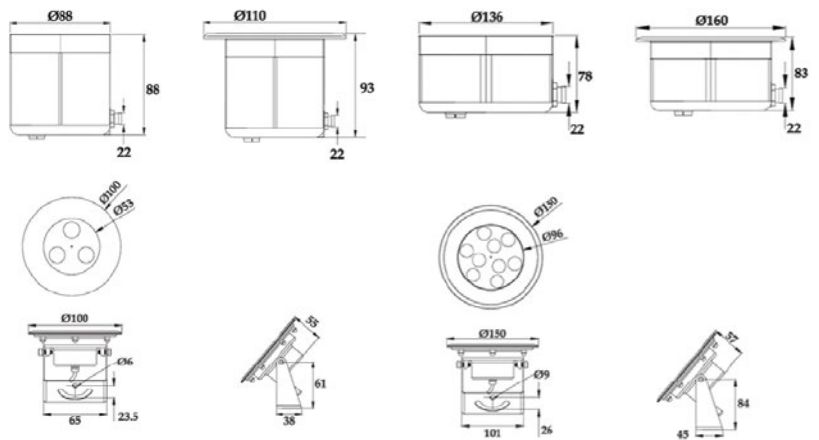
# SMART LED LIGHTS

## Niche / Stand Mounted Light

**AQVASTAR** - All Stainless Steel Pool / Fountain, Niche/ Stand mounted lights are unique in design with unparalleled finish & quality

### Product Details

-  Body Material  
Stainless steel 316/304
-  Lifespan  
≥50,000 Hours
-  Wire  
VDE Certification
-  Lens Material  
8mm thickness tempered glass
-  Working Temperature  
-20°C ~ 40°C
-  Light Source  
CREE



### Technical Specification

Ref. Code	Led Brand	Power Options	Control Options	Voltage	Beam Angle	Light Description
ASNSM3SS ASNSM6SS	CREE	3W 6W	Single Color	12V/24V AC/DC	15°	Long irradiation distance Concentration effect
			RGB	12V/24V AC	30°	
		6W(RGBW)	RGB(4 Wires)	12V/24V DC	45°	
			RGBW(5 Wires)	12V/24V DC	60° 90°	
ASNSM9SS ASNSM12SS ASNSM18SS	CREE	6W 9W 12W	Single Color	12V/24V AC/DC	15° 30° 45°	Long irradiation distance Concentration effect
			RGB	12V/24V AC		
			RGB (4 Wires)	12V/24V DC		
		18W	DMX512	12V/24V DC	45°	
			RGB	12V/24V AC	60°	
			RGBW (5 Wires)	12V/24V DC	90°	







**Note:** Standard angle is 120° for stand and niche mounted lights

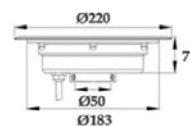
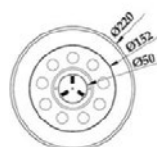
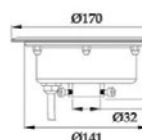
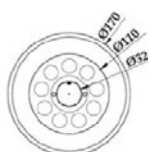
# SMART LED LIGHTS

## Nozzle Mounted Light

**AQVASTAR** - All Stainless Steel Pool / Fountain, Nozzle mounted lights are unique in design with unparalleled finish & quality

### Product details

-  Body Material  
Stainless steel 316/304
-  Lifespan  
≥50,000 Hours
-  Wire  
VDE Certification
-  Lens Material  
8mm thickness tempered glass
-  Working Temperature  
-20°C ~40°C
-  Light Source  
CREE



### Technical Specification

Ref. Code	LED Brand	Power Options	Control Options	Voltage	Beam Angle
ASRL9SS1 ASRL15SS1	CREE	6W 9W 15W	Single Color	12V/24V AC/DC	15° 30° 45° 60° 90°
			RGB	12V/24V AC	
			RGB(4Wires)	12V/24V DC	
			DMX 512	12V/24V DC	
		15W(RGBW)	RGB	12V/24V AC	
			RGBW(5Wires)	12V/24V DC	
ASRL9SS2 ASRL12SS2 ASRL18SS2	CREE	9W 12W 18W	Single Color	12V/24V AC/DC	
			RGB	12V/24V AC	
			RGB(4Wires)	12V/24V DC	
			DMX 512	12V/24V DC	
		18W(RGBW)	RGB	12V/24V AC	
			RGBW(5Wires)	12V/24V DC	

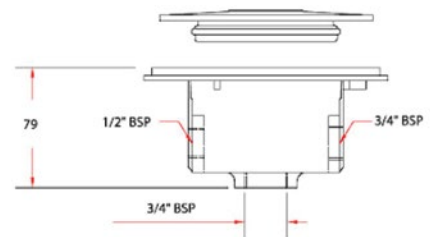
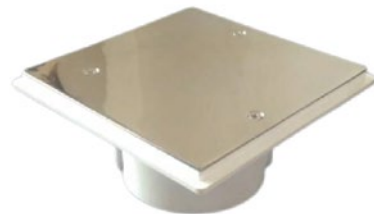
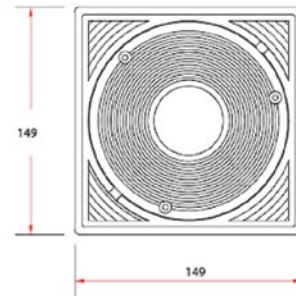
**Note:** Standard angle is 45° for Ring lights

## DECK BOX

- Deck mounted junction box for connecting the power cable between the light and the power source. Power source could be a driver/ Transformer or SMPS. The ASDB deck box has a square frame to make tiling easier and its double O'ring sealing system makes it IP65 - jet proof and water tight.
- This deck box allows the pool side connection around 12V /24 V cables from the source to join cables in an IP65 waterproof enclosure.
- Typically your power cable will be connected into one of the side sockets & the plastic conduit pipe which runs down to the light which connects into the bottom of the deck box and gets cable from light.
- The Junction Boxes are the best way to ensure watertight connections between cable inside the pool.
- Made from white ABS. IP65 weather protection has 3 threaded outlets of 3/4" Supplied with set of electrical connectors and threaded couplers. Size of the square lid: 149 x 149mm. Height: 79mm.

Ref.Code	Product Description
ASDB	Deck box (Suitable for use for Lights) IP65
ASDBS	Deck box (Suitable for use with Lights) IP65 with SS Top cover

As an option we shall offer top cover with SS316



# POOL LADDERS

## Ladder -

- Aqvastar 1.7"/43mm ladders are now supplied with stainless steel anti - slip threads as standard as well as the new Aqvastar 1.7"/43mm pinch anchor provides a secure sturdy installation on all types of pool surround. All 1.7"/43mm ladders are now manufactured in 304 grade stainless steel as standard, 316 grade stainless steel model are available on request with long lead time.
- Suitable for concrete & liner pools
- Ladders comes with Double top threaded steps on overflow & under cover ladder
- Also double thread available as spare for other ladders at extra cost

## Club Ladder

Ref. Code	Product Description
ASCL2	2 STEP SS 304 CLUB LADDER
ASCL3	3 STEP SS 304 CLUB LADDER
ASCL4	4 STEP SS 304 CLUB LADDER
ASCL5	5 STEP SS 304 CLUB LADDER



## Standard Ladder

Ref. Code	Product Description
ASSTD2	2 STEP SS 304 STANDARD LADDER
ASSTD3	3 STEP SS 304 STANDARD LADDER
ASSTD4	4 STEP SS 304 STANDARD LADDER
ASSTD5	5 STEP SS 304 STANDARD LADDER



## Overflow Ladder ( First step with double threads)

Ref. Code	Product Description
ASOFF2	2 STEP SS 304 OVERFLOW LADDER
ASOFF3	3 STEP SS 304 OVERFLOW LADDER
ASOFF4	4 STEP SS 304 OVERFLOW LADDER
ASOFF5	5 STEP SS 304 OVERFLOW LADDER



## Undercover Ladder (First step with double threads)

Ref. Code	Product Description
ASUCL2	2 STEP SS 304 UNDER COVER LADDER
ASUCL3	3 STEP SS 304 UNDER COVER LADDER
ASUCL4	4 STEP SS 304 UNDER COVER LADDER
ASUCL5	5 STEP SS 304 UNDER COVER LADDER



## WHERE TO USE

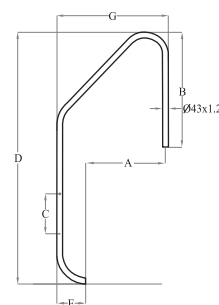
- Standard Ladder : Pool with skimmers  
 Overflow Ladder : Pool with Overflow channels  
 Club Ladder : For both skimmer & overflow channels pools (Placed in pool wall)  
 Under cover Ladder : For Pool with pool cover comes with a flange connection (To allow pool cover movement smoothly)



# POOL LADDERS

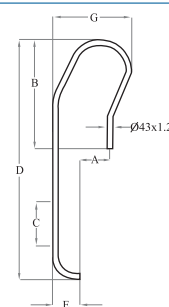
## Standard Ladder

Ref. Code	Steps	A	B	C	D	E	F	G
ASSTD2	2	410	620	250	1300	180	500	610
ASSTD3	3	410	620	250	1550	180	500	610
ASSTD4	4	410	620	250	1800	180	500	610
ASSTD5	5	410	620 <td 250	2050	180	500	610	



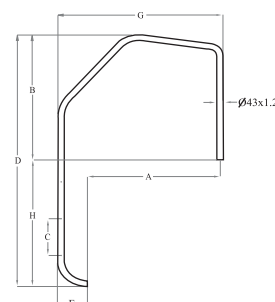
## Club Ladder

Ref. Code	Steps	A	B	C	D	E	F	G
ASCL2	2	120	620	250	1300	180	500	610
ASCL3	3	120	620	250	1550	180	500	610
ASCL4	4	120	620	250	1800	180	500	610
ASCL5	5	120	620	250	2050	180	500	610



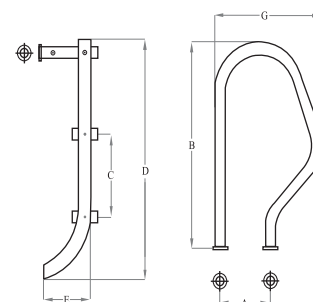
## Overflow Ladder

Ref. Code	Steps	A	B	C	D	E	F	G	H
ASOFF2	2	842	680	250	1390	180	500	1060	710
ASOFF3	3	842	680	250	1640	180	500	1060	960
ASOFF4	4	842	680	250	1890	180	500	1060	1210
ASOFF5	5	842	680	250	2140	180	500	1060	1460



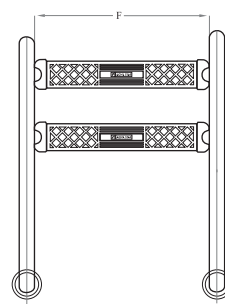
## Undercover Ladder

Ref. Code	Steps	A	B	C	D	E	F	G
ASUCL2	2	260	800	250	500	180	500	490
ASUCL3	3	260	800	250	750	180	500	490
ASUCL4	4	260	800	250	1000	180	500	490
ASUCL5	5	260	800	250	1250	180	500	490



Dimensions (in mm)

## Ladder Steps



# AIR BLOWER

All AQVASTAR units are manufactured in die-cast aluminium alloy, which ensures consistent high quality and productivity. Production costs are minimised due to modular construction.

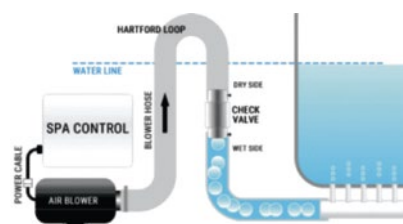
Standard models are directly coupled to electric motors which also manufactured for AQVASTAR. Standard motors are two pole, totally enclosed air cooled, continuous duty rated, IP 55 protected, class F insulation, and meet the CEI 2/3 1988 specification.

AQVASTAR is convinced that minimum cost of ownership is of paramount importance. This is achieved by :

- Using the latest technology in design, manufacturing and testing to achieve maximum performance with minimum energy input.
- Operating a formal quality system to ISO 9001.
- Continuously monitoring prices.
- Never compromising on performance and price.

## Air loop

- Setting up air loop is critically important to protect air blower.
- Air loop is extending a section of the air system's plumbing line above the water line (as per picture )



## Technical Specification

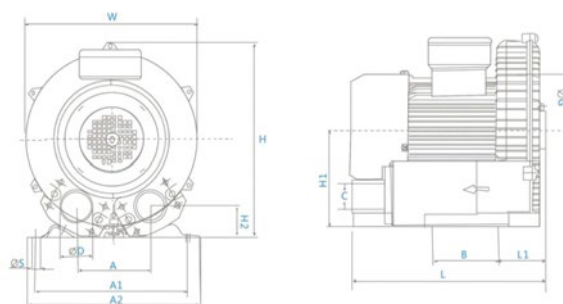
Ref. Code	Voltage V	Current A	Max Pressure Kpa	Max Flow m <sup>3</sup> /h	Max vacuum Kpa	Power kW	Rotational Speed r/min	Noise dB(A)	N.W kg	G.W kg	Packing Size (cm)
ASAB-250	220	2.5(3.0)	12(14)	48(57)	8.5(10)	0.25(0.30)	2800(3400)	<56	10.6	11.2	31*28*28
ASAB-370	220	3.5(4.2)	16(19)	60(70)	11(13)	0.37(0.44)	2800(3400)	<56	11	11.7	31*28*28
ASAB-550	220	4.8(5.76)	20(24)	110(132)	16(19)	0.55(0.66)	2800(3400)	<60	12.6	14.1	32*31*30
ASAB-750	220	6.3(7.56)	22(25)	145(170)	18(20)	0.75(0.90)	2800(3400)	<60	16.5	18.0	35*32*33
ASAB-1100	220	8.7(10.44)	25(30)	210(245)	20(24)	1.1(1.3)	2800(3400)	<60	23	24.7	37*37*38
ASAB-1500	220	11.8(14.16)	26(31)	220(255)	21(25)	1.5(1.8)	2800(3400)	<60	23.4	28	37*37*38
ASAB-2200	220/380	8.52(10.22) 4.92(5.91)	36(43)	325(365)	28(33)	2.2(2.6)	2800(3400)	<70	29	31.5	42*42*42
ASAB-3000S	220/380	11.07(13.29) 6.39(7.67)	37(44)	390(430)	30(35)	3.0(3.6)	2800(3400)	<70	38	43.5	43*44*44
ASAB-7500S	220/380	25.98(34.19) 15(19.74)	45(52)	550(640)	35(42)	7.5(9.0)	2800(3400)	<70	65	74	48*50*52
ASAB-11000S	380	28(38)	75(85)	1050(1200)	40(52)	11(12.5)	2800(3400)	<70	120	135	69*58*61

# AIR BLOWER

## How it works

An impeller directly coupled to the extended shaft of an electric motor has a large number of short radial blades that are enclosed in a die cast aluminium casing.

- When the impeller rotates, the air between the blades is radially and circumferentially accelerated and forced where it is again radially and circumferentially accelerated.
- The air is transported along a spiral path through the impeller and the side channel until it reaches the discharge port.
- The unit has only one moving part; a carefully balanced rotating impeller.
- There is no contact between the impeller and the housing thus eliminating abrasion and wear.
- The unit is completely oil free and the suction and discharge ports have built in silencers that reduce noise levels to a minimum.
- The pressure and flow rates have a tolerance of  $\pm 10\%$ .
- Sound-pressure data in accordance to ISO 3746-1979 (E) norms.
- The vacuum curves are valid for pumping air, with a temperature of  $30^{\circ}\text{C}$  at the inlet flange and with a pressure of 1013 mbar at the discharge port.
- The pressure curves are valid for pumping air, with an average temperature of  $30^{\circ}\text{C}$ , a density of  $1,23 \text{ kg/m}^3$  and 1013mbar at the inlet flange.



## Dimensions (in mm)

Size	L	w	H	H1	H2	A	A1	A2	L1	B	G	D	S	C
Ref.Code											Ø	Ø	Ø	
ASAB-250	260	246	247	120	37	90	205	235	62	83	140	49	8.5	M41
ASAB-370	260	246	247	130	38	90	205	235	62	83	140	49	10	M41
ASAB-550	277	268	272	155	47	93	205	265	66	83	162	49	12	M41
ASAB-750	300	286	302	165	58	111	225	265	80	95	173	50	12	M47
ASAB-1100	325	335	340	190	61.5	115	270	300	30	140	200	60	14	M60
ASAB-1500	325	335	340	190	61.5	115	270	300	30	140	200	60	14	M60
ASAB-2200	377	382	385	192	56	125	290	326	103	140	256	60	14	M60
ASAB-3000	402	408	410	210	56	140	313	345	103	140	256	60	14	M60
ASAB-4000	435	418	470	237	110	143	315	330	113	185	280	76	14	G2.5
ASAB-5500	475	446	480	250	118	148	360	415	100	170	288	76	15	G2.5
ASAB-7500	475	446	480	250	118	148	360	415	100	170	288	76	15	G2.5
ASAB-11000	660	550	570	300	92	207	360	415	89		490	110		G4

# HEAT PUMP

## Domestic Heat Pump

- Patented high-performance titanium exchanger has more stable performance and greatly resist erosion of chlorine ion water, solid and durable
- Exterior is Powder coated mild steel, corrosion resistant casing material
- By using high-heat exchanger technology, 65-80% of running cost can be saved compared with other heating machines. It consumes 1kw to produce about 5.5kw heating capacity, possessing high COP
- Remote and intelligent controller design with Celsius or Fahrenheit temperature display for options
- LCD or colorful LED controller for options
- Super power failure memory
- Flow switch built-in to avoid the low level water or devoid of water
- Advanced technology to mute noise from compressors and fans
- Heating and cooling with reversible defrosting
- Guages installed to read pressure of refrigerant, which is an added advantage to monitor compressors

**Note:** Heat pump sizing is influenced by ambient day temperature, humidity, presence of pool cover, night temperature, water features in pool & hours of operation of pool, pool location, wind movement.



### Sizing chart to heat your pool to 28 deg C (Heat pump model no's given)

Pool Size		Temperate Zone		Warm Zone		Cold Zone	
		8-12 hrs / Day		8-12 hrs / Day		8-12 hrs / Day	
in Mtrs	in Ltrs	with Pool cover	without Pool Cover	with Pool cover	without Pool Cover	with Pool cover	without Pool Cover
3 x 7	Up to 30000	14	26	14	26	17	31
4 x 8	Up to 40000	17	31	14	26	26	2x26
5 x 10	Up to 60000	26	2x26	17	31	31	2x31
6 x 12	Up to 90000	31	2x31	26	2x26	2x26	2x 45
6 x 15	Up to 112000	2x26	2x 45	31	2x31	45	2x 45
6 x 18	Up to 130000	45	2x 45	2x26	2x 45	55	2x 55
6 x 21	Up to 160000	55	2x 55	45	2x 45	55	2x 55
6 x 25	Up to 200000	55	2x 55	55	2x 55	2x 45	2x 90

**Temperate Zone:** where minimum average day temperature between October to March are not less than 18 deg C

**Warm Zone:** where minimum average day temperature between October to March are not less than 25 deg C

**Cold Zone:** where minimum average day temperature between October to March are not less than 10 deg C

# HEAT PUMP

## Technical Specification

Ref. Code			HPD5.5	HPD9.5	HPD12.5	HPD17	HPD21	HPD26	HPD31
Measuring conditions A 24°C W 27°C	Heating Capacity	KW	5.3	9.5	12.5	17	21	26	31
	Input Power	KW	1.1	1.73	2.36	2.83	3.5	4.56	5.64
	Running Current	A	4.86	7.85	10.72	12.88	5.83	7.6	9.39
		COP	5.0	5.5	5.3	6	6	5.7	5.5
Measuring conditions A 15°C W 27°C	Heating Capacity	KW	4.6	7.6	10	13.6	16.8	21	26.5
	Input Power	KW	1.04	1.65	2.27	2.83	3.36	4.57	5.76
	Running Current	A	4.72	7.51	10.33	12.88	5.6	7.61	9.6
		COP	4.4	4.6	4.4	4.8	5	4.6	4.6
Measuring conditions A 7°C W 27°C	Heating Capacity	KW	3.5	6.5	8.6	11.5	14.5	17	23.3
	Input Power	KW	0.88	1.71	2.39	3.03	3.63	4.47	6.13
	Running Current	A	4.01	7.78	10.86	13.76	6.04	7.46	10.22
		COP	3.0	3.8	3.6	3.8	4	3.8	3.8
Power Supply	V/PH/HZ	220-240V/1PH/50HZ				380-400V/3PH/50HZ			
Max Heating Input	KW	1.06	2.16	2.95	3.54	4.38	5.7	7.05	
Max Heating Current	A	4.82	9.81	13.4	16.1	7.29	9.5	11.74	
Max Cooling Input	KW	1.29	2.51	3.44	4.58	5.88	6.82	8.93	
Max Cooling Current	A	5.87	11.4	15.65	20.83	9.8	11.37	14.89	
Controller		LED/LCD							
Condenser		Titanium Coil							
Quantity of Compressor		1	1	1	1	1	1	1	
Compressor		Rotary				scroll			
Quantity of Fan		1	1	1	1	1	2	2	
Input Power of Fan	W	71	122	122	122	230	230x2	230x2	
Fan Speed	RPM	850	830	830	830	850	850	850	
Noise	dB(A) (1mtr)	50	54	55	56	56	57	58	
Water Connection	inch	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	
Water Flow Rate	m <sup>3</sup> /h	3	6	7	10	12	15	18	
Water Pressure Drop	kpa	10	12	12	14	16	16	18	
Net Dimension	L	mm	935	1015	1015	1080	1078	1078	1078
	W	mm	360	370	370	416	416	416	416
	H	mm	520	621	621	708	958	1258	1258
Weight	Net Weight	kg	48	60	64	85	105	140	145
	Gross Weight	kg	52	67	71	93	118	152	157
Function		Heating & cooling with reversible defrosting							

A - Air temperature outside

W - Water temperature in pool

Note: These Heat pumps are axial fan pumps designed for outdoor installation only.

# HEAT PUMP

## Commercial Heat Pump

- Patented high-performance titanium exchanger has more stable performance and greatly resist erosion of chlorine ion water, solid and durable
- Exterior is powder coated mild steel corrosion resistant casing material
- By using high-heat exchanger technology, 65-80% of running cost can be saved compared with other heating machines. It consumes 1kw to produce about 5.5kw heating capacity, possessing high COP
- Remote and intelligent controller design with Celsius or Fahrenheit temperature display for options
- LCD or colorful LED controller for options
- Super power failure memory
- Flow switch built-in to avoid the low level water or devoid of water
- Advanced technology to mute noise from compressors and fans
- Heating and cooling with reversible defrosting
- Gauges installed to read pressure of refrigerant, which is an added advantage to monitor compressors



**Note:** Heat pump sizing is influenced by ambient day temperature, humidity, presence of pool cover, night temperature, water features in pool & hours of operation of pool, pool location, wind movement.

### Sizing chart to heat your pool to 28 deg C (Heat pump model no's given)

Pool Size		Temperate Zone		Warm Zone		Cold Zone	
		8-12 hrs / Day		8-12 hrs / Day		8-12 hrs / Day	
in Mtrs	in Ltrs	with Pool cover	without Pool Cover	with Pool cover	without Pool Cover	with Pool cover	without Pool Cover
3 x 7	Up to 30000	14	26	14	26	17	31
4 x 8	Up to 40000	17	31	14	26	26	2x26
5 x 10	Up to 60000	26	2x26	17	31	31	2x31
6 x 12	Up to 90000	31	2x31	26	2x26	2x26	2x 45
6 x 15	Up to 112000	2x26	2x 45	31	2x31	45	2x 45
6 x 18	Up to 130000	45	2x 45	2x26	2x 45	55	2x 55
6 x 21	Up to 160000	55	2x 55	45	2x 45	55	2x 55
6 x 25	Up to 200000	55	2x 55	55	2x 55	2x 45	2x 90

**Temperate Zone:** where minimum average day temperature between October to March are not less than 18 deg C

**Warm Zone:** where minimum average day temperature between October to March are not less than 25 deg C

**Cold Zone:** where minimum average day temperature between October to March are not less than 10 deg C

# HEAT PUMP

## Technical Specification

Ref.Code			HPC35	HPC45	HPC55	HPC70	HPC90	HPC105	HPC135
Measuring conditions A26 deg C W 27 deg C @ 80% RH	Heating capacity	KW	38	48	55	82	95	118	140
	Input power	KW	6.90	8.70	9.82	16.07	17.00	20.5	25.45
	Running Current	A	14.5*3	15.2*3	16.8*3	29.7*3	34.0*3	40.0*3	52*3
		COP	5.50	5.45	5.60	5.10	5.86	5.79	5.5
Measuring conditions A15 deg C W 27 deg C @ 80% RH	Heating capacity	KW	28.81	38	42	66.5	73.8	86.2	112.5
	Input power	KW	6.26	8.00	8.75	13.85	16.20	18.9	24.1
	Running Current	A	12.9*3	14.2*3	15.6*3	27.7*3	31.1*3	38.0*3	48.5*3
		COP	4.60	4.75	4.80	4.80	4.55	4.56	4.6
Measuring conditions A 7 deg C W 27 deg C @ 80% RH	Heating capacity	KW	20.65	28.12	30.82	44.40	60.00	70	88
	Input power	KW	5.90	7.60	8.40	12.00	15.80	17.94	23.2
	Running Current	A	12.0*3	13.3*3	14.9*3	24.5*3	29.1*3	35.0*3	44.5*3
		COP	3.50	3.70	3.67	3.70	3.80	3.9	3.8
Max Heating Input		KW	9.0	11.4	14.0	18.0	20.0	25	34.5
Max Heating Current		A	15.7*3	21.2*3	26.1*3	30.3*3	40.5*3	45.8*3	61.5*3
Power supply		V/PH/HZ	380-400V /3PH/50HZ						
Controller			LED/LCD						
Condenser			Titanium Coil						
Quantity of compressor			2			3			4
Compressor			Scroll						
Noise level		Db (A) (1 meter)	60				62	63	65
Water connection		inch	2			2-1/2	2 / 2½	3	3
Water flow rate		Cu mtr /hr (min -max)	13-19	14-21		25-30	30-36	45-50	70-77
Net dimension	L	mm	1450			2037		2000	2300
	W	mm	710			1037		1100	1100
	H	mm	1060			1360		2080	2300
Weight	Net weight	kg	235	260	260	452	510	582	612
	Gross weight	kg	265	290	290	550	570	642	675
Function			Heating & cooling with reversible defrosting						

A - Air temperature outside

W - Water temperature in pool

**Note:** These Heat pumps are axial fan pumps designed for outdoor installation only.

# HEAT PUMP

## Invertor Heat Pump

### Eco-friendly R32

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

### Smart WIFI Control

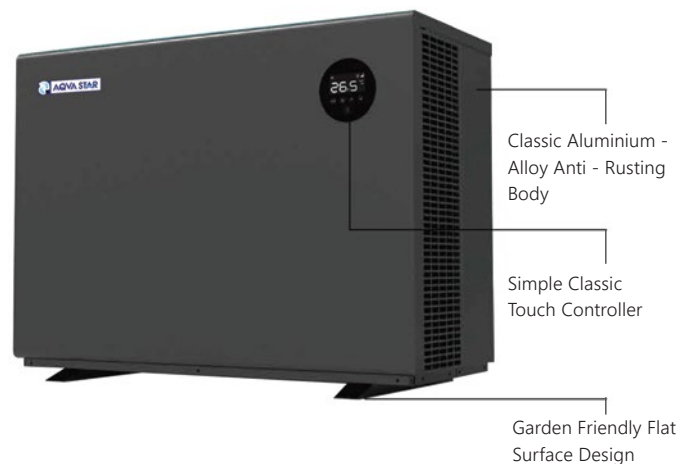
With Mr. Silence's smart APP control you can check or control your Mr. Silence anywhere

### Full Protection on Electrical system

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

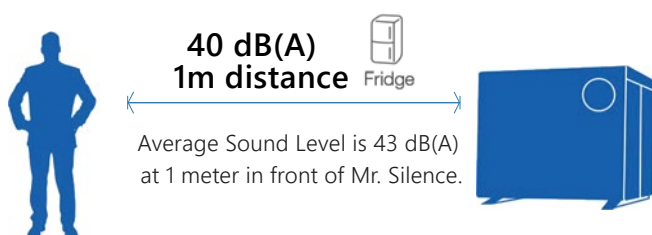
### Wide Voltage Application

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-stream design & stepless DC inverter system of Inverquark technology, the sound level of Mr. Silence is low as a fridge.



# HEAT PUMP

## Technical Specification

Model	AS70I	AS90I	AS110I	AS130I	AS150I	AS170I	AS210I	AS280I	AS280SI	AS350SI
<b>PERFORMANCE CONDITION: Air 27°C/Water 27°C/Humid. 80%</b>										
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
<b>PERFORMANCE CONDITION: Air 15°C/ Water 26°C/Humid. 70%</b>										
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
<b>TECHNICAL SPECIFICATIONS</b>										
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 and Inner Metal Frame									
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	9.5
Power cord (mm <sup>2</sup> )	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 <sup>3</sup> /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	130
Net dimension LxWxH (mm)	890*440*658	890*440*658	890*440*658	890*440*658	970*440*658	1060*440*658	1060*440*758	1060*440*958	1060*440*958	1365*544*958

## Average-COP 10.7

COP range 15.8-7.0 (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  
90% OF YOUR ENERGY BILL**

# ELECTRIC HEATERS

## Aqua compact 3-18 kW

Electric heater made of thermoplastic for extra strength. Heating element made of Incoloy 825 or titanium for extra safety in installations where there is a high risk of corrosion, e.g., salt water pools.

Supplied with a thermostat for adjusting pool temperature as well as overheating cut out and flow switch. Minimum flow 90 l/min.

**Max. pressure: 2.5 bar.**

**Suitable for private pools up to 100 m<sup>3</sup>**

### Features

- Electric heater made of berglass reinforced thermoplastic
- Housing of thermoplastic
- Horizontal installation, eliminates air pockets and damage to the electric heating element
- Heating elements of titanium
- Equipped with overheating cut out and flow switch
- Slip connections for bonding of  $\varnothing$  50 mm pipes

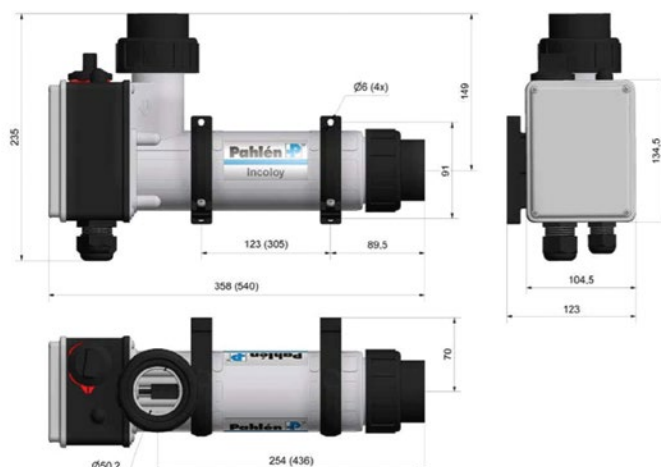
### Technical specification

Heating element Incoloy 825      Heating element titanium      Ampere 3-phase

Item no.	Type	kg	Item no.	Type	kg	kW	230V 3~	400V 3~
141600	AC30	1.7	141600T	AC30T	1.7	3.0	8	5
141601	AC60	1.7	141601T	AC60T	1.7	6.0	15	9
141602	AC90	1.7	141602T	AC90T	1.7	9.0	23	14
141603	AC120	2.2	141603T	AC120T	2.1	12.0	31	18
141604	AC150	2.2	141604T	AC150T	2.1	15.0	38	22
141605	AC180	2.2	141605T	AC180T	2.1	18.0	46	27

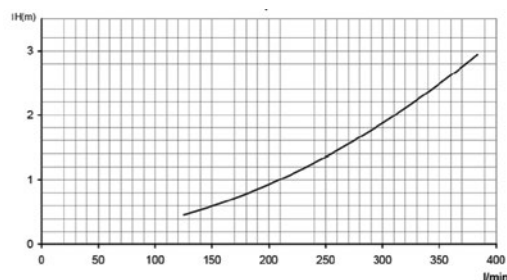
Also available with connections 1 1/2" pipe add a "A" after the item no. or 1 1/2" threaded add a "B" after the item no.

**For pools with salt water or chlorinator we recommend a heating element of titanium.**



### Dimension for 12-18kw within brackets

Elvärmare Plast  
Pressure drop



# ELECTRIC HEATERS

## MidiHeat 18-72kW

MidiHeat is manufactured from materials of the highest quality. The casing made of powder coated zinc sheet not only gives the product a very stable construction, it also makes the product highly resistant against corrosion.

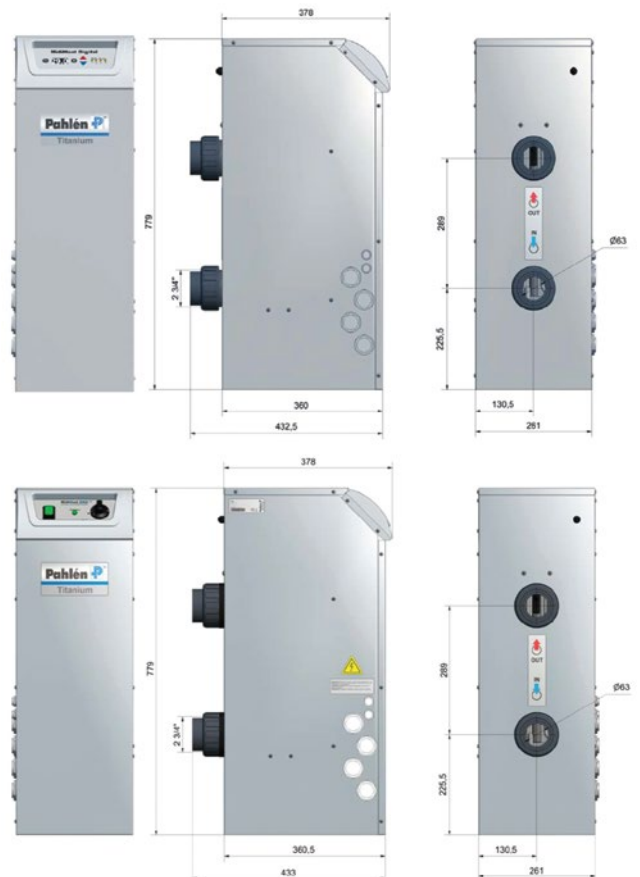
MidiHeat has a temperature range of 8-45°C. Heating elements of titanium does not only make the heating highly effective, it also makes the heating element fully corrosion free.

### Additional Features

For the optimal safety and in accordance with applicable electrical safety standards MidiHeat has two built-in contactors for each heating element. A built-in flow switch and an overheating protection accompanied by an external input for pool water circulation.

- Connections for bonding of Ø 63 mm tube. Minimum Flow 170 l/min. Max flow 300 l/min. Max pressure: 2 bar.
- MidiHeat functions extremely well in fresh water pools and in pools fitted with a salt chlorinator.
- MidiHeat is also available in an analog version.

Fast and efficient heating in an new smart design, modern materials and built for the future.



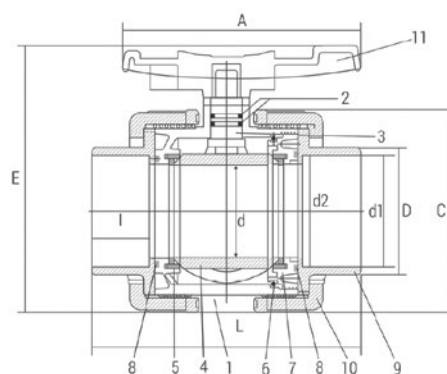
## FLOW CONTROL

### Double Union Ball valve

- UPVC and ABS construction.
- 316 grade stainless steel components.
- Up to 10 BAR pressure rated.
- PVC-U body.
- Light body weight & compact double union structure.
- Handle can be used as tool to adjust threaded seal carrier.
- Ball seat in HDPE.
- O-Rings in EPDM.
- Teflon seals.
- Quick installation.
- Metric series.
- Female solvent socket.



NO.	PART	MATERIAL	QUANTITY
1	BODY	UPVC	1
2	STEM O-RING	EPDM	2
3	STEM	UPVC	1
4	BALL	UPVC	1
5	SEAT SEAL	TPE, TPV, TPO	2
6	CARRIER O-RING	EPDM	1
7	SEALCARRIER	UPVC	1
8	UNION O-RING	EPDM	2
9	END CONNECTOR	UPVC	2
10	UNION NUT	UPVC	2
11	HANDLE	PVC, ABS	1



Ref. Code	Product Details
ASDUS050B	Double union ball valve, socketed end, 20 mm 1/2" size, BS Std
ASDUS075B	Double union ball valve, socketed end, 25 mm 3/4" size, BS Std
ASDUS100B	Double union ball valve, socketed end, 32 mm 1" size, BS Std
ASDUS125B	Double union ball valve, socketed end, 40 mm 1 1/4" size, BS Std
ASDUS150B	Double union ball valve, socketed end, 50 mm 1 1/2" size, BS Std
ASDUS200B	Double union ball valve, socketed end, 63 mm 2" size, BS Std
ASDUS250B	Double union ball valve, socketed end, 75 mm 2 1/2" size, BS Std
ASDUS300B	Double union ball valve, socketed end, 90 mm 3" size, BS Std

ASTM std valves are also available

### Dimensions (in mm)

SIZE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
I	16.10	18.50	21.00	26.50	31.30	38.00	41.00	51.50	61.00
d1	20.30	25.30	32.30	40.30	50.30	63.30	75.30	90.30	110.40
d2	20.00	25.00	32.00	40.00	50.00	63.00	75.00	90.00	110.00
d	15.00	20.00	25.00	30.00	38.00	48.00	59.00	72.00	96.00
C	56.00	60.00	69.00	80.00	95.00	116.00	139.00	170.00	210.00
E	79.00	90.00	103.00	122.00	139.00	166.00	190.00	235.00	277.00
A	67.00	78.00	87.00	102.00	120.00	146.00	178.00	210.00	250.00
L	83.00	94.00	107.00	122.00	146.00	171.00	210.00	246.00	283.00
D	28.80	35.00	43.00	52.00	62.00	75.50	88.50	106.00	131.00

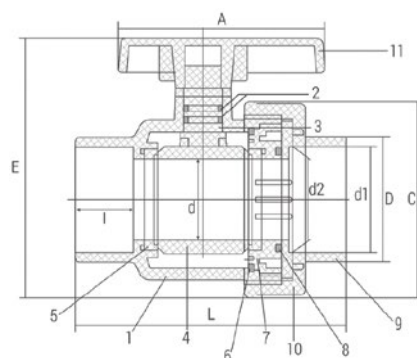
## FLOW CONTROL

### Single Union Ball valve

- UPVC and ABS construction.
- 316 grade stainless steel components.
- Up to 10 BAR pressure rated.
- PVC-U body.
- Light body weight & single union structure.
- Handle can be used as tool to adjust threaded seal carrier.
- Female solvent socket.
- Metric series.
- Ball seat in HDPE.
- O-Rings in EPDM.
- Teflon seals.
- Quick installation.



NO.	PART	MATERIAL	QUANTITY
1	BODY	UPVC	1
2	STEM O-RING	EPDM	2
3	STEM	UPVC	1
4	BALL	UPVC	1
5	SEAT SEAL	TPE, TPV, TPO	2
6	CARRIER O-RING	EPDM	1
7	SEALCARRIER	UPVC	1
8	UNION O-RING	EPDM	1
9	END CONNECTOR	UPVC	1
10	UNION NUT	UPVC	1
11	HANDLE	PVC	1



Ref. Code	Product Details
ASSUS050B	Single union ball valve, socketed end, 20 mm 1/2" size, BS Std
ASSUS075B	Single union ball valve, socketed end, 25 mm 3/4" size, BS Std
ASSUS100B	Single union ball valve, socketed end, 32 mm 1" size, BS Std
ASSUS125B	Single union ball valve, socketed end, 40 mm 1 1/4" size, BS Std
ASSUS150B	Single union ball valve, socketed end, 50 mm 1 1/2" size, BS Std
ASSUS200B	Single union ball valve, socketed end, 63 mm 2" size, BS Std
ASSUS250B	Single union ball valve, socketed end, 75 mm 2 1/2" size, BS Std
ASSUS300B	Single union ball valve, socketed end, 90 mm 3" size, BS Std

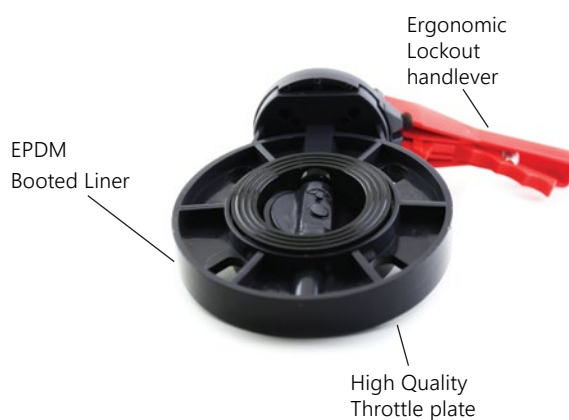
#### Dimensions (in mm)

SIZE	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
I	16.10	18.50	21.00	26.50	31.30	38.00	41.00	51.50	61.00
d1	20.30	25.30	32.30	40.30	50.30	63.30	75.30	90.30	110.40
d2	20.00	25.00	32.00	40.00	50.00	63.00	75.00	90.00	110.00
d	15.00	20.00	25.00	30.00	38.00	48.00	59.00	72.00	96.00
C	56.00	60.00	69.00	80.00	95.00	116.00	139.00	170.00	210.00
E	79.00	90.00	103.00	122.00	139.00	166.00	192.00	235.00	277.00
A	63.00	72.00	75.00	85.00	95.00	110.00	128.00	139.00	160.00
L	76.00	87.00	101.00	114.00	137.00	163.00	198.00	230.00	274.00
D	28.80	35.00	43.00	52.00	62.00	75.50	88.50	106.00	131.00

# FLOW CONTROL

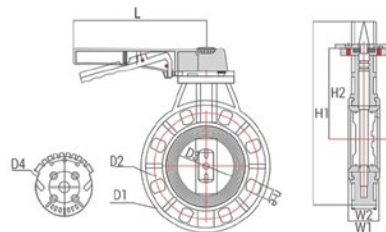
## Butterfly valve

- Disc available in different materials (PVC-U, CPVC, PP-H).
- Ideally suited for flow control using minimal piping space.
- 100% factory tested.
- Minimal pressure drop.
- Built in lockout feature to prevent undesired operations.
- Stainless steel shaft (AISI 630).
- Sleek PP handle.
- Low maintenance.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Good mechanical strength.
- One piece PP - GF body.



### Parts List

1. Operator (Lever or Gear).
2. Bezel (Screw).
3. SSSL Stem.
4. Throttle Plate with Screws
5. Disc.
6. Body.
7. Liner



Ref. Code	Product Details
BFT200F	Butterfly valve, flanged end, 63 mm 2" size, BS Std
BFT250F	Butterfly valve, flanged end, 75 mm 2 1/2" size, BS Std
BFT300F	Butterfly valve, flanged end, 90 mm 3" size, BS Std
BFT400F	Butterfly valve, flanged end, 110 mm 4" size, BS Std
BFT600F	Butterfly valve, flanged end, 160 mm 6" size, BS Std
BFT800F	Butterfly valve, flanged end, 200 mm 8" size, BS Std

### Dimensions (in mm)

SIZE	2"	2-1/2"	3"	4"	6"	8"
D1	160	180	195	228	286	344
D2	100-122	138-143	138-158	150-184	238-242	292-300
D3	56	70	84	103	150	198
D4	100	100	100	100	140	140
L	190	190	240	240	310	310
W1	44	49	52	55	75	93
H1	224	247	284	320	400	475
H2	100	115	135	157	190	230
n-Øe	4-20	4-20	8-20	8-20	8-24	8-24



## FLOW CONTROL

### Wafer check valve

- Disc available in different materials (PVC-U, CPVC, PP-H).
- Ideally suited for flow control using minimal piping space.
- 100% factory tested.
- Minimal pressure drop.
- UPVC grey clip.
- Low maintenance.
- Resistance to many inorganic chemicals.
- Excellent flow characteristics.
- Good mechanical strength.
- One piece PP - GF body.

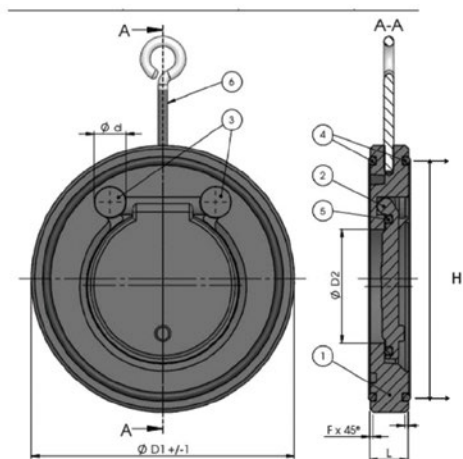
#### Parts List

1. Body.
2. Disc.
3. Clip.
4. O-ring body.
5. O-ring disc.
6. Ring bolt.

Ref. Code	Product Details
FCV200	Wafer check valve flanged end 63mm 2" size, BS Std
FCV250	Wafer check valve flanged end 75mm 2 1/2" size, BS Std
FCV300	Wafer check valve flanged end 90mm 3" size, BS Std
FCV400	Wafer check valve flanged end 110mm 4" size, BS Std
FCV600	Wafer check valve flanged end 160mm 6" size, BS Std
FCV800	Wafer check valve flanged end 200mm 8" size, BS Std

#### Dimensions (in mm)

SIZE	2"	2 1/2"	3"	4"	6"	8"
$\varnothing D1$ +/-1	109	129	144	164	220	275
$\varnothing D2$ +/-1	32	40	55	70	110	149
$\varnothing d$	12	12	14	20	20	20
L +/-1	20	20	21	23	26	34
H	99	99	114	143	197	197



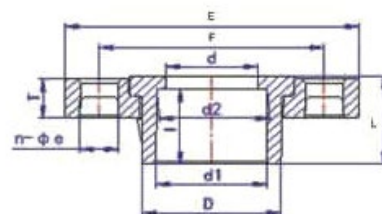
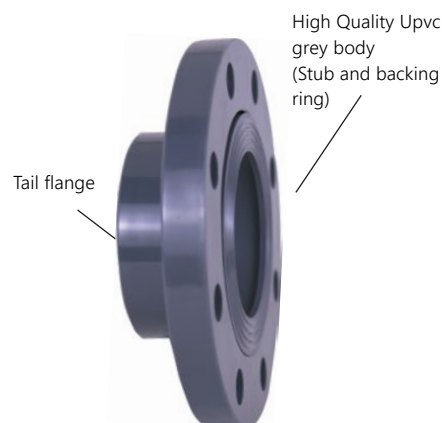
# FLOW CONTROL

## Flange Adaptor

Ref. Code	Product Details
FLT200	Flange Adaptor (Stub & Backing Ring) 63mm 2" size, BS Std
FLT250	Flange Adaptor (Stub & Backing Ring) 75mm 2 1/2" size, BS Std
FLT300	Flange Adaptor (Stub & Backing Ring) 90mm 3" size, BS Std
FLT400	Flange Adaptor (Stub & Backing Ring) 110mm 4" size, BS Std
FLT600	Flange Adaptor (Stub & Backing Ring) 160mm 6" size, BS Std
FLT800	Flange Adaptor (Stub & Backing Ring) 200mm 8" size, BS Std

### Dimensions (in mm)

SIZE	2"	2 1/2"	3"	4"	6"	8"
D	72	87.5	104.5	131.5	191	246
F	125	145	160	180	241	298
E	165	185	200	220	280	343
n-øe	4-18	4-18	8-18	8-18	8-18	8-23
I	37	45	50	57	78	104
D	53	61	74	100	145	189
L	42.5	48	53	63	84	110
T	20	21	22	26.5	30	35





## FLOW CONTROL

### Single Union Check valve

- UPVC and ABS construction.
- 316 grade stainless steel components.
- Up to 10 BAR pressure rated.
- PVC-U body.
- Light body weight & single union structure.
- Female solvent socket.
- Metric series.
- O-Rings in EPDM.
- Teflon seals.
- Quick installation.



NO.	PART	MATERIAL	QUANTITY
1	BODY	UPVC	1
2	SPRING	SS	1
3	SEAT SEAL	TPE, TPV, TPO	2
4	CARRIER O-RING	EPDM	1
5	SEALCARRIER	UPVC	1
6	UNION O-RING	EPDM	1
7	END CONNECTOR	UPVC	1
8	UNION NUT	UPVC	1

Ref. Code	Product Details
SUCV150B	Single union check valve, socketed end, 50 mm 1 1/2" size, BS Std
SUCV200B	Single union check valve, socketed end, 63 mm 2" size, BS Std

ASTM std valves are also available

### Double Union Check valve

- UPVC and ABS construction.
- 316 grade stainless steel components.
- Up to 10 BAR pressure rated.
- PVC-U body.
- Light body weight & compact double union structure.
- Ball seat in HDPE.
- O-Rings in EPDM.
- Teflon seals.
- Quick installation.
- Metric series.
- Female solvent socket.



NO.	PART	MATERIAL	QUANTITY
1	BODY	UPVC	1
2	SPRING	SS	1
3	SEAT SEAL	TPE, TPV, TPO	2
4	CARRIER O-RING	EPDM	1
5	SEALCARRIER	UPVC	1
6	UNION O-RING	EPDM	2
7	END CONNECTOR	UPVC	2
8	UNION NUT	UPVC	2

Ref. Code	Product Details
ASDCV100B	Double union check valve, socketed end, 32 mm 1" size, BS Std
ASDCV150B	Double union check valve, socketed end, 50 mm 1 1/2" size, BS Std
ASDCV200B	Double union check valve, socketed end, 63 mm 2" size, BS Std

ASTM std valves are also available

## U-PVC VALVES

SOLVENT CEMENT SOCKETED & THREADED BALL VALVES

PRODUCTION STANDARDS TS EN ISO 16135

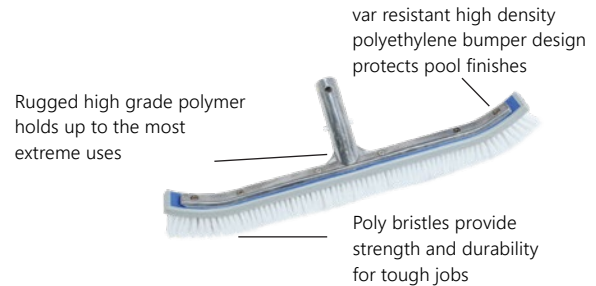
Size Ø20-Ø 400



## MAINTENANCE EQUIPMENTS

### Oversized Pool Brush

- 450mm long heavy duty, long lasting poly bristles
- Rugged high grade polymer handle
- Effortlessly cleans concrete, fiberglass and vinyl pool walls and cover larger areas
- Var resistant bumper design prevents scratches on pool or liner walls
- Works with any standard 1 1/4" (32mm) diameter pole



Ref. Code	Product Details
ASWBH	18" (450mm) Heavy duty wall brush with poly bristle, Dark blue colour

### Algae Brush

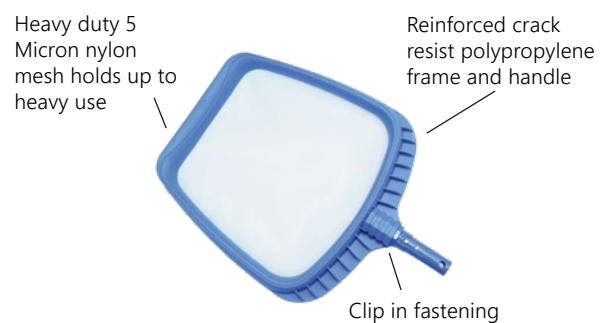
- Heavy duty stainless steel bristles provide scouring might to eliminate algae growth on the bottom of concrete pools eliminating unnecessary chemical activities
- Durable polymer with clip in fastening
- Works with any standard 1 1/4" (32mm) diameter pole



Ref. Code	Product Details
ASABH10	10" (250mm) Algae brush with SS bristles, Dark blue in colour
ASABH5	5" (125mm) Algae brush with SS bristles, Dark blue in colour

### Contoured Leaf Skimmer

- Lightweight contoured design effortlessly skims leaves and debris floating on water's surface
- Reinforced corrosion resist plastic frame prevents scratches on pool walls
- Durable pocket screening made of close netting (5 microns)
- Works with any standard 1 1/4" (32mm) diameter pole



Ref. Code	Product Details
ASFNH	Heavy duty flat net with 5 Micron mesh, Dark blue color

## MAINTENANCE EQUIPMENTS

### Contoured leaf rake

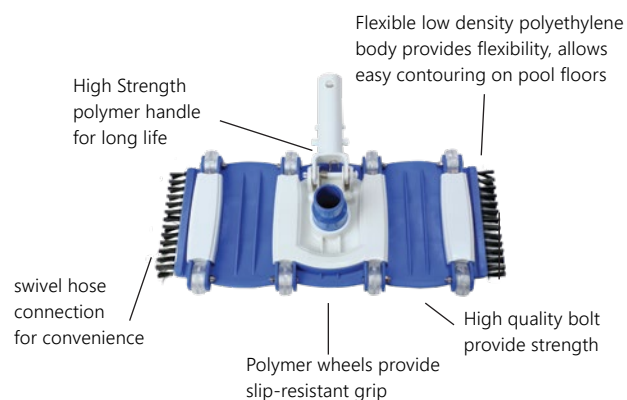
- Lightweight contoured design effortlessly skims leaves and debris from the bottom of the pool
- Reinforced corrosion resist plastic frame prevents scratches on pool walls
- Durable pocket screening made of close netting (5 microns)
- Works with any standard 1 1/4" (32mm) diameter pole



Ref. Code	Product Details
ASDNH	15" deep net with 5 micron mesh, Dark blue color

### Flex Vacuum Head

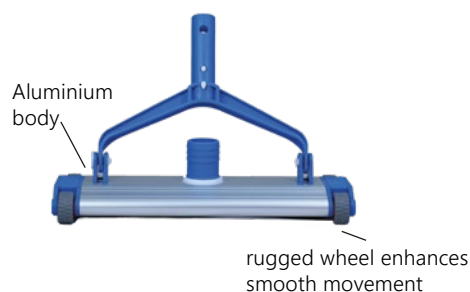
- Designed for hard-surface pools, weighted flexible body resists floating
- High strength polymer quick change handle fits standard 1- 1/4" (32mm) diameter pole and swivel vacuum connector fits 1-1/2" (38mm) diameter hose



Ref. Code	Product Details
ASFVH350P	350mm Long flexible vacuum head with swivel hose connection, clip in fastening, Dark blue color

### Aluminium Vacuum Head

- Heavy duty aluminium body for semi commercial applications
- High quality rugged wheels make the body movement smoothly
- Works with any standard 1 1/4" (32m) diameter pole

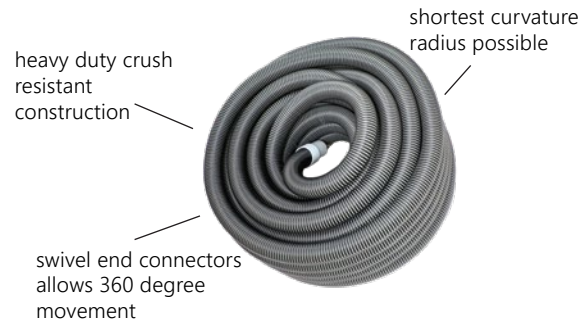


Ref. Code	Product Details
ASALVH350	350mm Long anodised aluminium vacuum head with swivel hose connection, Silver colour
ASALVH450	450mm Long anodised aluminium vacuum head with swivel hose connection, Silver colour

## MAINTENANCE EQUIPMENTS

### Bicolor Pool Hose

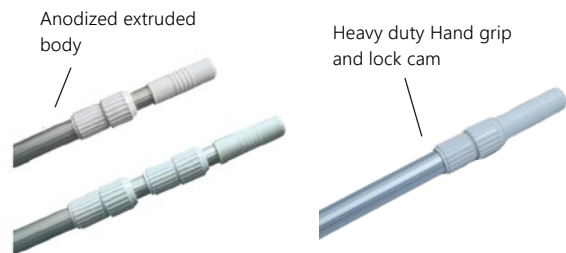
- Transparent hose piping with a spiral reinforcement in blue, Grey black highly flexible, manufactured from EVA (Ethyl Vinyl Acetate)
- Hoses manufactured with corrugated structure and rounded profile for greater floatability during service work
- Smooth spiral inner wall design for superior water flow
- Swivel cuff provides flexibility and kink - free operation
- UV and Chemical resistant
- H<sub>2</sub>O Suction vacuum 8m.



Ref. Code	Product Details	Ref. Code	Product Details
ASHS06	6 Mtr hose pipe	ASHS18	18 Mtr hose pipe
ASHS09	9 Mtr hose pipe	ASHS20	20 Mtr hose pipe
ASHS12	12 Mtr hose pipe	ASHS25	25 Mtr hose pipe
ASHS15	15 Mtr hose pipe	ASHS30	30 Mtr hose pipe

### Telescopic pole

- Features 1 mm thick heavy duty weight anodized extruded aluminium corrugated/ ribbed style poles.
- Durable fast lock telescopic pole with smooth grips and external locking cams.
- Length adjusts easily.
- Pole features standard 1 1/4" (32mm) diameter.
- To fit any standard international style rake, skimmer, brush & vacuum head.



Ref. Code	Product Details
AS412	4 - 12' Pole corrugated, Silver color
AS816	8 - 16' Pole corrugated, Silver color
AS1030	9 - 27' Pole corrugated, Silver color

### Pool Testing Accessories

Ref. Code	Product Details
AS - TK	3 way test kit (PH /CL/ BR)
AS - TKS	Test kit spare
AS - TS	3 way test strips





# Discover the Hayward Commercial Aquatics Try it, Spec it, Love it Program

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# PVC/ ACRYLIC WATERFALL

## PVC/Acrylic Waterfall

Perhaps our best selling water feature types because of their sheer visual impact and flexibility. Typically a hidden feature, our waterfalls and their variations come in virtually any length by adding each other.

### Features:

- Classic look and design
- Standard sheeting fall looks amazing
- 300,600,900,1200,1500mm wide, 200mm extended lip
- Material - PVC/ACRYLIC
- Maximum installation height as recommended below
- Extra 40mm FTA and solvent connection with the unit

Water fall comes with removable /replaceable LED strip light. It comes with a remote control capable to control lighting type & pattern.


- It is possible to change light colour between even fixed colours
- Seven fixed colours blinking
- Different speed of colour changing
- Brightness adjustment.

The colours available are, White, Red, Light green, Blue / purple, Yellow, Dark green & Pink. Once you set desired effect the system comes with same colour and effect, Whenever you switch on/off till you change the programme.

### WIRING & DRIVER

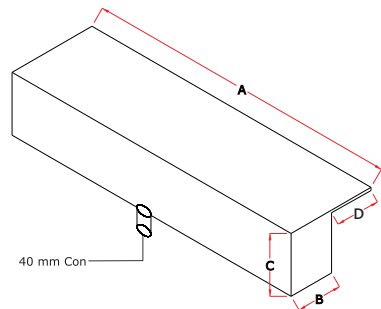
It comes with 5 mtr standard wiring with LED driver AC adaptor. For more length you may please cut cable appropriately & extend cable & connect with same adaptors. These adaptors are not water proof so please protect accordingly.

### Technical Specification

Effect	Ref Code	PVC Threaded / Solvent Connection	Flow details in LPM	MAX Recommended height in mm	Dimensions in mm			
					A	B	C	D
	ASWF300A	40mm	50	300	300	70	80	130
	ASWF600A	40mm	100	750	600	70	80	130
	ASWF900A	2x40mm	150	1000	900	70	80	130
	ASWF1200A	2x40mm	200	1200	1200	70	80	130

### Note:

1. Please change the battery if system is not allowing you to change the desired pattern.
2. You shall install more than recommended height but please expect an unclear sheet fall in the bottom portion.



## SS WATERFALL

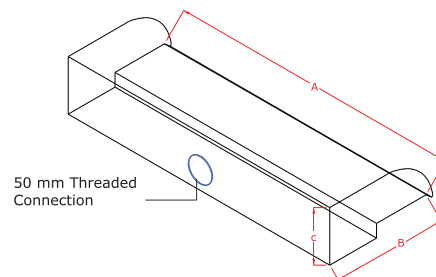
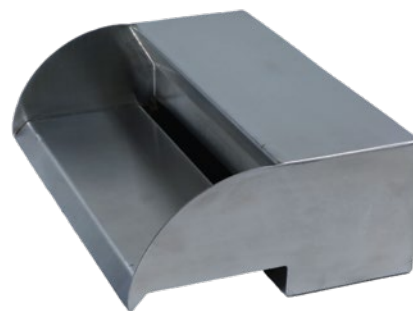
### SS Waterfall

More bathing pleasure with a water curtain or a water cannon made of acid proof stainless steel (316) with polished surface comes with internal diverter to ensure smooth water flow without turbulence.



Front View

Ref Code	PVC Threaded Connection	Flow details in LPM	MAX Recommended height in mm	Dimensions in mm		
				A	B	C
ASWF300SS	50mm	50	300	300	195	100
ASWF600SS	50mm	100	750	600	195	100
ASWF900SS	2x50mm	150	1000	900	195	100
ASWF1200SS	2x50mm	200	1200	1200	195	100

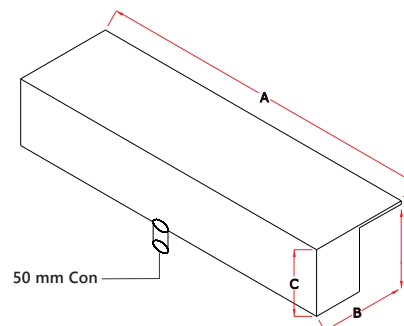


### SS Waterfall Lip Type



Front View

Ref Code	PVC Threaded Connection	Flow details in LPM	MAX Recommended height in mm	Dimensions in mm		
				A	B	C
ASWF300SL	50mm	50	300	300	140	80
ASWF600SL	50mm	100	750	600	140	80
ASWF900SL	2x50mm	150	1000	900	140	80
ASWF1200SL	2x50mm	200	1200	1200	140	80



#### Note:

1. Above waterfall can also be supplied with lights on request (Shape similar to acrylic water fall).
2. Any other sizes can also be arranged on request.



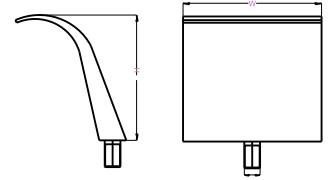
## SS WATER CURTAIN

### SS Water Cannon

#### WATER CANNON - MINI 300

##### ASCANMINI300

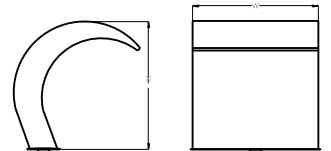
- Flow - 7 m<sup>3</sup>/hr
- Height - 300mm
- Width - 300mm
- Inlet connection - 1" (50mm)



#### WATER CANNON - MINI 500

##### ASCANMINI500

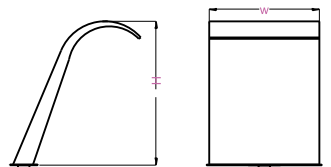
- Flow - 16 m<sup>3</sup>/hr
- Height - 500mm
- Width - 500mm
- Inlet connection - 2" (63mm)



#### WATER CANNON - MAXI 500

##### ASCANMAXI500

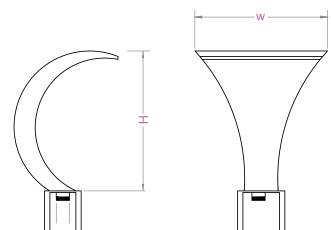
- Flow - 16 m<sup>3</sup>/hr
- Height - 500mm
- Width - 500mm
- Inlet connection - 2" (63mm)



#### COBRA WATERFALL - MINI 500

##### ASCOBMINI500

- Flow - 16 m<sup>3</sup>/hr
- Height - 500mm
- Width - 500mm
- Inlet connection - 2" (63mm)



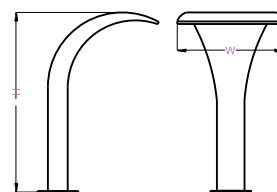
# SS WATER CURTAIN

## SS Water Cannon

### COBRA WATER FALL - MAXI 500

#### ASCOBMAXI500

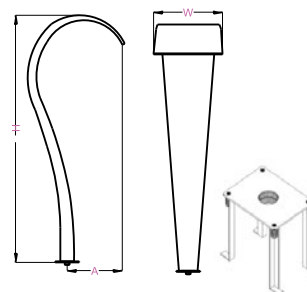
- Flow - 16 m<sup>3</sup>/hr
- Height - 500mm
- Width - 500mm
- Inlet connection - 2" (63mm)



### COBRA WATER FALL - ULTRA 400

#### ASCOBUL400

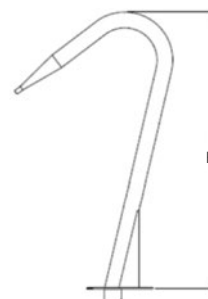
- Flow - 11 m<sup>3</sup>/hr
- Height - 1000mm
- Width - 400mm
- Inlet connection - 2" (63mm)



### WATER SPOUT (38mm)

#### ASSPT100

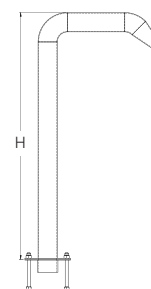
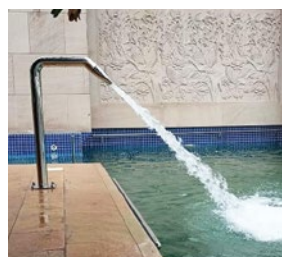
- Flow - 7 m<sup>3</sup>/hr
- Height - 757mm
- Inlet connection - 1" (32mm)



### WATER SPOUT (63mm)

#### ASSPT200

- Flow - 15 m<sup>3</sup>/hr
- Height - 810mm
- Inlet connection - 2" (63mm)



#### Note :

All SS water cannon comes with installation kit as standard. This makes installation very easy at site  
All SS Water Cannon are made of SS316

# WATER ATTRACTIONS

## JET SWIM COUNTERFLOW

With a motor power of 2.2Kw (motion) or 4Kw (athlete) and with jet streams of 46 m<sup>3</sup>/h (motion) or 68 m<sup>3</sup>/h (athlete), you can easily exercise your strength and physical fitness. Jet Swim Motion is started by pressing a pushbutton on the front. The air mixture in the jet streams are adjusted seamlessly in order to suit your personal needs. In its modern minimalistic design, a discreet handle is hidden and integrated in the front. Jet Swim Motion is available in both Classic and Marine design and meets the requirements for the pool standard EN 16582

### JET SWIM MOTION

#### FEATURES

- New flow technology with two oval nozzles
- Adjustable air mixture
- Modern and minimalistic design
- Integrated handle
- Pneumatic starting button
- Meets the requirements for pool standards
- High-class motor

### JET SWIM ATHLETE

#### FEATURES

- Stainless steel front AISI 316L / 14A
- New flow technology with two oval nozzles
- Adjustable water flow
- Modern and minimalistic design
- Pneumatic start button
- Meets the requirements of pool standard
- EN 16713
- Bronze pump with highly efficient pump (class IE3)

### JET SWIM 2000

#### FEATURES

- Bronze and acid proof stainless steel
- Pump capacity at 71 m<sup>3</sup>/h
- Adjustable water flow
- Adjustable jet streams
- Adjustable setting of the air mixture
- Polished stainless steel front
- High-class motor
- Meets requirements of pool standard EN13451, EN16582, EN16713



#### Technical Specification

Motor Power	2.2 Kw	Pump capacity	46 m <sup>3</sup> /h
Motor Voltage	3~230/400 V	Pipe connection	2"
Ampere 230/400	8,0/4,6 A	Materials	PC/stainless steel



#### Technical Specification

Motor Power	4 Kw	Pump capacity	68 m <sup>3</sup> /h
Motor Voltage	3~230/400 V	Pipe connection	2 1/2"
Ampere 230/400	13,9/8,0 A	Materials	PC/stainless steel



#### Technical Specification

Type	2000	Pump capacity	71 m <sup>3</sup> /h
Motor	4.0 kW	Pipe connection	2 1/2"
Voltage, 50Hz	230/400 V	Materials	Bronze/stainless steel
Power, 230/400	13.9/8.0 A		

# WATER ATTRACTIONS

## JET SWIM COUNTERFLOW

### REVOLUTIONARY NATURAL SWIMMING SENSATION!

*Jet Swim Motion is made of acid-proof stainless steel AISI 316L and has a completely new flow technique with two oval nozzles, of which the lower is directed downward for a more even distribution of the streams. This provides a much more natural swimming technique compared to most counter-current units found on the market.*

#### JET SWIM



#### OTHER COUNTER-CURRENT UNIT



\*PAHLEN A - Consists of 1302100 + 1312130

For complete Jet Swim Athlete consists of a Jet unit, assembly kit, pump and control box (**Pumps and valves are not included!**)

For options to fiberglass/PP-plastic pools contact AQVASTAR for more information

Item no.	Jet Swim Athlete*
1302100	Jet Swim Athlete
1302130	Assembly Kit Jet Swim Athlete concrete
1302185	Jet Swim Athlete Pump 50Hz
1302185HZ	Jet Swim Athlete Pump 60Hz
1302090	Jet Swim 2000 Athlete Control box 400/3~
33045	Jet Swim Athlete steel / liner complete unit
33046	Jet Swim Athlete concrete / liner complete unit

\*PAHLEN M - Consists of 33030 + 1302010

A complete Jet Swim Motion consists of jet unit, assembly kit, pump and control box.

\*\*Mounting kit suitable for mono-block pools made in fibreglass, PP or stainless steel with zero degree wall angle and thickness 6-20mm

Jet Swim Motion	
Item no.	Type
33041	Complete unit - Classic
33042	Complete unit - Classic
33043	Complete unit - Marine
33044	Complete unit - Marine
1301300	Motion Classic unit
1301305	Motion Marine unit
1301310	Assembly kit
1301320	Assembly kit
1301285	Jet Swim Pump 2.2kw 50Hz
1301390	Control box 400/3~
1301315	**Mounting kit fibreglass

\*For floating pool cover.

\*\*For fiberglass/PP pool a complementary set of screws is needed.

Jet Swim 2000		Type of pool
Item no.	Type	Concrete pool without liner
33029	Complete unit - concrete	
33028	Complete unit - liner	
1302000	Jet Swim unit	x
1302005*	Jet Swim unit for pool cover	x
1302010	Assembly kit	
1302020	Assembly kit	x
1302015**	Screw kit	
1302080	Pump	x
1302090	Control box 400/3~	x

# Stunning water effects right at your fingertips!

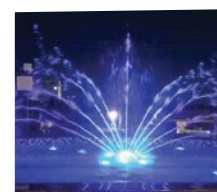
AQVASTAR is the leading product supplier of Fountain Nozzles,  
waterfalls and water feature effects.



# FOUNTAIN NOZZLES

## Finger Jet Nozzle

- Creates a fan shaped spray of solid streams of water.
- Water level independent.
- Moderate level of noise level.
- Stainless steel finish, female threaded connection.



### Technical Specification

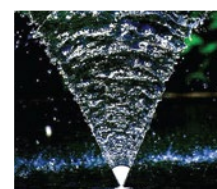
MODEL	ASFJN25SS		ASFJN40SS	
CONNECTION				
IN INCH	1"		1 1/2"	
ORIFICE IN mm	2		5	
FLOW DETAILS	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)
Spray Height in Meter				
1	25.8	0.9	126.2	0.7
1.5	31.8	1.3	158.7	1
2	36.1	1.6	183.7	1.3
2.5			212.5	1.8
3			227.5	2.1
3.5			250	2.4
4			281.2	2.9

Ref. Code	Product Description
ASFJN25SS	Finger Jet Nozzle with 9 Jets 1" in SS
ASFJN40SS	Finger Jet Nozzle with 9 Jets 1 1/2" in SS

Noise: ●●●●● Visibility: ●●●●● Splash/Mist: ●●●●● Wind Stability: ●●●●● Aeration effect: ●●●●●

## Fan Jet Nozzle

- Creates a fan shaped spray like sheet of water.
- Water level independent.
- Moderate level of noise level.
- Stainless steel finish, male threaded connection.



### Technical Specification

MODEL	ASFAN25SS		ASFAN40SS	
CONNECTION				
IN INCH	1"		1 1/2"	
ORIFICE IN mm	4		6	
FLOW DETAILS	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)
Spray Height in Meter				
0.5	50.7	0.4	89.1	0.5
1	80.3	1	133.1	0.8
1.5	104.5	1.6	171.7	1.2
2	112.5	2.2	202.8	1.6
2.5	137.2	2.8	232.8	2
3	154.1	3.4	258.8	2.5
3.5			287	2.9
4			460.3	3.3

Ref. Code	Product Description
ASFAN25SS	1" Fan Jet Nozzle in SS
ASFAN40SS	1 1/2" Fan Jet Nozzle in SS

Noise: ●●●●● Visibility: ●●●●● Splash/Mist: ●●●●● Wind Stability: ●●●●● Aeration effect: ●●●●●

# FOUNTAIN NOZZLES

## Clear Stream Nozzle

- Creates a fine solid stream of water with angle adjustability  
smaller orifice nozzles are more subject to wind & clogging.
- Water level independent.
- Very Low noise level.
- Adjustable by 15° off center axis
- Stainless steel finish, comes with adjustable ball joint up to 1 1/2" Ø



Ref. Code	Product Description
ASCSN12SS	1/2" Clear Stream Nozzle in SS
ASCSN20SS	3/4" Clear Stream Nozzle in SS
ASCSN25SS	1" Clear Stream Nozzle in SS
ASCSN40SS	1 1/2" Clear Stream Nozzle in SS
ASCSN50SS	2" Clear Stream Nozzle in SS

## Technical Specification

MODEL	ASCSN6SS		ASCSN10SS		ASCSN12SS		ASCSN25SS		ASCSN40SS	
CONNECTION IN INCH	1/4"		3/8"		1/2"		1"		1 1/2"	
ORIFICE IN mm	4		6		10		14		20	
FLOW DETAILS	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)
Spray Height in Meter										
0.5	2.8	0.6	6.7	0.7	19.3	0.8	39.7	0.7	73.7	0.7
0.75	3.5	1	8.2	1	23.5	1.2	47.7	1		
1	4.1	1.2	9.3	1.3	27.2	1.4	54.2	1.3	102.5	1.1
1.5							66.5	1.9	130	1.9
2							75.8	2.4	148.7	2.4
2.5							86.6	3.1	168.7	3.1
3							94	3.7	183.7	3.6
3.5									198.7	4.2
4									212.5	4.8

Noise: ●●●●● Visibility: ●●●●● Splash/Mist: ●●●●● Wind Stability: ●●●●● Aeration effect: ●●●●●

## Foam Nozzle – OA

- Creates foamy stream of water.
- Water level independent.
- A column of frothy aerated water recommended for small & medium display.
- Plastic body with SS cover, male threaded connection



Ref. Code	Product Description
ASFN25	Foam Nozzle 1" OA design

## Technical Specification

MODEL	ASFN25	
CONNECTION IN INCH	1"	
ORIFICE IN mm	32	
FLOW DETAILS	Flow (LPM)	Head (Mtr)
Spray Height in Meter		
0.25	47	1.00
0.50	55	1.30
0.75	71	2.10
1.00	80	2.70
1.25	89	3.30
1.50	97	3.90
1.75	104	4.60
2.00	111	5.20
2.50	123	6.40

Noise: ●●●●● Visibility: ●●●●● Splash/Mist: ●●●●● Wind Stability: ●●●●● Aeration effect: ●●●●●

# FOUNTAIN NOZZLES

## Foam Nozzle

- Foam Nozzles generate a thick, wind resistant display that uses little water
- Foamy white water offers a strong contrast to surroundings while enriching oxygen content
- These Nozzles are water level independent

## Technical Specification

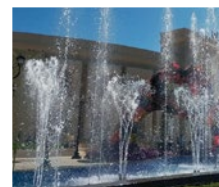
MODEL	ASFN40		ASFN50	
CONNECTION IN INCH	1 1/2"		2"	
ORIFICE IN mm	75		75	
FLOW DETAILS	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)
Stream Height in Meter				
0.3	125	3.7		
0.6	150	5.0		
1	175	6.3	327	6.7
1.5	235	11	432	11.3
2	250	12.7	462	13
2.5	282	16	516	16.3



Ref. Code	Product Description
ASFN40	Foam Nozzle 1 1/2" OA Design
ASFN50	Foam Nozzle 2" OA Design

## Rotating Nozzle

- This rotating nozzle offers an impressive dancing display with low water use.
- Rotation is by the angled smooth bore jets rotating around the centre jet or jets, height & speed can be adjusted by arm arc or valve in line The Peacock includes a Finger Jet
- Water level independent



Ref. Code	Product Description
ASRN25	Rotating Nozzle 1"

## Technical Specification

MODEL	ASRN12		ASRN25		ASRN40		ASRN50		ASRN75		ASRN100	
CONNECTION IN INCH	1/2"		1"		1 1/2"		2"		3"		4"	
FLOW DETAILS	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)
Spray Height in Meter												
1.0	10.6	1.4	54	1.6	99	1.6						
1.5	14.3	2.3	67	2.3	149	2.3	358	2.2				
2.0	16.8	3.0	79	3.2	182	2.8	423	2.8	495	2.9	593	3.2
3.0	21.5	4.8	95	4.5	221	4.9	528	4.9	603	4.9	830	5.3
4.0			110	6.0	261	6.8	631	6.9	709	6.4	906	6.8
5.0			125	7.1	288	7.8	702	7.7	785	7.7	972	8.3
6.0					334	8.9	778	9.3	855	9.1	1025	10.1
7.0							829	10.6	921	4.8	1136	12.2
8.0							901	12.8	985	13.9	1238	14.3
10.0									1085	18.3	1410	17.8
12.0											1540	19.8

Noise: ●●●●● Visibility: ●●●●● Splash/Mist: ●●●●● Wind Resistance: ●●●●● Aeration effect: ●●●●●



# FOUNTAIN NOZZLES

## Bell Nozzle

- Creates bell or crystal dome effect.
- Clear dome subject to wind distortion.
- Recommended for indoor application.
- Stainless steel finish, female threaded connection.



## Technical Specification

MODEL	ASBN25SS		ASBN40SS	
CONNECTION IN INCH	1"		1 1/2"	
FLOW DETAILS	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)
Spray Dia in mm				
250	35	0.3	75	1
500	45	0.1	85	1.2
750	55	1	90	1.5
1000	70	1.5	110	1.8

Ref. Code	Product Description
ASBN25SS	1" Bell Nozzle in SS
ASBN40SS	1 1/2" Bell Nozzle in SS

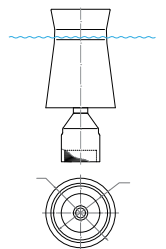
Noise: ●●●●● Visibility: ●●●●● Splash/Mist: ●●●●● Wind Stability: ●●●●● Aeration effect: ●●●●●

## Cascade Nozzle

- Creates a highly aerated Pin Tree shaped geyser effect at water.
- Water level dependent.
- Baffle wall recommended when used in symmetrical pools.
- Very good against wind, with high noise level & low clogging possibility.
- Stainless steel finish, female threaded connection.



Ref. Code	Product Description
ASCN25SS	1" Cascade Nozzle In SS
ASCN40SS	1 1/2" Cascade Nozzle in SS
ASCN50SS	2" Cascade Nozzle In SS
ASCN75SS	3" Cascade Nozzle in SS



## Technical Specification

MODEL	ASCN25SS		ASCN40SS		ASCN50SS		ASCN75SS	
CONNECTION IN INCH	1"		1 1/2"		2"		3"	
ORIFICE IN mm	4		6		8		10	
FLOW DETAILS	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)
Spray Height in Meter								
0.5	48.7	1.6	78.7	2				
1			111.2	4.3	181.2	4	388.7	2.9
1.5			137.5	6.7	211.2	5.2	476.2	4.2
2					243.7	6.9	550	5.5
2.5					268.7	8.3	620	6.8
3							662.5	7.9
4							757.5	10.2
5							841.2	12.4
6							917.5	14.8

Noise: ●●●●● Visibility: ●●●●● Splash/Mist: ●●●●● Wind Stability: ●●●●● Aeration effect: ●●●●●

# FOUNTAIN NOZZLES

## Bubbler Nozzle

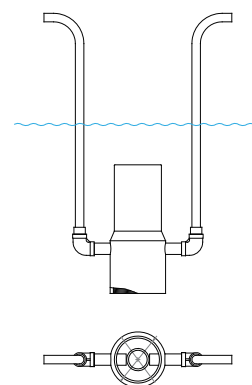
- Creates a highly aerated mound of water.
- Comes with Snorkel pipe which has to be above water level.
- Water level dependent.
- Baffle wall recommended when used in symmetrical pools.
- Very good against wind, with moderate noise level & low clogging possibility.
- Stainless steel finish, female threaded connection.



Ref. Code	Product Description
ASBU25SS	1" Bubbler Nozzle in SS
ASBU40SS	1 1/2" Bubbler Nozzle in SS
ASBU50SS	2" Bubbler Nozzle in SS

## Technical Specification

MODEL	ASBU25SS		ASBU40SS		ASBU50SS	
CONNECTION IN INCH	1"		1 1/2"		2"	
ORIFICE IN mm	3		5		6	
FLOW DETAILS	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)	Flow (LPM)	Head (Mtr)
Spray Height in Meter						
0.5	80	1	158.7	2		
1			206.2	3.3	296.2	2.7
1.5			243.7	4.5	350	3.7
2					395	4.6
2.5					445	5.8
3						
3.5						
4						



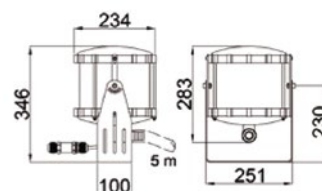
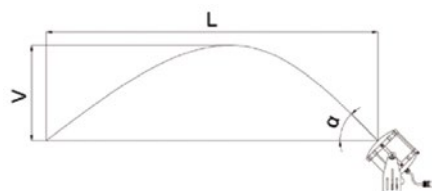
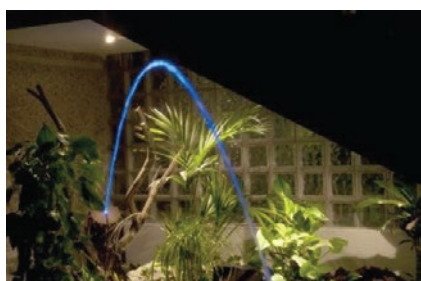
Noise: ●●●●● Visibility: ●●●●● Splash/Mist: ●●●●● Wind Stability: ●●●●● Aeration effect: ●●●●●

## FOUNTAIN NOZZLES

### COMPACT RAINBOW JET

The COMPACT RAINBOW JET is a nozzle that develops an illuminated laminar water jet, giving the water a unique aspect, producing a striking visual aspect for the viewer. In its compact design we have incorporated a high power RGBW LED that dramatically illuminates the water parabola in its entirety.

Due to its compact design and small dimensions, it is easy to use in any installation that combined with its low splash and low level of noise, makes it ideal for small gardens, and a complementary element of any source.



Dimensions (in mm)

### Technical Specification

\* Rainbow Jet use is recommended with low environmental light.  
Maximun 180 lx

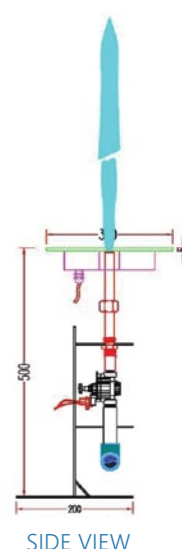
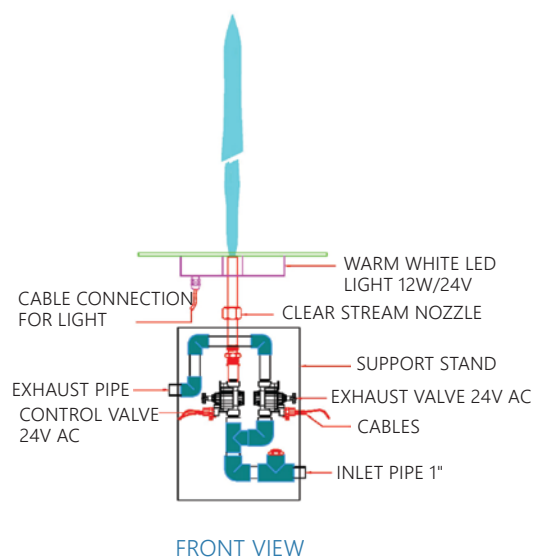
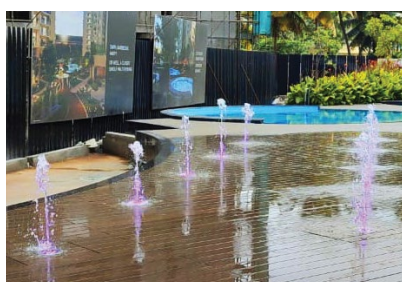
Ref.Code	Dimensions							Performance				
	Connection BSP-NPT	Outlet (mm)	Weight (kg)	Power	Voltage	Elec. Connection	Jet angle $\alpha$	Horizontal range (m) L	1	2	3	4
ASLJ	G1" F/H(*)	Ø14	17,0	10W	24V DC	0,5m cable with IP68 connector	30°	l/min	18,00	25,00	30,00	34,00
								m.c.a	0,90	1,60	2,40	3,00
								Height (m) V	0,19	0,32	0,47	0,56
							45°	l/min	17,20	23,50	30,00	35,00
								m.c.a	0,90	1,50	2,20	2,80
								Height (m) V	0,33	0,54	0,80	1,06
							60°	l/min	19,00	26,00	32,00	36,60
								m.c.a	1,00	1,80	2,40	3,20
								Height (m) V	0,53	0,97	1,38	1,83
							75°	l/min	24,40	35,50		
								m.c.a	1,60	3,00		
								Height (m) V	1,10	2,00		

Noise: ●●●●● Visibility: ●●●●● Splash/Mist: ●●●●● Wind Appearance: ●●●●● Wind Resistance: ●●●●●

# INTERACTIVE JET

## Features:

The water switch 601 series was born to create a choreographic display of water. Thanks to the twin solenoid valve technology a perfect of water is formed. To reach the perfect water movement, the solenoid valve can open up to 60 times in a minute. The water Switch 601 is completely made of stainless steel. It can operate with the least possibility to control systems of all kinds of fountains; it needs only one output device to the fountain's main computer. Use a pump with frequency controlled motor to reach the perfect display of water.



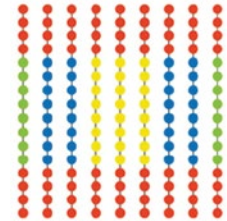
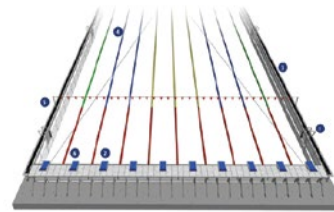
## Specifications

- All made of 316 SS
- Vertical or horizontal valve installation
- Max. Flow: 100Liters/Min.
- Operating voltage: 24V AC
- Height: 5500mm Standard. Different variation possible.
- Width: 200mm.
- Max. Pressure: 10.3bar.
- Programmable dry deck kit.
- Includes with Round/ Square Top cover
- Flush mounted/Trip safe.
- Twin 9W RGB or 12W Ring light options available
- Inlet connection 1"
- No water hammer fault possibility

# COMPETITION EQUIPMENTS

- ① Ladder
- ② Starting block
- ③ Overflow grate
- ④ Lane ropes
- ⑤ Backstroke flags
- ⑥ Turning panel with supports

## Competition Pool Layout



Colors according to FINA rules

## Starting Block

Starting block that usually consists of two blocks mounted on either side with a frame and that provides a runner with a rigid surface against which to brace the feet at the start of a race.

- Electropolished 316 stainless steel stand.
- Height 355 mm/ 700mm (Other sizes on request).
- 700mm height starting block comes with additional back step.
- Supplied with fixed backstroke starting handle.
- Supplied with 50x50 cm. FRP, anti-slip platform.
- Supplied with stainless steel screw fittings and adhesive numbers (Optional).
- Complies with FINA facility rules.



## Adjustable starting Block

These starting blocks are of adjustable type so that swimmers could able to adjust the position in relation to the opening line.

There is a lever in side of starting block by which adjustment is possible. Position also marked in side of starting block so the swimmers could adjust before getting in block.

- Electropolished 316 stainless steel stand.
- Height 385 mm / 750 mm (Other sizes on request)
- 750mm height starting block comes with additional back step.
- Supplied with fixed backstroke starting handle.
- Supplied with 50x50 cm. FRP, anti-slip platform.
- Supplied with stainless steel screw fittings and adhesive numbers (Optional).
- Top platform can be adjustable to 60 mm ( Front & back)



## COMPETITION EQUIPMENTS

### Float Lane

*Float Lane Rope : Segregates competition lanes and to eliminates any turbulence ( by the rotation of individual floats) which may pass from one lane to another when swimmers are racing.*

- High-Quality PP disks with additives resistant to chemicals and weather agents.
- Disk diameter 100 mm. ( 10 per metre).
- Disks designed to reduce turbulence.
- Assembled on SS316 wire rope, dia 6 mm (Plastic Rope as optional).
- 4 colours: blue, red, yellow and green according to FINA rules.
- Supplied with stainless steel spring and tensioner.



### Cup Anchor

Anchor cup in stainless steel with hinged hook retaining arm lane rope has been connected with this cup. Flat above deck option also available (as per picture).

- Electropolished 316 stainless steel.
- Square flange 80x80 mm.
- Plate for securing the lane.
- Supplied with brackets for improved installation



### Back Stroke Turn Indicators

Situated 5m from each end of the pool, are a line of flags crossing the water to warn backstroke swimmers that they are nearing the end of the pool so that they can prepare for their turn. Made with a pole of 48.3mm dia.

- 2 x SS316 Back Stroke poles of FINA regulation height 2 m.
- 1 x Back Stroke flags & ropes.
- 2 x Deck pole anchors.
- Three sizes available to suit 13m, 21m, & 25m wide pool. Custom sizes also available with adequate notice.
- Custom flag printing available to suit your pool or club with adequate notice.

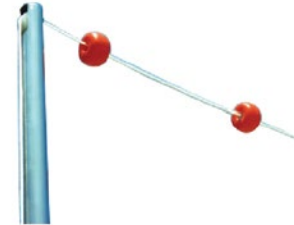


## COMPETITION EQUIPMENTS

### False Start Indicators

Situated 5 metres from one end of the pool, are a line of floats crossing the water to inform swimmers that the race is abandoned. Made with a pole of 48.3 mm dia and supplied with hooks on the ends for attaching ropes or snap-hooks.

- 2 x SS316 false start poles of FINA regulation height 2 Mtr.
- 1 x false start rope & fittings.
- 2 x deck pole anchors.
- Three sizes available to suit 13m, 21m & 25m wide pool. Custom sizes also available with adequate notice.



### Float Lane Roller

- XL Capacity float lane roller made from SS316 pipes comes with heavy duty, non-marking and locking casters can swivel 360° and easy to maneuver.
- Capable to hold 6 float lane of 25mtr long or 3 float lane rope of 50mtr long.

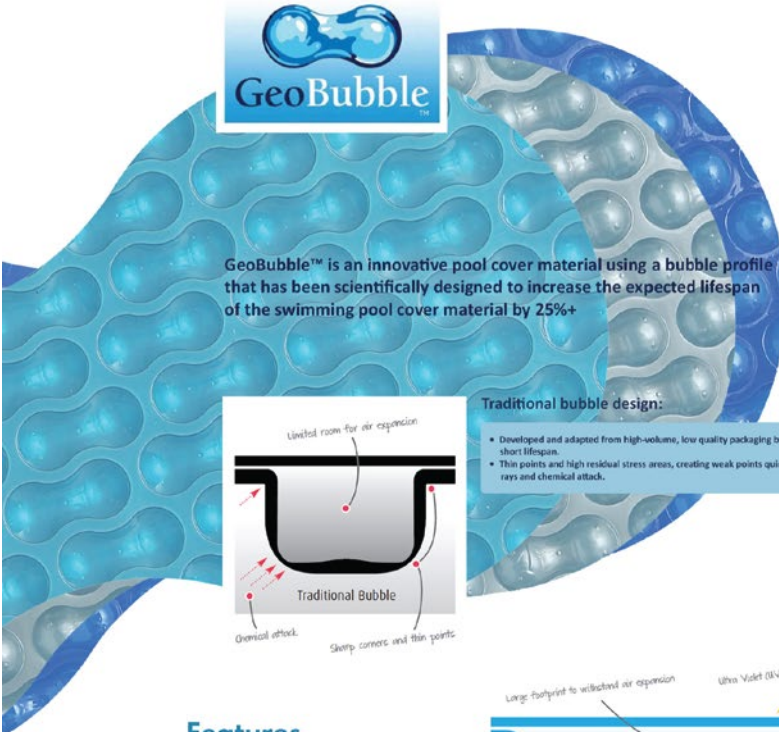


### Life Guard Chair

- Frame made of SS316, with a 43mm / 38mm dia tubing.
- The threads, seats are made of plastic.
- Base from SS316 with wheels.



# POOL COVER



**GeoBubble™** is an innovative pool cover material using a bubble profile that has been scientifically designed to increase the expected lifespan of the swimming pool cover material by 25%+

**Traditional bubble design:**

- Developed and adapted from high-volume, low quality packaging bubble material with a short lifespan.
- Thin points and high residual stress areas, creating weak points quickly broken down by UV rays and chemical attack.

**Features**

- Unique patented design of two bubbles joined together by a structural waistline centre section.
- No sharp corners that could result in thin or weak points in the design.
- No stress points due to the bubble's smooth interconnected curves.
- 50% thicker than a traditional bubble material at its thinnest point.
- Increased resilience against UV rays and chemical attack.

**Traditional Bubble:** Labels include 'Waistline room for air expansion', 'Traditional Bubble', 'Chemical attack', and 'Sharp corners and thin points'.

**Unique GeoBubble™:** Labels include 'Large footprint to withstand air expansion', 'Ultra Violet (UV) attack', 'Unique GeoBubble™', '50% thicker in comparison to a traditional bubbles weakest points', and 'Smooth shape with uniform thickness'.

Our unique bubble design spent over five years in the research and development stage, in collaboration with London Metropolitan University and the University of Brighton. This synergy between academics and industry expertise has resulted in the development of a unique, patented bubble design. GeoBubble™ has marked a new era in high performance pool covers that offer both improved product longevity and maximum savings.

- Eliminates water evaporation by 98%+
- Reduce debris contamination
- Increase pool temperature
- Reduce chemical consumption
- Reduce energy consumption
- Save money and shrink your carbon footprint
- With GeoBubble™ Technology
- 500 Micron covers available
- 4, 5, 6 and 6.5 meter wide Dark Blue Silver Jumbo rolls are available

## INSULATING PROPERTIES

The material is comprised of two layers laminated together, the bottom layer makes up two thirds of the total thickness of the material and is formed into buoyant air cells that allow the cover to float on the water. The large footprint of the GeoBubble™ profile also acts as an insulator, retaining energy gained throughout the day mitigating heat loss from the pool.

## PREVENTS EVAPORATION

Our materials reduce water losses through evaporation by working as a barrier between the water's surface and the atmosphere. By simply covering the pool with the material, evaporation is reduced by over 98% resulting in the preservation of the water resources and increased temperatures within the swimming pool.

## LIFE SPAN

The unique GeoBubble™ design has been scientifically developed to provide performance and longevity of the blended LDPE 4 polyethylene cover material, providing a sustainable 100% recyclable, energy and cost saving product.

Material	Blended LDPE/LLDPE	
Weights	500 µm	460 gm <sup>2</sup>
Weld edges	30 mm	Bespoke (0-50 mm)
Widths	Roll – 2m, 2.5m	Jumbo rolls (4, 5, 6, 6.5 mtr)
Roll Lengths +/- 2%	102m & 51m	Jumbo rolls 50m
Roll Diameter +/- 1% (varies with thickness)	0.58m Ø for 51m	
Bubble Design	GeoBubble™ 15 x 30 mm x 5.5 mm (H)	
Bubbles per m <sup>2</sup>	1943	
UV Protection	Standard 0.6% additive	

Ref. Code	Product Description
ASPBG4M	4 Mtr Wide Geo Bubble cover - 500 micron
ASPBG5M	5 Mtr Wide Geo Bubble Cover- 500 micron
ASPBG6M	6 Mtr Wide Geo Bubble Cover- 500 micron
ASPBG65M	6.5 Mtr Wide Geo Bubble Cover- 500 micron

Manufactured by Plastipak, UK

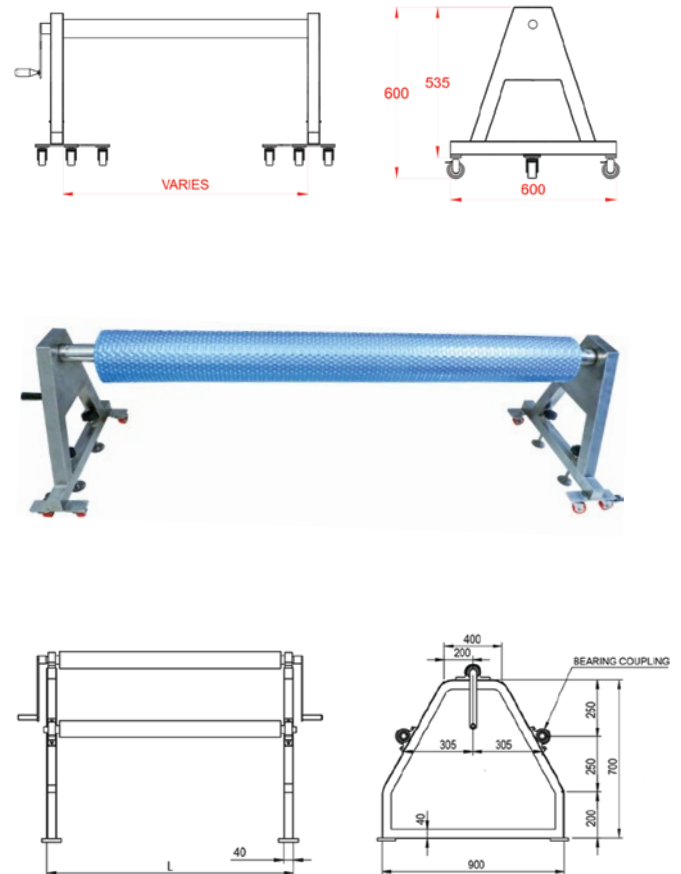


## COVER ROLLER

The Stationary Pool Roller is made from high grade, 316 stainless steel and is ideal for medium pools from 4m wide by 12m long to large pools upto 6.5m wide by 30m long.

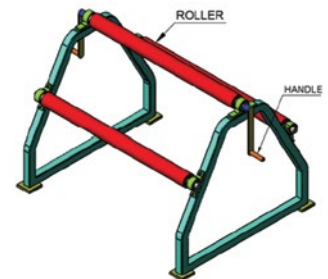
### Features

- A frame for stability and ruggedness.
- SS shaft of 63mm dia to hold long length pool cover without deforming.
- Manual single handle with bearing makes the roller handling easy.
- Adjustable screw/ flange to position roller intact.
- 10 heavy duty wheel with lock for easy mobility.
- Ropes & connection kit included.
- SKF bearing for long life & rust free.
- Rugged design ensures no bending or sagging of roller possible due to weight of cover with or without water
- Bottom locking tubes further enhances the quality against sagging.
- Crank Handle allows cover and uncover the pool



Different model with different ability in providing strength when the length & width increases.

Ref. Code	Product Description
ASPCR 412	Aqvastar SS316 Pool Cover Roller suitable for cover sizes upto 4m for a length of pool 12m
ASPCR 520	Aqvastar SS316 Pool Cover Roller suitable for cover sizes upto 5m for a length of pool 20m
ASPCR 630	Aqvastar SS316 Pool Cover Roller suitable for cover sizes upto 6m for a length of pool 30m
ASPCR 6530	Aqvastar SS316 Pool Cover Roller suitable for cover sizes upto 6.5m for a length of pool 30m
ASPCR 630T	Aqvastar SS316 Twin Pool Cover Roller suitable for cover sizes upto 6m for a length of pool 30m (Capable to hold 2 rolls)
ASPCR 630M	Aqvastar SS316 Multi Pool Cover Roller suitable for cover sizes upto 6m for a length of pool 30m (Capable to hold 3 rolls)





## AUTOMATIC POOL COVERS

Having installed 1,12,000 slatted covers, Atriblue at Hydra Systems have acquired unrivalled experience in the design and manufacturing of pool slatted covers:

- From the simplest models (MANU) to the most complex models (DIVER)
- From conventional configurations (rectangular pools) to non-standard shapes (lazy, egg-shaped, etc.)
- From the smallest dimensions to the boldest designs (Olympic pools)
- From the most familiar to the most extreme (from the national market to Sweden, to Canada, but also Africa and Japan, etc.)

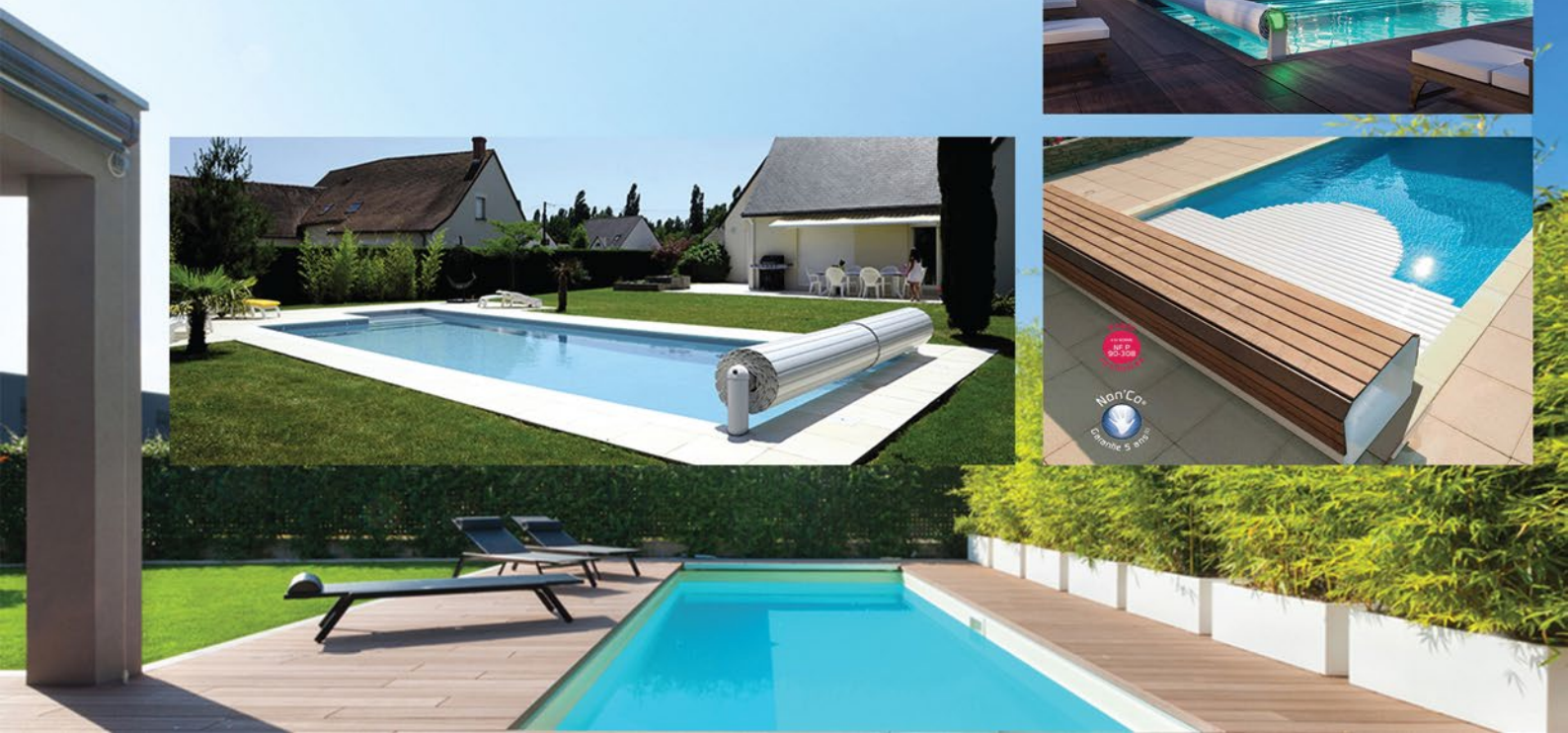
A team of technicians and engineers work continuously on innovative solutions to better meet your requirements. Supported by validations by specialised firms, the solutions retained are tried and tested, reliable and provide true added value to the products. Whether this concerns easy installations and use, improving performances or the aesthetics.

Experts in exceptional slatted covers due to their dimensions (up to 25 x 50 m) or their configurations (pool bottom, displaced slatted covers), our team of technicians is at your side to study solutions adapted to your requirements and assist you at every stage of the project.

## TWO MAJOR MODELS

### Above water

- For Existing Pools & New Pools.
- Installed above water & in deck area.
- Visible Outside.
- Once rolled, the rolled portion comes inside pool for 200 mm.
- Comes with wooden covers( BANC model) for covering the entire arrangement (optional).



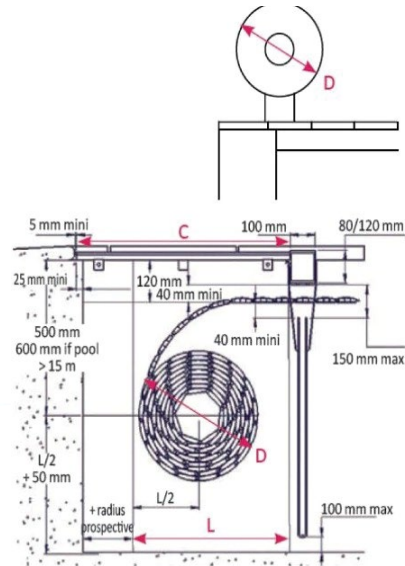
## Submerged

- For new pools or replacement only
- Installed under the water (submerged)
- Non Visible from outside
- 3 models

Comes with horizontal and vertical walls to protect cover arrangement  
Different installation options available

Diameter of the slat roll according to the swimming pool length  
Dimensions of the submerged technical pit(DIVER, see specific focus)

(Diameter 200 mm roller shafts)	D (mm)	Pit		Decking	
		L (mm)	P (mm)	C (mm)	CP (mm)
4	420	500	775	505	Standard 800 (for 775 pit)
5	440	500		525	
6	460	520		545	
7	480	540		565	
8	500	560		585	
9	530	590		615	
10	560	620		645	
11	580	640		665	
12	590	650		675	
13	620	680		900	
14	640	700	725		
15	660	720	745		
16	680	740	765		
17	700	760	975	785	Made-to-measure 1000 (for 975 pit)
18	720	780		805	
19	740	800		850	
20	790	850		875	
25	830	890		925	



D = Roller diameter including the shaft.

L = Minimum technical pit width for functional gap.

P = Abrisblue recommendation for standard pit width.

C = Minimum duckboard length over the technical pit with sharp angles, for non-standard production.

CP = Standard duckboards according to recommendations "P" with Abrisblue partition wall.



# CHEMICAL FEEDER

## Automatic Chlorinator Brominated In-Line Model

The chemical dosing unit has been designed for installation in the pool's return line for use with slow dissolving Tri-chlorine or Bromine tablets. The quantity of sanitizer is quickly adjusted to give the required residual by way of the easy to use inlet valve.

To avoid the build-up of gasses being trapped inside the feeder when the pump is shut off, it must be installed above water level and below the filter outlet. The manufacturer strongly recommends the installation of a non-return valve to protect the plant room from chemical attack, should the situation arise where water siphons back through the system.

### Technical Specification

- Connection: 1.5" Screw thread
- Max pressure: 4kg/cm<sup>2</sup>
- Max capacity: 4.5kg
- Max dosage: Chlorine - 35gr/hr  
Bromine - 2gr/hr
- Recommended pool size: Chlorine - 20-80m<sup>3</sup>  
Bromine - 4-50m<sup>3</sup>

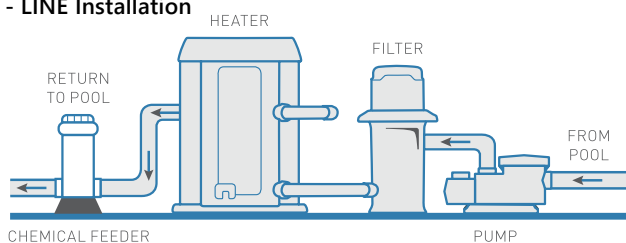


ASCF9

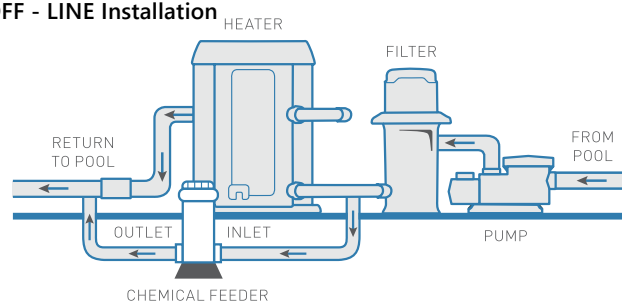
### IN - LINE AND OFF - LINE CONFIGURATIONS

To accommodate most capacity, plumbing and space considerations

#### IN - LINE Installation



#### OFF - LINE Installation



# DOSING PUMP

*Chemical Dosing is of fundamental importance to keep pool water clean & hygiene. Dosing pumps are low-volume pumps with controllable discharge rates that are used to inject additives or difficult-to-mix fluids into mixing, pumping, or batch/tank systems.*

## Features:

- Electronic Dosing Pump
- Electronically operated mechanically actuated Diaphragm
- Adjustable injection frequency (15 to 100 SPM)
- Compact size, light weight, more robust structure
- Unique double ball check. NRVs for better dosing accuracy
- Solenoid drive with minimum moving parts
- 1 MWC max suction lift

## Accessories

- Suction & Discharge Tubing of LDPE Material 2.5 mtrs. In length
- Strainer cum Foot valve
- Antisiphon valve in PP

## Material of Construction of Wetted Parts

- Stainless 316, 304, 316L, 304L
- Monel
- Hastalloy B, C
- Alloy 20
- PP, PTFE, GFT
- Diaphragm – PTFE backed by Hypalon

## Applications

- Water & Waste Water Treatment Chemicals
- Laboratory Chemicals

## Dosing tank

Dosing tanks are made to efficiently store and dose chemicals. These tanks are built in semi-transparent polyethylene (PE) capable to handle harsh chemicals storage. Capacities are 60, 100, 200, 500 Ltrs.

Also available with side graduations to check levels easy for competition pool (on request).

## Stirrer

PVC Stirrers are compact & lightweight, for easy handling comes with handle and unions to fix in top of dosing tank. Sizes available are 600 mm & 900 mm long.



Ref.Code	ASCDP505	ASCDP2007
Voltage	230V, 50HZ	230V, 50HZ
Capacity	0-6 LPH	0-20 LPH
Pressure	4 kg/cm <sup>2</sup>	7 kg/cm <sup>2</sup>



Model - ASCDT100, ASCDT60



Model - ASSTR600, ASSTR900



NEW  
110W

# evoUUV

## ULTRAVIOLET CLARIFIERS FOR PONDS

- Eradicates green water in garden ponds
- Features highly efficient ballasts
- IP Rating of IPX5, IP64 (evo 110)
- Easy to maintain, easy to install
- Ballast located in a fully water-tight cover
- Connects to flexi-hose or rigid pipework
- 6 models; 15W, 25W, 30W, 55W, 75W & 110W

## UV

### VGE Pro UV INOX System

#### Reactors

##### INOX

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

#### VGE Pro UV-C control units

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

#### UV-C & temperature sensor

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

#### Advanced Oxidation Processes

Advanced Oxidation Processes (AOP): are chemical treatments to reduce organic and inorganic components from water via oxidation. AOP's use the oxidative power of the hydroxyl radical ( $\cdot\text{OH}$ ), which has the second best oxidation potential and is the strongest oxidiser that can be used in water. The process converts the contaminant materials to a large extent in stable compounds such as water, carbon dioxide and salts, i.e. they are mineralized. In general, when used in the correct way, AOP's can significantly reduce the COD and TOC levels in your water. In general it is advised to apply the AOP as final treatment step in a water treatment system so that all natural present scavengers of the hydroxyl radical are reduced as much as possible, especially bicarbonate ions ( $\text{HCO}_3$ )

#### Pro-UV-C control units

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

Note : Manufactured by Blue Lagoon, Netherlands



#### Smart Pin Technology

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

#### Features

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

#### VGE Pro INOX

Model	Reactor shape	Max. pressure	Connection	Capacity (1)	Quality water (2)		
					[bar]	[m <sup>3</sup> /h]	Good
400-54	Z	6	1"	18		✓	✓
40-76	L	6	3/4"	3	✓	✓	
75-76	L	6	3/4"	6			
140-76	U	6	1 1/2"	12	✓	✓	
200-76	U	6	2"	17	✓	✓	
75-114	U	6	2"	10	✓	✓	
140-114	U	6	2"	20	✓	✓	
200-154	U	6	DN80	38	✓		
420-168	U	6	3"	78	✓	✓	
400-204	U	6	DN100	92	✓		
600-219	U	6	DN125	140	✓		
975-306	L	6	DN250	306	✓		
1950-306	L	6	DN250	600	✓		

## UV

### UV-C TECH

In the Blue Lagoon UV-C, a UV-C radiation with a wavelength of 253.7 nm is generated, ensuring a lethal effect on bacteria (including Legionella bacteria). This lamp has been specially developed by Philips and is ideal for water temperatures up to 40 degrees Celsius. The Blue Lagoon UV-C will ensure that your pool or spa water is clean, fresh and clear in an efficient and environmentally friendly manner. The water is fed through the UV-C device via a pump. The UV-C radiation neutralises bacteria, viruses and other primitive organisms and stops them from multiplying. This UV system can reduce the use of chlorine and other chemicals by up to 80% !

### Technical Specification

	UVC TECH 16W	UVC TECH 40W	UVC TECH 75W	UVC TECH 130W
Type	15.000 / 16 W	40.000 / 40 W	75.000 / 75 W	150.000 / 130 W
Max Pool Capacity (L)	15.000 L	40.000 L	75.000 L	150.000 L
Rec. flow for 30 mJ/cm <sup>2</sup>	5 m <sup>3</sup> /h	11 m <sup>3</sup> /h	16 m <sup>3</sup> /h	22 m <sup>3</sup> /h
Max Operating Pressure	2 bar	2 bar	2 bar	2 bar
Diameter	72 mm	72 mm	72 mm	72 mm
Connections	In/Out: 50mm or 63 mm	In/Out: 50mm or 63 mm	In/Out: 50mm or 63 mm	In/Out: 50mm or 63 mm
Material	Stainless Steel 316	Stainless Steel 316	Stainless Steel 316	Stainless Steel 316
Electronic Ballast	230V AC 50/60Hz	230V AC 50/60Hz	230V AC 50/60Hz	230V AC 50/60Hz
Maximum Current	0.29 AMP	0.29 AMP	0.8 AMP	1,1 AMP
Power (Light)	16Watt	40Watt	75Watt	130Watt
Lamp Voltage	49V	94V	97V	70V
Lamp Current	0.39 A	0.43 A	0,80 A	2,10 A
UV-C 100h output	3.9 W	15 W	25 W	50 W
µW/cm <sup>2</sup> at 1 meter	39	144	230	468
Dimensions	L= 56cm	L= 100cm	L= 100cm	L= 100cm



### UV-C TIMER

#### Features

- Timer function that indicates the remaining lifetime of the lamp
- A built-in electronic ballast to ensure a smooth power supply
- Up to 35% more UV-C yield as a result of reflection by the Stainless Steel interior
- 316L stainless steel housing
- Easy to install and easy to maintain

### Technical Specification

	TIMER UV-C 40W	TIMER UV-C 75W	TIMER UV-C 130W
Type	40.000/40W	75.000/75W	150.000/130W
Rec.flow for 30 mJ/cm <sup>2</sup>	11 m <sup>3</sup> /h	16 m <sup>3</sup> /h	22 m <sup>3</sup> /h
Max.pressure	2 bar	2 bar	2 bar
Max.flow	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h
Diameter unit Ø	70 mm	70 mm	70 mm
Length unit	100 cm	100 cm	100 cm
Diameter in-outlet Ø	63mm / 50mm / 1 1/2"	63mm / 50mm / 1 1/2"	63mm / 50mm / 1 1/2"
Stainless steel	316L	316L	316L
Electronic ballast	230V AC 50/60Hz	230V AC 50/60Hz	230V AC 50/60Hz
Maximum current	0,29A	0,57A	1,1A
Lamp power	40W	75W	130W
Lamp	Philips TUV 36T5 4P-SE(40Watt)	Philips TUV 36T5 HO 4P-SE(75Watt)	Philips TUV 130Watt 4P-SE Amalgam
Lifespan lamp	9.000 h	9.000 h	12.000 h
Timer	✓	✓	✓
Replace lamp alert	✓	✓	✓
Flow switch	-	-	✓





## UV

### UV-C IONIZER

#### Advantages

- Ensures fresh, clean and clear water
- Disinfects water efficiently and safely
- Protects your pool from germs
- Alleviates the formation of bacteria, algae and mould
- Reduces the need for chlorine and other chemicals
- More environmentally-friendly than traditional methods

#### Features

- Enables swimming without the use of chlorine
- Up to 80% disinfection by UV-C
- Up to 20% disinfection by copper electrolysis
- 316L stainless steel housing
- Yields up to 35% more UV-C as a result of reflection
- UV-C lamp and copper unit are typically sufficient for 2 swimming seasons
- Easy installation and maintenance
- The Blue Lagoon UV-C Ionizer is earthed



#### Technical Specification

	UVC COP ION 40W	UVC COP ION 75 W
Type	40.000 / 40 W	75.000 / 75 W
Recommended Flow	11m <sup>3</sup> /h	16m <sup>3</sup> /h
Performance At Recommended Flow	30 mJ/cm <sup>2</sup>	30 mJ/cm <sup>2</sup>
Max Flow Rate	23 m <sup>3</sup> /h	23 m <sup>3</sup> /h
Max Operating Pressure	2 bar	2 bar
Diameter	72mm	72mm
Dimensions	L = 100cm	L = 100cm
Connections	In/Out: 50mm or 63 mm	In/Out: 50mm or 63 mm
Material	Stainless Steel 316	Stainless Steel 316
Electronic Ballast	230V AC 50/60Hz	230V AC 50/60Hz
Maximum Current	0.29A	0.57
Power (Light)	40Watt	75Watt
Lamp Type	UV-C 40W	UV-C 75W
Ionizer Dosing	0.7ppm	0.7ppm
Replace Lamp Alert	Yes	Yes

### UV-C OZONATOR

#### Advantages

- Ensures fresh, clean and crystal clear water
- Less maintenance and more carefree use of your swimming pool
- Suntan lotion, cosmetics, urine and perspiration are broken down by ozone
- Bound chlorine is broken down by UV-C light
- Disinfects water efficiently and safely
- Protects your pool from germs
- Alleviates the formation of bacteria, algae and mould
- Can reduce the use of chlorine by up to 90% immediately after the installation
- UV Sterilization is user-friendly and safe
- More environmentally-friendly than traditional methods
- Cost-saving

#### Features

- Up to 35% more UV-C yield as a result of reflection
- 100% efficient and constant operation
- 316L stainless steel interior
- The Blue Lagoon Ozone UV-C is earthed
- Ozone UV-C lamp operates for 4,500 hours (± 2 swimming seasons)
- The device indicates when the lamp needs replacing
- Easy installation and maintenance



#### Technical Specification

	AOP COMPACT OZONE & UV-C 75W
Type	75.000/75W
Rec.flow for 30 mJ/cm <sup>2</sup>	18 m <sup>3</sup> /h
Max.pressure	2 bar
Max.flow	23 m <sup>3</sup> /h
Diameter unit Ø	70 mm
Length unit	100 cm
Diameter in-outlet Ø	63mm / 50mm / 1 1/2"
Stainless steel	PVC
Electronic ballast	230V AC 50/60Hz
Maximum current	0,57A
Lamp power	75W
Lamp	VGE T5 75W Ozone
Lifespan lamp	4.500 hours ozone-9.000 hours UV-C
Ozone	0,6 gr/h
Replace lamp alert	✓
Flow switch	✓

# OZONATOR

## PZ2-1 and 2 - Commercial Pools & Spas

The PZ2-1 and PZ2-2 systems inject ozone into the water under almost any hydraulic condition including pools with in-floor cleaners. The systems are designed for large residential pools, commercial pools and spas. These systems have been tested by Underwriter's Laboratories to NSF Standard 50 for pools and spas and are UL Listed and classified for residential and commercial applications.

### T-O<sub>3</sub> NATURAL TECHNOLOGY

Reduces Chemical Usage, Improves Sanitation, Eliminates Odors, Produces Crystal Clear Water

### Features

- Prozone Patented Corona Hybrid Arc Tube harnesses the high ozone concentrations of Corona Discharge generators while maintaining the simplicity and reliability of VUV technology
- Universal solid state power supply
- Commercial grade compressor with muffling
- Easily retrofittable to existing installations
- Optional Prozone Patented Dynamic Venturi Injector Bypass System allows maximum ozone/water mixing for superior water quality. The bypass also means a quick retrofit installation or replacement for all existing ozone generators
- Direct injection option available
- Low cost, low maintenance operation

### Standard System Specifications

- Prozone Patented Corona Hybrid Arc Tubes
- Prozone Universal Solid State Ballast
- (90 VAC to 270 VAC, 50/60 hz)
- Electrical: .4 amps max. (PZ2-1)  
.8 amps max (PZ2-2)
- 3 Wire Pigtail
- Universal Composite Saddle Clamps (1½ or 2 in.)
- Operating Temperature: -25° F. to +140° F
- Shipping Weight: 23 lbs (PZ2-1)  
25 lbs (PZ2-2)
- Size: 27" x 12" x 9"

### Custom NSF Features

Optional Degassing Column to remove air and/or excess ozone from system

Patents #5,075,016; #6,192,911; #6,426,053; #6,342,154 and patents pending



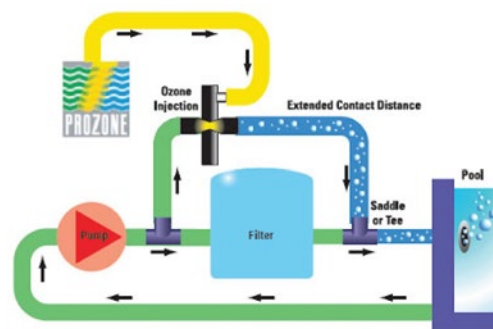
Oxidation is a process that destroys or burns up bacteria and pollutants. In water, tri-oxygen oxidizes combined chlorine and bromine, freeing them to be continuously re-used. Therefore, the need of chemicals is reduced..



Tri-oxygen cuts through biofilms like a knife or scissors. The individual bacteria are easily oxidized by the Tri-oxygen.



Your pool water becomes drinking water pure and soft. No more skin or eye irritations, swimsuit fading or odors.



### Ozonator Sizing for Pools

	Chlorine	Bromine
PZ2-1	25,000 gal	12,500 gal
PZ2-2	50,000 gal	25,000 gal

### Ozonator Sizing for Spas

	Chlorine	Bromine
PZ2-1	1000 gal	500 gal
PZ2-2	2000 gal	1000 gal

# OZONATOR

## PZ7 Ozonator

### For Pools Up to 40,000 gallons

The PZ7 provides a universal ozone system for pools up to 40,000 gals (152,000 liters). Housed in an anodized aluminum case, the system features two hybrid arc tubes to generate ozone, a universal power supply (operates on 120 and 240 VAC), and a universal bypass installation kit (good for 1-1/2 in and 2 in returns).

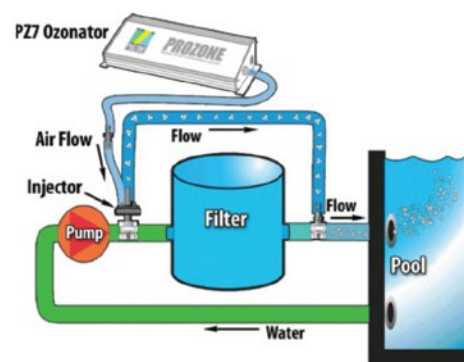
Prozone has combined the PZ7 product line to one universal model. This patented system has two corona hybrid arc tubes which provide a combination of very ultraviolet and corona discharge ozone generation technologies for pools up to 144 m<sup>3</sup> (40,000 gal).

Prozone's patented Corona Hybrid Ozone systems provide higher concentration ozone generation without the corrosive and toxic by-products of traditional corona discharge machines. The result is a new technology that produces a reliable, high output – and takes advantage of the inherent simplicity, ruggedness and pure ozone production of the very ultraviolet system.

The universal power supply allows the unit to operate automatically on 110/60, 220/60, or 230/50.

#### Features:

- Universal model – stock one unit for all residential in-ground pools to 40,000 gal (152,000 l)
- Universal Power supply
- Easily retrofittable to existing installations
- Labeled with vibrant color pad printing
- Retail boxing available
- Prozone Patented Corona Hybrid Arc Tube harnesses the high ozone concentrations of Corona Discharge generators while maintaining the simplicity and reliability of VUV technology
- Optional Prozone Patented Dynamic Venturi Injector Bypass System allows maximum ozone/water mixing for superior water quality. The bypass also means a quick retrofit installation or replacement for all existing ozone generators.
- Rugged, functional housing: heavy extruded aluminum case for durability; translucent gasketing glows when system is on
- Low cost, low maintenance operation



### Standard System Specifications

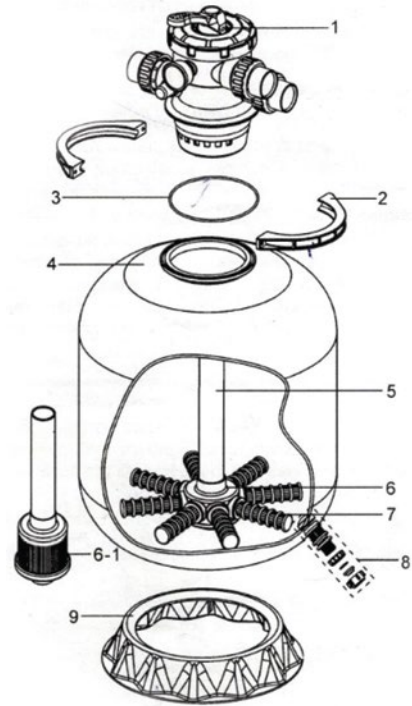
- 2 Prozone Patented Corona Hybrid Arc Tubes
- Prozone Universal Solid State Ballast
- (90 VAC to 270 VAC, 50/60 hz)
- Electrical: .8 amps
- Dual Nema Plug or 3 Wire Pigtail
- Universal Composite Saddle Clamp (1 1/2 or 2 in.)
- Operating Temperature: -25° F. to +140° F.
- Shipping Weight: 10 lbs.
- Size: 16 3/4" X 7" X 4"

An aerial photograph of a landscape, possibly a wetland or a field, with a grid pattern overlaid on it. The grid is composed of dark, irregular lines that form a series of roughly rectangular cells. The background is a mix of teal and light blue colors, suggesting water or a specific type of vegetation. The overall appearance is that of a topographic map or a technical drawing overlaid on a natural scene.

**SPARE PARTS**

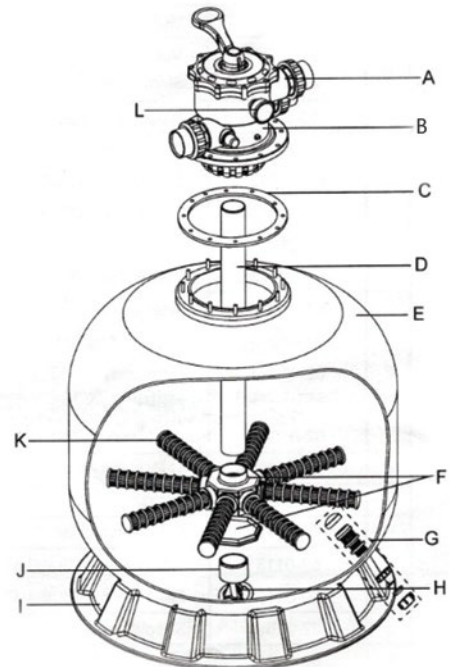
## TOP FILTER Ø400~Ø750 SPARES

Id	Code	Description
1	01-05	Clamp Lock Multiport Valve 1.5"
2	01-0505	Clamp
	01-0507	Nut Lid
	01-0112	Shim
3	02-0901	O'-ring, Lid
4	02-14011	Filter Body Ø350
	02-14012	Filter Body Ø400
	02-14013	Filter Body Ø450
	02-14014	Filter Body Ø500
	02-14015	Filter Body Ø650
	02-14016	Filter Body Ø700
5	02-09046	1.5" Center Pipe Ø350
	02-09041	1.5" Center Pipe Ø400
	02-09042	1.5" Center Pipe Ø450
	02-09043	1.5" Center Pipe Ø500
	02-09044	1.5" Center Pipe Ø650
	02-09045	1.5" Center Pipe Ø700
6	02-0107	Lateral Assembly
6-1	02-1402	Filter Pipe
7	02-0108	Lateral Ø350~Ø500
	02-0108-1	Lateral Ø650~Ø700
8	02-1403	Drain
9	02-1404	Filter Support Stand Ø350~Ø400
	02-0113B	Filter Support Stand Ø450~Ø500
	02-0110B	Filter Support Stand Ø650~Ø700



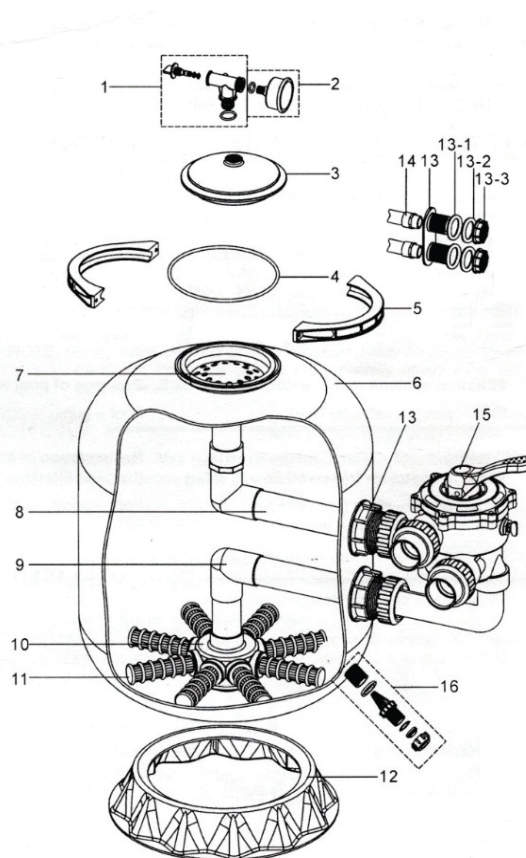
## TOP FILTER Ø800~Ø1400 SPARES

Id	Code	Description
A	01-02	Multiport Valve 2"
B	02-0101	Nut lid
	02-0102	Shim
C	02-0201	Gasket of Flange
D	02-02021	Center Pipe Ø800
	02-02022	Center Pipe Ø900
	02-02023	Center Pipe Ø1000
	02-02024	Center Pipe Ø1100
	02-02025	Center Pipe Ø1200
	02-02026	Center Pipe Ø1400
	E	02-02041
02-02042		Filter body Ø900
02-02043		Filter body Ø1000
02-02044		Filter body Ø1100
02-02045		Filter body Ø1200
02-02046		Filter body Ø1400
F		02-0205
G	02-0111	Drain
H	02-0112	Positioning pillar
	02-0208	Filter Support Stand Ø800~Ø900
	02-0209	Filter Support Stand Ø1000~Ø1100
	02-0210	Filter Support Stand Ø1200
I	02-0211	Filter Support Stand Ø1400
	02-0207	Support pipe
J	02-0206	Lateral Ø800~Ø900
	02-0212	Lateral Ø1000~Ø1400
K	01-0126	O-ring
	01-0127	Pressure Gauge



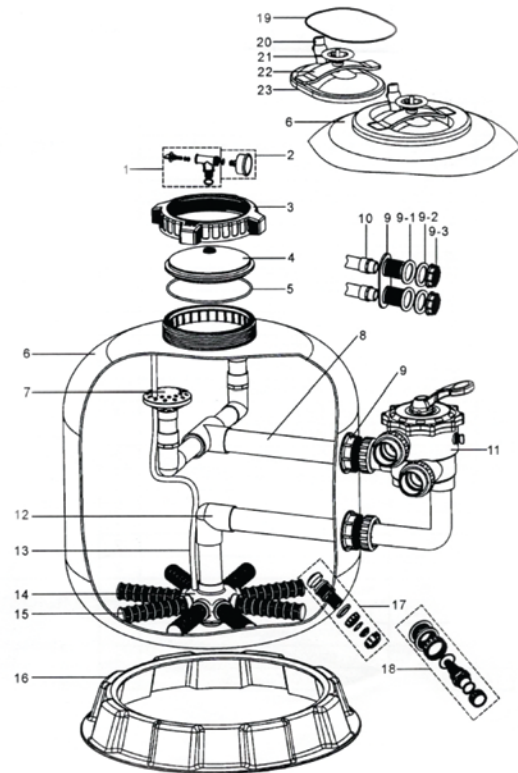
## SIDE FILTER Ø400~Ø750 SPARES

Id	Code	Description
1	02-0501	Release air for top cover valve
2	01-0127	Pressure Gauge
3	02-1001	Top Cover
4	02-0901	O'-ring
5	01-0505	Clamp
	01-0507	Nut Lid
	01-0112	Shim
6	02-18011	Filter Body Ø450
	02-18012	Filter Body Ø500
	02-18013	Filter Body Ø650
	02-18014	Filter Body Ø700
7	02-0514	Water Distributor
8	02-0513	Top Elbow Assembly
9	02-508	Bottom Elbow Assembly
10	02-0107	Lateral Assembly
11	02-0108	Lateral Ø450~Ø500
	02-0108-1	Lateral Ø650~Ø700
12	02-0113B	Filter Support Stand Ø450~Ø500
	02-0110B	Filter Support Stand Ø650~Ø700
13	02-0510	1.5"1n/Outlet Union
13-1	02-05101	Lid
13-2	02-05102	PP Gasket
13-3	02-0511	Nut
14	02-0361	Adaptor
15	01-03	Side Mount Multiport Valve 1.5"
16	02-1403	Drain



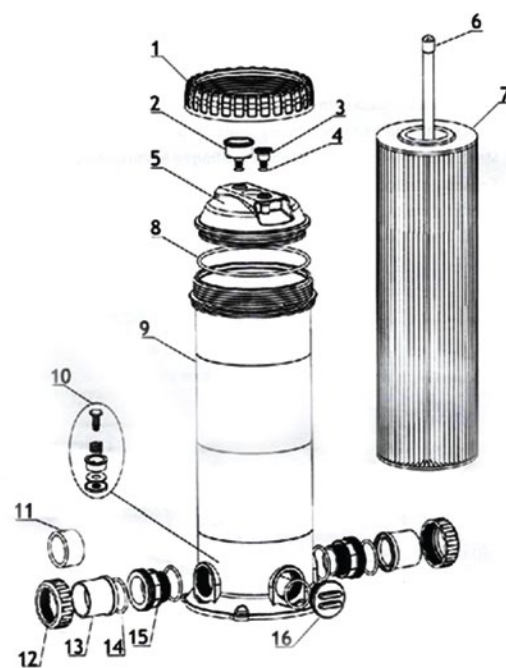
## SIDE FILTER Ø800~Ø1400 SPARES

Id	Code	Description
1	02-0501	Release air for top cover valve
2	01-0127	Pressure Gauge
3	02-0502	Ring Lock
4	02-0503	Top Cover
5	02-0504	O'-ring
6	02-06011	Filter Body Ø800
	02-06012	Filter Body Ø900
	02-06013	Filter Body Ø1000
	02-06014	Filter Body Ø1100
	02-06015	Filter Body Ø1200
	02-06016	Filter Body Ø1400
7	02-0514	Water Distributor
8	02-0604	Top Elbow Assembly
9	02-0612	2" In/Outlet Union
9-1	02-0608	Gasket
9-2	02-0626	PP Gasket
9-3	02-0606	Nut
10	02-0625	2" Adaptor
11	01-04	Multiport Valve 2"
12	02-0610	Bottom Elbow Assembly
13	02-0624	Transparent Tube
14	02-0205	Lateral Assembly
15	02-0206	Lateral Ø800-Ø900
	02-0212	Lateral Ø1000- Ø1100
	02-0350	Lateral Ø1200- Ø1400
16	02-0208	Filter Support Stand Ø800
	02-02081	Filter Support Stand Ø900
	02-0209	Filter Support Stand Ø1000
	02-0210	Filter Support Stand Ø1100- Ø1200
	02-0211	Filter Support Stand Ø1400
17	02-0111	Drain
18	02-0623	New Drain
19	02-0618	O'-ring
20	02-0374	Air Release Valve
21	02-0619	Lid's Closing Wheel
22	02-0620	Lid's Fixing Bridge
23	02-0621	Polyester-glassfiber Lid



## CARTRIDGE FILTER SPARES

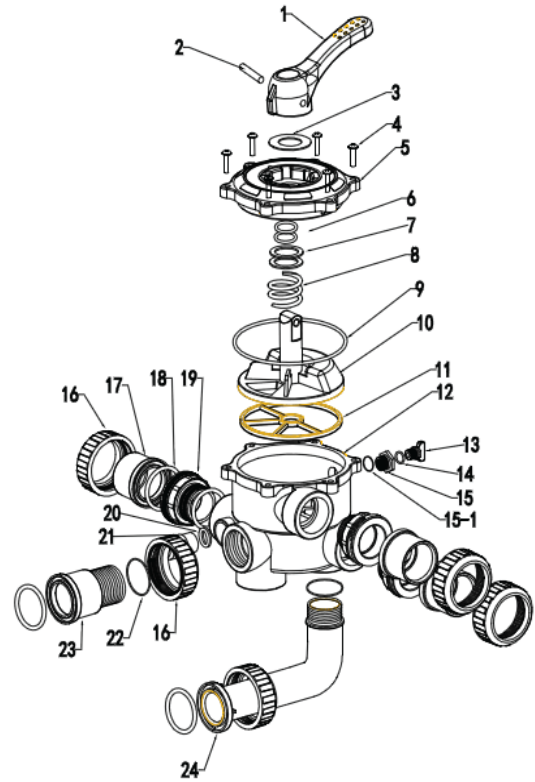
Id	Code	Description
1	02-2101	Ring Lock
2	01-0127	Pressure gauges
3	02-2102	Air release valve
4	01-0126	O'ring
5	02-2103	Cartridge filter lid
6	02-2105-1	4" pvc air vent pipe #25
	02-2105-2	4" pvc air vent pipe #50
	02-2105-3	4" pvc air vent pipe #75
	02-2105-4	4" pvc air vent pipe #100
	02-2105-5	4" pvc air vent pipe #150
	02-2105-6	4" pvc air vent pipe #200
7	02-2106-1	Cartridge element #25
	02-2106-2	Cartridge element #50
	02-2106-3	Cartridge element #75
	02-2106-4	Cartridge element #100
	02-2106-5	Cartridge element #150
	02-2106-6	Cartridge element #200
8	02-2107	O'ring for lid
9	02-21-1	Straight pvc pipe #25
	02-21-2	Straight pvc pipe #50
	02-21-3	Straight pvc pipe #75
	02-21-4	Straight pvc pipe #100
	02-21-5	Straight pvc pipe #150
	02-21-6	Straight pvc pipe #200
10	02-2112	Safety relief valve
11	02-2113	60 to 50 Adjustable tube
12	01-0210	Nut
13	01-0209	Adaptor
14	02-0207	O'ring
15	02-0208	Bulkhead fitting
16	02-2114	Plug





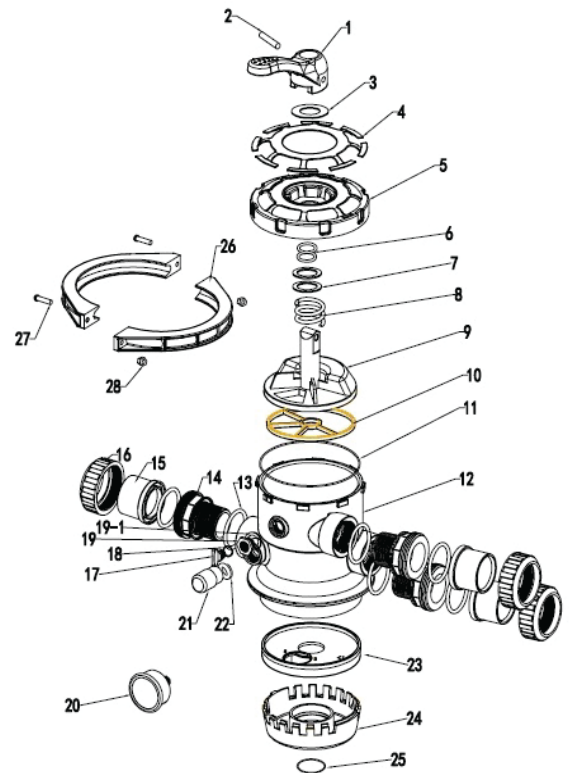
## 1.5" SIDE MOUNT VALVE SPARES

Item	Code	Description
1	01-0101	Handle
2	01-0104	Pin, handle
3	01-0102	Washer
4	01-0103	Bolt
	01-0112	Nut
5	01-0105	Lid
6	01-0108	O'ring of Rotor
7	01-0106	Washer
8	01-0107	Spring
9	01-0125	O'ring of Lid
10	01-0109	Rotor
11	01-0110	Spider Gasket
12	01-0301	Valve Body
13	01-0119	Plug
14	01-0118	Plug o'ring
15	01-0117	Nut, Plug
15-1	01-0128	O'ring
16	01-0116	Nut
17	01-0115	Adaptor
18	01-0113	O'ring
19	01-0114	Bulkhead Fitting
20	01-0121	Sight glass o'ring
21	01-0120	Sight glass
22	01-0302	O'ring
23	01-0303	Bulkhead Fitting
24	01-0304	Elbow pipe



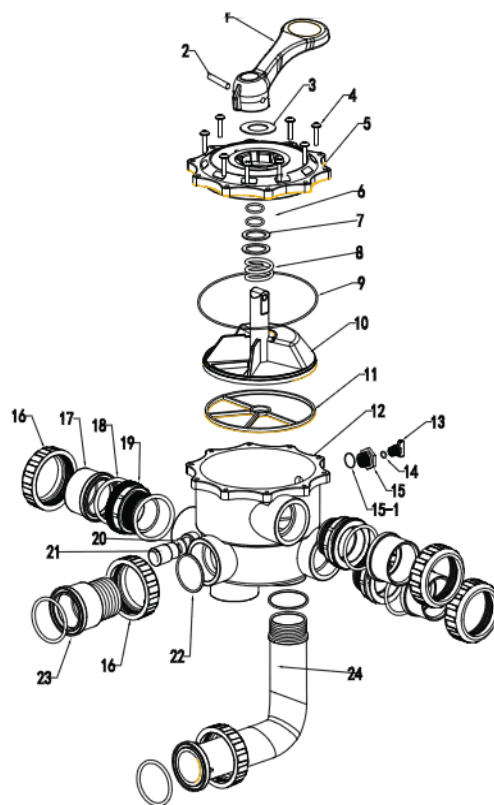
## 1.5" TOP MOUNT CLAMP TYPE VALVE SPARES

Item	Code	Description
1	01-0101	Handle
2	01-0104	Pin, handle
3	01-0102	Washer
4	01-0501	Decorative cover
5	01-0502	Lid assy
6	01-0108	O'ring of Rotor
7	01-0106	Washer
8	01-0107	Spring
9	01-0109	Rotor
10	01-0110	Spider Gasket
11	01-0128	O'ring of lid
12	01-0503	Valve Body/body-diffuser assy
13	01-0113	O'ring
14	01-0114	Bulkhead Fitting
15	01-0115	adaptor
16	01-0116	Nut
17	01-0117	Plug
18	01-0118	O'ring
19	01-0117	Nut, Plug
19-1	01-0129	O'ring
20	01-0127	Pressure Gauge
21	01-0120	Sight glass
22	01-0121	Sight glass o'ring
23	01-0122	Rotor
24	01-0123	Over drain, diffuser
25	01-0124	O'ring
26	01-0505	Clamp
27	01-0507	Bolt
28	01-0112	Screw



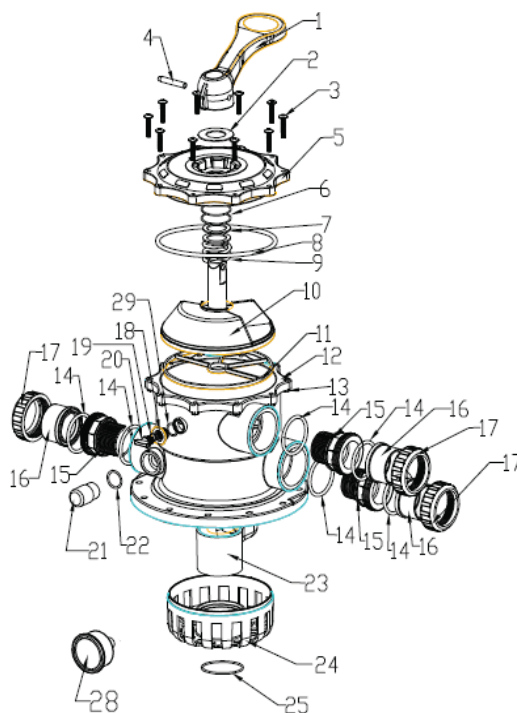
## 2" SIDE MOUNT VALVE SPARES

Item	Code	Description
1	01-0201	Handle
2	01-0104	Pin, handle
3	01-0102	Washer
4	01-0103	Bolt
	01-0112	Nut
5	01-0202	Lid
6	01-0108	O'ring of Rotor
7	01-0106	Washer
8	01-0107	Spring
9	01-0203	O'ring of Lid
10	01-0204	Rotor
11	01-0205	Spider Gasket
12	01-0401	Valve Body
13	01-0119	Plug
14	01-0118	Plug o'ring
15	01-0117	Nut, Plug
15-1	01-0128	O'ring
16	01-0210	Nut /90°
17	01-0209	Adaptor
18	01-0207	O'ring
19	01-0208	Bulkhead Fitting
20	01-0121	Sight glass o'ring
21	01-0120	Sight glass
22	01-0402	O'ring
23	01-0403	Bulkhead Fitting
24	01-0404	Elbow pipe



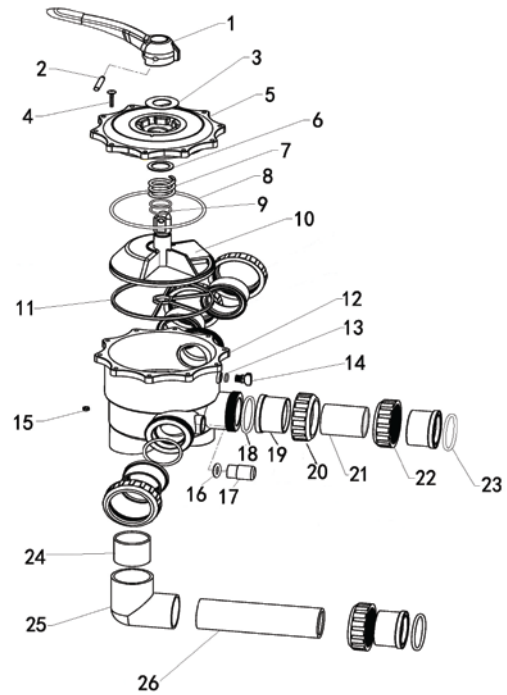
## 2" TOP MOUNT VALVE SPARES

Item	Code	Description
1	01-0201	Handle
2	01-0102	Washer
3	01-0103	Bolt
4	01-0104	Pin, handle
5	01-0202	Lid
6	01-0108	O'ring of Rotor
7	01-0106	Washer
8	01-0203	O'ring of Lid
9	01-0107	Spring
10	01-0204	Rotor
11	01-0205	Spider Gasket
12	01-0206	Valve Body
13	01-0112	Nut
14	01-0207	O'ring
15	01-0208	Bulkhead Fitting
16	01-0209	Adaptor
17	01-0210	Nut
18	01-0117	Nut, Plug
19	01-0118	Plug O'ring
20	01-0119	Plug
21	01-0120	Sight glass
22	01-0121	Sight glass o'ring
23	01-0211	Rotor
24	01-0212	Over drain, diffuser
25	01-0213	O'ring, filter
28	01-0127	Pressure gauge
29	01-0129	O'ring

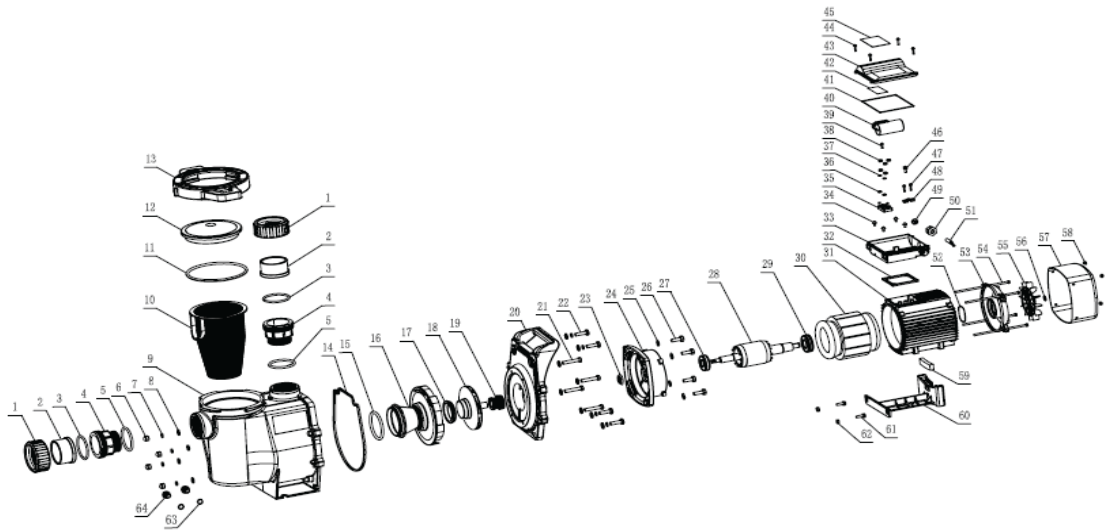


## 2.5" SIDE MOUNT VALVE SPARES

Item	Code	Description
1	01-0601	Handle
2	01-0602	Pin, handle
3	01-0603	Larger washer
4	01-0614	M6 SS304 bolt
5	01-0604	Top cover
6	01-0606	Small washer
7	01-0607	Spring
8	01-0605	Top cover o-ring
9	01-0608	O-ring
10	01-0609	Rotor
11	01-0610	Spider gasket
12	01-0616	Valve body
13	01-0611	O-ring for plug
14	01-0612	Plug
15	01-0613	Nut for M6 bolt
16	01-0620	Washer
17	01-0621	Sight glass washer
18	01-0519	2.5"O'ring
19	01-0518	2.5"Adaptor
20	01-0517	2.5"Nut
21	01-0615	PVC pipe 80mm
22	02-0709	Connection Nut
23	02-0707	O'ring
24	01-0622	PVC pipe 80mm/250mm
25	01-0623	2.5"Elbow
26	01-0624	PVC pipe 255mm



## QRR SERIES PUMP SPARES

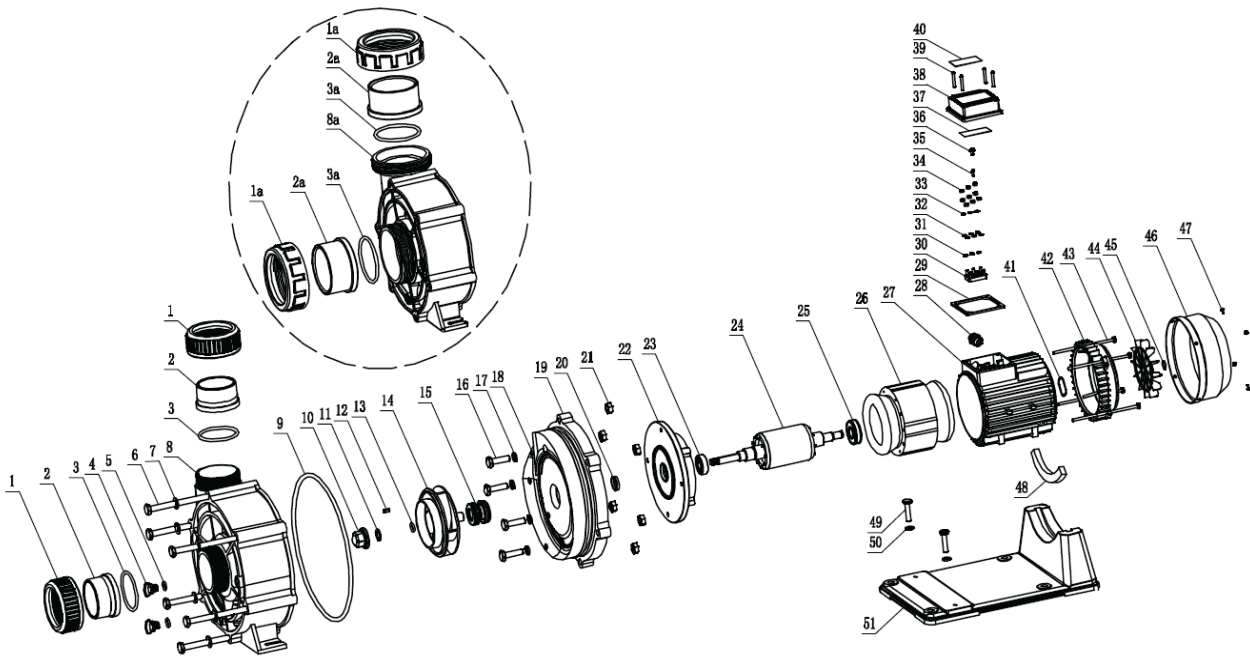


SI No	Description	Specification	Material
1	Tie in nut	G2	PVC
2	Tie in	Ø60.3	PVC
3	O Ring	d62 x 4.5	NBR
4	Transition Union	Ø60	PVC
5	O Ring	d 54 x 3,5	NBR
6	Acorn nut	M8	SS 304
7	Spring Washer	Ø8	SS304
8	Washer	Ø8	SS304
9	Pump casing		P+GF30
10	Filter		PP
11	O Ring	d 147 X 6	NBR
12	Transparent Cover		PC
13	Gland Cover of transparent cover		PC + GF 25
14	Gasket		NBR
15	O Ring	d 85 x3.5	NBR
16	Guide van assembly		PP + GF30
17	Impeller Activity ring		SANTOPRENE
18	Impeller		PA66+GF31
19	Mechanical Seal	LX-16	CARBON/CERAMIC/NBR
20	Pump Cover		PP+GF30
21	Hexagon Screw	M45	SS304
22	Hexagon Screw	M35	SS304
23	Shaft Seal ring	Ø20	NBR
24	Front Cover		ADC12
25	Washer	Ø10	SS201
26	Hexagon Bolt	M10 X20	SS201
27	Bearing	AC 6205	
28	Rotor Assembly		
29	Bearing	AC 6204	
30	Stator Assembly		

## QRR SERIES PUMP SPARES

SI No	Description	Specification	Material
31	Motor Base		ADC12
32	Terminal Box Pad		NBR
33	Bottom Part Of Terminal Box		FLAME RESISTANT ABS
34	Cross Recessed Pan Head Screw And Washer Assemblies	M4 x 10	A3
35	Connection Pole		A3 Melamine A3
36	Serrated Lock washer External Teeth	Ø4	A3
37	Washer	Ø5	A3
38	Hexgonal Bolt	M4	A3
39	Cross Recessed Pan Head Tapping Screw		A3
40	Capacitor	20 µf	
41	O Ring	d140 X 2	NBR
42	Wiring Diagram		STICKER
43	Upper Part Of Terminal Box		FLAME RESISTANT ABS
44	Cross Recessed Pan Head Tapping Screw	3.5 x 13	SS201
45	Name Plate		STICKER
46	Cross Recessed Pan Head Screw And Washer Assemblies	M5 X2	SS201
47	Cross Recessed Pan Head Tapping Screw	ST3.5 x12	A3
48	Cable Pressing Block		NBR
49	Nut Plug For Terminal Box		
50	Terminal Box NUT		FLAME RESISTANT ABS
51	Cable		
52	The Three Wave	D52	65Mn
53	Back Cover		ADC12
54	Hexgonal Bolt	M5x185	A3
55	Fan		PP
56	External Circlip	D14	65Mn
57	Fan Cover		ABS+PC
58	Cross Recessed Pan Head Screw And Washer Assemblies	M4 X8	SS304
59	Plastic Strip		NBR
60	Base		PP+GF30
61	Combination Of Hexgon Head Screw And Washer	M6 x20	SS304
62	Hexgonal Bolt	M6	SS305
63	O Ring	d11.2 x2.4	NBR
64	Drainage Plug		PA66 GF30

## QRC / QRCC / CCU SERIES PUMP SPARES



SI No	Description	Specification	Material
1	Tie-in Nut	G2¾"	PVC
1a	Tie-in Nut	3"	PVC
2	Tie-in	Ø60.3/Ø63	PVC
2a	Tie-in	Ø75/Ø90	PVC
3	O-Ring	d62x4.5	NBR
3a	O-Ring	d94x5.7	NBR
4	Drainage Plug		PA66 - GF
5	O-Ring	d11.2x2.4	NBR
6	Hexagon Bolt	M10 x 130	SS304
7	Washer	Ø 10	SS304
8	Pump Casing	G2¾"	PP - GF30
8a	Pump Casing	G4½"	PP - GF30
9	O-Ring	d208x6	NBR
10	Impeller Nut	M12	H59
11	Spring Pad	d12	SS304
12	O-Ring	A4x12	SS304
13	O-Ring	D25 x2.4	NBR
14	Impeller		PA66-GF30
15	Mechanical Seal	SB-20/LV2PF	CARBON / CERAMIC/NBR
16	Hexagon bolt	M8x 35	SS304
17	Seal Gasket		PA6
18	O-Ring	d6x2	NBR
19	Pump Cover		PP'-GF30
20	Seal Gasket	d20	NBR
21	TYPE 1 Hexagonal Nut	M10	SS304

## QRC / QRCC / CCU SERIES PUMP SPARES

SI No	Description	Specification	Material
22	Front Cover		ADC12
23	Bearing	6205	
24	Rotor Assembling		
25	Bearing	AC6204	
26	Stator Assembly		
27	Engine base		ADC12
28	Cable Head	M18 x1.5	Flame resistant PA6
29	Terminal Box Pad		NBR
30	Connection Pole		Melamine+A3
31	Serrated Lock Washer External Teeth	Ø 4	A3
32	Connection Strip		H62
33	Washer	Ø 4	A3
34	Type 1 Hexagonal Nut	M4	A3
35	Cross Recessed Pan Head Tapping Screw	M4x 12	A3
36	Cross Recessed Pan Screw ,Spring Washer,Plain Washer Assemblies	M5x 12	SS304
37	Wiring Diagram		Sticker
38	Terminal box		Flame Resistant ABS
39	Cross Recessed Pan Head Screw	M4 x30	SS304
40	Name Plate		Sticker
41	Drainage Plug	D47	65Mn
42	Back Cover		HT200
43	Hexgonal Bolt	M5 x180	A3
44	Fan		PP
45	Shaft spring pad	d14	65Mn
46	Fan Cover		ABS+PC
47	Cross Recessed Pan head Screw and Washer Assemblies	M4x8	SS304
48	Block Gine		NBR
49	Hexgonal Bolt	M8x 16	SS304
50	Washer	Ø 8	SS304
51	Bracket		PA6+GF30

## PREFILTER SPARES

SI No	Description
1	Transparent lid
2	Union Nut
3	Adaptor
4	Nob
5	O ring for transparent lid
6	O ring for Adaptor

## HPD / HPC SERIES HEAT PUMP SPARES

Suitable model	Code	Description
HPD5.5	010301130204	Compressor
	010202000208	Fan motor--YDK-25M-6H
	010603010003	Compressor capacitor--35uf
	010603030004	Fan capacitor--2uf/450v
	010404020201	Fan blade
	010804070007	4 way valve
	010804000008	Coil of 4 way valve-18B-1000
HPD12.5	010301130303	Compressor--PA330X3CS-4UM1
	010202001311	Fan motor--YDK-50-6H
	010804070001+010804000008	4 way valve+ coil
	010804070005+010804000008	4 way valve+ coil (SANHUA)
	010603010010	Compressor capacitor-60UF/450V
	010404021303	Fan blade
	010603030014	Fan capacitor--4UF/450V
	010606001310	AC contactor--TXAC1-25/220V
HPD17	010301130411	Compressor--ZW51KWP-PFZ
	010606001307	AC Contactor--CJX9B-25S/D
	010602030504	Starter
	010202001401	Fan motor--YDK-90-6
	010603010018	Compressor capacitor
	010404021302	Fan blade
	010603030019	Fan capacitor
	010804070003	4 way valve
	010804000008	Coil of 4 way valve-18B-1000
HPD26/31	010804070003+010804000008	4 way valve+ coil
	010301140601	Compressor--C-SBN453H8D
	010202001401	Fan motor--YDK-90-6
	010404020502	Fan blade
	010603030019	Fan capacitor
	010600016112	Sensor 4-water inlet temp
HPC35/45/50	010202001506	Fan motor
	10404026101	Fan blade
	010301140601	compressor
	010301140603	Copelnd compressor
	010600020035	Air switch
	010606001507	AC contactor
	010606006001	AC contactor
	010804000008	coil of 4 way valve 1
	010804000021	coil of 4 way valve 2
	010804070003	4 way valve
	010603030020	Fan capacitor



## HPD / HPC SERIES HEAT PUMP SPARES

Suitable model	Code	Description
HPC70/90	10301140601	compressor
	010804070003	4 way valve
	010804000022	coil of 4 way valve
	010804000021	coil of 4 way valve
	010603030018	fan capacitor
	011200000015	water flow switch(2m line length)
	010600016112	5k Coil sensor (2m line length)
	10600016188	5k ambient sensor (3m line length)
	10600016197	50k inlet/outlet temp sensor 3m line length)
	010600020035	Air switch
	010606001507	AC contactor 1
	010202035601	Fan motor 1
	010202035602	Fan motor 2
	10504021502	Fan blade
	010602031505	phase protect board
Same from 5kw to 26kw	011200000013	Water flow switch (6")
All model same	010601030105	SWS LCD controller
All model same	010602020096	sws PCB
	010602020125	wifi controller
	010601030137	wifi pcb
All model same	010900000089/010900000171	R410a /r32Pressure gauge
All model same	010401990017	Water proof cover
All model same	010401992312	Drain hole φ20
Same from 5kw to 26kw	010600016101	5k coil sensor (1.2m length)
Same from 5kw to 26kw	010600016103	50k inlet/outlet temp sensor (1.2m length)
Same from 5kw to 26kw	010600010035	5k ambient sensor (1.2m length)
Same from 35-55kw	010600016112	5k Coil sensor (2m line length)
Same from 35-55kw	010600016110	5k ambient sensor (2m line length)
Same from 35-55kw	010600016114	50k inlet/outlet temp sensor (2m line length)
Same from 5kw to 26kw	010600040016	low pressure switch
Same from 5kw to 26kw	010600040015	high pressuer switch
All model same	010900000170	black rubber ring
for 70kw	011100000321	water connections φ75
for 35-55kw	011100000320	water connections φ63
for 5kw to 26kw	011500000010	water connections φ50 blue

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