



**Pahlén**<sup>®</sup>  
Premium pool equipment



**Catalogue 2023**

# News 2023

Not only do we have some interesting new products, we have also been working on some face lifts to make sure the whole product range is up to date.



## Jet Swim Athlete

Now, with an even better and smoother water flow. Page 10.

**FACELIFT**



## Skimmer Infinity

High water level skimmers, giving an infinite pool effect. Page 34.

**NEW**

## ● Water circulation

Pumps	Page	6-7
-------	------	-----

## ● Water attractions

Jet Swim	Page	10-13
----------	------	-------

Jet Massage	Page	14-15
-------------	------	-------

## ● Heating

Heat exchangers	Page	18-21
-----------------	------	-------

Electric heaters	Page	24-27
------------------	------	-------

Heat pump	Page	30-31
-----------	------	-------

## ● Lighting and swimming pool equipment

Lighting and accessories	Page	37-37
--------------------------	------	-------

Skimmers, inlets and outlets	Page	38-43
------------------------------	------	-------

## ● Measuring and dosing equipment

MiniMaster and accessories / CO <sub>2</sub> - pH regulation	Page	46
--	------	----

Autodos and accessories / CO <sub>2</sub> - pH regulation	Page	47
---	------	----

UV-disinfection	Page	51
-----------------	------	----

## ● Test instruments and pool care

Testing kits	Page	52-53
--------------	------	-------

## ● Information

Drawings	Page	54-71
----------	------	-------

Calculation tables and dimensioning	Page	72-73
-------------------------------------	------	-------

Water information (freshwater, salted water and sea water)	Page	74-75
--	------	-------







WATER CIRCULATION  
PUMPS

# Pumps



EcoVISE



WaterVISE



FloVISE

## WaterVISE 0,25-1,10 kW

Pump house and impeller in bronze with a thermoplastic pre-filter, with an easily detachable transparent securing lid. Versatile pre-filter allowing five different suction-positions.

### Technical data

Item no.	Type	kW 50Hz	Voltage/Ampere		
			230/3~	230/1~	400/3~
118100	HS25	0.25	-	1.95	-
118101	HS37	0.37	-	3,4	-
118102	HS55	0.55	-	4,1	-
118103	HS75	0.75	-	5.5	-
118123	HT75	0.75	2.9	-	1.7
118104	HS110	1.10	-	6.6	-
118124	HT110	1.10	4.2	-	2.4

## EcoVISE 0,75kW

Variable speed pump with three selectable programs ensure silent operation, energy savings and more efficient filtration. Integrated timer functions and external control of selected speeds.

### Technical data

Item no.	Type	kW 50Hz	Voltage/Ampere		
			230/3~	230/1~	400/3~
117103	HV75	< 0.75	-	4.4	-

### Accessories

#### Item no.

117100 External switch Eco

## FloVISE 0,25-1,1kW excl. pre-filter

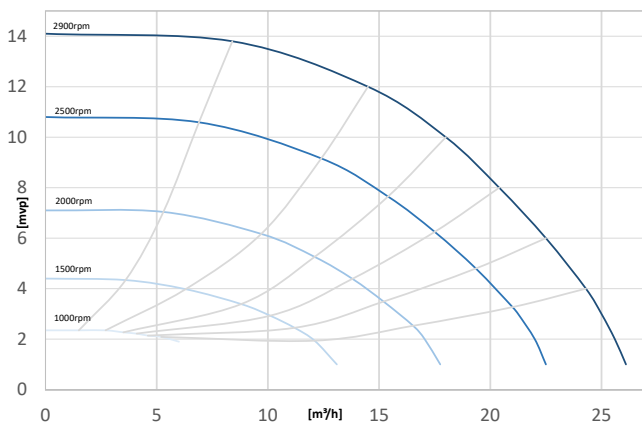
### Technical data

Item no.	Type	kW 50Hz	Voltage/Ampere		
			230/3~	230/1~	400/3~
119100	TS25	0,25	-	1,9	-
119101	TS37	0,37	-	3,4	-
119102	TS55	0,55	-	4,3	-
119103	TS75	0,75	-	5,5	-
119123	TT75	0,75	2,9	-	1,7
119104	TS110	1,1	-	6,6	-
119124	TT110	1,1	4,3	-	2,5

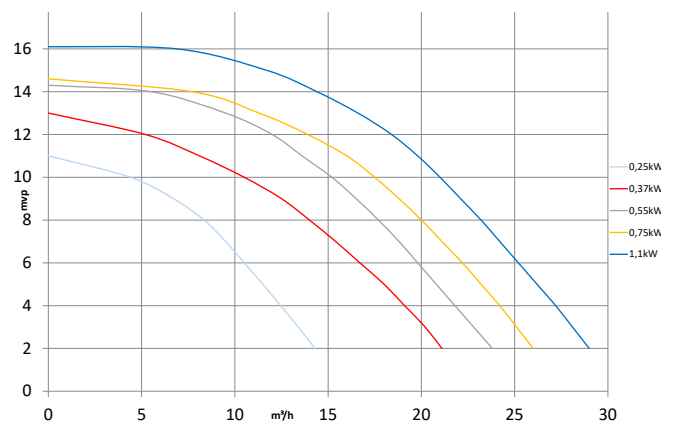
## EcoFloVISE

117113	TV75	< 0.75	-	4.4	-
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EcoVISE



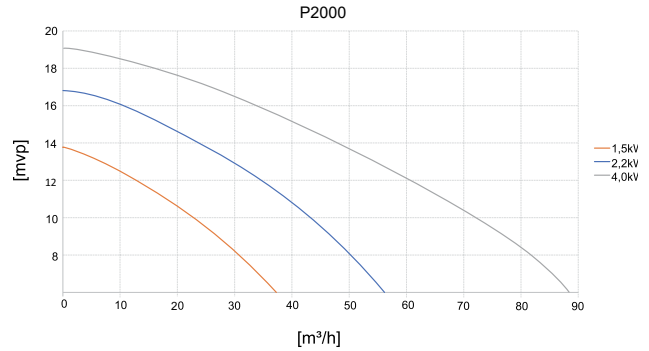
WaterVISE/FloVISE





## P2000/P2000FLO 1.5-4.0kW

Pumps of bronze, steady and quiet operation and long life without interruption. The pump impeller, pre-filter and pump housing is made of bronze and it is fitted to a shaft made of acid proof stainless steel AISI 316L.



### Technical data P2000

Item no.	Type	Voltage/Ampere						
		kW 50Hz	kW 60Hz	220/3~	230/3~	380/3~	400/3~	kg
112201	T150	1,5	-	-	5,2	-	3,0	35,8
112211	T220	2,2	-	-	8,0	-	4,6	37,8
112221	T400	4,0	-	-	-	-	8,0	45,8
112221NO	T400-230	4,0	-	-	13,9	-	8,0	45,8
112201SAHZ	TZ150-220	-	1,5	5,8	-	3,3	-	35,8
112211SAHZ	TZ220-220	-	2,0	8,0	-	4,6	-	37,8
112221SAHZ	TZ400-220	-	4,0	15,5	-	8,9	-	45,8

### Technical data P2000FLO

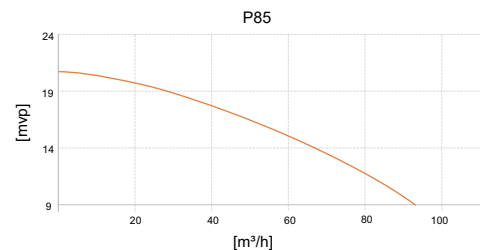
Item no.	Type	Voltage/Ampere						
		kW 50Hz	kW 60Hz	220/3~	230/3~	380/3~	400/3~	kg
115201	T150	1,5	-	-	5,2	-	3,0	25,7
115211	T220	2,2	-	-	8,0	-	4,6	27,7
115221	T400	4,0	-	-	-	-	8,0	35
115221NO	T400-230	4,0	-	-	13,9	-	8,0	35
115201SAHZ	TZ150-220	-	1,5	5,8	-	3,3	-	25,7
115211SAHZ	TZ220-220	-	2,0	8,0	-	4,6	-	27,7
115221SAHZ	TZ400-220	-	4,0	15,5	-	8,9	-	35

## P85/P85FLO

Pumps without pre-filters. For various purposes, Jet Massage, waterfall, fountains, etc.

### Technical data P85/P85FLO

Item no.	Type	Voltage/Ampere					
		kW 50Hz	kW 60Hz	220/3~	230/3~	380/3~	400/3~
11224	T550 pre-filter	5.5	-	-	-	-	10.2
11224SAHZ	TZ550-220	-	5.5	18.7	-	10.8	-
11524	T550 excl. pre-filter	5.5	-	-	-	-	10.2
11524SAHZ	TZ550-220 excl. pre-filter	-	5.5	18.7	-	10.8	-











WATER ATTRACTIONS  
**JET SWIM AND JET MASSAGE**

# Water attractions

## Jet Swim Athlete

Jet Swim Athlete has a unique flow technique with two oval nozzles, of which the lower is directed downward for a more even distribution of the streams and lifting the swimmers lower body.

This make a more natural swimming experience.



### Technical data Jet Swim Athlete

Type	Motor	Voltage, 50Hz	Ampere 230/400	Pump capacity	Pipe connection	Materials
Athlete	4,0 kW	230/400 V	13,9/8,0 A	68 m³/h	2½"	PC/stainless steel

Item no.	Type
33045	Jet Swim Athlete kit steel/liner
33046	Jet Swim Athlete kit concrete/liner
1302100	Jet Swim Athlete unit incl. liner kit
1302130	Jet Swim Athlete Assembly kit concrete
1302185	Jet Swim Athlete Pump 50Hz 230/400V
1302185HZ	Jet Swim Athlete Pump 60Hz 260/460V
1302185SAHZ	Jet Swim Athlete Pump 60Hz 220/380V
1302090	Jet Swim 4.0kW Control box 400V 3~



Jet Swim Athlete/Motion



Other counter-current unit

Pool construction	Concrete blocks construction	Concrete construction	Concrete construction	Fibre glass construction
	In combination with liner 0,75 - 2 mm	With tiles or paint	With tiles or paint.	Without liner

Lights	Concrete bulding blocks up to 250 mm	Concrete without sealing membrane up to 250 mm	Concrete with cement based sealing membrane up to 250 mm	Composite material (GRP/PP) up to 16 mm
Item no.				
Athlete				
33045				● (max 6 mm)*
33046	●	●	●	
1302100	●	●	●	● (max 6 mm)*
1302130	●	●	●	
1302185	●	●	●	●
1302185HZ	●	●	●	●
1302185SAHZ	●	●	●	●
1302090	●	●	●	●
Motion				
33041				● (+ 1301315)
33042	●	●	●	
33043				● (+ 1301315)
33044	●	●	●	
1301300	●	●	●	● (+ 1301315)
1301305	●	●	●	● (+ 1301315)
1301310				● (+ 1301315)
1301315				●
1301320	●	●	●	
1301285	●	●	●	●
1301285HZ	●	●	●	●
1301285SAHZ	●	●	●	●
1301390	●	●	●	●



# Jet Swim Motion

Jet Swim Motion uses the same new flow technique with two oval nozzles, as Jet Swim Athlete.

The air mixture in the jet streams are adjusted seamlessly in order to suit your personal needs.



Classic

Marine

## Technical data Jet Swim Motion

Type	Motor	Voltage, 50Hz	Ampere 230/400	Pump capacity	Pipe connection	Materials
Motion	2,2 kW	230/400 V	8,0/4,6 A	46 m³/h	2"	PC/stainless steel

Item no.	Typ
33041	Jet Swim-kit Motion Classic, steel/liner
33042	Jet Swim-kit Motion Classic, concrete/liner
33043	Jet Swim-kit Motion Marine, steel/liner
33044	Jet Swim-kit Motion Marine, concrete/liner
1301300	Motion Classic unit
1301305	Motion Marine unit

Item no.	Typ
1301310	Assembly kit Jet Swim Motion liner
1301315	Mounting kit/Jet Swim Motion fibreglass/PP
1301320	Assembly kit Jet Swim Motion concr/liner
1301285	Jet Swim Pump 2.2kW 230/400V 50Hz
1301285HZ	Jet Swim Pump 2.2kW 260/460V 60Hz
1301285SAHZ	Jet Swim Pump 2.2kW 220/380V 60Hz
1301390	Jet Swim 2.2kW Control box 400/3~

EPS/ISO blocks construction	Steel panel construction	Wood construction
Reinforced with concrete in combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm
<b>Building blocks up to 250 mm</b>	<b>Steel panels up to 3 mm</b>	<b>Plywood 12 mm</b>
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# Water attractions

## Jet Swim 2000

An exclusive counter current unit with different settings. Pump capacity of 71 m<sup>3</sup>/h.

The air flow that is mixed with the jet streams, is adjusted by turning the air knob on the front. It is just as simple to adjust the water flow.



### Technical data

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

Jet Swim 2000 is also available in 3-phase 230V/50Hz or 380V/60Hz.

Item no.	Type	Item no.	Type
33029	Complete unit - concrete	1302015	Screw kit for fiberglass/PP pool
33028	Complete unit - liner	1302080	Jet Swim Pump 4.0kW 230/400V 50Hz
1302000	Jet Swim unit	1302085HZ	Jet Swim Pump 4.0kW 260/460V 60Hz
1302010	Assembly kit Jet Swim 2000, liner	1302085SAHZ	Jet Swim Pump 4.0kW 220/380V 60Hz
1302020	Assembly kit Jet Swim 2000, concrete/liner	1302090	Jet Swim 4.0kW Control box 400V 3~

Pool construction	Concrete blocks construction	Concrete construction	Concrete construction	Fibre glass construction
In combination with liner 0,75 - 2 mm	With tiles or paint	With tiles or paint.	Without liner	
Lights	Concrete bulding blocks up to 250 mm	Concrete without sealing membrane up to 250 mm	Concrete with cement based sealing membrane up to 250 mm	Composite material (GRP/PP) up to 16 mm
Item no.				
33029	•	•	•	
33028				• (+ 1302015)
1302000	•	•	•	• (+ 1302015)
1302010				•
1302020	•	•	•	
1302015				•
1302080	•	•	•	•
1302085HZ	•	•	•	•
1302085SAHZ	•	•	•	•
1302090	•	•	•	•
1301200	•	•	•	
1301210				
1301220	•			
1301230		•	•	
1301285	•	•	•	
1301285HZ	•	•	•	
1301285SAHZ	•	•	•	
1301390	•	•	•	



## Jet Swim 1200

The jet streams are varied in power by rotating the turnable front.

Resistance for the swimmer can be changed in three different steps, two for the jet stream and one for the air mixture.



### Technical data

Type	Motor	Voltage, 50Hz	Ampere, 230/400	Pump capacity	Pipe connection	Materials
1200	2.2 kW	230/400 V	8.0/4.6 A	50 m³/h	2"	Bronze/stainless steel

Jet Swim 1200 is also available in 3-phase 230V/50Hz or 460V/60Hz.

Item no.	Type
1301200	Jet Swim unit
1301210	Assembly kit 1200, liner
1301220	Assembly kit 1200, concrete/liner
1301230	Assembly kit 1200, concrete

Item no.	Type
1301285	Jet Swim Pump 2.2kW 230/400V 50Hz
1301285HZ	Jet Swim Pump 2.2kW 260/460V 60Hz
1301285SAHZ	Jet Swim Pump 2.2kW 220/380V 60Hz
1301390	Jet Swim Control box 2.2kW 400/3~

EPS/ISO blocks construction

Steel panel construction

Wood construction



Reinforced with concrete in combination with liner 0,75 - 2 mm



In combination with liner 0,75 - 2 mm



In combination with liner 0,75 - 2 mm

Building blocks up to 250 mm

Steel panels up to 3 mm

Plywood 12 mm

•		
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•
•	•	•

# Water attractions

## Jet Massage

MADE OF ACID PROOF STAINLESS STEEL

Jet Massage consists of a standalone inlet, outlet and start button that combines as desired and up to 6 nozzles. The massage station can be controlled with a Pahlén circulation pump (e.g. FloVISE or P2000FLO) and Pahlén control box.



### Classic

Item no.	Type
130571	Start button Classic 350
130570	Massage Soft Classic 350
130572	Massage Medium Classic 350
130561	Start button Classic
130560	Massage Soft Classic
130562	Massage Medium Classic

### Marine

Item no.	Type
130551	Start button Marine 350
130550	Massage Soft Marine 350
130552	Massage Medium Marine 350
130541	Start button Marine
130540	Massage Soft Marine
130542	Massage Medium Marine

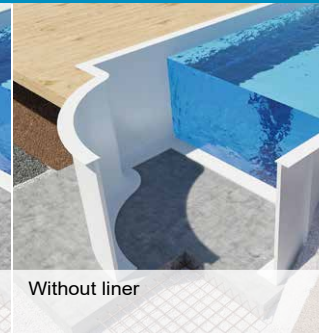
### Pool construction

### Concrete blocks construction

### Concrete construction

### Concrete construction

### Fibre glass construction



### Lights

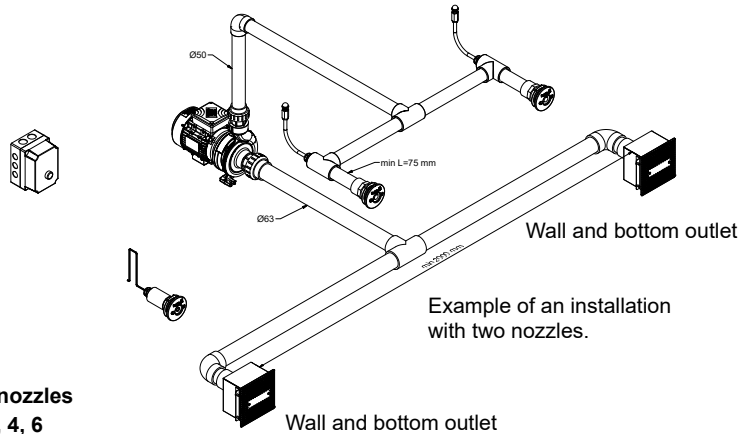
Item no.	Concrete bulding blocks up to 250 mm	Concrete without sealing membrane up to 250 mm	Concrete with cement based sealing membrane up to 250 mm	Composite material (GRP/PP) up to 16 mm
130571	•		• (+ 822600)	
130570	•		• (+ 822600)	
130572	•		• (+ 822600)	
130561		• (+ 12670)		• (+ 15530111)
130560		• (+ 12670)		• (+ 15530111)
130562		• (+ 12670)		• (+ 15530111)
130551	•		• (+ 822600)	
130550	•		• (+ 822600)	
130552	•		• (+ 822600)	
130541		• (+ 12670)		• (+ 15530111)
130540		• (+ 12670)		• (+ 15530111)
130542		• (+ 12670)		• (+ 15530111)

## Massage station configurations

Complete Jet Massage consists of 1-6 massage nozzles, a start button, at least 2 outlets, a separate circulation pump, a control box and connections. The number of massage nozzles governs the size of the pump and the number of outlets.

Recommended flow capacity max 8-10 m<sup>3</sup>/h per nozzle.

Number of massage nozzles	Number of outlets	Pump
1	2	FloVISE 0,55 kW
2	2	FloVISE 1,1 kW
4	3	P2000 2,2 kW
6	4	P2000 4,0 kW



### Jet massage-unit

When ordering Jet Massage units according to configurations above, use item no. as in example shown below.

Marine design = 36 Classic design = 35	350 = 2 Standard = 0	Soft = 0 Medium = 1	No. of nozzles 1, 2, 4, 6
36ABC	362BC	3620C	36204
35ABC	350BC	3501C	35012

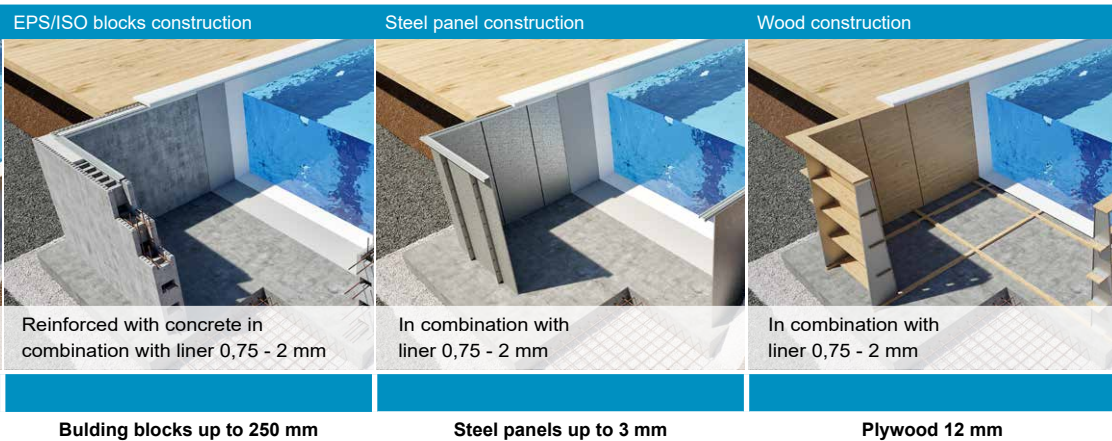
### Accessories

Item no.	Connection side	Item no.	Connection bottom
125933	CA-WBS	125931	CA-WBB
125938	A-WBS	125936	A-WBB

Capacity flow max 20 m<sup>3</sup>/h. Inside thread 2".

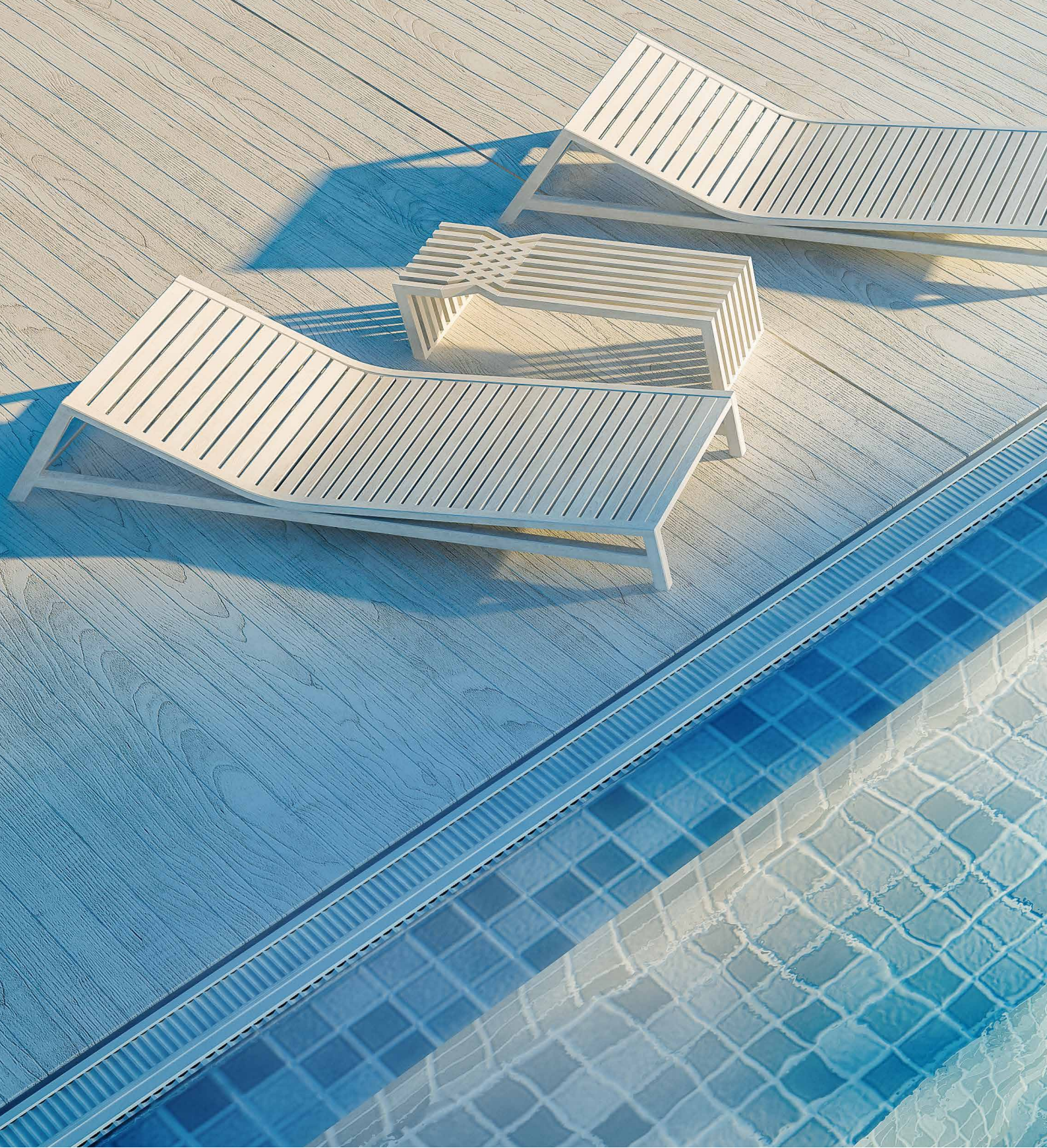
### Accessories

Item no	Description
636200	Massage nozzle Soft as option
636201	Massage nozzle Medium as option
822600	Concrete-kit for inlets
15530111	Screw kit small nozzle fiberglass/PP



Bulding blocks up to 250 mm	Steel panels up to 3 mm	Plywood 12 mm
•		
•		
•		
	•	•
	•	•
	•	•
•		
•		
•		
	•	•
	•	•
	•	•









HEATING  
HEAT EXCHANGERS



# Heat Exchangers

## Heat Exchangers for every type of installation

All the models can be installed and connected to electric, firewood, pellets or oil-fired boilers, heat pump or solar panel systems. The heat exchangers are designed and made of materials that permit their use for a wide variety of needs and in many different types of installations.



## Maxi-Flo titanium 75/200kW

Maxi-Flo titanium is made of titanium for the most demanding installations where there is a high risk of corrosion. Titanium is ideal for swimming pools with salt water or where a salt chlorinator is used.

Maximum pressure secondary circuit (pool water) is 5 bar for 75kW, 4 bar for 200kW and primary circuit (hot water) is 10 bar for both.

Technical data		Capacity			Primary, hot water		Secondary, pool water	
Item no.	Type	kW	kBtu/h	kcal	l/min	press. drop H (m)	l/min	press. drop H (m)
11377	MFT260	75	260	64 488	35	0.9	300	1.8
11380	MFT680	200	680	172 000	95	0.1	600	3

## Maxi-Flo 40-120kW

Maxi-Flo is a tube heat exchanger with excellent heating properties. It is made of acid proof stainless steel AISI 316L for optimum service life. Simple installation using the stainless steel adjustable attachments that are included.

Maximum pressure secondary circuit (pool water) is 5 bar and primary circuit (hot water) is 10 bar.



Technical data		Capacity			Primary, hot water		Secondary, pool water	
Item no.	Type	kW	kBtu/h	kcal	l/min	press. drop H (m)	l/min	press. drop H (m)
11365	MF135	40	135	34 394	25	0.05	200	0.8
11366	MF200	60	200	51 590	30	0.15	250	1.4
11367	MF260	75	260	64 488	35	0.4	300	1.0
11368	MF400	120	400	103 181	50	0.5	360	1.5
10083002	Coupling 2" in case of series connection of 11367 or 11368.							

Capacity at a temperature difference of 60°C

## Hi-Flow titanium 28-75kW

Hi-Flow titanium is a spiral heat exchanger made of titanium for the most demanding installations where there is a high risk of corrosion. Titanium is ideal for swimming pools with salt water or where a salt chlorinator is used. Adjustable stainless steel attachments included.

Maximum pressure secondary circuit (pool water) is 5 bar and primary circuit (hot water) is 30 bar.



Technical data		Capacity			Primary, hot water		Secondary, pool water	
Item no.	Type	kW	kBtu/h	kcal	l/min	press. drop H (m)	l/min	press. drop H (m)
11332	T28	28	95	24 075	20	1.0	300	1.1
11333	T40	40	135	34 393	40	2.3	350	1.7
11334	T75	75	260	64 488	45	5.2	350	1.7

Capacity at a temperature difference of 60°C for 11332 and 11333.

Capacity at a temperature difference of 70°C for 11334.

## Hi-Flow 13-75kW

Hi-Flow is a spiral heat exchanger made of acid proof stainless steel AISI 316L for installations that operate under high pressure. Simple installation with the included adjustable stainless steel attachments.

Maximum pressure secondary circuit (pool water) is 8 bar and primary circuit (hot water) is 30 bar.



Technical data		Capacity			Primary, hot water		Secondary, pool water	
Item no.	Type	kW	kBtu/h	kcal	l/min	press. drop H (m)	l/min	press. drop H (m)
11391	HF13	13	45	11 177	25	0.9	200	0.6
11392	HF28	28	95	24 075	25	1.7	300	1.6
11393	HF40	40	135	34 393	60	1.3	300	1.6
11394	HF75	75	260	64 488	60	2.6	300	1.1

Capacity at a temperature difference of 60°C for 11391 and 11392.

Capacity at a temperature difference of 70°C for 11393 and 11394.



## Hi-Temp titanium 40-75kW

Hi-Temp titanium is a spiral heat exchanger made of thermoplastic. With a coil of titanium for the most demanding installations where there is a high risk of corrosion, such as in pools with salt water or where a salt chlorinator is used.

Maximum pressure secondary circuit (pool water) is 4 bar and primary circuit (hot water) is 5 bar.



Technical data		Capacity			Primary, hot water		Secondary, pool water	
Item no.	Type	kW	kBtu/h	kcal	l/min	press. drop H (m)	l/min	press. drop H (m)
11322	HTT 40	40	135	34 393	52	1.5	300	1.1
11324	HTT 75	75	260	64 488	58	2.5	300	1.2

Capacity at a temperature difference of 60°C

## Hi-Temp 40-75kW

Hi-Temp is a spiral heat exchanger made of thermoplastic, and with a coil of acid proof stainless steel AISI 316L.

Maximum pressure secondary circuit (pool water) is 4 bar and primary circuit (hot water) is 5 bar.



Technical data		Capacity			Primary, hot water		Secondary, pool water	
Item no.	Type	kW	kBtu/h	kcal	l/min	press. drop H (m)	l/min	press. drop H (m)
11312	HT40	40	135	34 393	34	1.9	300	1.3
11314	HT75	75	260	64 488	43	5.5	300	1.7

Capacity at a temperature difference of 60°C



## Aqua MEX

Aqua MEX is made of high quality materials, glass-fibre reinforced polypropylene and a high effective coil made of titanium.

The heat exchanger has a straight flow with a low pressure drop and with slip connections for Ø 63 mm pipes.

### Fully equipped

Aqua MEX fully equipped has a three-step single-phase built-in circulation pump for the primary (hot) water as well as built-in temperature sensor, flow switch and check valve. Digital temperature control and display.



Maximum pressure secondary circuit (pool water) is 4 bar and primary circuit (hot water) is 6 bar.

Name/type with T refers to the Aqua MEX with a coil of titanium.

Technical data										
Item no.	Fully equipped	Item no.	Standard	Capacity			Primary, hot water		Secondary, pool water	
				kW	kBtu/h	kcal	l/min	press. drop H (m)	l/min	press. drop H (m)
113951	AM-FE40	11316	AM40	40	135	34 393	20	0.6	250	0.4
113952	AM-FE40T	11326	AM40T	40	135	34 393	20	0.4	250	0.4
113953	AM-FE70	11317	AM70	70	240	60 200	30	1.6	300	0.6
113954	AM-FE70T	11327	AM70T	70	240	60 200	30	1.4	300	0.6
		11318	AM100	100	340	86 000	40	2.6	340	0.8
		11328	AM100T	100	340	86 000	40	2.3	340	0.8

Capacity at a temperature difference of 60°C.

## MidiTemp

A compact unit for digital setting and viewing of temperature for operation and control of heating products, both in already existing or new installations.

The controller will give a more precise temperature regulation compared to an analogue thermostat.

Built-in safety features for overheat protection, flow switch for low pool circulation and alarm for temperatures above 45°C.

### Item no.

128470 MidiTemp



### Technical data

Power connection	220-240VAC 1~N 50Hz
Max effect	230W
Sealing class	IP44
Dimensions L x W x H	170 x 50 x 160 mm
Connection cabel	3 x 0,75 mm <sup>2</sup> , 1,5 m long
Switch on at 0.5°C under set temperature	
Switch off 0.5°C above set temperature	
Control voltage	230 VAC 50Hz max 1A
Protection switches	Potential free/dry contacts

### Thermostat

#### Item no.

12840 0-40°C ½". Probe 160 mm.



### Accessories

#### Item no.

14009100 Sensor well R1/2" L=70 mm

128604 Saddle clamp 63 x ½" PN10 PP

12870 Flow switch, external connection ½"









HEATING  
ELECTRIC HEATERS

## Pahlén's electric heaters heats the water easily and effectively.

All Pahlén heaters are compact and can be installed in all kind of swimming pools, spas and large public facilities. The materials used are acid proof stainless steel AISI 316L, Incoloy 825, titanium and thermoplastic. All electric heaters are designed for continuous flow with the lowest possible pressure drop.



Compact

### Compact 3-18kW

Supplied with a thermostat and overheating cut out. A flow switch or pressure switch protects the heating element from damage if the flow to the heater is insufficient.

These electric heaters are available in both titanium/Nic-Tech and acid proof stainless steel AISI316L/Incoloy 825.

All compact electric heaters are delivered with a 2" heating element. Max. pressure: 4 bar.

Technical data	With flow switch	With pressure switch
Max temperature	60°C	60°C
Max pressure	2.5 bar	4 bar
Min. flow 3-9kW min	85 l/min	20 l/min
Min. flow 12-18kW	85 l/min	40 l/min

### With flow switch. Max 2.5 bar

Unipolar thermostat 0-45°C, pressure switch, unipolar high limit control 60°C

Item no.	Type	kW	Ampere 3-phase		kg
			230V	400V	
13981403*	11F30	3.0	8	5	2.8
13981406*	11F60	6.0	15	9	2.8
13981409*	11F90	9.0	23	14	3.2
13981412*	11F120	12.0	31	18	3.2
13981415*	11F150	15.0	38	22	3.2
13981418*	11F180	18.0	46	27	3.2

### With pressure switch. Max 4 bar

Unipolar thermostat 0-45°C, pressure switch, unipolar high limit control 60°C

Item no.	Type	kW	Ampere 3-phase		kg
			230V	400V	
13982403	11P30	3.0	8	5	2.8
13982406	11P60	6.0	15	9	2.8
13982409	11P90	9.0	23	14	3.2
13982412	11P120	12.0	31	18	3.2
13982415	11P150	15.0	38	22	3.2
13982418	11P180	18.0	46	27	3.2

\*Available with outer jacket made of titanium and Nic-Tech treated heating element.

Titanium heaters are designed for pools with very aggressive water, large quantities of chlorides and where there is a high risk for corrosion, e.g. in pools with salt water.

When ordering titanium model, add a "T" after the item no. Applies to the following article 139814xxT.



## Aqua Compact 3-18kW

Electric heater made of reinforced 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.



### Technical data

Incoloy 825 heating element			Titanium heating element			Ampere 3-phase		
Item no.	Type	kg	Item no.	Type	kg	kW	230V	400V
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	2.2	12.0	31	18
141604	AC150	2.2	141604T	AC150T	2.2	15.0	38	22
141605	AC180	2.2	141605T	AC180T	2.2	18.0	46	27

Also available with connections 1 1/2" pipe or 1 1/2" threaded.

## Aqua spa 1.5-2.0kW

A small, compact heater for spa pools and small swimming pools. It is available with capacities from 1.5 to 2.0 kW. The heater is made of thermoplastic and has a heating element made of Incoloy 825. Adjustable thermostat, overheating cut out and flow switch are standard.

Minimum flow 90 l/min.

Suitable for spa, hot tubs and smaller pools.



### Technical data 1-phase 230V

Item no.	Type	kW	Length mm	Pipe connection	Ampere	kg
141650	AS15	1.5	200	Ø 50 mm	7	1.0
141651	AS20	2.0	200	Ø 50 mm	9	1.0

Also available with connections 1 1/2" pipe or 1 1/2" threaded.

## Aqua HL 3-15kW

Aqua HL has a digital control, where the desired pool temperature can easily be set and the current pool temperature is shown in the LED display.

In addition to an overheating protection and a flow switch, the heater has built-in contactors, that simplifies the connection of the heater. Rated output 3-15 kW. Made of thermoplastic with heating element made of Incoloy 825 or titanium.

Minimum flow 90 l/min.



### Technical data

Incoloy 825 heating element			Titanium heating element			Ampere 3-phase	
Item no.	Type	kg	Item no.	Type	kg	400V	415V
141800	D30	2.6	141800T	D30T	2.6	3.0kW 5A	3.5kW 5A
141801	D60	2.6	141801T	D60T	2.6	6.0kW 9A	6.5kW 9A
141802	D90	2.6	141802T	D90T	2.6	9.0kW 13A	10kW 14A
141803	D120	2.6	141803T	D120T	3.0	12.0kW 18A	13kW 18A
141804	D150	3.0	141804T	D150T	3.0	15.0kW 22A	16.2kW 23A
						<b>1-phase 230V</b>	<b>3-phase 230V</b>
141820	DS30-230	2.6	141820T	DS30T-230	2.6	3.0kW 13A	-
141821	DS60-230	2.6	141821T	DS60T-230	2.6	6.0kW 26A	-
141830	D30-230	2.6	141830T	D30T-230	2.6		3kW 8A
141831	D60-230	2.6	141831T	D60T-230	2.6		6kW 15A
141832	D90-230	2.6	141832T	-	2.6		9kW 23A

Also available with connections 1 1/2" pipe or 1 1/2" threaded.



## 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 do not only make the heating highly effective, it also makes the heating element fully corrosion free.

### Additional safety

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.

Slip 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 Analog EHA

MidiHeat Digital EHD





## Control panel for MidiHeat Digital

- Digital temperature control 8-45°C.
- Master-/slave - connect up to nine heaters and control them with a master.
- Activation delay - adjustable delay time for sequential start of the heating elements, 5-60 seconds.
- Temperature offset - manually adjust the actual pool temperature, up to  $\pm 4^\circ\text{C}$ .
- Restore factory settings - option for resetting all settings.
- Error codes - automatic storing of the last ten error messages.

### Technical data MidiHeat Digital EHD 380-415V/230V

Capacity	Item no.	3~400V	3~415V	Conne- tion Ø 63	Min.flow 170 l/min	Max. flow 300 l/min	Max press. 2 bar
18kW = 2x9kW	1511018T	18kW 26A	19,5kW 27A	•	•	•	•
24kW = 2x12kW	1511024T	24kW 35A	26kW 36A	•	•	•	•
30kW = 2x15kW	1511030T	30kW 43A	32kW 45A	•	•	•	•
36kW = 3x12kW	1511036T	36kW 52A	39kW 54A	•	•	•	•
45kW = 3x15kW	1511045T	45kW 66A	49kW 69A	•	•	•	•
60kW = 4x15kW	1511060T	60kW 87A	65kW 90A	•	•	•	•
72kW = 4x18kW	1511072T	72kW 104A	78kW 108A	•	•	•	•

### Technical data MidiHeat Analog EHA 380 - 415V/230V

Capacity	Item no.	3~400V	3~415V	Conne- tion Ø 63	Min.flow 170 l/min	Max. flow 300 l/min	Max press. 2 bar
18kW = 2x9kW	1512018T	18kW 26A	19,5kW 27A	•	•	•	•
24kW = 2x12kW	1512024T	24kW 35A	26kW 36A	•	•	•	•
30kW = 2x15kW	1512030T	30kW 43A	32kW 45A	•	•	•	•
36kW = 3x12kW	1512036T	36kW 52A	39kW 54A	•	•	•	•
45kW = 3x15kW	1512045T	45kW 66A	49kW 69A	•	•	•	•
60kW = 4x15kW	1512060T	60kW 87A	65kW 90A	•	•	•	•
72kW = 4x18kW	1512072T	72kW 104A	78kW 108A	•	•	•	•







HEATING  
HEAT PUMP





## Calidi XP

Full inverter pool heat pump Calidi XP with cutting-edge technology for extremely efficient and energy-saving heating. The inverter technology adapts the pumps capacity to the pools requirements, a superior technique compared to ON/OFF models.

With intelligent operation and accuracy Calidi XP always ensures perfect water temperature with the best energy efficiency and low noise level. With ECO mode Calidi runs almost noiseless.

Adjust desired pool temperature, check operating status and temperature on the touch display or wirelessly through an app (iPhone/Android). Calidi XP is equipped with a titanium heat exchanger for improved heating capacity and uses an eco-friendly gas, R32.

Tested for energy class A according to standard NF414 by the independent test institute TÜV.





# Heat pump

Calidi XP	XP10	XP15	XP17	XP28	XP35
Item no.	14983340	14983341	14983342	14983343	14983344
Heating capacity max (air 26°C/water 26°)	2,0-10,3kW	3,0-15,0kW	3,5-17,3kW	5,4-27,0kW	7,1-35,6kW
Heating capacity max (air 15°C/water 26°)	1,4-7,1kW	2,1-10,5kW	2,3-11,4kW	3,6-18,0kW	4,8-24,0kW
COP max (air 26°C/water 26°)	6,9-14,5	6,7-15,5	5,9-14,8	6,2-14,5	5,5-14,6
COP max (air 15°C/water 26°)	4,6-7,3	4,6-7,8	4,3-7,5	4,5-7,6	4,5-7,7
Sound pressure at 1m dB(A)	38,6-49,9	41,3-54,0	43,1-53,8	43,5-54,9	42,6-54,7
Sound pressure at 10m dB(A)	18,6-29,9	21,3-34,0	23,1-33,8	23,5-34,9	22,6-34,7
Electric connection	230V/1-fas/50HZ			400V/3-fas/50HZ	
Fusing	10,0A	13,5A	15,0A	7,0A	9,5A
Recommended security	10A	16A	16A	10A	10A
Water pipe in/out	Ø50mm	Ø50mm	Ø50mm	Ø50mm	Ø50mm
Weight	49kg	52kg	63kg	93kg	120kg
Refrigerant	R32	R32	R32	R32	R32
Refrigerant quantity	0,75kg	0,9kg	1,0kg	2,0kg	2,7kg
Recommended water flow	3-4m³/h	5-7m³/h	6,5-8,5m³/h	10-12m³/h	12-18m³/h
Recommended pool volume	20-40m³	35-60m³	40-75m³	65-110m³	95-150m³

## Technical data

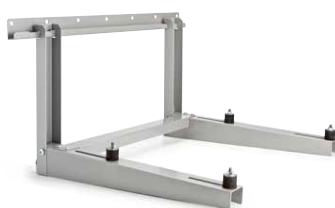
### Calidi XP

Full inverter (compressor & fan)	Yes
Compressor type	Twin rotary
Electronically controlled refrigerant injection	Yes
Energy class A according to standard NF414	A
Tested by independent test institute TÜV.	Yes
Min. working area outdoor temperature	-7°C
Control panel	Touch
Chassi	ABS
Environmentally friendly refrigerant R32	Yes
WiFi	included

## Accessories

### Item no

14983407	Ground frame, XP10, XP15 and XP17
14983408	Wall frame, XP10, XP15
14983420	Wi-Fi box VP10/VP13
14950181	Bypass kit c-c 250-390 mm, XP10, XP15, XP17
14950182	Bypass-kit c-c 620-650 mm, XP28, XP35









LIGHTS AND SWIMMING POOL EQUIPMENT

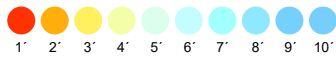
# Lights / Spotlights

MADE OF ACID PROOF STAINLESS STEEL AISI 316L.

All light comes with a polished front. Supplied as a complete unit with a niche for simple installation.

Colour synchronization with installation of more than one RGB light through mutual transformer. All lights can be remote controlled, available as an option.

Kelvin Scale in 1 000



Classic 170

Marine 170

## Classic

Item no.	Type	W	Lumen	Kelvin	Program
150584	A 170VS-WW	18	1450	5000	-
150594	CA 170VS-WW	18	1450	5000	-
150284	A 170VS-RGB	34.5	2100	-	11
150294	CA 170VS-RGB	34.5	2100	-	11
150283	A 170AP-RGB*	75	3600	-	14
150293	CA 170AP-RGB*	75	3600	-	14

\*Dimmable.

## Marine

Item no.	Type	W	Lumen	Kelvin	Program
124584	A 170VS-WW	18	1450	5000	-
124594	CA 170VS-WW	18	1450	5000	-
124284	A 170VS-RGB	34.5	2100	-	11
124294	CA 170VS-RGB	34.5	2100	-	11
124283	A 170AP-RGB*	75	3600	-	14
124293	CA 170AP-RGB*	75	3600	-	14



Lights		Concrete bulding blocks up to 250 mm	Concrete without sealing membrane up to 250 mm	Concrete with cement based sealing membrane up to 250 mm	Composite material (GRP/PP) up to 16 mm
Classic	150584		•		
	150594	• (+ 112900)		• (+ 822610)	• (+ 15530127)
	150284		•		
	150294	• (+ 112900)		• (+ 822610)	• (+ 15530127)
	150283		•		
	150293	• (+ 112900)		• (+ 822610)	• (+ 15530127)
Marine	124584		•		
	124594	• (+ 112900)		• (+ 822610)	• (+ 15530127)
	124284		•		
	124294	• (+ 112900)		• (+ 822610)	• (+ 15530127)
	124283		•		
	124293	• (+ 112900)		• (+ 822610)	• (+ 15530127)
Classic	125853		• (+ 12670)		• (+ 15530111)
	125873	•		• (+ 822600)	• (+ 15530111)
	125852		• (+ 12670)		• (+ 15530111)
	125872	•		• (+ 822600)	• (+ 15530111)
Marine	124853		• (+ 12670)		• (+ 15530111)
	124873	•		• (+ 822600)	• (+ 15530111)
	124852		• (+ 12670)		• (+ 15530111)
	124872	•		• (+ 822600)	• (+ 15530111)





Classic 350

Classic 40



Marine 350

Marine 40

## Classic

Item no.	Type	W	Lumen	Program
125853	CA-40 50VS-RGB	9	450	11
125873	CA-350 50VS-RGB	9	450	11
125852	CA-40 50AP-RGB*	11	600	14
125872	CA-350 50AP-RGB*	11	600	14

## Marine

Item no.	Type	W	Lumen	Program
124853	CA-40 50VS-RGB	9	450	11
124873	CA-350 50VS-RGB	9	450	11
124852	CA-40 50AP-RGB*	11	600	14
124872	CA-350 50AP-RGB*	11	600	14

\*Dimmable.

### Item no

#### Controller / remote

150110	Control box PL-REM VS
150120	Control box PLP-REM VS/AP
150131	Control box PLP-REM-350 VS/AP incl. transformer 350VA
150140	Remote control DLT10-RGB AP Touch display

#### Cable conduit

12330	L = 1050 mm.
12854	Jointing sleeve

#### Transformer



122736	TR150-IP64 150VA
122737	TR350-IP64 350VA
122738	TR700-IP64 700VA

#### Junction box

12310	Stainless steel junction box
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#### Accessories

112900	Niche fixtures concrete, light 300 and skimmer, set of four
15530127	Assembly kit 170 light fibre glass/PP pool
15530111	Assembly kit inlets/spotlights fibre glass/PP pool
822600	Concrete-kit inlets/spotlights for cement based sealing membrane
822610	Concrete-kit 170 light for cement based sealing membrane
822110	Mounting plate 170 light
822145	Mounting plate inlets/spotlights

EPS/ISO blocks construction	Steel panel construction	Wood construction	Wood/concrete construction
			
Reinforced with concrete in combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm
<b>Building blocks up to 250 mm</b>	<b>Steel panels up to 3 mm</b>	<b>Plywood 12 mm</b>	<b>Wood 32 - 70 mm Prefabricated concrete 50 - 250 mm</b>
● (+112900)	●	●	● (+ 822110)
● (+112900)	●	●	● (+ 822110)
● (+112900)	●	●	● (+ 822110)
● (+112900)	●	●	● (+ 822110)
● (+112900)	●	●	● (+ 822110)
● (+112900)	●	●	● (+ 822110)
●	●	●	● (+ 822145)
●	●	●	● (+ 822145)
●	●	●	● (+ 822145)
●	●	●	● (+ 822145)
●	●	●	● (+ 822145)
●	●	●	● (+ 822145)
●	●	●	● (+ 822145)

## LED 170VS

### Colour programs



1. CANDLE LIGHT  
<2000K very warm white



2. WARM WHITE  
3000K warm white



3. NEUTRAL WHITE  
5000K neutral white



4. COLD WHITE  
9500K cold white



5. CARIBBEAN BLUE  
Cyan



6. BLUE  
Blue



7. GREEN  
Green



8. RED  
Red



9. PURPLE  
Purple

### Dynamic programs

10. YELLOW DYNAMIC  
Slowly shifting various yellow

11. BLUE DYNAMIC  
Fast shifting various blue



The pool in the pictures has a white liner.



## LED 170AP

### Colour programs



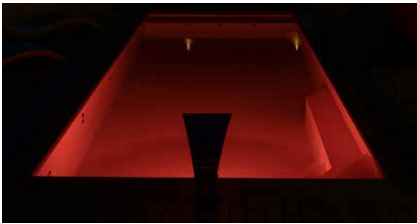
1. DEEP BLUE SEA  
Fixed Deep blue



2. DAYLIGHT BLUE  
Fixed Light blue



3. SUNSET  
Fixed Orange red



4. LOVE IS IN THE AIR  
Fixed Red



5. FOREST SPRING  
Fixed Green



6. THINK PINK  
Fixed Pink



7. SUNSHINE  
Fixed Yellow



12. WARM WHITE  
Fixed Warm white



13. NEUTRAL WHITE  
Fixed Neutral white



14. SUN WHITE  
Fixed Sun white

### Dynamic programs

#### 8. JUNGLE BEACH

Slow shifting deep blue, light blue, azure blue, mid blue and light blue.

#### 9. VOODOO

Slow shifting red, wine red, purple and bordeaux.

#### 10. DISCO

Fast shifting purple, pink, peach, light yellow, light green and light blue.

#### 11. PARTY

Fast shifting blue, azure blue, green, green/red, red blue, purple, light pink, peach, yellow, light green and light blue.



The pool in the pictures has a white liner.

# Pahlén skimmers, inlets and outlets

MADE OF ACID PROOF STAINLESS STEEL

High water level skimmers

Classic Wide 385 / Skimmer Infinity gives high water level with efficient extraction.

Classic Wide 6° 385 is especially developed for glass-fibre/PP pools with 6 degree angle walls.

Prepared for installation of water level control.

**NEW**



## Skimmer Infinity

Item no.	Type	
112965	CA-SI	Skimmer Infinity

Flow capacity max 12 m³/h.



## Classic Wide

Item no.	Type	
112970	CA-SW	Skimmer Classic Wide 385
112960	CA-SW6	Skimmer Classic Wide 6° 385

Flow capacity max 12 m³/h.



## Skimmer

Standard		Extended	
Item no.	Type	Item no.	Type
112989	A-SNR	112999	A-LNR

Flow capacity max 12 m³/h.



## Skimmer Marine

Standard		Extended	
Item no.	Type	Item no.	Type
124988	CA-SNR	124998	CA-LNR

Flow capacity max 12 m³/h.

Pool construction    Concrete blocks construction    Concrete construction    Concrete construction    Fibre glass construction



Item no.	Type	Concrete bulding blocks up to 250 mm	Concrete without sealing membrane up to 250 mm	Concrete with cement based sealing membrane up to 250 mm	Composite material (GRP/PP) up to 16 mm
112965	CA-SI	•	•	• (+ 822625)	
112970	CA-SW	• (+ 112900)	•	• (+ 822620)	• (+ 15530133)
112960	CA-SW6				•
112989	A-SNR		•		
112999	A-LNR		•		
112988	CA-SNR	• (+ 112900)			• (+ 15530104)
112998	CA-LNR	• (+ 112900)			• (+ 15530104)
124988	CA-SNR	• (+ 112900)			• (+ 15530104)
124998	CA-LNR	• (+ 112900)			• (+ 15530104)





## Skimmer Classic

### Standard

Item no.	Type
112988	CA-SNR

Flow capacity max 12 m<sup>3</sup>/h.

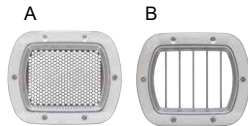
### Extended

Item no.	Type
112998	CA-LNR

## Accessories

Item no.	Type
112900	Fixture kit, for concrete pool with liner.
822620	Skimmer Wide, kit for cement based sealing membrane
822625	Skimmer Infinity, kit for cement based sealing membrane
15530104	Screw kit, skimmer, fibre glass/PP pool
15530133	Screw kit, skimmer Wide, fibre glass/PP pool
822100	Mounting plate for skimmer
13083002	Distance for skimmer in steel pool

## Skimmer grille



Skimmer grilles prevent large objects from entering the skimmer and for additional safety precautions.





Item no.	Type
124705	A Skimmer front mesh
124706	B Skimmer front grille

## Water level control



Tops up the water level automatically when it gets too low in the pool. Programmable refilling time and equipped with warning light.

Item no.	Type
11250	Water level control
11251	Water level control with horisontel switch / Infinity
11253	Mounting kit - horizontal flow switch / Infinity
112501	Solenoid valve 1/2".
112503	Cover for level control
112504	Bracket complete for Level control WIDE
112505	Non leak flange, water level control

EPS/ISO blocks construction	Steel panel construction	Wood construction	Wood/concrete construction
			
Reinforced with concrete in combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm
<b>Building blocks up to 250 mm</b>	<b>Steel panels up to 3 mm</b>	<b>Plywood 12 mm</b>	<b>Wood 32 - 70 mm Prefabricated concrete 50 - 250 mm</b>
● (+ 112900)		● (+ 13083002, 2 pcs)	
● (+ 112900)	● (+ 13083002, 2 pcs)	●	
● (+ 112900)	● (+ 13083002, 2 pcs)	●	● (+ 822100)
● (+ 112900)	● (+ 13083002, 2 pcs)	●	● (+ 822100)
● (+ 112900)	● (+ 13083002, 2 pcs)	●	● (+ 822100)
● (+ 112900)	● (+ 13083002, 2 pcs)	●	● (+ 822100)

# Inlets

MADE OF ACID PROOF STAINLESS STEEL AISI 316L

The new inlet has a unique and innovative design with two oval nozzles and longer throw length. There are two streams, 6 degrees apart, for improved circulation in the pool.



## Inlet Classic / Classic 350

Standard		Extended	
Item no.	Type	Item no.	Type
125811	CA	125816	CA

Flow capacity max 6 m³/h.

The inlet nozzle can be installed in a horizontal or vertical position and be adjusted ±11° for different applications depending on the inlet's location in the pool.



## Inlet Marine / Marine 350

Standard		Extended	
Item no.	Type	Item no.	Type
124811	CA	124816	CA

Flow capacity max 6 m³/h.



## Inlet Classic / Marine

Standard Classic		Standard Marine	
Item no.	Type	Item no.	Type
126090	A	124505	A

Flow capacity max 6 m³/h.

## Accessories



Mounting plate

Item no.	Description
822600	Concrete kit inlet/spotlights, for cement based sealing membrane
15530111	Assembly kit inlets/spotlights fibre glass/PP pool
822145	Mounting plate for inlet/spotlights

Pool construction	Concrete blocks construction	Concrete construction	Concrete construction	Fibre glass construction
-------------------	------------------------------	-----------------------	-----------------------	--------------------------



Item no.	Type	Concrete building blocks up to 250 mm	Concrete without sealing membrane up to 250 mm	Concrete with cement based sealing membrane up to 250 mm	Composite material (GRP/PP) up to 16 mm
125811	CA		● (+ 12670)		● (+ 15530111)
126090	A		● (+ 12640)		
125816	CA	●		● (+ 822600)	
124811	CA		● (+ 12670)		● (+ 15530111)
124505	A		● (+ 12640)		
124816	CA	●		● (+ 822600)	
126102	A		●	●	
126110	A		●	●	

Drawings see page. 62-63.





## Anchoring brackets inlets

This inlets are designed for mounting into the end of a molded PVC pipe, PN10/16 with an outer diameter Ø 50 or Ø 63. The nozzle is secured by barbs inside the pipe.



### Inlet anchoring bracket Marine

Item no.	Type
126102	A





Adjustable nozzle mesh Ø 7 mm. Flow capacity max 10 m³/h.



### Bottom inlet anchoring bracket

Item no.	Type
126110	A

Adjustable in eight different flows positions. Flow capacity max 15 m³/h.

EPS/ISO blocks construction	Steel panel construction	Wood construction	Wood/concrete construction
			
Reinforced with concrete in combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm
<b>Building blocks up to 250 mm</b>	<b>Steel panels up to 3 mm</b>	<b>Plywood 12 mm</b>	<b>Wood 32 - 70 mm Prefabricated concrete 50 - 250 mm</b>
	•	•	• (+ 822145)
•			
	•	•	• (+ 822145)
•			

## Nozzles and outlets

MADE OF ACID PROOF STAINLESS STEEL AISI 316L



### Bottom inlet

Item no. Type

126120	CA	Inside thread 1 1/2".
--------	----	-----------------------

The flow can be regulated in eight different positions on the front of the inlet. Capacity flow max 15m³/h.



### Bottom inlet nozzle

Item no. Type

12550	A-1	Outside thread 1 1/2".
-------	-----	------------------------

12560	A-2	Outside thread 2".
-------	-----	--------------------

Flow capacity A-1 max 6 m³/h, A-2 max 8 m³/h.



### Suction nozzle Classic

Standard

Item no.	Type
----------	------

125821	CA
--------	----

12650	A
-------	---

Capacity flow max 2 m³/h.

Extended

Item no.	Type
----------	------

125826	CA
--------	----

Standard

Item no.	Type
----------	------

125831	CA
--------	----

Extended

Item no.	Type
----------	------

125836	CA
--------	----



### Vacuum hose connection Classic

		Pool construction	Concrete blocks construction	Concrete construction	Concrete construction	Fibre glass construction
Item no.	Type	Concrete bulding blocks up to 250 mm	Concrete without sealing membrane up to 250 mm	Concrete with cement based sealing membrane up to 250 mm	Concrete with cement based sealing membrane up to 250 mm	Composite material (GRP/PP) up to 16 mm
126120	CA	•				
125933	CA-WBS		•		•	• (+15530132)
125938	A-WBS			•		
1302140	CA-WB	• (+ 112900, 1302145 )	• (+ 112900, 1302145 )	• (+ 112900, 1302145 )	• (+ 112900, 1302145 )	
125931	CA-WBB	•			•	• (+ 15530132)
125936	A-WBB		•			
12550	A-1		•		•	
12560	A-2		•		•	
125821	CA					• (+ 15530111)
12650	A		• (+12640)			
125826	CA	•			• (+ 822600)	
125831	CA		• (+ 12670)			• (+ 15530111)
125836	CA	•			• (+ 822600)	

Drawings see page 63-65.



## Wall outlet Maxi



**Item no. Type**

1302140 CA-WB

Capacity flow max 67 m³/h. Inside thread 2½".



Non leak flange

## Accessories

**Item no**

15530111 Assembly kit inlets/spotlights fibre glass/PP pool

822600 Concrete-kit inlets/spotlights for cement based sealing membrane

15530132 Fixing kit wall and bottom outlet fibre glass/PP pool

13083002 Distance wall and bottom outlet for steel pool

822145 Mounting plate for inlets/spotlights

**Non leak flange**

12670 Inside and outside thread 1 ½". L = 290 mm.

12675 Inside and outside thread 1 ½". L = 600 mm.

12640 Inside thread 1 ½". L = 255 mm.

126751 Inside and outside thread 2". L = 600 mm.

121952 Outside thread 2". L = 250 mm.

1302145 Wall Outlet Maxi, inside and outside thread 2½" L = 250 mm

## Wall and bottom outlet



**Item no. Connection side Item no. Connection bottom**

125933 CA-WBS

125931 CA-WBB

125938 A-WBS

125936 A-WBB

Capacity flow max 20 m³/h. Inside thread 2".

EPS/ISO blocks construction	Steel panel construction	Wood construction	Wood/concrete construction
Reinforced with concrete in combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm	In combination with liner 0,75 - 2 mm
<b>Building blocks up to 250 mm</b>	<b>Steel panels up to 3 mm</b>	<b>Plywood 12 mm</b>	<b>Wood 32 - 70 mm Prefabricated concrete 50 - 250 mm</b>
•	•	•	•
•	• (+ 13083002, 2 pc)	•	•
• (+ 112900, 1302145)	•	•	
•	• (+ 13083002, 2 pc)	•	•
	•	•	• (+ 822145)
•			
	•	•	• (+ 822145)
•			







MEASURING AND DOSING EQUIPMENT

# Measuring and dosing equipment

## MiniMaster for private pools

pH AND FREE CHLORINE OR REDOX.

MiniMaster offers automatic measurement of water quality. Dual channel version with electrode kit for pH and free chlorine measuring or with pH and redox (ORP) measuring.

MiniMaster is also available in a single channel version with electrode kit for monitoring pH or free chlorine.

A MiniMaster equipped with all the options is a complete measuring and dosing unit, delivers an optimised supply of chemicals.



### Technical data

	pH & chlorine	pH & Redox	Chlorine	pH
Power consumption excl. dosing equipment	4W	4W	2W	2W
Power consumption dosing equipment (max)	2 X 100W	2 X 100W	100W	100W
Rated current	1A			
Rated voltage	220-240 1~N 50/60Hz			
Temperature range	0 to +45°C			
IP class	IP44			

### MiniMaster and electrode kit

#### Item no.

416600 MiniMaster	free chlorine
416601 Electrode kit	free chlorine
416610 MiniMaster	pH
416611 Electrode kit	pH
416620 MiniMaster	pH + free chlorine
416621 Electrode kit	pH + free chlorine
416630 MiniMaster	pH + Redox (ORP)
416631 Electrode kit	pH + Redox (ORP)

#### Option

413335 Peristaltic pump
414810 pH - MiniDos CO <sub>2</sub>



## pH - MiniDos

Pahlén pH-MiniDos is stable and easy to use for stabilizing the pH value with CO<sub>2</sub> (carbon dioxide). pH-MiniDos is a control unit that is easily operated via MiniMaster.

The MiniMaster measures the water's pH and sends signals to the pH-MiniDos, which with high precision doses the exact amount of CO<sub>2</sub> needed for the pool.

Drawings see page 66.

### MiniMaster-kit

Item no.	Description
	Complete kit with MiniMaster, electrode kit, dosing pump, saddle clamp and collecting vessel
33038	MiniMaster assembled, chlorine & acid
33033	MiniMaster-package, chlorine & acid
33034	MiniMaster-package, chlorine & CO <sub>2</sub>
33036	MiniMaster-package, redox & acid
33037	MiniMaster-package, redox & CO <sub>2</sub>

## Peristaltic pump



In order for dosing to take place accurately and correctly, a pump is used since this provides steady, uniform dosing of liquid chemicals.

### Technical data

Max pressure	1.5 bar
Suction height	1.5 m
Pump output	3.5 W
Hose material	Resistant to chlorine and acid
Max. capacity	4 l/h
Item no.	413335

## Features

- High safety
- User-friendly
- Reduces the water's corrosiveness and stabilizes pH value
- Operational indication light for dosage
- Safety bracket for gas bottle

### Item no.

414810	Complete with control unit, valve 5 bar for one bottle, injector and check valve with connection 1/2", 5 m gas hose 6 x 8 mm. Gas bottle not included.
--------	--



## Autodos

pH AND FREE CHLORINE OR REDOX.

Autodos is available in a variety of versions and can monitor pH and chlorine in the form of redox, free chlorine and combined chlorine.

Built in user access protection, that can be activated when necessary. As a safety precautions setting of maximum dosing time is possible to prevent overdosing. Set customized alarm levels for pH, redox and flow.

Dosing output: on/off, frequency pulse or 4-20mA. Option Modbus RS485 for external monitoring, logging and alarm management.



## Autodos RAM

Manage and analyze Autodos on a cloud service. More on page 40.

## Ordering Guide

A complete Autodos consists of Autodos and electrode kit (sold separately).

For additional control, a dosing pump and external cable can be purchased. Additional accessories such as chemical tank, collecting vessels and mixers are also recommended (see page 42). Electrode kit is supplied complete with buffer agents. Chemicals not included.

### Autodos M1

#### Item no.

416500 Free chlorine

416510 pH

416520 Redox

416530 Total chlorine

#### Electrode kit

416501 PB200 free chlorine

416502 CLE3 10ppm free chlorine

416511 pH

416521 Redox

416531 CTE1 total chlorine

### Autodos M2

#### Item no.

416540 pH and free chlorine

416550 pH and redox

#### Electrode kit

416541 PB200 free chlorine, pH

416542 CLE3 10ppm free chlorine, pH

416543 CLE3 20ppm free chlorine, pH

416551 Redox, pH

### Autodos M3

#### Item no.

416560 pH, free chlorine and redox

416570 pH, free and combined chlorine

#### Electrode kit

416561 PB200 free chlorine, pH and redox

416562 CLE3 free chlorine 10ppm, pH and redox

416571 PB200 free and CTE combined chlorine, pH

## pH - MaxiDos



pH-MaxiDos is a dependable and easy to use for pH stabilization in the pool. The unit is controlled via Autodos and suits all pool types.

The gas flow is easy to adjust and is read off the intergrated flow meter. Connection with an external alarm function possible. For use in public facilities.

Drawings see page 66.

## Features

- High safety
- User-friendly
- Reduces the water's corrosiveness and stabilizes pH value
- External alarm function
- Operational indication light for dosage
- Safety bracket for gas bottle

#### Item no.

414800 Complete with control unit CO<sub>2</sub>, valve 6 bar for one bottle, injector and check valve with connection 1/2", 10 m gas hose 6 x 8 mm. Gas bottle not included.



## Autodos RAM

### REMOTE ACCESS MONITORING

With Autodos® RAM it is easy to analyze your Autodos-system online. A turnkey solution for a complete IT-infrastructure without building own network management.

The cloud service is online and all data is stored on remote secure global servers.

Graphical log data for every value measured by Autodos. Built-in reporting tool for accessing detailed weekly export report.

Additional features for historical comparison of values, Google maps function for easy overview, managing and access to several projects and systems.



## Feaures

- 50 000 log points included/system and year
- Regular reports
- History logs with measured data and alarms
- Up to 9 system languages available
- Map function showing system locations
- Two user login for individual project access with customized user rights
- Report module for online data or trend analysis
- Active alarms online or via e-mail/SMS
- Access via web browsers; e.g. Firefox or Safari

## Pahlén Cloud Service

Cloud service access by any platform; PC, smartphone, tablet.



## EC310 - Gateway Ethernet

- Modbus-RTU interface
- Metal casing, wall mount
- Dimensions 92 x 135 x 27 mm
- Operating temperature -40 to +65 °C
- Power supply 12-48 VDC

Network access: Ethernet 10/100 Mbit/s

### Item no. Type

416231	EC310	- External web-module for Ethernet uplink - Including subscription cloud-service 12 month
--------	-------	--



## System components

- System compability with Autodos M1-M2-M3 \*
- Modbus-RTU communication interface
- Gateway modules for Ethernet (WAN)k

\* Autodos software from version 5.6

### Item no.

416209	Internal communication module Autodos
--------	---------------------------------------





## Dosing pumps with reliable dosing

The pumps are microprocessor-controlled and magnetically operated for maximum dependability and dosing precision.

The liquid end is manufactured from plexiglass and the suction and pressure details are of PVDF. These materials are chosen for their known resistance to the majority of chemicals used in water treatment. The pump can be controlled on/off or externally by pulses from a monitoring and controlling device, for example by using an Autodos with an external cable (optional item no. 41366).



Beta/4B

Concept

### Beta/4B

Dosing pump Beta with plexiglass liquid end (NPE) excl. Beta/4B 0400 PPT (for flocculation). All pumps have on/off or frequency control and are supplied with injection and foot valves and 2 m of suction and 5 m of pressure hose.

#### Technical data

Item no	Type	Connection mm	Max capacity l/h	Max capacity ml/ stroke	At max pressure bar
413330	Beta/4B 0400	6 x 4	0.8	0.07	4
413331	Beta/4B 0402	12 x 6	2.9	0.27	4
413332	Beta/4B 0408	12 x 6	8.1	0.75	4

### Concept

Dosing pump with liquid end of PVDF. The pump has on/off or frequency control and is supplied with injection and foot valves and 2 m of suction of pressure hose and a 5 m external cable.

#### Technical data

Item no	Type	Connection mm	Max capacity l/h	Max capacity ml/stroke	At max pressure bar
413340	Concept plus 1002	6 x 4	2.6	0.24	5

Operating voltage: 230V, 50/60Hz.



## External cable



### Item no

41366 External cable Beta, 2-wire 5 m

## Float switch



### Item no

41372 BETA 2 m cable

41373 BETA 5 m cable

## Wall mounting bracket



### Item no

41378 BETA/Concept

## Multi function valve



### Item no

413745 1,5-6 bar Beta/B 0400 - 0220, Concept

413755 1,5-6 bar Beta/B 0232

## Chemical cabinet



### Item no

413300 Ø 125 outside 400 x 400 x 1050 mm (W x D x H)

## Chemical tank



### Item no

41501 Chemical tank 35 l

41502 Chemical tank 60 l

41503 Chemical tank 100 l

41500 Chemical tank 140 l

41506 Chemical tank 250 l

## Mixers



### Item no

41517 Mixer manual 140 l

41518 Mixer manual 250/500 l

## Collecting vessel



### Item no

41512 Collecting vessel for 35 l

41507 Collecting vessel for 60 l

41513 Collecting vessel for 100/140 l

41514 Collecting vessel for 250 l

## Flocculation station



### Item no

41330 Complete flocculation station incl. 60 l tank and pump. BETA/4B 0400 and dosing valve, foot valve, suction and pressure hose.





## Auto-UV titanium

CASING MADE OF TITANIUM

The Pahlén Auto-UV titanium is designed for disinfection of water in pools and spas. Auto-UV titanium can reduce the chlorine content by up to 70%. The result is also a swimming pool with less combined chlorine, which makes a more pleasant bathing environment without irritations like red eyes, the smell of chlorine or the risk of allergies.

The UV lamp produces short-wave ultraviolet UVC radiation with a 254 nm wavelength. This wavelength is optimal for neutralising bacteria, viruses and algae. When the Auto-UV is in operation this is shown by a blue indicator at the top of the unit.



### Electronic panel with LEDs

- Operation indicator shows the number of hours the unit has been in operation.
- Timer flashes when 1000 hours of operating time remain.
- Display indicates when the UV lamp has come to the end of its lifetime.

## Feaures

- Electronic box contains adjustment control, timer and on/off switch.
- Built-in indicator for alerting when lamp needs to be replaced.
- UV lamp for optimal neutralisation of bacteria, viruses and algae.
- Reduces the concentration of combined chlorine in the pool.
- Light indicator shows operation status in a blue light.
- Delivered complete in one single unit.



### Technical data

Item no	Lamp	Lifetime lamp	Voltage 1~	Current	UVC-radiation wavelength	UVC-radiation	Max pressure	Max flow	Connection	Max water temperature
417760	75W	9000 h	220-240	0.5 Amp	254 nm	25W	4 bar	250 l/min	2"	45°C
417770	130W	9000 h	220-240	0.8 Amp	254 nm	43W	4 bar	250 l/min	2"	45°C

Drawings see page 67.

For the latest updates visit [www.pahlen.com](http://www.pahlen.com)



## Autocheck 3i

Autocheck 3i is a digital photometric monitoring equipment for free and total chlorine, pH, cyanuric acid, calcium hardness and total alkalinity. Digital readouts. Date and time in real time.

Measure range: Chlorine (free and total) 0.05–6.0 mg/l  
 pH 6.5–8.4  
 Cyanuric acid 0–160 mg/l  
 Calcium hardness 50–500 mg/l  
 Total alkalinity 5–200 mg/l



**Item no.**

212994 Equipment for free and total chlorine, pH, cyanuric acid, calcium hardness and total alkalinity.

## Autocheck 15



Autocheck 15 is a very simple but effective digital measuring instrument. Autocheck 15 measures with accuracy the water's chlorine content (free and total), alkalinity, pH and cyanuric acid photometrically.

Measure range: Chlorine 0.1–6.0 mg/l  
 pH 6.5–8.4  
 Cyanuric acid 1–160 mg/l  
 Total alkalinity 0–300 mg/l  
 Brom 0,2 - 13,5 mg/l

**Item no.**

212993 A reliable measuring of the pools chlorine content (free and total), pH, cyanuric acid, and total alkalinity.

## Salt meter SD 90



SD90 is a small and compact measuring unit for measuring salinity. Up to 25 different separate readings with date, time and temperature can be stored. An illuminated LCD display shows the results and temperature simultaneously, while other information with date and time are displayed with a simple press of a button.

Measure range: 0-2000 ppm  
 2-20 ppt  
 0-2 %

**Item no.**

212997 A measuring unit for measuring salinity, with a illuminated LCD display.





#### Accessories

##### Item no.

212981	Measuring glass Ø 24 mm to Autocheck I, II and III
212982	Measuring glass Ø 16 mm to Autocheck II
212985	Tablet crusher/stiring rod



#### Accessories

##### Item no.

##### Autocheck 3i

##### Autocheck 15

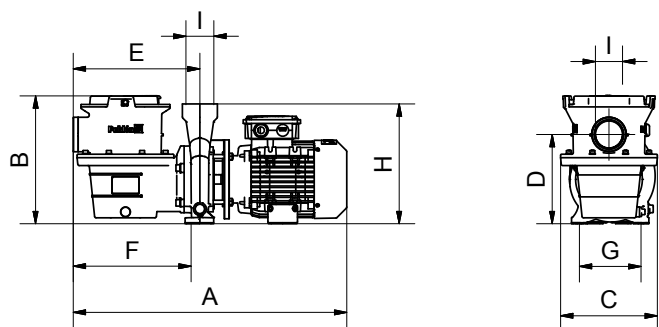
Item no.		Autocheck 3i	Autocheck 15
212916	Free chlorine DPD No.1, 100 tablets	x	x
212915	Free chlorine DPD No.1, 500 tablets	x	x
212926	pH phenol red, 100 tablets	x	x
212925	pH phenol red, 500 tablets	x	x
212936	Total chlorine DPD No.3, 100 tablets	x	x
212935	Total chlorine DPD No.3, 500 tablets	x	x
212956	Cyanuric acid, 100 tablets	x	x
212966	Alkalinity, 100 tablets	x	x
212976	Calcium hardness, 100 tablets**	x	
212971	Calcium hardness 1-2, 10 tablets*	x	

\*Only for use in Autocheck 3i

\*\*Only for use in Autocheck 3

# Drawings pumps

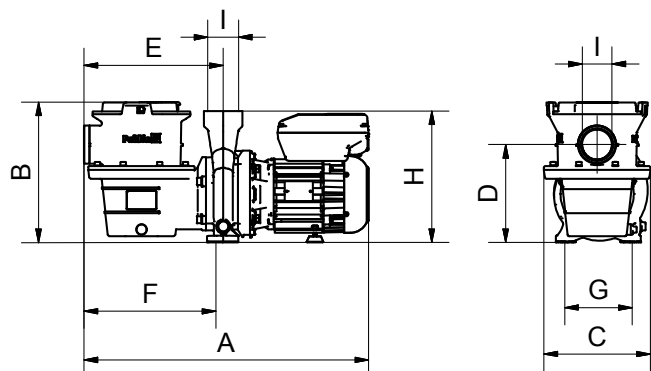
## WaterWISE



### Dimensions

Item no.	Typ	A	B	C	D	E	F	G	H	I
118100	HS25	489	280	196	181	257	239	125	243	2"
118101	HS37	519	280	196	181	257	239	125	243	2"
118102	HS55	519	280	196	181	257	239	125	243	2"
118103	HS75	537	280	196	181	257	239	125	243	2"
118123	HT75	537	280	196	181	257	239	125	243	2"
118104	HS110	555	280	196	181	257	239	125	243	2"
118124	HT110	555	280	196	181	257	239	125	243	2"

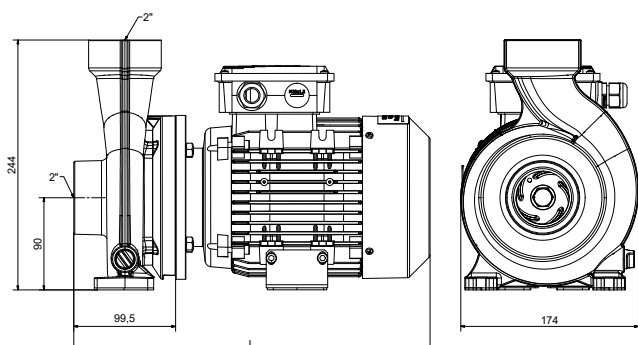
## EcoWISE



### Dimensions

Item no.	Type	A	B	C	D	E	F	G	H	I
117103	HV75	525	280	196	181	257	239	125	243	2"

## FloWISE

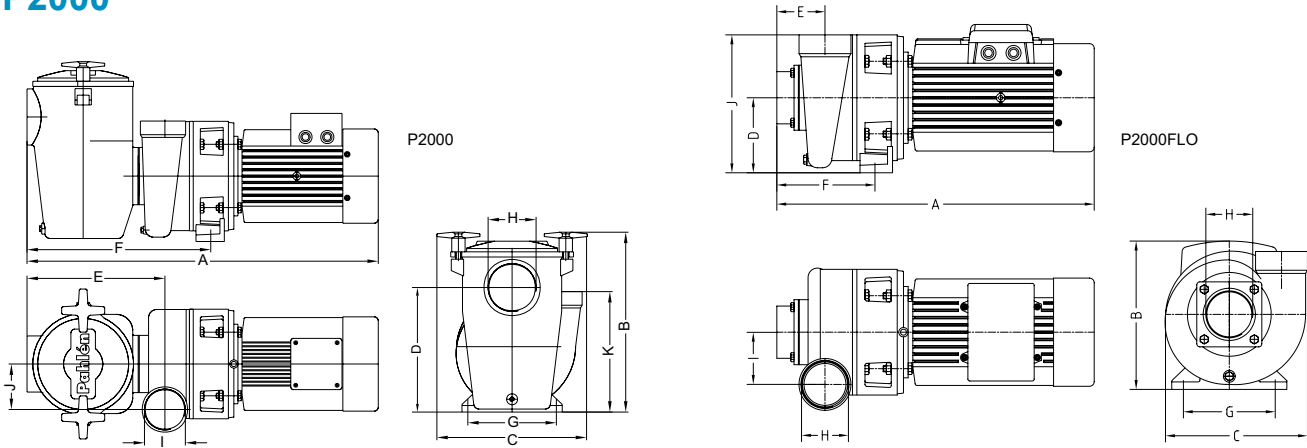


### Dimensions

Effekt	0.25	0.37	0.55	0.75	1.1
Lenght	278	308	308	328	348



## P2000



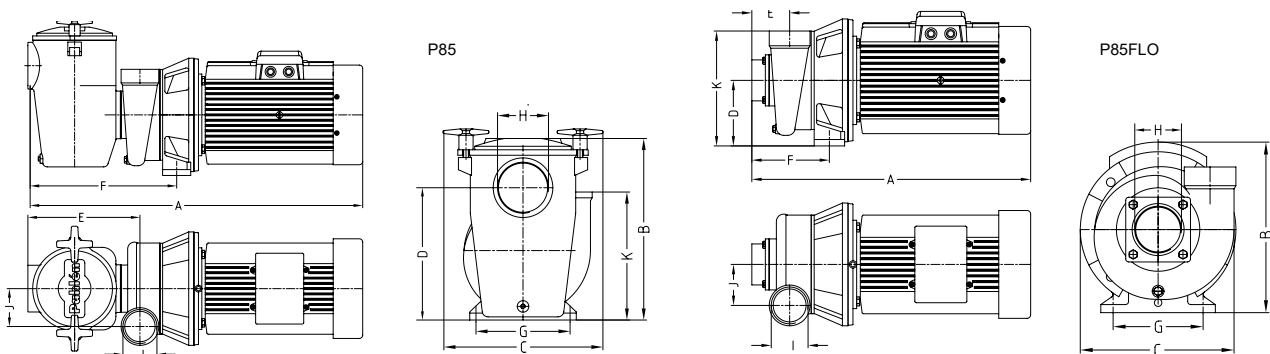
### Dimensions P2000

Item no	Type	A	B	C	D	E	F	G	H	I	J	K
112201	T150	620	335	275	225	250	330	130	3"	2½"	82	220
112211	T220	620	335	275	225	250	330	130	3"	2½"	82	220
112221	T400	710	335	275	225	250	330	130	3"	2½"	82	220
112221NO	T400-230	710	335	275	225	250	330	130	3"	2½"	82	220
112201SAHZ	TZ150-220	710	335	275	225	250	330	130	3"	2½"	82	220
112211SAHZ	TZ220-220	710	335	275	225	250	330	130	3"	2½"	82	220
112221SAHZ	TZ400-230	710	335	275	225	250	330	130	3"	2½"	82	220

### Dimensions P2000FLO

Item no	Type	A	B	C	D	E	F	G	H	I	J
115201	T150	445	245	230	122	77	155	130	2½"	62	220
115211	T220	445	245	230	122	77	155	130	2½"	62	220
115221	T400	445	245	230	122	77	155	130	2½"	62	220
115221NO	T400-230	445	245	230	122	77	155	130	2½"	62	220
115201SAHZ	TZ150-220	445	245	230	122	77	155	130	2½"	62	220
115211SAHZ	TZ220-220	445	245	230	122	77	155	130	2½"	62	220
115221SAHZ	TZ400-220	445	245	230	122	77	155	130	2½"	62	220

## P85/P85FLO

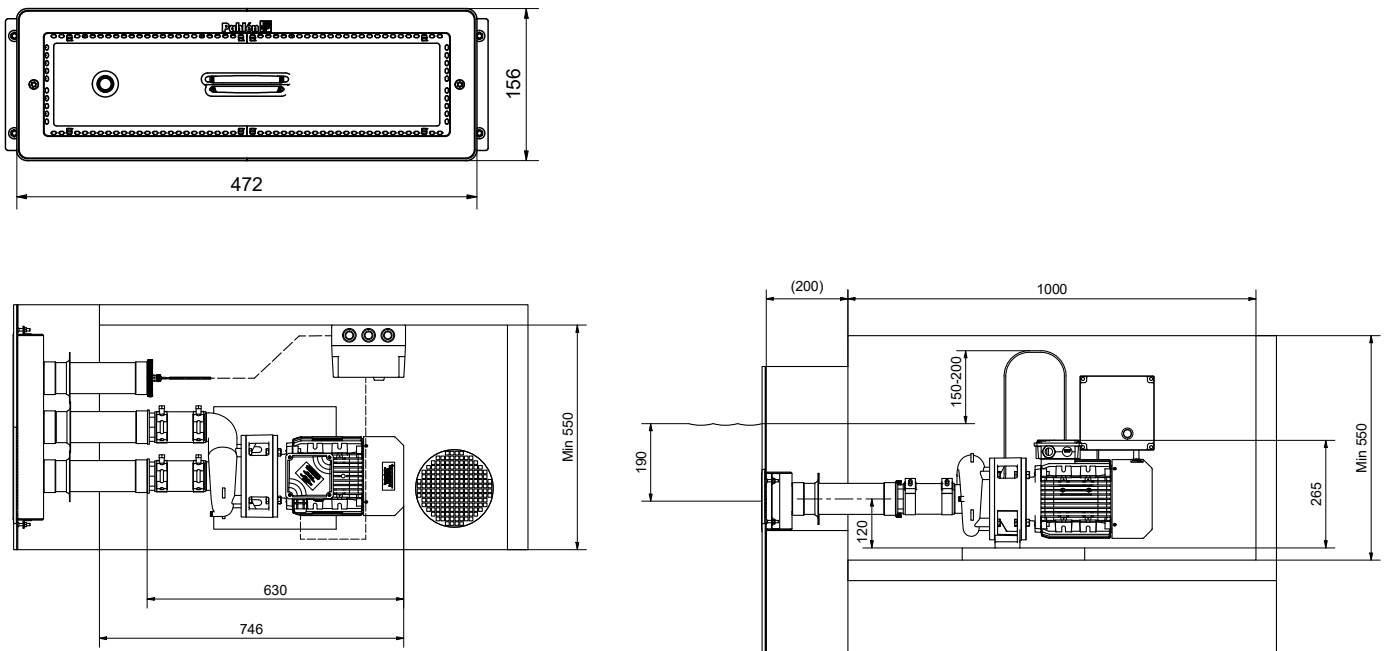


### Dimensions

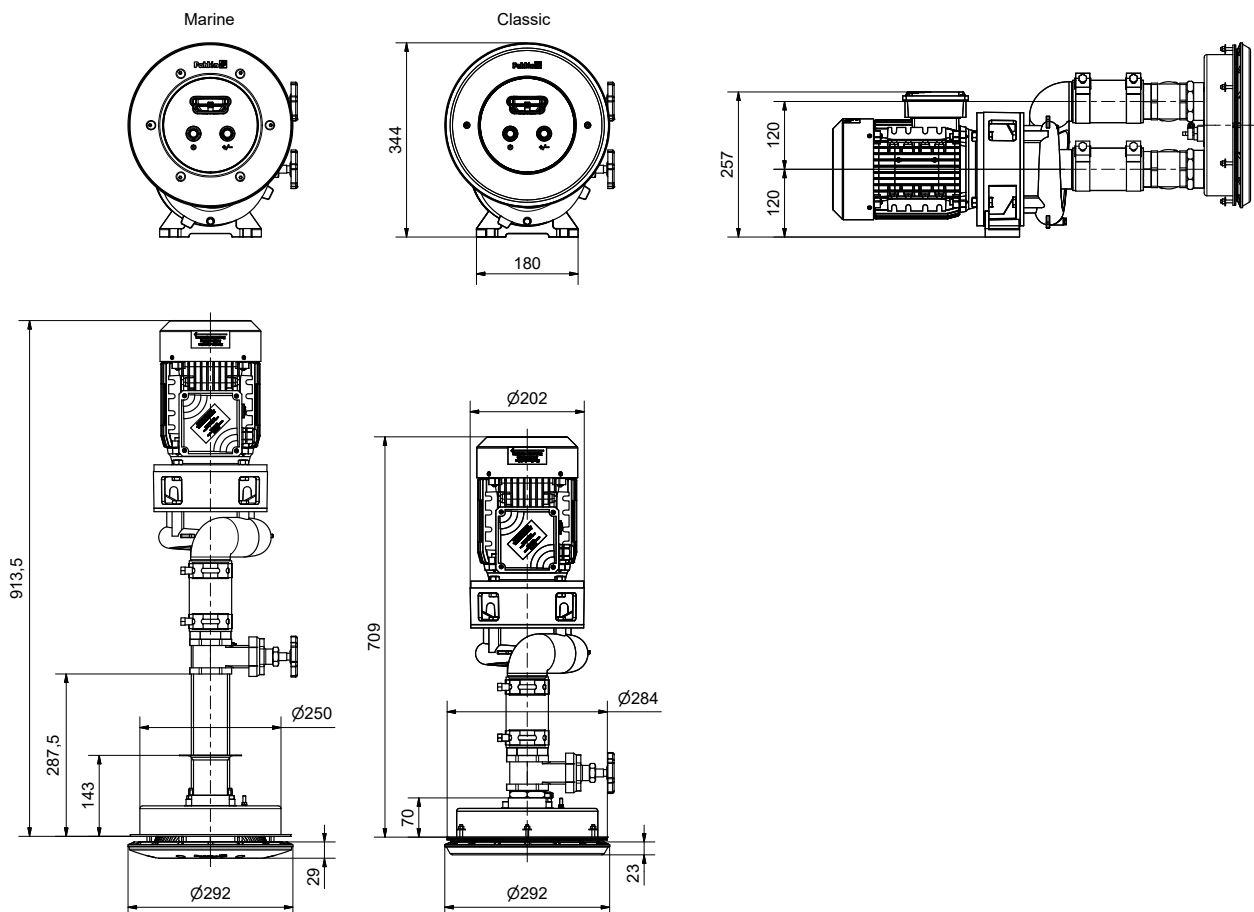
Item no	Type	A	B	C	D	E	F	G	H	I	J	K
11224	T550	815	330	275	250	240	315	140	3"	2½"	82	235
11524	T550	640	275	275	137	77	155	140	2½"	2½"	82	235
11224NO	T550-230	815	330	275	250	240	315	140	3"	2½"	82	235
11224NOHZ	TZ550-230	815	330	275	250	240	315	140	3"	2½"	82	235
11224SAHZ	TZ550-220	815	330	275	250	240	315	140	3"	2½"	82	235

# Drawings water attractions

## Jet Swim Athlete

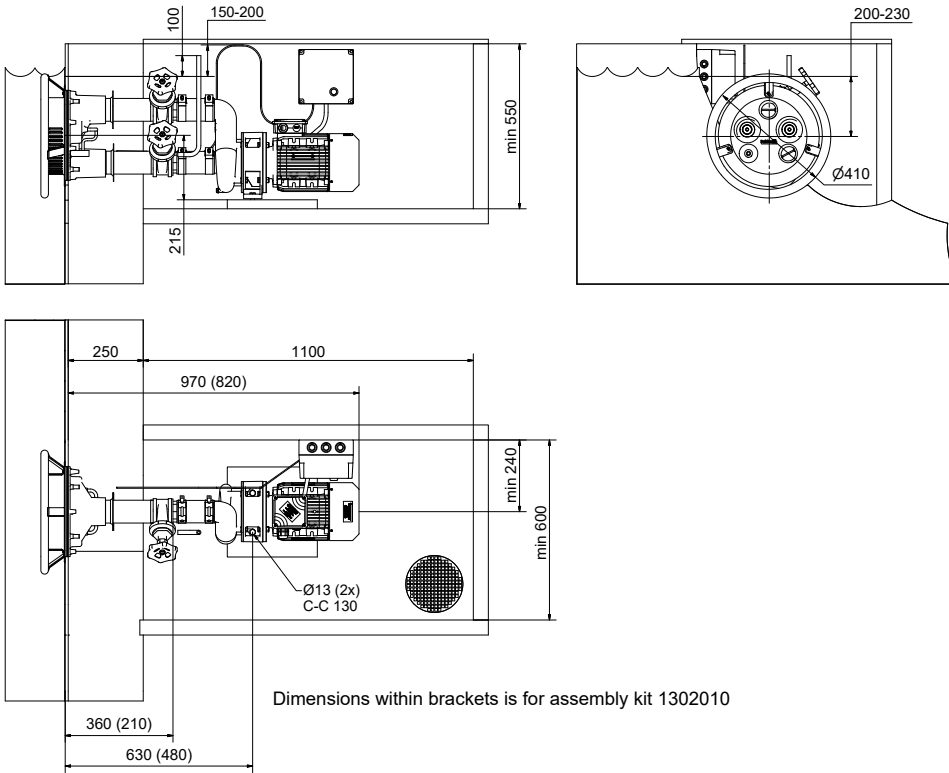


## Jet Swim Motion

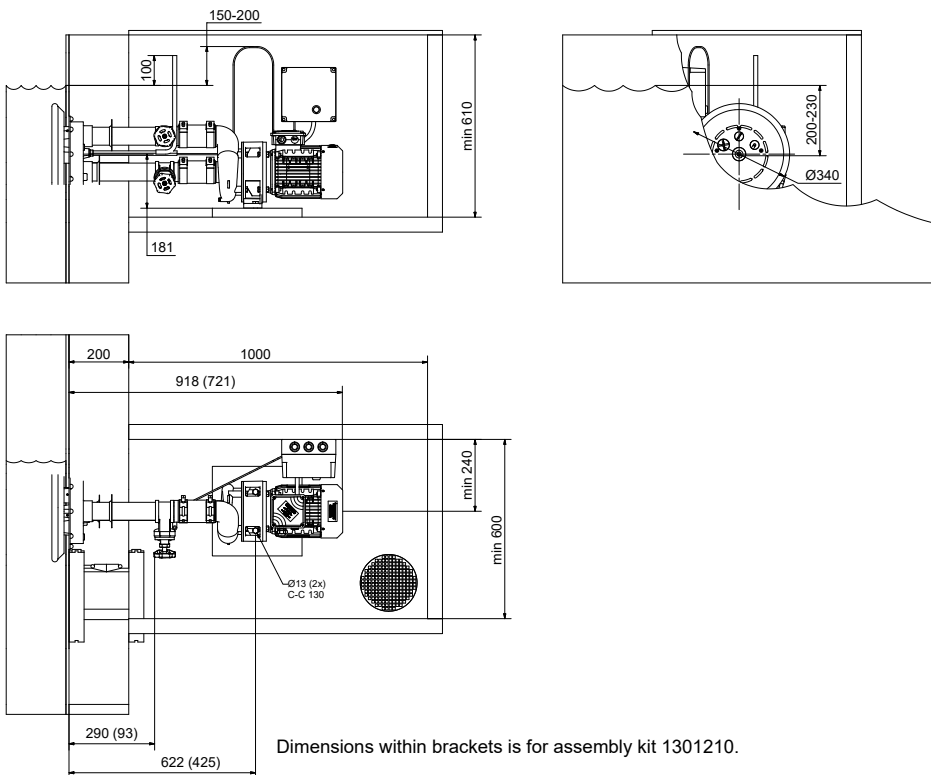




## Jet Swim 2000

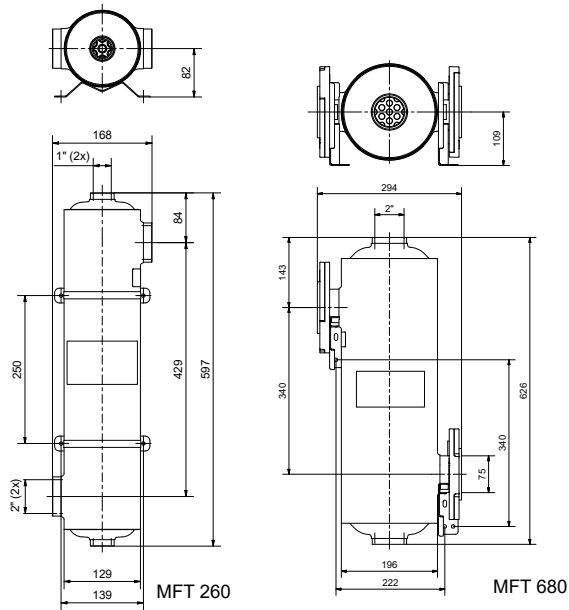


## Jet Swim 1200



# Drawings Heat Exchangers

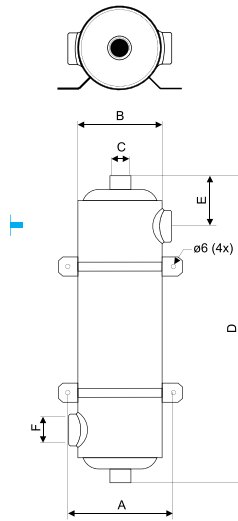
## Maxi-Flo titanium 75/200kW



### Dimensions

Item no.	Type	kW	Heating surface m <sup>2</sup>	kg
11377	MFT260	75	0.77	9.8
11380	MFT680	200	2.11	23.8

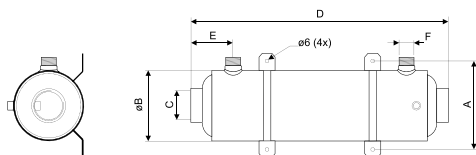
## Maxi-Flo 40-120kW



### Dimensions

Item no.	Type	kW	A	B	C	D	E	F	kg
11365	MF135	40	139	129	1"	355	92	1½"	3.4
11366	MF200	60	139	129	1"	485	92	1½"	4.5
11367	MF260	75	139	129	1"	600	85	2"	5.6
11368	MF400	120	139	129	1½"	1070	85	2"	9.3

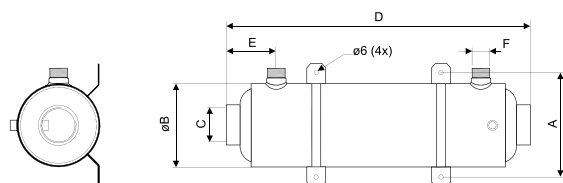
## Hi-Flow titanium 28-75kW



### Dimensions

Item no.	Type	kW	A	B	C	D	E	F	G	kg
11332	T28	139	139	113	1 ½"	470	95	1"	51	1.9
11333	T40	139	139	127	1 ½"	510	108	1"	51	3.2
11334	T75	139	139	127	1 ½"	754	108	1"	51	3.4

## Hi-Flow 13-75kW

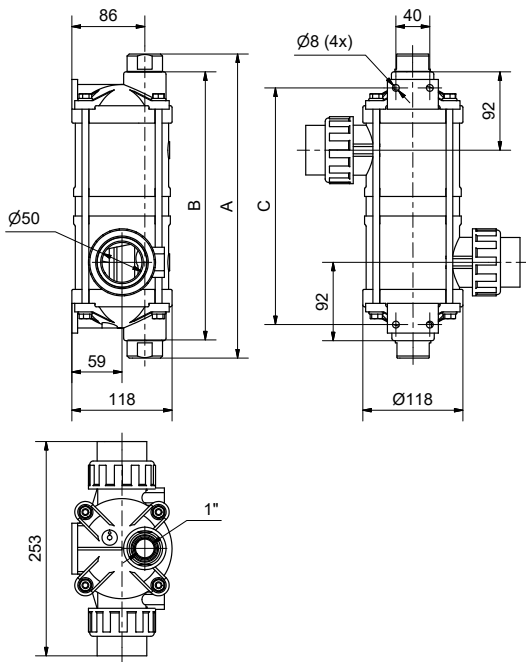


### Dimensions

Item no.	Type	kW	A	B	C	D	E	F	kg
11391	HF13	13	139	129	1 ½"	235	72	¾"	1.9
11392	HF28	28	139	129	1 ½"	407	75	¾"	3.2
11393	HF40	40	139	129	1 ½"	455	85	1"	3.4
11394	HF75	75	139	129	2"	702	85	1"	5.3



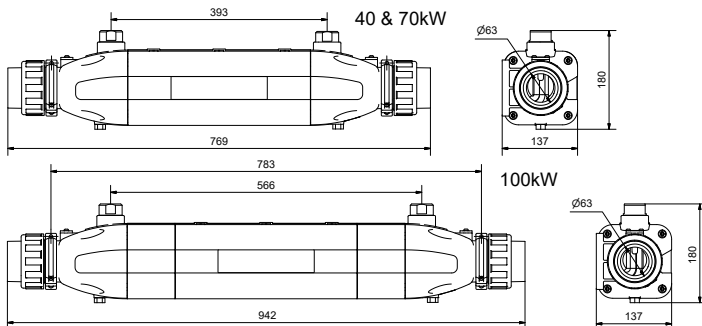
## Hi-Temp titanium 40-75kW



### Dimensions

Item no.	Type	kW	A	B	C	kg
11322	HTT40	40	418	375	355	2.3
11324	HTT75	75	670	325	585	3.5

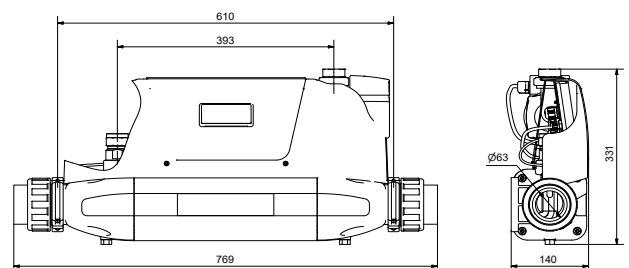
## Aqua MEX 40-100kW



### Dimensions

Item no.	11316	11326	11317	11327	11318	11328
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## Aqua MEX FE 40/70kW

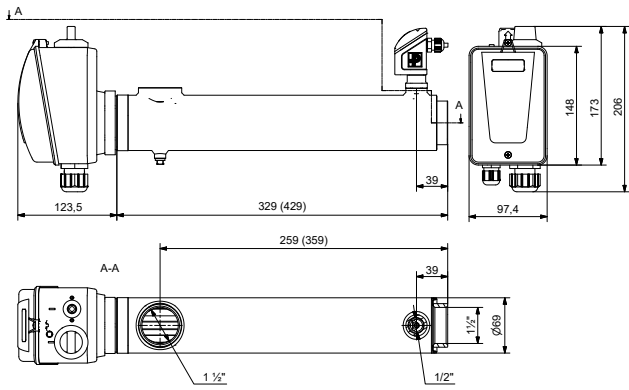


### Dimensions

Item no.	113951	113952	113953	113954
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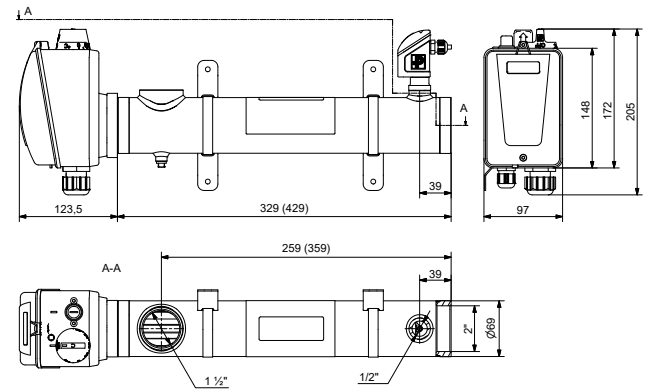
# Drawings Electric Heaters

## Compact titanium 3-6kW (1½")



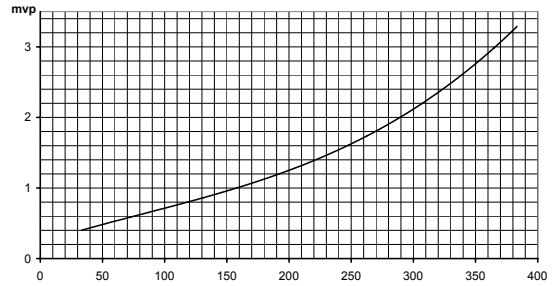
9-18kW within brackets not available

## Compact 3-18kW (2")

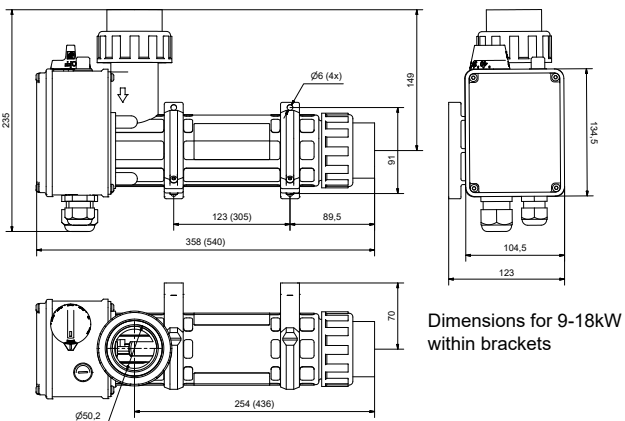


Dimensions for 9-18kW within brackets

Pressure drop

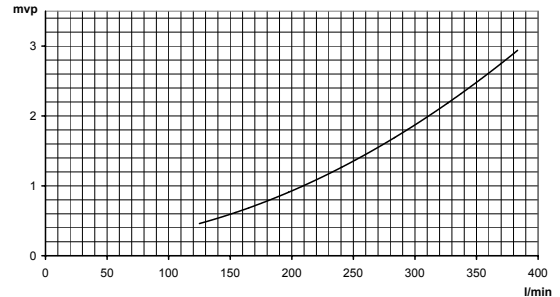


## Aqua Compact 3-18kW



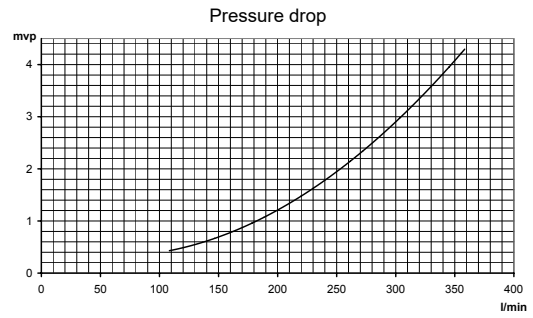
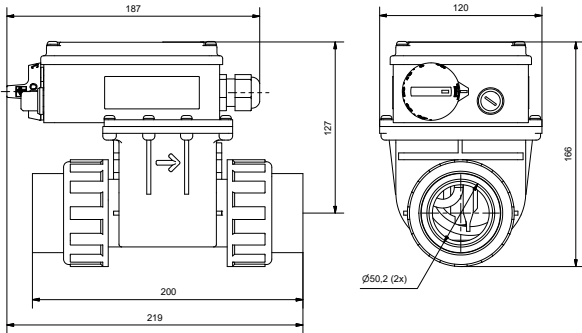
Dimensions for 9-18kW within brackets

Pressure drop

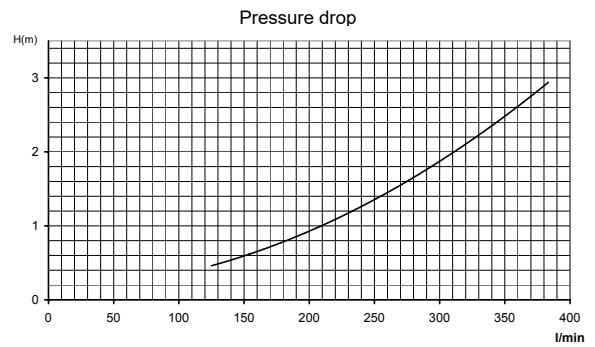
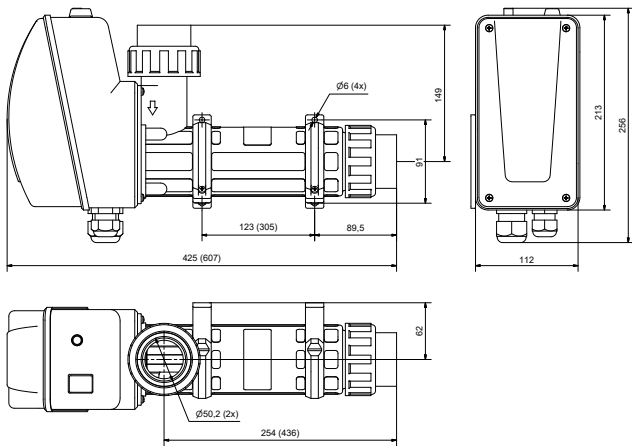




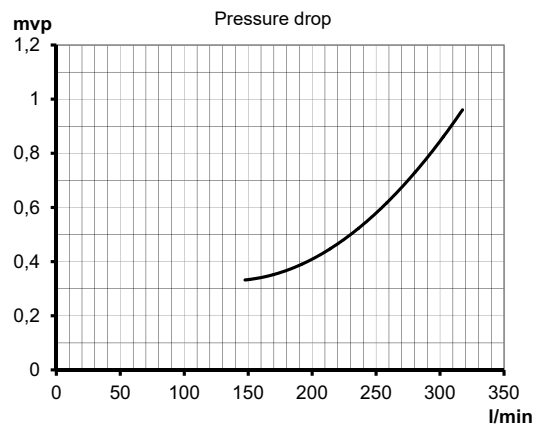
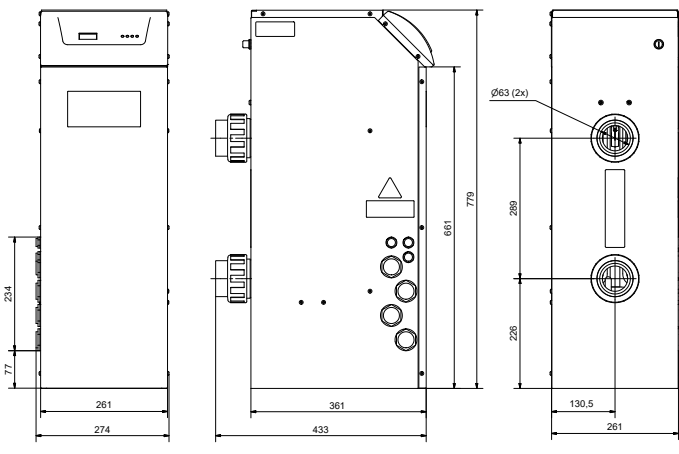
## Aqua spa 1.5-2.0kW



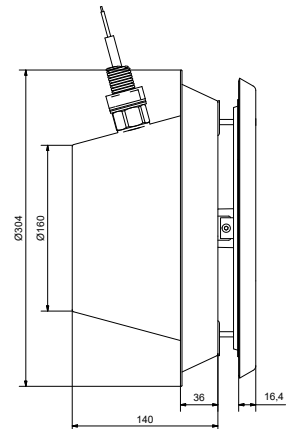
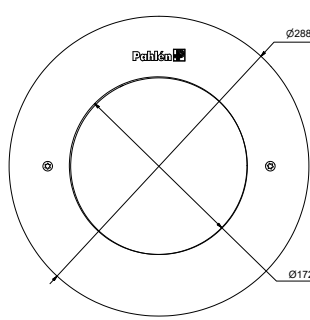
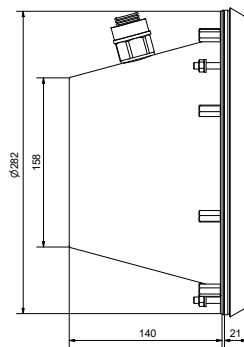
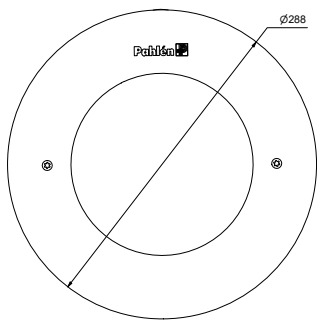
## Aqua HL 3-15kW



## MidiHeat EHD/EHA



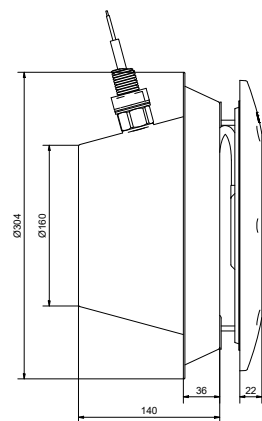
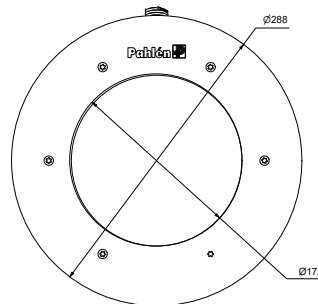
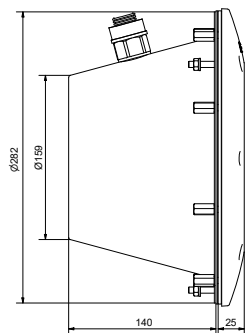
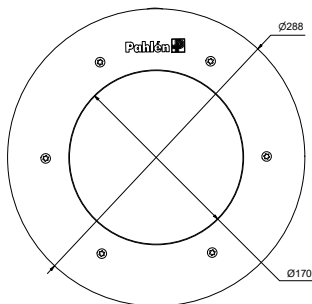
## Classic LED 170



Item no.	Type
150594	CA 170VS-WW
150294	CA 170VS-RGB
150293	CA 170AP-RGB

Item no.	Type
150584	A 170VS-WW
150284	A 170VS-RGB
150283	A 170AP-RGB

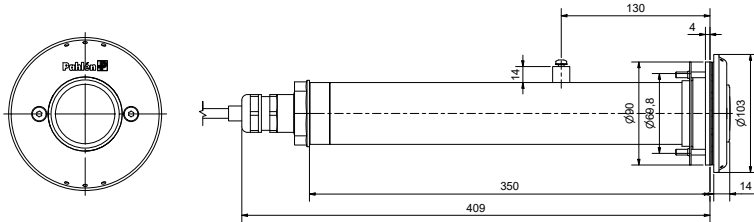
## Marine LED 170



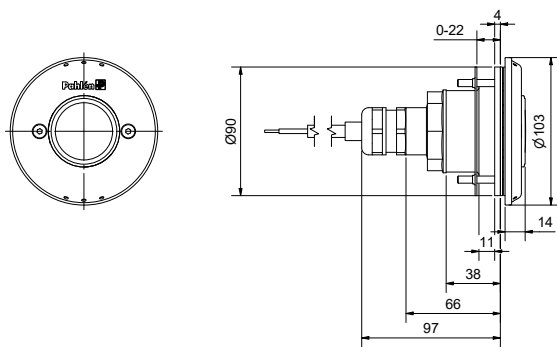
Item no.	Type
124594	CA 170VS-WW
124294	CA 170VS-RGB
124293	CA 170AP-RGB

Item no.	Type
124584	A 170VS-WW
124284	A 170VS-RGB
124283	A 170AP-RGB

## Spotlight LED Classic

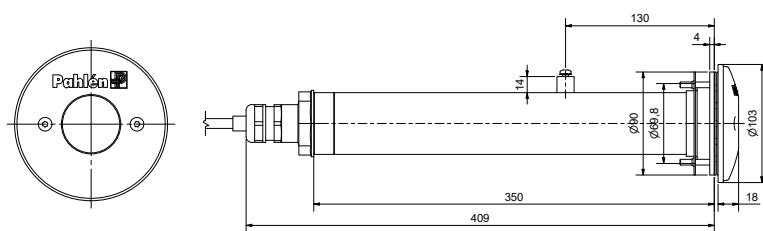


Item no.	Type
125873	CA-350 50VS-RGB
125872	CA-350 50AP-RGB

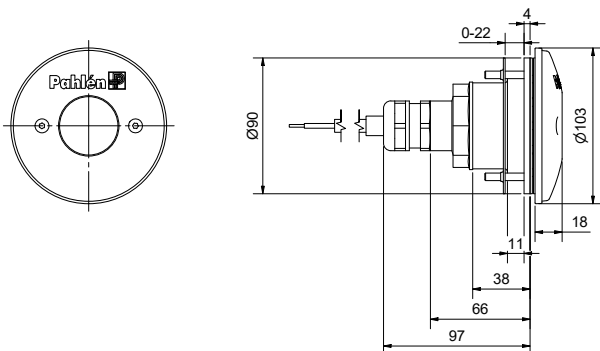


Item no.	Type
125853	CA-40 50VS-RGB
125852	CA-40 50AP-RGB

## Spotlight LED Marine



Item no.	Type
124843	CA-350 50VS-RGB
124842	CA-350 50AP-RGB

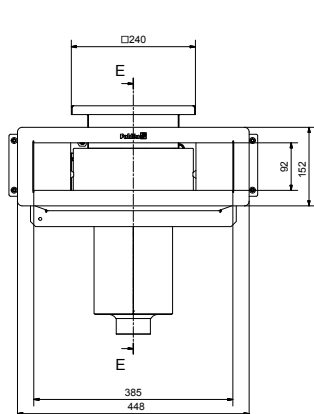


Item no.	Type
124848	CA-40 50VS-RGB
124847	CA-40 50AP-RGB

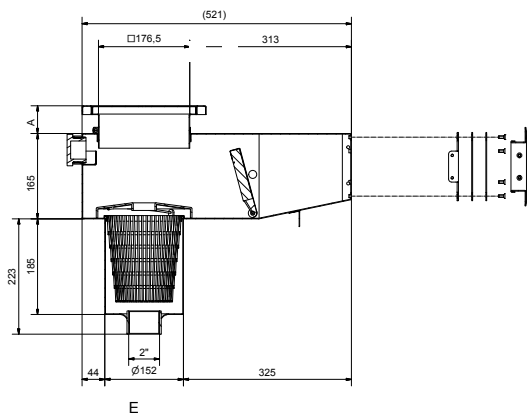


# Drawings swimming pool equipment

## Classic Wide 385



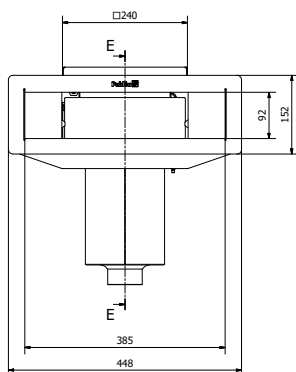
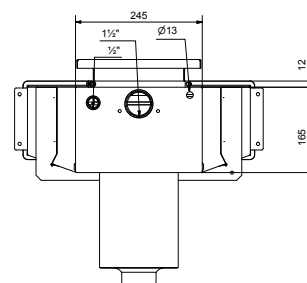
Item no. 112970



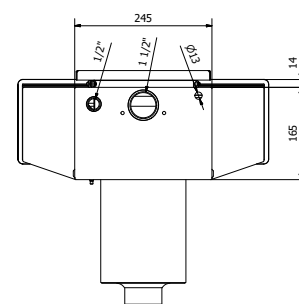
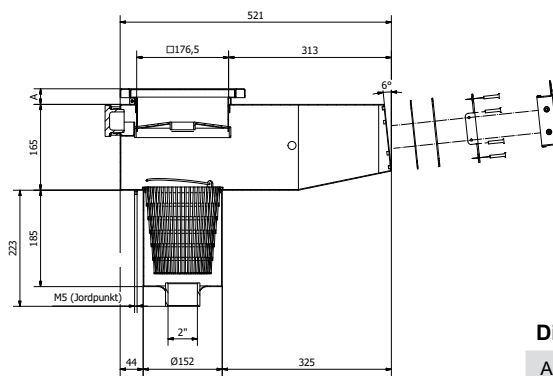
Item no. Access pipe

633022 80-125

15594410 130-250



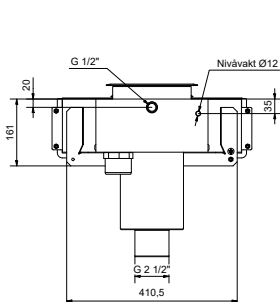
Item no. 112960



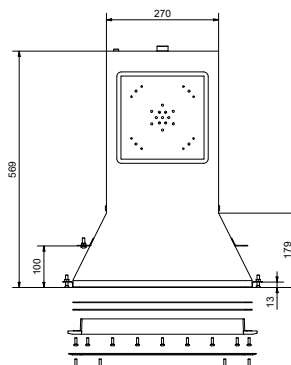
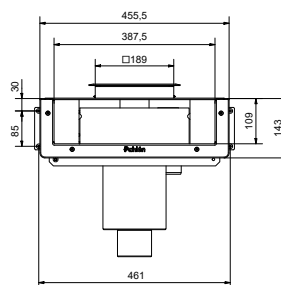
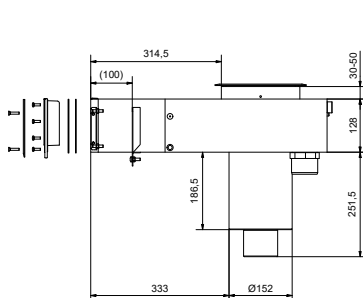
Dimensions

A 30-70 mm

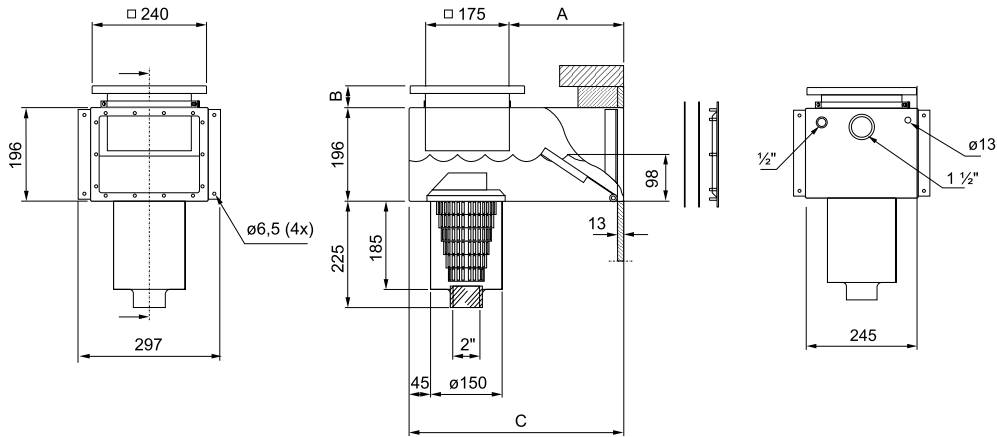
## Skimmer Infinity



Item no. 112965



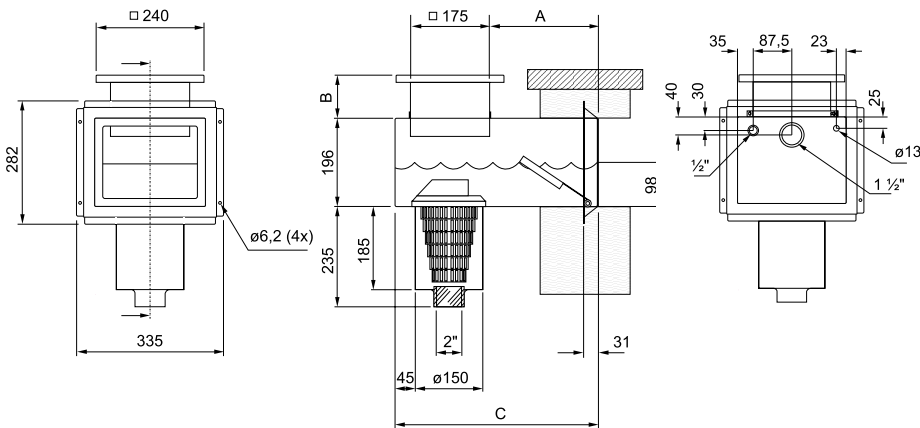
## Skimmer Classic



### Dimensions

Item no.	A	B	C
124988	240	30-120	450
124998	440	30-120	650

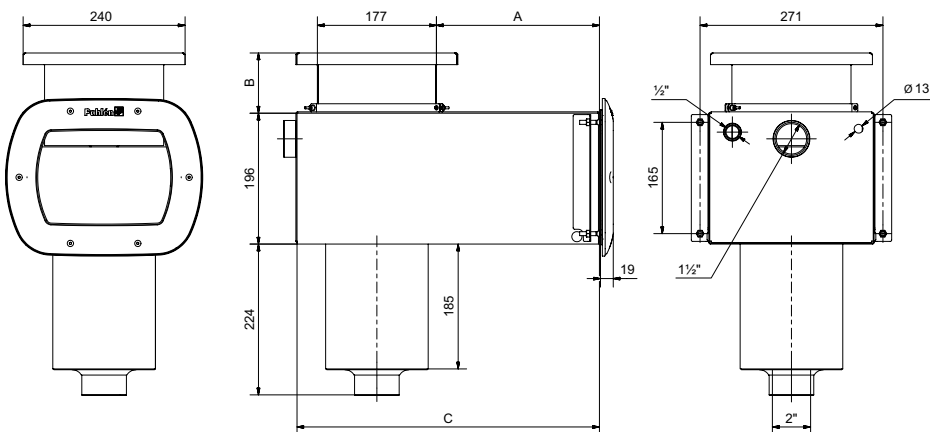
## Skimmer



### Dimensions

Item no.	A	B	C
112988	240	30-120	450
112998	440	30-120	650

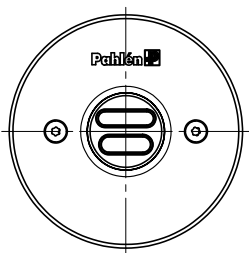
## Skimmer Marine



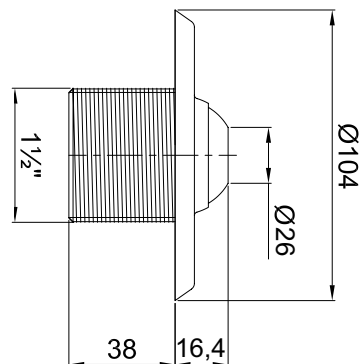
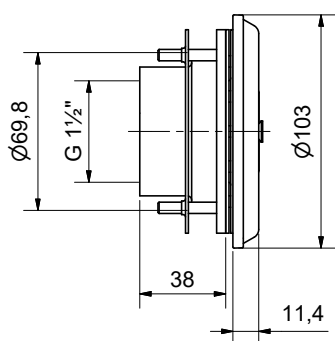
### Dimensions

Item no.	A	B	C
124981	240	30-120	450
124991	440	30-120	650

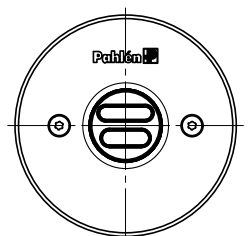
## Inlet Classic / Classic 350



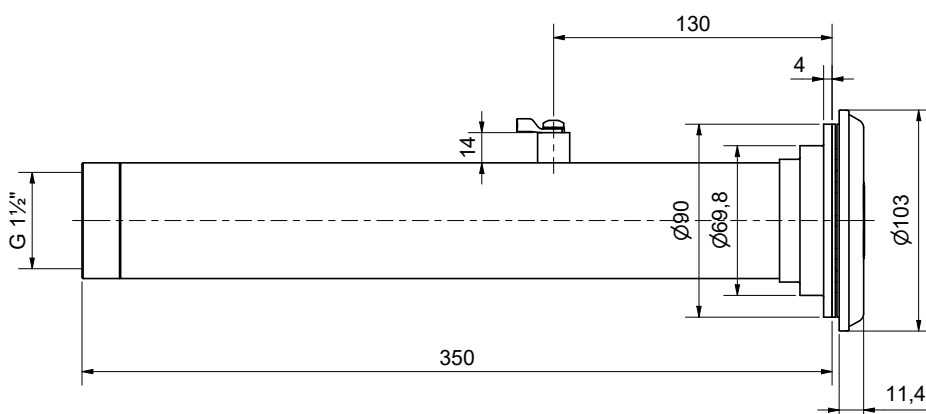
Item no. 125811



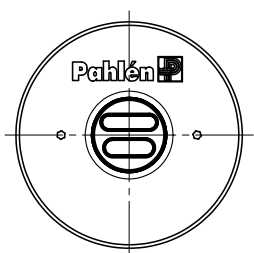
Item no. 126090



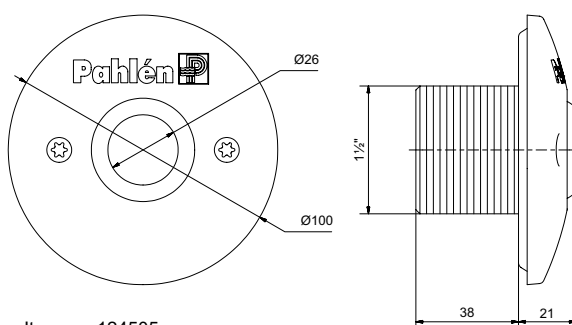
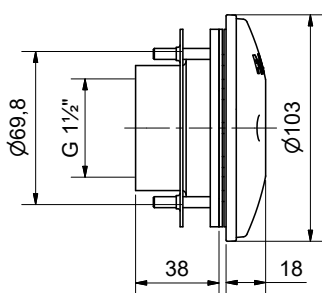
Item no. 125816



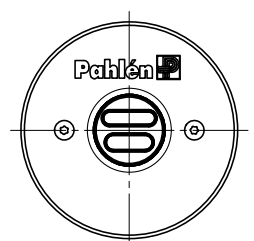
## Inlet Marine / Marine 350



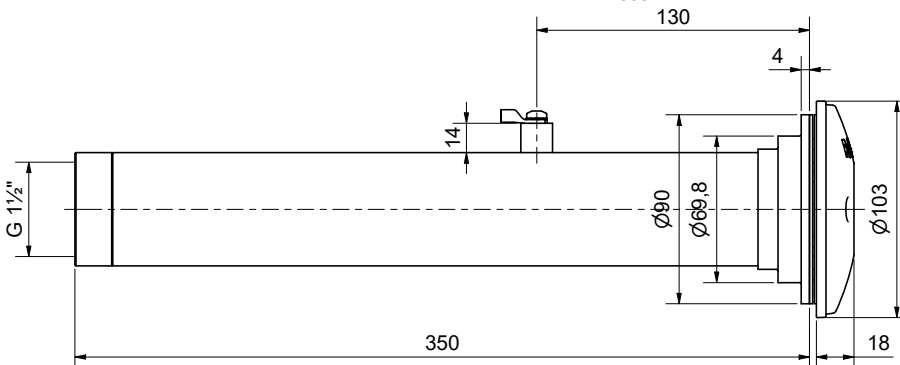
Item no. 124811



Item no. 124505

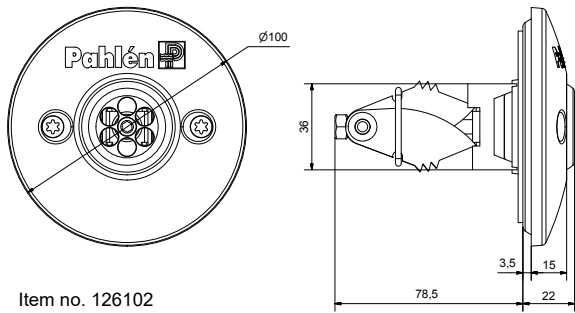


Item no. 124816



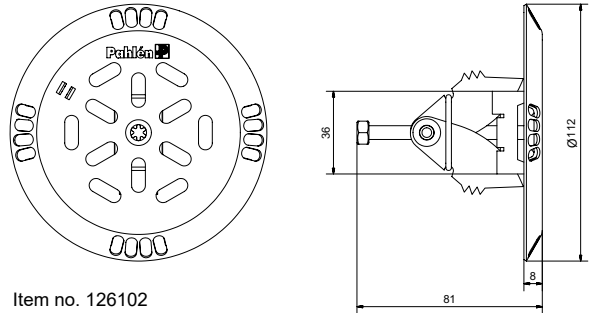


## Inlet anchoring bracket Marine



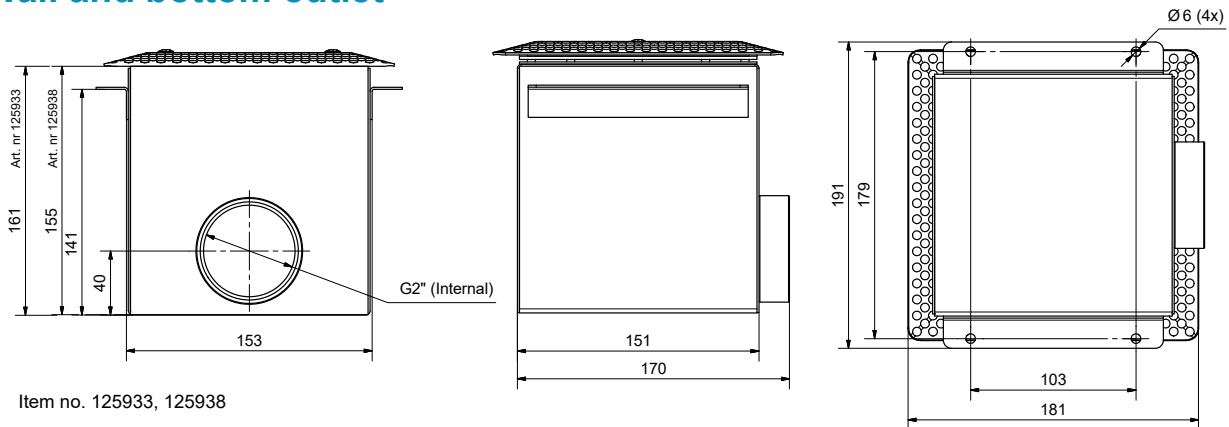
Item no. 126102

## Bottom inlet anchoring bracket

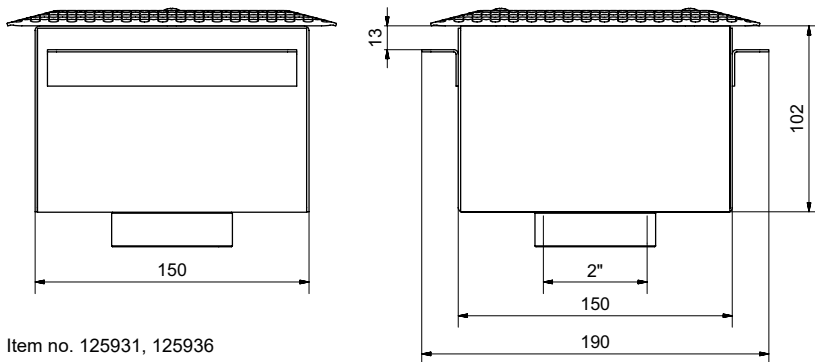


Item no. 126102

## Wall and bottom outlet



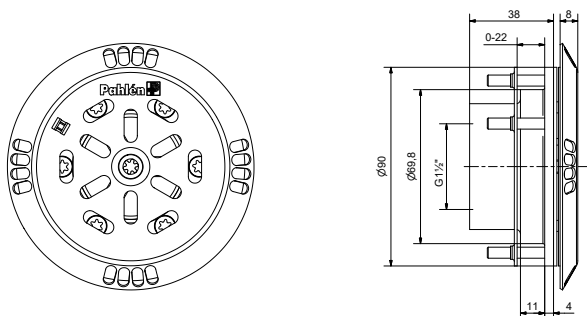
Item no. 125933, 125938



Item no. 125931, 125936

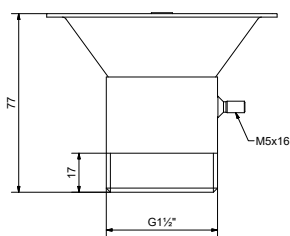
# Drawings swimming pool equipment

## Bottom inlet

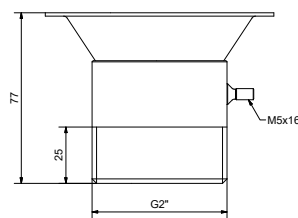
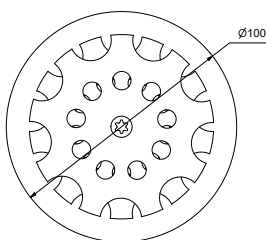


Item no. 126120

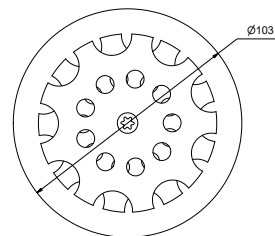
## Bottom inlet nozzle



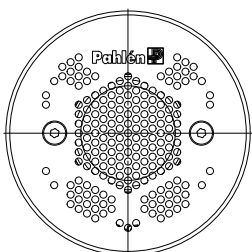
Item no. 12550



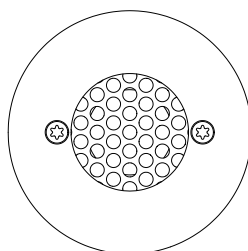
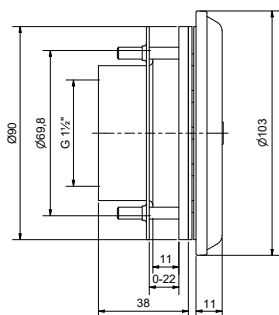
Item no. 12560



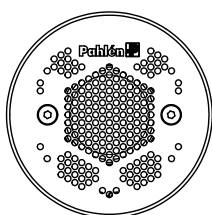
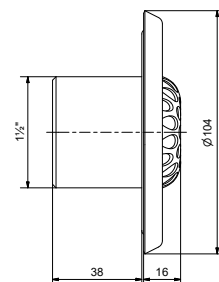
## Suction nozzle Classic



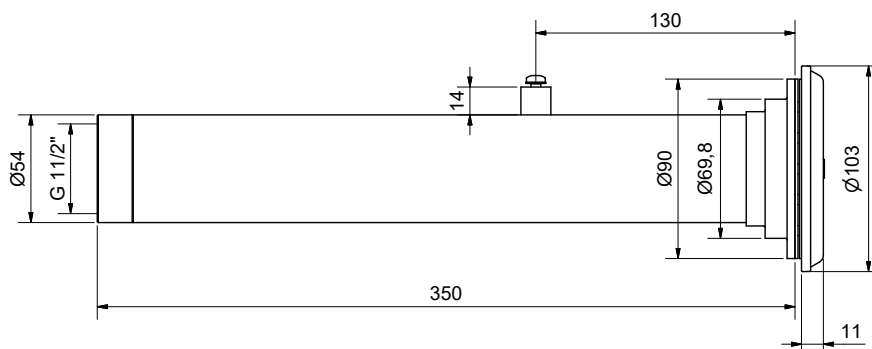
Item no. 125821



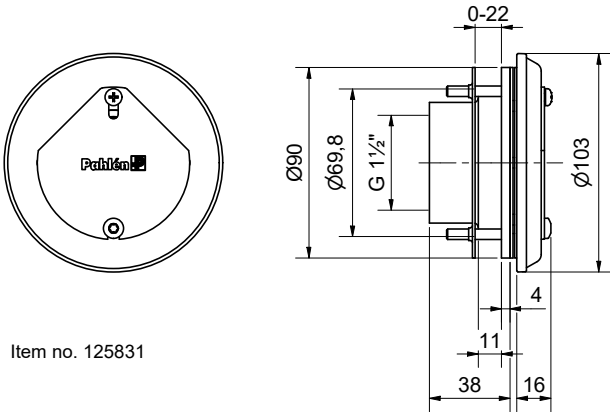
Item no. 12650



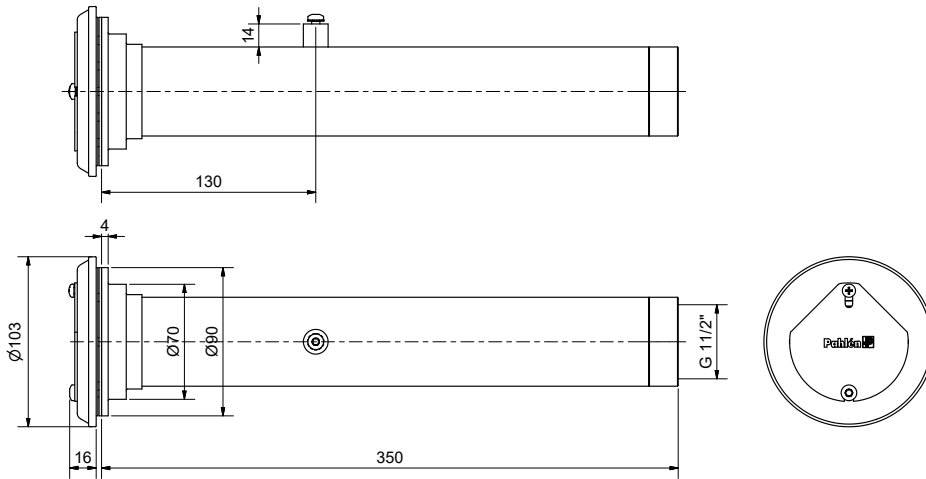
Item no. 125826



## Vacuum hose connection Classic

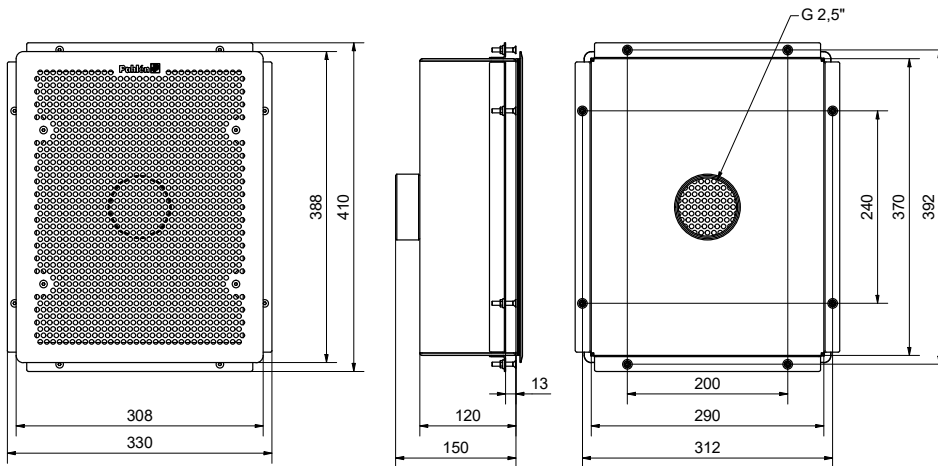


Item no. 125831



Item no. 125836

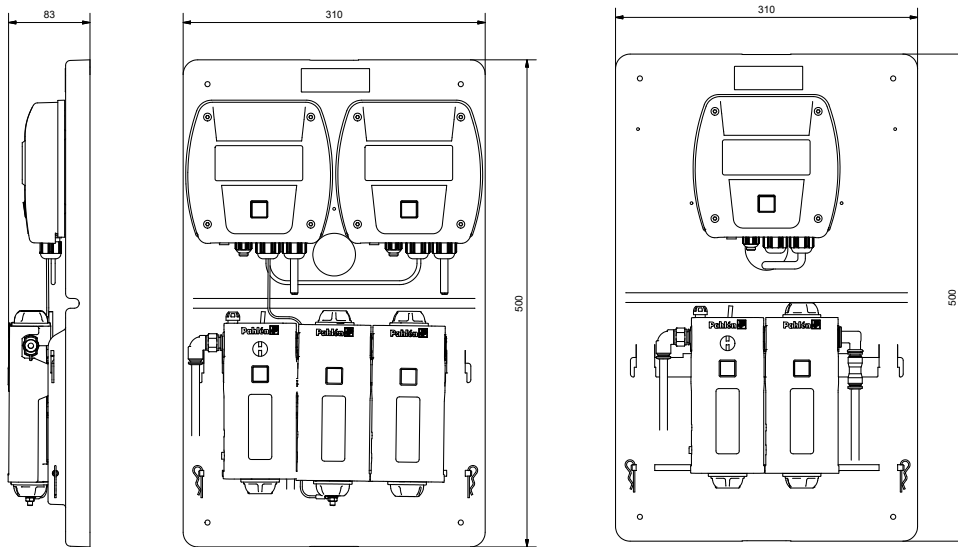
## Wall outlet Maxi





# Drawings measuring and dosing

## MiniMaster

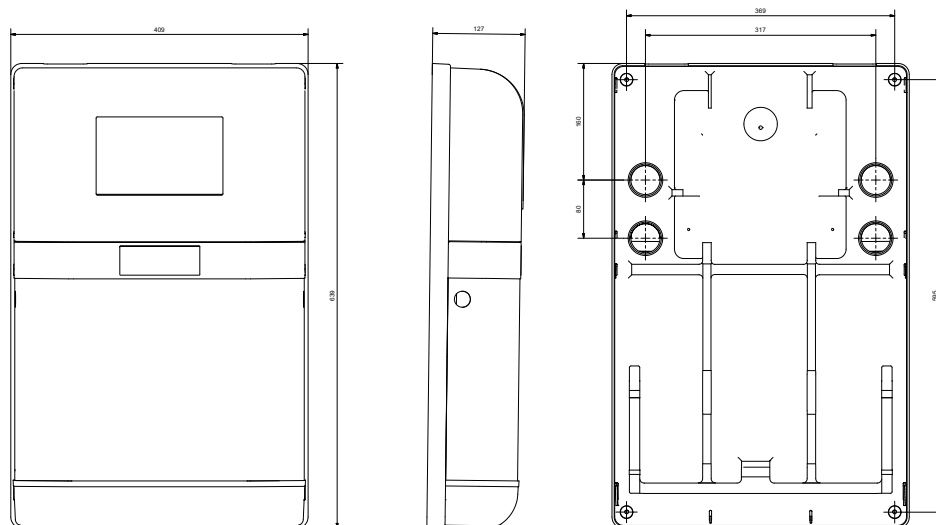


### Dimensions

#### Item no.

416620	pH + free chlorine
416600	free chlorine
416610	pH
416630	pH + Redox (ORP)

## Autdos

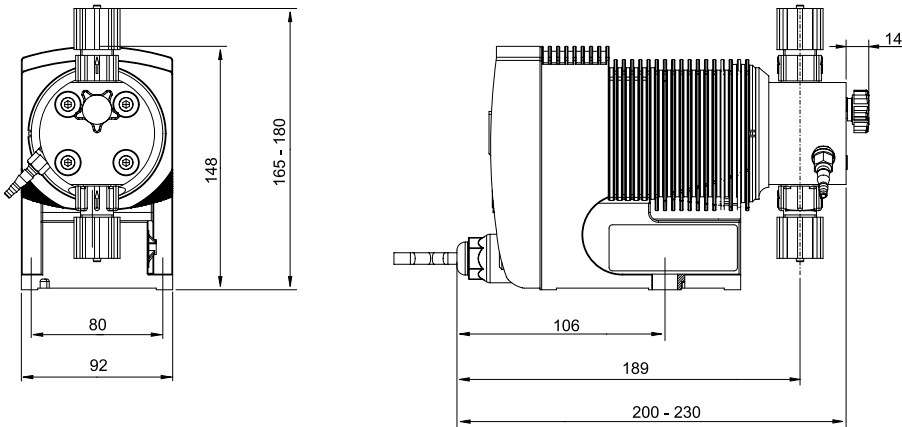


### Dimensions

#### Item no.

416500	Free chlorine
416510	pH
416520	Redox
416530	Total chlorine
416540	pH and free chlorine
416550	pH and redox
416560	pH, free chlorine and redox
416570	pH, free and combined chlorine

## Beta/4B



### Dimensions

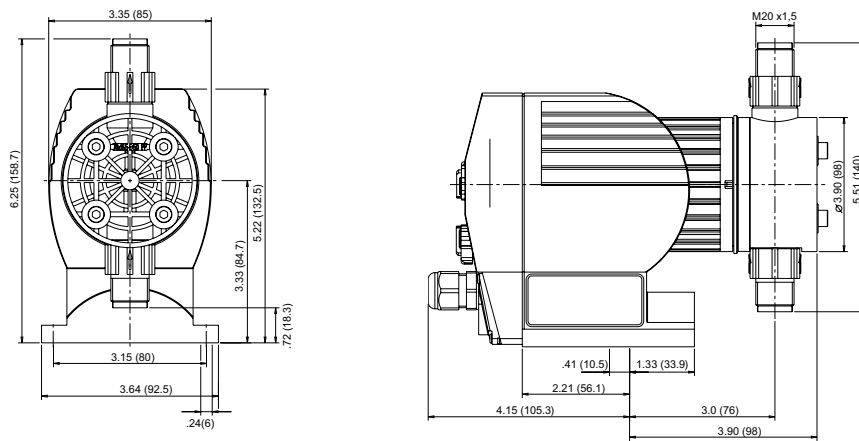
#### Item no.

413330 Beta/4B 0400

413331 Beta/4B 0402

413332 Beta/4B 0408

## Concept

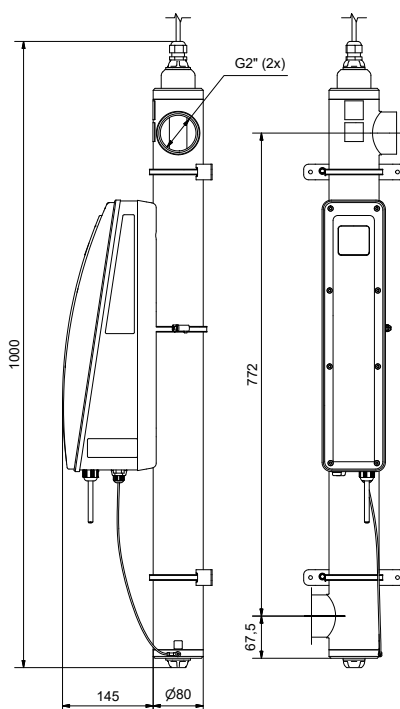


### Dimensions

#### Item no.

413340 Concept plus 1002

## Auto UV



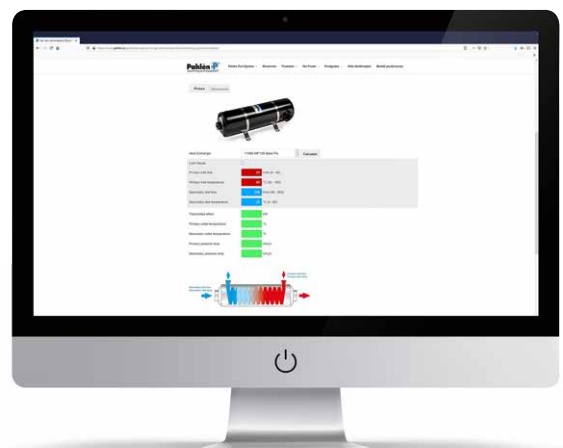


## Heat Exchanger calculator

Our calculation program for heat exchangers can be used to assist in decision making. The heat requirement for each pool is unique and is affected by a variety of factors such as isolated/non-isolated pool, above ground pool/inground pool, pool cover, etc.

In the calculation program the type of heat exchanger is chosen in the drop list. Then a nominal inlet temperature and the flow for the primary side is shown together with the desired pool temperature and the flow of the pool circulation to the secondary side.

It is free to modify the values as long as they are within the limits (in parentheses). The calculator gives transferred heating power and output temperatures. You will also get the calculated pressure drop across for each side shown in H(m) (defined as mH<sub>2</sub>O).







## Calculation of electric heaters

The amount of hours it takes in theory to heat up the pool based on volume and the capacity (kw) of the heaters.

Example: the pool is 100 m<sup>3</sup> and a heater of 24kW takes 87 hours to heat up to 28°C from 10°C.



$\Delta T=18$  (10°C - 28°C)

Volym	kW										
	6	9	12	15	18	24	30	36	45	60	72
25 m <sup>3</sup>	87	58	44	35	29	22	17	15	12	9	7
45 m <sup>3</sup>	157	105	78	63	52	39	31	26	21	16	13
70 m <sup>3</sup>	-	163	122	98	81	61	49	41	33	24	20
100 m <sup>3</sup>	-	-	174	140	116	87	70	58	47	35	29
150 m <sup>3</sup>	-	-	-	-	-	131	105	87	70	52	44
200 m <sup>3</sup>	-	-	-	-	-	-	140	116	93	70	58
250 m <sup>3</sup>	-	-	-	-	-	-	-	145	116	87	73
300 m <sup>3</sup>	-	-	-	-	-	-	-	-	140	105	87
350 m <sup>3</sup>	-	-	-	-	-	-	-	-	-	122	102



## Types of swimming pool water

The pool can be filled with different types of water depending on availability. It is important that you choose the right product to match your water type. Pahlén's products are generally suitable for freshwater swimming pools.

## Fresh water

According to WHO recommendations, drinking water may contain up to 250 mg/l (ppm) chlorides (salt).

Lake or well water used to fill the pool must be checked for salt content and for other minerals and metals.

At Pahlén, we specify a threshold value of 250 mg/l (ppm) chlorides (salt) for water that does not corrode our stainless steel and bronze products. The pool is disinfected through the addition of chlorine in solid or liquid form.

## Salt water pools

One way to disinfect pool water is to use a salt chlorinator (electrolysis).

Pure table salt (sodium chloride, NaCl) is added to the pool water to a level up to 0.5% (5 g/l = 5000 mg/l) to enable the salt chlorinator to produce chlorine. For every 40 m<sup>3</sup> pool water, 200 kg salt is required to achieve a salt content of 0.5%.

This corresponds to brackish water similar to the Baltic Sea. Because salt water corrodes stainless steel and bronze, products made from titanium or plastic must be used in salt water pools.

## Seawater

Seawater contains around 3.5% (35 g/l = 35,000 mg/l) salt. Because seawater corrodes stainless steel and bronze, products made from titanium or plastic must be used in seawater pools.

### The following water values apply:

Total chlorine:	max 3.5 mg/litre*	Iron:	max 0.1 mg/litre*
pH-value:	7.2–7.6	Copper:	max 0.2 mg/litre*
Alkalinity:	60–120 mg/litre	Manganese:	max 0.05 mg/litre*
Calcium hardness:	100–300 mg/litre	Phosphorus:	max 0.01 mg/litre*
		Nitrate:	max 50 mg/litre*

\* According to EN16713-3 2016 (1 mg/litre = 1 ppm)





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**Pahlén AB**

Box 728, 194 27 Upplands Väsby, Sweden  
e-mail: [info@pahlen.se](mailto:info@pahlen.se), [www.pahlen.com](http://www.pahlen.com)

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