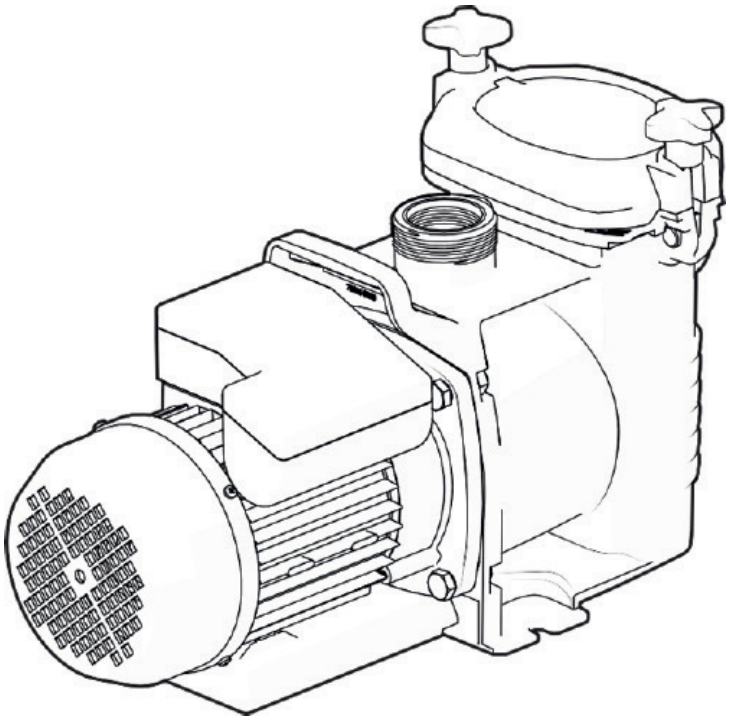
INSTALLATION AND MAINTENANCE MANUAL
MANUEL D´INSTALLATION ET D´ENTRETIEN
MANUAL DE INSTALACIÓN Y MANTENIMIENTO
MANUALE DI INSTALLAZIONE E MANUTENZIONE
EINBAU-UND BETRIEBSANLEITUNG
INSTALLATIE EN ODERHOUD HANDLEIDING
MANUAL DE INSTRUÇÕES E MANUTENÇÃO

ORIGINAL INSTRUCTIONS
INSTRUCTIONS D'ORIGINE
INSTRUCCIONES ORIGINALES
ISTRUZIONI ORIGINALI
ORIGINAL ANLEITUNG
ORIGINELE INSTRUCTIES
INSTRUÇÕES ORIGINAIS



SWIMMING POOL PUMPS
POMPES POUR PISCINES
BOMBAS PARA PISCINAS
POMPA PER PISCINAS
PUMPEN FÜR SCHWIMMBECKEN
ZWEMBADPOMPEN
BOMBAS PARA PISCINAS

ASTRALPOOL

SENEXT XP

Recycling
This symbol is required by European Community Directive 2012/19/UE on WEEE (Waste Electrical and Electronic Equipment) and means that your appliance must not be thrown into a normal bin. It will be selectively collected for the purpose of reuse, recycling or transformation. Any substances it may contain which are potentially dangerous to the environment shall be eliminated or neutralised. Request information on recycling procedures from your retailer.

Recyclage
Ce symbole requis par la directive européenne DEEE 2012/19/UE (directive relative aux déchets d'équipements électriques et électroniques) signifie que votre appareil ne doit pas être jeté à la poubelle. Il fera l'objet d'une collecte sélective en vue de sa réutilisation, de son recyclage ou de sa valorisation. S'il contient des substances potentiellement dangereuses pour l'environnement, celles-ci seront éliminées ou neutralisées. Renseignez-vous auprès de votre revendeur sur les modalités de recyclage.

Reciclaje
Este símbolo es exigido por la Directiva 2012/19/UE de la Comunidad Europea sobre RAEE (residuos de aparatos eléctricos y electrónicos) e indica que no se debe tirar el aparato al contenedor normal. Habrá que realizar una recogida selectiva con el fin de reutilizarlo, reciclarlo o transformarlo y de eliminar o neutralizar cualquier sustancia que pueda contener y sea potencialmente peligrosa para el medio ambiente. Pida información sobre los procesos de reciclaje en su punto de venta.

Riciclaggio
Questo simbolo è richiesto dalla Direttiva della Comunità Europea 2012/19/UE sui RAEE (rifiuti di apparecchiature elettriche ed elettroniche) e indica che il dispositivo acquistato non deve essere gettato in un normale cestino. Sarà invece oggetto di raccolta differenziata a scopo di riutilizzo, riciclaggio o trasformazione. Qualora il medesimo contenesse delle sostanze potenzialmente nocive per l'ambiente occorre eliminarle o neutralizzarle. Per ulteriori informazioni sulle procedure di riciclaggio rivolgersi al proprio rivenditore.

Recycling
Dieses Symbol ist nach der Richtlinie der Europäischen Gemeinschaft 2012/19/UE über EEAG (Elektro- und Elektronikgeräte-Abfall) vorgeschrieben und bedeutet, dass das Gerät nicht im normalen Müll entsorgt werden darf. Es wird separat zur Wiederverwendung, zum Recyceln oder zur Umbearbeitung gesammelt. Alle möglicherweise enthaltenen Substanzen, die potenziell umweltschädlich sind, werden beseitigt oder neutralisiert. Fordern Sie Informationen zu Recycling-Verfahren bei Ihrem Händler an.

Recycling
Dit symbool is verplicht volgens de Europese richtlijn 2012/19/EU betreffende AEEA (afgedankte elektrische en elektronische apparatuur) en betekent dat dit apparaat niet met het gewone huisvuil mag worden verwijderd. Het moet afzonderlijk worden opgehaald om te worden hergebruikt, gerecycled of getransformeerd.
Als het stoffen bevat die schadelijk kunnen zijn voor het milieu, moeten deze eerst worden verwijderd of geneutraliseerd. Voor verdere informatie over recycling kunt u terecht bij uw handelaar.

Reciclagem
Este símbolo é exigido pela Diretiva da Comunidade Europeia 2012/19/UE relativa aos REEE (Resíduos de Equipamentos Elétricos e Eletrónicos) e indica que o seu aparelho não deve ser descartado juntamente com o lixo urbano. Será recolhido seletivamente para fins de reutilização, reciclagem ou transformação. Quaisquer substâncias potencialmente nocivas para o meio ambiente que contenham devem ser eliminadas ou neutralizadas. Solicite mais informações sobre os procedimentos de reciclagem ao seu distribuidor.

IMPORTANT SAFETY, INSTALLATION AND MAINTENANCE INFORMATION

This manual contains basic information on the safety measures to be adopted during installation, maintenance and start-up. The fitter and the user must therefore read the instructions before installation and start-up.

The manual can be downloaded as a PDF file from the website: **www.astralpool.com**

- The units described in this Manual are specially designed for the pre-filtering and recirculation of water in swimming pools.
- They are designed to work with clean water at temperatures that do not exceed 35 ºC.

- All assembly, electrical installation and maintenance work must be carried out by qualified, authorized personnel who have carefully read the installation and service instructions.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

- Our pumps may only be assembled and installed in pools that are compliant with standards IEC / HD 60364-7-702 and required national rules. Should you have any doubts please consult your dealer.
- The installation should follow standard IEC/HD 60364-7-702 and required national rules for swimming pools.
- The pump can not be installed in the Zone 0 and Zone 1. To see drawings refer to page 8.

- The pump is intended to be used while fastened to a support or while secured in a specific location.
- See the maximum total head (H max), in metres in page 6.
- A sump with an adequate outlet for the liquid is considered to be placed where flooding is likely to occur.
- If a self-priming pump is to be fitted above the water level, the pressure differential to the pump suction pipe should not be higher than 0.015 MPa (1,5 mH_2O). Ensure that the suction pipe is as short as possible as a longer pipe would increase suction time and the installation's load losses.
- The unit should be connected to an alternating current supply (see data on the pump's plate) with an earth connection, protected by a residual current device (RCD) with a rated residual operating current that does not exceed 30 mA.

- Failure to abide by the warnings can cause serious damage to a pool's fixtures or serious injury, including death.
- Observe the regulations in force on accident prevention.
- Before handling the unit, ensure that the power supply is switched off and disconnected from the mains.
- If the unit breaks down, do not try to repair it yourself. Contact a qualified service engineer instead.
- All modifications to the pump require the manufacturer's prior authorization. Spare parts and original accessories authorized by the manufacturer ensure greater safety. The pump's manufacturer may not be held liable for any damage caused by unauthorized spare parts or accessories.
- Do not touch the fan or moving parts and do not place a rod or your fingers near the moving parts while the device is working. Moving parts can cause serious injury or even death.
- Do not dry-run the pump or without water (the warranty will become null and void).
- Do not do any maintenance or repair work on the device with wet hands or if the device is wet.
- To not submerge the device in water or mud.

1. GENERAL SAFETY INSTRUCTIONS

These symbols (⚠ ⚠ !) indicate the possibility of danger where the corresponding instructions are not followed.

DANGER. Risk of electrocution.
Failure to abide by these instructions may lead to the risk of electrocution.

DANGER.
Failure to abide by these instructions may lead to the risk of injury to people or damage to property.

WARNING.
Failure to abide by these instructions may lead to the risk of damage to the pump or the installation.

2. OVERVIEW OF THE SYSTEM

Before starting, check that you have all the parts shown in Table 1 at hand.

TABLE 1 - **CONTENT**

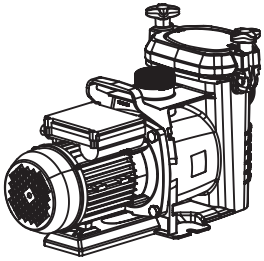
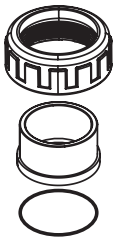
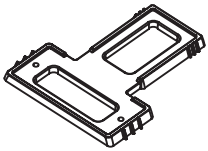
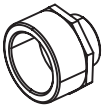
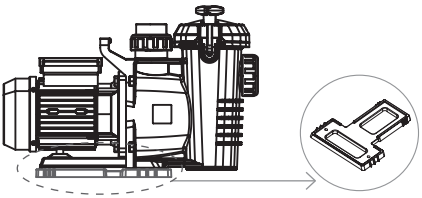
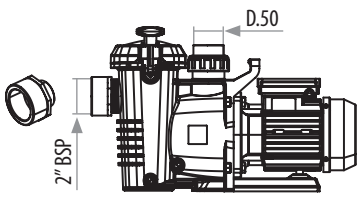
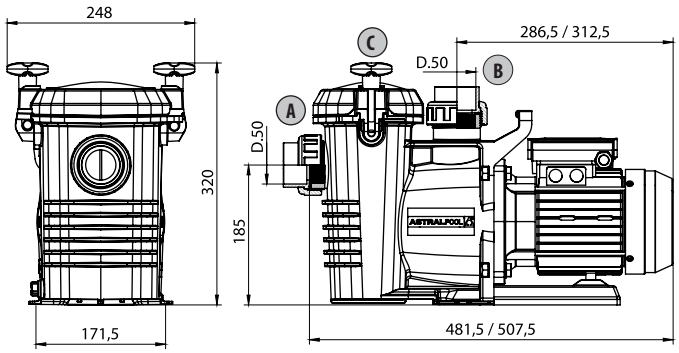
			
Senext pump	Standard connections for D.50 piping (2)	Pump stand (1)	Reducing bushing 2"- 1 ½" (1)

TABLE 2 - **RETROFIT OPTIONS**

					
1	Equipment:	Base	**2**	Equipment:	Reducing bushing 2" - 1 ½"
	Retrofit:	Hayward MaxFlo/SuperPool		Retrofit:	Speck BADU Magna/Top

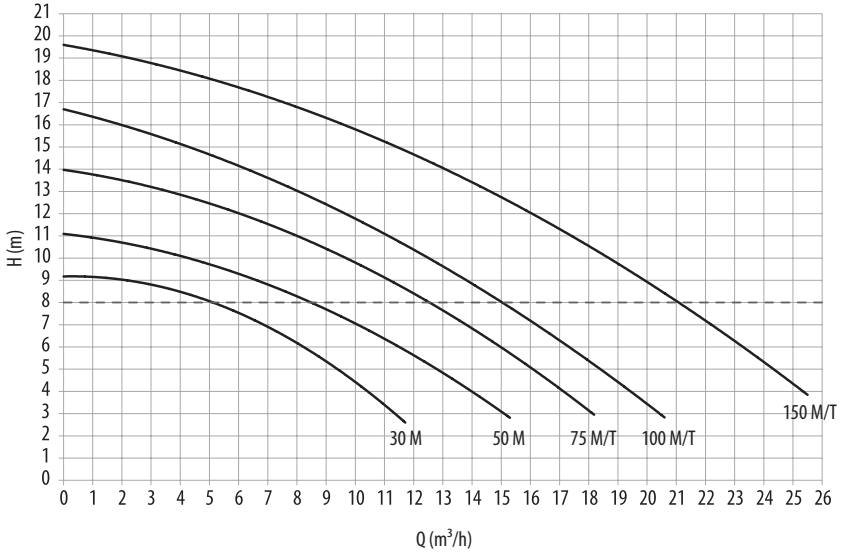
SPECIFICATIONS									
		30 M	50 M	75 M	75 T	100 M	100 T	150 M	150 T
Operating water temperature		5 to 35 ºC							
Operating ambient temperature		2 to 50 ºC							
Motor voltage – nominal (*)		230 VCA-50 Hz			400 VCA-50 Hz	230 VCA-50 Hz	400 VCA-50 Hz	230 VCA-50 Hz	400 VCA-50 Hz
Motor power – phases		1 P			3 P	1 P	3 P	1 P	3 P
Acceptable motor – voltage range		±10% (during operation)							
Motor power – nominal	CV	0.50		0.75		1.00		1.50	
Motor output – nominal (P2)	W	375		550		750		1100	
Motor input – maximum (P1)	W	605		770	750	1020	970	1400	
Motor amperage	A	2.7		3.6	1.6	5	1.9	6.5	2.5
Motor protection rating		IPX5							
Maximum pump flow rate at 3 m in height	m^3/h	11.5	15.0	18.0		20.5		26	
Pump flow at 8 m in height	m	5.0	8.5	12.5	12.5	15		21	
Maximum pump height (H max)	mH_2O	9	11	14		17		19.5	
	bar	0.9	1.1	1.4		1.7		1.9	
Pump connections		Diameter of suction and discharge piping: 50 mm Threaded suction and discharge connection: External G2 ¼"/Internal G1 ½"							
Maximum water salt level		6.0 g/l (6,000 ppm)							

DIMENSIONS AND MARKINGS



A	B	C
Water inlet	Water outlet	Strainer lid

PERFORMANCE CURVES



3. INSTALLATION

3.1 SELECTING A LOCATION

The pump must be installed:

- In front of the filter, heating system and/or water treatment unit
- At a distance of 2 meters from the edge of the pool, to prevent water from splashing the unit. Some standards allow other distances. Consult the standards in force in the country of installation.
- Ideally, 30 cm below the water level.
- Outside an area susceptible to flooding or on a stand with drainage.
- In a well ventilated place, to allow the pump to cool.

The pump must not be installed:

- In an area susceptible to rainfall and splashing.
- Near a heat source or source of inflammable gas.
- In an area that cannot be cleaned or kept free of leaves, dry vegetation and other inflammable items.
- In Area 0 and Area 1 (FIGURE 1).

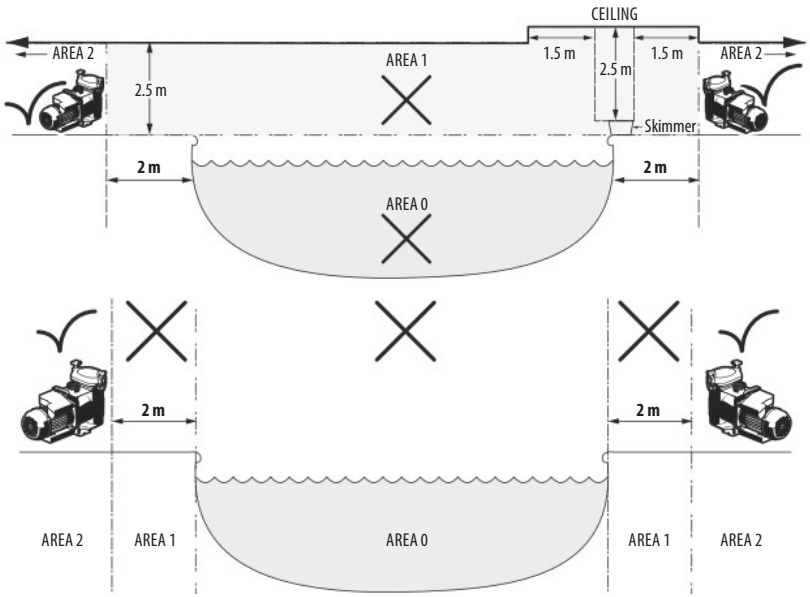


FIGURE 1 - **INSTALLATION ZONES**

- There must be easy access for maintenance work on the device.
- Place it on a stable, leveled and solid surface (e.g., concrete base).
- If necessary, use the stand to lift the pump up to the level of the piping fitted. (FIGURE 2).
- Fasten the pump to the ground using the anchoring stud so that it is suitably fitted in place. (FIGURE 3).

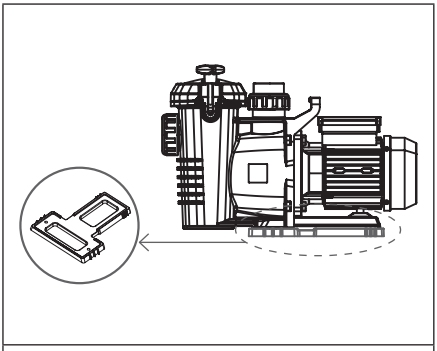


FIGURE 2 - **PUMP STAND**

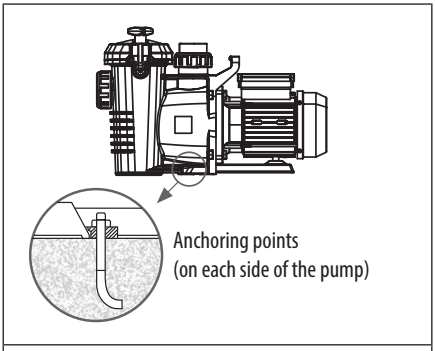
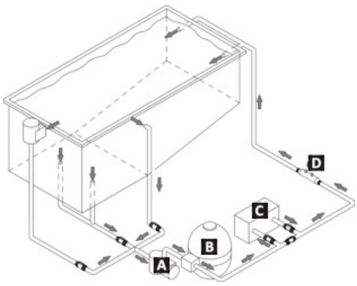


FIGURE 3 - **ANCHORING**

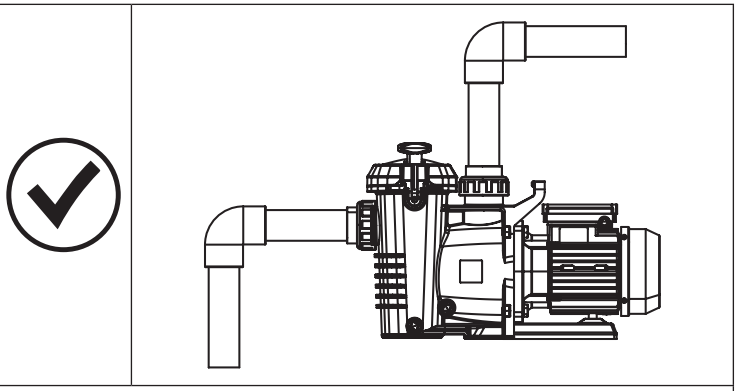
3.2 HYDRAULIC CONNECTIONS

- Observe the direction of the hydraulic connections.
- Select the pipe size according to the size of the pool in line with the hydraulic standards in place in the country of installation.
- For hydraulic connections, use the standard connections required.
- Fit a check valve if the filter is installed above the water level.
- Fit isolation valves (suction and discharge) if the filter is installed below the water level.
- To avoid problems with priming, install the suction pipe so that there are no high points where air can build up.
- Check that the hydraulic connections are securely tightened and that there are no leaks.
- The piping should be well supported to avoid any risk of breakage due to the weight of the water.

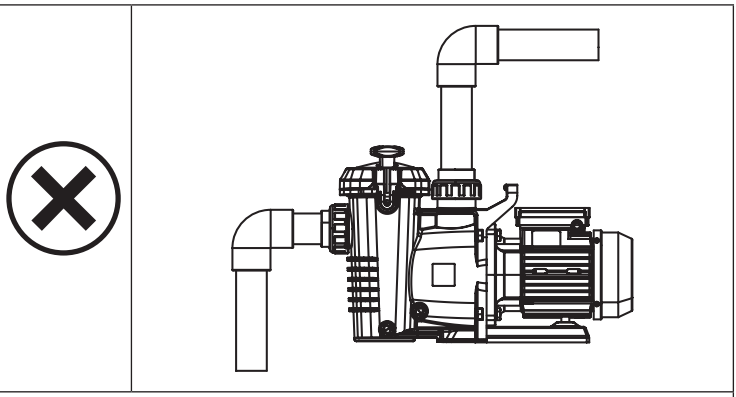


HYDRAULIC CONNECTIONS	
A	Pump
B	Filter
C	Heating system
D	Water treatment system

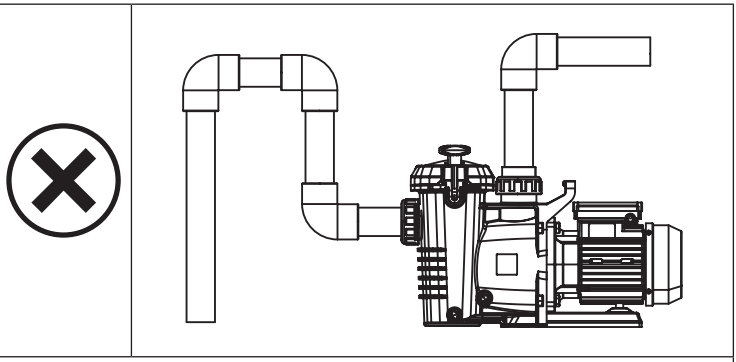
- Use as few elbow joints as possible. If there needs to be more than 10 elbow joints on the hydraulic circuit, increase the pipe diameter.



Length of the suction pipe = 4 x Ø



Suction pipe too short. **Risk of cavitation**



Air entrapment. **Risk of the strainer not filling properly**

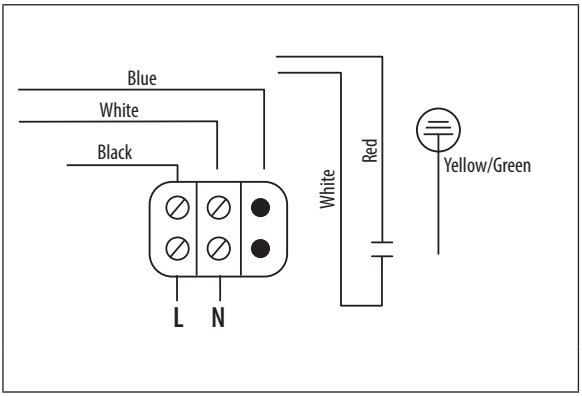
3.3 POWER CONNECTIONS

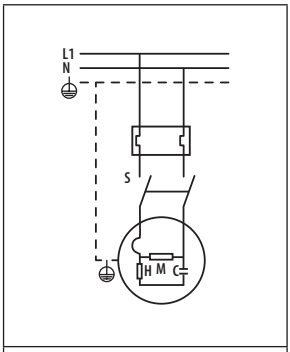
- To avoid the switchboard from overheating (which could cause a fire), check that the terminal blocks are securely fastened. Loose terminal blocks will cancel the warranty.
- Any unsuitable electrical connection will make the warranty null and void.
- The power cable must be insulated and protected against chafing and damage.
- Use the cable gland to thread the power cable through the device.

3.3.1 ELECTRICAL CONNECTIONS

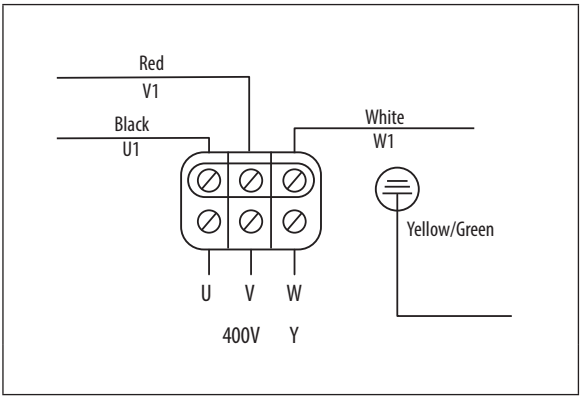
Disconnect electricity and ground the pump before beginning electrical work.

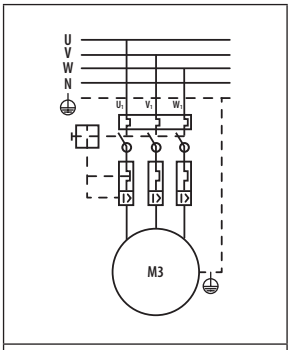
1. Unscrew the 4 screws to open the connection box.
2. Disconnect and remove factory test wires from the terminal block.
3. Run the power cable through the gland and connect wires.
4. Close the electrical connection box, making sure the gasket is in place, and tighten the 4 screws.





Single- phase - 230Vac-50Hz





Three-phase - 400Vac-50Hz

4. USE

4.1 OPERATING PRINCIPLE

The filter pump is a fundamental, core component of any pool, as it is used to circulate the water through all components, the filter in particular.

Its motor makes the turbine rotate, which pumps the water. The strainer basket collects large pieces of debris to prevent the filter from becoming blocked or damaged.

4.2 OPERATION

- To prevent any risk of explosion that could cause material damage, serious injury or even death, ensure that the hydraulic circuit is free of obstructions, is not blocked and is not under high pressure.
- The lid of the strainer basket should be closed by hand (do not use any tools).
- Check that the hydraulic connections are securely tightened.
- Check that the pump is stable and leveled.
- The hydraulic circuit should be primed and not contain any foreign bodies.
- The lid of the strainer basket must be properly closed (by hand) and its gasket clean and properly in place.
- Check that the valves are open.
- As the pump is self-priming, the strainer must be filled with water before starting it up for the first time in order to facilitate the process. (See FIGURE 4)

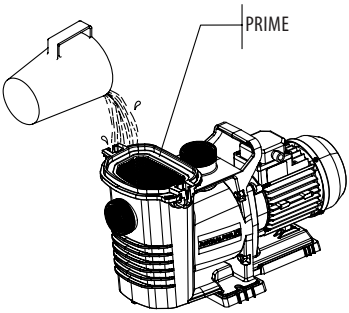


FIGURE 4

- The pump has a priming capacity of up to 1.5 meters above the water level of the pool at sea level (if the hydraulic circuit is properly sealed).
- Bleed any air that may have built up in the filtration circuit using the bleed valve, which is usually on the filter (see the pool filter manual).

- Check that there are no leaks in the hydraulic circuit.
- Check that the motor is turning in the right direction (look at the fan located at the back of the motor). (See FIGURE 5)

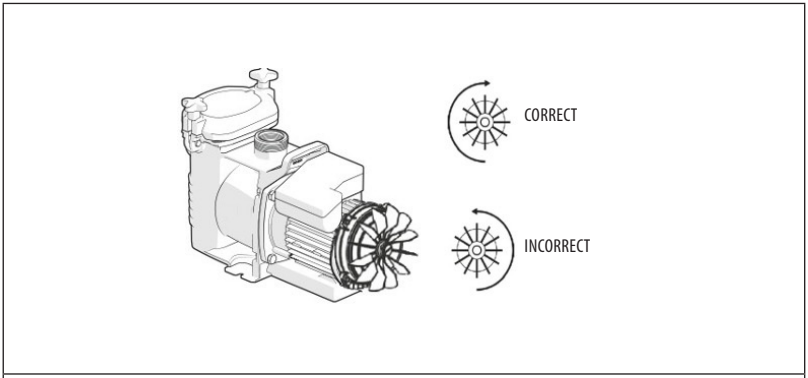


FIGURE 5

- Switch the pump on and from the strainer lid check that the pump is fully primed for a time of no longer than 12 minutes.

5. MAINTENANCE

Depending on the level of water cleanliness, the following should be done every 100 operating hours:

- Clean the pre-filter basket regularly to avoid drops in pressure. To prevent the basket from breaking, do not hit it during the cleaning process.
- Should the pump stop, check that the consumption in amperes of the motor that is running is equal to or below that indicated on the manufacturer's rating plate. If this information is not available, contact the nearest Technical Assistance Service.
- Empty the pump if it is to remain at a standstill for a certain length of time, especially in cold countries where there is a risk of freezing.
- Remove the purge cap to empty the pump.
- Every time the pre-filter is opened, clean the seal and its housing of any impurities to ensure airtightness when the cap is closed (FIGURE 6).
- Pump components that, due to their normal use, suffer wear and/or tear must be regularly replaced to ensure good pump performance. The following table lists the fungible and / or consumable components of the pump and the period of time in which they must have been replaced.

DESCRIPTION OF THE COMPONENT	TIME BETWEEN REPLACEMENTS
Capacitor	10,000 h
Bearings	10,000 h
Mechanical seal	10,000 h
O-rings and other sealing components (1)	10,000 h

(1) The opening and closing of the pump for the replacement of any of the inner spare parts does not guarantee the subsequent sealing. For this reason, it is recommended that the O-rings and sealing components are replaced whenever the mechanical seal and / or bearings are changed.

The estimated working life of the above parts has been established according to normal product use and installation conditions.

Follow the instructions in the installation manual to maintain the working life of the pump.

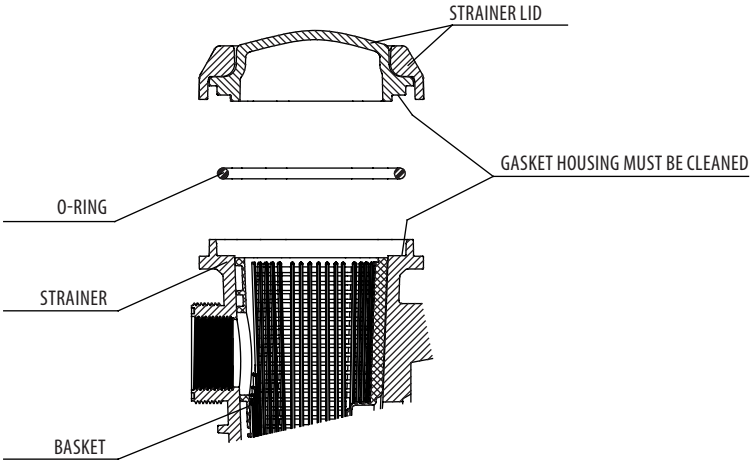


FIGURE 6

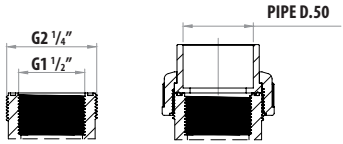
6. TROUBLESHOOTING

- If a problem arises, before contacting your dealer, make the following simple checks as described in the tables below.
- If the problem persists, contact your dealer.
- Work that should only be carried out by a qualified service engineer.

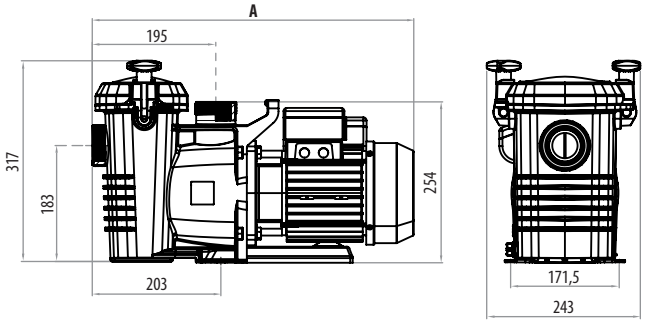
6.1 PUMP FAILURE

PROBLEM	SOLUTION
The pump does not start up/The motor does not turn.	• Power cut. Check the circuit breakers. • Check the connection between the power cable and the motor's terminals. • Check that the motor shaft is turning freely. Check that there is no debris in the strainer basket. • If any debris still remains, remove the pump to access the turbine.
The pump does not prime/There may be air in the strainer basket.	• Check the position of the valves in the hydraulic circuit. • Air has clogged up in the circuit. Bleed the hydraulic circuit (bleed valve on the filter). • The pool's water level is too low, so the circuit is sucking in air. Fill the pool. • The strainer lid is defective. Check the state of repair of the gasket and that the lid is watertight.
Low flow rate/Low filter pressure.	• The strainer basket is full of debris. Clean it. • Air leak in the circuit. Check all of the tightening torques. • The turbine and pump diffuser are blocked or worn. Replace them. • The diffuser's gasket is worn. Replace it. • Reverse rotation of the motor (only on three-phase pumps). Check the connections of pump's terminal blocks.
Low flow rate/High filter pressure.	• The filter is blocked up. Clean the filter (or cartridge, as may be the case). • Check the position of the valves in the hydraulic circuit.
The pump makes a lot of noise.	• Air leak or cavitation in the suction piping. Check the position of the valves and adjust them whenever necessary. • Pump badly placed on the ground. Check that it is on a flat, hard, horizontal surface. Use anti vibration pads whenever necessary. • There is a foreign body in the strainer basket. • There is a foreign body in the body of the pump. The pump must be removed and taken for servicing.
Leak in the body of the pump and the motor.	• The mechanical seal is damaged. Replace it.

TECHNICAL CHARACTERISTICS
RENSEIGNEMENTS TECHNIQUES
CARACTERÍSTICAS TÉCNICAS
DATI TECNICI
TECHNISCHE ANGABEN
TECHNISCHE EIGENSCHAPPEN
CARACTERÍSTICAS TECNICAS



SUCTION & DISCHARGE PUMP CONNECTIONS



SENEXT PUMP							
		MOTOR				DIMENSION (mm)	
CODE	DESCRIPTION	HP	P1 (W)	Voltage(*)	Type	Overall length "A"	Pipe size (Ø)
71616	Senext 30M	0.5	375	230 VAC-50Hz	C.71	481.5	Ø50
71617	Senext 50M	0.5	375	230 VAC-50Hz			
71618	Senext 75M	0.75	550	230 VAC-50Hz			
71619	Senext 75T			400 VAC-50Hz			
71620	Senext 100M	1	750	230 VAC-50Hz			
71621	Senext 100T			400 VAC-50Hz			
71622	Senext 150M	1.5	1100	230 VAC-50Hz	C.80	507.5	
71623	Senext 150T			400 VAC-50Hz			

(*) Voltages 220/380 V ±10% of variation are acceptable too

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