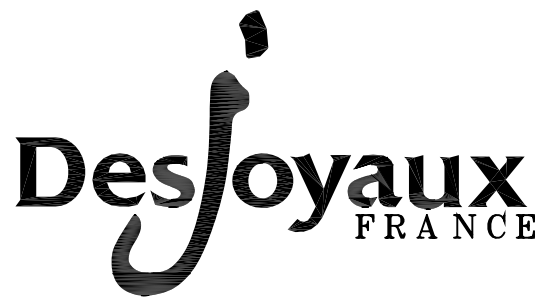


INSTALLATION / MAINTENANCE
AND USER MANUAL

FILTRATION PANEL 2000 USA



January 2005

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Modifications par rapport à la précédente révision :

- Adaptation pompe P18 boîte à bornes déportée
- Ajustement cotes impériales

CONTENTS

	Page
Contents	2
1 – Filtration panel 2000 USA	3
2 – Technical specificities of the filtration panel 2000 USA	5
3 – Body parts	6
4 – Important instructions	8
5 – Installation instructions	9
5.1 – Installing the filtration compartment	10
5.2 – Installing the technical compartment	11
5.3 – Pump and piping installation	13
5.4 – Wastewater connection	14
5.5 – Casting concrete for the pool and filtration panel	14
5.6 – Casting the deck slab	15
5.7 – Installing the liner	16
5.8 – Starting up the filtration panel	18
6 – Winterising the filtration panel 2000 USA	19
7 – Filtration panel 2000 USA	20
8 – By-pass hydraulic installation	21
9 – Important safety instructions	22
10 – Electrical installation procedure	23
Connection diagram	24
11 – Installation of accessories	27

1 – FILTRATION PANEL 2000 USA

The Desjoyaux filter system incorporates all the functions of traditional systems. Its efficiency combined with easy maintenance will bring you total satisfaction.

- Principle

The pump draws water through the skimmer opening on the front face of the filter panel. It is immediately filtered through the filter bag.

The water reaches the pump and is discharged into the pool.

- This filter system is supplied in several versions:

- PF2000 P18 US version with P18 US pump:
 - Single speed pump, 0.45kW / 60 cycles motor
 - Total assigned power: 450W.
- PF2000 PBi US version with PBi US pump:
 - Two speed pump, 0.3–1.6kW / 60 cycles motor
 - Total assigned power: 2200W.

- Technical description

The Desjoyaux filtration panel 2000 incorporated with your swimming pool is fitted with the DESJOYAUX pump and incorporates the latest electrical and hydraulic technological innovations.

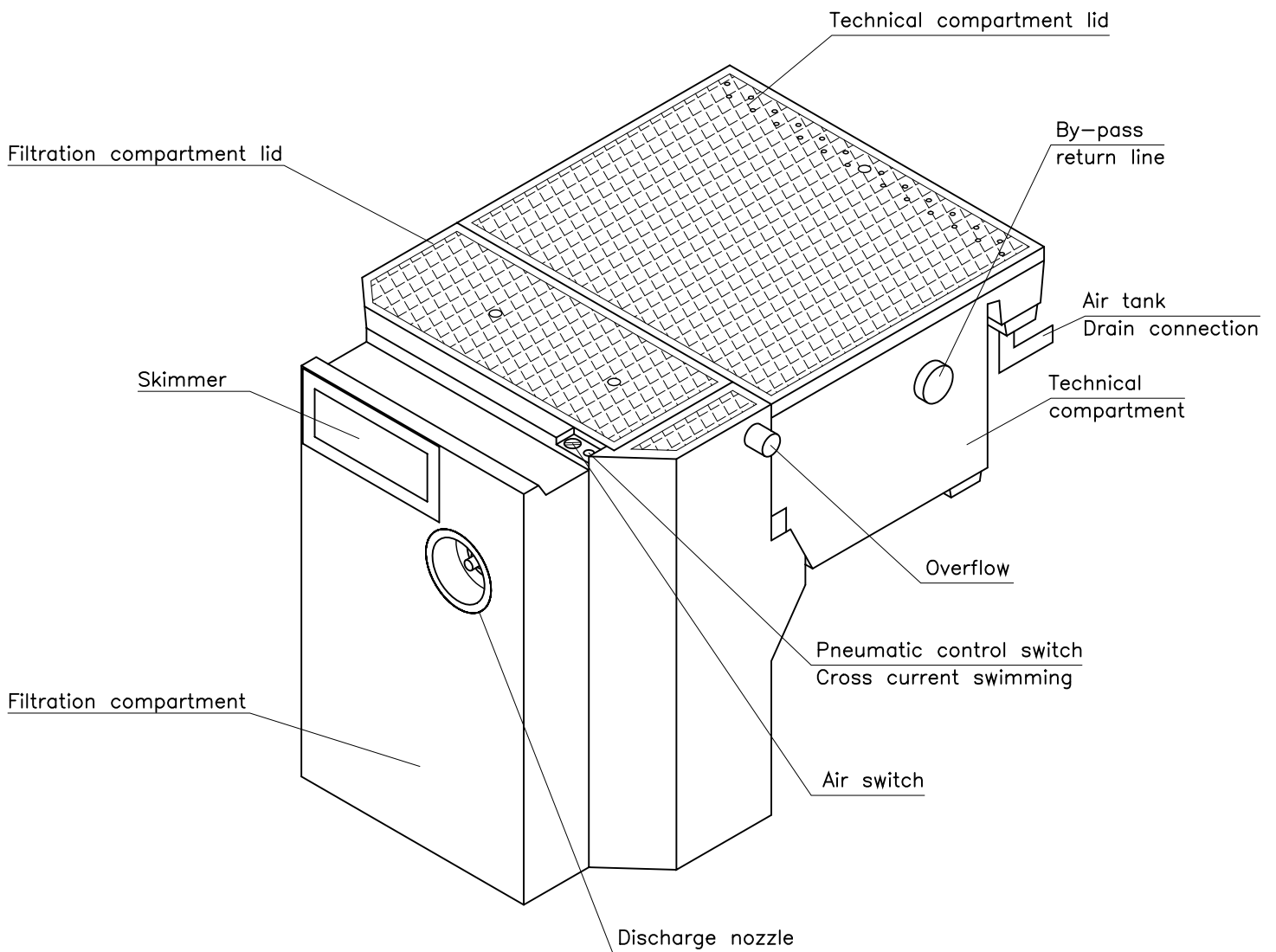
The electrical control panel comprises a 5mA ground fault circuit interrupteur (GFCI) provided to protect users from electrical shocks (it must be connected to the ground). The qualified electrician installing your system simply fits a 15A breaker in the electrical control panel outgoing power supply line.

Electrical control panel supplied with the injected filter panel: MODEL 90312 from FOREZ PISCINES.

The electrical control panel is inseparable from the filtration unit.

With this electrical control panel, you can decide, whenever you think necessary, to stop filtering. Artificial waves can be obtained by simply pushing the air switch located on the front of the filtering unit (with the two speed pump only).

FILTRATION PANEL 2000 USA



2 – TECHNICAL SPECIFICITIES OF THE FILTRATION PANEL 2000 USA

The filtration panel 2000 USA has features designed to optimize its installation as well as its use.

Water tightness of the technical compartment

Total water tightness is achieved between the pool and the technical compartment thanks to the watertight pipework grommets.

Warning: the water level may reach above the pipework. The filtration pump will therefore always be on charge.

Before dismantling the pipework of the pump, it is essential to close the 2 valves of the corresponding pipework in the filtration compartment. Access to the valves requires the filter holder to be removed.

Cooling of the electrical components

Cooling of the electrical components (pump and transformer) is achieved via holes in the rear part of the cover of the technical compartment.

This cover must imperatively be firmly screwed down using the 4 M8x60 screws.

Masonry work

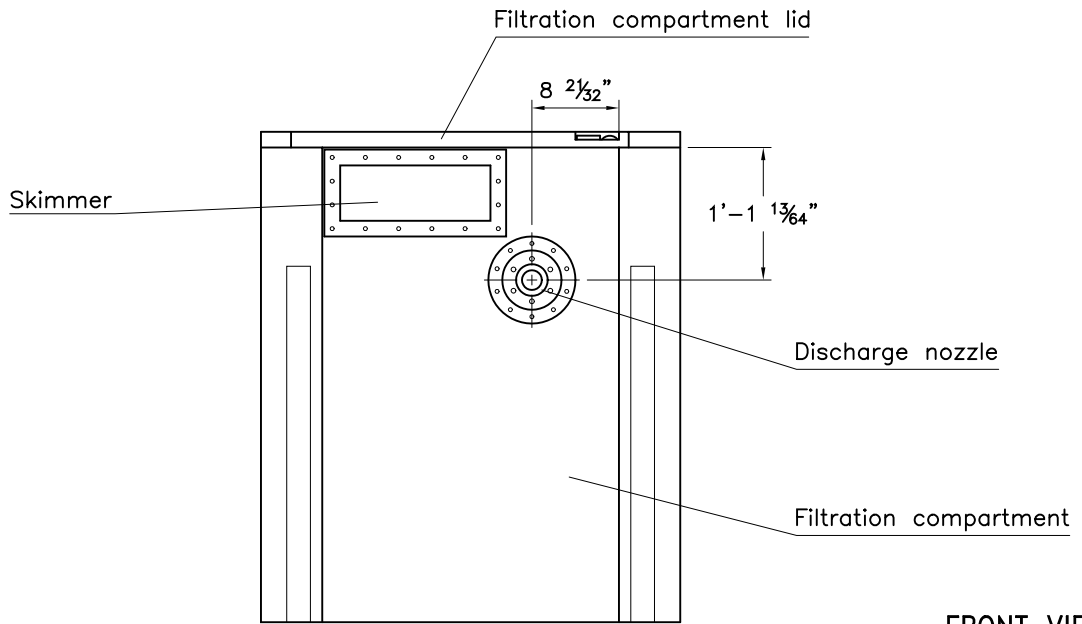
WARNING: Follow the installation instructions on page 9 carefully.

Securing the technical compartment to the filtration compartment

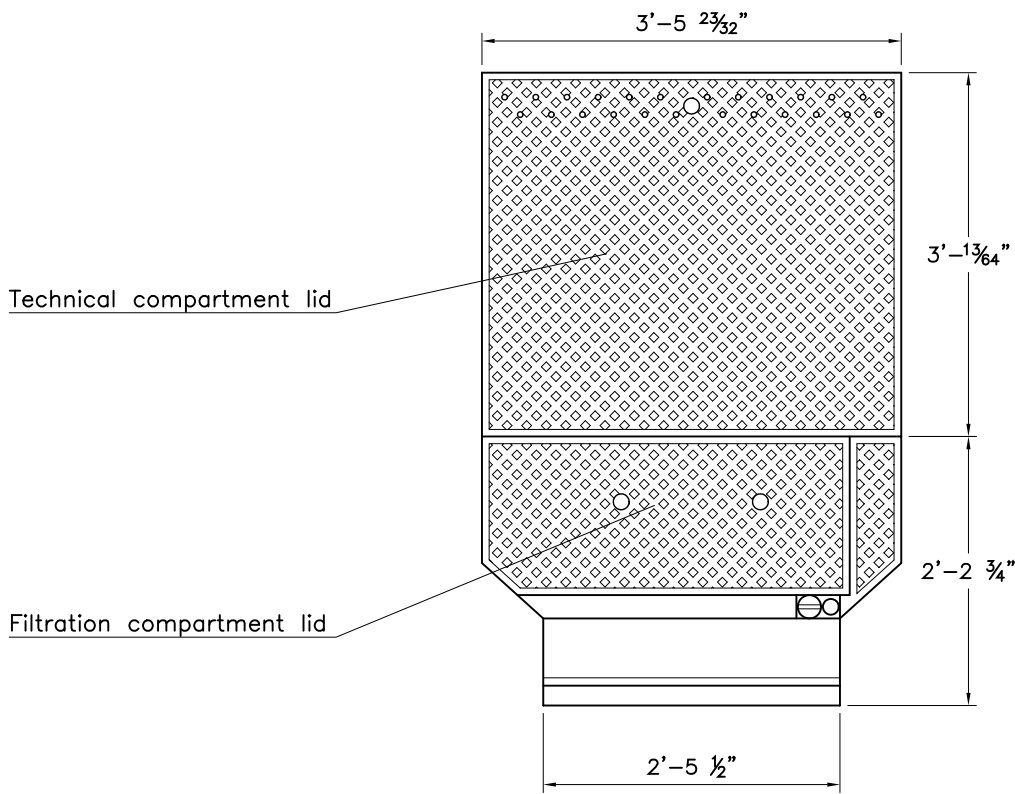
You must secure the technical compartment to the filtration compartment yourself. See procedure page 11.

3 - BODY PARTS

WITHOUT LATERAL CHIMNEYS

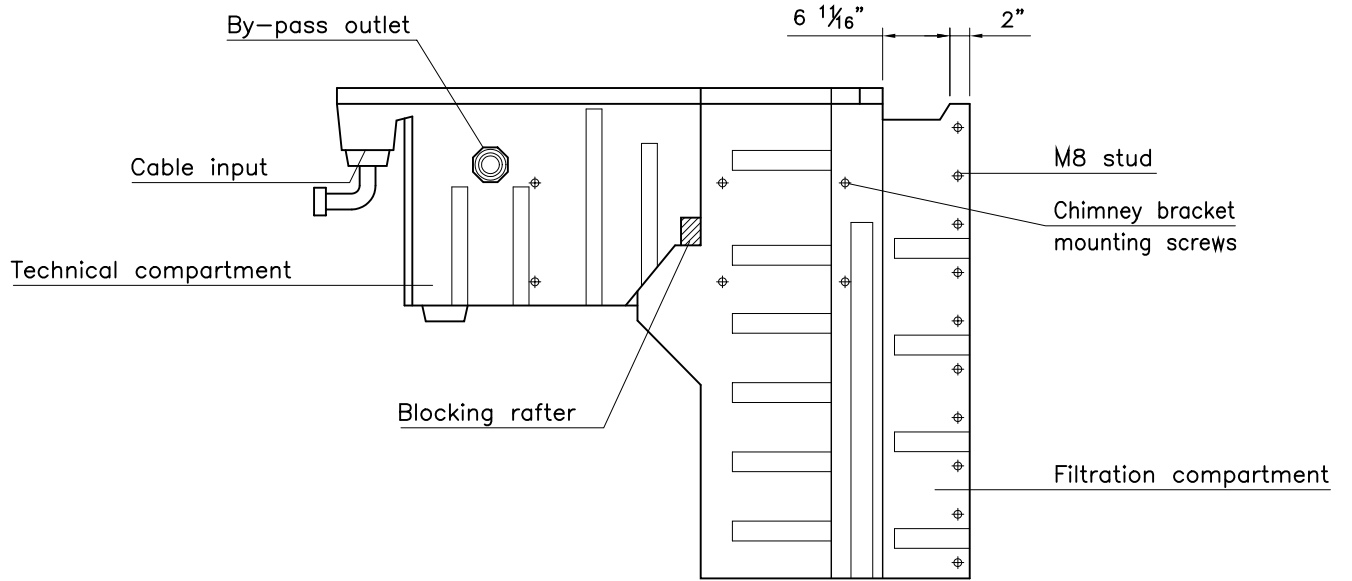


FRONT VIEW

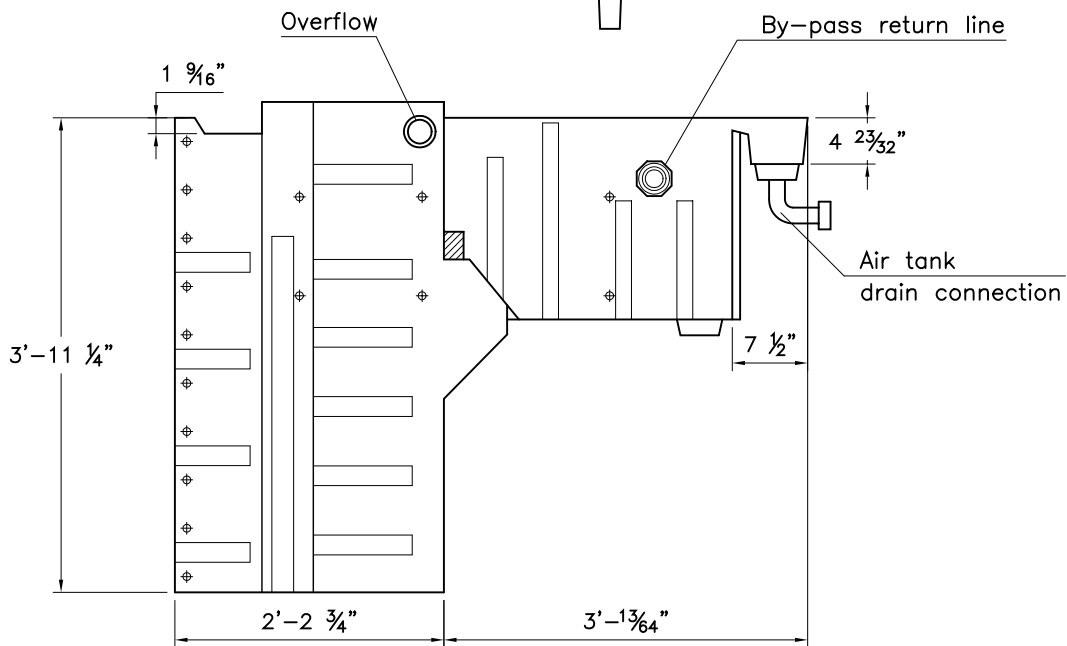
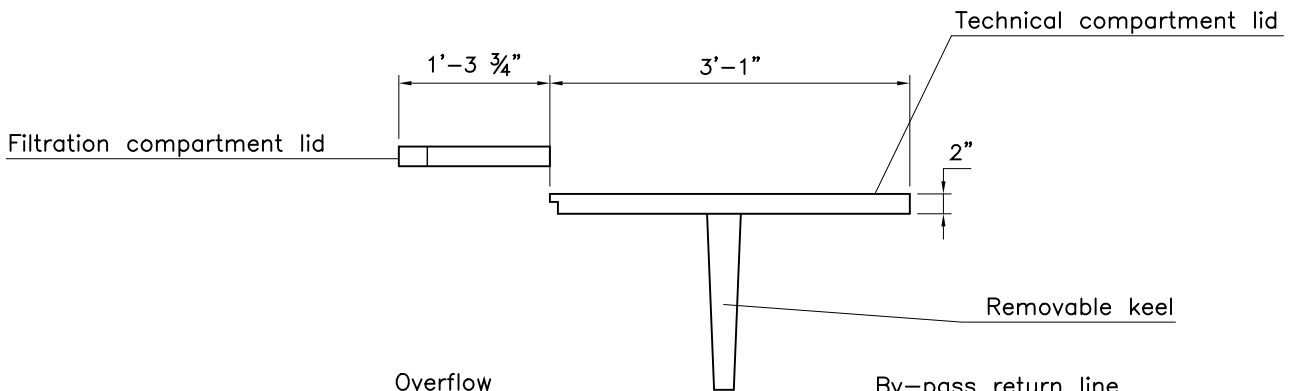


TOP VIEW

BODY PARTS WITHOUT LATERAL CHIMNEYS



LEFT-HAND SIDE VIEW



RIGHT-HAND SIDE VIEW

4 – IMPORTANT INSTRUCTIONS

Securing to the Des'co panels

When securing the filtration panel to the Des'co panels, line up the filtration panel liner lock with the lock of the adjacent panels.

If necessary, ovalise the oblong holes in the Des'co panels.

Blocking the inside of the technical compartment

Keep the blocking device inside the technical compartment until you have finished installing the filtration panel.

Water tightness of the technical compartment

When fitting the technical compartment on the front side, it is essential that the securing seal supplied should be inserted in between in order to avoid all risks of rainwater getting in. Follow the installation instructions on page 9 carefully.

IMPORTANT: THIS OPERATION MUST ONLY BE PERFORMED BY A QUALIFIED INSTALLER.

Waste line connection

- Make sure that the wastewater connection is properly installed:
 - no high point, from the air compartment located under the cover perforations. This compartment is designed to collect and drain away rainwater via the parts provided for this purpose. See diagram, page 7.
 - no high point, from the overflow located on the right-hand side of the front panel. This overflow connection is designed to prevent overflow.

IMPORTANT: these two pipes must be connected separately to the wastewater connection; provide two lines.

- Due to special equipment in the technical compartment of the filtration panel (float switch), there is no need to connect the technical compartment to a wastewater line.

Filling the pool

When filling the pool make sure that you fill the filtration compartment. The water level and filtration panel level should be balanced.

Technical compartment lid

Make sure that the lid of the technical compartment is always firmly screwed on.

5 – INSTALLATION INSTRUCTIONS

Introduction

The aim of the following procedure is to guide you through the installation of the filtration panel.

The dimensions indicated must be respected for this installation.

Contents

These instructions present the following stages:

Stage	Page
5.1. Installing the filtration compartment	10
5.2. Installing the technical compartment	11
<i>IMPORTANT: THIS OPERATION MUST ONLY BE PERFORMED BY A QUALIFIED INSTALLER.</i>	
5.3. Pump and piping installation	13
5.4. Wastewater connection	14
5.5. Casting concrete for the pool and filtration panel	14
5.6. Casting the deck slab	15
5.7. Installing the liner	16
5.8. Starting up the filtration panel	18

BE CAREFUL:

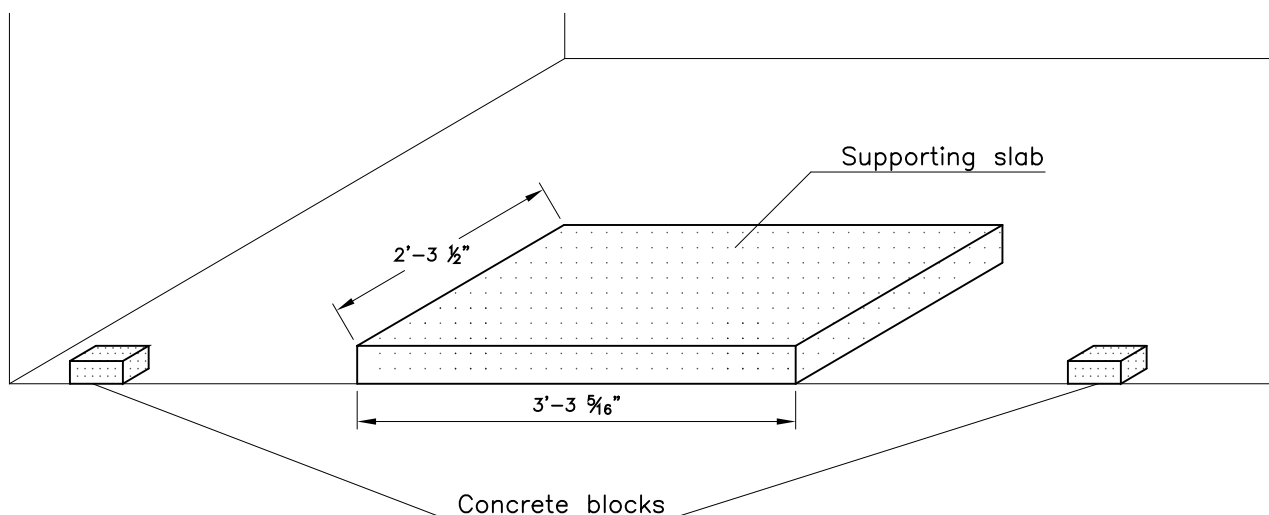
Read the masonry instructions before you start work.

5.1 – Installing the filtration compartment

Procedure

The following table chronologically indicates the steps to be followed to install the panel filtration compartment:

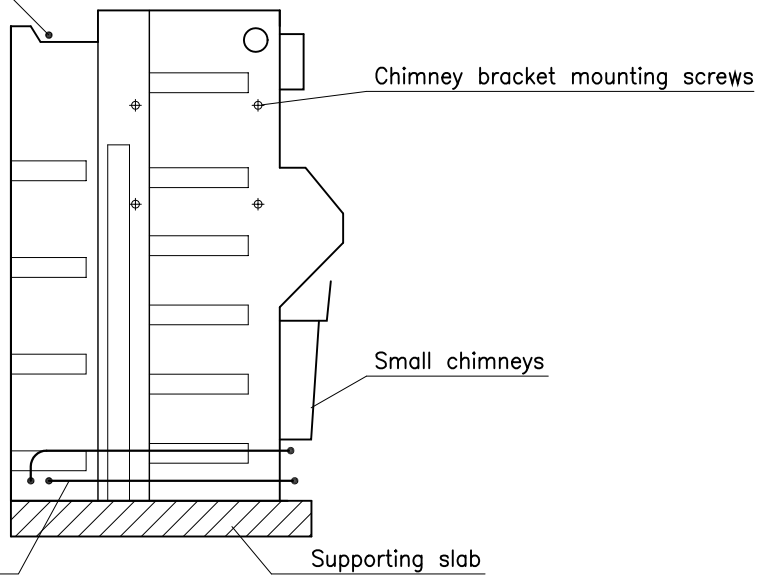
Stage	Action
Preparing the bed and the structure	<p>When building the blocks for the structure panels, make a slab measuring 2'-3 1/2" x 3'-3 5/16" where you want to install the filtration panel.</p> <p>The thickness of the slab should provide for:</p> <ul style="list-style-type: none"> - the filtration panel bed, - the alignment of the filtration panel 2000 liner lock to the adjacent Des'co panel locks.



Filtration panel and structure bed

Installation of the filtration compartment	<p>Bolt the front of the filtration panel to the structure panels, without struts.</p> <p>Make sure that the liner lock on the front face of the filtration panel is properly aligned with:</p> <ul style="list-style-type: none"> - the liner lock of the adjacent Des'co panels, - the complete swimming pool panel structure.
Reinforcement rod preparation	<p>Install the upper and lower tie beam reinforcement rods: the lower tie beam reinforcement rods must go around the base of the filtration compartment, and reinforcement rods of the upper tie beam pass through the trough located to the rear of the liner lock.</p>
Pouring of the 4 small chimneys	<p>Fill the 4 small chimneys to the rear of the front panel with cement.</p>

Continuation of the upper reinforced concrete beam

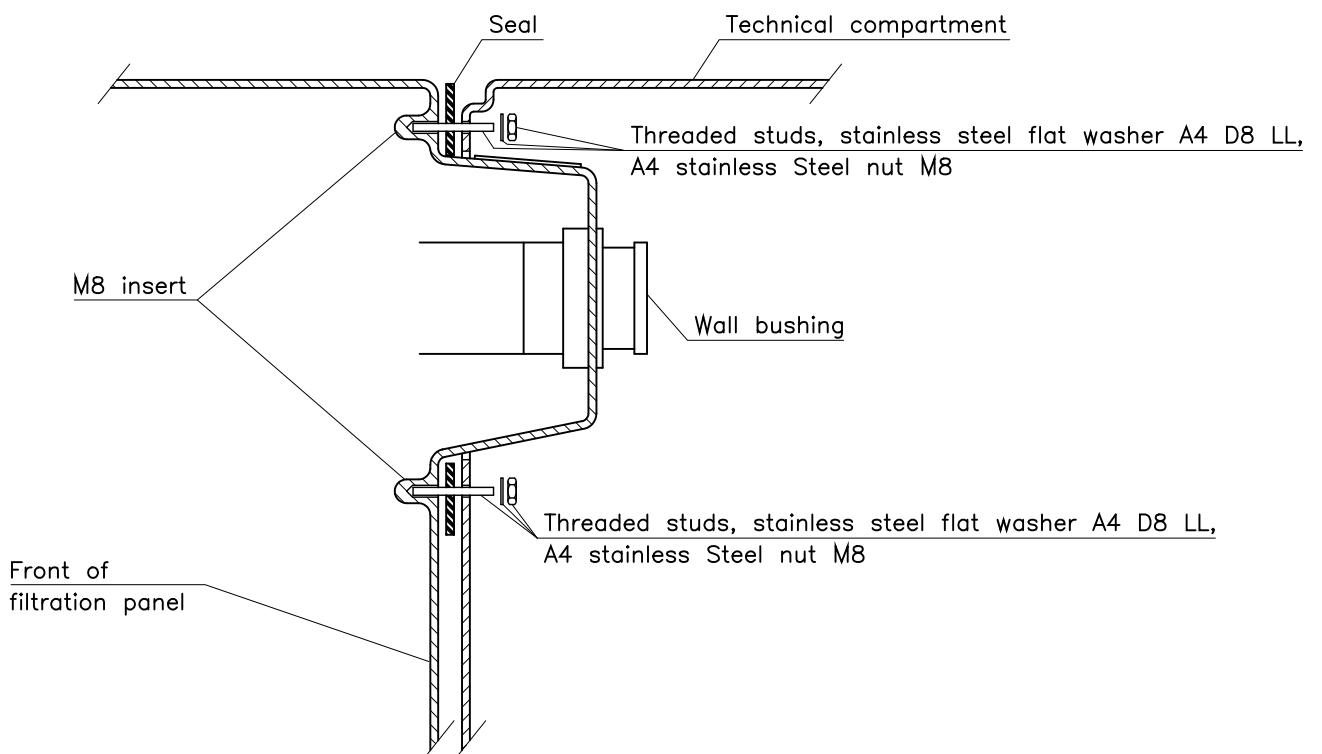


SIDE VIEW – FILTRATION COMPARTMENT

5.2 – Installing the technical compartment

Stage	Action
<p>Technical compartment installation</p>	<p>Warning: The rectangular gasket must be positioned perfectly (using the 26 threaded studs) in order to ensure a hermetic seal with the technical compartment.</p> <p>Position the technical compartment in the 26 studs on the front face, secure it to the filtration compartment using the washers and nuts supplied for this purpose.</p>

IMPORTANT: THIS OPERATION MUST BE PERFORMED BY A QUALIFIED INSTALLER.



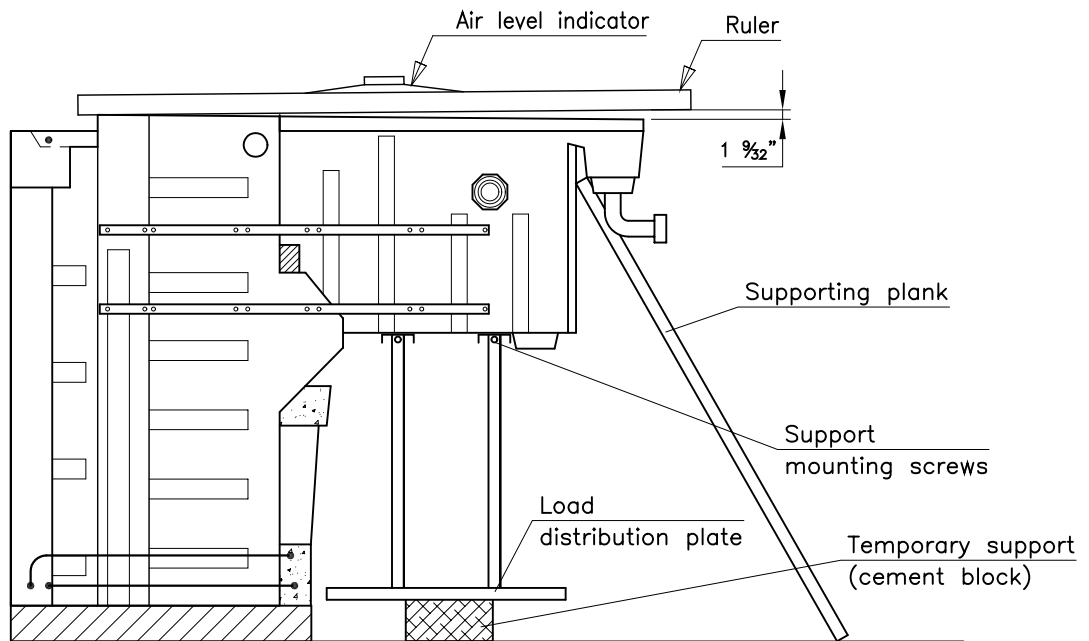
DETAIL OF TECHNICAL COMPARTMENT SECURING

Stage	Action
Installation of accessories	<ul style="list-style-type: none"> - Secure the chimney mounting brackets on both sides of the technical compartment using twelve 8x16 TRL stainless steel screws. - Install the PVC technical compartment support legs underneath the technical compartment. WARNING: The support is suspended and does not touch the ground. - Temporarily block the technical compartment support with a cement block. - Hold the technical compartment in place using a wooden plank.

Procedure

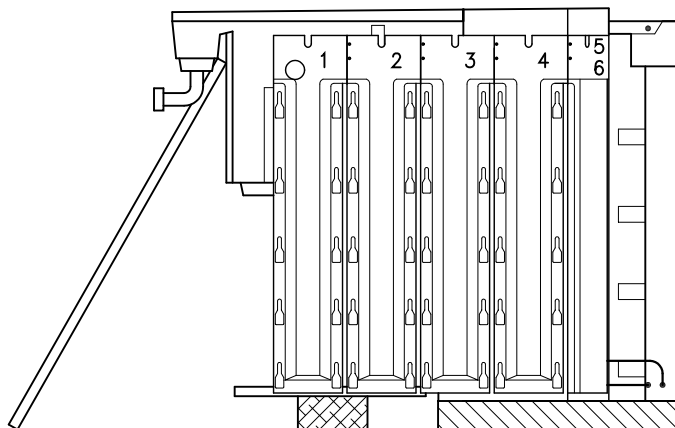
IMPORTANT: the filtration panel already incorporates the slope necessary for water run-off.

- the bottom of the technical compartment must be level.
- after having positioned both covers on the filtering panel, check the level using a rule and spirit level.

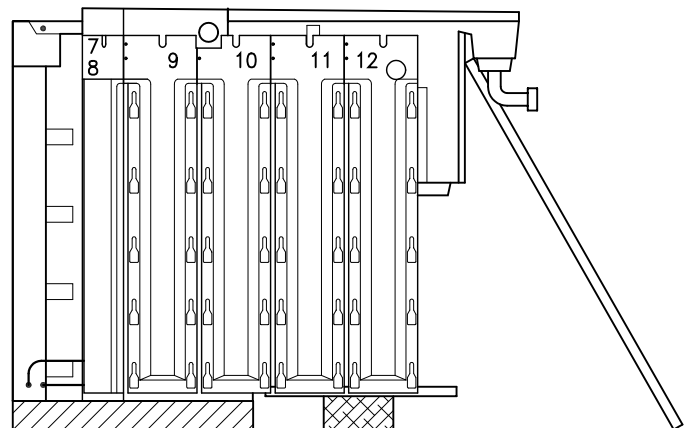


SIDE VIEW

Installation of side chimneys	<p>The 12 chimneys supplied with the filtration panel are to be installed on the sides of the filtration panel.</p> <p>IMPORTANT: the chimneys are numbered 1 through 12; chimney No. 1 is placed at the back on the left-hand side and No. 12 at the back on the right-hand side.</p>
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LEFT VIEW

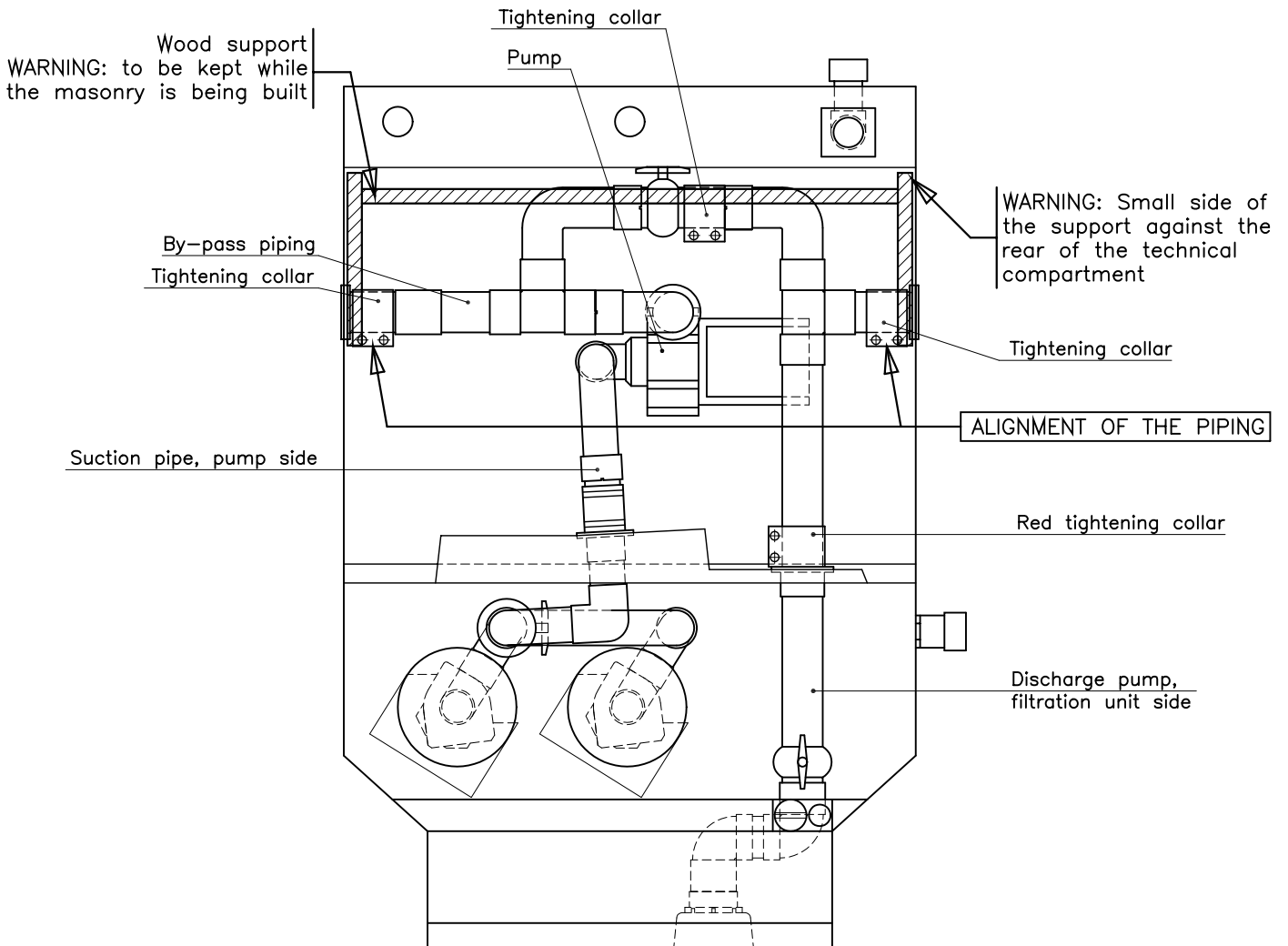


RIGHT VIEW

5.3 – Pump and piping installation

The pump and related piping are to be installed in the technical compartment before beginning the masonry work for the filtering panel:

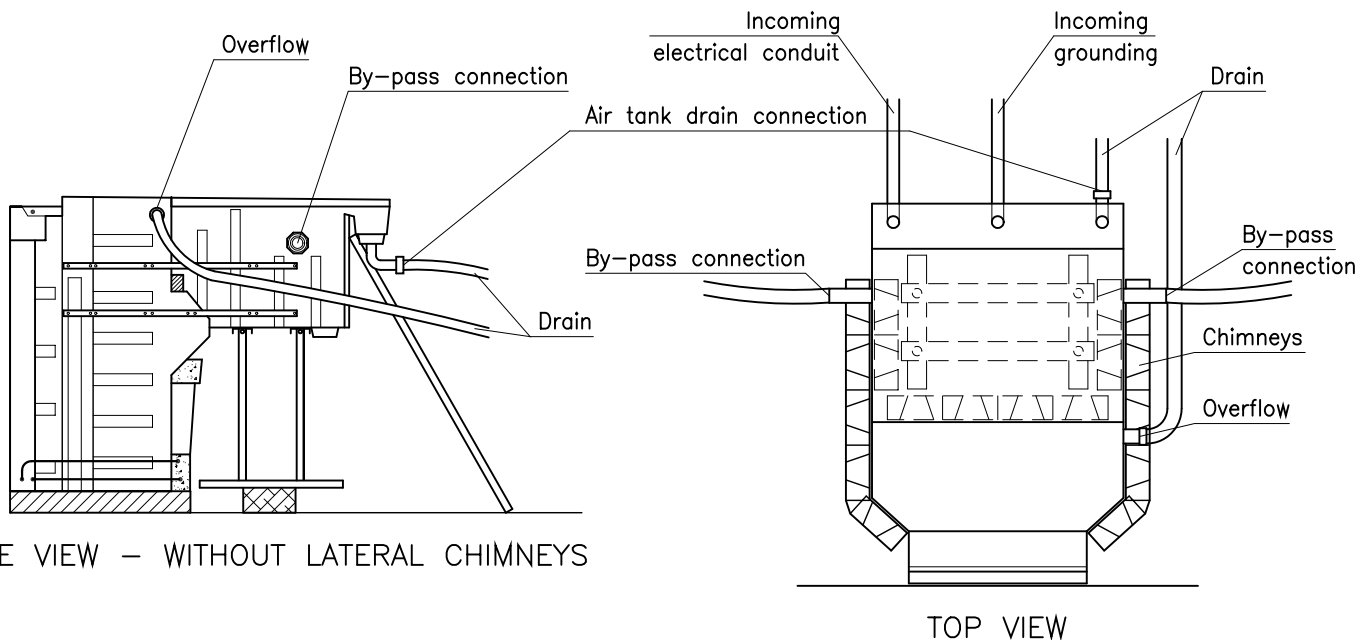
Stage	Action
Installation of the pump	<ul style="list-style-type: none"> – Install the pump in the technical compartment <u>without</u> removing the wooden spar holding the technical compartment in place. – Connect the complete by-pass piping and the intake line. – Make sure that the by-pass piping is aligned with the technical compartment's wall feedthroughs. Adjust the wall feedthroughs, if necessary. – Tighten all pipe clamps (intake, discharge and wall feedthroughs).



5.4 – Wastewater connection

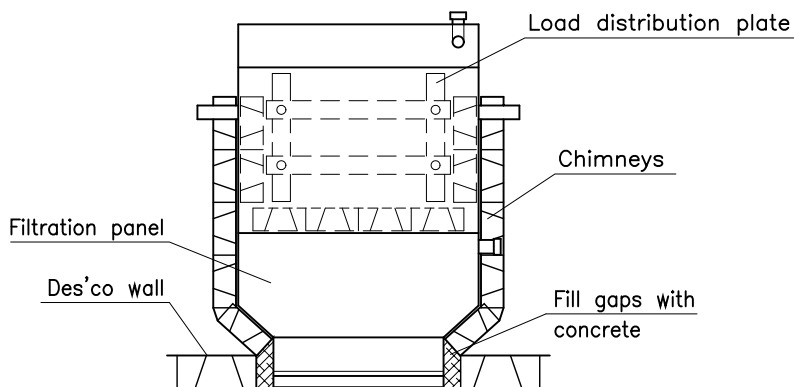
Stage	Action
Connection	<p>Install the air compartment and overflow wastewater connection pieces. Connect these two outlets to the sewer separately.</p> <p>IMPORTANT: care should be taken to route drain pipes without a high point in order to prevent water from flowing back into the filtration panel.</p> <p>Install two conduits in the air compartment: – one for the incoming electrical conduit – one for grounding. Each conduit should enter the air compartment at least 2”.</p>

IMPORTANT: the two pipes must be connected separately to the wastewater connection; provide two lines.



5.5 – Casting concrete for the pool and filtration panel

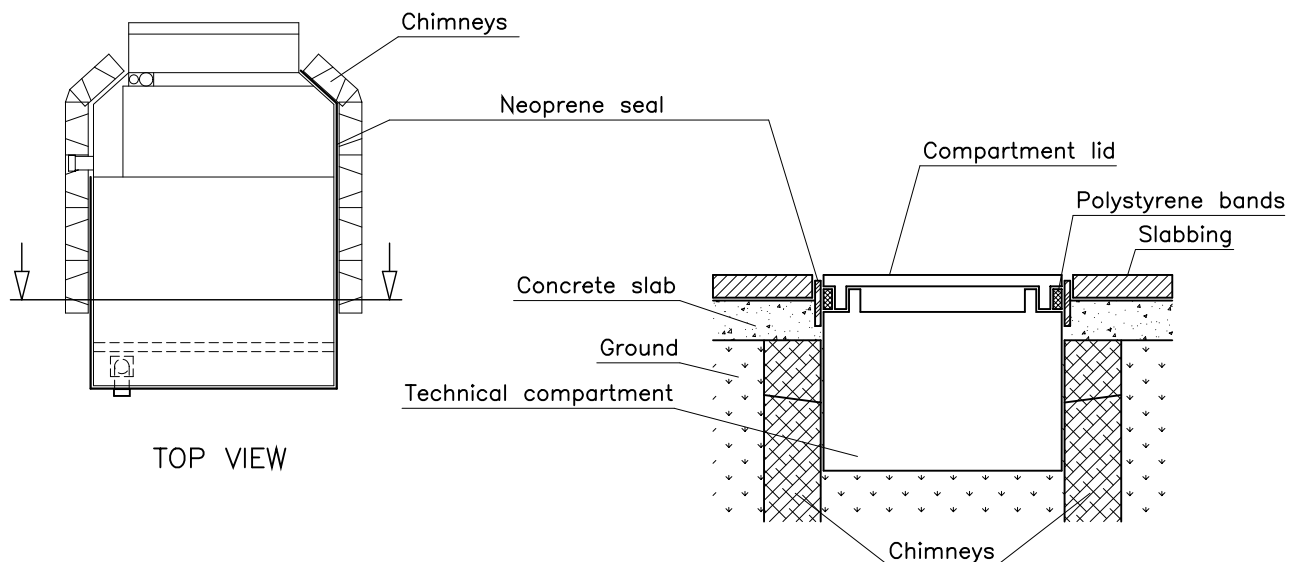
Stage	Action
Swimming pool concrete pouring operations	<ul style="list-style-type: none"> – Pour the swimming pool: lower tie beam, foundation slab, chimneys – Pour the lower tie beam and around the filtration panel – Pour the upper tie beam and the filtration panel trough.
Filtration panel concrete pouring operations	<ul style="list-style-type: none"> – Pour the chimneys on both sides of the filtration panel and fill in the space between the edge of the pool and the first chimney of the filtration panel. – Pour cement around the base of the technical compartment's PVC support.



TOP VIEW

5.6 – Casting the deck slab

Stage	Action
Deck slab casting	<p>Bank up the pool.</p> <p>In order to provide for the necessary space for the water and rain drainage system between the technical compartment lid and the pool deck slab, proceed as follows:</p> <ul style="list-style-type: none"> – place adhesive polystyrene bands under the rim of the lid, – place the neoprene seal on the side of the lid and polystyrene band, – screw the lid of the technical compartment (4 screws M8x60), – put the lid of the filtration compartment in position, – you can now cast the deck slab. <p><i>WARNING: the upper level of the concrete deck slab should be such that the tiling laid on the slab will be level with the top of the technical compartment lid.</i></p> <p>Once the tiling is laid, you can remove the neoprene seal and polystyrene bands. Remove also the pump, pipes and technical compartment blocking kit.</p>



TOP VIEW

CROSS SECTION VIEW

5.7 – Installing the liner

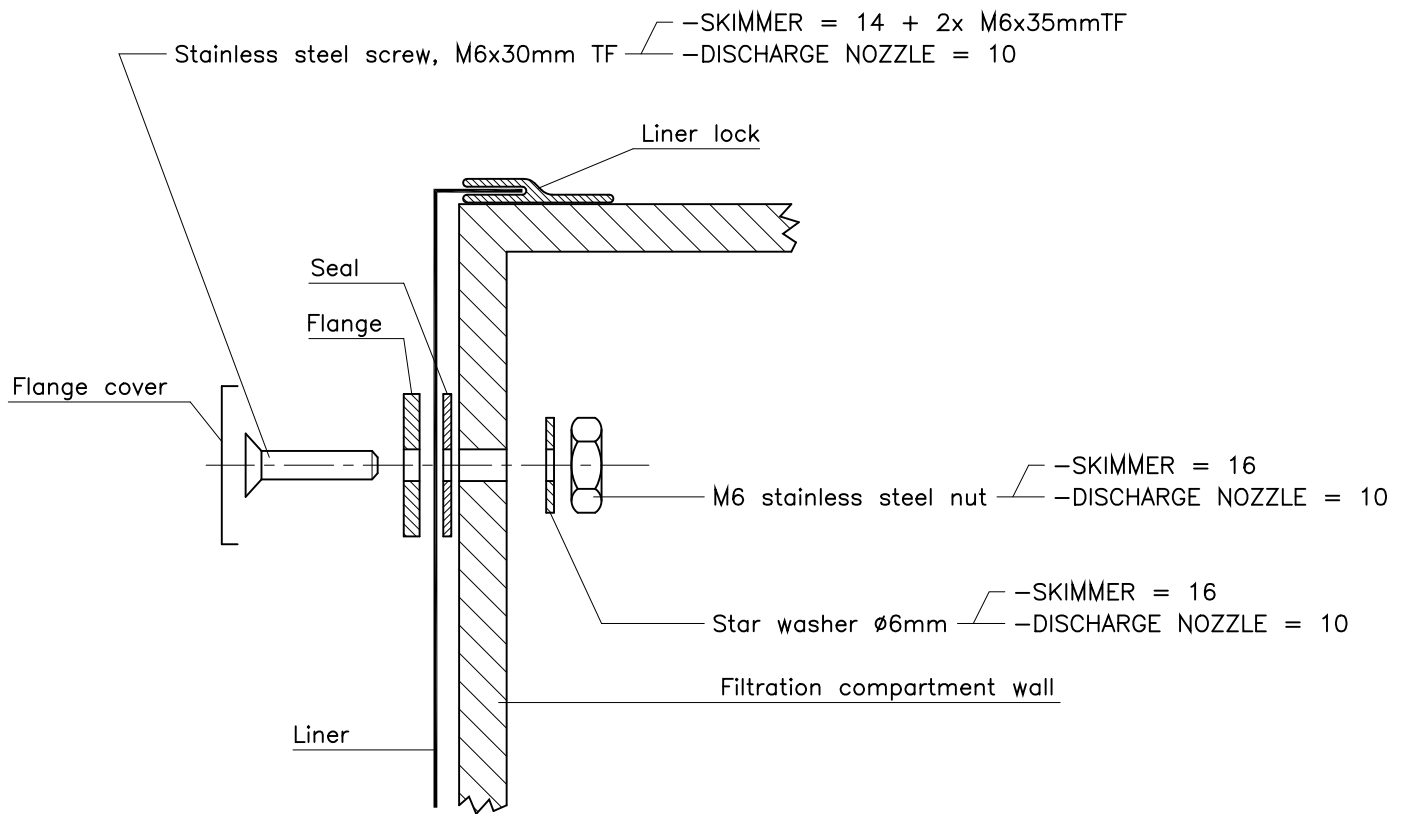
Preliminary procedure

The liner can only be installed after the following operations have been carried out:

Stage	Action
1	Remove the filter bowls.
2	Remove the lateral crosspiece. Place the 3 screws: M6x35, nuts and washers in a safe place.
3	Block the filtration compartment overflow hole with sticky tape and make sure that all the pipe valves are closed.
4	Install the front lid and tape it in order to block the air inlets.
5	Before installing the liner, make sure that the following are clean: – the front of the filtration panel, – all the inside of the pool.
6	Unscrew the 2 screws M6x35 securing the skimmer flap.
7	Stick the preglued seals in position for the skimmer and the nozzle.

Clamping the liner onto the front of the filtration panel

Stage	Action
1	Place the liner by attaching it to the filtration panel lock.
2	Use a vacuum cleaner to lay the liner flat against the pool walls; Remove any creases.
3	Fill the pool to 1'–3 ¾" above the bottom of the Des'co panels.
4	– Start by installing the skimmer: place the rectangular flange in the housing against the liner, – Pierce the liner to position all the liner screws (14 screws: M6x30 and 2 screws: M6x35 in the centre of the bottom of the skimmer flange), – Split the inside of the flange with a cutter to screw the washers and nuts on the inside. The final liner cut inside the flanges should be carried out when the skimmer flange and nozzle have been clamped into position. <i>WARNING: Remember to fix the skimmer flap (4 bottom flange screws).</i>
5	Then clamp the discharge nozzle flange.



6	Using a cutter carefully cut the liner inside the flanges.
7	Reassemble the lateral crosspiece.
8	Put the flange skimmer cover on the skimmer flange.
9	Put the flange nozzle cover in position on the nozzle flange.
10	You will reassemble the bowls when starting up the filtration system. See page 18.

Final Procedure

Stage	Action
11	Stop the vacuum cleaner and hang back the liner.
12	Connect the filtration compartment clear hose onto the wall bushing provided for this purpose.
13	Finish filling up the pool and check that the two valves situated in the filtration compartment (red handles) are indeed closed.

5.8 – Starting up the filtration panel

How it works

After installing your pool and at the beginning of each season, you must start up the filtration panel.

Preliminary procedure

Stage	Action
1	Check that the two valves in the filtration compartment are closed to avoid water leaking into the technical compartment. Valve closed: red handle perpendicular to piping. Valve opened: red handle parallel to piping.
2	Fill the pool up to 1” from the top of the skimmer.
3	Before assembling the pump in the technical compartment, it is important to turn the turbine manually via the suction orifice (using a tubular socket wrench 19mm for PBi pump, 17mm for P18 pump).
4	Place the filtration pump inside the technical compartment with its junction box.
5	Connect the suction piping.
6	Fill the pump with water through the discharge hole.
7	Connect the by-pass discharge piping.
8	A qualified electrician must make the electrical connections. See electrical instructions page 23.

Starting up the filtering system

Stage	Action
9	Open the valves (remove the filtering bowls).
10	Put the filtering bowls back the filtering bags and baskets in position. See accessory set up page 27.
11	Start up the filtering system.
12	<i>WARNING: Before closing the technical compartment lid, check that all the piping connections are watertight.</i>
13	Refer to the instruction manual for water treatment instructions.
14	Program filtering time on the Timer (control panel model FOREZ PISCINES only).

6 – PROCEDURE FOR WINTERIZING THE FILTRATION PANEL 2000 USA

IMPORTANT:

- THIS OPERATION MUST ONLY BE PERFORMED BY A QUALIFIED ELECTRICIAN.
- The swimming pool filter panel must be winterized as late as possible and returned to service as early as possible in order to make winterizing fully efficient.

6.1 – Pool cleaning

- Clean the water line.
- Vacuum thoroughly.

6.2 – Stop filtration

- Press "TEST" button to disable GFCI.
- Flip control panel to "OFF" position.
- We do recommend to lower the water level of about 2 feet.

6.3 – Winterizing the filter panel – Technical compartment

- Open filtration compartment, close valve on suction and return manifold (remove the filtering bowls).
- Open the technical housing.
- Using tools, remove pump pipes (suction and by-pass manifold).
- Disconnect the pump plug.
- Disconnect the ground plug.
- Remove the pump (with cable and junction box).

CAUTION: the main supply female connector must stay in the technical compartment.

- Drain the pump. Store it in a dry place, away from chlorinated products.

6.4 – Winterizing the filter panel – Filtering compartment

- Take out filtration bag, wash and dry.
- Remove filter holder, wash and store.
- Place two winterization floaters in lieu of the filter holder.

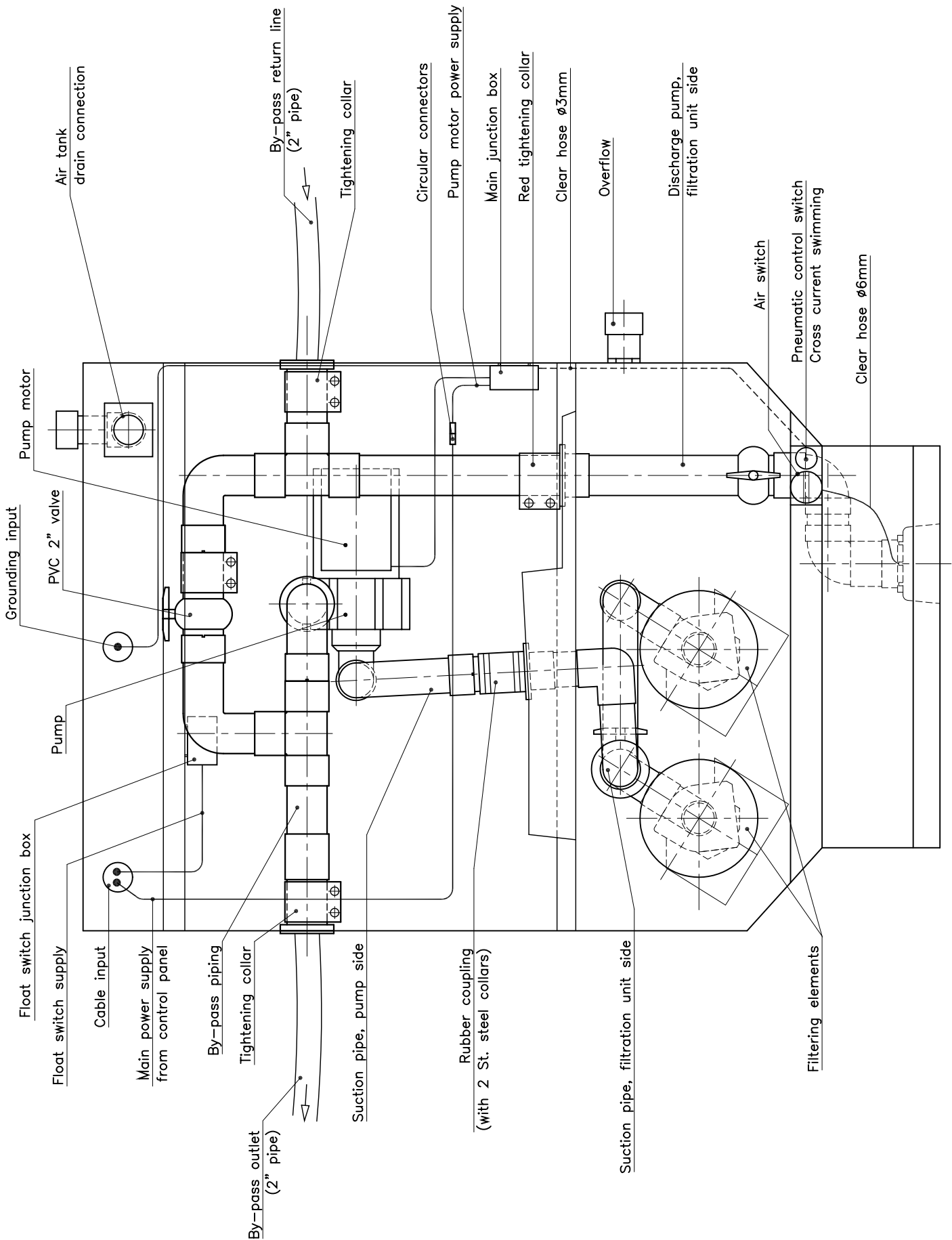
6.5 – Pool winterizing

- Use a suitable winterising product in the pool.
- Spread along the pool walls.
- Place floaters diagonally across the pool.
- Cover with a pool cover suitable for winter preferably opaque and solid.

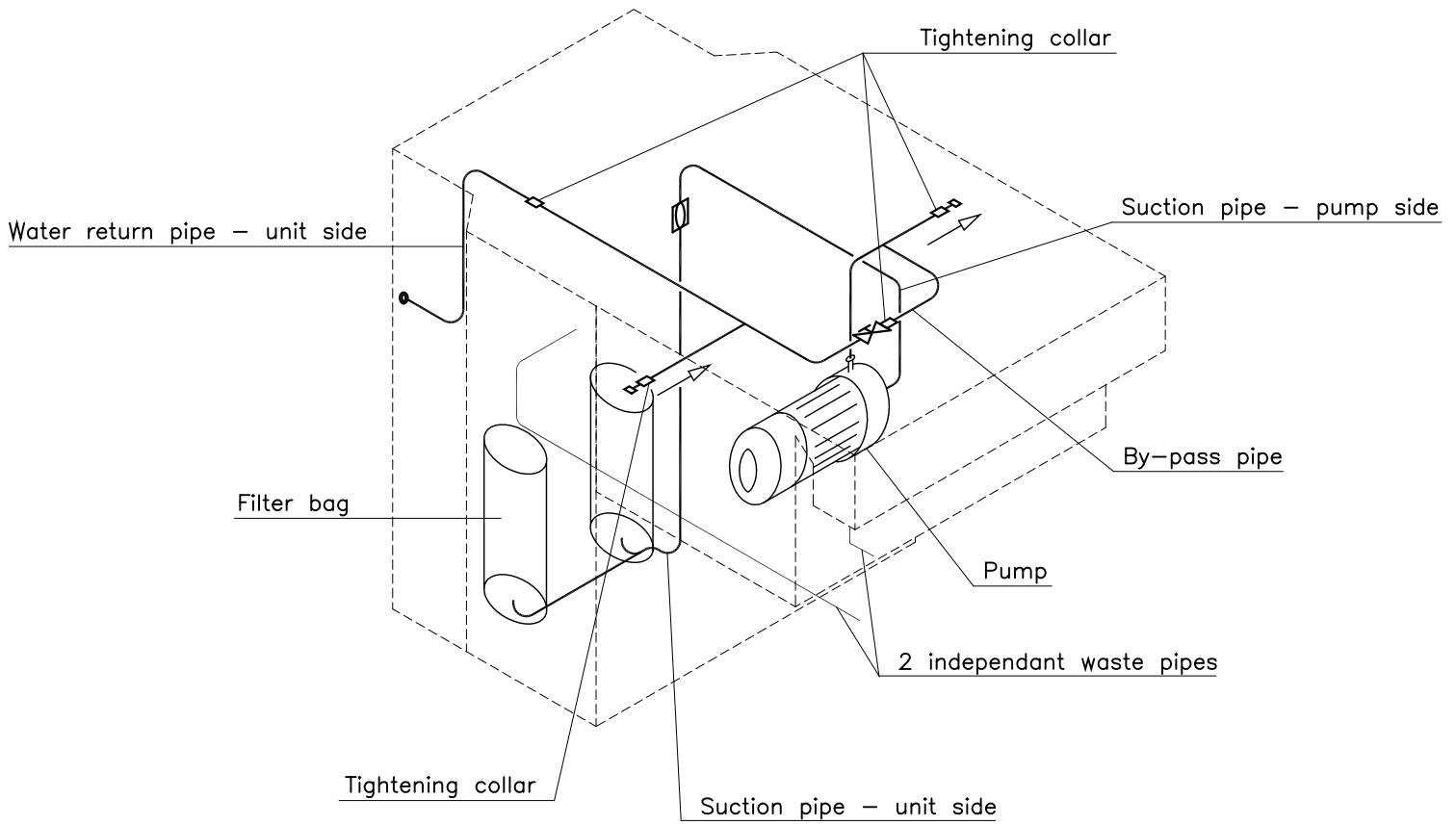
In springtime, to start up, proceed as above, in the reverse order.
It is imperative when you plug the pump to connect the N°6 solid copper wire first.

7 – FILTRATION PANEL 2000 USA

TOP VIEW



8 – BY-PASS HYDRAULIC INSTALLATION



9 – IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS:

- The installation of the filtration unit has to be done by a qualified swimming pool installer.
- All electrical installations must be carried out by a qualified electrician in compliance with existing standards and codes.
- **WARNING:** To reduce the risk of shock, connect only to supply circuit protected by a ground fault circuit interrupter (GFCI). The ground fault circuit interrupter is only efficient if the ground is properly connected.
- The ground fault circuit interrupter (GFCI) must be tested once a month by pressing the test button located on the remote control panel as shown in the diagram while the system is powered, and the GFCI set.
Note. When testing the GFCI, the circuit will be disconnected when the test button is pressed. If this is not the case, turn off the power to the remote control panel and call a qualified electrician to make the necessary repairs.
- If there is a need to replace the 12A or 4A time delay fuse type incorporated in the remote control panel (Minetec model only), replace with the same type fuse to maintain the same motor protection.
When replacing the fuse, turn off the power from the electrical panel.
- The filtration unit is designed to work in conjunction with the remote electrical control panel. No other control panel should be used, otherwise safety will be compromised.
- The electrical control panel provided shall be installed at least 3.5 meters away from the swimming pool.
- **WARNING:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all time.
- **Caution.** This filtration unit is for use with permanently installed in ground pools. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassemble for storage. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original integrity.
- Do not attempt to repair the equipment, repairs should be performed by a qualified person. Warranty is voided in case of tampering and safety of the equipment could be compromised.

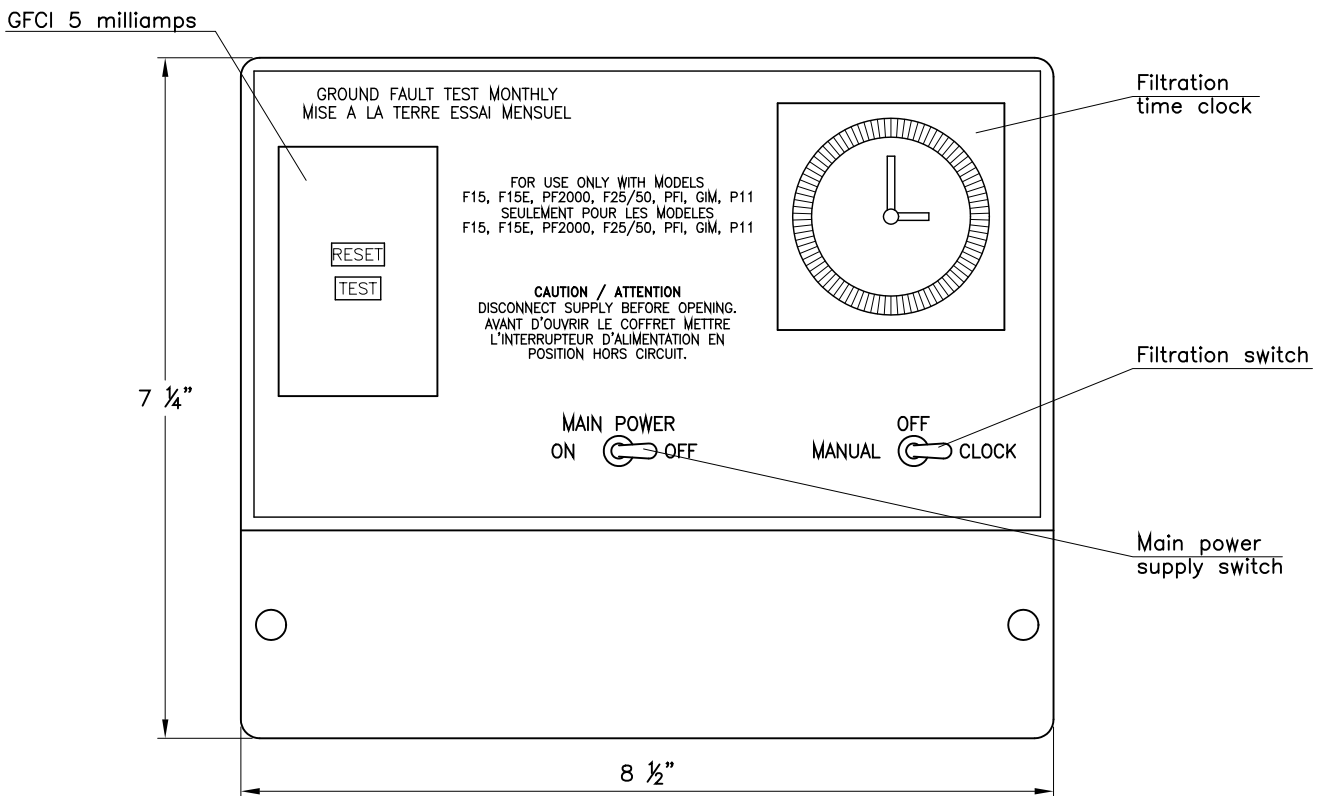
SAVE THESE INSTRUCTIONS.

10 – ELECTRICAL INSTALLATION PROCEDURE

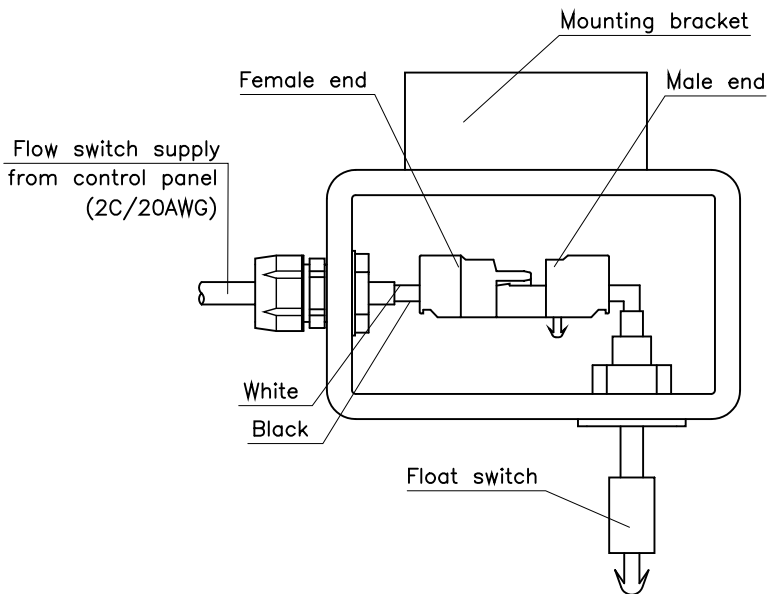
All electrical installations must be carried out by a qualified electrician, in compliance with existing standards and codes.

- The ground fault circuit interrupter installed in the electrical control panel is only efficient if the ground is connected. Connection of the ground must mandatorily be checked and confirmed in compliance.
- It is recommended that the installer advise the user of the need to test the ground fault circuit interrupter once a month by pressing the test button when the panel is powered and the GFCI set.
- The installation of the control panel provided requires a 120/240V, 60Hz, 15A supply protected by 5mA ground fault circuit interrupter (GFCI).
- If connected to a circuit protected by fuses, use with 20A Branch Circuit type fuses with this unit.
- See attached diagrams for hook-ups.
- A solid n°8 AWG ground wire has to be hooked up between the main distribution panel and the filtration unit to provide adequate protection as required per the electrical codes.
- Use suitable type cables as per required.
- Three bonding screw are provided with the filter unit to facilitate the bonding of non-electrical or electrical equipment associated with the pool (all metal parts of the swimming pool, metal conduit and metal piping, within 5 feet (1.5m) of the inside walls of a swimming pool). Use a solid n°8 AWG minimum ground conductor.
- Prior to all electrical servicing, the power must be switched off by pressing the test button on the GFCI.
- If the GFCI does not trip off, cut the electrical power supply up line.
- The electrical power supply is automatically shut off if there is water in the bottom of the filtration unit's technical compartment.
- The electrical control panel can only be reset after the technical compartment has been totally drained.
- The electrical control panel is reset by pressing the central button on the remote control switch.
- Turn installation power back on by resetting the GFCI.

**FILTRATION ELECTRICAL BOX
FOREZ PISCINES MODEL #90312**

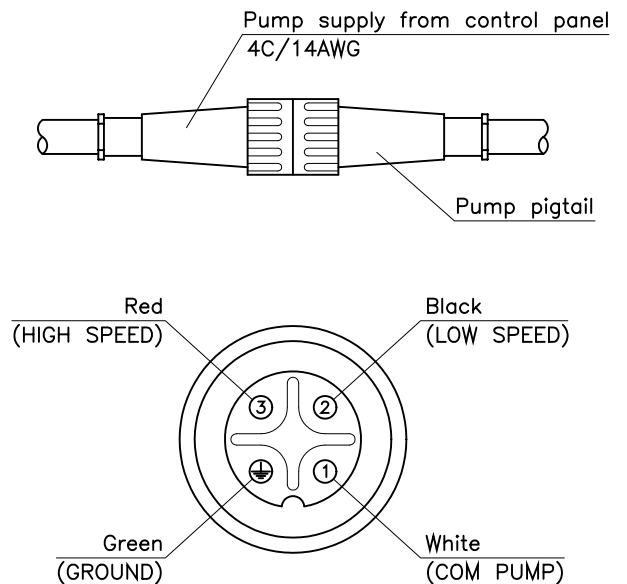


FLOAT SWITCH CONNECTIONS



CAUTION:
COVER CLOSING SCREW TIGHTENING TORQUE: 1,2Nm
TOP CAP CABLE GLAND TIGHTENING TORQUE: 2Nm

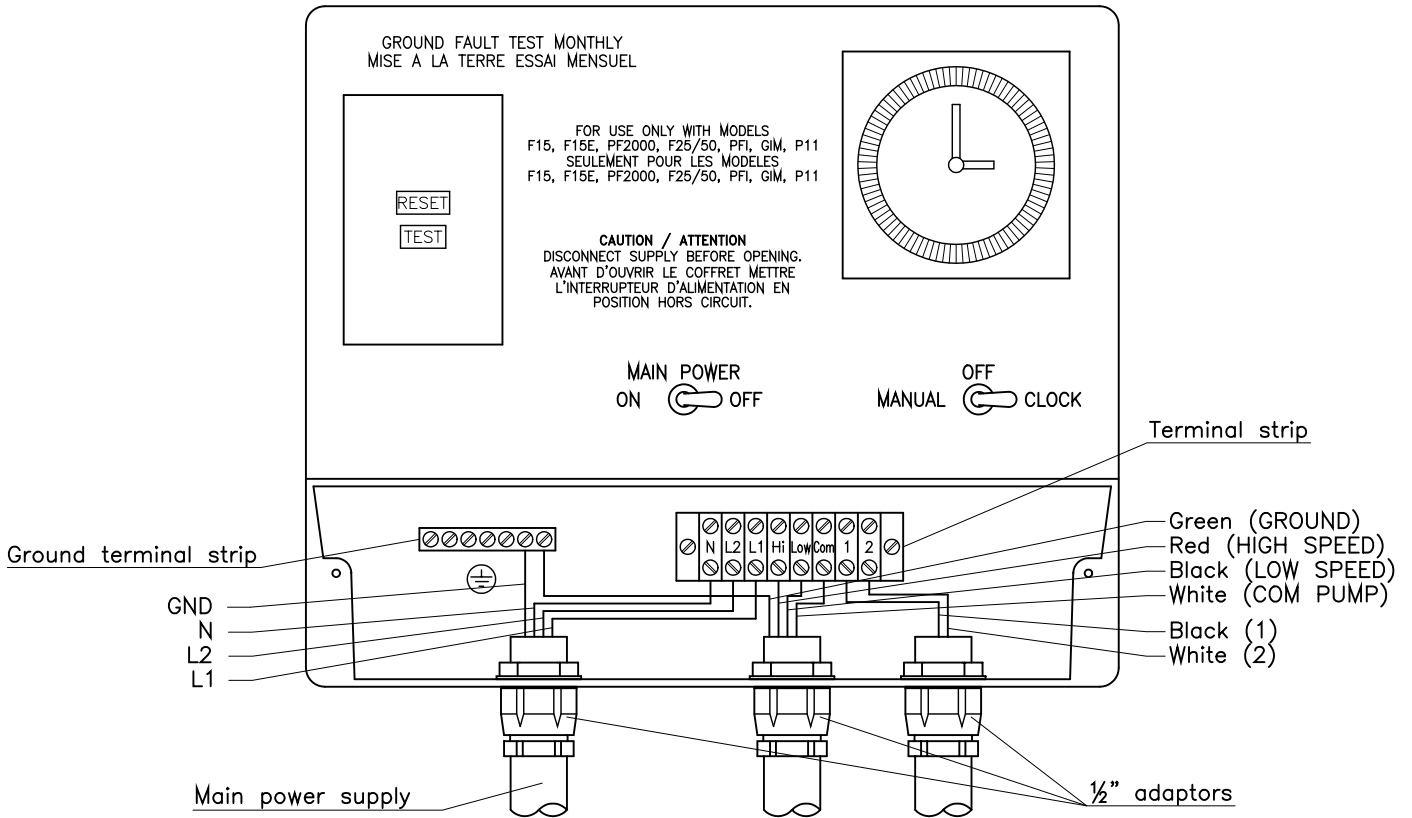
PUMP CONNECTIONS



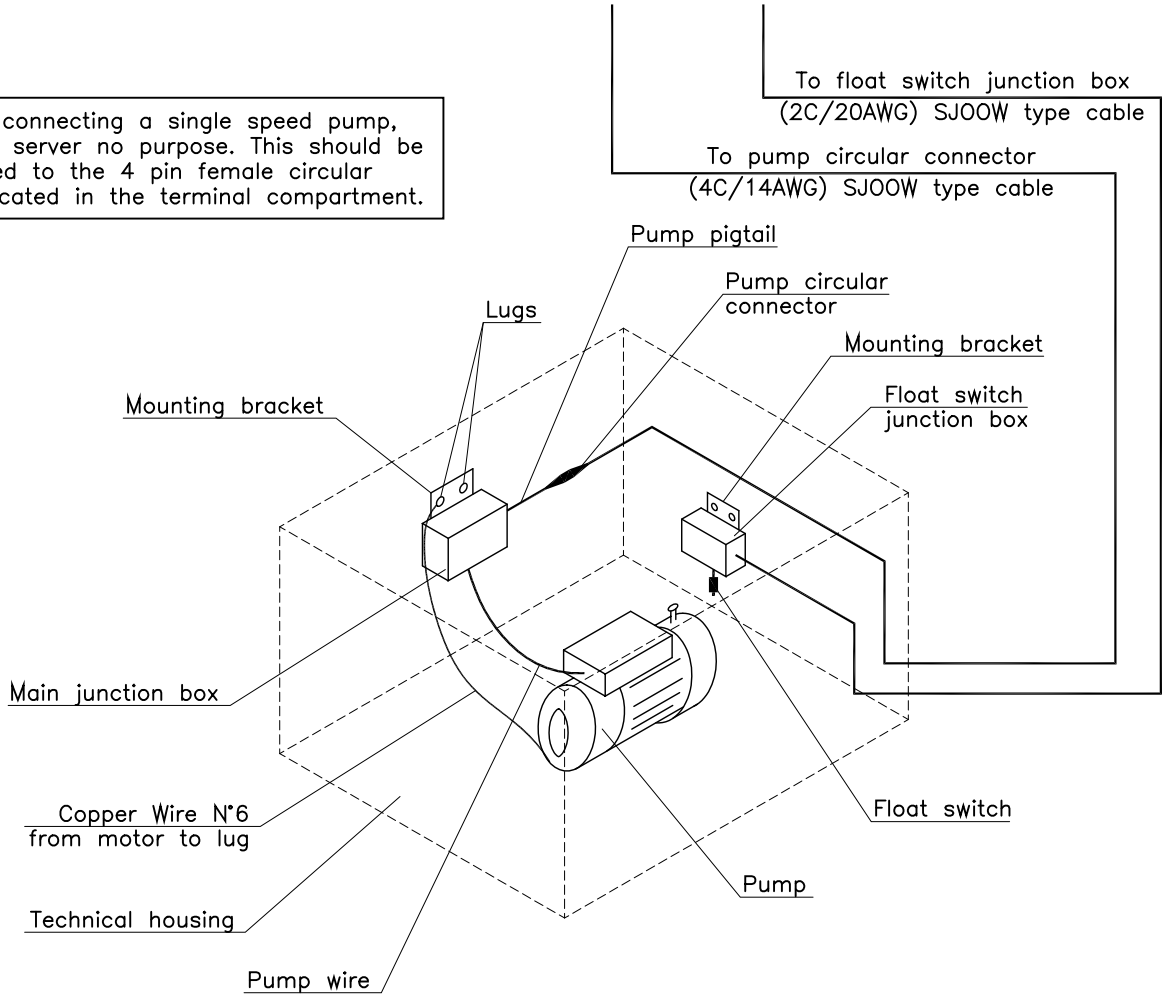
PUMP SUPPLY CIRCULAR CONNECTOR
FRONT VIEW

WARNING: If connecting a single speed pump, the red wire server no purpose. This should be left connected to the 4 pin female circular connector located in the terminal compartment.

FILTRATION ELECTRICAL BOX FOREZ PISCINES MODEL #90312

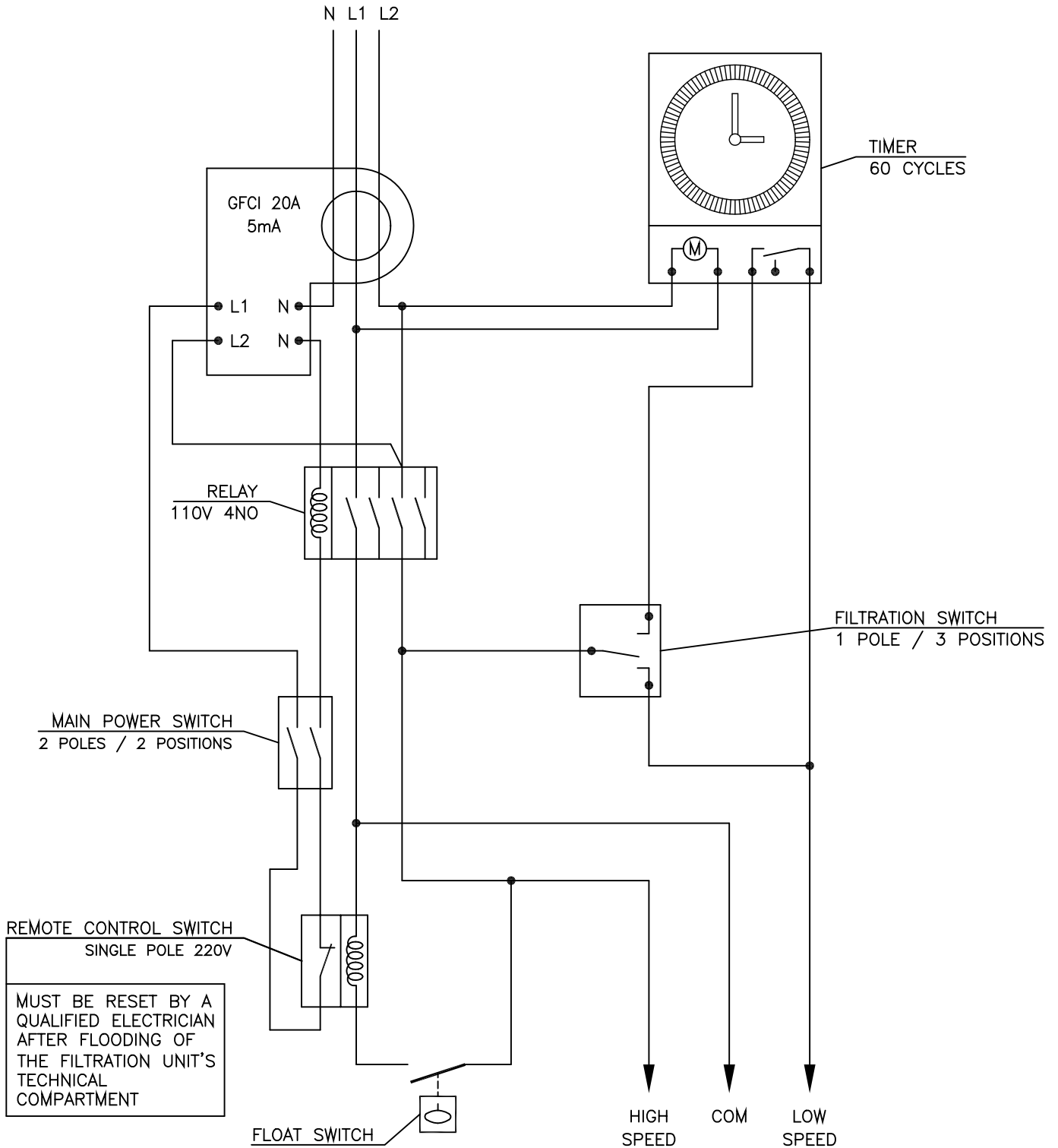


WARNING: If connecting a single speed pump, the red wire server no purpose. This should be left connected to the 4 pin female circular connector located in the terminal compartment.



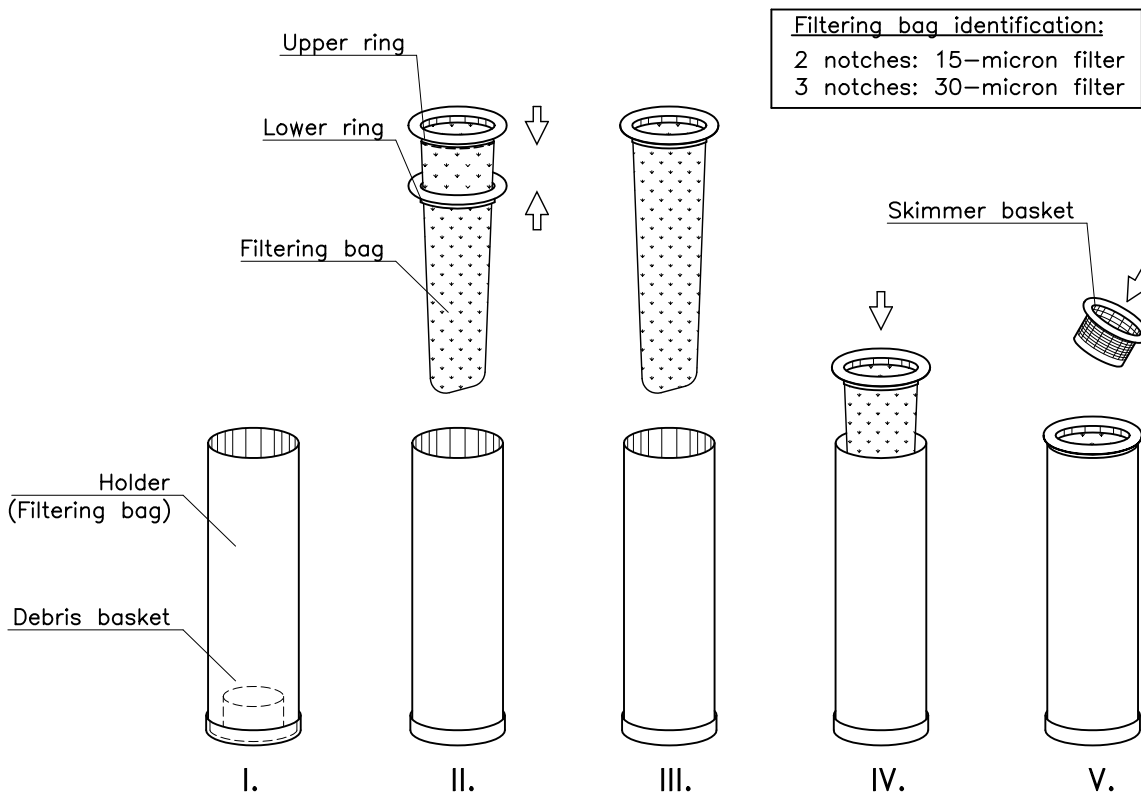
**FILTRATION ELECTRICAL BOX
FOREZ PISCINES MODEL #90312**

INTERNAL WIRING

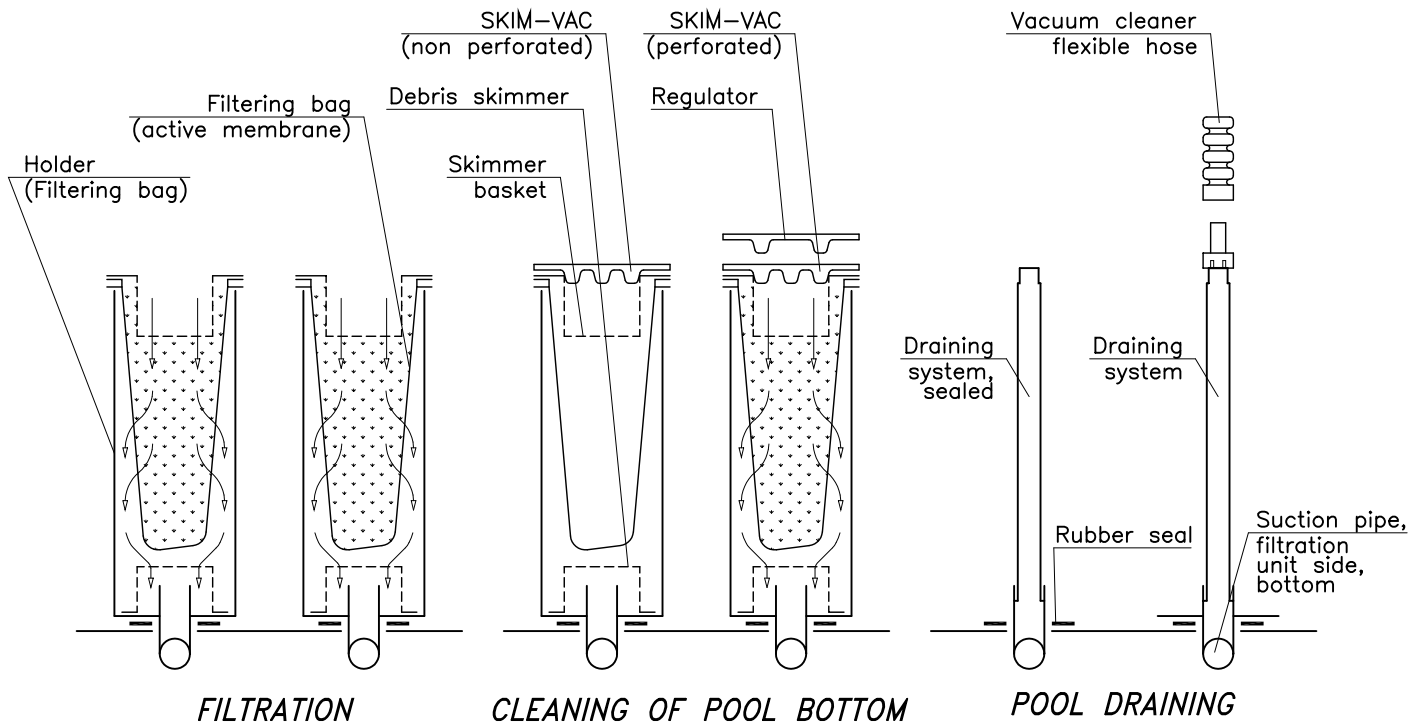


WARNING: If connecting a single speed pump, the red wire server no purpose. This should be left connected to the 4 pin female circular connector located in the terminal compartment.

11 – INSTALLATION OF ACCESSORIES



SETTING



OPERATION