QL 420 / 540
CARTRIDGE FILTER

A division of FLUIDRA

IMPORTANT SAFETY PRECAUTIONS

ATTENTION INSTALLER: This guide contains important information about the installation, operation and safe use of this product. This information should be given to the owner and/or operator of this equipment after installation or left on or near the filter.
ATTENTION USER: This manual contains important information that will help you in operating and maintaining this filter. Please retain it for future reference.

WARNING- Before installing this product, read and follow all warning notices and instructions which are included. Failure to follow safety warning and instructions can result in severe injury, death or property damage.

OWNER INFORMATION AND SAFETY

The VIRON QL Cartridge filter is designed and manufactured to provide many years of safe and reliable service when installed, operated and maintained according to the information in this manual and the installation codes referred to in later sections. Throughout the manual, safety warnings and cautions are identified by the symbol. Be sure to read and comply with all of the warnings and cautions.

WARNING: Do not operate the filter until you have read and understand clearly all the operating instructions and warning messages for all equipment that is a part of the pool circulating system. The following instructions are intended as a guide for initially operating the filter in a general pool installation, however each installation may have unique conditions where the starting procedure could be different. Failure to follow all operating instructions and warning messages can result in severe injury, death or property damage.

WARNING: THIS FILTER OPERATES UNDER HIGH PRESSURE.
When any part of the circulating system, (filter, pump, valves, clamp etc) are serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to be blown off, which can result in severe injury, death, or property damage. To avoid this potential hazard, please follow these instructions.

1. Before repositioning valve(s) and before beginning the assembly, disassembly or adjustment of the clamp of the filter or any other service of the circulating system, **TURN THE PUMP OFF** and shut **OFF** any automatic controls to ensure the system is NOT inadvertently started during the servicing, Open the **AIR BLEED VALVE** in the top of the filter lid and wait until all pressure is relieved.
2. Whenever installing the filter clamp, follow the filter clamp installation instructions exactly.
3. Once service on the circulating system is complete, **FOLLOW THE RESTART INSTRUCTIONS EXACTLY**
4. Maintain circulation system properly. Replace worn or damage parts immediately
5. Be sure that the filter is properly mounted and positioned according to instructions provided.

WARNING: Due to the potential risk that can be involved, it is recommended that the pressure test be kept to the minimum time required by the local code. Do not allow people to work around the system when the circulation system is under pressure test. Establish a barrier and post warning signs around the pressurized equipment. If the equipment is located in a plant room, lock the access doors and post warning signs.
Never attempt to adjust any closures or lids or attempt to remove or tighten bolts on the system when pressurized. These actions can result in a separation or failure of the system components. This instantaneous release of pressure can cause components to be accelerated to high velocities and to travel great distances. These components could cause severe personal injury or death if they were to strike a person.

WARNING: Risk of electrical shock or electrocution.
This pool filter must be installed by a qualified pool serviceman in accordance with the National Electrical Code (NEC) and all applicable local codes and ordinances.
Always disconnect power to the pool equipment at the circuit breaker before servicing any of the equipment. Ensure that the disconnected circuit is locked out or properly tagged so that it cannot be switched on while you are working on the pool equipment. Failure to do so could result in serious injury or death to service people, pool users or others due to electric shock.

Position the filter and the air relief valve to safely direct water drainage and purged air or water. Water discharge from an improperly positioned filter or valve can create an electrical hazard that can cause severe personal injury as well as damage property.

WARNING: To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

CAUTION: This filter is for use with permanently installed pools and may be used with hot tubs and spas if so marked. Do not use with storable pools, A permanently installed pool is considered in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original integrity.

GENERAL INSTALLATION INFORMATION.

The following information should be read carefully as it outlines the proper manner of care and operation of your filter system. You can expect maximum efficiency and product life from you filtration system by following these instructions and taking the necessary preventative maintenance.

*.Have a trained pool professional perform all pressure testing
* Do not connect the system to a high pressure or city water systems.
* Trapped air in the system can create a hazardous condition. MAKE SURE to purge all air from the system before operating or testing of the equipment.
* DO NOT PRESSURE TEST WITH COMPRESSED AIR
* Check local codes for restrictions on backwash to waste piping, separation tank requirements.
* Piping must conform to local/state plumbing and sanitary codes
* Support piping independently to prevent strains on the filter or valve
* Fittings restrict flow, for best efficiency, use the fewest possible fittings
* A check valve installed between the filter inlet will prevent contaminants from draining back into the Pool.
* A check valve installed between the filter and heater will prevent hot water from backing up into the filter and deforming the internal components.
* All wiring, grounding and bonding of associated equipment must meet local and/or National Electrical Code (NEC) standards

GENERAL OVERVIEW

The VIRON QL Cartridge filter features 4 easily accessible and removable filter cartridges. When water passes through these cartridges, microscopic impurities like dirt, algae and some forms of bacteria are filtered out, giving you water that really sparkles.

The 4 cartridges design greatly increases the filter's internal surface area, meaning a much greater cleaning capacity for every cycle without the need for a larger filter. After turning off and isolating the filter pump, cleaning is achieved by removing the clamp band, lifing off the filter lid, removing the four filter elements and hosing off dirt and debris with a high pressure hose.

INSTALLATION

Only a trained service person should install the VIRON QL Cartridge filter.

WARNING – Risk of electrical shock or electrocution.

Position the filter and allowing for the air/water bleed valve located in the lid to safely direct water drainage and purged air or water. Water discharged from an improperly position filter can create an electrical hazard that can cause severe personal injury as well as damage property.

WARNING – THIS FILTER OPERATES UNDER HIGH PRESSURE

Never subject the filter to pressure in excess of the maximum working pressure, even when conducting hydrostatic pressure testing. Pressures above the maximum working PSI/Kpa pressures can cause the lid to be blown off and result in severe injury, death or property damage

1. The filter should be mounted on a level concrete slab. Position the filter so that the instructions, warning and pressure gauge are visible to the operator. It should also be positioned so that the piping connections, control valve and drain port are convenient and accessible for servicing and winterizing.
2. Install electrical controls (timers, Chlorinators, power points) at least 6 feet from the filter. This will allow you enough room to stand clear of the filter during start up.
3. Allow sufficient clearance around the filter to allow visual inspection of the clamp is correctly installed around the tank flanges. Using a soft mallet tap the clamp to ensure uniform loading during the clamp tightening.
4. Allow enough space above the filter to remove the filter lid for cleaning and servicing. This distance should be a minimum of 2 feet
5. The VIRON QL Cartridge filter has 1 inlet, 2 outlets and a drain port. Either inlet can be used (top outlet height for other brands heaters, bottom outlet to suit HiNRG heaters. Whichever port you use the other will have to be plugged with plug cap supplied with filter
6. Make all plumbing connections in accordance with local plumbing and building codes. Check local codes for restrictions on backwash to waste piping, separation tank requirements. Allow minimum of 1 hour for glue to dry on pipe fittings before pressuring up the system.
7. Filter plumbing connections are provided with an o-ring seal. To avoid damage to the o-rings, use only a silicone base lubricant on the o-rings. Do not use a petroleum based lubricate as it will degrade the o-rings.

8. Install the pressure gauge (supplied with the filter) into the marked hole in the lid, using Teflon tape on the gauge thread.
9. If the filter is installed below water level, isolation valves must be installed on the inlet & outlet to enable the filter to be dismantled for cleaning without the loss of water from the pool or spa.
10. It is recommended that a 3 way valve be installed on the return line to allow draining of water from the pool or spa when necessary.
11. The maximum working pressure of this filter is 50 PSI / 345 KPA. Never subject this filter to pressure in excess of the amount, even when conducting hydrostatic pressure testing. Pressures above 50 psi / 345 KPA can cause the lid to be blown off, which can result in severe injury, death or property damage

When performing hydrostatic pressure testing or when testing for external leaks of the completed filtration and plumbing system, ensure that the maximum pressure that the filtration system will be subject to DOES NOT EXCEED THE MAXIMUM WORKING PRESSURE OF ANY OF THE COMPONENTS CONTAINED WITHIN THE SYSTEM. In most cases the maximum working pressure will be stated on each component of the system.
If doubt exists as to the pressure to which the system will be subjected, install an Automatic pressure relief or pressure regulator in the circulation system for the lowest working pressure of any of the components in the system.

For full warranty terms and conditions and to register your warranty, simply visit **www.astralpool.com.au/warranty** and complete your details. Or scan the QR code and be taken directly to the registration page.

Record your equipment details here for quick reference:

Model No.: _____

Serial No.: _____

GENERAL FILTER INFORMATION

⚠ WARNING: THIS FILTER OPERATES UNDER HIGH PRESSURE.

When any part of the circulating system, (filter, pump, valves, clamp etc) are serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to be blown off, which can result in severe injury, death, or property damage. To avoid this potential hazard, please follow these instructions.

1. Before repositioning valve(s) and before beginning the assembly or disassembly or adjustment of the clamp or any other service of the circulating system.
2. Turn the pump OFF and shut off any automatic controls to ensure the system is not inadvertently started during the servicing.
3. Undo the bleed valve in the top of the lid slowly to relief air pressure from the filter until all pressure from the filter is relieved.
4. Whenever installing the filter clamp **FOLLOW THE FILTER CLAMP INSTALLATION INSTRUCTIONS EXACTLY.**
5. Once the service on the circulating system is complete, **FOLLOW THE RE-START PROCEDURE INSTRUCTIONS**.
6. Maintain circulation system properly. Replace worn or damaged parts immediately
7. Ensure that the filter is properly mounted and positioned according to instructions provided.

CLAMP INSTALLATION.

Please follow these instructions exactly to prevent the lid from blowing off during system restart or later operation.

1. Perform the following steps before working on any part of the circulating system.
2. Turn the pump off and shut off any automatic controls to ensure that the system is not inadvertently started during servicing
3. Open up the air bleed screw located in the lid to remove air pressure and leave open until all air pressure is relieved.
4. Be certain the o-ring is in correct position in the lower tank half groove, fit the top filter lid carefully over the lower half of the filter tank ensuring oring stays in position as doing so.
5. Holding the ends of the filter clamp apart, position the center segment of the filter clamp over both upper and lower tank flanges. Bring the ends of the clamp together, while ensuring the T-BOLT located correctly in 1 ½ of the clamp. While holding the 2 halves together screw on the brass nut until you are able to let go of the clamp and it stays in position.
6. Begin to tighten the brass nut with a ”wrench, tighten the brass nut until the gap between the two clamps is approx. 1 finger width. (5/8”to 3/4”/ 16 – 19mm). DO NOT over tighten beyond this gap specified

STARTING INSTRUCTIONS

⚠ WARNING: THIS FILTER OPERATES UNDER HIGH PRESSURE.

When any part of the circulating system, (filter, pump, valves, clamp etc) are serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to be blown off, which can result in severe injury, death, or property damage. To avoid this potential hazard, please follow these instructions.

1. Before start up, make sure the elements are in the filter and the clamp band is correctly fitted and tightened.
2. Open the air bleed screw, located in the lid. Rotate anti clockwise 2 full turns.
3. Open the suction and return line valves (where fitted)
4. Stand clear of the filter, then start the pump.
5. As the system "primes up" air will be released via the air bleed screw. Leave the air bleed screw open until a solid stream of water appears from the air bleed screw. Shut the air bleed screw by turning it clockwise until fully done up.
6. The system is now primed and should be operating correctly.
7. The system is not working correctly if, a solid stream of water does not appear from the air bleed screw, or the pressure gauge indicates pressure before water out flow appears from the air bleed valve.
8. If either condition exists, switch off the pump immediately, open valves in the water return to relieve pressure from the system.

CLEANING

Clean the cartridges when the flow to the pool reduces or the pressure gauge increases by 20 kPa or 3 psi.

1. Stop the pump, close valves on the suction and return lines
2. Open the air bleed valve (located in the filter lid). Allow all pressure to be relieved
3. Loosen the brass nut on the clamp using a 3/4"(19mm) wrench, Loosen until you are able to remove the clamp from the filter.
4. Carefully remove the top manifold from the 4 elements by lifting up from the elements.
5. Carefully remove each element from the filter.
6. Clean the cartridges by soaking them in a mild solution of chlorine and warm water for approx. 15 minutes and then hose off with water ensuring not to damage the filter element when doing so.
7. Replace the cartridges into the filter ensuring they are correctly located on the bottom spigot of the filter.
8. Refit the top manifold ensuring it is correctly fitted into the 4 elements and the internal pipe work.
9. Clean the filter body o-ring before refitting, ensure it is free from dirt.
10. Place the lid carefully over the elements and lower onto the lower body of the filter. Ensure o-ring stays in place.
11. Holding the ends of the filter clamp apart, position the center segment of the filter clamp over both upper and lower tank flanges. Bring the ends of the clamp together, while ensuring the T-BOLT located correctly in 1 ½ of the clamp. While holding the 2 halves together screw on the brass nut until you are able to let go of the clamp and it stays in position.
12. Begin to tighten the brass nut with a "wrench, tighten the brass nut until the gap between the two clamps is approx. One finger width (5/8"to 3/4" / 16 – 19mm). DO NOT over tighten beyond this gap specified
13. Open the valves on suction and return lines, open up the air bleed valve in lid, restart the pump.
14. Wait for constant stream of water from the air bleed valve and close valve.
15. Check for leaks from around clamp band

PUMP PRIMING

With the pump OFF,

1. Remove the lid from the pump strainer and pour in approximately one to two gallons (4 to 8 litres) of water or until strainer is fully covered
2. Replace the pump lid, ensuring it is fitted correctly
3. If valve(s) have been installed on the pump suction line, close before filling strainer. Open again after lid has been securely fitted in place. Any valves on the return lines should be open. The pump should not need to be re-primed unless the pump has been drained for servicing, or winterizing (refer to the pump instruction manual provided with the pump)

NEVER LOOSEN THE CLAMP BAND WHEN PUMP IS OPERATING OR THE SYSTEM IS UNDER PRESSURE

MODEL	PART NO.	ELEMENT PART NO.	FILTER AREA	MAX FLOW RATE	MAX FLOW RATE	4 HR TURN OVER	6 HR TURN OVER	PUMP SIZE
QL 420	76315	78079	420 sq ft 39 m2	5,520g/h 20,895l/h	92g/m 348l/m	22,080g 83,581Lt	33,120g 125,372Lt	750w 3000w
QL 540	76330	78082	540 sq ft 50 m2	5.520g/m 20,895l/h	92g/m 348l/m	22,080g 83,581Lt	33,120g 125,372Lt	750w 3000w

MAINTENANCEOF YOUR FILTER

Maintenance Schedule: Your new product incorporates moving parts and withstands high velocity water with chemicals in it. Some of these parts will wear in the normal course of use and require regular checks and maintenance. Performing these checks and maintenance will identify parts that have worn and require repair/replacement before further serious damage is sustained. A small amount of regular care and attention to your pool equipment will help ensure long life and trouble free performance.

Timing	Maintenance Check	Service action (if required)
Every 2 Weeks	**Check pressure gauge. If pressure increase is greater than 3 PSI / 20 Kpa cleaning may be required**	In accordance with instructions, clean elements with a high pressure cleaner or purpose made element cleaner
Every 3 Months	**Check inlet/outlet o'rings for leaks** **Check operation of pressure gauge – salt water can prematurely reduce the life of a gauge**	Isolate Pump, turn power off, clean and grease O rings or replace if necessary Replace gauge if required
Once a Year	**Compare operating pressure of a cleaned filter to initial pressure (when new). Also check for signs of damage to elements**	If pressure is more than 4 – 6 PSI/27 – 41 kpa different from cleaned elements to new filter, replace elements

Important note: Regular maintenance is important to ensure long life and trouble free performance of your pool equipment. If unable to perform the maintenance yourself, contact www.Jacuzzipool.com who will arrange a trained service technician to perform the maintenance for you.

Record your Equipment details here for quick reference:

Model No.: _____

Serial No.: _____

Initial Pressure (p.s.i): _____

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