PENTAIR

HI-FLOW™
SIDE MOUNTED BACKWASH VALVE

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

TABLE OF CONTENTS

Valve Positions Overview **2**
Valve Installation **3**
Winterizing **3**
Replacement of Valve Top and Diverter Assembly **3**
Complete Disassembly **3**
Technical Data **4**

⚠WARNING Before installing this product, read and follow all warning notices and instructions accompanying this valve. Failure to follow safety warning and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions.

IMPORTANT NOTICE!
Attention Installer: This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

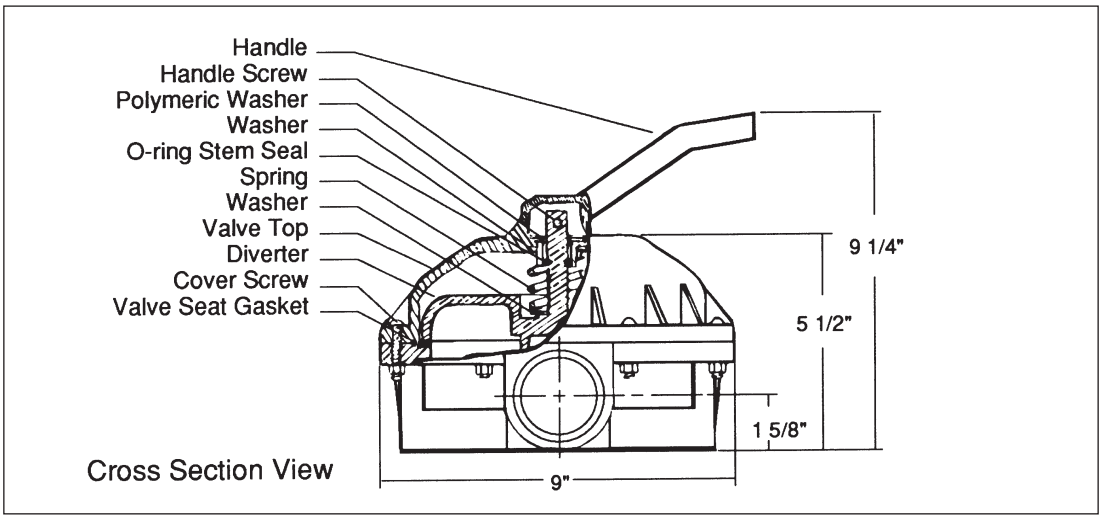
⚠ DANGER The valve must be installed by a qualified serviceman in accordance with the National Electrical Code and all applicable local codes and ordinances.

Always disconnect power to the 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 equipment. Failure to do so could result in serious injury or death to serviceman, operator 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 discharged from an improperly positioned filter or valve can create an electrical hazard that can cause severe personal injury as well as damage property.

⚠CAUTION **For Installation of Electrical Controls at Equipment Pad (ON/OFF Switches, Timers and Automation Load Center)**

Install all electrical controls at equipment pad, such as on/off switches, timers, and control systems, etc. to allow the operation (startup, shut-down, or servicing) of any pump or filter so the user does not place any portion of his/her body over or near the pump strainer lid, filter lid or valve closures. This installation should allow the user enough space to stand clear of the filter and pump during system start-up, shut down or servicing of the system filter.



FILTER OPERATES UNDER HIGH PRESSURE.

When any part of the circulating system, (e.g., clamp, pump, filter, valve(s), etc.), is serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to separate which can result in severe injury, death, or property damage. To avoid this potential hazard, follow these instructions:

1. Before repositioning valve(s) and before beginning the assembly, disassembly, or adjustment of the clamp or any other service of the circulating system: (A) Turn the pump **OFF** and **shut OFF** any automatic controls to ensure the system is NOT inadvertently started during the servicing; (B) open the manual air relief valve; (C) 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 SYSTEM RESTART INSTRUCTIONS EXACTLY**.
4. Maintain circulation system properly. Replace worn or damaged parts immediately, [e.g., clamp, pressure gauge, valve(s), o-rings, etc].
5. Be sure that the filter is properly mounted and positioned according to instructions provided.

Valve Positions Overview

SETTING	FLOW PATH Function
Filter	**Pump > Sand Top / DE Bottom > Through Filter > DE Top / Sand Bottom > Return** For normal filter action and vacuuming pool thru filter.
Backwash	**Pump > DE Top / Sand Bottom > Through Filter > Sand Top / DE Bottom > Waste** For cleaning filter by reversing flow
Rinse	**Pump > DE Top / Sand Bottom > Through Filter > DE Top / Sand Bottom > Waste** For start-up cleaning and resetting filter bed after backwashing
Waste	**Pump > Waste** For vacuuming directly to waste, lowering pool level or draining pool
Closed	**No Circulation - DO NOT USE THIS SETTING WITH PUMP OPERATING!**
Recirculate	**Pump > Return** For circulating water without going through filter

Valve Installation

⚠CAUTION This valve is available in two models for use with sand type or diatomaceous earth (DE) type pool filters. Be sure that you have the correct model for your filter. Installing the incorrect model may cause your pump to dead head, or drain the pool when in backwash position.

1. Confirm correct valve is being used; DE valves for DE filters and Sand valves for Sand filters.
2. Install valve to filter by securing bulkhead nuts on valve to fittings on the filter.

⚠CAUTION Tighten the nuts by hand only! No additional tightness is required.

3. Plumb pump piping to center pipe in valve.
4. Plumb return and waste lines.

Winterizing

1. Drain and winterize pump and filter per manufacturer's instructions.
2. Depress valve handle and rotate so pointer on handle is between any two settings.

Replacement of Valve Top and Diverter Assembly

1. Set valve handle in any setting.
2. Remove cover screws.
3. Lift off valve top and diverter assembly.
4. Install new valve top and diverter assembly. Be sure arrows on valve top and bottom are aligned.
5. Tighten cover screws evenly and alternately. Do not over tighten.

Complete Disassembly

1. Remove Handle to diverter screw. Note arrow on top of diverter stem as handle is removed.
2. Evenly and alternately loosen cover screws.

⚠CAUTION Top is under spring load. Loosen all screws before removing any of them.

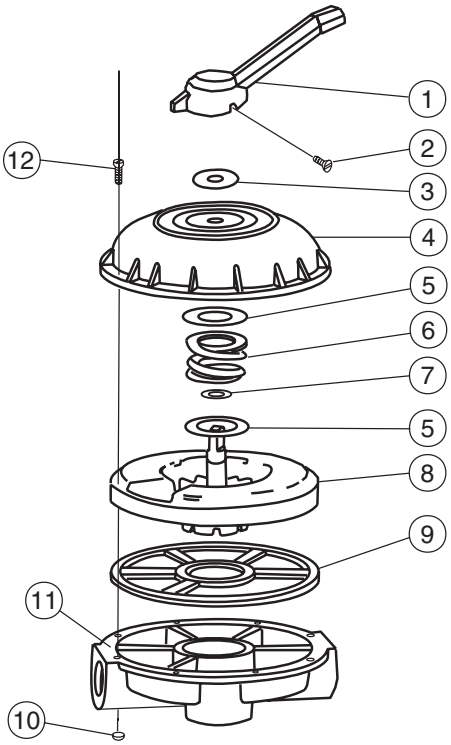
3. Remove cover screws and valve top.
4. Note location of O-ring and spring, and number of washers on diverter stem. Remove O-Ring, spring and washers.
5. Re-assemble in reverse order.

   Note: Prior to assembly, be sure bottom gasket and diverter sealing surface are clean and free from nicks to insure positive sealing.
6. When replacing valve handle, be sure arrow on diverter stem and pointer on handle are pointed in the same direction.

⚠CAUTION DO NOT over tighten the screws or use motorized screwdrivers; as this can cause damage to the threads.

Technical Data

Replacement Parts



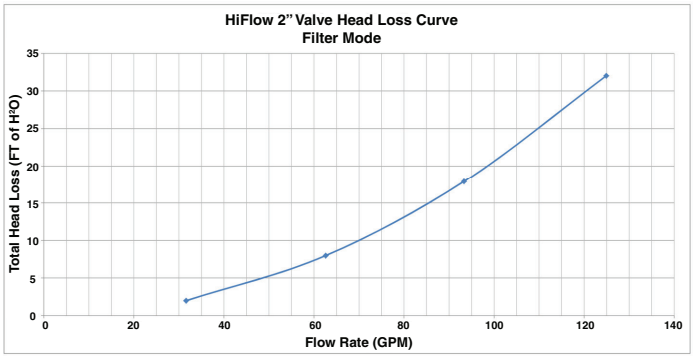
Covers Assemblies P/Ns 261049, 261050 and 261142

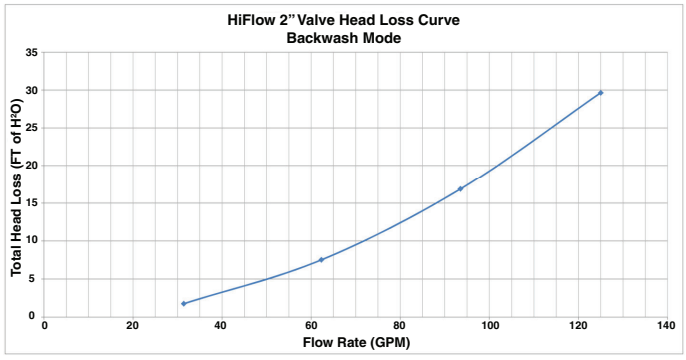
Item	P/N	Description	Qty.
1	272520	Handle	1
2	272405	Screw - Handle	1
3	272402	Washer, Plastic	1
4	272412	Valve Top	1
5	271193	Washer - 18 GA	2
6	272400	Spring - Compression	1
7	272406	O-ring - Diverter	1
8	272413Z	Diverter	1
9	272409	Seal -Diverter	1
10	98211400	Nut - 1/4" - 20 Hex	8
11	272415	Plat - 2" Valve Bottom	1
12	272403	Screw - 1/4" - 20	8
*	272422	Valve Top Assembly	1

*This part number includes items 1 thru 9

Note: When replacing gasket P/N 272409, secure it to valve bottom with an instant cyanocrylate adhesive suitable for bonding rubber to plastic.

Head Loss Curves





PENTAIR

1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000
WWW.PENTAIR.COM

All Pentair trademarks and logos are owned by Pentair or one of its global affiliates. Hi-Flow™ is a trademark of Pentair Water Pool and Spa, Inc. and/or its affiliated companies in the United States and/ or other countries. Unless expressly noted, names and brands of third parties that may be used in this document are not used to indicate an affiliation or endorsement between the owners of these names and brands and Pentair Water Pool and Spa, Inc. Those names and brands may be the trademarks or registered trademarks of those third parties. Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice. Pentair is an equal opportunity employer.

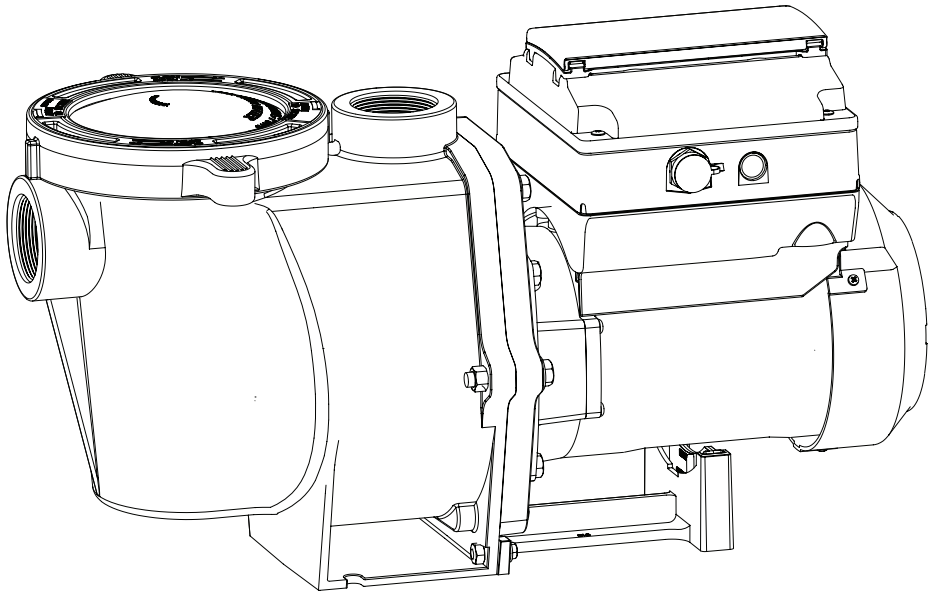
© 2018 Pentair Water Pool and Spa, Inc. All rights reserved. This document is subject to change without notice.

P/N 272133 REV. G 11/28/18

PENTAIR

INTELLIFLO®

VARIABLE SPEED PUMP



INSTALLATION AND USER'S GUIDE

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

IMPORTANT PUMP WARNING AND SAFETY INSTRUCTIONS

IMPORTANT NOTICE

This guide provides installation and operation instructions for this pump. Consult Pentair with any questions regarding this equipment.

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 pump.

Attention User: This manual contains important information that will help you in operating and maintaining this product. Please retain it for future reference.

READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

This is the safety alert symbol. When you see this symbol on your system or in this manual, look for one of the following signal words and be alert to the potential for personal injury.

DANGER Warns about hazards that can cause death, serious personal injury, or major property damage if ignored.

WARNING Warns about hazards that may cause death, serious personal injury, or major property damage if ignored.

CAUTION Warns about hazards that may or can cause minor personal injury or property damage if ignored.

NOTE Indicates special instructions not related to hazards.

Carefully read and follow all safety instructions in this manual and on equipment. Keep safety labels in good condition; replace if missing or damaged.

When installing and using this electrical equipment, basic safety precautions should always be followed, include the following:

DANGER FAILURE TO FOLLOW ALL INSTRUCTIONS AND WARNINGS CAN RESULT IN SERIOUS BODILY INJURY OR DEATH. **THIS PUMP SHOULD BE INSTALLED AND SERVICED ONLY BY A QUALIFIED POOL SERVICE PROFESSIONAL. INSTALLERS, POOL OPERATORS AND OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS IN THE OWNER'S MANUAL BEFORE USING THIS PUMP. THESE WARNINGS AND THE OWNER'S MANUAL MUST BE LEFT WITH THE POOL OWNER.**

WARNING Do not permit children to use this product.

WARNING **RISK OF ELECTRICAL SHOCK.** Connect only to a branch circuit protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the circuit is protected by a GFCI.

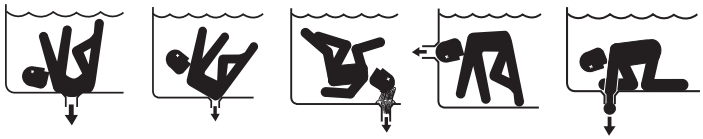
WARNING This unit must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this pump. Disconnect the pump and have the problem corrected by a qualified service representative before using.

CAUTION This pump is for use with permanent swimming pools and may also be used with hot tubs and spas if so marked. 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 disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity.

General Warnings

- Never open the inside of the drive motor enclosure. There is a capacitor bank that holds a 230 VAC charge even when there is no power to the unit.
- The pump is not submersible.
- The pump is capable of high flow rates; use caution when installing and programming to limit pumps performance potential with old or questionable equipment.
- Code requirements for electrical connection differ from country to country, state to state, as well as local municipalities. Install equipment in accordance with the National Electrical Code and all applicable local codes and ordinances.
- Before servicing the pump; switch OFF power to the pump by disconnecting the main circuit to the pump.
- This appliance is not intended for use by persons (including children) of reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.

DANGER SUCTION ENTRAPMENT HAZARD: STAY OFF THE MAIN DRAIN AND AWAY FROM ALL SUCTION OUTLETS! **THIS PUMP IS NOT EQUIPPED WITH SAFETY VACUUM RELEASE SYSTEM (SVRS) PROTECTION AND DOES NOT PROTECT AGAINST BODY OR LIMB ENTRAPMENTS, DISEMBOWELMENTS (WHEN A PERSON SITS ON A BROKEN OR UNCOVERED POOL DRAIN) OR HAIR ENTANGLEMENTS.**



THIS PUMP PRODUCES HIGH LEVELS OF SUCTION AND CREATES A STRONG VACUUM AT THE MAIN DRAIN AT THE BOTTOM OF THE BODY OF WATER. THIS SUCTION IS SO STRONG THAT IT CAN TRAP ADULTS OR CHILDREN UNDER WATER IF THEY COME IN CLOSE PROXIMITY TO A DRAIN OR A LOOSE OR BROKEN DRAIN COVER OR GRATE.

THE USE OF UNAPPROVED COVERS OR ALLOWING USE OF THE POOL OR SPA WHEN COVERS ARE MISSING, CRACKED OR BROKEN CAN RESULT IN BODY OR LIMB ENTRAPMENT, HAIR ENTANGLEMENT, BODY ENTRAPMENT, EVISCERATION AND/OR DEATH.

The suction at a drain or outlet can cause:

Limb Entrapment: When a limb is sucked or inserted into an opening resulting in a mechanical bind or swelling. This hazard is present when a drain cover is missing, broken, loose, cracked or not properly secured.

Hair Entanglement: When the hair tangles or knots in the drain cover, trapping the swimmer underwater. This hazard is present when the flow rating of the cover is too small for the pump or pumps.

Body Entrapment: When a portion of the body is held against the drain cover trapping the swimmer underwater. This hazard is present when the drain cover is missing, broken or the cover flow rating is not high enough for the pump or pumps.

Evisceration/Disembowelment: When a person sits on an open pool (particularly a child wading pool) or spa outlet and suction is applied directly to the intestines, causing severe intestinal damage. This hazard is present when the drain cover is missing, loose, cracked, or not properly secured.

Mechanical Entrapment: When jewelry, swimsuit, hair decorations, finger, toe or knuckle is caught in an opening of an outlet or drain cover. This hazard is present when the drain cover is missing, broken, loose, cracked, or not properly secured.

NOTE: ALL SUCTION PLUMBING MUST BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL AND LOCAL CODES, STANDARDS AND GUIDELINES.

IMPORTANT PUMP WARNING AND SAFETY INSTRUCTIONS

⚠WARNING **TO MINIMIZE THE RISK OF INJURY DUE TO SUCTION ENTRAPMENT HAZARD:**

- A properly installed and secured ANSI/ASME A112.19.8 approved anti-entrapment suction cover must be used for each drain.
- Each suction cover must be installed at least three (3') feet apart, as measured from the nearest point to nearest point.
- Regularly inspect all covers for cracks, damage and advanced weathering.
- If a cover becomes loose, cracked, damaged, broken or is missing, replace with an appropriate certified cover.
- Replace drain covers as necessary. Drain covers deteriorate over time due to exposure to sunlight and weather.
- Avoid getting hair, limbs or body in close proximity to any suction cover, pool drain or outlet.
- Disable suction outlets or reconfigure into return inlets.

⚠WARNING The pump can produce high levels of suction within the suction side of the plumbing system. These high levels of suction can pose a risk if a person comes within the close proximity of the suction openings. A person can be seriously injured by this high level of vacuum or may become trapped and drown. It is absolutely critical that the suction plumbing be installed in accordance with the latest national and local codes for swimming pools.

⚠WARNING A clearly labeled emergency shut-off switch for the pump must be in an easily accessible, obvious place. Make sure users know where it is and how to use it in case of emergency.

The Virginia Graeme Baker (VGB) Pool and Spa Safety Act creates new requirements for owners and operators of commercial swimming pools and spas.

Commercial pools or spas constructed on or after December 19, 2008, shall utilize:

(A) A multiple main drain system without isolation capability with suction outlet covers that meet ASME/ANSI A112.19.8a Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs and either:

(i) A safety vacuum release system (SVRS) meeting ASME/ANSI A112.19.17 Manufactured Safety Vacuum Release systems (SVRS) for Residential and Commercial Swimming Pool, Spa, Hot Tub, and Wading Pool Suction Systems and/or ASTM F2387 Standard Specification for Manufactured Safety Vacuum Release Systems (SVRS) for Swimming pools, Spas and Hot Tubs or

(ii) A properly designed and tested suction-limiting vent system or

(iii) An automatic pump shut-off system.

Commercial pools and spas constructed prior to December 19, 2008, with a single submerged suction outlet shall use a suction outlet cover that meets ASME/ANSI A112.19.8a and either:

(A) A SVRS meeting ASME/ANSI A112.19.17 and/or ASTM F2387, or

(B) A properly designed and tested suction-limiting vent system, or

(C) An automatic pump shut-off system, or

(D) Disabled submerged outlets, or

(E) Suction outlets shall be reconfigured into return inlets.

⚠CAUTION **For Installation of Electrical Controls at Equipment Pad (ON/OFF Switches, Timers and Automation Load Center)**

Install all electrical controls at equipment pad, such as on/off switches, timers, and control systems, etc. to allow the operation (startup, shut-down, or servicing) of any pump or filter so the user does not place any portion of his/her body over or near the pump strainer lid, filter lid or valve closures. This installation should allow the user enough space to stand clear of the filter and pump during system start-up, shut down or servicing of the system filter.

⚠DANGER **HAZARDOUS PRESSURE: STAND CLEAR OF PUMP AND FILTER DURING START UP.**

Circulation systems operate under high pressure. When any part of the circulating system (i.e. locking ring, pump, filter, valves, etc.) is serviced, air can enter the system and become pressurized. Pressurized air can cause the pump housing cover, filter lid, and valves to violently separate which can result in severe personal injury or death. Filter tank lid and strainer cover must be properly secured to prevent violent separation. Stand clear of all circulation system equipment when turning on or starting up pump.

Before servicing equipment, make note of the filter pressure. Be sure that all controls are set to ensure the system cannot inadvertently start during service. Turn off all power to the pump. **IMPORTANT: Place filter manual air relief valve in the open position and wait for all pressure in the system to be relieved.**

Before starting the system, fully open the manual air relief valve and place all system valves in the "open" position to allow water to flow freely from the tank and back to the tank. Stand clear of all equipment and start the pump.

IMPORTANT: Do not close filter manual air relief valve until all pressure has been discharged from the valve and a steady stream of water appears. Observe filter pressure gauge and be sure it is not higher than the pre-service condition.

General Installation Information

- All work must be performed by a qualified service professional, and must conform to all national, state, and local codes.
- Install to provide drainage of compartment for electrical components.
- These instructions contain information for a variety of pump models and therefore some instructions may not apply to a specific model. All models are intended for use in swimming pool applications. The pump will function correctly only if it is properly sized to the specific application and properly installed.

⚠WARNING Pumps improperly sized or installed or used in applications other than for which the pump was intended can result in severe personal injury or death. These risks may include but not be limited to electric shock, fire, flooding, suction entrapment or severe injury or property damage caused by a structural failure of the pump or other system component.

Pumps and replacement motors that are single speed and one (1) Total HP or greater cannot be sold, offered for sale, or installed in a residential pool for filtration use in California, Title 20 CCR sections 1601-1609.

CUSTOMER SERVICE / TECHNICAL SUPPORT

If you have questions about ordering Pentair replacement parts, and pool products, please contact:

Customer Service and Technical Support, USA
(8 A.M. to 4:30 P.M. — Eastern/Pacific Times)
Phone: (800) 831-7133
Fax: (800) 284-4151

Web site
Visit *www.pentair.com* for information about Pentair products.

Sanford, North Carolina (8 A.M. to 4:30 P.M. ET)
Phone: (919) 566-8000
Fax: (919) 566-8920

Moorpark, California (8 A.M. to 4:30 P.M. PT)
Phone: (805) 553-5000 (Ext. 5591)
Fax: (805) 553-5515

TABLE OF CONTENTS

Important Pump Warning and Safety Instructions ..... **i**

Pump Overview **1**
- Drive Assembly and Control Panel 1
- External Control 1
- Motor Features 1
- Drive Features 1

Installation **2**
- Location 2
- Piping 2
- Electrical Requirements 2
- Optional Keypad Relocation Kit 2
- Fittings and Valves 2
- Electrical Installation 3
  - Wiring, Grounding and Bonding 3
- Connecting to an Automation System 4

Operating the Pump **5**
- Default Filtration Speed 5
- Priming the Pump 5
- Using the Operator Control Panel 6
- Stopping and Starting the Pump 7
- Adjust and Save a Pump Speed 7
- Operating the Pump at Preset Speeds 7
- Pump Operating Modes 7
- Control Panel: Pump Menu Guide 8

Pump Settings **9**
- Set Date and Time 9
- Set AM/PM or 24 Clock 9
- Set Min/Max Speeds 9
- Pump Address 9
- Set Screen Contrast 10
- Set Control Panel Language 10
- Set Temperature Unit 10
- Password Protection 10
- Setting Password 11

Setting Speeds 1-8 ... . **11**
- Pump Operating Modes 11
- Set Speeds 1-4 in Manual Mode 12
- Set Speeds 1-4 in Egg-Timer Mode 12
- Set Speeds 1-8 in Schedule Mode 12

External Control **13**

Features **14**
- Time Out 14
- Quick Clean/Only High Speed Override Feature 14

Priming **14**
- Priming Features 15
- Setting Priming Features 16
- Disabling Priming with an Automation System 16

Thermal Mode **17**

Maintenance **18**
- Pump Strainer Basket 18
- Cleaning the Pump Strainer Basket 18
- Winterizing 18

Servicing **19**
- Motor and Drive Care 19
- Shaft Seal Replacement 19
- Pump Disassembly 19
- Pump Reassembly 20
- Drive Assembly Removal and Installation 20

Troubleshooting **22**
- Alerts and Warnings 22
- Troubleshooting Chart 23

Replacement Parts **25**
- Illustrated Parts List 25

Technical Data **26**
- Pump Dimensions 26
- Electrical Specifications 26
- Pump Performance Curves (IntelliFlo i1) 26
- Pump Performance Curves (IntelliFlo i2) 27
- Pump Performance Curves (3HP IntelliFlo) 27
- Operator Control Panel Quick Reference Guide 28

PUMP OVERVIEW

The IntelliFlo® Variable Speed Pump can be programmed to run at specific speeds and time intervals for maximum operating efficiency and energy conservation for a variety of inground pools.

- The pump can operate from 450 RPM to 3450 RPM with four preset speeds of 750, 1500, 2350 and 3110 RPM
- The pump can be adjusted from the control panel to run at any speed between 450 RPM to 3450 RPM for different applications
- Up to 8 programmable speeds
- Pump control panel alarm LED and error messages warn the user against under and over voltage, high temperature, over current and freezing
- Communicates with Pentair Automation Systems or Communication Center via a two-wire RS-485 cable connection
- Programmable priming mode with automatic detection of prime for easy start-up
- Compatible with most cleaning systems, filters, and jet action spas
- WEF Values
  EC-011028: WEF 6.9 THP 3.95
  011059 and EC-011059: WEF 7.5 THP 3.95
  011060 and EC-011060: WEF 6.9 THP 3.95

Drive Assembly and Control Panel

The IntelliFlo pump drive is designed to produce maximum motor operational efficiency. The drive controls the motor's rotational speed by controlling the frequency of the supplied current. It also protects the motor and pump from operating outside of their intended operating parameters.

The control panel can be mounted on the pump in four different directions in order to provide the user the best access. The control panel can also be mounted in a more convenient location with the help of the keypad relocation kit (P/N 356904Z).

External Control

Pentair Automation Systems and Communication Centers can remotely control the IntelliFlo pump. The pump's communications address and other functions are accessible from the pump's control panel.

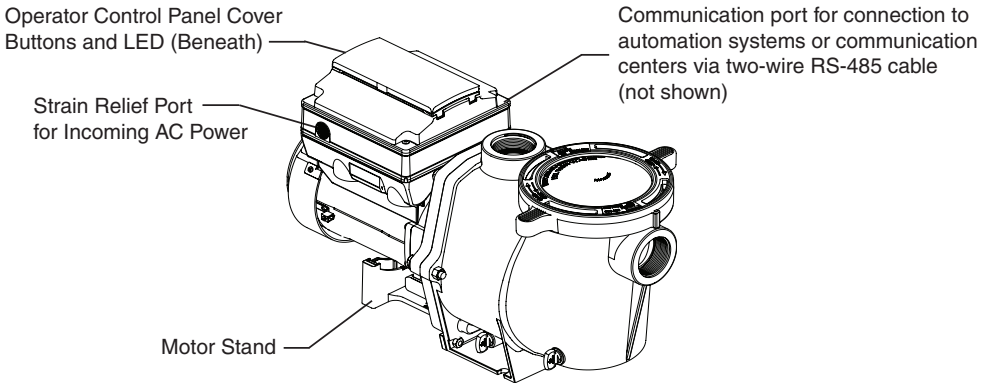
- RS-485 communication cable included
- IntelliComm® Communication Centers control one IntelliFlo pump using the 4 External Control programs.
- Refer to your automation system manual for further details on how to connect and use a Pentair Automation System with your variable speed pump(s).

Motor Features

- High-Efficiency Permanent Magnet Synchronous Motor (PMSM)
- Superior speed control
- Operates at lower temperatures due to high efficiency
- Designed to withstand outdoor environment
- Totally Enclosed Fan Cooled (TEFC) Motor
- 56 Square Flange
- Low noise

Drive Features

- Active Power Factor Correction
- Rotatable Keypad
- Easy Overhead Wiring
- High Drive Operational Efficiency



Variable Speed Drive Assembly

INSTALLATION

Only a qualified plumbing professional should install the IntelliFlo® Variable Speed Pump. Refer to *"Important Pump Warning And Safety Instructions"* on pages i - ii for additional installation and safety information.

Note: The IntelliFlo pump cannot be connected in series with other pumps.

Location

Note: Do not install this pump within an outer enclosure or beneath the skirt of a hot tub or spa unless marked accordingly.

Note: Ensure that the pump is mechanically secured to the equipment pad.

Be sure the pump location meets the following requirements:

1. Install the pump as close to the pool or spa as possible. To reduce friction loss and improve efficiency, use short, direct suction piping returns.
2. Install a minimum of 5 feet (1.5 meters) from the inside wall of the pool and spa. Canadian installations require a minimum of 9.8 feet (3 meters) from pool water level.
3. Install the pump a minimum of 3 feet (0.9 meters) from the heater outlet.
4. Do not install the pump more than 10 feet (3.1 meters) above the water level.
5. Install the pump in a well ventilated location protected from excessive moisture (i.e., rain gutter downspouts, sprinklers, etc.)
6. Install the pump with a rear clearance of at least 3 inches (76.2 mm) so that the motor can be removed easily for maintenance and repair. See **Figure 1**.

Piping

1. For improved pool plumbing, it is recommended to use a larger pipe size. When installing the inlet and outlet fittings (male adaptors), use thread sealant.
2. Piping on the suction side of the pump should be the same or larger than the return line diameter.
3. Plumbing on the suction side of the pump should be as short as possible.
4. For most installations Pentair recommends installing a valve on both the pump suction and return lines so that the pump can be isolated during routine maintenance. However, it is recommended that a valve, elbow or tee installed in the suction line should be no closer to the front of the pump than five (5) times the suction line pipe diameter. See **Figure 2**.

   Example:
   A 2 inch pipe requires a 10 inch (254 mm) straight run in front of the suction inlet of the pump). This will help the pump prime faster and last longer.

   Note: DO NOT install 90° elbows directly into the pump inlet or outlet.

Electrical Requirements

- Install all equipment in accordance with the National Electrical Code and all applicable local codes and ordinances.
- A means for disconnection must be incorporated in the fixed wiring in accordance with the wiring rules.

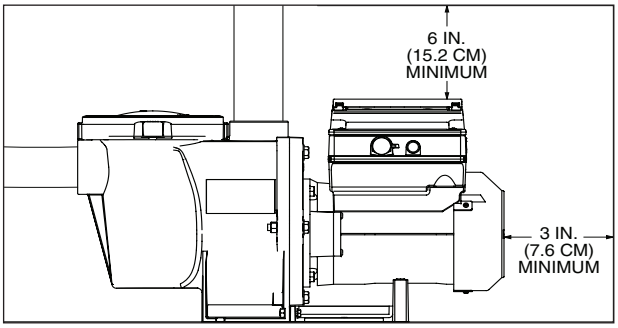


Figure 1: Pump Rear and Overhead Clearance

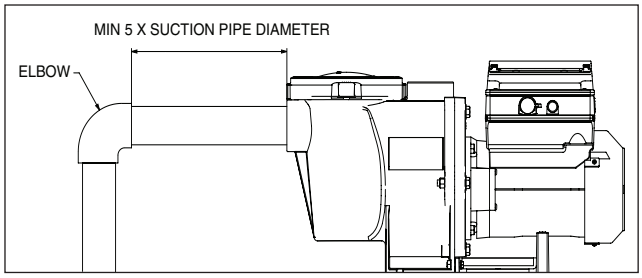


Figure 2: Recommended Piping

Optional Keypad Relocation Kit

In special cases when the user lacks easy or convenient access to the IntelliFlo® Variable Speed Pump, a Keypad Relocation Kit (P/N 356904Z [Almond] or P/N 356905Z [Black]) may be purchased from your local pool equipment supplier. This kit allows the user to remove the keypad cover from the top of the drive and mount the keypad in a fixed location with better access.

For installation instructions refer to the *Keypad Relocation Kit Installation Instructions* provided with the kit.

Fittings and Valves

1. Do not install 90° elbows directly into pump inlet.
2. Flooded suction systems should have gate valves installed on suction and discharge pipes for maintenance, however, the suction gate valve should be no closer than five times the suction pipe diameter as described in this section.
3. Use a check valve in the discharge line when using this pump for any application where there is significant height to the plumbing after the pump.
4. Be sure to install check valves when plumbing in parallel with another pump. This helps prevent reverse rotation of the impeller and motor.

Electrical Installation

⚠WARNING **RISK OF ELECTRICAL SHOCK OR ELECTROCUTION.** This pump must be installed by a licensed or certified electrician or a qualified service professional in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation will create an electrical hazard which could result in death or serious injury to users, installers, or others due to electrical shock, and may also cause damage to property.

Always disconnect power to the pump at the circuit breaker before servicing the pump. Failure to do so could result in death or serious injury to service people, users or others due to electric shock.

Read all servicing instructions before working on the pump.

Note: ALWAYS reinstall the drive lid onto the field wiring compartment when leaving the pump unsupervised during servicing. This will prevent foreign matter (i.e. rainwater, dust, etc.) from accumulating in the drive.

Note: When connecting the pump to a Pentair Automation System, continuous power must be supplied to the pump by connecting it directly to the circuit breaker. When using an automation system, be sure that no other lights or appliances are on the same circuit.

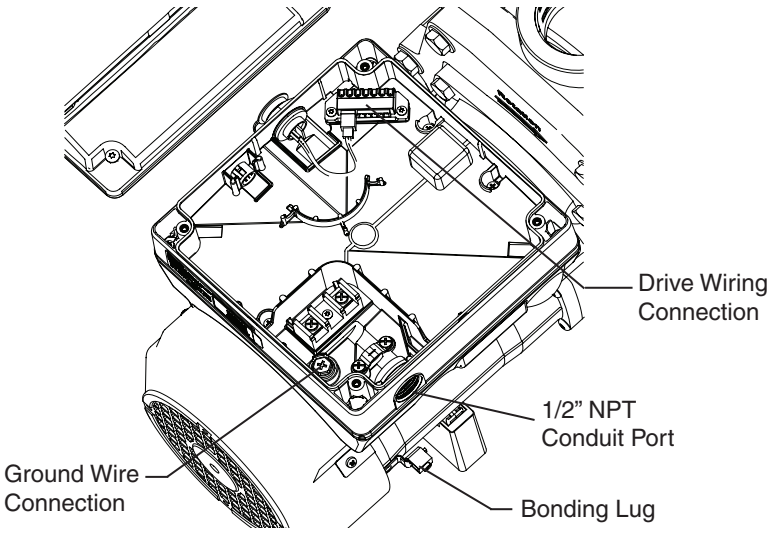
Wiring

1. Be sure all electrical breakers and switches are turned off before wiring motor.

   ⚠WARNING **STORED CHARGE** - Wait at least sixty (60) seconds before servicing.

2. Be sure that the supply voltage meets the requirements listed on the motor nameplate. If these requirements are not met, permanent motor damage may occur.
3. For wiring sizes and general guidelines for proper electrical installation, please follow the specifications defined in the National Electric Code and any local codes as required.
4. Use strain relief and be sure all electrical connections are clean and tight.
5. Cut the wires to the appropriate length so they do not overlap or touch when connected.
6. Reinstall the keypad cover after wiring the pump by plugging the cover back into the drive wiring connection and re-seating the keypad cover in the desired orientation with the four (4) corner screws.

   Note: Ensure that the keypad cable is not pinched between the drive and keypad cover during re-seating.



Field Wiring Compartment

Grounding

1. Permanently ground the motor using the green ground screw, as shown below. Use the correct wire size and type specified by National Electrical Code. Be sure the ground wire is connected to an electrical service ground.
2. The pump should be permanently connected to either a circuit breaker, 2-pole timer or 2-pole relay.

   Note: If AC power is supplied by a GFCI circuit breaker, the pump should be wired on its own independent circuit **unless the pump is operated in tandem with a Pentair salt chlorine generator.**

Bonding

1. Bond the motor to the structure in accordance with the National Electrical Code. Use a solid copper bonding conductor not smaller than 8 AWG. For Canadian installations, a 6 AWG or larger solid copper bonding conductor is required. Run a wire from the external bonding screw or lug to the bonding structure.
2. Connect the wire from the accessible bonding lug on the motor to all metal parts of the swimming pool, spa, or hot tub structure and to all electrical equipment, metal conduit, and metal piping within 5 feet (1.52 meters) of the inside walls of the swimming pool, spa, or hot tub. Run a wire from the external bonding screw or lug to the bonding structure.

Note: When the pump is started and stopped by removing power with a relay or timer, a two-pole device should be used to apply and remove power to both POWER LINE TERMINALS.

Pentair offers 2-Pole 20 Amp GFCI breakers (P/N PA220GF) which offer personnel protection while meeting 2008 to current NEC Standards for Pool Pumps.

Connecting to an Automation System

All IntelliFlo® Variable Speed Pumps are compatible with Pentair Automation Systems.

An RS-485 communication cable is provided with the pump and will be used to connect the pump to a Pentair automation system.

Refer to the automation system manual for further details on how to connect and use the system with your variable speed pump.

OPERATING THE PUMP

NOTE: Speed 1 is the default filtration speed.

NOTE: When setting up the IntelliFlo® Variable Speed Pump, the user must set the pump's internal clock and establish an operation schedule by following the steps in this manual. Please refer to user's guide sections: 'Set Time' (page 9) and 'Set Speeds 1-8 in Schedule Mode' (page 12) to schedule a time to run the pump.

⚠CAUTION This pump is shipped with Priming mode ENABLED. Unless the Priming settings are changed in the menu, **be aware that the pump will speed up to the maximum speed when the pump is powered on for the first time, and the Start/Stop button is pressed.** To change the maximum speed of the pump, refer to page 9.

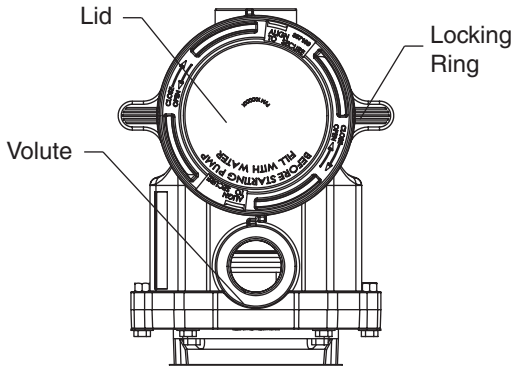
Before turning the pump ON, be sure the following conditions are met:
1. Open filter air relief valve.
2. Open valves.
3. Pool return is completely open and clear of any blockages.
4. Water in the pump basket.
5. Stand clear of the filter or other pressurized vessels.

Priming the Pump

Prime the pump before starting the pump for the first time. Remove the lid and fill the basket with water. The pump basket must be filled with water before initial start up or after servicing.

Follow the steps below to prime the pump for start up:

1. Press **Start/Stop** to stop the pump. Disconnect the pump main power supply and communication cable.
2. Close all valves in suction and discharge pipes. Relieve all pressure from the system.
3. Remove the pump lid and locking ring.
4. Fill the pump strainer pot with water.
5. Reassemble the pump lid and locking ring onto the strainer basket. The pump is now ready to prime.
6. Open all valves in suction and discharge pipes.
7. Open the filter air relief valve and stand clear of the filter.
8. Connect power to the pump. Be sure green power light is on.
9. Press **Start/Stop** to start the pump. The pump will enter into priming mode (if enabled) and speed up to the maximum speed set in the pump menu settings.
10. When water comes out of the filter air relief valve, close the valve. The system should now be free of air and recirculating water to and from the pool.
11. Do not allow your pump to run longer than 30 minutes time without developing full flow. If the pump does not prime, check your priming settings on the control panel or see the "Troubleshooting" section on pages 22-24.



Top View

Priming Features

The default priming setting is ENABLED.
The pump also allows you to set the following from the operator control panel:

- Priming speed
- Priming range (1-10)
- Priming delay

Set up instructions on page 16.

⚠CAUTION Do not add chemicals to the system directly in front of pump suction. Adding undiluted chemicals may damage the pump and will void the warranty.

⚠CAUTION This is a variable speed pump. Typically the lower speeds are used for filtration and heating. The higher speeds can be used for spa jets, water features, and priming.

⚠CAUTION DO NOT run the pump dry. If the pump is run dry, the mechanical seal will be damaged and the pump will start leaking. If this occurs, the damaged seal must be replaced. ALWAYS maintain proper water level in your pool (half way up skimmer opening). If the water level falls below the skimmer opening, the pump will draw air through the skimmer, losing the prime and causing the pump to run dry, resulting in a damaged seal. Continued operation in this manner could cause a loss of pressure, resulting in damage to the pump case, impeller and seal and may cause property and personal injury.

Using the Operator Control Panel

Use the operator control panel to start and stop the IntelliFlo® Variable Speed Pump, program, set, and change speeds (RPM), and access pump features and settings.

Controls and LEDs on Keypad

① **Button 1:** Press to select Speed 1 (750 RPM). LED on indicates Speed 1 is active.

② **Button 2:** Press to select Speed 2 (1500 RPM). LED on indicates Speed 2 is active.

③ **Button 3:** Press to select Speed 3 (2350 RPM). LED on indicates Speed 3 is active.

④ **Button 4:** Press to select Speed 4 (3110 RPM). LED on indicates Speed 4 is active.

⑤ **Back:** Goes one step back in menu; exits without saving current setting.

⑥ **Save:** Saves current menu item setting. When a parameter has been adjusted the "Save?" icon will be displayed.

⑦ **Menu:** Accesses the menu items when and if the pump is stopped.

⑧ **Select:** Press to select the currently displayed option on the screen.

⑨ **Arrow buttons:**

- **Up arrow:** Move one level up in the menu or increase a digit when editing a setting.
- **Down arrow:** Move one level down in the menu or decrease a digit when editing a setting.
- **Left arrow:** Move cursor left one digit when editing a setting.
- **Right arrow:** Move cursor right one digit when editing a setting.

⑩ **Quick Clean:** Pump increases to a higher RPM (for vacuuming, cleaning, adding chemicals, etc.). LED light is on when active.

⑪ **Time Out:** Allow the pump to remain in a stopped state for a set period of time before resuming normal operation. LED is on when active.

⑫ **Start/Stop button:** To start or stop the pump. When LED is on, the pump is running or in a mode to start automatically.

⑬ **Reset button:** Reset alarm or alert.

⑭ **LEDs:**

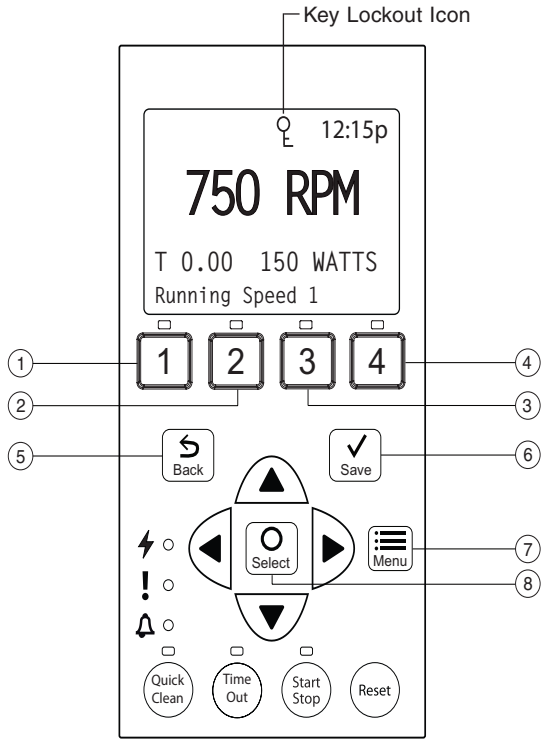
On: Green light when pump is powered on.

Warning: On if warning condition is present.

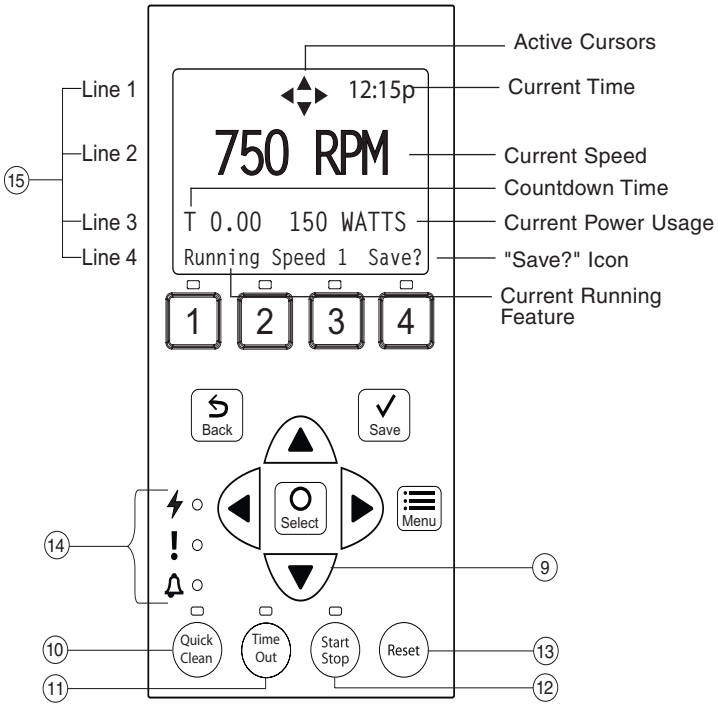
Alarm: Red LED on if alarm condition occurs. *See "Alerts and Warnings" on page 22.*

⑮ **Control Panel LCD Screen:**

- **Line 1:** Key icon indicates password protection mode is active. If password protect is not enabled, no key icon is displayed. Also shows current time of day. Active cursors display when arrow key input is available.
- **Line 2:** Displays current pump speed (RPM).
- **Line 3:** Countdown time and watts
- **Line 4:** Current pump status and current feature. "Save?" will display on this line when a parameter adjustment can be saved.



Control Panel #1-8



Control Panel #9-15

Note: Always close the keypad cover after using the keypad.

Note: Using screwdrivers or pens to program the pump will damage the keypad overlay. Use your fingers only when programming the pump.

Stopping and Starting the Pump

Starting the Pump

1. Be sure the pump is powered on and the green power LED is on.
2. Select one of the speed buttons, then press the **Start/Stop** button (LED on) to start the pump. The pump will go into priming mode if priming feature is enabled.

Stopping the Pump

1. Press **Start/Stop** to stop the pump.

When servicing equipment (filters, heaters, chlorinators etc.), disconnect the communication cable, and switch OFF circuit breaker to remove power from the pump.

Note: The pump can automatically restart if the communication cable is connected.

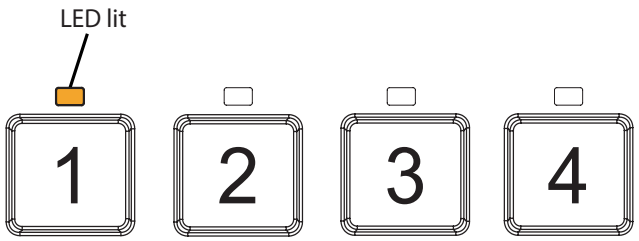
Adjusting and Saving a Pump Speed

1. While the pump is running, press the **Up** or **Down** arrow to adjust to desired speed setting.
2. Press and hold down a **Speed** button (1-4) for three (3) seconds to save speed to the button or press **Save** to save the speed.

Operating the Pump at Preset Speeds

The pump is programmed with four default speeds of 750, 1500, 2350 and 3110 RPM. Speed buttons 1-4 are for each of the preset speeds as shown below.

1. Be sure the pump is powered on and the green power LED is on.
2. Press the **Speed** button (1- 4) corresponding to the desired preset speed and release quickly. The LED above the button will turn on.
3. Press **Start/Stop**. The pump will quickly change to the selected preset speed.

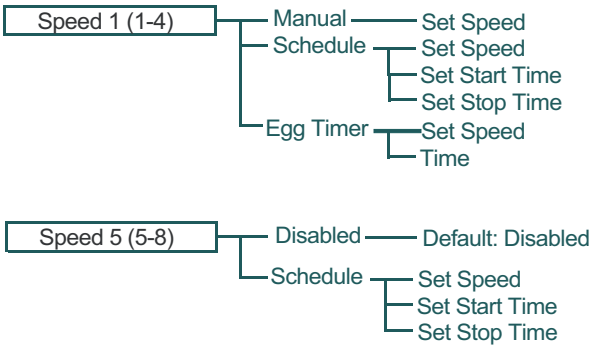


Pump Operating Modes

The IntelliFlo® Variable Speed Pump can be programmed in three different modes:

Manual, Schedule, and Egg Timer.

Speeds 1-4 can be programmed in all three modes. Speeds 5-8 can only be programmed in Schedule mode since there are no buttons on the control panel for Speeds 5-8. The default setting for Speeds 5-8 is “Disabled”.



Speed Menu Tree Options

Manual

Assigns a speed to one of the four Speed buttons on the control panel. This mode can only be used for speeds 1-4.

To operate in Manual mode, press one of the four speed buttons and then press the **Start/Stop** button. The pump will run the assigned speed for that speed button.

Egg Timer

Speeds 1-4 can be programmed to run at a certain speed and for a duration of time once a speed button is pressed.

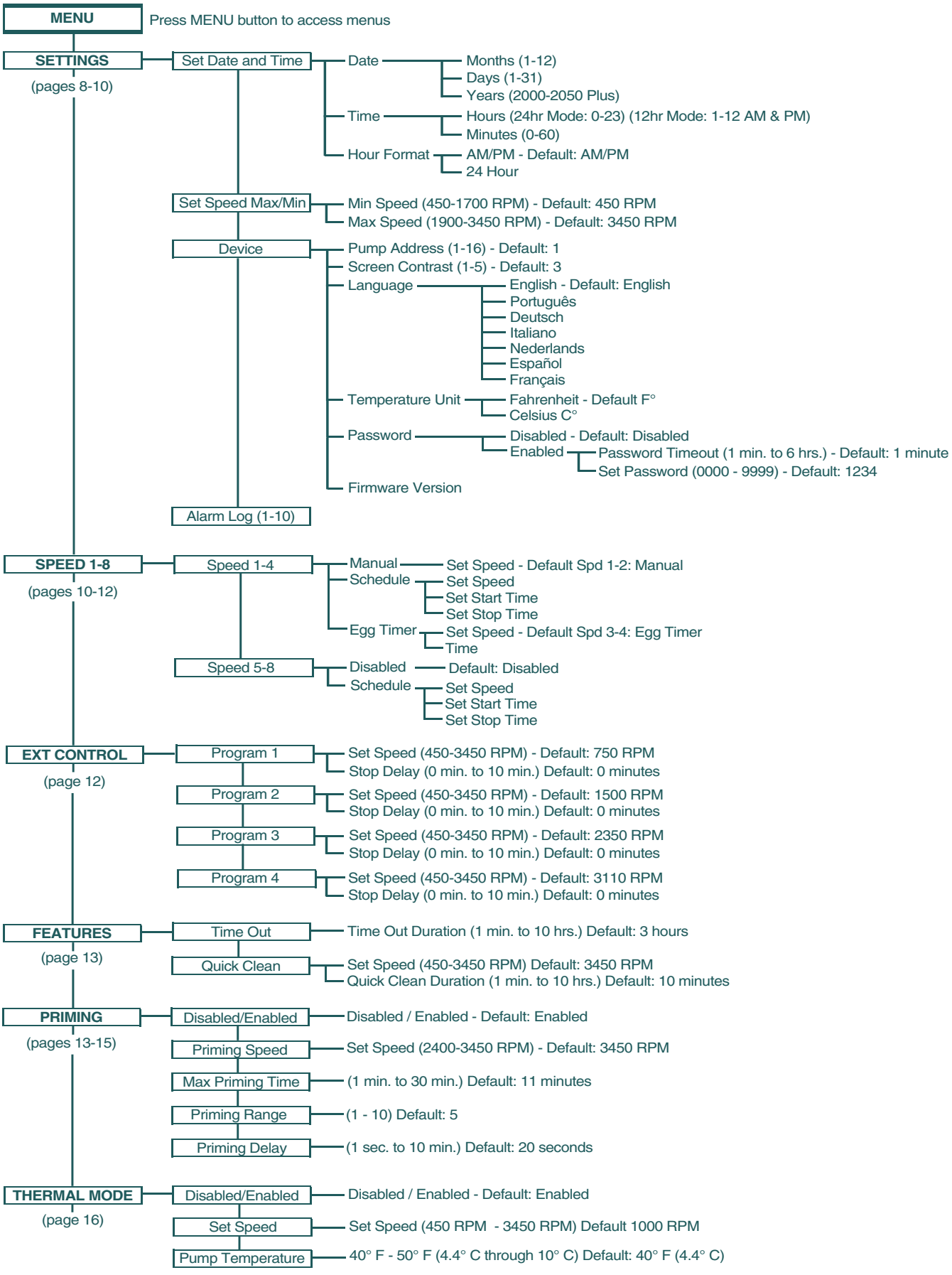
Speeds 3 and 4 are Egg Timers by default. This prevents the pump from running at a speed higher than half of the maximum speed indefinitely. If you desire a different method of operation, speeds 3 and 4 can be changed to Manual mode in the control menu.

To operate in Egg Timer mode, press a speed button and then press **Start/Stop**. The pump will run that speed for the set amount of time and then turn off.

Schedule

Program speeds 1-8 start and stop at a specific time during a 24 hour period. Speeds programmed in Schedule mode will override any manually selected speed (speeds set by manually pressing any of the speed buttons on the control panel).

Operator Control Panel: Pump Menu Guide



Pump Menu: Settings

Set Date and Time

The time controls all scheduled times, functions, and programmed cycles and stores the correct time for up to 96 hours after power is turned off. Reset if the power is off longer than 96 hours.

1. Check that the green power LED is on.
2. Press **Menu**.
3. Press **Select** to select “Settings”.
4. Use the **Up** or **Down** arrows to scroll to “Date and Time” and press **Select**.
5. Press **Select** again and use **Up** or **Down** arrows to set the date.
6. Press **Save** to save user input and return to "Date and Time."
7. Use the **Up** or **Down** arrows to scroll to “Time” and press **Select**.
8. Use the **Up** or **Down** arrows to scroll to set the time.

   Note: To set AM/PM or a 24 hour clock see the next section "Set AM/PM or 24 Hour Clock."
9. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
10. Press **Back** to exit.

Set AM/PM or 24 Hour Clock

To change the time from a 12 hour clock (AM/PM) to a 24 hour clock:

1. Press **Menu**.
2. Press **Select** to select “Settings”.
3. Use the **Up** or **Down** arrows to scroll to “Date and Time" and press **Select**.
4. Use the **Up** or **Down** arrows to scroll to "AM/PM" and press **Select**.
5. Use the **Up** or **Down** arrows to scroll to choose between 24 hr. and AM/PM.
6. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
7. Press **Back** to exit.

Set Minimum Speed (RPM)

The minimum pump speed can be set from 450 RPM to 1700 RPM. The default setting is 450 RPM.

1. Check that the green power LED is on.
2. Press **Menu**.
3. Press **Select** to select “Settings”.
4. Use the **Up** or **Down** arrows to scroll to “Min/Max”.
5. Use the **Up** or **Down** arrows to scroll to “Set Min Spd”.
6. Press **Select** to change the setting. The cursor will appear in the first number column (ones).
7. Press the **Up** or **Down** arrows to change the minimum speed setting from 450 to 1700 RPM.
8. Press **Save** to save. To cancel, press **Back** to exit edit mode without saving.
9. Press **Back** to exit.

Set Maximum Speed (RPM)

The maximum speed can be set from 1900 RPM to 3450 RPM (default is 3450). Use this setting to set the maximum running speed of the IntelliFlo® Variable Speed Pump.

1. Check that the green power LED is on.
2. Press **Menu.**
3. Press **Select** to select “Settings”.
4. Use the **Up** or **Down** arrows to scroll to “Min/Max”.
5. Use the **Up** or **Down** arrows to scroll to “Set Max Spd”.
6. Press **Select** to change. The cursor will appear in the first number column (ones).
7. Press **Up** or **Down** arrows to change the maximum speed setting from 1900 to 3450 RPM.
8. Press **Save** to save. Press **Back** to exit. To cancel, press the **Back** to exit without saving.

Note: Maximum Speed will limit Priming Speed, except in one case. If the Maximum Speed is set below the lowest available Priming Speed (2350 RPM) then the pump will exceed the Maximum Speed while the priming feature is running. This prevents the pump from having trouble priming if the Maximum Speed is set this low. If this is a problem, priming can be disabled in the Priming Menu (see “Priming” section on page 14).

Pump Address

Use this setting if your pump is connected via the RS-485 COM port to a Pentair automation system.

The default pump address is #1 and only needs to be changed when there is more than one pump on an automation system. When multiple pumps are on the same system, you may change each pump’s address to allow the automation system to send a command to the correct pump. The pump address can be set from 1-16.

Refer to the automation system manual for further details on how to connect and use an automation system with your variable speed pump.

1. Be sure the green power LED is on and the pump is stopped.
2. Press **Menu.**
3. Press **Select** to select “Settings”.
4. Use the **Up** or **Down** arrows to scroll to “Device” and press **Select**.
5. Use the **Up** or **Down** arrows to scroll to “Pump Address” and press **Select**.

MENU

SETTINGS — **Pump Menu: Settings**

Pump Address (cont.)

6. Press **Up** or **Down** arrows to change the address number from 1-16.
7. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
8. Press **Back** to exit.

Set Screen Contrast

The default setting for the LCD screen is 3. Screen contrast levels can be adjusted from 0 to 7 units for low or high lighting conditions.

Note: Changes to the contrast setting do not update instantaneously. Changes to this setting must be saved before the contrast level changes.

1. Check that the green power LED is on.
2. Press **Menu**.
3. Press **Select** to select “Settings”.
4. Use the **Up** or **Down** arrow to scroll to “Device” and press **Select**.
5. Use the **Up** or **Down** arrow to scroll to “Contrast Level."
6. Press **Select**. Screen will show current contrast setting number. Use **Up** or **Down** to change number.
7. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
8. Press the **Back** button to exit.

Set Control Panel Language

To access the language menu:

1. Check that the green power LED is on.
2. Press **Menu** and press **Select** to select “Settings”.
3. Use the **Up** or **Down** arrows and scroll to “Device” and press **Select**.
4. Use the **Up** or **Down** arrows to scroll to “Select Language and press **Select**.
5. Use the **Up** or **Down** arrows to choose the desired language.
6. Press **Save** to select the control panel language. To cancel any changes, press **Back** to exit without saving.
7. Press **Back** to exit.

Set Temperature Unit

The default setting is Fahrenheit (°F). The pump can be set to either Celsius (°C) or Fahrenheit (°F).

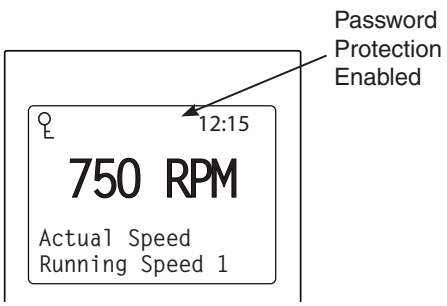
1. Check that the green power LED is on.
2. Press **Menu**.
3. Press **Select** to select “Settings”.
4. Use the **Up** or **Down** arrows to scroll to “Device” menu item. Press **Select**.
5. Use **Up** or **Down** arrows to scroll to "Temperature Units" and press **Select**.
6. Use **Up** or **Down** arrows to choose Celsius (°C) or Fahrenheit (°F).
7. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.
8. Press **Back** to exit.

Password Protection

The default setting for password protection is disabled. When this feature is enabled, the pump display will prompt for the password before allowing access to the control panel and buttons.

The entered password is any combination of four (4) digits.

- The pump can always be stopped by pressing **Start/Stop**, even when password protection is enabled.
- Password protection cannot be turned back on with **Start/Stop** while running in manual mode.
- Pressing **Start/Stop** when the pump is off will return it back to the Running Cycles Mode and run at the next scheduled run time. If the present time is within the scheduled run time, the pump will run the scheduled speed.
- All functions including programming are disabled in Password Protection Mode.
- Screen will read “Enter Password” if any button other than the **Start/Stop** button is pressed
- Key icon displayed in the upper left side of the screen when Password Protection is on.



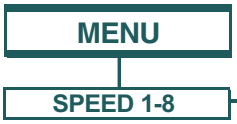
Pump Menu: Settings

Setting Password

1. Check that the green power LED is on.
2. Press **Menu**. Press **Select** to select “Settings”.
3. Use the **Up** or **Down** arrow to scroll to “Device”.
4. Press **Select.**
5. Press **Up** or **Down** arrow to scroll to “Password”. The default setting is “Disabled”.
6. Press **Select.**
7. Press **Up** or **Down** arrow to change the setting to “Enabled”. Press **Save** to save.
8. Press the **Down** arrow. “Password Timeout” will be displayed. The factory default time is 1 minute. This means the IntelliFlo® Variable Speed Pump will go into Password Protection mode 1 minute after the last control panel key is pressed.
9. Press **Select** to change time setting from 1 minute to 6 hours and press **Save** to save.
10. Press the **Down** arrow and then press **Select** on “Enter Password” to change the setting.
11. Press the **Left** or **Right** arrows to move cursor and press the **Up** or **Down** arrow to change the password number to desired setting.
12. Press **Save** to save. To cancel any changes, press **Back** to exit without saving.

Entering Password

1. Press any button (besides the speed button) to prompt the screen for a password.
2. To enter password, use the **Left** and **Right** arrows to move the cursor and the **Up** and **Down** arrow button to scroll through the digit then press **Save** to confirm.

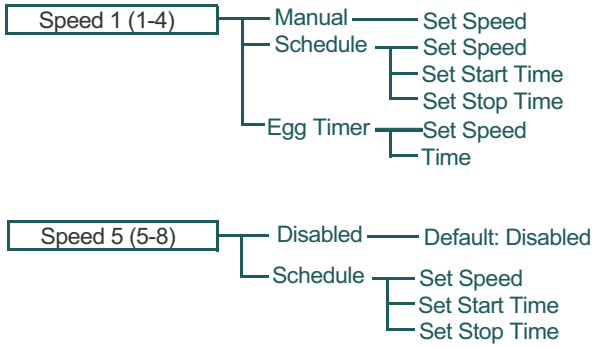


Pump Menu: Speeds 1-8

Pump Operating Modes

The IntelliFlo® Variable Speed Pump can be programmed in three different modes:

Manual, Schedule, and Egg Timer. Speeds 1-4 can be programmed in all three modes. Speeds 5-8 can only be programmed in Schedule mode since there are no buttons on the control panel for Speeds 5-8. The default setting for Speeds 5-8 is “Disabled”.



Speed Menu Tree Options

Manual

Assigns a speed to one of the four Speed buttons on the control panel. This mode can only be used for speeds 1-4.

To operate in Manual mode, press one of the four speed buttons and then press the **Start/Stop** button. The pump will run the assigned speed for that speed button.

Egg Timer

Speeds 1-4 can be programmed to run at a certain speed and for a duration of time once a speed button is pressed.

Speeds 3 and 4 are Egg Timers by default. If you desire a different method of operation, speeds 3 and 4 can be changed to Manual mode in the control menu.

To operate in Egg Timer mode, press a speed button and then press **Start/Stop**. The pump will run that speed for the set amount of time and then turn off.

Schedule

Program speeds 1-8 start and stop at a specific time during a 24 hour period. Speeds programmed in Schedule mode will override any manually selected speed (speeds set by manually pressing any of the speed buttons on the control panel).

MENU

SPEED 1-8 — **Pump Menu: Speeds 1-8**

Set Speeds in Manual Mode (Speeds 1-4 Only)

1. Press **Menu**.
2. Use **Up** or **Down** arrows to scroll to “Speed 1-8”, then press **Select**.
3. Use **Up** or **Down** arrows to find the speed (1-4) you wish to program, then press **Select**.
4. Speeds 1-2 default setting is Manual. Speeds 3-4 default setting is Egg Timer. To set a speed in Manual mode, press the **Down** arrow (“Set Speed” will display) and press **Select** to change. Use the **Up** or **Down** arrow to adjust speed.
5. Press **Save** to save the new speed setting.

Set Speeds in Egg-Timer Mode (Speeds 1-4 Only)

1. Press **Menu**.
2. Use **Up** or **Down** arrows to scroll to "Speed 1-8", the press **Select**.
3. Use **Up** or **Down** arrow to find the speed (1-4) you wish to program, then press **Select**.
4. Use the **Up** or **Down** arrows to scroll to "Egg-Timer", then press **Select**.
5. To set a speed in Egg-Timer mode, press the **Down** arrow ("Set Speed" will display) and press **Select** to change. Use the **Up** or **Down** arrow to adjust speed.
6. Press **Save** to save the new speed setting.
7. Now press the **Down** arrow ("Set Time" will display) and press **Select** to change. Use the **Up** or **Down** arrows to adjust the time.
8. Press **Save** to save the new time setting.

Manual Mode Menu Screen

Egg Timer Menu Screen

Set Speeds 1-8 in Schedule Mode

In Schedule mode, Speeds 1-8 can be programmed to run a certain speed at a certain time of day. To run a scheduled speed, press **Start/Stop**. The screen will display “Running Schedules” when it is ready to run a scheduled speed. If **Start/Stop** is pressed while a scheduled speed is running, the pump will stop running the scheduled speed. The pump will not continue to run the scheduled speed until the **Start/Stop** button is pressed again.

1. Press **Menu**.
2. Use **Up** or **Down** arrows to scroll to “Speed 1-8”, then press **Select**.
3. Use **Up** or **Down** arrows and press **Select** for the speed you wish to set and schedule.
4. Press **Select** (display will be highlighted) and scroll to “Schedule”.
5. Press **Save**.
6. Press **Down** arrow (“Set Speed” will display) and press **Select** to change. Use the **Up** or **Down** arrow to adjust speed.
7. Press **Save** to save the new speed.
8. Press the **Down** arrow again, “Set Start Time” will display. Press **Select** - the cursor will highlight the minute column.
9. Use the **Up** or **Down** arrow to change the time and the **Left** or **Right** arrow to move cursor from minutes to hours.
10. Press **Save** to save the new start time setting.
11. Press **Down** arrow - “Set Stop Time” will display. Press **Select**. Repeat Steps 8-9 to set stop time.
12. Press **Save** to save the new stop time setting.
13. Press **Start/Stop**.

The IntelliFlo® Variable Speed Pump will prime and begin to run the programmed schedule at the specified start time.

When running in Schedule or Egg Timer mode, the countdown time (T 00:01) showing the hours and minutes remaining is displayed.

MENU

SPEED 1-8

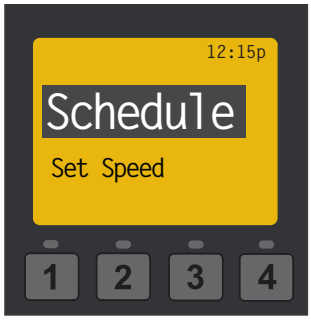
Pump Menu: Speeds 1-8

Set Speeds 1-8 in Schedule Mode (cont.)

Programming Schedule for Constant Run

A speed cannot be programmed with the same start and stop times. To run a speed without stopping, set the Start time one minute after the stop time.

Example: A single speed will run non stop if programmed with a Start Time of 8:00 AM and a Stop time of 7:59 AM.



Note: The pump will not run the scheduled speeds until the **Start/Stop** button is pressed (LED on) to place the pump in Schedule mode.

Note: When two speeds are scheduled during the same run time the pump will run the higher RPM Speed regardless of Speed # in use.

Note: The most recent command, Manual or Schedule, takes priority regardless of speed number RPM.

MENU

EXT CONTROL

Pump Menu: External Control

External Control

This function is for programming speeds that will run when the automation control system sends it a command. For example, Terminal 3 and 4 in the automation system will correspond to External Control Program #1. (5 and 6 to Ext Ctrl #2).

The Stop Delay feature allows the user to program the pump to run a Program Speed after the External Control has been deactivated. This feature can be used to provide a cooling down period for the pump after a trigger signal from an installed heater has been deactivated. Each individual Program Speed can have a Stop Delay of 1 to 10 minutes programmed.

Use the External Control feature to program the IntelliComm system power center.

To access the External Control menu:

1. Check that the green power LED is on.
2. Press the **Menu** button.
3. Use **Up** or **Down** arrow to scroll to “Ext. Ctrl.”.
4. Press **Select**. “Program 1” is displayed.
5. Press **Select**. “750 RPM’ is displayed.
6. Press **Select**. The “RPM” number will highlight.
7. Press **Up** or **Down** arrow to change the RPM setting.
8. Press **Save** to save the setting.

   Note: To cancel any changes, press the **Back** button to exit without saving.
9. If you do not wish to program a Stop Delay, continue to step 13. If you do wish to program a Stop delay press **Up** or **Down** arrow to scroll to “Stop Delay”.
10. Press **Select** to set Stop Delay.
11. Press **Up** or **Down** arrows to change the Stop Delay setting. Stop Delay can be set from 0 minutes (disabled) to 10 minutes.
12. Press **Save** to save the setting.

    Note: To cancel any changes, press the **Back** button to exit without saving.
13. Press **Back** to return to set Program 2.
14. Use **Up** or **Down** arrow to scroll to “Program 2”.
15. Repeat Steps 5 through 13 to set Program 2, 3, and 4.

MENU

FEATURES — **Pump Menu: Features**

Time Out

The Time Out feature keeps the pump from running it's programmed speeds for a set duration adjustable in the menu. The Time Out feature is displayed in hours and minutes (Hrs:Mins).

Once Time Out is finished, the pump will return to its previous mode of operation, the Start/Stop LED will be lit and ready to turn on at the next scheduled run time.

To access the Time Out menu:

1. Check that the green power LED is on.
2. Press **Menu**.
3. Use **Up** or **Down** arrows to scroll to "Features", then press **Select**.
4. Press **Select** to choose "Timeout".
5. Then press **Select** again to choose "Timeout Duration".
6. Press **Select** to change the time. The cursor will highlight the minutes column.
7. Press the **Left** arrow to move cursor to the hours column. Time out can be set from 1 minute to 10 hours.
8. Press **Save** to save the setting.

   Note: To cancel any changes, press **Back** to exit without saving.
9. Press **Back** to exit the menu.

Quick Clean

Note: Quick Clean is the only high-speed override feature of the IntelliFlo® Variable Speed Pump.

This feature can be used to increase the pump speed for vacuuming, cleaning, adding chemicals, after a storm for extra skimming capability.

Press the **Quick Clean** button (LED on) and then **Start/Stop** to start. When the Quick Clean cycle is over, the pump will resume regular schedules and be in "Running Schedule" mode.

To access the Quick Clean menu:

1. Check that the green power LED is on and the pump is stopped.
2. Press **Menu**.
3. Use **Up** or **Down** arrows to scroll to "Features", then press **Select**.
4. Press the **Down** arrow and press **Select** for "Quick Clean".
5. Press **Select** to choose "Set Speed".
6. Press **Select** to highlight the "RPM" first (ones) column and change the speed.
7. Use **Up** or **Down** arrows to change the speed.
8. Press **Save** to save the speed.
9. Press the **Down** arrow again, and press **Select** for "Time Duration".
10. Press **Select** to change the time. The cursor will highlight the minutes column.
11. Use **Up** or **Down** arrows to change the time from 1 minute to 10 hours.
12. Press **Save** to save the time.
13. Press **Back** to exit the menu.

MENU

PRIMING — **Pump Menu: Priming**

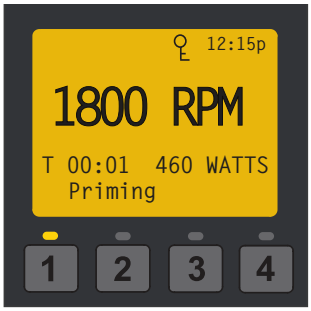
The default setting for Priming is ENABLED. This setting allows the pump to automatically detect if it is primed for startup.

The priming feature increases the pump speed to 1800 RPM and pauses for three (3) seconds. If there is sufficient water flow in the pump basket, the pump will go out of priming mode and run its commanded speed.

If the water flow is not sufficient, the pump speed will increase to the "Max Speed" setting and remain for the priming delay time (default 20 seconds). If there is sufficient water flow in the pump basket at this time, it will exit priming mode and transition to the commanded speed.

If there is still insufficient flow in the pump basket, as determined by the Priming Range setting, the pump will try to prime at the "Priming Speed" for the amount of time set in the "Maximum Priming Time" menu, unless the set "Maximum Speed" is lower than the set "Priming Speed". Once the pump achieves prime, it will resume normal operation after the preset priming delay.

Note: It is possible to set "Maximum Speed" too low for the pump to properly prime. Maximum Speed will limit Priming Speed, except in one case. If the Maximum Speed is set below the lowest available Priming Speed (2350 RPM) then the pump will exceed the Maximum Speed while the priming feature is running. This prevents the pump from having trouble priming if the Maximum Speed is set this low. If this is a problem, priming can be disabled in the Priming Menu.



Display during priming

MENU

PRIMING — **Pump Menu: Priming**

Priming Features

DISABLED/ENABLED

Default: ENABLED

Allows IntelliFlo® Variable Speed Pump to automatically detect if pump if is primed for startup. The pump will speed up to 1800 RPM and pause for three (3) seconds - if there is enough water in the basket, the pump will go out of priming mode and run the commanded speed.

SET SPEED

Default: 3450 RPM

The priming speed can be set between 3450 RPM and 2350 RPM. If the pump is on an equipment pad that is close to the water level, it will not need to run at 3450 RPM to successfully prime. The setting can be lowered to prevent running at a higher speed than necessary.

Day to day factors (i.e. local ambient pressure, water/air temperatures, amount of water retained from last system run) can effect priming performance. Because of the frequently changing nature of these factors the priming speed should be set high enough to accommodate environmental and mechanical changes to ensure that the pump can successfully prime. Finding the most effective and efficient speed for your specific needs may take careful testing and evaluation of priming performance.

MAX PRIMING TIME

Default: 11 minutes

The maximum priming time can be set from 1 - 30 minutes. This setting is the amount of time the pump will try to prime before it gives a priming error. If this occurs, fill the pump basket with water and restart the pump.

PRIMING RANGE

Default: 5

Priming range can be set from 1-10. The smaller the range, the more water the pump has to be moving to detect that it is primed. At larger ranges, the pump will detect that it is fully primed while moving less water. If the range is set too high, then the pump may exit Priming mode before it has fully primed. The range will automatically adjust with the priming set speed because the flow rates of the pump will be lower at lower speeds.

PRIMING DELAY

Default: 20 seconds

Priming delay can be set from 1 second to 10 minutes.

If the pump does not have enough water after the automatic priming mode, the pump will increase to the Maximum Speed (under “Pump Settings” on page 9) and run for 20 seconds (or for the time set).

You may need to increase the priming delay to allow the system to stabilize before the pump starts running speeds. If pump continues to show a priming error, increasing the priming delay time might correct this issue.

MENU

PRIMING

Pump Menu: Priming

Setting Priming Features

Note: Priming features are only accessible if priming is “Enabled”.

1. Press **Menu**.
2. Use **Down** arrow to scroll to “Priming” and press **Select.**
3. The factory default is set to priming “Enabled“. To disable, press **Select**.
4. Press **Save** if you have changed the setting - this will save the selection.
5. Press the **Down** arrow - the screen will read “Max Priming Time”.
6. To change from factory default, press **Select.** The cursor will highlight.
7. Use the **Up** or **Down** arrows to change the time from 1 minute to 30 minutes.
8. Press **Save** to save.
9. Press the **Down** arrow - the screen will read “Priming Range”. Default is “5”.
10. Press **Select** to change the priming range. The cursor will highlight the number.
11. Use the **Up** or **Down** arrows to change from 1 to 10. Increasing the number allows the drive to detect prime with less water flow.
12. Press **Save** to save.
13. Press the **Down** arrow - the screen will read “Priming Delay”. Default is 20 seconds.
14. Press **Select** to change the priming delay time.
15. Use the **Up** or **Down** arrows to change from 1 second to 10 minutes.

    CAUTION: Increasing the time causes the pump to stay in the priming mode longer.
16. Press **Save** to save the setting.
17. Press **Back** to exit.

Disabling Priming with an Automation System

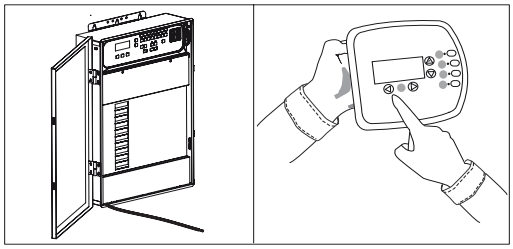
When the IntelliFlo® Variable Speed Pump is connected to an automation control system, ***the priming feature on the pump cannot be disabled by the external automation control system only. It must also be disabled on the pump itself.***

If priming is enabled on start up, the pump responds to its internal settings *before* responding to commands from an automation control system.

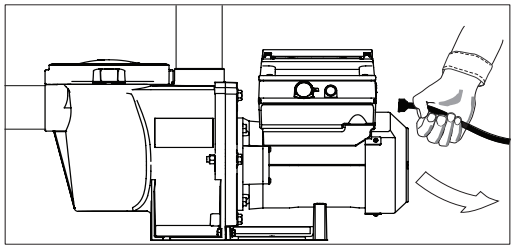
If the pump is connected to an automation control system and priming is not desired, ***disable the priming feature on both the pump and the automation control system.***

To disable priming with an automation system:

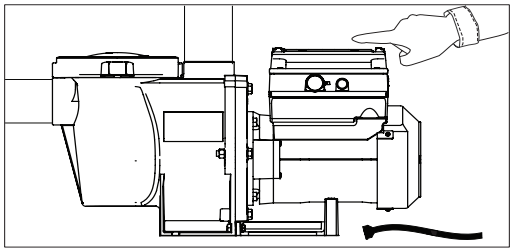
1. Disable the priming feature on the automation control system at the load center or using a system remote. (Refer to the automation control system user’s guide for additional information).
2. Temporarily disconnect the RS-485 communication cable.
3. Open the lid to the control panel to disable priming on the pump. Press **Menu**, use the **Arrow** buttons to scroll and select “Priming”, then select “Disabled” (the factory default is set to “Enabled”). Press **Back** to exit the menu.
4. Once priming is disabled, reinstall the RS-485 communication cable.



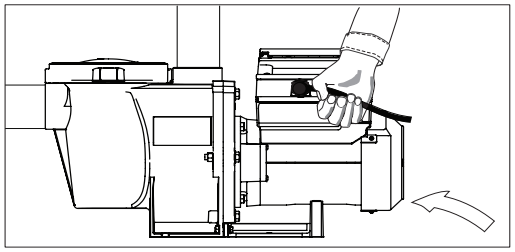
1. Disable priming on automation control system.



2. Disconnect the RS-485 communication cable.



3. Disable priming on pump.



4. Reinstall the RS-485 communication cable.

MENU

THERMAL MODE

Pump Menu: Thermal Mode

The sensor for Thermal Mode is in the drive, on top of the motor. This feature allows you to set a speed (450 RPM - 3450 RPM) that runs when the IntelliFlo® Variable Speed Pump goes into Thermal Mode. The temperature level that you wish Thermal Mode to start can also be set.

IMPORTANT NOTE: This feature is for protection of the pump. Do not depend on the Thermal Mode feature for freeze protection of the pool. Certain situations could cause the pump to sense a different temperature than actual air temperature.

Your automation systems air temperature sensor should be used to sense actual temperature. For example, if the pump is located indoors, the temperature of the room does not indicate the outdoor temperature. The pump does not sense the water temperature.

To access the Thermal Mode menu:

1. Check that the green power LED is on.
2. Press **Menu**.
3. Use the **Down** arrow to scroll to “Thermal Mode” and press **Select**.
4. The factory default for Thermal Mode is “Enabled“. To disable Thermal Mode, press **Select** to highlight “Enabled”.
5. Press the **Up** arrow - “Disabled” is displayed.
6. Press **Save** to save.

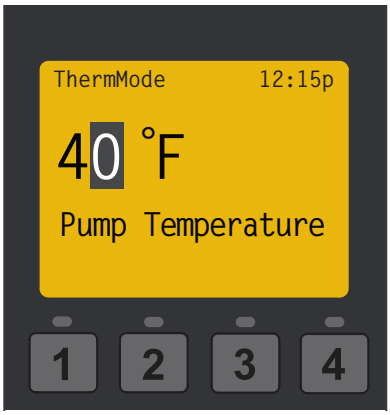
Setting the Thermal Mode Pump Speed

To Set Thermal Mode Speed and Pump Temperature:

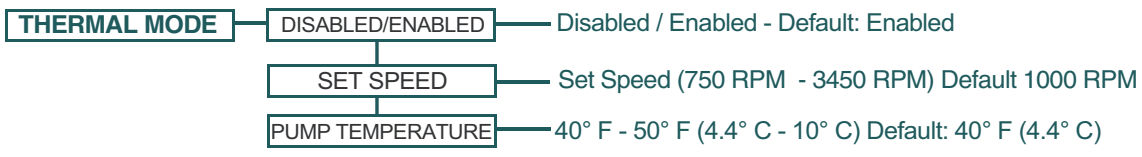
Note: Thermal Mode features are only accessible if Thermal Mode is “Enabled”.

1. With “Thermal Mode” displayed on the screen, press the **Down** arrow - “Set Speed” is displayed. The factory default is 1000 RPM.
2. Press **Select** to change the speed. The cursor will highlight the first column (ones).
3. Use the **Up** or **Down** arrows to set speed (450 - 3450 RPM).
4. Press **Save** to save the speed.
5. Press the **Down** arrow to Pump Temperature (the temperature the pump will activate Thermal Mode, default is 40° F/4.4° C).
6. Press **Select** to change the setting. The cursor will highlight the first column. Can be set 40° F to 50° F (4.4° C - 10° C).
7. Press **Save** to save the temperature setting.

   Note: To cancel any changes, press **Back** to exit without saving.
8. Press **Back** to exit.



Setting the Thermal Mode Pump Temperature



Thermal Mode Menu Options

MAINTENANCE

⚠WARNING **DO NOT** open the strainer pot if IntelliFlo® Variable Speed Pump fails to prime or if pump has been operating without water in the strainer pot. Pumps operated in these circumstances may experience a build up of vapor pressure and may contain scalding hot water. Opening the pump may cause serious personal injury. In order to avoid the possibility of personal injury, be sure the suction and discharge valves are open and strainer pot temperature is cool to touch, then open with extreme caution.

⚠CAUTION To prevent damage to the pump and for proper operation of the system, clean pump strainer and skimmer baskets regularly.

Pump Strainer Basket

The strainer basket (or 'strainer pot'), is located in front of the pump housing. The strainer basket must be kept clean and free of debris. Inspect basket through the lid on the top of the housing. Be sure to visually inspect the strainer basket at least once a week. Dirty strainer baskets reduce filter and heater efficiency and put abnormal stress on the pump motor.

Cleaning the Pump Strainer Basket

1. Press **Start/Stop** button on the pump and turn off the pump at the circuit breaker. Disconnect communication cable from pump.
2. Relieve pressure in the system.
3. Turn the lid and clamp counter-clockwise and remove from the pump.
4. Remove debris and rinse out the basket. Replace the basket if it is cracked.
5. Put the basket back into the housing. Be sure to align the notch in the bottom of the basket with the rib in the bottom of the volute.
6. Fill the pump pot and volute up to the inlet port with water.
7. Clean the lid and clamp, O-ring, and sealing surface of the pump pot.

   Note: It is important to keep the lid O-ring clean and well lubricated.
8. Reinstall the lid by placing the clamp and lid on the pot. Be sure the lid O-ring is properly placed.

   Seat the clamp and lid on the pump then turn clockwise until the locking ring handles are perpendicular to the inlet.
9. Turn the power "ON" at the circuit breaker. Reconnect communication cable from pump.
10. Open the manual air relief valve on the top of the filter. Stand clear of the filter.
11. Wait until all pressure is relieved. Start the pump.
12. Bleed air from the filter until a steady stream of water comes out of the filter air relief valve. Close the manual air relief valve.

⚠WARNING **THIS SYSTEM OPERATES UNDER HIGH PRESSURE.** When any part of the circulating system (e.g., Lock Ring, Pump, Filter, Valves, etc.) is serviced, air can enter the system and become pressurized. Pressurized air can cause the lid to separate which can result in serious injury, death, or property damage.

To avoid this potential hazard, follow above instructions.

Winterizing

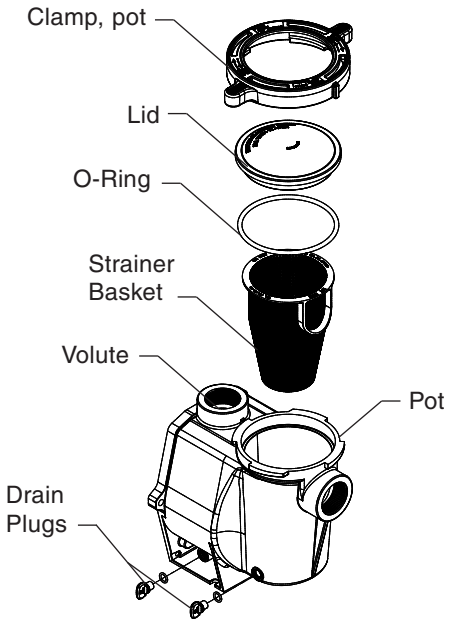
To protect the pump electronics from freeze damage, the pump will switch on to generate internal heat as the temperature drops below freezing if Thermal Mode is enabled. *The Thermal Mode feature on the pump is not intended to protect the system plumbing from freezing.*

- In mild climate areas, when temporary freezing conditions may occur, run your filtering equipment all night to prevent freezing.
- You are responsible for determining when freezing conditions may occur. If freezing conditions are expected, take the following steps to reduce the risk of freeze damage. ***Freeze damage is not covered under warranty.***

To prevent freeze damage, follow the procedures below:

1. Shut off electrical power for the pump at the circuit breaker.
2. Drain the water out of the pump housing by removing the two thumb-twist drain plugs from the housing. Store the plugs in the pump basket.
3. Cover the motor to protect it from severe rain, snow and ice.

Note: The motor may be covered during a storm, winter storage, etc., but never when operating or expecting operation. Never wrap motor with plastic or other air tight materials during winter storage.



Strainer Pot Assembly

SERVICING

⚠WARNING Always disconnect power to the IntelliFlo® Variable Speed Pump at the circuit breaker and disconnect the communication cable before servicing the pump. Failure to do so could result in death or serious injury to service people, users or others due to electric shock. Read all servicing instructions before working on the pump.

⚠WARNING **DO NOT** open the strainer pot if pump fails to prime or if pump has been operating without water in the strainer pot. Pumps operated in these circumstances may experience a build up of vapor pressure and may contain scalding hot water. Opening the pump may cause serious personal injury. In order to avoid the possibility of personal injury, be sure the suction and discharge valves are open and strainer pot temperature is cool to touch, then open with extreme caution.

⚠CAUTION Be sure not to scratch or mar the polished shaft seal faces; seal will leak if faces are damaged. The polished and lapped faces of the seal could be damaged if not handled with care.

Motor and Drive Care

Protect from heat

1. Shade the motor from the sun.
2. Any enclosure must be well ventilated to prevent overheating.
3. Provide ample cross ventilation.
4. Provide a minimum clearance of three (3) inches behind the motor fan for proper circulation.

Protect against dirt

1. Protect from any foreign matter.
2. Do not store (or spill) chemicals on or near the motor.
3. Avoid sweeping or stirring up dust near the motor while it is operating.
4. If a motor has been damaged by dirt it may void the motor warranty.

Protect against moisture

1. Protect from continuous splashing or continuous sprayed water.
2. Protect from extreme weather such as flooding.
3. If motor internals have become wet - let it dry before operating. Do not allow the pump to operate if it has been flooded.
4. If a motor has been damaged by water it may void the motor warranty.
5. Be sure to close the keypad cover after every use.

Shaft Seal Replacement

The Shaft Seal consists primarily of two parts, a rotating ceramic seal housed in the impeller and a stationary spring seal in the sealplate. The pump requires little or no service other than reasonable care, however, a shaft seal may occasionally become damaged and must be replaced.

Note: The polished and lapped faces of the seal could be damaged if not handled with care.

Pump Disassembly

Tools required:

- 3/32 inch Allen head wrench
- Two (2) 9/16 inch open end wrenches
- 1/4 inch Allen head wrench
- No. 2 Phillips head screwdriver
- Adjustable wrench

To remove and repair the motor subassembly, follow the steps below:

1. Turn off the pump circuit breaker at the main panel.
2. Disconnect the RS-485 communication cable from the pump (if connected to pump).
3. Drain the pump by removing the drain plugs. No tools are required.
4. Remove the four (4) Phillips head screws from the outer corners of the drive top cover.
5. Disconnect the keypad top cover from the drive and set it to the side in a safe place.
6. Remove the three (3) Phillips head screws, located inside the drive, that anchor the drive to the motor.
7. Remove the drive by lifting upwards to separate it from the motor.
8. Use the 9/16 inch wrenches to remove the six (6) bolts that hold the housing (strainer pot/volute) to the rear subassembly.
9. Gently pull the two pump halves apart, removing the rear subassembly.
10. Use a 3/32 inch Allen head wrench to loosen the two (2) holding screws located on the diffuser.
11. Hold the impeller securely in place and remove the impeller lock screw by using a Phillips head screwdriver. The screw is a left-handed thread and loosens in a clockwise direction.

    ⚠CAUTION The pump impeller may have sharp edges that could potentially cut or scratch the user's hands. Pentair recommends that safety gloves be worn when holding the impeller during disassembly and reassembly.

12. Use a 1/4 inch Allen head wrench to hold the motor shaft. The motor shaft has a hex-shaped socket on the end which is accessible through the center of the fan cover.
13. To unscrew the impeller from the shaft, twist the impeller counterclockwise.
14. Remove the four (4) bolts from the seal plate to the motor, using a 9/16 inch wrench.
15. Place the seal plate face down on a flat surface and tap out the carbon spring seat.
16. Clean the seal plate, seal bore, and the motor shaft.

- Pump illustrated parts view on the next page -

Pump Reassembly

1. When installing the replacement shaft seal, use silicone sealant on the metal portion before pressing into the seal plate as shown.

   Note: Use extreme care when applying sealant. Be sure no sealant contacts the seal plate surface or the ceramic seal. Allow sealant to cure overnight before reassembling.
2. Before installing the rotating portion of the seal into the impeller, be sure the impeller is clean. Use a light density soap and water to lubricate the inside of the seal. Press the seal into the impeller with your thumbs and wipe off the ceramic and carbon faces with a clean cloth.
3. Remount the seal plate to the motor.
4. Screw in the impeller lock screw (counterclockwise to tighten).
5. Remount the diffuser onto the seal plate. Be sure the plastic pins and holding screw inserts are aligned.

   Note: Ensure that the seal plate o-ring is clean and free of debris.
6. Grease the diffuser o-ring and seal plate gasket prior to reassembly.
7. Assemble the motor subassembly to the pump housing by using the two (2) through bolts for proper alignment. Do not tighten the through bolts until all six (6) bolts are in place and finger tightened.

   Note: Ensure that the seal plate gasket is properly seated inside of the pump assembly. The seal gasket can be pinched between the seal plate and the pump housing while tightening these six (6) screws, preventing a proper seal and producing a slow leak when the pump is restarted.
8. Reinstall the drive onto the top of the motor.
9. Fill the IntelliFlo® Variable Speed Pump with water.
10. Reinstall the pump lid and plastic clamp. See “Cleaning the Pump Strainer Basket” on page 18 for details
11. Reconnect the RS-485 communication cable to the pump.
12. Prime the pump; refer to “Priming the Pump” on page 5.

Drive Assembly Removal and Installation

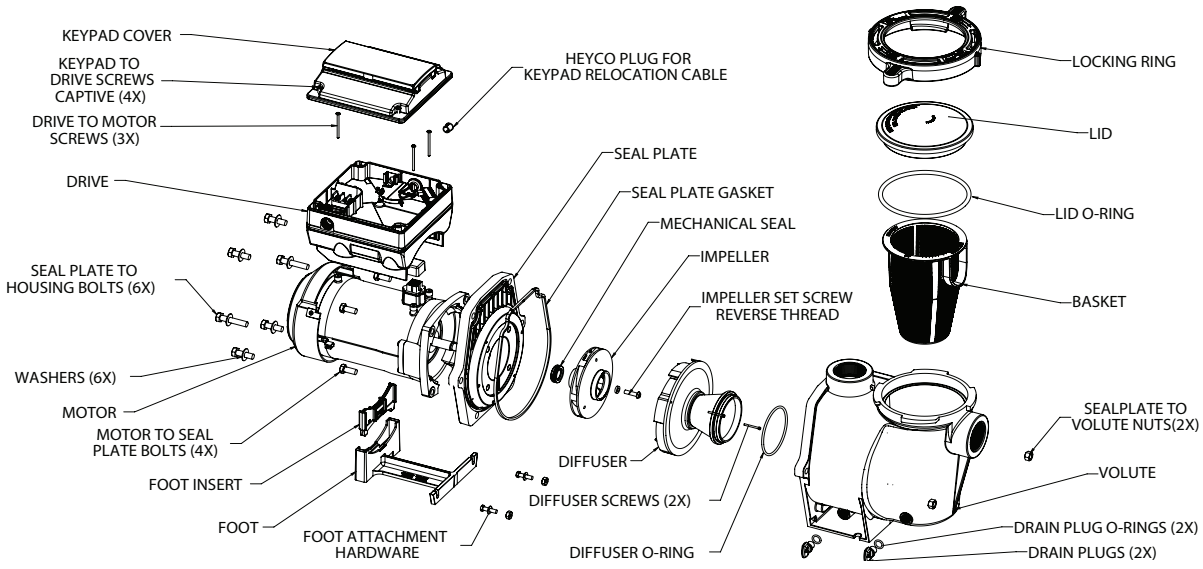
⚠WARNING To avoid dangerous or fatal electrical shock hazard, switch OFF power to motor before working on pump or motor.

⚠CAUTION To avoid electrical hazard, never remove the four torx-head screws from the intermediate drive cover. There is a capacitor bank that holds an electrical charge even when there is no power supplied to the pump.

To remove the drive and control panel from the motor assembly:

1. Be sure all electrical breakers and switches are turned off before removing the control panel.
2. Disconnect the RS-485 communication cable from the pump.
3. Remove the four (4) Phillips head screws from the outer corners of the drive top cover.
4. Unplug the keypad top cover from the drive and set it to the side in a safe place.
5. Remove the three (3) Phillips head screws, located inside the drive, that anchor the drive to the motor.
6. Lift up the drive assembly and remove it from the motor adapter located on top of the motor assembly.

   Note: Be careful not to remove the gasket between the drive and motor, it is critical in keeping moisture out of the drive and motor. Replace the gasket if damaged. Do not reassemble with a damaged or missing gasket.



Pump Illustrated Parts View

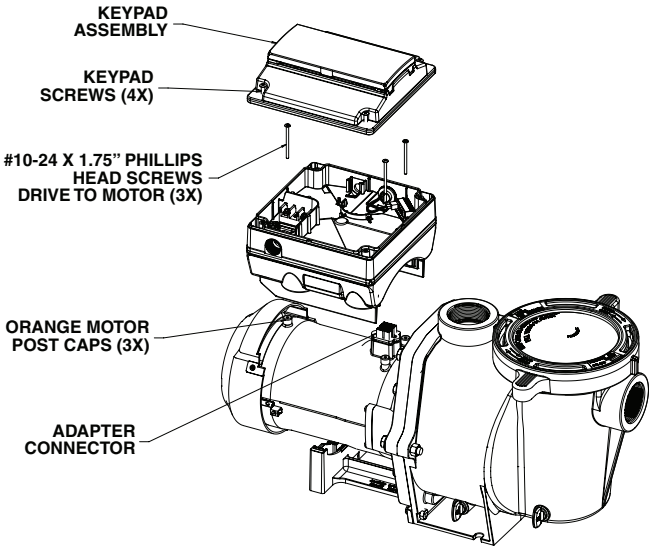
Drive Assembly Removal and Installation, (cont.)

⚠CAUTION Before installing this product, read and follow all warning notices and instructions on page i - ii.

To install the drive assembly onto the motor assembly:

1. Be sure all electrical breakers and switches are turned off before installing the drive.
2. Be sure that the gasket between the drive and motor is in place. It is critical in keeping moisture out of the drive and motor. Replace the gasket if damaged. Do not reassemble with a damaged or missing gasket.
3. Verify that the three (3) orange motor post caps are in position before placing the drive on the motor assembly.
4. Align the drive assembly with the motor adapter and seat the drive on the motor assembly.
5. Secure and tighten the drive assembly with the three (3) Phillips head screws.
6. Plug the keypad cover back into the drive.
7. Place the keypad cover in the desired orientation on the drive and reattach the four (4) screws in the corners of the drive.

   Note: Ensure that the keypad cable is not being pinched between the drive and keypad cover.



Drive Assembly and Removal

⚠WARNING **FIRE and BURN HAZARD** - The pump motor may run at a high temperatures. To reduce the risk of fire, do not allow leaves, debris, or foreign matter to collect around the pump motor. To avoid burns when handling the motor, shut off the motor and allow it to cool for 20 minutes before servicing. The pump provides an automatic internal cutoff switch to protect the motor from heat damage during operation.

TROUBLESHOOTING

⚠WARNING

Always disconnect power to the IntelliFlo® Variable Speed Pump at the circuit breaker and disconnect the communication cable before servicing the pump. Failure to do so could result in death or serious injury to serviceman, pool users or others due to electric shock. DO NOT attempt to adjust or service without consulting your dealer or a qualified pool technician. Read the entire Installation & User's Guide before attempting to use, service, or adjust the pool filtering system or heater.

Alerts and Warnings

The IntelliFlo® Variable Speed Pump displays all alarms and warnings on the control panel display. When an alarm or warning condition exists, the corresponding light will be lit on the display.

All control panel buttons are disabled until the alarm or warning is acknowledged with the **Reset** button. Pressing the **Reset** button will clear the alarm once the fault condition has been resolved.

Note: The pump will not start if the impeller is rotating.

Power Out/OFF

The incoming supply voltage is less than 170 VAC. The drive faults to protect itself from over current. The drive contains capacitors that keep it powered up long enough to save the current run parameters. If power is restored during this process, approximately 20 seconds, the drive will not restart until completed.

Priming Failure

If the pump is not defined as primed within the "Max Priming Time" it will stop and generate a "Priming Alarm" for 10 minutes, then attempt to prime again. The "Max Priming Time" is set by the user on the priming menu as discussed on page 16. If the pump cannot prime within five attempts it will generate a permanent alarm that must be manually reset.

Overheat

If the drive temperature gets above 54.4° C (130° F) the pump will slowly reduce speed until the over temperature condition clears.

Thermal Mode

When active, the motor will run at the preset RPM until the drive internal temperature increases above the minimum. The pump's internal thermal protection is disabled when connected to an automation system. Thermal protection is provided by selecting YES at the ON WITH FREEZE portion of the circuit function menu in the automation control system. To re-enable the internal thermal protection, the power to the drive must be cycled off then back on. **Important: See explanation of Thermal Mode on page 17.**

Over Current

Indicated that the drive is overloaded or the motor has an electrical problem. The drive will restart 20 seconds after the over current condition clears.

Over Voltage

Indicates excessive supply voltage or an external water source is causing the pump and motor to rotate thereby generating an excessive voltage on the drives internal DC buss. The drive will restart 20 seconds after the over voltage condition clears.

Internal Error

Indicates that the self-monitoring motor control software has encountered an error. Clear the alarm and restart the pump. If this alarm persists, contact Pentair Technical Service at 1-800-831-7133.

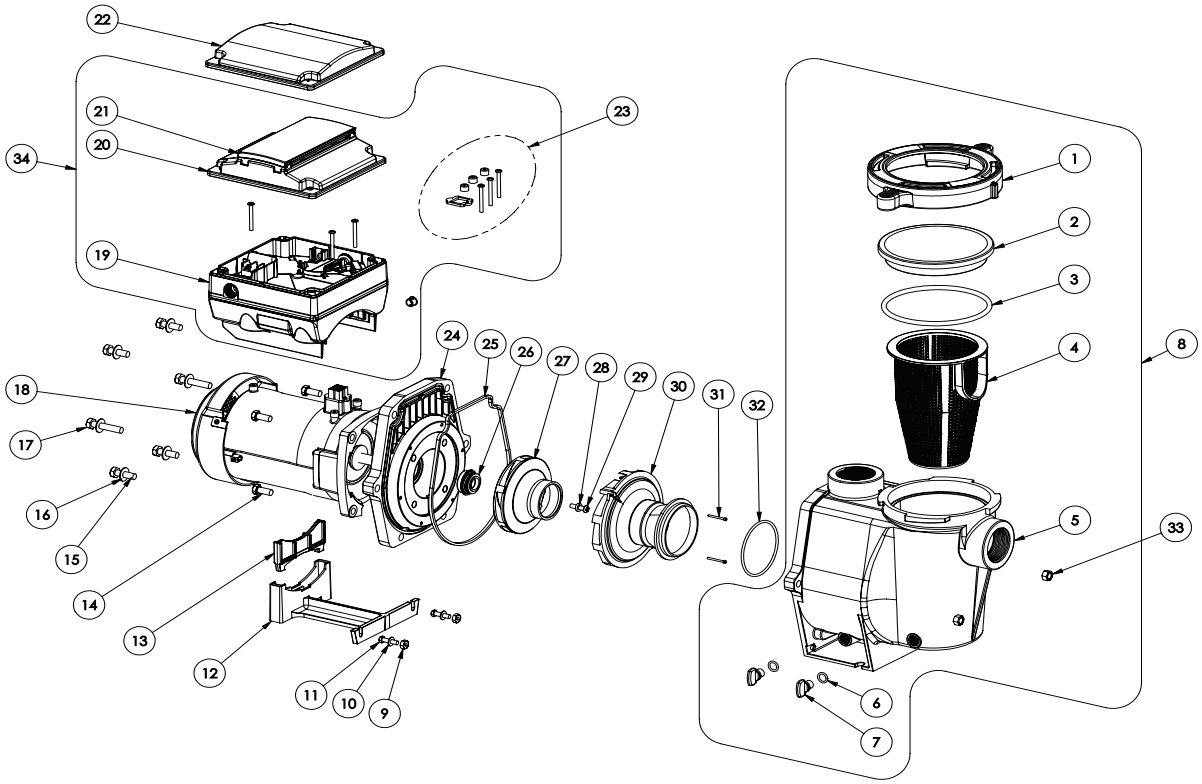
Troubleshooting Chart

Problem	Possible Cause	Corrective Action
Pump failure. (For alert display messages, refer to Alerts and Warnings on page 22).	Pump will not prime - Air leak in suction. PRIME ERROR may be displayed.	Check suction piping and valve glands on any suction gate valves. Secure lid on pump strainer pot and be sure lid gasket is in place. Check water level to be sure skimmer is not drawing air.
	Pump will not prime - Not enough water.	Be sure the suction lines, pump, strainer, and pump volute are full of water.
	Pump does not come out of priming mode.	Adjust priming range to a higher setting (default setting is 5).
	Pump completes priming mode too early, and/or there is still a large amount of air in the housing	Adjust priming range to a lower setting (default setting is 5).
	Pump stainer basket is clogged.	Clean pump strainer pot.
	Pump strainer gasket is defective.	Replace gasket.
Reduced capacity and/ or head. (For alert display messages, refer to Alerts and Warnings on page 22).	Air pockets or leaks in suction line. PRIMING FAILURE may be displayed.	Check suction piping and valve glands on any suction gate valves.
	Clogged impeller. PRIMING FAILURE may be displayed.	Turn off electrical power to the pump. Remove the (6) bolts that holds the housing (strainer pot/volute) to seal plate. Slide the motor and seal plate away from the volute.
		Clean debris from impeller. If debris cannot be removed, complete the following steps: 1. Remove diffuser and o-ring. 2. Remove reverse-thread impeller screw and o-ring. 3. Remove, clean and reinstall impeller. 4. Reinstall reverse-thread impeller screw and o-ring.
		Reinstall diffuser, and o-ring.
		Reinstall motor and seal plate into volute.
		Reinstall seal plate nuts and volute and tighten securely.
	Pump strainer pot clogged. PRIMING FAILURE may be displayed.	Clean suction trap.
		Clean pump strainer pot.
Inadequate circulation. (For alert display messages, refer to Alerts and Warning on page 22).	Filter or pump basket dirty.	Check trap basket; if plugged, turn pump off and clean basket.
		Check and clean pool filter.
	Suction/discharge piping is too small.	Increase piping size.
	Speed is set too slow for proper filtration cycle.	Increase filtration run time.

Troubleshooting Chart, (continued)

Problem	Possible Cause	Corrective Action
Electrical problem. (For alert display messages, refer to Alerts and Warning on page 22).	Could appear as a “Low Voltage” alarm.	Check voltage at motor terminals and at panel while pump is running. If low, see wiring instructions or consult power company. Check for loose connections.
	Could appear as “Over Heat” alert.	Check line voltage; if less than 90% or more than 110% of rated voltage consult a licensed electrician. Increase ventilation. Reduce ambient temperature. Tighten any loose wiring connections. Motor runs too hot. Turn power to motor off. Check for proper voltage. Check for proper impeller or impeller rubbing.
Control panel LCD screen displays sporadically or flickers on/off.	Loose drive wiring connection.	Check the connection between the drive and keypad. See image on page 3. The drive wiring connection should be tight.
Mechanical troubles and noise.	The pump motor is running but with loud noise.	If suction and discharge piping are not adequately supported, pump assembly will be strained. Do not mount pump on a wooden platform! Securely mount on concrete platform for quietest performance.
	Foreign matter (gravel, metal, etc.) in pump impeller.	Disassemble pump, clean impeller, follow pump service instructions for reassembly.
	Cavitation.	Improve suction conditions. Increase pipe size. Decrease number of fittings. Increase discharge pressure.
	Speaking noise, especially evident at pump start-up or slow down.	Inspect motor slinger and motor shaft seal behind the slinger (NOT the pump’s mechanical seal). Apply lubrication to the motor shaft rubber seals.
Pump does not respond to automation system commands.	Improper automation setup.	1. Be sure that the communication cable is connected at both ends. 2. Check that the pump local address matches with the address used in the automation control system. 3. Check that the pump has been assigned a circuit name on the automation control system. 4. Ensure that the pump display says “DISPLAY NOT ACTIVE”.
	Communication network inoperative.	A defective device on the network can inhibit the proper operation of other network device. Devices should be disconnected sequentially until the network starts working.

REPLACEMENT PARTS



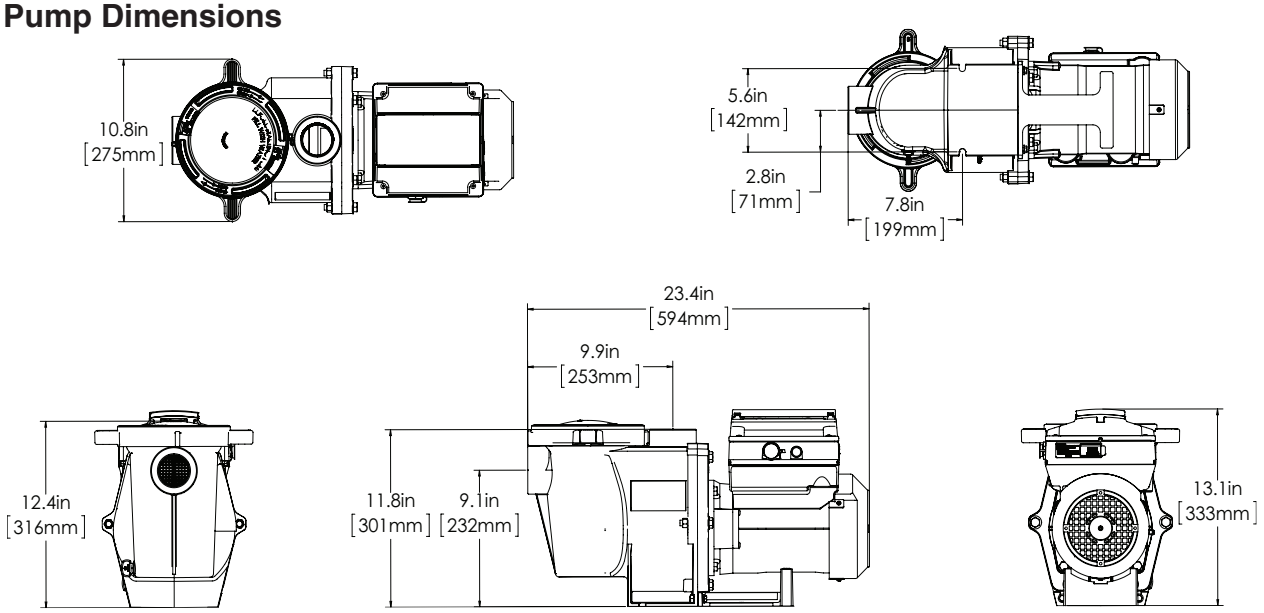
Item No.	Description	Almond Part #	Black Part #
1	Clamp, Cam and Ramp	357199	357150
2	See Through Lid	357151	
3	Lid O-ring	350013	
4	Stainer Basket	070387	
5	Volute	350015	357157
6	O-ring 112 for Drain Plug (Qty2)	192115	
7	Drain Plug (Qty2)	071131	357161
8	Volute Kit (Includes Item #1-7)	357243	357244
9	Nut, 1/4-20 Hex. SS (Qty2)	071406	
10	Washer, Flat 1/4" ID x 5/8" OD (Qty2)	072183	
11	Screw, 1/4-20 x 1" Hex Cap SS (Qty2)	071657	
12	Foot	070927	357159
13	Foot Insert, Pump Motor Support	070929	357160
14	Bolt, Hex Head 3/8-16 x .875" (Qty4)	070429	
15	Bolt, Hex Head 3/8-16 x 1.25" (Qty4)	070430	
16	Washer, Flat 3/8" ID x 7/8" OD (Qty6)	072184	
17	Bolt, Hex Head 3/8-16 x 2" (Qty2)	070431	
18	Motor, 3.2kW 10 Pole	350305S	350306S
19	Drive, Variable Speed	356878Z	356892Z
20	Drive Cover Kit (Includes Item #21)	357527Z	358527Z
21	Keypad Cover	400100	401100
22	Keypad Relocation Kit (Includes Keypad Relocation Cable and Blank Drive Cover)	356904Z	356905Z
23	Drive Hardware Kit (Includes Drive Screws, Drive Gasket and Screw Caps)	355685	

Item No.	Description	Almond Part #	Black Part #
24	Seal Plate	074564	357158
25	Seal Plate Gasket	357100	
26	Mechanical Seal	071734S	
	Mechanical Seal, Ozone/Salt Resistant	071732S	
27	Impeller, 3 HP (Mfg. before 11/20)	073131	
	Impeller, 3 HP (Mfg. after 11/20)	356237	
	Impeller, IntelliFlo i1	073128	
	Impeller, IntelliFlo i2	073131A	
28	Rubber Washer, Impeller Set Screw	075713	
29	Impeller Set Screw, 1/4-20 LH Thread	071652	
30	Diffuser, 3 HP (Mfg. before 11/20)	072928	
	Diffuser, 3 HP (Mfg. after 11/20)	356238	
	Diffuser, i1	072930	
	Diffuser, i2	072927	
31	Diffuser Set Screw, 4-40 x 1-1/8 (Qty2)	071660	
32	Diffuser O-ring	355227	
33	Nut, 3/8-16 Brass, Nickel Plated (Qty2)	071403	
34	Drive Kit Assembly (Includes Item #19-21 & 23)	356879Z	356893Z
-	50 Ft. Communication Cable	350122	
-	Seal Plate Kit w/ Mechanical Seal (Includes Item #24-26)	350202	350203
-	Power End, 3HP	354044	N/A
-	Volute and Seal Plate Kit (Includes Item #1-7 & 24-26)	357149	N/A

(-) Not Shown

TECHNICAL DATA

Pump Dimensions



Electrical Specifications

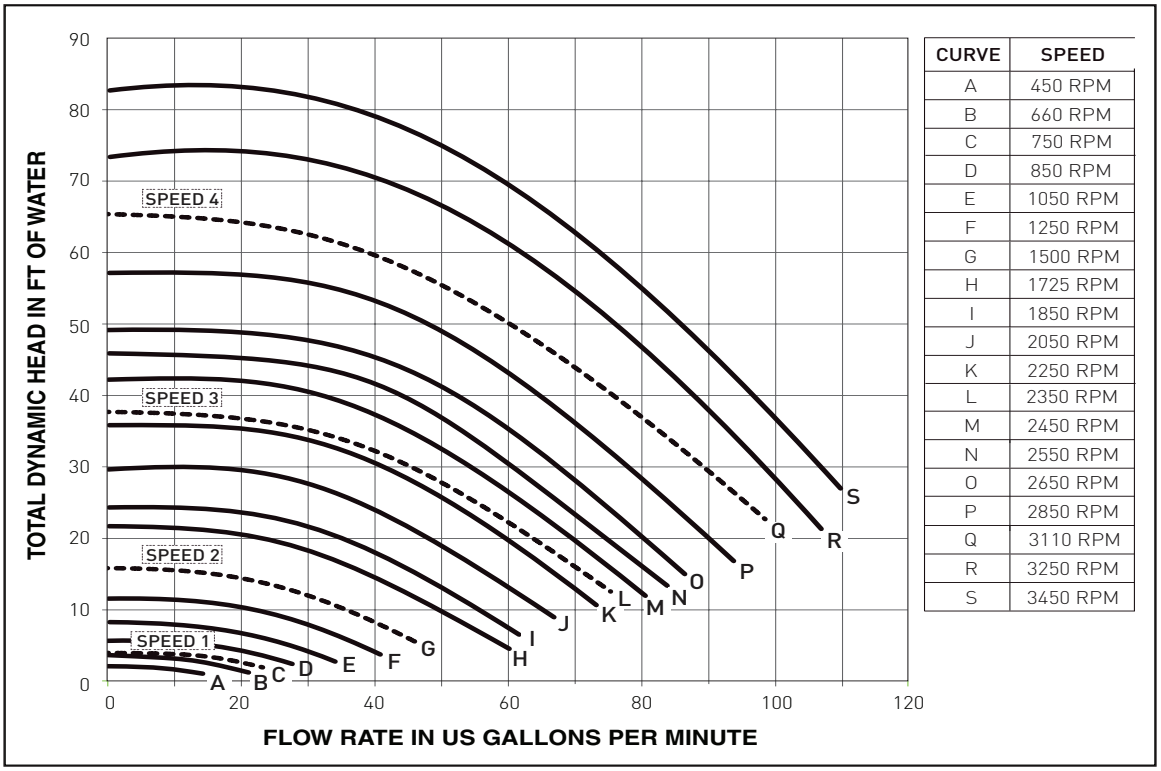
Circuit Protection: Two-pole 20 AMP device at the Electrical Panel.

Input: 230 VAC, 50/60 Hz, 3200 Watts Maximum, 1 phase

Note: Refer to the pump motor label, and all national and local electrical codes, for specific electrical requirements and specifications.

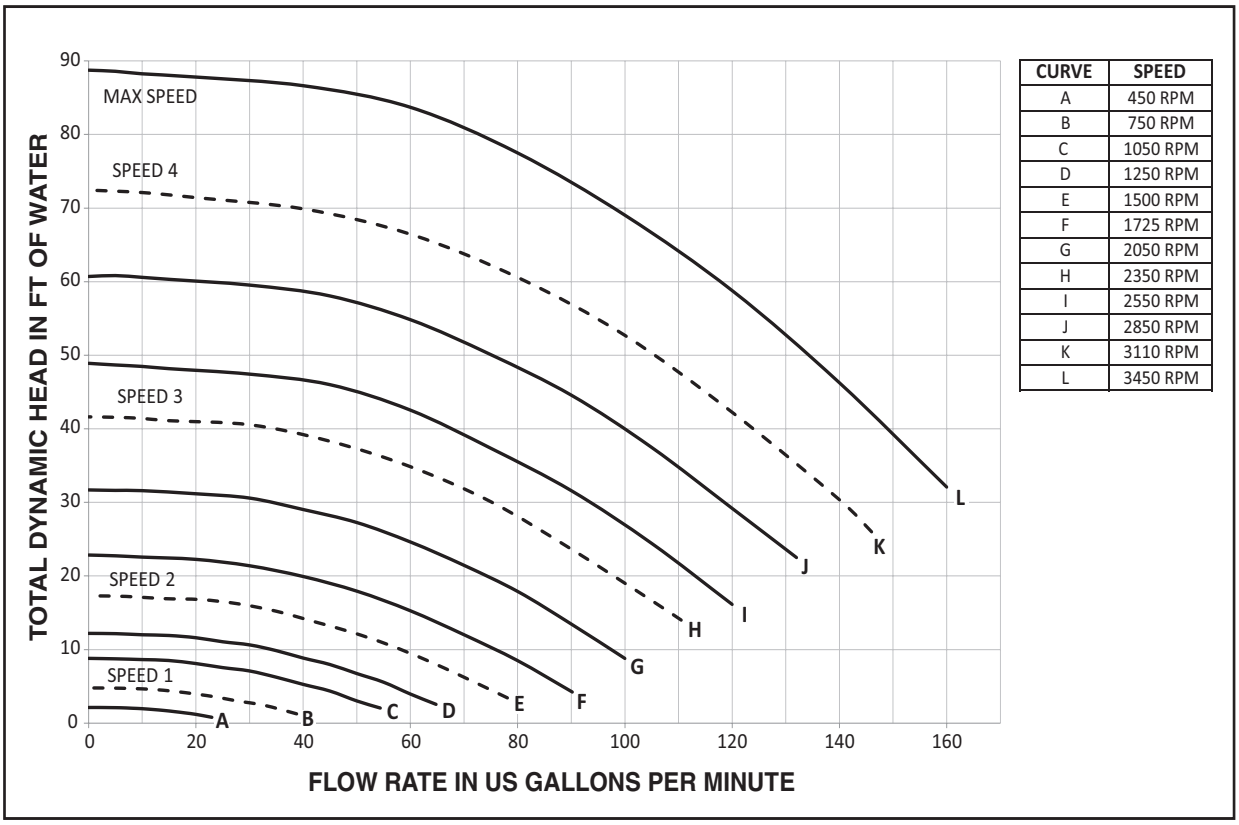
WEF VALUES	
EC-011028	WEF 6.9 THP 3.95
011059 EC-011059	WEF 7.5 THP 3.95
011060 EC-011060	WEF 6.9 THP 3.95

Pump Performance Curves (IntelliFlo i1 Pumps)



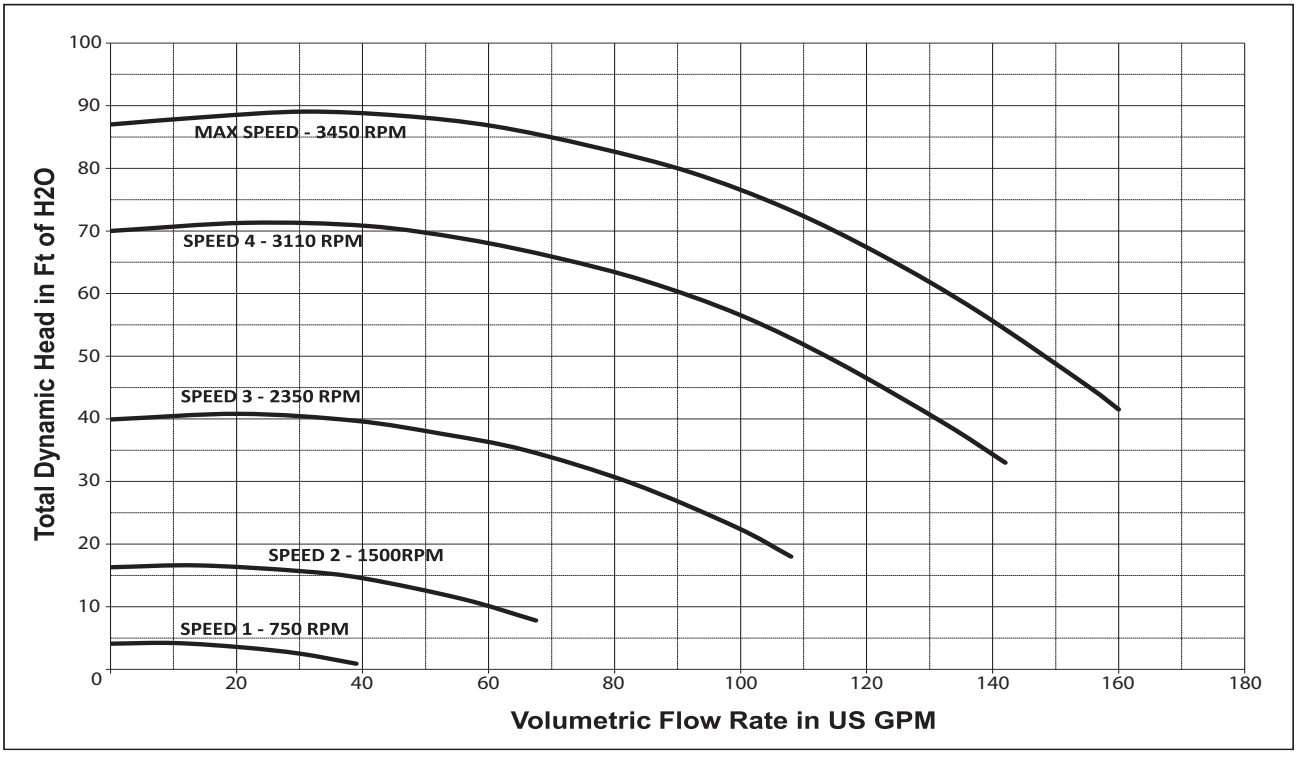
CURVE	SPEED
A	450 RPM
B	660 RPM
C	750 RPM
D	850 RPM
E	1050 RPM
F	1250 RPM
G	1500 RPM
H	1725 RPM
I	1850 RPM
J	2050 RPM
K	2250 RPM
L	2350 RPM
M	2450 RPM
N	2550 RPM
O	2650 RPM
P	2850 RPM
Q	3110 RPM
R	3250 RPM
S	3450 RPM

Pump Performance Curves (IntelliFlo i2 Pumps)

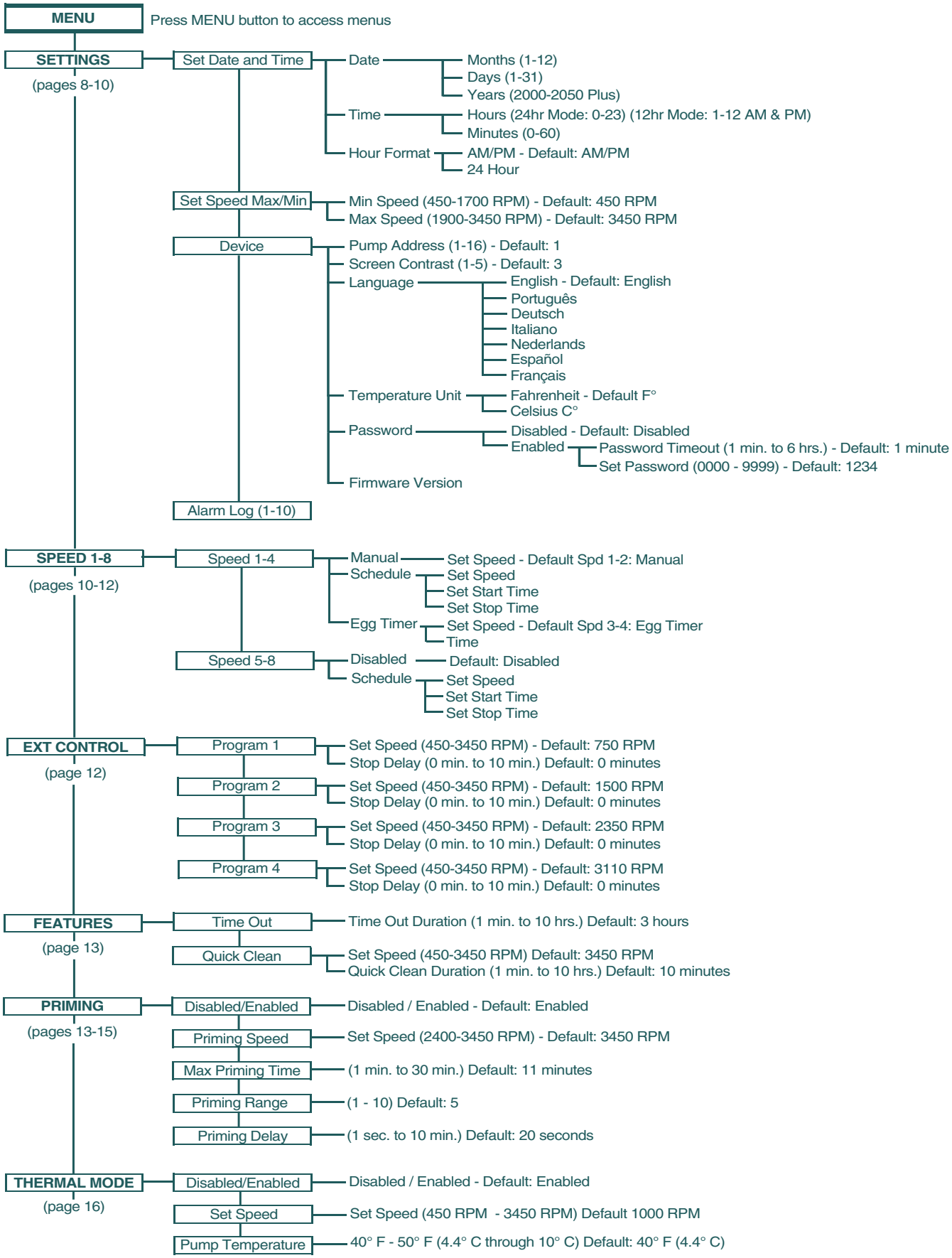


CURVE	SPEED
A	450 RPM
B	750 RPM
C	1050 RPM
D	1250 RPM
E	1500 RPM
F	1725 RPM
G	2050 RPM
H	2350 RPM
I	2550 RPM
J	2850 RPM
K	3110 RPM
L	3450 RPM

Pump Performance Curves (3HP IntelliFlo Pumps)



Operator Control Panel: Pump Menu Quick Reference Guide



NOTES

NOTES

NOTES

LIT. PKG. P/N 356920

1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000

WWW.PENTAIR.COM

All indicated Pentair trademarks and logos are property of Pentair. Third party registered and unregistered trademarks and logos are the property of their respective owners. Other trademarks and trade names are those of their respective owners. Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice.

© 2020 Pentair. All rights reserved. This document is subject to change without notice.

P/N 356919 REV. C 9/29/20

PENTAIR

TRITON®

FIBERGLASS SAND FILTER

MODELS: TR 40, TR 50, TR 60, TR 100, TR 140, TR 100HD, TR 100C, TR 140C, TR 100C-3, TR 140C-3 and TR 60 with CLEARPRO TECHNOLOGY™

ENGLISH 1
ESPAÑOL 21
FRANÇAIS 45

INSTALLATION AND USER'S GUIDE

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

CUSTOMER SERVICE / TECHNICAL SUPPORT

If you have questions about ordering Pentair Aquatic Systems replacement parts, and pool products, please contact:

Customer Service and Technical Support, USA
(8 A.M. to 4:30 P.M. — Eastern/Pacific Times)
Phone: (800) 831-7133
Fax: (800) 284-4151

Web site
Visit *www.pentairpool.com* or *www.staritepool.com* for information about Pentair products.

Sanford, North Carolina (8 A.M. to 4:30 P.M. ET)
Phone: (919) 566-8000
Fax: (919) 566-8920

Moorpark, California (8 A.M. to 4:30 P.M. PT)
Phone: (805) 553-5000 (Ext. 5591)
Fax: (805) 553-5515

TABLE OF CONTENTS

Important Warnings and Safety Precautions .... **ii**
Section 1: Introduction **1**
Triton Fiberglass Sand Filters Overview 1
General Features 2
Section 2: Installation **3**
Installing the Filter 3
How the Filter Works 3
Installing the Closures 5
Initial Start-Up 6
Section 3: Maintenance **7**
Filter Care 7
Filter Cleaning 7
Filter Backwash Procedure 8
Chemical Cleaning Procedure 9
Winterizing the Filter 9
Section 4: Troubleshooting **10**
Section 5: Replacement Parts **12**
Filter Pressure Drop Curve 12
Installing Multiple Triton Filter (Tandem Filter Piping Kits) 12
Triton II & TR60 ClearPro Replacement Parts 13
Triton 100HD, 100C & 140C Replacement Parts 16
Triton 100C-3 & 140C-3 Replacement Parts 18

© 2015 Pentair Water Pool and Spa, Inc. All rights reserved.

This document is subject to change without notice.

1620 Hawkins Ave., Sanford, NC 27330 • (919) 566-8000
10951 West Los Angeles Ave., Moorpark, CA 93021 • (805) 553-5000

MEMBER
NATIONAL
SPA & POOL
INSTITUTE

All Pentair trademarks and logos are owned by Pentair or one of its global affiliates. Pentair Aquatic Systems™, Triton® and ClearPro Technology™ are trademarks and/or registered trademarks of Pentair Water Pool and Spa, Inc. and/or its affiliated companies in the United States and/ or other countries. Unless expressly noted, names and brands of third parties that may be used in this document are not used to indicate an affiliation or endorsement between the owners of these names and brands and Pentair Water Pool and Spa, Inc. Those names and brands may be the trademarks or registered trademarks of those third parties. Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice. Pentair is an equal opportunity employer.

P/N 154901 Rev. H 3/18/15

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

IMPORTANT NOTICE:

This guide provides installation and operation instructions for the Triton® Series Fiberglass Sand Filters. Consult Pentair Water Pool and Spa, Inc. with any questions regarding this equipment.

Attention Installer: This guide contains important information about the installation, operation and safe usage 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 warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions.

ENGLISH

Consumer Information and Safety

The Triton Series Sand Filters are 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.

THIS FILTER OPERATES UNDER HIGH PRESSURE

⚠WARNING

When any part of the circulating system, (e.g., closure, pump, filter, valve(s), etc.), is serviced, air can enter the system and become pressurized. Pressurized air can cause the top closure to separate which can result in severe injury, death, or property damage. To avoid this potential hazard, follow these instructions:

1. If you are not familiar with your pool filtering system and/or heater:
   a. **Do NOT** attempt to adjust or service without consulting your dealer, or a qualified pool technician.
   b. Read the entire Installation & User's Guide before attempting to use, service or adjust the pool filtering system or heater.
2. Before repositioning valve(s) and before beginning the assembly, disassembly, or any other service of the circulating system: (A) Turn the pump **OFF** and **shut OFF** any automatic controls to ensure the system is NOT inadvertently started during the servicing; (B) open the manual air bleeder valve; (C) wait until all pressure is relieved.
3. Whenever installing the filter closure **FOLLOW THE FILTER CLOSURE WARNINGS EXACTLY**.
4. Once service on the circulating system is complete **FOLLOW INITIAL START-UP INSTRUCTIONS EXACTLY**.
5. Maintain circulation system properly. Replace worn or damaged parts immediately, (e.g., closure, pressure gauge, valve(s), o-rings, etc).
6. Be sure that the filter is properly mounted and positioned according to instructions provided.

IMPORTANT WARNING AND SAFETY INSTRUCTIONS

⚠WARNING

This filter must be installed by a licensed or certified electrician or a qualified pool serviceman in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation could result in death or serious injury to pool users, installers, or others and may also cause damage to property.

Always disconnect power to the pool circulating system at the circuit breaker before servicing the filter. Ensure that the disconnected circuit is locked out or properly tagged so that it cannot be switched on while you are working on the filter. Failure to do so could result in serious injury or death to serviceman, pool users or others due to electric shock.

⚠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. Failure to follow all operating instructions and warning messages can result in property damage or severe personal injury or death.

⚠WARNING

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

⚠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. Post appropriate warning signs and establish a barrier around the pressurized equipment. If the equipment is located in an equipment room, lock the door and post a warning sign.

Never attempt to adjust any closures or lids or attempt to remove or tighten bolts when the system is pressurized. These actions can cause the closure to separate and could cause severe personal injury or death if they were to strike a person.

⚠WARNING

Never exceed the maximum operating pressure of the system components. Exceeding these limits could result in a component failing under pressure. This instantaneous release of energy can cause the closure to separate and could cause severe personal injury or death if they were to strike a person.

Section 1
Introduction

Triton® Fiberglass Sand Filters Overview

Triton® II Sand Filters

The Triton II filter is the result of over 40 years of product evolution and refinement. It has set the industry standard for effectiveness, efficiency, long runs between service, and providing years of dependable, low maintenance operation.

The Triton II filter features a special internal design that keeps the sand bed level, ensuring even water flow, and resulting in the most efficient filtration possible.

The Triton II filter provides superior filtration performance and delivers a level of dependability and ease of operation and maintenance for a track record that's unsurpassed. Every design detail has been refined to make Triton II the industry standard.

Triton® C and Triton® C-3 Commercial Sand Filters

This filter series features multiple diverters for increased filtration rates in commercial applications up to 20 GPM/Sq. Ft.

Triton® HD Side Mount Sand Filters

All the same great performance and features of the original Triton's with maximum operating pressure of 75 psi for those special high pressure installations such as single pump in-floor cleaning systems.

Triton II - Residential

Triton C - Commercial

Triton C-3 - Commercial

Triton HD - Commercial

ENGLISH

General Features

Triton® II

- Time-proven internal design ensures that all water receives maximum filtration for crystal clear results
- GlasLok™ process creates a one-piece, fiberglass reinforced tank with a UV-resistant coating for years of dependable, corrosion-resistant service
- Flow system design controls filtration quality and ensures maximum run times between backwashing to save you time

Triton® C and Triton® C-3

- Maximum Operating Pressure 50 psi
- Full 2 in. drain
- 8 in. opening for easy access to sand bed
- The Triton C-3 features standard 3 in. flange connections
- TR100C & TR140C models are available in black or almond
- TR100C-3 & TR140C-3 models are available in black only

Triton® HD

- Maximum Operating Pressure 75 psi

Additional Features:

- Combination sand and water drain speeds servicing and winterizing
- All internal parts are threaded for ease of maintenance
- Swing-away water diffuser allows instant access to sand and all internal parts
- NSF-Listed

Section 2
Installation

NOTE: Before installing this product, read and follow all warning notices and instructions starting on page ii.

Installing the Triton® Fiberglass Sand Filter

Only a qualified service person should install the Triton Fiberglass Sand Filter. This filter is designed and intended for use to filter water.

Introduction

The following general information describes how to install the Triton Fiberglass Sand Filter. This filter operates under pressure and if assembled improperly or operated with air in the water circulation system, the top closure can separate and result in an accident causing property damage or serious bodily injury. A warning label has been affixed to the top of the filter and should not be removed. Keep safety labels in good condition and replace if missing or illegible.

How the Filter works

The high rate sand filter is designed to operate for years with a minimum of maintenance and when installed, operated and maintained in accordance with these instructions, it will provide years of trouble free operation.

Dirt is collected in the filter as the water flows through the control valve at the side of the filter and is directed into the top bulkhead. Dirty water flows into the diffuser at the top of the tank and is directed downward into the top surface of the filter sand bed. The dirt is collected in the sand bed and the clean water flows through the laterals and lower piping at the bottom of the filter up into the lower bulkhead. The flow then goes into the control valve at the side of the filter. Clean water is returned through the piping system into the pool.

The pressure will rise and the flow to the pool will be lowered as the dirt is collected in the filter. Eventually, the filter will become so plugged with dirt that it will be necessary to perform the backwash procedure. It is important to know when to backwash the filter. Backwashing is discussed further under the subsequent sections of this guide.

Please note that a filter removes suspended matter and does not sanitize the pool. The pool water must be sanitized and the water must be chemically balanced for sparkling clear water. Your filtration system should be designed to meet your local health codes. As a minimum, you must be sure that your system will turn over the total volume of water in your pool at least two to four times in a twenty-four hour period.

Refer to **Table 1** for Filter Operation Data.

Table 1.

FILTER MODEL MODEL	FILTER AREA (**Sq. Ft**.)	Flow Rate *(GPM) @20 GPM/FT²	Turnover Capacity (**Gallons**) (**Based on 20 GPM / Sq. Ft.**)*			
			4 TURNS PER DAY	**3 TURNS PER DAY**	**2.4 TURNS PER DAY**	**2 TURNS PER DAY**
TR40	1.92	38	13,680	18,240	22,800	27,360
TR50	2.46	49	17,640	23,520	29,400	35,280
TR60	3.14	63	22,680	30,240	37,800	45,360
TR60 ClearPro	3.14	63	22,680	30,240	37,800	45,360
TR100	4.91	74	26,640	35,520	44,400	53,280
TR100HD	4.91	74	26,640	35,520	44,400	53,280
TR100C/TR100C-3	4.91	98	35,280	47,040	58,800	70,560
TR140	7.06	106	38,160	50,880	63,600	76,320
TR140C/TR140C-3	7.06	141	50,760	67,680	84,600	101,520

***TR100, TR100HD AND TR140 ARE BASED ON 15 GPM/SQ. FT.**

⚠WARNING Failure to operate your filter system or inadequate filtration can cause poor water clarity obstructing visibility in your pool and can allow diving into or on top of obscured objects which can cause serious personal injury or drowning.

Clear water is the result of proper filtration as well as proper water chemistry. Pool chemistry is a specialized area and you should consult your local pool service specialist for specific details. In general, proper pool sanitation requires a free chlorine level of 1 to 3 PPM and a pH range of 7.2 to 7.6.

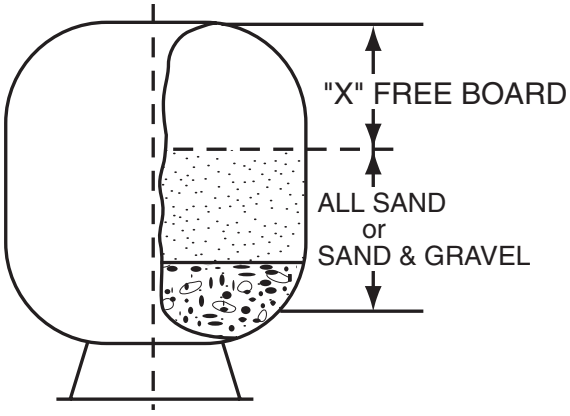
⚠WARNING Filters should never be tested or subjected to air or gas under pressure. All gases are compressible and under pressure create a danger. Severe bodily injury or property damage could occur if the filter is subjected to air or gas pressure.

1. Check carton for any evidence of damage due to rough handling in shipment. If carton or any filter components are damaged, notify the freight carrier immediately.
2. Carefully remove the accessory package and the filter tank from the carton.
3. Mount the filter on a permanent slab, preferably concrete poured in a form or on a platform constructed of concrete block or brick. DO NOT use sand to level the filter or for the pump mounting, as it will wash away.
4. Provide space and lighting for routine maintenance access. Do not mount electrical controls over the filter. One needs to be able to stand clear of the filter when starting the pump. Minimum space requirements may be found on the large nameplate on the filter.
5. Position filter so that the port locations are in the desired final positions. Follow valve installation procedures.
6. If you have a Multiport Valve, assemble the valve to the tank, being sure the o-ring on the valve fittings are in place and are clean. Use a lubricant, applied lightly, such as silicone grease, Dow #33, #40 or GE 300 or 623, or similar product on o-rings and o-ring grooves prior to assembly.
7. If you have a two position slide valve, align the valve with the tank so that the handle is toward the top of the tank, push valve into ports and turn the valve nuts snugly on the tank fittings. It is not necessary to cinch the valve nuts to the tank fitting beyond hand tightness.
8. The shipping straps used to support the TR100C-3, TR140C and the TR140C-3 multi-diffuser should be removed before loading sand and gravel in the filter.
9. Sand specifications – be certain the proper sand is used as described in Table 2. Before pouring the sand into the filter, look inside and check the lower under-drain for broken or loose laterals (or fingers), which may have been accidentally damaged by rough handling during shipment. Replace any broken parts if necessary.

NOTE: The free board distance is the most important variable and should be maintained. Sand density will vary and therefore sand amount is given as a reference.

Table 2.

MODEL	FREE BOARD "X"	ALL SAND* (POUNDS)	FILTER MEDIA† (POUNDS)	
			PEA GRAVEL ‡	SAND
TR40	8 1/4"	175	50	125
TR50	9 3/4"	225	50	175
TR60	10 1/2"	325	50	275
TR60 ClearPro	10 1/2"	325	50	275
TR100	11 1/4"	600	150	450
TR100HD	11 1/4"	600	150	450
TR100C-3	11 1/4"	600	150	450
TR140	13 1/2"	925	275	650
TR140C-3	13 1/2"	925	275	650



† Media required to meet NSF requirements.
‡ Pea Gravel to be 1/4" to 1/8" diameter.
* Sand to be No. 20 standard silica (uniformity coefficient not greater than 1.75) .018-.020 in diameter particle size.

⚠WARNING Failure to position the Automatic Air Vent inside of the Closure will allow excessive trapped air to accumulate in the filter. Trapped air and the closure not properly closed can cause the closure to seperate and could cause severe bodily injury and/or property damage.

10. Pivot the diffuser out of the center of the tank on the TR40, 50, 60, TR60 ClearPro, 100 & 140 by rotating the diffuser assembly counter clockwise. (**NOTE:** The multi-diffuser assembly should not be moved on models TR100HD, TR100C, TR100C-3 and TR140C, TR140C-3. After installing the filter media as described below, check to make sure the tops on the diffusers are parallel to the top of the sand bed.) Fill the tank about half full of water. Pour pea gravel first (if used) and then the sand into the top of the filter at a slow rate so that the impact of the filter media does not damage the laterals. See Table 2 for the proper amounts of sand and gravel. Fill filter to the proper level to maintain freeboard, as shown in Table 2. Pivot the diffuser assembly back to its vertical position if it was moved. Be certain the automatic air vent is protruding into the top of the closure as indicated below in Figure 1. Ensure that the automatic air vent is in the center of the filter closure. Wash away all sand around the threaded opening at the top of the tank.

⚠WARNING

For Threaded Closures

Use care when installing closure. The closure should turn freely in the filter, if resistance to closure insertion is felt, then slowly remove the closure by turning counter-clockwise. The starting thread of the tank and closure must engage properly in order to secure the closure. *Do not cross-thread closure.*

Failure to install the closure properly can cause the closure to seperate and could cause severe bodily injury and/or property damage.

⚠WARNING

For Oval Closures

Use care when installing closure. The closure should be inserted into the tank by placing the small diameter of the oval closure into the larger diameter of the tank opening. Insert the side of the closure that does not have the pressure gauge and air bleeder first. The closure will need to be inserted at a 30° angle. Once the closure is inside the tank, it can be rotated 90° and lifted up to seal the tank. The aluminum bridge with load spring can then be placed over the closure bolt and the hand knob tightened to load the closure properly. The knob should be tightened by hand only. DO NOT USE A WRENCH TO TIGHTEN THE KNOB. You could damage the tank or closure and cause a failure by using a wrench. Failure to install the closure properly can cause the closure to seperate and could cause severe bodily injury or property damage.

NEVER ATTEMPT TO TIGHTEN OR LOOSEN THE CLOSURE WITH THE PUMP RUNNING. Failure to follow this instruction can result in the closure seperating and causing severe bodily injury or property damage.

11. Assemble the pressure gauge and bleeder valve to the closure lid. Clean the lid o-ring and lubricate with silicone grease such as Dow #33, 40 or GE 300, 623 lubricant. Place the closure lid on the filter and tighten, making certain the air vent is up inside the dome of the closure.
12. With the plastic wrench, provided with the filter, tighten the closure as tight as possible using two hands on the wrench handles. As a minimum, the closure must be hand tight + 1/4 turn.
13. The oval closure that is used on the TR140C-3 and the TR100C-3 models will need to be installed as described in the above warning note for oval closures.
14. Assemble piping and pipe fittings to pump and valve. All piping must conform to local and state plumbing and sanitary needs.
15. Use sealant compounds on all male connections of pipe and fittings. Use only pipe compounds suited for plastic pipe. Support pipe to prevent strains on filter, pump or valve.
16. Long piping runs and elbows restrict flow. For best efficiency, use the fewest possible number of fittings, and large diameter pipe (at least 2" for TR100 and TR140, at least 3" for TR100C-3 and TR140C-3).

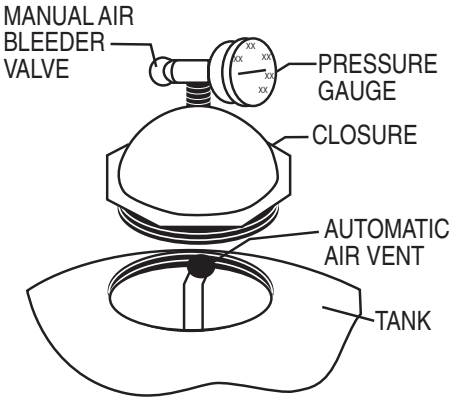


Figure 1.

ENGLISH

⚠CAUTION Operating at excessive vacuum levels can cause the tank to crack and could cause property damage.

17. When installing backwash lines, it is recommended that a vacuum breaker be installed on installations where the backwash line length exceeds 40 ft. or the backwash line discharges more than 10 ft. lower than the surface of the pool. Alternately a vacuum break pit should be provided.
18. A check valve is recommended between the filter and heater to prevent hot water "back-up" which will damage the filter and valve.
19. The maximum operating pressure of the unit is 50 pounds per square inch (psi) and 75 pounds per square inch (psi) for the Triton HD model (only). Never operate this filter above these pressures or attach a pump to this filter that has more than 50 psi shut off pressure or 75 psi shut off pressure for the Triton HD model (only).
20. Never install a chlorinator upstream of the filter. Always locate downstream and with a check valve between the chlorinator and filter.
21. A positive shut off valve is not recommended at the outlet of the filtering system. If the system is ever run with such a valve closed, the internal air relief system becomes inoperative and risk of tank separation could exist. Additionally, running the system with no flow will seriously damage the equipment.
22. Never store pool chemicals within 10 ft. of your pool filter. Pool chemicals should always be stored in a cool, dry well ventilated area.
23. The oval closure used on the TR100C-3 and TR140C-3 is designed to provide a vacuum relief mechanism that protects the tank from vacuum conditions. The closure will allow air to enter the tank if the tank is higher that 8 ft. above the water level. In these cases, when the filter restarts after shut down, you may observe air being returned to the pool in the return fittings. This is not unusual, it is simply the automatic air relief in the filter removing the air in the filter.

Initial Start-up

1. On a new pool, clean the pool before filling the pool with water. Excessive dirt and large particles can cause damage to the pump and filter.
2. Ensure the backwash line is open so that water is free to come from the pool and flow out the backwash line. Set the valve position as follows:
   a. If using a Multiport valve, set valve to backwash position.
   b. If using a Two Position Slide Valve, push handle down to backwash position and engage lock by twisting handle.
3. Check pump strainer pot to be sure it is full of water.

⚠WARNING Air entering a filter and tank closure not installed properly can cause the closure to seperate and could cause severe bodily injury and/or property damage.

4. Check closure on filter for tightness.
5. Open the manual air bleeder on the filter closure. Stand clear of the filter and start the pump allowing it to prime.
6. Close the air bleeder on the closure when all the air is removed from the filter and a steady stream of water emerges.

NOTE: Pool filter sand is typically pre-washed and should not require extensive backwashing. However, the shipping process may cause excessive abrasion which could require an extended backwash cycle at initial start-up; continue to backwash until the backwash water is as clear as the pool water.

⚠CAUTION To prevent equipment damage and possible injury, always turn the pump off before changing the valve position.

7. Stop the pump. Set the valve position as follows:
   a. If using a Multiport valve, set the valve to the filter position.
   b. If using the Two Position Slide Valve, raise the handle to filter position and engage valve lock by twisting handle.
8. Ensure all suction and pool return lines are open so that water is free to come from the pool and return to the pool.
9. Open the manual air bleeder on the filter closure. Stand clear of the filter and start the pump.
10. Close the air bleeder on the filter closure when all the air is removed from the filter and a steady stream of water emerges.
11. The filter has now started its filtering cycle. You should ensure that water is returning to the pool and take note of the operating pressure when the filter is clean.

Section 3
Maintenance

This section describes how to maintain your Triton® Fiberglass Sand Filter.

Filter Care

The filter is a very important part of the pool equipment and installation. Proper care and maintenance will add many years of service and enjoyment to the pool. Follow these suggestions for long trouble-free operations:

1. To clean the exterior of the filter of dust and dirt, wash with a mild detergent and water then hose off. Do not use solvents.
2. If internal maintenance is required, sand may be removed by removing the sand drain from the bottom of the filter and flushing with a garden hose. Pentair Water Pool and Spa, Inc. Sand Vacuum P/N 542090 may also be used.
3. If after a number of years, the filter tank appears foggy in color or rough in texture, the tank surface can be painted. We recommend the use of a Quick Dry Spray Enamel. **Do NOT paint the valve.**

⚠WARNING Always visually inspect filter components during normal servicing to ensure structural safety. Replace any item which is cracked, deformed or otherwise visually defective. Defective filter components can allow the filter top or attachments to seperate and could cause severe bodily injury or property damage.

4. The filter closure on your Triton Sand Filter was manufactured with high quality corrosion resistant materials. This part should be carefully inspected whenever servicing your filter. If excessive leakage is noted coming from the closure/tank interface, the closure and o-ring should be carefully inspected and replaced if any signs of deterioration exist.
5. Your filter is a pressure vessel and should never be serviced while under pressure. Always relieve tank pressure and open air bleeder on the filter closure before attempting to service your filter.
6. When restarting your filter, always open the manual air bleeder on the filter closure and stand clear of the filter.

Cleaning Frequency

1. The filter on a new pool should be backwashed, and cleaned after approximately 48 hours of operation to clean out plaster dust and/or construction debris.
2. There are three different ways to identify when the filter needs backwashing.
   a. The most accurate indicator on pool systems with a flow meter is to backwash when the flow decreases 30% from the original (clean filter) flow. For example, if the original flow was 60 GPM, the filter should be backwashed when the flow is reduced by about 20 GPM (or 30%) to 40 GPM.
   b. A more subjective and less accurate indicator is to observe the amount of water flowing from the flow directionals located in the wall of the pool. The filter should be backwashed once it is detected that the flow has been reduced by about 30%.
   c. The most commonly used but less accurate indicator is to backwash when the filter gauge reading increases 10 PSI over the initial (clean filter) reading.
3. It is important not to backwash the filter solely on a timed basis such as every three days. It is also important to note that backwashing too frequently actually causes poor filtration. Factors like weather conditions, heavy rains, dust or pollen, and water temperature all affect the frequency of backwash. As you use your pool, you will become aware of these influences.
4. If at any time the starting pressure after backwashing the filter indicates 4 to 6 PSI higher than normal starting pressure, it is time to perform a chemical cleaning procedure.

ENGLISH

Filter Backwash Procedure

⚠WARNING To prevent equipment damage and possible injury, always turn off pump before changing valve positions.

1. Stop the pump.
2. Ensure that the suction and backwash lines are open so that water is free to come from the pool and flow out the backwash line. Set control valve position as follows:
   a. If using a Multiport Valve, set valve to backwash position.
   b. If using a Two Position Slide Valve, push handle down to backwash position and engage lock by twisting handle.
3. **Stand clear of the filter** and start pump.
4. Backwash filter for approximately 3 to 5 minutes or until backwash water is clean.
5. Stop the pump.
   a. If using a Multiport Valve, set valve to rinse position and continue with remaining steps.
   b. If using a Two Position Slide Valve, skip to step 8.
6. **Stand clear of the filter** and start pump.
7. Rinse filter for approximately 30 seconds.
8. Stop the pump and set valve as follows:
   a. If using a Multiport Valve, set valve to filter position.
   b. If using a Two Position Slide Valve, raise handle to filter position and engage valve lock by twisting handle.
9. Ensure that pool return line is open so that water may freely flow from the pool back to the pool.
10. Open manual air bleeder on Triton closure. Stand clear of filter and start pump.
11. Close manual air bleeder of the closure when all the air is removed and a steady stream of water emerges from the bleeder.
12. The filter has now started its filtering cycle. You should ensure that water is returning to the pool and take note of the filter pressure.
13. The filter pressure, in the above Step 12, should not exceed the pressure originally observed on the filter when it was initially started. If after backwashing, the pressure is 4 to 6 PSI above the start condition, it will be necessary to chemically clean the sand bed.

Chemical Cleaning Procedure

1. It is recommended that an approved cleaner be used. Please contact your local pool chemical supplier or retail store for the proper cleaner.

   These cleaners will remove oils, scale and rust from the sand bed in one cleaning operation.
2. Mix a solution following the manufacturers instructions on the label.
3. Backwash the filter as outlined on page 8.
4. If the filter is below pool level, shut off the pump and close appropriate valving to prevent draining the pool.
5. Shut off pump, open filter drain and let filter drain. Place valve in backwash position.
6. After filter has drained, close filter drain and remove the pump strainer pot lid.
7. Ensure that the backwash lines are open.
8. Turn the pump on and slowly pour the cleaning solution into the pump strainer with the pump running.
9. Continue adding solution until the sand bed is saturated with cleaning solution. Replace lid on pump.
10. Shut off the pump and leave filter in backwash position. Allow filter to stand overnight (12 hours).
11. Replace the pump lid and follow backwash procedures on page 8.
12. Do not allow the cleaning solution to get into the pool.

Winterizing your Filter

1. In areas that have freezing winter temperatures, protect the pool equipment by backwashing the filter.
2. After backwashing, shut the pump off, open the manual air bleeder on the closure and adjust the valve as follow:
   a. On the Multiport Valves, move the handle of the valve to the Winterize Position (*).
   b. On the Two Position Slide Valve, if possible, remove the valve piston assembly; clean, lubricate and store in a dry location for the winter.

***NOTE:** The Multiport valve should be left in the winterize position during shutdown season so the valve diverter has no pressure on the rubber seal.

3. On the TR40, 50, 60, and TR60 ClearPro, remove the wing-type plug on the bottom of the filter. On the TR100, TR100HD, TR100C, TR100C-3, and TR140, TR140C, TR140C-3, remove the 1½" drain plug cap. The filter will drain very slowly, and therefore, it is recommended that the drain plug be left out.
4. Drain all appropriate system piping.
5. We recommend covering the equipment with a tarpaulin or plastic sheet to inhibit deterioration from weather. Do **NOT** wrap pump motor with plastic.

Section 4
Troubleshooting

Use the following troubleshooting information to resolve possible problems with your Triton® Filter.

⚠WARNING

THIS FILTER OPERATES UNDER HIGH PRESSURE

When any part of the circulating system, (e.g., closure, pump, filter, valve(s), etc.), is serviced, air can enter the system and become pressurized. Pressurized air can cause the top closure to separate which can result in severe injury, death, or property damage. To avoid this potential hazard, follow these instructions:

1. If you are not familiar with your pool filtering system and/or heater:
   a. **Do NOT** attempt to adjust or service without consulting your dealer, or a qualified pool technician.
   b. Read the entire Installation & User's Guide before attempting to use, service or adjust the pool filtering system or heater.
2. Before repositioning valve(s) and before beginning the assembly, disassembly, or any other service of the circulating system: (A) Turn the pump **OFF** and **shut OFF** any automatic controls to ensure the system is NOT inadvertently started during the servicing; (B) open the manual air bleeder valve; (C) wait until all pressure is relieved.
3. Whenever installing the filter closure **FOLLOW THE FILTER CLOSURE WARNINGS EXACTLY**.
4. Once service on the circulating system is complete **FOLLOW INITIAL START-UP INSTRUCTIONS EXACTLY**.
5. Maintain circulation system properly. Replace worn or damaged parts immediately, (e.g., closure, pressure gauge, valve(s), o-rings, etc).
6. Be sure that the filter is properly mounted and positioned according to instructions provided.

NOTE: Turn off power to unit prior to attempting service or repair.

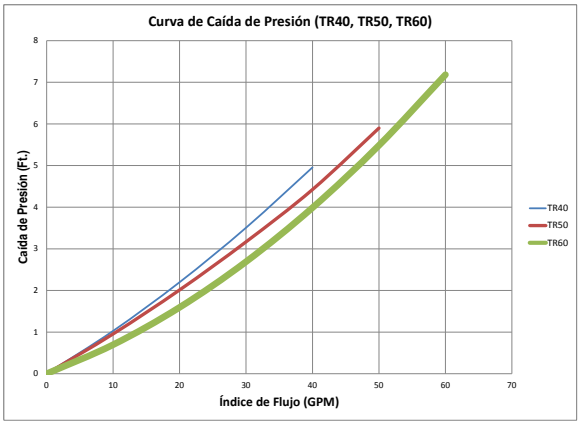
Problems and Corrective Actions

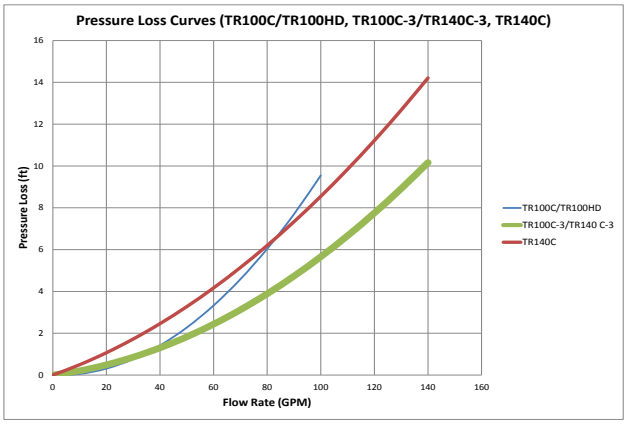
PROBLEM	CAUSE	REMEDY
Pool water not sufficiently clean	1. Pool chemistry not adequate to inhibit algae growth.	Maintain pool chemistry or consult pool service technician.
	2. Too frequent a backwash cycle.	Allow pressure to build to 10 psi above clean filter condition before backwashing.
	3. Improper amount or wrong sand size.	Check sand bed Freeboard and sand size or consult a pool service technician.
	4. Inadequate turnover rate.	Run system for longer time or consult dealer or pool service technician.
High filter pressure	1. Insufficient backwashing.	Backwash until effluent runs clear.
	2. Sand bed plugged with mineral deposits.	Chemically clean filter.
	3. Partially closed valve.	Open valve or remove obstruction in return line.
Short cycles	1. Improper backwash.	Backwash until effluent runs clear.
	2. Pool chemistry not adequate to inhibit algae growth.	Maintain pool chemistry or consult pool service technician.
	3. Plugged sand bed.	Manually remove top 1" surface of sand bed, replace with new sand and chemically clean entire sand bed as described in the Chemical Cleaning Procedure.
	4. Flow rate too high.	Restrict flow to capacity of filter.

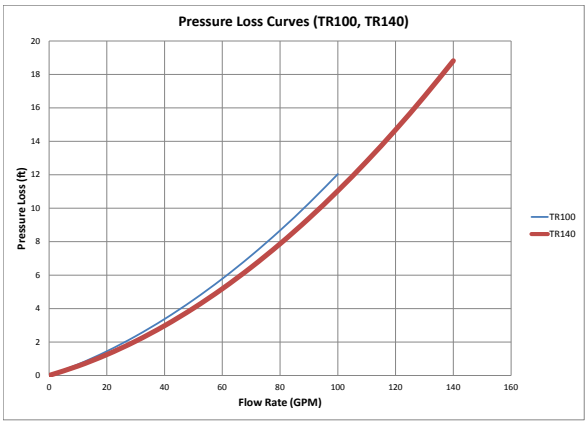
PROBLEM	CAUSE	REMEDY
Return flow to pool diminished, low filter pressure	1. Obstruction in pump hair and lint strainer.	Clean basket in pump strainer.
	2. Obstruction in pump.	Disassemble and clean pump.
	3. Obstruction in suction line to pump.	Clean skimmer basket. Remove obstruction in lines. Open valves in suction line.
Sand returning to pool	1. Broken under drain lateral.	Replace broken or damaged laterals.
Sand loss to waste	1. Backwash rate too high.	Reduce backwash flow rate.
	2. Improper sand size.	Change to proper sand.
	3. Air strainer is damaged or missing.	Replace damage components.
Leak at closure	1. Improperly tightened closure.	Shut off pump, relieve tank pressure, open air bleeder, tighten closure properly.
	2. Dirt or contamination on sealing surface.	Shut off pump, relieve tank pressure, open air bleeder, remove closure and clean all sealing surfaces. Reassemble closure properly.
	3. Damaged part.	Same as above except replace damaged o-ring, closure, tank or any combination of parts as required.
Leak at bulkhead	1. Improper tightened bulkhead assembly.	Shut off pump, relieve tank pressure, open air bleeder, remove closure and remove sand to access leaking bulkhead on TR40, 50, 60, TR60 ClearPro, 100, 100C, 140 or 140C. Hold the 2" bulkhead and tighten the 2" internal locknut. On the TR100C-3/TR140C-3, using the special wrench, P/N 154020, hold the 3" flange spacer and with wrench, P/N 154019, tighten the 3" flange adapter. Hand tighten plus 1/2 turn.
	2. Dirt or contamination on sealing surfaces.	Shut off pump, relieve tank pressure, open air bleeder, remove closure and remove sand to access leaking bulkhead. Remove attached tank internals and remove bulkhead assembly. Clean all mating surfaces and seals. Replace the bulkhead assembly, being careful to assemble properly. Tigthen assembly as indicated above.
	3. Damaged part.	Same as above except replace damaged part or combination of parts.

Section 5
Replacement Parts

Pressure Drop Curve for the Triton® Series Fiberglass Sand Filters







Installing Multiple Filters with Tandem Filter Piping Kits

CAUTION: WHEN MULITPLE FILTERS ARE INSTALLED, WE HIGHLY RECOMMEND THE USE OF A PENTAIR TANDEM FILTER PIPING KIT. THESE KITS INCLUDE PLUMBING SUPPORTS (BETWEEN INLET AND OUTLET PIPING AND BETWEEN OUTLET PIPING AND FLOOR) TO ASSURE INTEGRITY OF THE INSTALLATION. SEE FIGURE A.

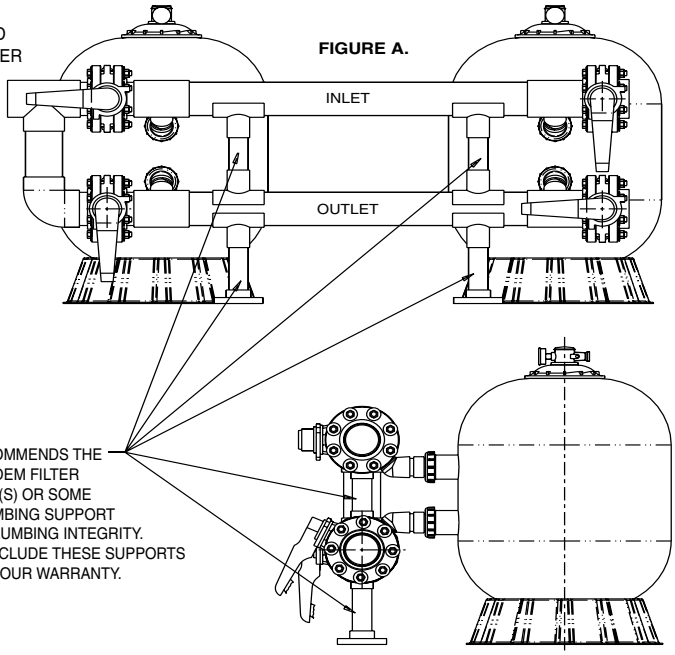


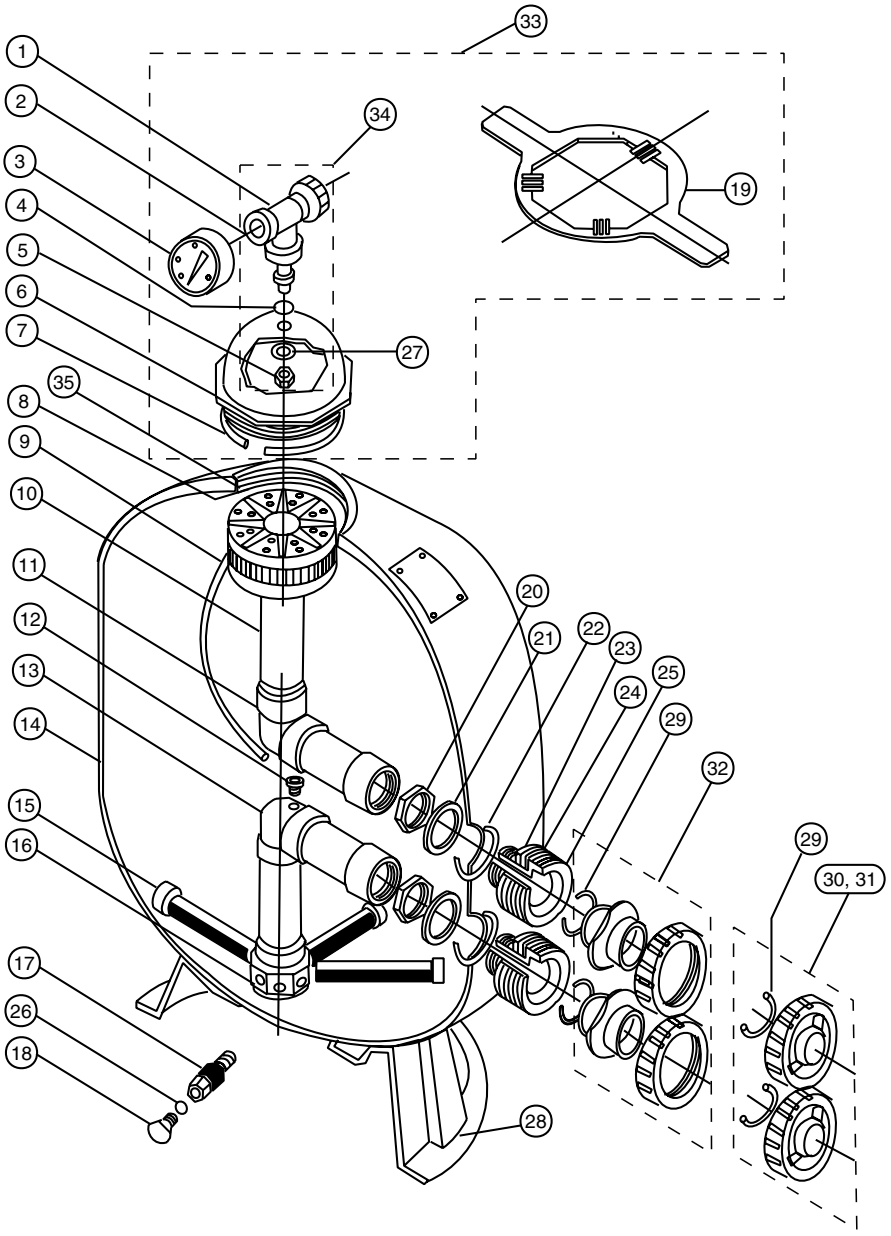
FIGURE A.

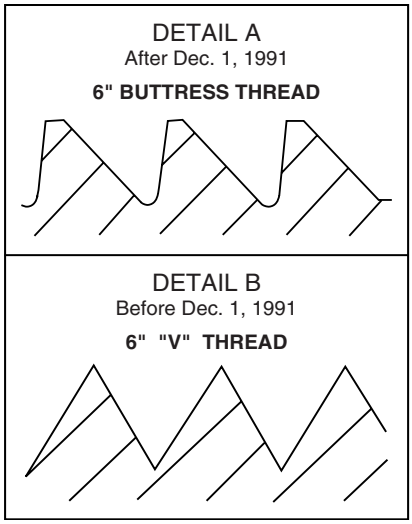
CAUTION: PENTAIR RECOMMENDS THE USE OF A TANDEM FILTER PLUMBING KIT(S) OR SOME SORT OF PLUMBING SUPPORT TO ASSURE PLUMBING INTEGRITY. FAILURE TO INCLUDE THESE SUPPORTS COULD VOID YOUR WARRANTY.

TRITON® II & TR60 CLEARPRO FIBERGLASS SAND FILTER

Replacement Parts

TR40
TR50
TR60
TR60 ClearPro
TR100
TR140

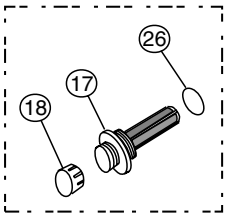




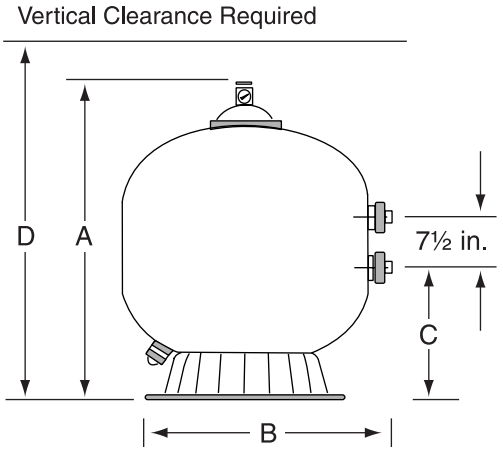
Filters manufactured after Dec 1, 1991 utilize a 6 in. buttress thread in the filter tank top opening and on the closure, see Detail A.

Filters manufactured before Dec 1, 1991 utilize a 6 in. "V" type thread, see Detail B.

6 in. closures in Detail A. and B. are NOT interchangeable.



★ Used on TR100 and TR140 filters.



MODEL	A DIM.	B DIM.	C DIM.	D DIM.
TR40	30 ½ in.	19½ in.	10 ¾ in.	32 ½ in.
TR50	34 ¾ in.	21½ in.	11-7/8 in.	36 ¾ in.
TR60	35 ½ in.	24½ in.	13-5/8 in.	37 ½ in.
TR60 ClearPro	35 ½ in.	24½ in.	13-5/8 in.	37 ½ in.
TR100	39 ¾ in.	30½ in.	16 ¼ in.	41 ¾ in.
TR140	45 ¼ in.	36½ in.	18 ¾ in.	47 ¼ in.

ENGLISH

Item No.	Part No.	TRITON II & TR60 CLEARPRO SAND FILTERS Description
1	154689	Air bleeder/tee assy.
2	154700	Adapter - brass air bleeder
3	155050	Gauge - back mount pressure
4	154661	O-ring - air bleeder adapter
5	154664	Nut - 3/8 in. - 16 s/s
6	154570	Closure - 6 in. buttress thread, see Detail A
6	154559	Closure - 6 in. “V” thread Blk., see Detail B
7	154493	O-ring closure, white
8	150035	Strainer ECL/TR
9	150039	Tube air relief TR40
9	150040	Tube air relief TR50/60
9	150041	Tube air relief TR100
9	150042	Tube air relief TR140
10	154598	Diffuser assy. TR40/50
10	154599	Diffuser assy. TR60
10	154462	Diffuser assy. TR100
10	154906	Diffuser assy. TR140
11	154803	Piping assy. upper TR40
11	156814	Piping assy. upper TR50
11	154533	Piping assy. upper TR60
11	154426	Piping assy. upper TR100
11	154500	Piping assy. upper TR140
12	150036	Connector air relief tube
13	154801	Piping assy. lower TR40
13	156816	Piping assy. lower TR50
13	154805	Piping assy. lower TR60
13	155284	Piping assy. lower TR60 ClearPro -1/4 Turn Lateral
13	154807	Piping assy. lower TR100
13	154489	Piping assy. lower TR140
14	154636	Tank & ft. assy. TR40 - 6 in. btr. thd., Detail A
14	154637	Tank & ft. assy. TR50 - 6 in. btr. thd., Detail A
14	154638	Tank & ft. assy. TR60 - 6 in. btr. thd., Detail A
14	154639	Tank & ft. assy. TR100 - 6 in. btr. thd., Detail A
14	154640	Tank & ft. assy. TR140 - 6 in. btr. thd., Detail A

TRITON® II and TR60 CLEARPRO FIBERGLASS SAND FILTER

Replacement Parts

TR40
TR50
TR60
TR60 ClearPro
TR100
TR140

NOTES

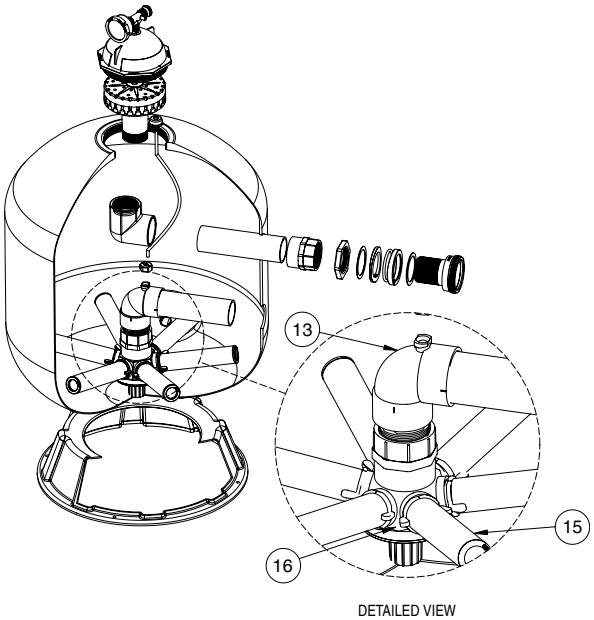
Filters manufactured after Dec 1, 1991 utilize a 6 in. buttress thread in the filter tank top opening and on the closure, see Detail A.

Filters manufactured before Dec 1, 1991 utilize a 6 in. “V” type thread, see Detail B.

6 in. closures in Detail A. and B. are NOT interchangeable.

To determine manufacture date, the first 4 digits of the serial number indicate the month and year product was manufactured.

TR60 ClearPro - 1/4 Turn Lateral for filters manufactured after May 15, 2007 utilize Lower Piping Assy. P/N 155284.



Detail for Triton® II - TR60 Filters with ClearPro Technology®

Item No.	Part No.	TRITON II & TR60 CLEARPRO SAND FILTERS Description
15	152290	Lateral - 6 11/16 in. L TR40/50/60, 8 req.
15	150085	Lateral Assy. - 1/4 turn TR60, 6 req.
15	150088	Lateral Assy. - TR60 ClearPro, 6 req.
15	152202	Lateral - 9 1/8 in. L TR100, 8 req. ❷
15	154543	Lateral - 6½ in. L TR100, 8 req. ❶
15	154540	Lateral - 12 in. L TR140, 8 req.
16	154763	Hub Lateral TR40/50/60
16	152222	Hub Assy. TR60 ClearPro
16	154453	Hub Lateral TR100/140
17	152220	Sand drain 2 in. ❻
17	154698	Spigot ¾ in. NPT sand drain ❹
17	154685	Spigot ½ in. NPT sand drain ❸
18	154871	Cap thd. 1½ in. ❻
18	357161	Plug ¼ in. NPT drain
19	154512	Wrench 6 in. closure
19	154510	Wrench closure aluminum
19	151608	Wrench 8½ in. closure aluminum
20	154412	Locknut 2 in. internal, 2 req.
21	154416	Spacer 2 in. internal, 2 req.
22	154492	O-ring 2 in. bulkhead, 2 req.
23	154408	Spacer 2 in. external, 2 req.
24	154538	Gasket 2 in. bulkhead, 2 req.
25	154405	Bulkhead 2 in., 2 req.
26	274494	O-ring 3/16 in. X 2 5/8 in. i.d. ❻
26	192115	O-ring #2-12 air adapter
27	154418	Washer 3/8 in. s/s
28	154926	Foot 16 in. dia., TR40/50 (see NOTE 1)
28	154520	Foot 19 in. dia., TR60 (see NOTE 1)
28	154596	Foot 24 in. dia., TR100/140 (see NOTE 1)
29	274494	O-ring valve adptr., 2 req.
30	271092	2 in. thd. adptr. kit ❺
31	271094	1½ in. thd. adptr. kit ❺
32	271096	1½ in. & 2 in. slip adptr. kit ❺
33	154641	Kit closure, 6 in. buttress thd., Blk., DETAIL A
33	154697	Kit closure, 6 in. "V" thd., Tan, DETAIL B
33	154856	Kit closure, 8½ in. buttress thd., Blk.
34	154687	Fitting package complete (see NOTE 2)
35	154611	Spacer air vent strainer 3¾ in. TR40
35	154612	Spacer air vent strainer 4½ in. TR50/60
35	154613	Spacer air vent strainer 5½ in. TR100
35	154614	Spacer air vent strainer 5 in. TR140
	154402	Tape ft. mounting TR40/50/60, 3 req.
	154407	Tape ft. mounting TR100/140, 3 req.
	151602	Bulkhead wrench 2 in.
	154714	Bulkhead kit, include items 20-25

TRITON® II and TR60 CLEARPRO FIBERGLASS SAND FILTER

Replacement Parts

TR40
TR50
TR60
TR60 ClearPro
TR100
TR140

NOTES

Filters manufactured after Dec 1, 1991 utilize a 6 in. buttress thread in the filter tank top opening and on the closure, see Detail A.

Filters manufactured before Dec 1, 1991 utilize a 6 in. "V" type thread, see Detail B.

6 in. closures in Detail A. and B. are NOT interchangeable.

To determine manufacture date, the first 4 digits of the serial number indicate the month and year product was manufactured.

❶ Used on Filters manufactured before 5-85.
❷ Used on Filters manufactured after 5-85.
❸ Used on Filters manufactured before 3-83.
❹ Used on Filters manufactured after 3-83 thru 3-96.
❺ For Installations w/out Valve (Pair).
❻ Used on TR100 & 140 Filters.

NOTE 1: Replacement of tank foot requires the use of foot mounting tape. See P/N's.

NOTE 2: Fitting package includes items 1, 2, 4, 5 and 27.

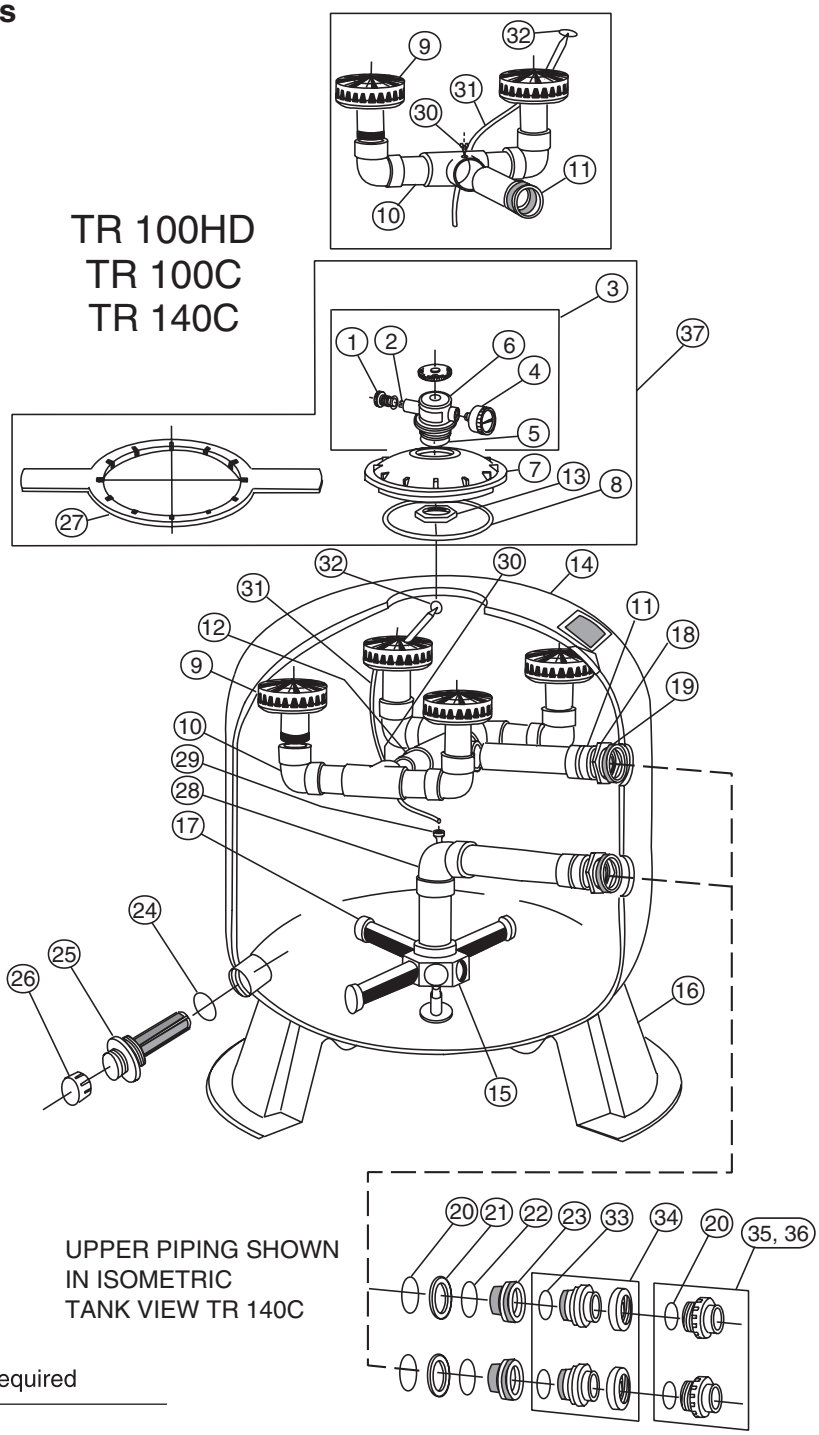
ENGLISH

TRITON® 100HD, 100C & 140C FIBERGLASS SAND FILTER

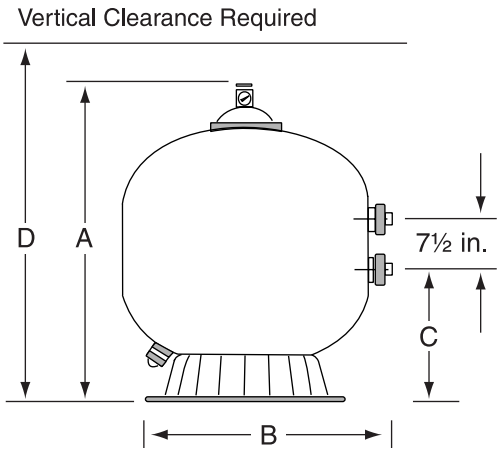
Replacement Parts

TR100HD
TR100C
TR140C

TR 100HD
TR 100C
TR 140C



UPPER PIPING SHOWN
IN ISOMETRIC
TANK VIEW TR 140C



MODEL	A DIM.	B DIM.	C DIM.	D DIM.
TR100HD	39¾ in.	30½ in.	16¼ in.	41¾ in.
TR100C	39¾ in.	30½ in.	16½ in.	43¾ in.
TR140C	45¼ in.	36½ in.	18¾ in.	49¼ in.

TRITON® 100HD, 100C & 140C FIBERGLASS SAND FILTER

Replacement Parts

TR100HD
TR100C
TR140C

Item No.	Part No.	TR100HD, TR100C & TR140C SAND FILTERS Description
1	273512	Air bleeder w/ o-ring
2	273513	O-ring air bleeder screw
3	273564	Manual air relief body assy.
4	155050	Pressure Gauge
4	991481	Pressure Gauge TR100C/TR100HD ❷
5	274494	O-ring 3/16 in. X 2-5/8 in. i.d..
6	273564	Valve body machined
7	154575	Closure 8½ in. buttress
8	152509	Square ring 8½ in.
9	154599	Diffuser TR100C/TR100HD ❶
9	154599	Diffuser TR140C ❶
10	156355	Piping assy. upper TR100C/TR100HD/ TR140C ❶
11	156344	Piping assy. upper inlet TR100C/TR100HD/ TR140C
12	156354	Piping connecting assy. upper TR140C
13	154412	Nut 2 in. internal
14	153430	Tank & ft. assy. TR100C/TR100HD - 8½ in. btr. THD. - Blk
14	153431	Tank & ft. assy. TR140C - 8½ in. btr. THD. - Blk
14	156224	Tank & ft. assy. TR100HD - btr. thd. - Blk ❷
15	154453	Hub lateral TR100C/TR100HD/TR140C
16	154596	Foot 24 in. dia. TR100C/TR100HD/TR140C
17	152202	Lateral 9 1/8 in. TR100C/TR100HD, 8 req.
17	154540	Lateral 12 in. TR140C, 8 req.
18	154412	Locknut 2 in. internal
19	154416	Spacer 2 in. internal
20	154492	O-ring 2 in. bulkhead
21	154408	Spacer 2 in. external
22	154538	Gasket 2 in. bulkhead
23	154405	Bulkhead 2 in.
24	274494	O-ring 3/16 in. X 2 5/8 in. i.d.
	154407	Tape ft. mounting
25	152220	2 in. sand drain
26	154871	Cap thd. 1½ in.
27	154527	Wrench 8½ in. closure
27	151608	Wrench 8½ in. aluminum
28	154807	Piping assy. lower TR100C/TR100HD
28	154489	Piping assy. lower TR140C
29	150036	Connector air relief tube
30	273071	Screw #14 18-8 TR100C/TR100HD ❶
31	150041	Tube air relief TR100C/TR100HD
31	150042	Tube air relief TR140C
32	150035	Strainer air relief
33	274494	O-ring valve adptr.
34	271096	1½ in. & 2 in. slip adptr. kit for inst. w/o valve (pair)
35	271092	2 in. thd. adptr. kit for inst. w/o valve (pair)
36	271094	1½ in. thd. adptr. kit for inst. w/o valve (pair)
37	154856	Kit closure 8½ in. btr. THD. - Blk.
37	155738	Kit closure 8½ ❷

NOTES

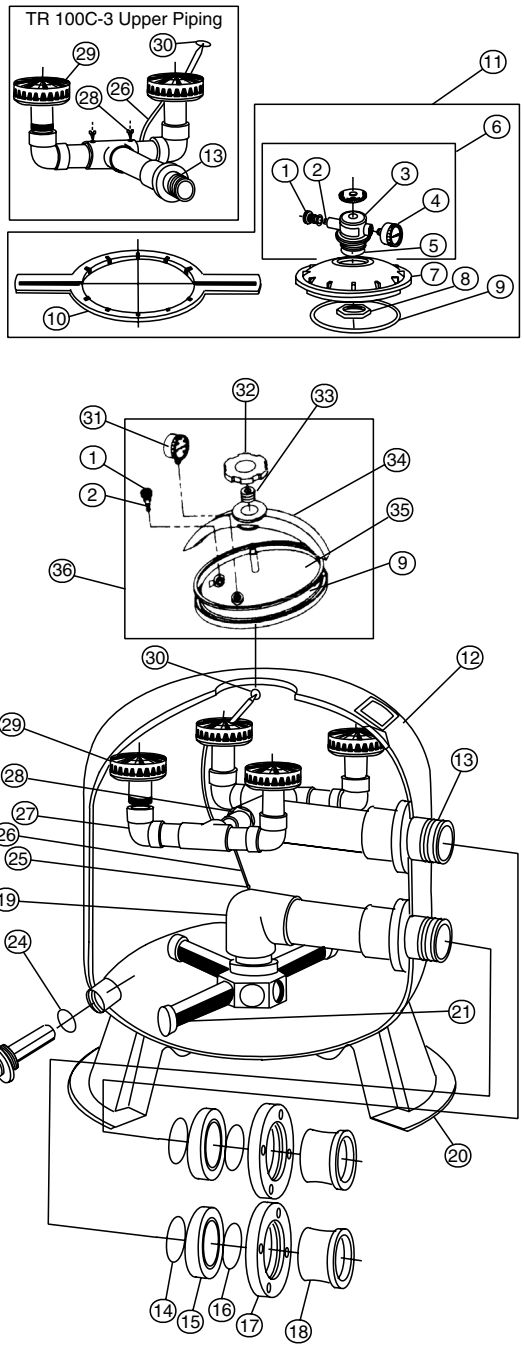
❶ Different quantities required for TR100C and TR140C Filters.
❷ Used on TR1000HD Filters

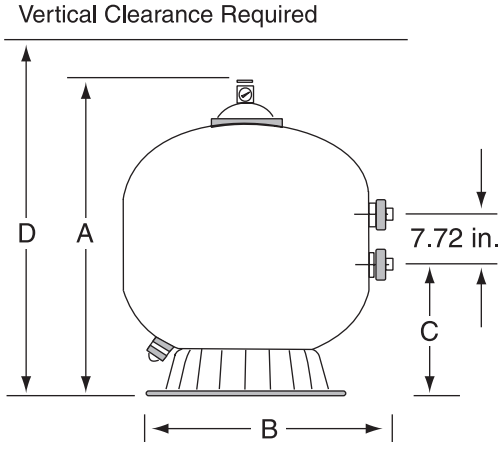
ENGLISH

TRITON® 100C-3 & 140C-3 FIBERGLASS SAND FILTER

Replacement Parts

TR100C-3
TR140C-3





MODEL	A DIM.	B DIM.	C DIM.	D DIM.
TR100C-3	39¾ in.	30½ in.	16-1/16 in.	43¾ in.
TR140C-3	45¼ in.	36½ in.	18½ in.	49¼ in.

TRITON® 100C-3 & 140C-3 FIBERGLASS SAND FILTER

Replacement Parts

TR100C-3
TR140C-3

Item No.	Part No.	TRITON 100C-3 &140C-3 SAND FILTERS Description
1	273512	Air bleed with o-ring ❷❸
2	273513	O-ring air bleeder screw ❷
3	273564	Valve body machined ❷
4	155050	Pressure gauge ❷
5	154494	O-ring adapter, 6 in. ❷
6	273564	Manual air relief assy. ❷
7	154575	Closure 8½ in. ❷
8	154412	Nut 2 in. internal ❷
9	152509	Square ring closure ❷❸
10	154527	Wrench 8½ in. closure ❷
11	154856	Kit 8½ in. closure buttress thd. ❷
11	156842	Kit 8½ in. closure w/gasket ❹
12	153430	Tank & ft. assy. TR100C-3 - buttress
12	153431	Tank & ft. assy. TR140C-3 - buttress
13	154007	Upper piping assy. TR100C-3
13	154008	Upper piping assy. TR140C-3
14	154005	O-ring Parker 2-343, 2 req.
15	154002	Spacer 3 in., 2 req.
16	154004	O-ring Parker 2-342, 2 req.
17	154003	Flange 3 in., 2 req.
18	154001	Adapter flange 3 in., 2 req.
19	154009	Lower piping assy. TR100C-3
19	154010	Lower piping assy. TR140C-3
20	154596	Foot 24 dia. TR100C-3/140C-3
21	152202	Lateral 9 in. TR100C-3, 8 req.
21	154540	Lateral 12 in. TR140C-3, 8 req.
22	154871	Cap thd. 1½ in.
23	152220	Sand drain 2 in.
24	274494	O-ring 3/16 in. X 2 5/8 in. i.d., 2 req.
25	154441	Connector air relief tube
26	150041	Tube air relief TR100C-3 (23 in.)
26	150042	Tube air relief TR140C-3 (27 in.)
27	154018	Diffuser piping assy. TR140C-3, 2 req.
28	552474	Screw - #10-1½ in. flathead phillips, 2 req.
29	154599	Diffuser - 2 req'd. for TR100C-3
29	154599	Diffuser - 4 req'd. for TR140C-3

Item No.	Part No.	TRITON 100C-3 &140C-3 SAND FILTERS Description
30	150035	Strainer ELC/TR
31	190058	Pressure Gauge, ¼ in. psi ❸
32	154581	Knob TR oval ❸
33	154582	Spring TR oval ❸
34	154579	Bridge TR oval ❸
35	154576	Closure-oval ❸
36	156841	Kit TR oval closure ❶❸

NOTES

❶ P/N 156841 includes items: 1, 9, 31 thru 35.
❷ Used on filters manufactured before 3-97.
❸ Used on filters manufactured after 3-97.
❹ Used on filters manufactured after 4-15.

ENGLISH

NOTES

SAVE THESE INSTRUCTIONS

PENTAIR

TRITON™

FILTROS DE ARENA DE FIBRA DE VIDRIO

MODELS: TR 40, TR 50, TR 60, TR 100, TR 140, TR 100HD, TR 100C, TR 140C, TR 100C-3, TR 140C-3 y TR 60 con CLEARPRO TECHNOLOGY™

ESPAÑOL

GUÍA DE USARIO E INSTALACIÓN

IMPORTANTES INSTRUCTIVOS DE SEGURIDAD

LEA Y SIGA TODOS LOS INSTRUCTIVOS

PROTEJA ESTOS INSTRUCTIVOS

ATENCIÓN AL CLIENTE / SOPORTE TÉCNICO

Si tiene alguna pregunta sobre cómo realizar pedidos de piezas de repuesto de Pentair Aquatic Systems, utilice la siguiente información de contacto:

Servicio del Cliente y Soporte Técnico, USA
(de 8 a.m. a 4:30 p.m., Horario del Este y del Pacífico)

Teléfono: (800) 831-7133

Fax: (800) 284-4151

Sitio web

Visite *www.pentairpool.com* o *www.staritepool.com* para encontrar información sobre los productos Pentair.

Sanford, Carolina del Norte
(de 8 a.m. a 4:30 p.m., Horario del Este)

Teléfono: (919) 566-8000

Fax: (919) 566-8920

Moorpark, California
(de 8 a.m. a 4:30 p.m., Horario del Pacífico)

Teléfono: (805) 553-5000 (Ext. 5591)

Fax: (805) 553-5515

ÍNDICE

Precauciones Importantes de Seguridad **23**

Sección 1: Introducción **25**

Visión general de los Filtros de Arena de Fibra de Vidrio Triton 25

Características Generales 26

Sección 2: Instalación **27**

Instalación del Filtro de Arena de Fibra de Vidrio Triton 27

Cómo Funciona su Filtro Triton 27

Instalación de Tapas Ovaladas e Hilados del Filtro Triton 29

Arranque Inicial 30

Sección 3: Mantenimiento **31**

Cuidado del Filtro Triton 31

Limpieza del Filtro Triton 31

Procedimiento para el lavado de la parte posterior del Filtro Triton 32

Procedimiento para la limpieza química 33

Prepare su Filtro Triton para el invierno 33

Sección 4: Localización de Averías **34**

Sección 5: Partes de Repuesto **36**

Curva de Caída de Presión del Filtro Triton 36

Instalación de Filtros Múltiples Triton (Kits de Tubería de Filtro Tandem) 36

Partes de Repuesto Triton II y TR60 ClearPro 37

Partes de Repuesto Triton 100HD, 100C y 140C 40

Partes de Repuesto Triton 100C-3 y 140C-3 42

© 2015 Pentair Water Pool and Spa, Inc. Todos los derechos reservados.
Este documento está sujeto a cambios sin previo aviso.

1620 Hawkins Ave., Sanford, NC 27330 • (919) 566-8000
10951 West Los Angeles Ave., Moorpark, CA 93021 • (805) 553-5000

MEMBER NATIONAL SPA & POOL INSTITUTE

Todas las marcas comerciales y logos de Pentair son propiedad de Pentair, Inc. Pentair Aquatic Systems™, Triton™ y ClearPro Technology™ son marcas comerciales y/o marcas registradas de Pentair Water Pool and Spa, Inc. y/o sus empresas asociadas en Estados Unidos otros países. A menos que conste expresamente, los nombres comerciales y marcas de terceros que puedan haber sido utilizados en este documento no indican una asociación o respaldo entre los propietarios de estos nombres comerciales y marcas y Pentair Water Pool and Spa, Inc. Esos nombres comerciales o marcas pueden ser marcas comerciales o marcas registradas de estos terceros. Debido a que estamos constantemente mejorando nuestros productos y servicios, Pentair se reserva el derecho de modificar las especificaciones sin previo aviso. Pentair es un empleador que ofrece igualdad de oportunidades.

P/N 154901 Rev. H 3/18/15

PRECAUCIONES IMPORTANTES DE SEGURIDAD

Aviso importante:

La presente guía provee instrucciones de instalación y operación para los Filtros de Arena de Fibra de Vidrio Triton®. Consulte a Pentair Aquatic Systems si tiene alguna pregunta relacionada con este equipo.

Atención Instalador: La presente guía contiene información importante acerca de la instalación, operación y uso seguro de este producto. Esta información se la debe dar al propietario y/o operador de este equipo luego de la instalación o se la debe dejar en o cerca del filtro.

Atención Usuario: El presente manual contiene información importante que lo ayudará a operar y mantener este filtro. Por favor consérvelo como futura referencia.

⚠ ADVERTENCIA Antes de instalar este producto, lea y siga todos los avisos de advertencia que están incluidos. En caso de no seguir las advertencias e instrucciones de seguridad puede resultar en lesiones severas, muerte o daño de la propiedad. Llame al (800) 831-7133 para obtener copias adicionales gratuitas de estas instrucciones.

Información y Seguridad del Consumidor

Los Filtros de Arena Series Triton® están diseñados y fabricados para proveer muchos años de servicio seguro y confiable cuando son instalados, operados y mantenidos de acuerdo con la información de este manual y en los códigos de instalación referidos en las secciones posteriores. A través de este manual, las advertencias y precauciones de seguridad están identificadas con el símbolo " ⚠ ". Asegúrese de leer y cumplir con todas las advertencias y precauciones.

ESTE FILTRO OPERA BAJO ALTA PRESIÓN

⚠ ADVERTENCIA Cuando cualquier parte del sistema de circulación es revisado (por ejemplo, tapa, bomba, filtro, válvula(s), etc.), el aire puede ingresar al sistema y volverse presurizado. El aire presurizado puede hacer que la tapa superior se separe lo cual puede resultar en lesiones severas, muerte o daño de la propiedad. Para evitar este peligro potencial, siga estas instrucciones:

1. Si no está familiarizado con su sistema de filtración y/o calentador de piscina:
   a. **NO** intente ajustar o hacer una revisión sin consultar con su distribuidor o con un técnico de piscina calificado.
   b. Lea completamente la Guía del Usuario e Instalación antes de intentar usar, hacer una revisión o ajustar el sistema o calentador de filtración de la piscina.
2. Antes de volver a colocar la(s) válvula(s) y antes de empezar el ensamblaje, desmontaje o cualquier otro servicio del sistema de circulación: (A) Apague la bomba (**TURN OFF)** y desconecte **(SHUT OFF)** cualquiera de los controles automáticos para asegurarse que el sistema NO se encienda repentinamente durante la revisión; (B) abra la válvula de purga de aire manual; (C) espere hasta que toda la presión se haya liberado.
3. Cuando instale la tapa del filtro **SIGA EXACTAMENTE LAS ADVERTENCIAS DE LA TAPA DEL FILTRO.**
4. Una vez que complete el servicio en el sistema de circulación **SIGA EXACTAMENTE LAS INSTRUCCIONES INICIALES.**
5. Mantener el sistema de circulación adecuadamente. Remplazar las partes deterioradas dañadas (Ej., tapa, indicador de presión, válvula(s), anillos "O", etc.).
6. Asegúrese que el filtro esté montado y colocado adecuadamente de acuerdo con las instrucciones provistas.

ESPAÑOL

PRECAUCIONES IMPORTANTES DE SEGURIDAD

⚠ ADVERTENCIA

Este filtro debe ser instalado por un electricista autorizado o certificado o por un técnico de servicios de piscina calificado de acuerdo con el Código Eléctrico Nacional y todos los códigos y ordenanzas locales aplicables. Una instalación inadecuada podría resultar en lesiones serias o en la muerte de los usuarios, de los instaladores de la piscina u otros, también puede causar daño a la propiedad.

Siempre desconecte la energía del sistema de circulación de la piscina del cortocircuito antes de revisar el filtro. Asegúrese que el circuito desconectado esté cerrado o adecuadamente codificado para que no se conecte cuando esté trabajando en el filtro. De lo contrario podrían resultar en lesiones serias o la muerte del técnico de servicio, de los usuarios de piscinas u otros debido a una descarga eléctrica.

⚠ ADVERTENCIA

No opere el filtro hasta que haya leído y comprendido claramente todas las instrucciones de operación y mensajes de advertencia de todo el equipo que es parte del sistema de circulación de la piscina. El propósito de las siguientes instrucciones es guiarlo para iniciar la operación del filtro en una instalación general de la piscina. En caso de no seguir todas las instrucciones de operación y mensajes de advertencia podría resultar en daño a la propiedad, lesiones personales severas o la muerte.

⚠ ADVERTENCIA

Para reducir el riesgo de lesiones, no permita que los niños usen este producto a menos que sean supervisados cuidadosamente todo el tiempo.

⚠ ADVERTENCIA

Debido al riesgo potencial que puede suceder se recomienda que la prueba de presión se mantenga al tiempo mínimo requerido por el código local. No permita que haya personas trabajando alrededor del sistema cuando el sistema de circulación esté bajo prueba de presión. Coloque adecuados avisos de advertencia y establezca una barrera alrededor del equipo presurizado. Si el equipo está ubicado en el cuarto de equipo, cierre la puerta y coloque un aviso de advertencia.

Nunca intente arreglar ninguna tapa o intente remover o ajustar los tornillos cuando el sistema esté presurizado. Estas acciones pueden causar que la tapa se descargue y puede causar severas lesiones personales o la muerte si le golpeara a una persona.

⚠ ADVERTENCIA

Nunca exceda la presión de operación máxima en los componentes del sistema. Si excede estos límites puede resultar en una falla del componente bajo presión. Esta liberación instantánea de energía podría hacer que la tapa se descargue y podría causar severas lesiones personales o la muerte si le golpeara a una persona.

Sección 1
Introducción

Información General acerca de los Filtros de Arena de Fibra de Vidrio Triton™

Filtros de Arena de Fibra de Vidrio Triton™ II

El filtro de arena que es #1 en el mundo

Triton II es el resultado de más de 40 años de evolución y refinamiento de producto. Ha establecido el estándar de la industria en cuanto a efectividad, eficiencia, largos periodos de funcionamiento antes de necesitar servicio, y el proporcionar años de operación de confianza y de bajo mantenimiento.

Triton II ofrece un diseño interno especial que mantiene nivelado el lecho de arena, asegurándose de que el agua fluya con regularidad y resultando en la filtración más eficiente posible.

La mejor reputación de la industria por las mejores razones

Además de su superior rendimiento de filtración, Triton II proporciona un nivel de confianza y facilidad de operación y mantenimiento que resultan en un historial insuperable. Cada detalle del diseño se ha refinado para hacer que Triton II sea el estándar de la industria.

Filtros de Arena Comerciales Triton™ C y Triton™ C-3

Esta serie de filtros ofrece desviadores múltiples para obtener mayores velocidades de filtración en las aplicaciones comerciales de hasta 20 GPM/Pie Cuad.

Filtros de Arena de Montaje Lateral Triton™ HD

El mismo rendimiento y todas las mismas características del Triton original con una presión de operación máxima de 75 psi para las instalaciones especiales de alta presión, tales como los sistemas de limpieza de planta de una sola bomba.

Triton II - Residencial

Triton C - Comercial

Triton C-3 - Comercial

Triton HD - Comercial

ESPAÑOL

Características Generales

Triton™ II

- El diseño interno, cuya efectividad se ha comprobado con el paso del tiempo, asegura que toda el agua recibe filtración máxima para que se obtengan resultados de absoluta claridad
- El proceso GlasLok™ crea un tanque reforzado de fibra de vidrio de una sola pieza con recubrimiento resistente a los UV para que proporcione años de servicio de confianza y de resistencia a la corrosión
- El diseño del sistema de flujo controla la calidad de la filtración y asegura tiempos de operación máximos entre retrolavados para ahorrarle tiempo

Triton™ C y Triton™ C-3

- Presión de Operación Máxima 50 psi
- Desagüe de 2 pulg. amplias
- Apertura de 8 pulg. para fácil acceso al lecho de arena
- El Triton C-3 tiene conexiones de bridas estándar de 3 pulg.
- Los modelos TR 100C y TR 140C pueden obtenerse en negro o color almendra
- Los modelos TR 100C-3 y TR 140C-3 pueden obtenerse en negro solamente

Triton™ HD

- Presión de Operación Máxima 75 psi

Características Adicionales:

- El desagüe de arena y agua combinadas hace que el trabajo de reparación/mantenimiento y el de preparación para el invierno vayan más rápido
- Todas las piezas internas son de rosca para facilidad de mantenimiento
- El difusor de agua, que puede hacerse a un lado, permite acceso instantáneo a la arena y a todas las piezas internas
- Registrado con la NSF

Sección 2
Instalación

Nota: Antes de instalar este producto, lea y siga todos los avisos e instrucciones de advertencia que empiezan en la Pág. (sp) ii.

Instalación del Filtro de Arena de Fibra de Vidrio Triton™

Sólo una persona de servicio calificada puede instalar el Filtro de Arena de Fibra de Vidrio Triton. Este filtro está diseñado y destinado para usarlo con agua de filtro.

Introducción del Triton™

La siguiente información general describe cómo instalar el Filtro de Arena de Fibra de Vidrio Triton. Este filtro opera bajo presión y si se monta mal o si se opera con aire en el sistema de circulación de agua el cierre superior se puede abrir y producir accidentes que causen lesiones graves en el cuerpo y daño a la propiedad. Se ha adherido una etiqueta de advertencia en la parte superior del filtro y no se debe remover. Mantenga las etiquetas de sequridad en buenas condiciones y ponga una nueva si falta o si no se puede leer.

Como Funciona el Filtro

Su filtro de arena de alta capacidad ha sido diseñado para operar por años con un mantenimiento mínimo y si se instala, opera y se mantiene según estas instrucciones le entregará años de operación sin problemas.

La mugre se recauda en el filtro a medida que el flujo fluye a través de la válvula de control en la parte lateral del filtro y se dirige hacia el tapón superior. El agua sucia fluye al difusor en la parte superior del estanque y se dirige hacia abajo a la superficie superior de la capa de arena del filtro. La mugre se recauda en la capa de arena y el agua limpia fluye a través de los laterales y de la tubería inferior en la parte inferior del filtro y hacia arriba al tapón inferior. El flujo luego va a la válvula de control en la parte lateral del filtro. El agua limpia se devuelve a través del sistema de tuberías a la piscina.

La presión se elevará y el flujo de la piscina se bajará a medida que se recauda mugre en el filtro. Eventualmente, el filtro se tapará tanto con la mugre que será necesario el implementar el procedimicnto de lavado por corriente. Es importante saber cuándo es necesario lavar el filtro por corriente. El lavado por corriente se trata a continuación bajo las secciones siguientes de este manual.

Haga el favor de darse cuenta que el filtro remueve los materiales suspendidos y no higieniza la piscina. El agua de la piscina tiene que ser higienizada y balanceada químicamente para conseguir agua burbujeante y transparente. Su sistema de filtración tiene que ser diseñado de modo que satisfaga sus códigos de salud locales. Como un mínimo tiene que asegurarse que su sistema va a hacer rotar el volumen de agua total en su piscina por lo menos dos a cuatro veces en un período de 24 horas.

Refiérase a la **Tabla 1** para obtener la Información de Operación del Filtro.

NUMERO DEL MODELO DEL FILTRO	AREA DEL FILTRO (pies cuadrados)	VELOCIDAD DE FLUJO *(GPM) @ 20 GPM/ PIE²	CAPACIDAD DE ROTACION (Galones) (Basado en 20 GPM/pies cuadrados) *			
			4 VUELTAS AL DIA	3 VUELTAS AL DIA	2.4 VUELTAS AL DIA	2 VUELTAS AL DIA
TR40	1,92	38	13,680	18,240	22,800	27,360
TR50	2,46	49	17,640	23,520	29,400	35,280
TR60	3,14	63	22,680	30,240	37,800	45,360
TR60 ClearPro	3,14	63	22,680	30,240	37,800	45,360
TR100	4,91	74	26,640	35,520	44,400	53,280
TR100HD	4,91	74	26,640	35,520	44,400	53,280
TR100C/TR100C-3	4,91	98	35,280	47,040	58,800	70,560
TR140	7,06	106	38,160	50,880	63,600	76,320
TR140C/TR140C-3	7,06	141	50,760	67,680	84,600	101,520

Tabla 1.

ESPAÑOL

⚠ ADVERTENCIA Si no opera su sistema de filtro o si la filtración no es adecuada se puede afectar la transparencia del agua, impidiendo la visibilidad en su piscina y puede ser que se salte dentro o sobre objetos obscurecidos que pueden producir lesiones personales graves o que la persona se ahogue.

El agua transparente es el resultado de la filtración adecuada como también del balance químico adecuado del agua de la piscina. La química de la piscina requiere conocimiento especializado y tiene que consultar con su especialista de servicios de piscinas local para los detalles específicos. En general, la higienización adecuada de la piscina necesita un nivel de cloro libre de 1 a 3 PPM y una gama de PH de 7,2 a 7,6.

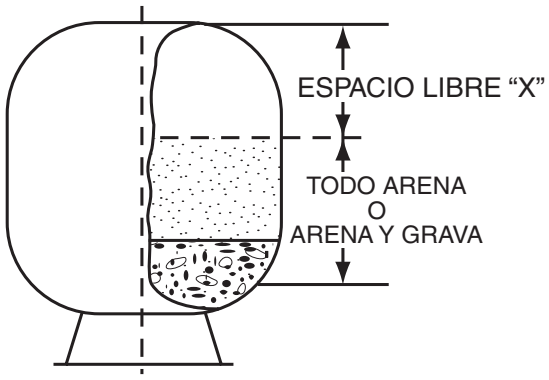
⚠ ADVERTENCIA Los filtros nunca deben ser probados o ser expuestos a aire o gas bajo presión. Todos los gases son comprimibles y bajo presión crean peligro. Se pueden producir lesiones corporales graves o daño a la propiedad si el filtro se expone a aire o gas bajo presión.

1. Revise la caja de cartón para verificar si hay evidencia de daño debido al manejo abrupto durante el envío. Si la caja de cartón o cualquier componente del filtro está dañado, avise a la compañia de transporte inmediatamente.
2. Cuidadosamente remueva el paquete del accesorio y el estanque del filtro de la caja de cartón.
3. Monte el filtro en una losa permanente, preferiblemente de concreto vaciado en un molde o en una plataforma construida de bloque de concreto o de ladrillo. NO USE arena para nivelar el filtro o para el montaje de la bomba pues se va a esparcir.
4. Proporcione espacio y luz para el acceso para el mantenimiento de rutina. No monte los controles eléctricos sobre el filtro. Es necesario el poder alejarse del filtro cuando se hace arrancar la bomba. Las necesidades mínimas de espacio se pueden encontrar en el filtro, en la placa grande del fabricante.
5. Ponga el filtro de modo que los agujeros estén en la posición final deseada. Siga el procedimiento de instalación de la válvula.
6. Si tiene una Válvula de Agujeros Múltiples, monte la válvula en el estanque, asegurándose que los anillos O en los accesorios de la válvula estén en su lugar y limpios. Use un lubricante aplicado en capas delgadas, tal como la grasa de silicona, Dow #33, #40 o GE 300 o 623, o un producto similar en los anillos O y en las ranuras de los anillos O, antes del montaje.
7. Si tiene una válvula de deslizamiento de dos posiciones, alinee la válvula con el estanque de modo que la manilla esté hacia la parte superior del estanque, empuje las válvulas en los agujeros y gire las tuercas de la válvula apretadamente en los accesorios del estanque. No es necesario asegurar las tuercas, de la válvula en el accesorio del estanque más que lo que se puede hacer manualmente.
8. Las correas del envío que se usaron para soportar el multidifusor TR100C-3, TR140C y TR140C-3 se deben remover, antes de cargar la arena y la grava en el filtro.
9. Las especificaciones de la arena - asegúrese que se use la arena adecuada tal como se ha descrito en la Tabla 2. Antes de vaciar la arena en el filtro, mire adentro y verifique el drenaje inferior para verificar si hay laterales sueltos o rotos (o dedos) los que se pueden haber dañado por accidente debido al manejo abrupto durante el manejo. Cambie las partes rotas si es necesario.

AVISO: La distancia del espacio libre es la variable de más importancia y se debe mantener. La densidad de la arena variará y por lo tanto la cantidad de arena se da como referencia.

Tabla 2.

MODELO	ESPACIO LIBRE "X"	TODO ARENA* (LIBRAS)	MATERIAL DE FILTRO † (LIBRAS)	
			GRAVILLA ‡	ARENA
TR40	8 1/4"	175	50	125
TR50	9 3/4"	225	50	175
TR60	10 1/2"	325	50	275
TR60 ClearPro	10 1/2"	325	50	275
TR100	11 1/4"	600	150	450
TR100HD	11 1/4"	600	150	450
TR100C-3	11 1/4"	600	150	450
TR140	13 1/2"	925	275	650
TR140C-3	13 1/2"	925	275	650



† Material necesario para cumplir con los requisitos de NSF.

‡ La gravilla tiene que ser de 1/4" a 1/8" dia.

* La arena tiene que ser silicea estandar #20 (el coeficiente de uniformidad no mayor que 1.75) .018-.020 en diametro tamaño de particula.

⚠ ADVERTENCIA Si no se coloca la Ventilación de Aire Automática dentro del Cierre se permitirá que se atrape aire en exceso y que se acumule en el filtro. El aire atrapado y el cierre que no está cerrado en forma adecuada pueden hacer que se produzcan fugas en el cierre y producir lesiones corporales graves y/o daño a la propiedad.

10. Pivotee el difusor fuera del centro del estanque en los TR40, 50, 60, TR60 ClearPro,100 y 140 rotando el conjunto del difusor en el sentido contrario en que giran las manillas del reloj. (***AVISO:*** El conjunto del multidifusor no se debe mover en los modelos TR100HD, TR100C, TR100C-3 y TR140C, TR140C-3. Después de instalar el material del filtro tal como se ha descrito a continuación revise para verificar que las partes superiores de los difusores estén paralelas con la parte superior de la capa do arena.) Llene el estanque con agua hasta alrededor de la mitad. Vacíe gravilla primero (si se va a usar) y luego arena en la parte superior del filtro lentamente de modo que el impacto del material del filtro no daño los laterales. Vea la información en la Tabla 2 en este manual para verificar la cantidad de arena y grava adecuada. Llene el filtro al nivel adecuado para mantener el espacio libre (vea la Tabla 2). Pivotee el conjunto del difusor de nuevo a su posición vertical si es que se movió. Asegúrese que la ventilación de aire automática está sobresaliéndose en la parte superior del cierre tal como se indica a continuación en la Figura 1. Asegúrese que la ventilación de aire automática está en el centro del cierre del filtro. Lave toda la arena alrededor de la abertura roscada en la parte superior del estanque.

⚠ ADVERTENCIA

Para Cierre Enroscado

Tenga cuidado al instalar el cierre. El cierre debe girar libremente en el filtro, si se siente resistencia a la insertión del cierre, remueva lentamente el cierre girándolo en el sentido contrario en que giran las manillas del reloj. La rosca del comienzo del estanque y el cierre tiene que engancharse en forma adecuada para poder asegurar el cierre. *No cruce las roscas del cierre.*

Si no se instala el cierre en forma adecuada se producirán fugas en el cierre y se pueden producir lesiones corporales graves y/o daño a la propiedad.

⚠ ADVERTENCIA

Del Cierre Ovalado

Tenga cuidado al instalar el cierre. El cierre se debe insertar en el estanque colocando el diámetro pequeño del cierre ovalado dentro del diámetro más grande de la abertura del estanque. Primero inserte el lado del cierre que no tiene la válvula de presión y el alivio de aire. El cierre se debe insertar en un ángulo de 30 grados. Una vez que el cierre esté dentro del estanque se puede rotar 90 grados y levantar para sellar el estanque. Ahora el puente de aluminio con resorte ya se puede colocar sobre el perno del cierre y se puede apretar la manija con la mano para colocar el cierre adecuadamente. La manija solamente se debe apretar con la mano. NO UTILICE UNA LLAVE INGLESA PARA APRETAR LA MANIJA. Si utiliza una llave inglesa puede dañar el estanque o el cierre y producir una falla. La incorrecta instalación del cierre puede ocasionar que el cierre se vuele y ésto puede producir lesiones personales graves o daño a la propiedad.

NUNCA TRATE DE APRETAR O SOLTAR EL CIERRE CON LA BOMBA FUNCIONANDO. Si no se siguen estás instrucciones se pueden producir fugas en el cierre y producir lesiones corporales graves o daño a la propiedad.

11. Monte el medidor de presión y la válvula del purgador en la tapa del cierre. Limpie el anillo O en la tapa y lubríquela con grasa de silicona tal como Dow #33, 40 o con lubricante GE 300, 623. Ponga la tapa del cierre en el filtro y apriétela, asegurándose que la ventilación de aire esté hacia arriba dentro de la cúpula del cierre.
12. Con la llave de plástico que viene incluida con el filtro, apriete el cierre lo más apretado posible usando las dos manos en los mangos de la llave. Como un mínimo, el cierre tiene que ser apretado con la mano + 1/4 de vuelta.
13. El cierre ovalado que se usa en los modelos TR140C-3 y TR100C-3 deberá instalarse según se describe en la nota de advertencia del cierre ovalado mencionada anteriorment.
14 . Monte las tuberías y los accesorios en la bomba y la válvula. Todas la tuberías tienen que cumplir con los códigos sanitarios y de plomería estatales y locales.
15. Use los compuestos de sellado en todas las conexiones de tuberías y accesorios machos. Use sólamente los compuestos de tuberías adecuados para las tuberías de plástico. Apoye las tuberías para evitar el esfuerzo en el filtro, la bomba y la válvula.
16. Las extensiones de tuberías largas y los codos restrigen el flujo. Para conseguir la mayor eficiencia, use el menor número posible de accesorios y una tubería de diámetro grande (por lo menos 2” para TR100 y TR140, por lo menos 3” para TR100C-3 y TR140C-3).

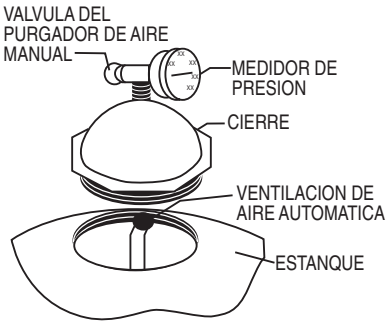


Figura 1.

ESPAÑOL

⚠ PRECAUCIÓN La operación a niveles de aspiración excesivos puede hacer que el estanque se rompa y se pueden producir daños a la propiedad.

17 . Al instalar las líneas de enjuague, se recomienda instalar un freno de vacío en las instalaciones en donde la longitud de la línea de enjuague excede los 40 pies o la línea de enjuague se vacía a más de 10 pies abajo de la superficie del depósito. Como alternativa se debe proporcionar un foso para el freno de vacío.

18. Se recomienda el uso de una válvula de retención entre el filtro y el calentador para evitar el retroceso del agua caliente que dañaría el filtro y la válvula.

19. La presión de operación máxima de la unidad es de 50 libras por pulgada cuadrada (psi) y 75 libras por pulgada cuadrada (psi) solamente para el modelo Triton HD. Nunca opere este filtro encima de éstas presiones o añada una bomba a este filtro que tiene más de 50 psi de presión de cierre o 75 psi de presión de cierre solamente para el modelo Triton HD.

20. Nunca instale el clorinador flujo arriba del filtro. Siempre ubíquelo flujo abajo y con una válvula de retención entremedio del clorinador y del filtro.

21. No se recomienda el uso de una válvula de cierre positivo en la salida del sistema de filtración. Si alguna vez el sistema se hace funcionar con tal válvula cerrada, el sistema de alivio de aire interno deja de funcionar y puede producirse una situación separación. Además, si se hace funcionar el sistema sin flujo se dañará el equipo gravemente.

22. Nunca guarde los productos químicos de la piscina dentro de 10 pies del filtro de la piscina. Los productos químicos de la piscina siempre se tienen que guardar en un área fresca, seca y bien ventilada.

23. El cierre ovalado que se usa en los modelos TR140C-3 y TR100C-3 est á diseñado para operar como un mecanismo de alivio de vacio, esto protege al estanque de condiciones al vacio. El cierre permitirá que el aire entre al estanque si el estanque se encuentra ubicado a 8 pies por encima del nivel del agua. En estos casos, cuando el filtro se arranca nuevamente después de haberlo apagado, es posible que usted observe cómo el aire regresa a la piscina por las tuberías de retorno. Esto es normal, ya que el alivio de aire automático en el filtro está sacando el aire del filtro.

Arranque Inicial

1. Limpie una piscina nueva antes de llenarla con agua. La mugre en exceso y las partículas grandes pueden hacer daño a su bomba y al sistema del filtro.
2. Asegúrese que la tubería de lavado por corriente esté abierta de modo que el agua quede libre de entrar desde la piscina y salir fuera de la tubería de lavado por corriente. Ajuste la válvula en la posición a continuación:
   a. Si se usa una válvula de Agujeros Múltiples, ajústela en la posición de lavado por corriente (BACKWASH).
   b. Si se usa una válvula de Deslizamiento de Dos Posiciones, empuje la manilla para abajo a la posición de lavado por corriente y enganche el seguro torciendo la manilla.
3. Asegúrese que el depósito del colador de la bomba esté lleno con agua.

⚠ ADVERTENCIA Si entra aire en el filtro y el cierre del estanque no está instalado en forma adecuada se pueden producir escapes en el cierre y daños corporales graves y/o daño a la propiedad.

4. Revise el cierre en el filtro para verificar si está apretado.
5. Abra el purgador de aire manual en el cierre del filtro. Aléjese del filtro y haga arrancar la bomba dejando tiempo para que se cebe.
6. Cierre el purgador de aire en el cierre cuando se haya removido todo el aire del filtro y salga un chorro de agua parejo.

AVISO: La arena de filtro de la piscina, típicamente, se prelava y no debe necesitar mucho lavado por corriente. Sin embargo, el proceso de envío puede producir una abrasión excesiva que puede exigir un ciclo de lavado por corriente largo en el arranque inicial; continúe lavando por corriente hasta que el agua observada en el tubo indicador esté tan transparente como la de la piscina.

⚠ PRECAUCIÓN Para evitar daño en el equipo y una posible lesión, siempre desconecte la bomba antes de cambiar la posición de la válvula.

7. Pare la bomba. Ajuste la posición de la válvula según to siguiente:
   a. Si se usa una válvula de Agujeros Múltiples, ajústela en la posición del filtro (FILTER).
   b. Si se usa una válvula de Deslizamiento de Dos Posiciones, levante la manilla a la posición del filtro y enganche el seguro de la válvula torciendo la manilla.
8. Asegúrese que todas las tuberías de succión y de retorno a la piscina estén abiertas de modo que el agua pueda salir y volver a la piscina libremente.
9. Abra el purgador de aire manual en el cierre del filtro. **Aléjese del filtro** y haga arrancar la bomba.
10. Cierre el purgador de aire en el cierre del filtro cuando todo el aire haya sido removido del filtro y salga un chorro de agua parejo.
11. El filtro ahora ha comenzado su ciclo de filtración. Tiene asegurarse que el agua está volviendo a la piscina y fijarse en la presión de operación cuando el filtro está limpio.

Sección 3
Mantenimiento

Esta sección describe cómo mantener su Filtro de Arena de Fibra de Vidrio Triton™.

Cuidado del Filtro

El filtro es una pane muy importante del equipo y de la instalación de su piscina. El cuidado y el mantenimiento adecuado van a agregar muchos años de servicio y de goce de su piscina. Siga estas sugerencias para contar con una operación duradera y sin problemas.

1. Para limpiar la mugre y el polvo del exterior del filtro, lávelo con un detergente suave y agua y luego mangueréelo. No use solventes.
2. Si se necesita mantenimiento interno, se tiene que remover la arena removiendo el drenaje de arena de la parte inferior del filtro y se debe lavar con una manguera de jardín. La parte Pentair Water Pool and Spa™ No. 542090 también se puede usar.
3. Si después de varios años, el estanque del filtro aparece descolorido y áspero en textura, la superficie del estanque tiene que pintarse. Recomendamos el uso de esmalte de rocío de secado rápido. **No Pinte la Válvula.**

⚠ ADVERTENCIA Siempre inspeccione visualmente los componentes del filtro durante el servicio normal para garantizar la seguridad estructural. Cambie cualquier artículo que esté partido, deformado o que en alguna otra forma se pueda percibir como defectuoso. Los componentes del filtro defectuosos pueden permitir las fugas en la parte superior del filtro o en los accesorios y producir lesiones corporales graves o daño a la propiedad.

4. El cierre del filtro en su filtro de arena Triton II se fabricó con materiales de alta calidad resistentes a la corrosión. Esta parte se debe inspeccionar cuidadosamente cuando se le da servicio a su filtro. Si ve que hay fugas excesivas que vienen de la interfase entre el cierre/estanque, el cierre y el Anillo O tienen que inspeccionarse cuidadosamente y cambiarse si hay alguna señal de deterioro.
5. Su filtro es un recipiente bajo presión y nunca debe recibir servicio cuando esté bajo presión. Siempre alivie la presión del estanque y abra el purgador de aire en el filtro antes de tratar de darle servicio.
6. Cuando vuelva a hacer arrancar el filtro siempre abra el purgador de aire manual en el cierre del filtro y aléjese del filtro.

Frecuencia de Limpieza

1. El filtro de una piscina nueva se tiene que lavar por corriente y limpiarse después de aproximadamente las primeras 48 horas de operación para limpiar el polvo de yeso y/o la basura de la construcción.
2. Hay tres maneras distintas de identificar cuándo el filtro necesita ser lavado por corriente.
   a. El indicador más preciso en los sistemas de piscina con un medidor de flujo es lavar por corriente cuando el flujo disminuye 30% comparado con el original (filtro limpio). Por ejemplo, si el flujo original era de 60 GPM, el filtro tiene que lavarse por corriente cuando el flujo se haya reducido en alrededor de 20 GPM (o 30%) a 40 GPM.
   b. Una indicación más subjetiva y menos precisa es observar la cantidad de agua que fluye de los dispositivos de dirección del flujo ubicados en la pared de la piscina. El filtro tiene que lavarse por corriente una vez que se haya detectado que el flujo se ha reducido en alrededor de 30%.
   c. La indicación que se usa más comúnmente pero es la menos precisa es lavar por corriente cuando la indicación del medidor del filtro aumenta 10 PSI sobre la inicial (filtro limpio).
3. Es importante no lavar por corriente el filtro sólamente en base a períodos de tiempo tal como cada tres días. También es importante fijarse que el lavado por corriente efectuado muy a menudo de hecho produce mala filtración. Los factores como las condiciones del tiempo, mucha lluvia, polvo y polen y las temperaturas del agua afectan la frecuencia del lavado por corriente. A medida que usa su piscina se va a dar cuenta de esas influencias.
4. Si en algún momento la presión de arranque después del lavado por corriente del filtro indica 4 a 6 PSI más alta que la presión de arranque normal, quiere decir que ha llegado el momento de lleva r a cabo el procedimiento de limpieza química.

Procedimiento de Lavado por Corriente del Filtro

⚠ ADVERTENCIA Para evitar el daño al eguipo y posibles lesiones, siempre desconecte la bomba antes decambiar las posiciones de la válvula.

1. Pare la bomba.
2. Asegúrese que la tubería de succión y la tubería de lavado por corriente estén abiertas de modo que el agua pueda entrar desde la piscina y salir pot la tubería del lavado por corriente. Ajuste la posición de la válvula según to siguiente:
   a. Si se usa una válvula de Agujeros Múltiples, ajústela en la posición de lavado por corriente (BACKWASH).
   b. Si se usa una válvula de Deslizamiento de Dos Posiciones, empuje la manilla para abajo a la posición de lavado por corriente y enganche el seguro torciendo la manilla.
3. **Aléjese del filtro** y haga arrancar la bomba.
4. Lave el filtro por corriente aproximadamente 3 a 5 minutos o hasta que el agua del lavado por corriente sale limpia.
5. Pare la bomba.
   a. Si está usando la válvula de Agujeros Múltiples, ajúste la válvula en la posición de enjuague y continúe con los pasos restantes.
   b. Si está usando la válvula de Deslizamiento de Dos Posiciones, vaya al paso 8.
6. **Aléjese del filtro** y haga arrancar la bomba.
7. Enjuague el filtro por aproximadamente 30 segundos.
8. Pare la bomba y ajuste la válvula según lo siguiente:
   a. Si está usando la válvula de Agujeros Múltiples, ajúste la válvula en la posición de filtro (FILTER).
   b. Si está usando la válvula de Deslizamiento de Dos Posiciones eleve la manilla a la posición de filtro y enganche el seguro de la válvula torciendo la manilla.
9. Asegúrese que la tubería de retorno de la piscina esté abierta de modo que el agua pueda fluir libremente de la piscina de vuelta a la piscina.
10. Abra el purgador de aire manual en el Cierre Triton II. Aléjese del filtro y haga arrancar la bomba.
11. Cierre el purgador de aire manual en el Cierre cuando se haya removido el aire y salga un chorro de agua parejo del purgador.
12. El filtro ahora ha empezado su ciclo de filtración. Tiene que asegurarse que el agua está volviendo a la piscina y tomar nota de la presión del filtro.
13. La presión del filtro en el paso 12 anterior no debe exceder la presión que se observó originalmente en el filtro cuando se hizo arrancar inicialmente. Si después de lavar por corriente, la presión está entre 4 a 6 PSI sobre la condición de arranque será necesario limpiar químicamente la capa de arena.

Procedimiento de Limpieza Química

1. Se recomienda utilizar un limpiador aprobado. Por favor comuníquese con un proveedor o un establecimiento de productos químicos para piscinas en su localidad para obtener el limpiador adecuado.

   Estos limpiadores van a remover aceites, escamas y óxido de la capa de arena en una operación de limpieza.
2. Mezcle una solución siguiendo las instrucciones del fabricante en la etiqueta.
3. Lave el filtro por corriente como se ha descrito anteriormente.
4. Si el filtro está por debajo del nivel de la piscina, desconecte la bomba y cierre la válvula apropiada para evitar que la piscina se vacíe.
5. Desconecte la bomba, abra el drenaje del filtro y permita que se vacíe el filtro. Ponga la válvula en la posición de lavado por corriente.
6. Después de que el filtro se haya drenado, cierre el drenaje del filtro y remueva la tapa del depósito del colador de la bomba.
7. Asegúrese que las tuberías de lavado por corriente estén abiertas.
8. Conecte la bomba y lentamente vacíe la solución de limpieza en el colador de la bomba con la bomba funcionando.
9. Continúe agregando solución hasta que la capa de arena esté saturada con la solución de limpieza. Vuelva a colocar la tapa en la bomba.
10. Apague la bomba y deje el filtro en la posición de lavado por corriente (BACKWASH). Permita que el filtro descanse de un día para el otro (12 horas).
11. Vuelva a colocar la tapa de la bomba y siga el procedimiento de lavado porcorriente que se ha descrito anteriormente.
12. No permita que la solución de limpieza caiga dentro de la piscina.

Preparacion del Filtro para el Invierno

1. En las áreas que tienen temperaturas de invierno que producen congelación, proteja el equipo de la piscina lavando el filtro por corriente.
2. Después de lavar el filtro por corriente,desconecte la bomba, abra el purgador de aire manual en el cierre y ajuste la válvula según lo siguiente:
   a. En las válvulas de Agujeros Múltiples, mueva la manilla a la posición de preparación para el invierno.*
   b. En la válvula de Deslizamiento de Dos Posiciones si es posible remueva el Conjunto del Pistón de la válvula, límpielo, lubríquelo y guárdelo en un lugar seco, por el invierno.
3. En los modelos TR40, 50, 60, y TR60 ClearPro, remueva el tapón tipo mariposa en la parte inferior del filtro. En el modelo TR100, TR100HD, TR100C, TR100C-3 y TR140, TR140C, TR140C-3 remueva la tapa del tapón de drenaje de 1-1/2”. El filtro se drenará muy lentamente y por lo tanto, se recomienda que el tapón de drenaje se deje afuera.

***AVISO:** La válvula de Agujeros Múltiples tiene que dejarse en la posición de preparación para el invierno durante la temporada en que la piscina no está en uso de modo que el desviador no tenga presión en el sello de caucho.

4. Drene todas las tuberías apropiadas del sistema.
5. Recomendamos que se cubra el equipo con una sábana de plástico o de lona impermeable para inhibir el deterioro debido al clima. No envuelva el motor de la bomba con el plástico.

Sección 4
Localización de Averías

Use la siguiente información de localización de averías para resolver posibles problemas con su Filtro Triton™.

ESTE FILTRO OPERA BAJO ALTA PRESIÓN

Cuando cualquier parte del sistema de circulación es revisado (por ejemplo, tapa, bomba, filtro, válvula(s), etc.), el aire puede ingresar al sistema y volverse presurizado. El aire presurizado puede hacer que la tapa superior se separe lo cual puede resultar en lesiones severas, muerte o daño de la propiedad. Para evitar este peligro potencial, siga estas instrucciones:

1. Si no está familiarizado con su sistema de filtración y/o calentador de piscina:
   a. **NO** intente ajustar o hacer una revisión sin consultar con su distribuidor o con un técnico de piscina calificado.
   b. Lea completamente la Guía del Usuario e Instalación antes de intentar usar, hacer una revisión o ajustar el sistema o calentador de filtración de la piscina.
2. Antes de volver a colocar la(s) válvula(s) y antes de empezar el ensamblaje, desmontaje o cualquier otro servicio del sistema de circulación: (A) Apague la bomba (**TURN OFF)** y desconecte **(SHUT OFF)** cualquiera de los controles automáticos para asegurarse que el sistema NO se encienda repentinamente durante la revisión; (B) abra la válvula de purga de aire manual; (C) espere hasta que toda la presión se haya liberado.
3. Cuando instale la tapa del filtro **SIGA EXACTAMENTE LAS ADVERTENCIAS DE LA TAPA DEL FILTRO.**
4. Una vez que complete el servicio en el sistema de circulación **SIGA EXACTAMENTE LAS INSTRUCCIONES INICIALES.**
5. Mantener el sistema de circulación adecuadamente. Remplazar las partes deterioradas dañadas (Ej., tapa, indicador de presión, válvula(s), anillos “O”, etc.).
6. Asegúrese que el filtro esté montado y colocado adecuadamente de acuerdo con las instrucciones provistas.

Nota: Desconecte la energía de la unidad antes de intentar hacer un servicio o reparación.

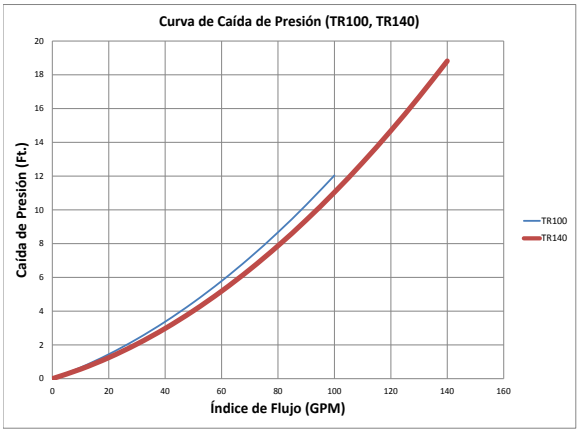
Problemas y Acciones Correctivas

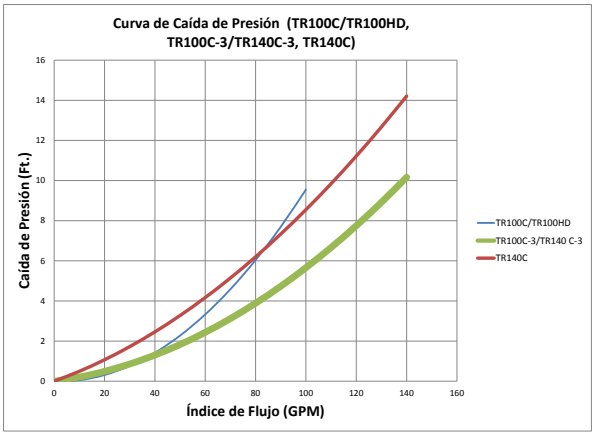
PROBLEMA	CAUSA	SOLUCIÓN
El agua de la piscina no está to suficientemente limpia.	1. La química de la piscina no es adecuada para inhibir el crecimiento de algas. 2. Lavado por corriente muy frecuente. 3. Cantidad inapropiada o tamaño de la arena equivocada. 4. Velocidad de rotación inadecuada.	Mantenga la química de la piscina o consulte con el técnico de servicio de la piscina. Permita que la presión se acumule a 10 psi sobre la condición del filtro limpio antes de hacer el lavado por corriente. Revise el espacio libre de la capa de arena y el tamaño de la arena o consulte con el técnico de servicio de la piscina. Haga funcionar el sistema por un tiempo más largo o consulte con el distribuidor o con el técnico de servicio de la piscina.
Alta presión del filtro.	1. Lavado por corriente insuficiente. 2. La capa de arena tapada con depósitos minerales. 3. La válvula está parcialmente cerrada.	Lave por corriente hasta que el agua efluente salga transparente. Limpie el filtro químicamente. Abra la válvula o remueva la obstrucción en la tubería de retorno.
Ciclos cortos.	1. Lavado por corriente inadecuado. 2. La química de la piscina no es adecuada para inhibir el crecimiento de algas. 3. La capa de arena está tapada. 4. La velocidad del fiujo demasiado alta.	Lave por corriente hasta que el agua efluente salga transparente. Mantenga la química de la piscina o consulte con el técnico de servicio de la piscina. Remueva manualmente 1” de la superficie superior de la capa de arena y cámbiela por arena nueva y limpie químicamente toda la arena según se ha descrito en la seccion Procedimiento de Limpieza Química. Restrinja el flujo a la capacidad del filtro.

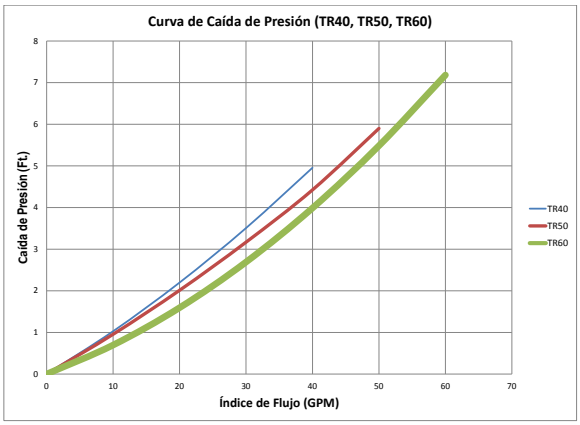
PROBLEMA	CAUSA	SOLUCIÓN
Flujo de retorno a la piscina disminuido. Presión del filtro baja.	1. Obstrucción en el colador de pelusa y cabello de la bomba. 2. Obstrucción en la bomba. 3. Obstrucción en la tubería de succión a la bomba.	Limpie el canasto en el colador. Desmonte y limpie la bomba. Limpie el canasto despumador. Remueva la obstrucción en las tuberías. Abra las válvulas en la tubería de succión.
La arena vuelve a la piscina.	1. Lateral debajo del drenaje quebrado.	Cambie el lateral dañado o roto.
La arena se pierde en el desecho.	1. Velocidad del lavado por corriente demasiado alta. 2. Tamaño de la arena inadecuado. 3. El colador de aire está dañado o falta.	Reduzca la velocidad del flujo del lavado por corriente. Cambie a la arena apropiada. Cambie los componentes dañados.
Fuga en el cierre.	1. Cierre mal apretado. 2. Mugre o contaminación en la superficie de sellado. 3. Parte dañada.	Desconecte la bomba, alivie la presión del estanque, abra el purgador de aire, apriete el cierre en forma adecuada. Desconecte la bomba, alivie la presión del estanque, abra el purgador de aire, remueva el cierre y limpie todas las superficies de sellado. Vuelva a montar el cierre en forma adecuada. Lo mismo que to anterior, excepto que cambie el anillo O dañado, el cierre, el estanque o cualquier combinación de las partes según sea necesario.
Tapón que gotea.	1. Conjunto de tapón apretado. 2. Tierra o contaminación en las superficies de sello. 3. Parte dañada.	Apague la bomba, alivie la presión del tanque, abra el purgador de aire, quite el cierre y quite la arena para accesar el tapón que gotea en el TR40, 50, 60,TR60 ClearPro, 100, 100C, 140 ó 140C. Sostenga el tapón de 2" y apriete la tuerca de seguridad interna de 2". En el TR100C-3 o TR140C-3 usando la llave especial 154020, sostenga el espaciador con brida de 3" y con la llave 154019, apriete el adaptador con brida de 3". Apriete 1/2 vuelta más manualmente. Apague la bomba, alivie la presión del tanque, abra el purgador de aire, quite el cierre y quite la arena para accesar el tapón que gotea. Quite las adherencias internas del tanque y quite el conjunto del tapón. Limpie todas las superficies de acoplamiento y los sellos. Reemplace el conjunto del tapón y tenga cuidado para instalar adecuadamente. Apriete el conjunto como se indica anteriormente. Igual que en el punto anterior, excepto que reemplace la parte o combinación de partes dañadas.

Sección 5
Partes de Repuesto

Curva de Caída de Presión para los Filtros de Arena Series Triton™

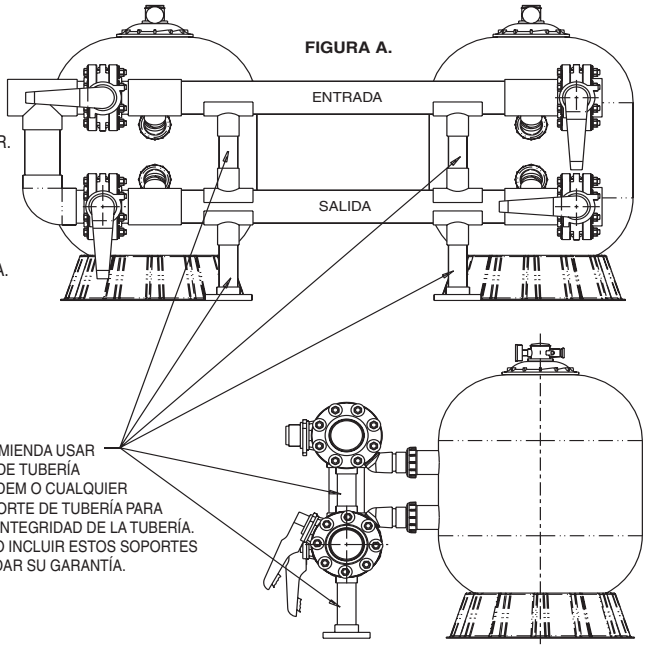






Instalación de Filtros Múltiples con Kits de Tuberías de Filtros Tandem

PRECAUCIÓN: CUANDO SE INSTALAN FILTROS MÚLTIPLES, RECOMENDAMOS AMPLIAMENTE USAR UN KIT DE TUBERÍA DE FILTRO TANDEM PENTAIR. ESTOS KITS INCLUYEN OPORTES DE CAÑERÍAS (ENTRE LA TUBERÍA DE ENTRADA Y SALIDA Y ENTRE LA TUBERÍA DE SALIDA Y EL SUELO) PARA ASEGURAR LA INTEGRIDAD DE LA INSTALACIÓN, VÉASE FIGURA A.

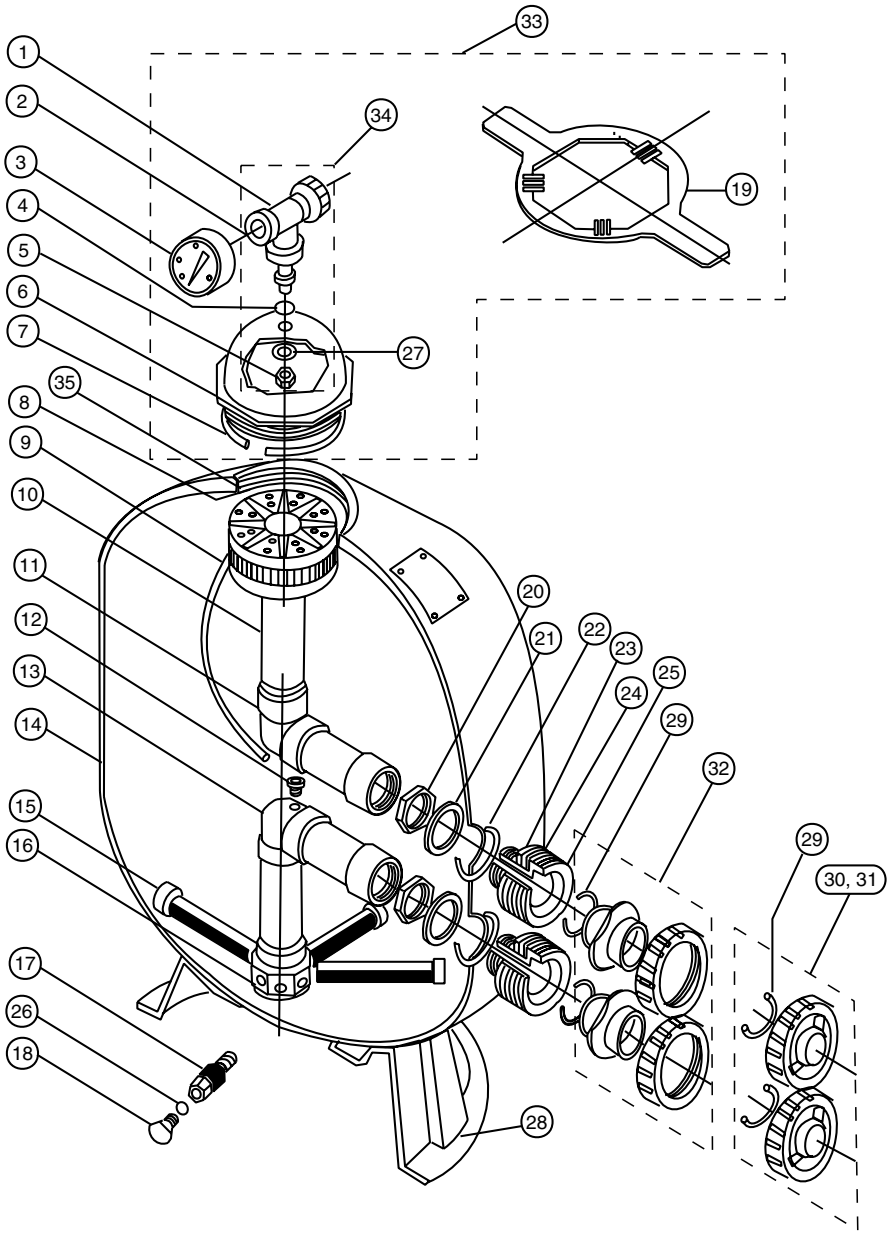


PRECAUCIÓN: PENTAIR RECOMIENDA USAR EL(LOS) KIT(S) DE TUBERÍA DE FILTRO TANDEM O CUALQUIER CLASE DE SOPORTE DE TUBERÍA PARA ASEGURAR LA INTEGRIDAD DE LA TUBERÍA. EN CASO DE NO INCLUIR ESTOS SOPORTES PODRÍA INVALIDAR SU GARANTÍA.

FILTROS DE ARENA DE FIBRA DE VIDRIO TRITON™ II Y TR60 CLEARPRO

Partes de Repuesto

TR40
TR50
TR60
TR60 ClearPro
TR100
TR140



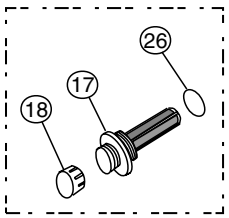
DETALLE A
Después de Dec. 1, 1991
ROSCA CONTRAFUERTE DE 6"

DETALLE B
Antes de Dec. 1, 1991
ROSCA "V" DE 6"

Los filtros fabricados después del 1 de diciembre de 1991 utilizan una rosca de contrafuerte de 6 pulg. en la apertura superior del tanque del filtro y la tapa, véase el Detalle A.

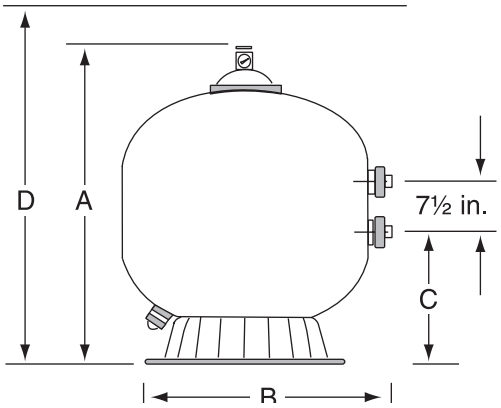
Los filtros fabricados antes del 1 de diciembre de 1991 utilizan una rosca de tipo. "V" de 6 pulg., véase el Detalle B.

Las tapas de 6 pulg. de los Detalles A. y B. NO se pueden intercambiar.



★ Usado en Filtros TR100 y TR140.

Espacio Vertical Necesario



MODELO	DIM. A.	DIM. B.	DIM. C.	DIM. D.
TR40	30½ in.	19½ in.	10¾ in.	32½ in.
TR50	34¾ in.	21½ in.	11-7/8 in.	36¾ in.
TR60	35½ in.	24½ in.	13-5/8 in.	37½ in.
TR60 ClearPro	35½ in.	24½ in.	13-5/8 in.	37½ in.
TR100	39¾ in.	30½ in.	16¼ in.	41¾ in.
TR140	45¼ in.	36½ in.	8¾ in.	47¼ in.

ARTICULO	NO. DEL REPUESTO	TRITON II Y TR60 CLEARPRO DESCRIPCION
1	154689	CONJUNTO PURGADOR DE AIRE/T
2	154700	ADAPTADOR - PURGADOR DE AIRE DE LATON
3	155050	MEDIDOR - PRESION DE MONTAJE TRASERA
4	154661	ANILLO-O - ADAPTADOR DEL PURGADOR DE AIRE
5	154664	TUERCA - 3/8"- 16 ACERO INOXIDABLE
6	154570	CIERRE - ROSCA TRAPEZOIDAL 6" - (VEA DETALLE A)
6	154559	CIERRE - ROSCA "V" 6" - NEGRO (VEA DETALLE B)
7	154493	ANILLO-O - CIERRE
8	150035	COLADOR - ECL/TR
9	150039	TUBERIA - ALIVIO DE AIRE TR40
9	150040	TUBERIA - ALIVIO DE AIRE TR50/60
9	150041	TUBERIA - ALIVIO DE AIRE TR100
9	150042	TUBERIA - ALIVIO DE AIRE TR140
10	154598	CONJUNTO DIFUSOR TR40/50
10	154599	CONJUNTO DIFUSOR TR60
10	154462	CONJUNTO DIFUSOR TR100
10	154906	CONJUNTO DIFUSOR TR140
11	154803	CONJUNTO DE TUBERIA - SUPERIOR TR40
11	156814	CONJUNTO DE TUBERIA - SUPERIOR TR50
11	154533	CONJUNTO DE TUBERIA - SUPERIOR TR60
11	154426	CONJUNTO DE TUBERIA - SUPERIOR TR100
11	154500	CONJUNTO DE TUBERIA - SUPERIOR TR140
12	150036	CONECTOR TUBERIA DE ALIVIO DE AIRE
13	154801	CONJUNTO DE TUBERIA - INFERIOR TR40
13	156816	CONJUNTO DE TUBERIA - INFERIOR TR50
13	154805	CONJUNTO DE TUBERIA - INFERIOR TR60
13	155284	CONJUNTO DE TUBERIA - INFERIOR TR60 ClearPro-1/4 Vuelta Lateral
13	154807	CONJUNTO DE TUBERIA - INFERIOR TR100
13	154489	CONJUNTO DE TUBERIA - INFERIOR TR140
14	154636	CONJUNTO TANQUE Y PIE TR40 - ROSCA TRAPEZOIDAL 6"- (VEA DETALLE A)
14	154637	CONJUNTO TANQUE Y PIE TR50 - ROSCA TRAPEZOIDAL 6"- (VEA DETALLE A)
14	154638	CONJUNTO TANQUE Y PIE TR60 - ROSCA TRAPEZOIDAL 6"- (VEA DETALLE A)
14	154639	CONJUNTO TANQUE Y PIE TR100 - ROSCA TRAPEZOIDAL 6"- (VEA DETALLE A)
14	154640	CONJUNTO TANQUE Y PIE TR140 - ROSCA TRAPEZOIDAL 6"- (VEA DETALLE A)

FILTROS DE ARENA DE FIBRA DE VIDRIO TRITON™ II y TR60 CLEARPRO

Partes de Repuesto

TR40
TR50
TR60
TR60 ClearPro
TR100
TR140

NOTAS

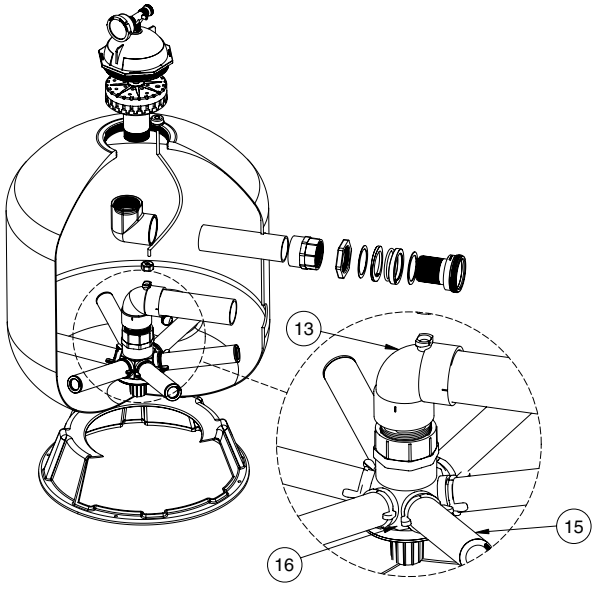
Los filtros fabricados después del 1 de diciembre de 1991 utilizan una rosca de contrafuerte de 6 pulg. en la apertura superior del tanque del filtro y la tapa, véase el Detalle A.

Los filtros fabricados antes del 1 de diciembre de 1991 utilizan una rosca de tipo. "V" de 6 pulg., véase el Detalle B.

Las tapas de 6 pulg. de los Detalles A. y B. NO se pueden intercambiar.

Para determinar la fecha de fabricación los 4 primeros dígitos del número de serie indican el mes y año en el que el producto fue fabricado.

TR60 ClearPro - 1/4 Vuelta Lateral para filtros fabricados después de que Mayo 15, 2007 utilice Conjunto de Tuberia - Inferior P/N 155284.



DETAILED VIEW

Detalle para Triton™ II - TR60 Filtros con ClearPro Technology™

ARTICULO	NO. DEL REPUESTO	TRITON II Y TR60 CLEARPRO DESCRIPCION
15	152290	LATERAL - 6-11/16" L TR/40/50/60, 8 requerir
15	150085	LATERAL - 1/4 Vuelta TR60, 6 requerir
15	150088	LATERAL - TR60 ClearPro, 6 requerir
15	152202	LATERAL - 9-1/8" L TR100, 8 requerir ❷
15	154543	LATERAL - 6-1/2" L TR100, 8 requerir ❶
15	154540	LATERAL 12" L TR140, 8 requerir
16	154763	CUBO LATERAL TR40/50/60
16	152222	CUBO LATERAL TR60 ClearPro
16	154453	CUBO LATERAL TR100/140
17	152220	DRENAJE DE ARENA 2" ❻
17	154698	GRIFO - 3/4" NPT DRENAJE DE ARENA ❹
17	154685	GRIFO - 1/2" NPT DRENAJE DE ARENA ❸
18	154871	TAPA ENROSCADA 1½" ❻
18	357161	TAPON 1/4" NPT DRENAJE
19	154512	LLAVE CIERRE 6"
19	154510	LLAVE CIERRE ALUMINIO
19	151608	LLAVE CIERRE 8½" ALUMINIO
20	154412	TUERCA DE SEGURIDAD - INTERNA 2", 2 requerir
21	154416	ESPACIADOR - INTERNO 2", 2 requerir
22	154492	ANILLO-O - TAPON 2", 2 requerir
23	154408	ESPACIADOR - EXTERNO 2", 2 requerir
24	154538	EMPAQUETADURA - TAPON 2", 2 requerir
25	154405	TAPON - 2", 2 requerir
26	274494	ANILLO-O - 3/16" X 2-5/8" i.d. ❻
26	192115	ANILLO-O - #2-12 ADAPTADOR DE AIRE
27	154418	ARANDELA 3/8" ACERO INOXIDABLE
28	154926	PIE - DIA.16", TR40/50 (NOTA 1)
28	154520	PIE - DIA.19", TR60
28	154596	PIE - DIA. 24", TR100/140 (NOTA 1)
29	274494	ANILLO-O - ADAPTADOR DE VALVULA, 2 requerir
30	271092	JUEGO - ADAPTADOR DE ROSCA 2" ROSCADO ❺
31	271094	JUEGO - ADAPTADOR DE ROSCA 1½" ROSCADO ❺
32	271096	JUEGO - ADAPTADOR DE ROSCA 2 & 1½" SLP ❺
33	154641	JUEGO CIERRE, ROSCA TRAPEZOIDAL 6" - NEGRO (VEA DETALLE A)
33	154697	JUEGO CIERRE, ROSCA "V" 6" - MARRÓN (VEA DETALLE B)
33	154856	JUEGO CIERRE, ROSCA TRAPEZOIDAL 8½" - NEGRO
34	154687	PAQUETE DE ACCESORIOS - COMPLETO (NOTA 2)
35	154611	ESPACIADOR - COLADOR VENTILACION AIRE 3-3/4" - TR40
35	154612	ESPACIADOR - COLADOR VENTILACION AIRE 4-1/2" - TR50/60
35	154613	ESPACIADOR - COLADOR VENTILACION AIRE 5-1/2" - TR100
35	154614	ESPACIADOR - COLADOR VENTILACION AIRE 5" - TR140
	154402	CINTA - MONTAJE PIE TR40/50/60, 3 requerir
	154407	CINTA - MONTAJE PIE TR100/140, 3 requerir
	151602	LLAVE TAPON 2"
	154714	JUEGO - TAPON, INCLUYE ARTICULOS 20 AL 25

FILTROS DE ARENA DE FIBRA DE VIDRIO TRITON™ II y TR60 CLEARPRO

Partes de Repuesto

TR40
TR50
TR60
TR60 ClearPro
TR100
TR140

NOTAS

Los filtros fabricados después del 1 de diciembre de 1991 utilizan una rosca de contrafuerte de 6 pulg. en la apertura superior del tanque del filtro y la tapa, véase el Detalle A.

Los filtros fabricados antes del 1 de diciembre de 1991 utilizan una rosca de tipo. "V" de 6 pulg., véase el Detalle B.

Las tapas de 6 pulg. de los Detalles A. y B. NO se pueden intercambiar.

Para determinar la fecha de fabricación los 4 primeros dígitos del número de serie indican el mes y año en el que el producto fue fabricado.

❶ Usado en Filtros fabricados antes del 5-85.
❷ Usado en Filtros fabricado después del 5-85.
❸ Usado en Filtros fabricados antes del 3-83.
❹ Usado en Filtros fabricados después del 3-83 hasta el 3-96
❺ Para Instalaciones sin Válvula (Par).
❻ Usado en Filtros TR100 y 140.

NOTA 1: Para reemplazar el pie del tanque se requiere el uso de una cinta para montaje de pie. Véase N/P.

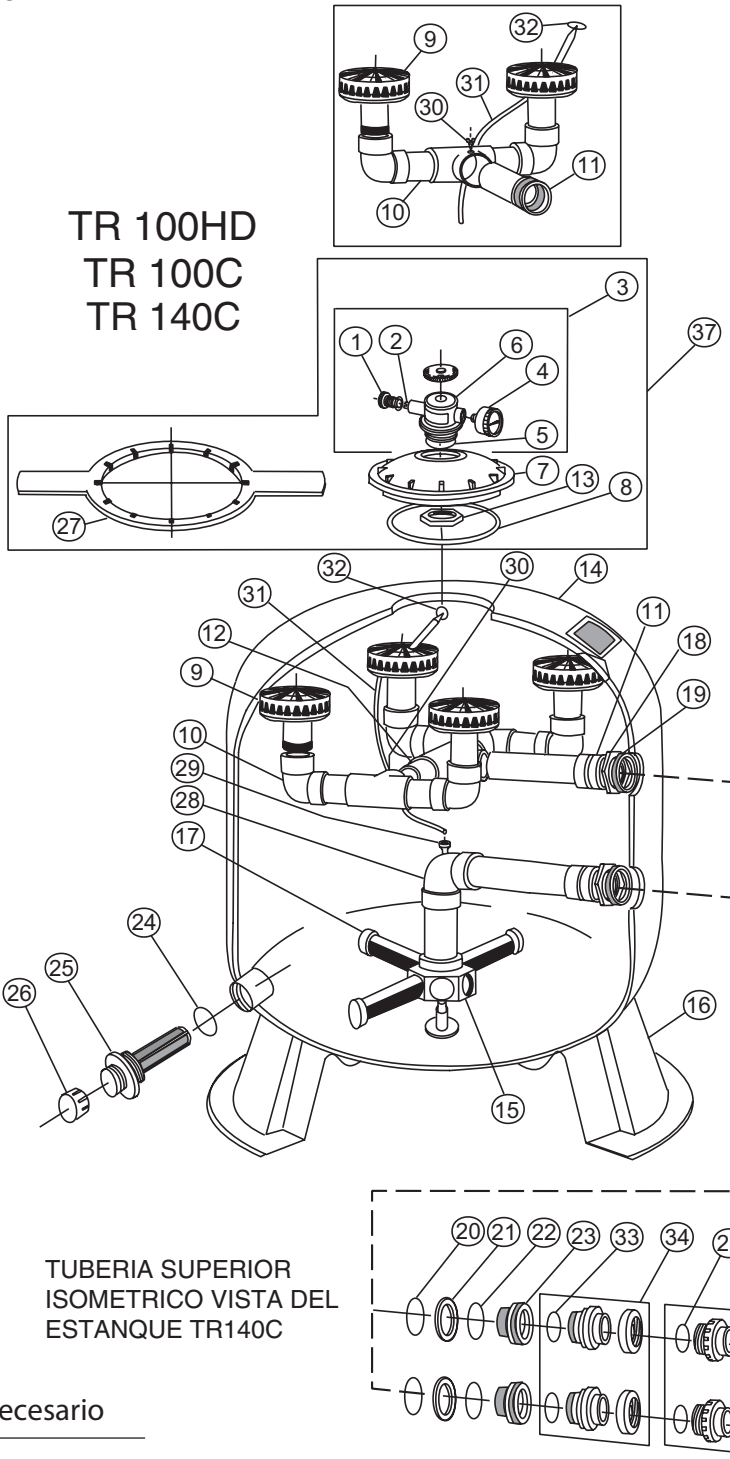
NOTA 2: El paquete de accesorios incluye artículos 1, 2, 4, 5 y 27.

FILTROS DE ARENA DE FIBRA DE VIDRIO TRITON™ 100HD, 100C y 140C

Partes de Repuesto

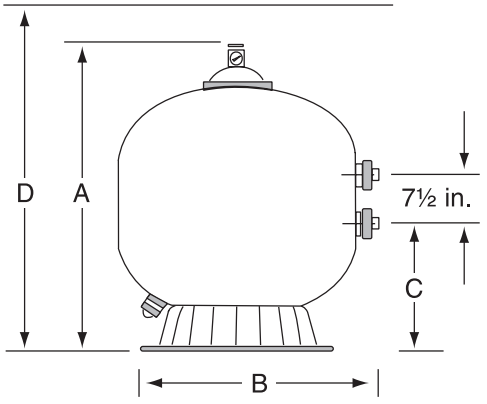
TR100HD
TR100C
TR140C

TR 100HD
TR 100C
TR 140C



TUBERIA SUPERIOR
ISOMETRICO VISTA DEL
ESTANQUE TR140C

Espacio Vertical Necesario



MODELO	DIM. A	DIM. B	DIM. C	DIM. D
TR100C	39¾ in.	30½ in.	16½ in.	43¾ in.
TR140C	45¼ in.	36½ in.	18¾ in.	49¼ in.
TR100HD	39¾ in.	30½ in.	16¼ in.	41¾ in.

ARTICULO	NO. DEL REPUESTO	TRITON 100HD, 100C Y 140C DESCRIPCION
1	273512	PURGADOR DE AIRE CON ANILLO-O
2	273513	ANILLO-O TORNILLO DEL PURGADOR DE AIRE
3	273564	CONJUNTO DE ALIVIO DE AIRE MANUAL
4	155050	MEDIDOR DE PRESION
4	991481	MEDIDOR DE PRESION TR100C/TR100HD ❷
5	274494	ANILLO-O - 3/16" X 2-5/8" i.d.
6	273564	VALVULA DE CUERPO MAQUINADO
7	154575	CIERRE ROSCA TRAPEZOIDAL 8½"
8	152509	ANILLO CUADRADO 8½"
9	154599	DIFUSOR (SE REQUIEREN 2 EN TR100C/ TR100HD) ❶
9	154599	DIFUSOR (SE REQUIEREN 4 EN TR140C) ❶
10	156355	CONJUNTO DE TUBERIA SUPERIOR TR100C/ TR100HD/TR140C ❶
11	156344	ENTRADA AL CONJUNTO DE TUBERIA SUPERIOR TR100C/TR100HD/TR140C
12	156354	CONJUNTO - CONEXION DE TUBERIA SUPERIOR TR140C
13	154412	TUERCA-2" INTERNA
14	153430	CONJUNTO TANQUE Y PIE TR100C/TR100HD ROSCA TRAPEZOIDAL 8½" NEGRO
14	153431	CONJUNTO TANQUE Y PIE TR140C ROSCA TRAPEZOIDAL 8½" NEGRO
14	156224	CONJUNTO TANQUE Y PIE TR100HD - ROSCA TRAPEZOIDAL 6"- NEGRO HD
15	154453	CUBO LATERAL TR100C/TR100HD/TR140C
16	154596	PIE - 24" DIAMETRO - TR100C/TR100HD/ TR140C
17	152202	LATERAL 9-1/8" L TR100C/TR100HD
17	154540	LATERAL 12" L TR140C
18	154412	TUERCA DE SEGURIDAD INTERNA 2"
19	154416	ESPACIADOR INTERNO 2"
20	154492	ANILLO-O TAPON 2"
21	154408	ESPACIADOR EXTERNO 2"
22	154538	EMPAQUETADURA
23	154405	TAPON - 2"
24	274494	ANILLO-O - 3/16" X 2-5/8" i.d.
	154407	CINTA MONTAJE PIE
25	152220	MONTAJE - DRENAJE DE ARENA DE 2"
26	154871	TAPA CON ROSCA
27	154527	LLAVE - CIERRE 8½"
27	151608	LLAVE - CIERRE 8½" ALUMINIO

FILTROS DE ARENA DE FIBRA DE VIDRIO TRITON™ 100HD, 100C y 140C

Partes de Repuesto

TR100C
TR140C
TR100HD

ARTICULO	NO. DEL REPUESTO	TRITON 100HD, 100C Y 140C DESCRIPCION
28	154807	CONJUNTO DE TUBERIA INFERIOR TR100C/TR100HD
28	154489	CONJUNTO DE TUBERIA INFERIOR TR140C
29	150036	TUBO CONECTOR DE ALIVIO DE AIRE
30	273071	TORNILLO #14 18-8 ❶
31	150041	TUBO ALIVIO DE AIRE TR100C/TR100HD
31	150042	TUBO ALIVIO DE AIRE TR140C
32	150035	COLADOR - ALIVIO DE AIRE
33	274494	ANILLO-O ADAPTADOR DE VALVULA
34	271096	JUEGO - ADAPTADOR SIN VALVULA 2" Y 1½" PAR SLP
35	271092	JUEGO - ADAPTADOR SIN VALVULA 2" PAR ROSCADO
36	271094	JUEGO - ADAPTADOR SIN VALVULA 1½" PAR ROSCADO
37	154856	JUEGO - CIERRE ROSCA TRAPEZOIDAL 8½" NEGRO

NOTAS

❶ Se requieren cantidades diferentes para los Filtros TR100C y TR140C.

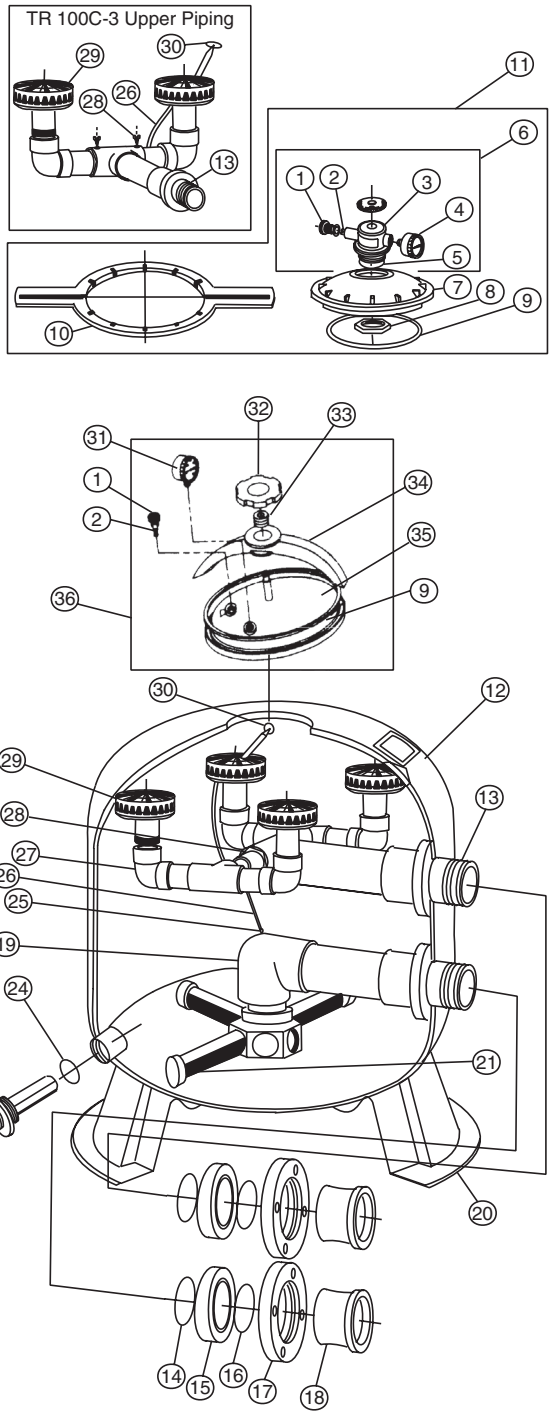
❷ Usado en Filtros TR100HD

ESPAÑOL

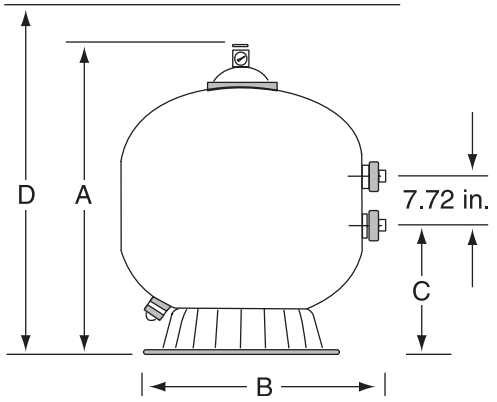
FILTROS DE ARENA DE FIBRA DE VIDRIO TRITON™ 100C-3 y 140C

Partes de Repuesto

TR100C-3
TR140C-3



Espacio Vertical Necesario



MODELO	DIM. A	DIM. B	DIM. C	DIM. D
TR100C-3	39¾ in.	30½ in.	16-1/16 in.	43¾ in.
TR140C-3	45¼ in.	36½ in.	18½ in.	49¼ in.

ARTICULO	NO. DEL REPUESTO	TRITON 100C-3 Y 140C-3 DESCRIPCION
1	273512	PURGADOR DE AIRE CON ANILLO-O ❷❸
2	273513	ANILLO-O TORNILLO DEL PURGADOR DE AIRE ❷
3	273564	VALVULA DE CUERPO MAQUINADO ❷
4	155050	MEDIDOR DE PRESION ❷
5	154494	ANILLO-O - ADAPTADOR 6" ❷
6	273564	CONJUNTO DE ALIVIO DE AIRE MANUAL ❷
7	154575	CIERRE 8½" ❷
8	154412	TUERCA-2" INTERNA ❷
9	152509	ANILLO CUADRADO - CIERRE ❷❸
10	154527	LLAVE - CIERRE 8½" ❷
11	154856	JUEGO - CIERRE ROSCA TRAPEZOIDAL 8½" ❷
11	156842	JUEGO - CIERRE CON JUNTA 8½" ❹
12	153430	CONJUNTO ESTANQUE Y PIE TR100C-3 TRAPEZOIDAL
12	153431	CONJUNTO ESTANQUE Y PIE TR140C-3 TRAPEZOIDAL
13	154007	CONJUNTO TUBERIAS SUPERIORES TR100C-3
13	154008	CONJUNTO TUBERIAS SUPERIORES TR140C-3
14	154005	ANILLO-O PARKER 2-343, 2 requerir
15	154002	ESPACIADOR DE 3", 2 requerir
16	154004	ANILLO-O PARKER 2-342, 2 requerir
17	154003	BRIDA DE 3", 2 requerir
18	154001	ADAPTADOR CON BRIDA DE 3", 2 requerir
19	154009	CONJUNTO TUBERIAS INFERIORES TR100C-3
19	154010	CONJUNTO TUBERIAS INFERIORES TR140C-3
20	154596	PIE- 24" DE DIAMETRO TR100C-3/140C-3
21	152202	LATERAL 9" TR100C-3, 8 requerir
21	154540	LATERAL 12" TR140C-3, 8 requerir
22	154871	TAPA CON ROSCA DE 1½"
23	152220	MONTAJE DRENAJE DE ARENA DE 2"
24	274494	ANILLO-O - 3/16" X 2-5/8" i.d., 2 requerir
25	154441	CONECTOR TUBO DE ALIVIO DE AIRE
26	150041	TUBO DE ALIVIO DE AIRE TR100C-3 (23")
26	150042	TUBO DE ALIVIO DE AIRE TR140C-3 (27")
27	154018	CONJUNTO TUBERIAS DEL DIFUSOR TR140C-3, 2 requerir
28	552474	TORNILLO #10-1½", 2 requerir

FILTROS DE ARENA DE FIBRA DE VIDRIO TRITON™ 100C-3 y 140C
Partes de Repuesto

TR100C-3
TR140C-3

ARTICULO	NO. DEL REPUESTO	TRITON 100C-3 Y 140C-3 DESCRIPCION
29	154599	CONJUNTO DIFUSOR (SE REQUIEREN 2 PARA TR100C-3)
29	154599	CONJUNTO DIFUSOR (SE REQUIEREN 4 PARA TR140C-3)
30	150035	COLADOR - ECL/TR
31	190058	MEDIDOR DE PRESION 1/4" psi ❸
32	154581	MANIJA - OVALADO TRITON ❸
33	154582	RESORTE - OVALADO TRITON ❸
34	154579	PUENTE - OVALADO TRITON ❸
35	154576	CIERRE - OVALADO ❸
36	156841	JUEGO DE CIERRE OVALADO TRITON ❶❸

NOTAS

❶ P/N 156841 incluye artículos: 1, 9, y 31al 35.
❷ Usado en Filtros fabricados antes del 3-97.
❸ Usado en Filtros fabricado después del 3-97.
❹ Usado en Filtros fabricado después del 4-15.

ESPAÑOL

NOTAS

CONSERVE ESTAS INSTRUCCIONES.

PENTAIR

TRITON™

FILTRES À SABLE EN FIBRE DE VERRE

MODELS: TR 40, TR 50, TR 60, TR 100, TR 140, TR 100HD, TR 100C, TR 140C, TR 100C-3, TR 140C-3 et TR 60 avec CLEARPRO TECHNOLOGY™

FRANÇAIS

MANUEL D'INSTALLATION ET D'UTILISATION

CONSIGNES DE SÉCURITÉ IMPORTANTES

PRIÈRE DE LIRE ET D'OBSERVER TOUTES LES CONSIGNES

CONSERVER CETTE NOTICE

SERVICE CLIENTS / SUPPORT TECHNIQUE

Si vous avez des questions liées aux pièces de rechange, et aux produits de piscine de Pentair Aquatic Systems, veuillez utiliser les coordonnées suivantes:

Service Clients

(8 A.M. to 4:30 P.M. — 8h00 à 17h00 heure normale du Pacifique)

Téléphone: (800) 831-7133

Télécopie: (800) 284-4151

Site web
visitez www.pentairpool.com ou www.sta-ritepool.com pour trouver des renseignements concernant Pentair.

Support Technique

Sanford, Caroline du Nord (8h00 à 17h00 heure normale de l'Est)

Téléphone: (919) 566-8000

Télécopie: (919) 566-8920

Moorpark, Californie (8h00 à 17h00 heure normale du Pacifique)

Téléphone: (805) 553-5000 (Ext. 5591)

Télécopie: (805) 553-5515

TABLE DES MATIÈRES

Importantes Consignes de Sécurité **47**

Section 1: Introduction **49**

- Vue d'Ensemble des Filtre à Sable en Fibre de Verre 49
- Caractéristique Générales 50

Section 2: Installation **51**

- Installer le Filtre à Sable en Fibre de Verre 51
- Comment Fonctionne votre Filtre 51
- Installer les Bouchons Filetés et Couvercle Ovale du Filtre 53
- Première Mise en Service 54

Section 3: Entretien **55**

- Entretien du Filtre 55
- Nettoyage du Filtre 55
- Procédure de Rétro Lavage du Filtre 56
- Procédure de Nettoyage Chimique 57
- Hivernage de votre Filtre 57

Section 4: Dépannage **58**

Section 5: Pièces de Rechange **60**

- Courbe de Chute de Pression du Filtre 60
- Installer de Multiples Filtres Triton (Ensembles de Tuyauteries en Tandem de Filtre) 60
- Pièces de Rechange pour Triton II etTR60 ClearPro 61
- Pièces de Rechange pour Triton 100HD, 100C et 140C 64
- Pièces de Rechange pour Triton™ 100C-3 et 140C-3 66

© 2015 Pentair Water Pool and Spa, Inc. Tous droits réservés.
Ce document peut être modifié sans avis préalable.

1620 Hawkins Ave., Sanford, NC 27330 • 919 566-8000
10951 West Los Angeles Ave., Moorpark, CA 93021 • 805 553-5000

MEMBER NATIONAL SPA & POOL INSTITUTE

Toutes les marques de commerce et logos Pentair sont la propriété de Pentair, Inc. Pentair Aquatic Systems[MC], Triton™ et ClearPro Technology™ sont des marques de commerce ou des marques déposées de Pentair Water Pool and Spa, Inc. ou de ses sociétés affiliées aux États-Unis ou dans d'autres pays. Sauf indication expressément contraire, les noms et marques de tiers qui peuvent être utilisés dans le présent document ne sont pas utilisés pour indiquer une affiliation ou une approbation entre les propriétaires de ces marques et Pentair Water Pool and Spa, Inc. Ces noms et marques peuvent être des marques de commerce ou des marques déposées de ces tiers. Parce que nous améliorons constamment nos produits, Pentair se réserve le droit de changer ses spécifications sans avis préalable. Pentair offre l'égalité d'accès à l'emploi.

P/N 154901 Rev. H 3/18/15

IMPORTANTES CONSIGNES DE SÉCURITÉ

Mise en Garde Importante:

Ce manuel fournit les instructions de mise en service et d'utilisation des Filtres à Sable en Fibre de Verre de la Série Triton™. Consulter Pentair Water Pool and Spa™ pour toute question relative à cet équipement.

l'Attention de l'Installateur: Ce manuel contient d'importantes informations concernant l'installation, l'exploitation et l'utilisation de ce produit de manière sûre. Cette information doit être fournie au propriétaire et/ou à l'exploitant de cet équipement après l'installation, ou doit-être laissé sur ou bien à proximité de cet équipement.

l'Attention de l'Utilisateur: Ce manuel contient d'importantes informations qui vous aideront à utiliser et entretenir ce filtre. Conservez-le pour pouvoir le consulter ultérieurement.

⚠ AVERTISSEMENT Avant l'installation de ce produit, lire et respecter la totalité des avertissements et instructions inclus. Ne pas respecter les notices de sécurité peut entrainer des blessures graves, la mort ou l'endommagement du bien. Appeler le (800) 831-7133 pour obtenir des copies supplémentaires gratuites de ces instructions.

Information et Sécurité du Consommateur

Les Filtres à Sable en Fibre de Verre de la Série Triton™ sont conçus et fabriqué pour donner de nombreuses années de fonctionnement sûr et fiable dès l'instant où sont installés, exploités et entretenus en accord avec les informations fournies dans le présent manuel et les normes d'installation référencés dans les sections suivantes. Les mises en garde concernant la sécurité et les précautions sont identifiés par le symbole " ⚠ " tout au long du manuel. Assurez-vous de lire et de respecter la totalité des avertissements et précautions.

⚠ AVERTISSEMENT

CE FILTRE EST SOUMIS À HAUTE PRESSION

Lorsque l'on intervient sur l'un ou l'autre des composants du circuit de circulation (ex : bouchon, couvercle, pompe, filtre, robinet(s) etc.), l'air peut pénétrer n'importe où dans le circuit et devenir pressurisé. L'air sous pression peut occasionner une séparation du couvercle supérieur pouvant entrainer des blessures sérieuses, la mort ou l'endommagement du bien. Pour éviter ce danger potentiel, respectez ces instructions:

1. Si vous ne connaissez pas bien votre système de filtration de piscine et/ou de réchauffage:
   a. **N'essayez Pas** de procéder à des réglages ou effectuer l'entretien sans consulter votre revendeur, ou un technicien de piscine qualifié.
   b. Lisez la totalité du Manuel d'Installation et d'Utilisation avant de tenter d'utiliser, entretenir ou régler le système de filtration ou de réchauffage.
2. Avant de remettre la (les) vanne(s) en position et avant de commencer le montage, démontage, ou toute autre intervention sur le circuit : (A) Mettre la pompe sur **ARRÊT** et mettre **HORS SERVICE** tout automatisme pour garantir que le système ne soit PAS démarré par inadvertance pendant l'opération d'entretien ; (B) ouvrir le robinet manuel de purge d'air ; (C) attendre jusqu'à ce que toute pression soit évacuée.
3. Lors du montage du couvercle de filtre **RESPECTER EXACTEMENT LES INSTRUCTIONS RELATIVES AU COUVERCLE DE FILTRE.**
4. Une fois l'intervention sur le circuit terminée, **RESPECTER EXACTEMENT LES INSTRUCTIONS DE MISE EN SERVICE.**
5. Maintenir le circuit de circulation correctement. Remplacer les pièces usées ou endommagées immédiatement (par exemple : couvercle, manomètre, vanne(s), joints toriques, etc..)
6. S'assurer que le filtre est correctement monté et positionné suivant les instructions fournies.

IMPORTANTES CONSIGNES DE SÉCURITÉ

⚠ AVERTISSEMENT

Ce filtre doit être installé par un électricien agréé ou certifié ou une personne d'entretien de piscine qualifiée en accord avec le Code Electrique National (National Electrical Code) et toute normes ou ordonnances locales applicables. Une installation incorrecte peut entrainer la mort ou des blessures graves aux utilisateurs de piscine, installateurs ou autres personnes, et peut également occasionner des dommages aux biens.

Toujours couper l'alimentation électrique du circuit de circulation de la piscine au niveau du disjoncteur électrique avant de procéder à l'entretien du filtre. S'assurer que le circuit déconnecté est verrouillé ou correctement identifié de façon à ce qu'il ne puisse être enclenché pendant que vous travaillez sur le filtre. Ne pas respecter cela peut entrainer la mort ou des blessures sérieuses aux installateurs, utilisateurs de piscine, ou autres personnes par électrocution.

⚠ AVERTISSEMENT

Ne pas mettre en fonctionnement le filtre avant que vous ayez clairement lu et compris les instructions de fonctionnement et les messages d'avertissement concernant la totalité des équipements constituant le circuit de circulation de la piscine. Les instructions suivantes sont conçues pour guider la mise en service initiale du filtre lors d'une installation générale de piscine. Un manquement au bon suivi des instructions de fonctionnement et aux messages d'avertissement peut occasionner un endommagement des biens, de sérieuses blessures aux personnes, ou la mort.

⚠ AVERTISSEMENT

Pour réduire le risque de blessure, ne pas permettre aux enfants d'utiliser ce produit, à moins qu'ils ne soient surveillés de près à tout moment.

⚠ AVERTISSEMENT

Du fait du risque potentiel pouvant exister, il est recommandé que la pression d'épreuve soit maintenue le temps minimum requis par le code local. N'autoriser quiconque à travailler autours du système quand le circuit de circulation est sous épreuve de pression. Mettre en place des signaux appropriés d'avertissement et établir une barrière autour des équipements sous pression. Si les équipements sont situés dans un local, verrouiller la porte et mettre un signal d'avertissement.

Ne jamais essayer de procéder au réglage de bouchons ou couvercles, ou tenter de retirer ou de serrer des boulons lorsque le circuit est sous pression. Ces actions peuvent occasionner l'éclatement du couvercle et pourraient occasionner de sérieuses blessures individuelles ou bien la mort s'ils venaient à heurter une personne.

⚠ AVERTISSEMENT

Ne jamais dépasser la pression d'utilisation maximum des composants du circuit. Excéder ces limites pourrait causer la détérioration d'un composant par la pression. Cette libération instantanée d'énergie peut causer l'éclatement du couvercle et pourrait occasionner de graves blessures individuelles ou bien la mort s'ils venaient à heurter une personne.

Section 1
Introduction

Filtres à sable en fibre de verre Triton™ - Généralités

Filtres à sable Triton™ II

Le numéro 1 du filtre à sable dans le monde

Triton II est le résultat de plus de 40 ans d'évolution et d'améliorations. Ce filtre est devenu la référence de l'industrie en matière de performance, d'efficacité, de durée de service entre chaque maintenance, et des années de fiabilité requérant un entretien minimal.

Le Triton II possède une conception interne qui maintient le lit de sable plat et le débit d'eau constant, assurant ainsi une filtration optimale.

La meilleure réputation de l'industrie, et à juste titre

En plus de résultats de filtration supérieurs, le Triton II s'est taillé une réputation encore inégalée pour sa fiabilité et sa facilité de fonctionnement et d'entretien. De nombreux détails dans sa conception ont été améliorés pour faire du Triton II le filtre de référence de l'industrie.

Filtres à sable commerciaux Triton™ C et Triton™ C-3

Ces filtres sont équipés de plusieurs dériveurs pour une meilleure vitesse de filtration dans des applications commerciales, jusqu'à 20 GPM/pied carré.

Filtres à sable à montage latéral Triton™ HD

Ces filtres possèdent les mêmes performances et caractéristiques exceptionnelles du premier Triton, avec une pression de service de 75 psi pour les installations sous pression, comme les systèmes de nettoyage de niveau à pompe unique.

Triton II - Résidentiel

Triton C - Commercial

Triton C-3 - Commercial

Triton HD - Commercial

FRANÇAIS

Caractéristiques générales

Triton™ II

- Sa conception interne, qui a déjà fait ses preuves avec le temps, permet de filtrer l'eau au maximum pour donner des résultats clair comme de l'eau de roche
- Le processus GlasLok® crée une cuve monocoque, renforcée de fibre de verre, avec un revêtement anti-UV qui garantit des années de service fiable et sans corrosion
- Le système de débit contrôle la qualité de la filtration et assure des durées de service maximales entre le lavage à contre courant, ce qui fait gagner du temps

Triton™ C et Triton™ C-3

- Pression de service maximum 50 psi
- Purgeur complet de 2 pouces
- Ouverture de 8 pouces pour accéder facilement au lit de sable
- Le Triton C-3 possède des joints à bride standard de 3 pouces
- Les modèles TR 100C et TR 140C sont disponibles en noir ou amande
- Les modèles TR 100C-3 et TR 140C-3 sont disponibles uniquement en noir

Triton™ HD

- Pression de service maximum 75 psi

Autres caractéristiques

- Un système combiné de drainage du sable et de l'eau facilite l'entretien et l'hivernage
- Toutes les pièces internes sont filetées pour en faciliter l'entretien
- Une tête de distribution pivotante permet un accès direct au sable et à toutes les pièces internes
- Homologué NSF

Section 2
Installation

Remarque: Avant d'installer ce produit, lire et respecter tous les avis de mise en garde et les instructions d ébutant en page (fr) ii.

Installation du Filtre à Sable en Fibre de Verre Triton™

Le Filtre à Sable en fibre de Verre Triton ne doit être installé que part un technicien d'entretien qualifié. Ce filtre est conçu et prévu pour filtrer l'eau.

Triton™ Introduction

L'information générale qui suit décrit comment installer le Filtre à Sable en fibre de Verre Triton. Ce filtre fonctionne sous pression et, s'il est mal monté ou utilisé alors que de l'air est présent dans le circuit d'eau, son couvercle risque de se désolidariser, ce qui peut avoir pour résultat un accident occasionnant des dégâts matériels importants ou blessures graves. Une étiquette d'avertissement a été collée sur le dessus du filtre et doit y rester. Maintenez les étiquettes de sécurité en bon état et remplacez-les si elles manquent ou sont illisibles.

Fonctionnement du Filtre

Ce filtre à sable à grand débit est conçu pour fonctionner pendant de nombreuses années avec un minimum d'entretien et, lorsqu'il est installé, utilisé et entretenu conformément aux présentes instructions, fonctionnera pendant de nombreuses années sans problème.

Les impuretés sont recueillies dans le filtre lorsque l'eau traverse la vanne de régulation qui se trouve sur le côté de celui-ci et sont dirigées dans la traversée de paroi étanche supérieure. L'eau sale coule dans le diffuseur qui se trouve en haut du réservoir, puis est dirigée vers le bas, jusque sur la surface supérieure du lit de sable. Les impuretés sont recueillies dans le lit de sable et l'eau propre traverse les éléments latéraux et le tuyau inférieur qui se trouve au bas du filtre, puis remonte pour pénétrer dans la traversée de paroi étanche inférieure. L'eau s'écoule ensuite dans la vanne de régulation située sur le côté du filtre. L'eau propre retourne ensuite à la piscine par la tuyauterie.

La pression s'èlévera et le débit vers la piscine s'abaissera au fur et à mesure que les impuretés s'accumulent dans le filtre. Celui-ci finira par être tellement obstrué par ces impuretés qu'il sera nécessaire de procéder à un lavage à contre-courant du filtre. Il est important de savoir quand effectuer cette opération. Celle-ci est décrite plus en détails dans les sections suivantes du présent livret.

Veuillez noter qu'un filtre élimine les particules en suspension et n'épure pas la piscine. L'eau de celle-ci doit être épurée et sa composition chimique doit être équilibrée pour qu'elle soit très claire. Votre système de filtrage doit être conçu pour respecter la réglementation sanitaire locale applicable. Vous devez au minimum veiller à ce que votre système renouvelle la totalité de l'eau de votre piscine au moins deux à quatre fois par période de vingt-quatre heures.

Reportez-vous au **Tableau 1** pour des données sur les spécifications des filtres.

Tableau 1.

NUMERO DE MODELE DE FILTRE	SURFACE DE FILTRAGE (M^2, pi^2)	DEBIT *(L/MN, GAL/MN) à 20 GAL/MN/pi^2	CAPACITE DE RENOUVELLEMENT (Litres/Gallons) (Basé sur 20 gal/mn/pi^2)*			
			4 RENOUVELLEMENTS PAR JOUR	3 RENOUVELLEMENTS PAR JOUR	2,4 RENOUVELLEMENTS PAR JOUR	2 RENOUVELLEMENTS PAR JOUR
TR40	0,18 (1,92)	144 (38)	51784 (13680)	69046 (18240)	86307 (22800)	103568 (27360)
T50	0,23 (2,46)	185 (49)	66774 (17640)	89033 (23520)	111291 (29400)	133549 (35280)
TR60	0,29 (3,14)	238 (63)	85853 (22680)	114470 (30240)	143088 (37800)	171706 (45360)
TR60 ClearPro	0,29 (3,14)	238 (63)	85853 (22680)	114470 (30240)	143088 (37800)	171706 (45360)
TR100	0,47 (4,91)	280 (74)	100843 (26640)	134457 (35520)	168072 (44400)	201686 (53280)
TR100HD	0,47 (4,91)	280 (74)	100843 (26640)	134457 (35520)	168072 (44400)	201686 (53280)
TR100C/TR100C-3	0,47 (4,91)	371 (98)	133549 (35280)	178065 (47040)	222582 (58800)	267098 (70560)
TR140	0,65 (7,06)	401 (106)	144451 (38160)	192601 (50880)	240752 (63600)	288902 (76320)
TR140C/TR140C-3	0,65 (7,06)	534 (141)	192147 (50760)	256196 (67680)	320245 (84600)	384295 (101520)

*LES CHIFFRES APPLICABLES AUX TR100 ET TR140 SONT BASES SUR 15 GAL/MN/PI²

⚠ AVERTISSEMENT Une non-utilisation de votre système de filtrage ou un filtrage insuffisant peut provoquer un manque de clarté de l'eau gênant la visibilité dans votre piscine. Quelqu'un peut ainsi plonger dans ou sur des objets qu'il ne peut voir, risquant de se blesser gravement, voire de se noyer.

L'eau claire est produite par un filtrage approprié et une composition chimique correcte de l'eau. Le traitement chimique d'une piscine est l'affaire de spécialistes et il convient que vous consultiez votre spécialiste local de l'entretien des piscines à propos de points particuliers. En règle générale, pour que l'eau d'une piscine soit correctement épurée, elle doit présenter un niveau de chloration de 1 à 3 ppm et un pH compris entre 7,2 et 7,6.

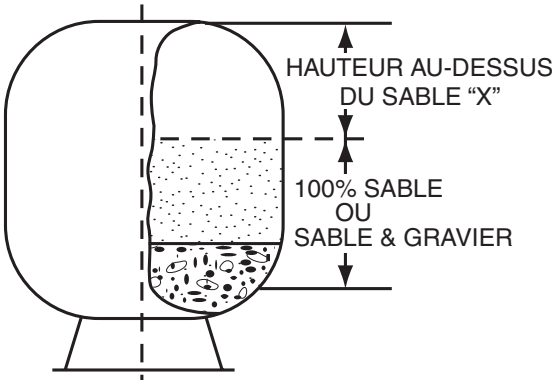
⚠ AVERTISSEMENT Les filtres ne doivent jamais subir des essais à l'air ou au gaz comprimé ni être exposés a ceux-ci. Tous les gaz sont compressibles et, lorsqu'ils sont comprimés, sont dangereux. Des blessures graves ou des dégâts matériels importants peuvent resulter de l'exposition d'un filtre à de l'air ou à du gaz sous pression.

1. Examinez le carton pour rechercher toute trace de dégâts dûs à une manutention brutale en cours de transport. Si le carton ou tout élément du filtre est endommagé, avisez-en le transporteur immédiatement.
2. Retirez avec précaution du carton les accessoires et le réservoir du filtre.
3. Montez le filtre sur une dalle fixe, consistant de préférence en béton coulé dans un coffrage, ou sur une plateforme construite en parpaings ou en briques. **N'UTILISEZ PAS** de sable pour mettre le filtre à niveau ni pour monter la pompe, car il sera emporté par l'eau.
4. Prévoyez un accés suffisamment spacieux et bien éclairé pour l'entretien. Ne montez pas de commandes électriques au-dessus du filtre. Vous devez pouvoir vous écarter de celui-ci lorsque vous mettez la pompe en marche. L'espace minimum nécessaire est indiqué sur la grande plaque signalétique du filtre.
5. Positionnez le filtre de façon à ce que les orifices soient dans la position finale désirée. Suivez les instructions de pose de la vanne.
6. Si vous disposez d'une vanne multivoie, montez-la sur le réservoir en veillant à ce que tous les joints toriques des raccords de la vanne soient propres et bien en place. Appliquez une mince couche de lubrifiant, tel que de la graisse silicone Dow no. 33 ou 40, GE 300 ou 623, ou un produit semblable, sur les joints toriques et leurs gorges avant le montage.
7. Si vous disposez d'un robinet-vanne à deux positions, alignez la vanne sur le réservoir de façon à ce que la poignée soit tournée vers le dessus du réservoir, enfoncez la vanne dans les orifices et serrez ses écrous à frottement doux sur les raccords du réservoir. Il n'est pas nécessaire de les serrer au-delà du serrage à la main.
8. Les sangles de transport utilisées pour soutenir le multidiffuseur du TR100C-3, TR140C et TR140C-3 doivent être retirées avant de charger le filtre de sable et de gravier.
9. Spécifications du sable - veillez à utiliser le sable correct, tel que le décrit le **Tableau 2**. Avant de verser le sable dans le filtre, regardez à l'intérieur de celui-ci et vérifiez le ponceau inférieur pour rechercher tout élément latéral (ou doigt) cassé ou desserré, susceptible d'avoir été endommagé accidentellement par une manutention brutale lors du transport. Remplacez toute pièce cassée si nécessaire.

REMARQUE : La hauteur au-dessus du sable est la variable la plus importante et doit rester constante. La densité du sable varie et la quantité de sable donnée l'est à titre indicatif.

Tableau 2.

MODELE	HAUTEUR AU-DESSUS DU SABLE "X"	100% SABLE* (KG)	MATERIAU DE FILTRAGE † (KG)	
			GRAVIER PISIFORME ‡	SABLE
TR40	20,9 CM	79,5	22,7	56,8
TR50	24,7 CM	102,3	22,7	79,5
TR60	26,7 CM	147,7	22,7	125
TR60 ClearPro	26,7 CM	147,7	22,7	125
TR100	28,6 CM	272,7	68,2	204,5
TR100HD	28,6 CM	272,7	68,2	204,5
TR100C-3	28,6 CM	272,7	68,2	204,5
TR140	34,3 CM	420,4	125	295,4
TR140C-3	34,3 CM	420,4	125	295,4



† MATERIAU EXIGE POUR SATISFAIRE LES SPECIFICATIONS NSF.
‡ GRAVIER PISIFORME DE 3 A 6,35 MM (1/8 A 1/4 PO.) DE CALIBRE.
* SABLE DOIT ETRE DE TYPE SILICIEUX NO.20 STANDARD (COEFFICIENT D'UNIFORMITE NE DEPASSANT PAS 1,75) DE 0,45 A 0,50 MM DE CALIBRE.

⚠ AVERTISSEMENT Le positionnement incorrect de l'évent automatique à l'intérieur du couvercle permettra la pénétration de l'excédent d'air prisonnier dans le filtre. La présence d'air prisonnier et la mauvaise fermeture du couvercle peuvent provoquer l'éclatement de celui-ci et occasionner ainsi des blessures graves et/ou des dégâts matériels importants.

10. Faites pivoter le diffuseur pour le décentrer dans le réservoir des TR40, 50, 60, TR60 ClearPro, 100 & 140 en le tournant dans le sens inverse des aiguilles d'une montre. (**REMARQUE:** Le multidiffuseur ne doit pas être déplacé sur les modèles TR100HD, TR100C, TR100C-3 et TR140C, TR140C-3. Après avoir mis en place le matériau de filtrage comme indiqué plus loin, vérifiez que le haut des diffuseurs est parallèle au lit de sable.) Remplissez à moitié le réservoir d'eau. Versez d'abord le gravier pisiforme (le cas échéant), puis le sable lentement dans le haut du filtre, pour éviter que l'impact créé par le matériau de filtrage endommagé les éléments latéraux. Voir les données figurant dans le Tableau B du présent livret pour les quantités correctes de sable et de gravier. Remplacez le filtre jusqu'au niveau permettant de maintenir une hauteur au-dessus du sable constante (voir Tableau B). Faites pivoter le diffuser pour le ramener dans sa position verticale si vous l'avez déplacé. Veillez à ce que l'évent automatique dépasse dans le haut du couvercle, comme indiqué sur la Figure 1 ci-dessous. Vérifiez que l'évent est centré dans le couvercle. Enlevez tout sable entourant l'ouverture filetée en haut du réservoir.

⚠ AVERTISSEMENT

Concernant les Couvercles Filetés

Faites attention lorsque vous mettez le couvercle en place. Celui-ci doit tourner librement dans le filtre. Si une résistance se fait sentir lors de l'insertion du couvercle, retirez celui-ci doucement en le tournant dans le sens inverse des aiguilles d'une montre. Le filet d'entrée du réservoir et du couvercle doit s'engager correctement pour assurer l'étanchéité de la fermeture. *Ne faussez pas le filetage du couvercle.*

La mise en place incorrecte du couvercle peut provoquer l'éclatement de celui-ci et occasionner ainsi des blessures graves et/ou des dégâts matériels importants.

⚠ AVERTISSEMENT

Concernant le Couvercle Ovale

Faites attention lorsque vous mettez le couvercle en place. Le couvercle doit être inséré dans le réservoir en plaçant le plus petit diamètre du couvercle ovale dans le diamètre le plus large de l'ouverture du réservoir. Insérez d'abord le côte du couvercle qui n'a pas de manomètre et de purgeur d'air. Le couvercle doit être inséré à un angle de 30°. Une fois le couvercle dans le réservoir, on peut le faire pivoter de 90° et le soulever pour assurer l'étanchéité du réservoir. Le pont en aluminium avec un ressort de charge peut ensuite être placé sur le boulon de fermeture et le bouton manuel resserré pour monter correctement le couvercle. Le bouton doit être resserré uniquement avec la main. NE PAS UTILISER UNE CLEF POUR SERRER LE BOUTON. Vous pourriez endommager le réservoir ou le couvercle et causer une défaillance en utilisant une clef. La mise en place incorrecte du couvercle peut provoquer l'éclatement de celui-ci et occasionner ainsi des blessures graves et/ou des dégâts matériels importants.

N'ESSAYEZ JAMAIS DE SERRER OU DESSERRER LE COUVERCLE ALORS QUE LA POMPE EST EN MARCHE. Le non respect de cette instruction peut entrainer l'éclatement du couvercle et occasionner ainsi des blessures graves ou dégâts matériels importants.

11. Montez le manométre et le purgeur sur le couvercle de fermeture. Nettoyez le joint torique de celui-ci et graissez-le avec du lubrifiant silicone tel que le Dow no. 33 ou 40, ou le GE 300 ou 623. Placez le couvercle de fermeture sur le filtre et serrez-le, en veillant à ce que l'évent soit vertical à l'intérieur du dôme du couvercle.
12. Serrez le couvercle autant que vous le pouvez en tenant des deux mains la clé en plastique fournie avec le filtre. Le couvercle doit être au moins serré à fond à la main, plus 1/4 de tour.
13. Le couvercle ovale qui est utilisé sur le TR140C-3 et TR 100C-3, doit être installé comme décrit ci-dessus dans le paragraphe : Avertissement concernant le couvercle oval.

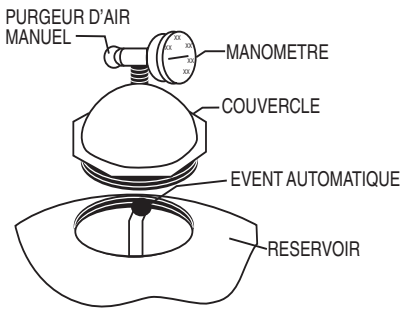


Figure 1.

14 . Branchez la tuyauterie et ses raccords à la pompe et à la vanne. L'ensemble de la tuyauterie doit être conforme à la réglementation locale et nationale concernant la plomberie et l'hygiène.
15. Utilisez du mastic d'étanchéité sur tous les accouplements mâles de la tuyauterie et des raccords. N'utilisez que des mastics d'étanchéité adaptés à la tuyauterie en plastique. Soutenez la tuyauterie pour éviter toute contrainte exercée sur le filtre, la pompe ou la vanne.
16. Les sections de tuyauterie de grande longueur et les coudes réduisent le débit. Pour obtenir le meilleur rendement, utilisez le moins possible de raccords et une tuyauterie de grand diamètre (au moins 5 cm [2 po.] pour les Modèle TR100 et TR140, au moins 3 po. pour les Modèle TR100C-3 et TR140C-3).

⚠ ATTENTION Un fonctionnement à des niveaux de dépression excessifs peut provoquer des fissures dans le réservoir et des dégâts materiéls.

17. Lors de l'installation de conduites de lavage à contre-courant, it est recommandé de poser une cassevide dans les cas ou la longueur de la conduite de lavage à contre-courant dépasse 12 m (40 pi) ou si l'évacuation de cette conduite se trouve à plus de 3 m (10 pi) en-dessous de la surface de l'eau dans la piscine. Une autre solution est de prévoir un puits pour cassevide.
18. Il est recommandé de poser une soupape de retenue entre le filtre et 1'élément chauffant pour empêcher l'eau chaude d'êrte "refoulée", ce qui endommagerait le filtre et la vanne.
19. La pression de service maximum de l'appareil est de 345 kPa (50 livres par pied carré [psi]) et 517 kPa (75 livres par pied carré [psi]) pour le modèle Triton HD (seulement). Ne jamais faire fonctionner ce filtre au-dessus de ces pressions ou raccorder à ce filtre une pompe ayant une pression de plus de 345 kPa (50 psi) à débit nul ou 517 kPa (75 psi) à débit nul pour le modèle Triton HD (seulement).
20. N'installez jamais un appareil de chloration en amont du filtre. Positionncz-le toujours en aval on posant une soupape de retenue entre lui et le filtre.
21. Il n'est pas recommandé de poser une vanne d'arret contrôlée à la sortie du système de filtrage. Si celui-ci fonctionne avec une telle vanne fermèe, le système interne de purge d'air s'arrête de fonctionner, ce qui peut présenter un risque d'séparation. D'autre part le fonctionnement du système à sec endommagera gravemcnt l'equipement.
22. N'entreposez jamais les produits chimiques destinés à la piscine à moins de 3 mètres (10 pieds) du filtre, de la pompe ou de la vanne. Ces produits doivent toujours être entreposés dans un endroit frais, sec et bien aéré.
23. Le couvercle ovale utilisé sur le TR140C-3 et le TR100C-3 est conçu avec une soupape de décharge qui protège le réservoir des dépressions. Le couvercle va permettre à l'air d'entrer dans le réservoir si celui-ci se trouve à 8 pieds au-dessus du niveau d'eau. Dans ce cas, lorsque le filtre redémarre après un arrêt vous pouvez observer l'air qui revient dans la piscine par l'installation de retour. Ce n'est pas inhabituel, c'est simplement la soupape automatique du filtre qui enlève l'air de celui-ci.

Mise en Service Initiale

1. Nettoyez une piscine neuve avant de la remplir d'eau. La présence d'un excès d'impuretés et de grosses particules peut endommager la pompe et le filtre.
2. Vérifiez que le tuyau de lavage à contre-courant n'est pas obstrué, de façon à ce que l'eau puisse librement venir de la piscine et s'écouler par ce tuyau. Placez la vanne de régulation dans la position suivante :
   a. Si vous utilisez une vanne multivoie, réglez-la en position de lavage à contre-courant.
   b. Si vous utilisez un robinet-vanne à deux positions, appuyez sur la poignée pour le mettre en position de lavage à contre-courant et verrouillez le robinet en toumant la poignée.
3. Vérifiez que la cuve de la crépine de la pompe est pleine d'eau.

⚠ AVERTISSEMENT La pénétration d'air dans le filtre et un mise en place incorrecte du couvercle du réservoir peuvent provoquer un éclatement du couvercle et occasionner des blessures graves et/ou des dégâts matériels.

4. Vérifiez le serrage du couvercle du filtre.
5. Ouvrez le purgeur d'air manuel qui se trouve sur le couvercle du filtre. Ecartez-vous de ce dernier et mettez la pompe en marche en lui laissant le temps de s'amorcer.
6. Refermez le purgeur d'air qui se trouve sur le couvercle lorsqu'il ne reste plus d'air dans le filtre et que l'eau s'écoule cn un jet continu.

AVIS: Le sable de filtrage pour piscine est généralement prélavé et ne devrait pas demander un lavage à fond à contre-courant. Il se peut toutefois que le transport provoque une abrasion excessive, ce qui pourrait imposer un cycle prolongé de lavage à contre-courant lors de la mise en marche initiale ; continuez ce lavage jusqu'à ce que l'eau observée dans le regard en verre soit aussi claire que cello de la piscine.

⚠ ATTENTION Pour éviter d'endommager l'equipement et de causer de possibles blessures, arrêtez touiours la pompe avant de changer la position de la vanne.

7. Arrêtez la pompe. Placez la vanne dans la position suivante :
   a. Si vous utilisez une vanne multivoie, réglez-la en position de filtrage.
   b. Si vous utilisez un robinet-vanne à deux positions, soulevez la poignée en position de filtrage et verrouillez le robinet en toumant la poignée.
8. Vérifiez que tous les tuyaux d'aspiration et de retour à la piscine ne sont pas obstrués, pour que l'eau puisse librement venir de la piscine et y retoumer.
9. Ouvrez le purgeur d'air manuel qui se trouve sur le couvercle du filtre. Ecartez-vous de ce dernier et mettez la pompe en marche.
10. Refermez le purgeur d'air qui se trouve sur le couvercle du filtre lorsque qu'il ne reste plus d'air dans le filtre et que l'eau s'écoule en un jet continu.
11. Le filtre a alors entamé son cycle de filtrage. Vous devez vérifier que l'eau retoume à la piscine et relever la pression de service lorsque le filtre est propre.

Section 3
Entretien

Cette section décrit la manière d'entretenir votre Filtre à Sable en Fibre de Verre Triton™.

Entretien du Filtre

Le filtre joue un rôle très important dans l'equipement et l'installation de votre piscine. Si vous lui apportez le soin et l'entretien qui conviennent, sa durée de service sera prolongée de nombreuses années pendant lesquelles vous pourrez profiter de votre piscine. Respectez les suggestions qui suivent pour que le système fonctionne pendant longtemps sans problème :

1. Pour débarrasser l'extérieur du filtre des impuretés et de la poussiére, lavez-le avec une solution de détergent doux et d'eau et rincez-le au jet. N'utilisez pas de solvants.
2. Si un entretien de l'intérieur du filtre s'avère nécessaire, vous pouvez vider le sable en enlevant l'ensemble du robinet de vidange du bas du filtre et en rinçant celui-ci au jet. Vous pouvez également vous servir d'un aspirateur à sable Pentair Water Pool and Spa, Inc. (piece no. 542090).
3. Si, au bout d'un certain nombre d'années, la couleur du réservoir du filtre semble se voiler ou sa surface devenir rugueuse, vous pouvez peindre celle-ci. Nous recommandons pour cela d'appliquer au pistolet une peinture émaillée à séchage rapide. **Ne peignez pas la vanne.**

⚠ AVERTISSEMENT Examinez toujours visuellement les éléments du filtre pendant l'entretien courant pour vérifier leur intégrité. Remplacez tout élément fêlé, déformé ou apparemment défectueux. Des éléments de filtre défectueux peuvent entraîner un éclatement du dessus ou des accessoires du filtre susceptible de provoquer des blessures graves ou dégâts matériels importants.

4. Le couvercle de votre filtre à sable Triton à été fabriqué en utilisant des matériaux anti-corrosion de haute qualité. Vous devez l'examiner soigneusement chaque fois que vous procédez à l'entretien de votre filtre. Si vous observez des fuites excessives à la jointure du couvercle et du réservoir, vous devez examiner soigneusement le couvercle et joint torque et les remplacer si un signe quelconque de détérioration apparaît.
5. Votre filtre est un réservoir sous pression et vous ne devez jamais en effectuer l'entretien lorsqu'il est pressurisé. Vous devez toujours délester la pression dans le réservoir et ouvrir le purgeur d'air qui se trouve sur le couvercle du filtre avant de procéder à l'entretien du filtre.
6. Lorsque vous remettez le filtre en marche, ouvrez toujours le purgeur d'air qui se trouve sur le couvercle du filtre et écartez-vous de celui-ci.

Frequence de Nettoyage

1. Le filtre d'une piscine neuve doit être lavé à contre-courant et nettoyé au bout des 48 premières heures de fonctionnement pour en éliminer la poudre de plâtre et/ou les débris résultant de la construction.
2. Il y trois façons de savoir quand le filtrage doit être lavé à contre-courant :
   a. L'indication la plus précise qu'un lavage à contre-courant est nécessaire est, sur les systèmes équipés d'un débitmètre, que le débit diminue de 30% par rapport au débit initial (filtre propre). Si, par exemple, le débit initial était de 227 l/mn (60 gal/mn), il convient de laver le filtre à contre-courant lorsque le débit diminue de 75,7 l/mn (20 gal/mn) pour atteindre 151,3 l/mn (40 gal/mn).
   b. Une indication plus subjective et moins précise est donnée par l'observation du débit des sorties d'eau directionnelles qui se trouvent dans la paroi de la piscine. Le filtre doit être lavé à contre-courant lorsque vous constatez que ce débit s'est réduit par 30% environ.
   c. L'indication la plus communément utilisée et la moins précise de devoir laver à contre-courant est l'augmentation de 68,9 kPa (10 psi) par rapport à la valeur initiale (filtre propre) de la pression indiquée par le manomètre du filtre.
3. Il est important de ne pas laver le filtre à contre-courant uniquement à des intervalles de temps, comme par exemple tous les trois jours. Il est également important de noter qu'un lavage à contre-courant trop fréquent provoque en fait un mauvais filtrage. Des facteurs tels que les conditions atmosphériques, de fortes pluies, de fortes concentrations de poussière ou de pollen et les températures de l'eau affectent tous la fréquence du lavage à contre-courant. Vous deviendrez conscient de ces influences lorsque vous serez familiarisé avec l'utilisation de votre piscine.
4. Si à un moment quelconque la pression de démarrage après un lavage à contre-courant du filtre dépasse de 27,6 à 41,4 kPa (4 à 6 psi) la pression de démarrage normale, it est temps de procéder à un nettoyage chimique.

Lavage a Contre-courant du Filtre

AVERTISSEMENT Pour éviter d'endommager l'équipementet de causer de possibles blessures, arrêtez toujours la pompe avant de changer la position de la vanne.

1. Arrêtez la pompe.
2. Vérifiez que les tuyaux d'aspiration et de lavage à contre-courant ne sont pas obstrués, de façon à ce que l'eau puisse librement venir de la piscine et s'écouler par le tuyau de lavage à contre-courant. Placez la vanne de régulation dans la position suivante :
   a. Si vous utilisez une vanne multivoie, réglez-la en position de lavage à contre-courant.
   b. Si vous utilisez un robinet-vanne à deux positions, appuyez sur sa poignée pour le mettre en position de lavage à contre-courant et verrouillez le robinet en toumant la poignée.
3. **Ecartez-vous du filtre** et mettez la pompe en marche.
4. Lavez le filtre à contre-courant pendant 3 à 5 minutes environ ou jusqu'à ce que l'eau de lavage à contre-courant soit propre.
5. Arrêtez la pompe.
   a. Si vous utiliscz une vanne multivoie, réglez-la en position de rinçage et passez aux opérations suivantes.
   b. Si vous utilisez un robinet-vanne à deux positions, passez à l'étape 8.
6. **Ecartez-vous du filtre** et mettez la pompe en marche.
7. Rincez le filtre pendant 30 secondes environ.
8. Arrêtez la pompe et placez la vanne dans la position suivante :
   a. Si vous utilisez une vanne multivoie, réglez-la en position de filtrage.
   b. Si vous utilisez un robinet-vanne à deux positions, soulevez sa poignée en position de filtrage et verrouillez le robinet en toumant la poignée.
9. Vérifiez que le tuyau de retour à la piscine n'est pas obstrué, pour que l'eau puisse librement venir de la piscine et y retourner.
10. Ouvrez le purgeur d'air manuel qui se trouve sur le couvercle du Triton. **Ecartez-vous du filtre et mettez la pompe en marche.**
11. Refermez le purgeur d'air qui se trouve sur le couvercle lorsqu'il ne reste plus d'air et que l'eau s'écoule en un jet continu.
12. Le filtre a alors entamé son cycle de filtrage. Vous devez vérifier que l'eau retourne à la piscine et noter la pression du filtre.
13. La pression du filtre relevée à l'étape 12 ci-dessus ne doit pas dépasser celle qui a été observée à l'origine lors de la mise en route initiale du filtre. Si, à l'issue du lavage à contre-courant, la pression est supérieure de 27,5 à 41,4 kPa (4 à 6 psi) à la pression relevée lors de la mise en route, it sera nécessaire de nettoyer chimiquement le lit de sable.

Nettoyage Chimique

1. Il est recommandé d'utiliser un produit de nettoyage agréé. Contacter votre fournisseur local de produits chimiques pour piscine ou un détaillant pour obtenir le nettoyant adéquat.

   Ces produits nettoyants élimineront l'huile, le tartre et la rouille du lit de sable en une seule opération de nettoyage.
2. Préparez une solution en suivant les instructions données par le fabricant sur l'étiquette.
3. Nettoyez le filtre à contre-courant comme indiqué plus haut.
4. Si le filtre est au-dessous du niveau de la piscine, arrêtez la pompe et fermez les vannes appropriées pour éviter de vider la piscine.
5. Arrêtez la pompe, ouvrez le robinet de vidange du filtre et laissez celui-ci se vider. Placez la vanne en position de lavage à contre-courant.
6. Une fois que le filtre s'est vidé, refermez son robinet de vidange et enlevez le couvercle de la crépine de la pompe.
7. Vérifiez que les tuyaux de lavage i contre-courant ne sont pas obstrués.
8. Mettez la pompe en marche et videz lentement la solution de nettoyage dans la crépine de la pompe alors que celle-ci tourne.
9. Continuez à ajouter de la solution de nettoyage jusqu'à ce que le lit de sable en soft saturé. Remettez le couvercle sur la pompe.
10. Arrêtez la pompe et laissez le filtre en position de lavage à contre-courant. Laissez le filtre reposer pendant la nuit (12 heures).
11. Remettez le couvercle de la pompe en place et procédez à un lavage à contre-courant comme indiqué plus haut.
12. Empêchez la solution de nettoyage de pénétrer dans la piscine.

Hivernisation du Filtre

1. Dans les régions dans lesquelles les températures hivemales descendent en-dessous de zéro, protégez l'equipement de la piscine en lavant le filtre à contre-courant.
2. Après le lavage à contre-courant, arrêtez, la pompe, ouvrez le purgeur d'air manuel qui se trouve sur le couvercle et réglez la vanne comme suit :

   a. Sur les vannes multivoies, placez la poignée de celles-ci en position d'hivernisation.*
   b. Sur le robinet-vanne à deux positions, retirez, si c'est possible, le piston aspirant ; nettoyez, graissez et rangez le robinet dans un endroit sec pendant l'hiver.
3. Sur les TR40, 50, 60 et TR60 ClearPro, retirez le bouchon du type à oreilles du bas du filtre. Sur les TR100, TR100HD, TR100C, TR100C-3 et TR140, TR140C, TR140C-3, retirez le bouchon de vidange de 38 mm (1½ po.). Le filtre se videra très lentement et il est donc recommandé de laisser le bouchon de vidange retiré pendant l'inter-saison.

***REMARQUE:** La vanne multivoie doit être laissée en position d'hivernisation pendant l'intersaison de façon à ce que son partiteur n'exerce aucune pression sur le joint en caoutchouc.

4. Vidangez toute la tuyauterie appropriée.
5. Nous recommandons de recouvrir l'équipement avec une toîle goudronnée ou une feuille plastique pour éviter toute déterioration due aux intempéries. N'enveloppez pas le moteur de la pompe avec du plastique.

Section 4
Dépannage

Utiliser les informations de dépannage suivantes pour résoudre des problèmes éventuels avec votre Filtre Triton™.

⚠ AVERTISSEMENT

CE FILTRE EST SOUMIS À HAUTE PRESSION

Lorsque l'on intervient sur l'un ou l'autre des composants du circuit de circulation (ex : bouchon, couvercle, pompe, filtre, robinet(s) etc..), l'air peut pénétrer n'importe où dans le circuit et devenir pressurisé. L'air sous pression peut occasionner une séparation du couvercle supérieur pouvant entrainer des blessures sérieuses, la mort ou l'endommagement du bien. Pour éviter ce danger potentiel, respectez ces instructions:

1. Si vous ne connaissez pas bien votre système de filtration de piscine et/ou de réchauffage:
   a. **N'essayez Pas** de procéder à des réglages ou effectuer l'entretien sans consulter votre revendeur, ou un technicien de piscine qualifié.
   b. Lisez la totalité du Manuel d'Installation et d'Utilisation avant de tenter d'utiliser, entretenir ou régler le système de filtration ou de réchauffage.
2. Avant de remettre la (les) vanne(s) en position et avant de commencer le montage, démontage, ou toute autre intervention sur le circuit : (A) Mettre la pompe sur **ARRÊT** et mettre **HORS SERVICE** tout automatisme pour garantir que le système ne soit PAS démarré par inadvertance pendant l'opération d'entretien ; (B) ouvrir le robinet manuel de purge d'air ; (C) attendre jusqu'à ce que toute pression soit évacuée.
3. Lors du montage du couvercle de filtre **RESPECTER EXACTEMENT LES INSTRUCTIONS RELATIVES AU COUVERCLE DE FILTRE.**
4. Une fois l'intervention sur le circuit terminée, **RESPECTER EXACTEMENT LES INSTRUCTIONS DE MISE EN SERVICE.**
5. Maintenir le circuit de circulation correctement. Remplacer les pièces usées ou endommagées immédiatement (par exemple : couvercle, manomètre, vanne(s), joints toriques, etc..)
6. S'assurer que le filtre est correctement monté et positionné suivant les instructions fournies.

Remarque: Préalablement isoler l'alimentation électrique de l'équipement avant de tenter une intervention ou une réparation.

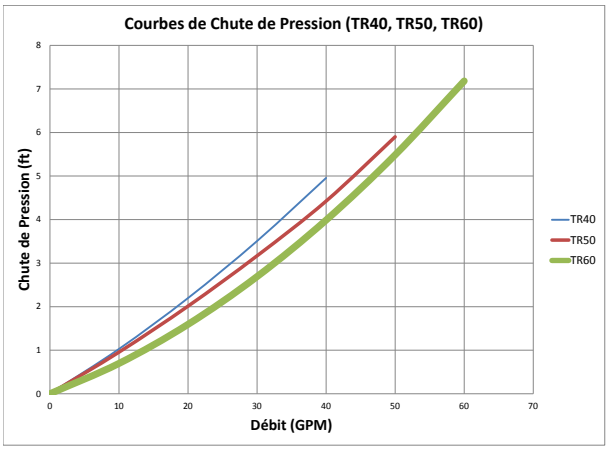
Problèmes et Actions Correctives

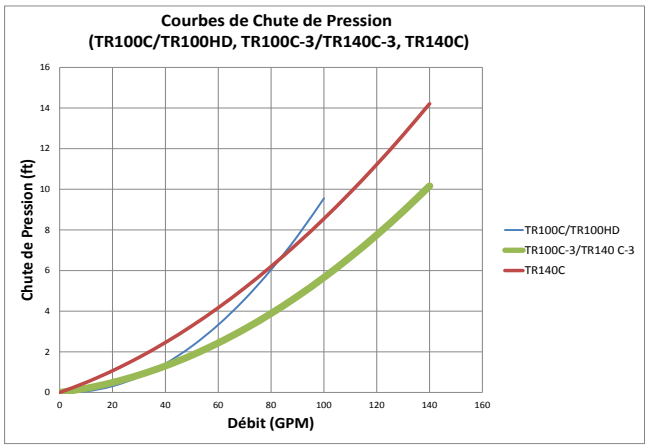
PROBLÈME	CAUSE	REMÈDE
Eau de la piscine insuffisamment propre	1. Composition chimique de l'eau de la piscine inadéquate pour empêcher la croissance des algues.	Maintenez la composition chimique correcte de l'eau de la piscine ou consultez un technicien d'entretien spécialisé.
	2. Lavage à contre-courant trop fréquent.	Laissez la pression augmenter jusqu'à 68,9 kPa (10 psi) au-dessus de la pression avec filtre propre avant de laver à contrecourant.
	3. Quantité ou calibre incorrect de sable.	Vérifiez l'épaisseur du lit de sable et le calibre de ce dernier ou consultez un technicien d'entretien spécialisé.
	4. Cadence de renouvellement inadéquate.	Faites fonctionner le système pendant plus longtemps ou consultez votre revendeur ou un technicien d'entretien spécialisé.
Pression trop élevée dans le filtre	1. Lavage à contre-courant insuffisant.	Lavez à contre-courant jusqu'à ce que l'eau de lavage soit claire.
	2. Lit de sable encombré de dépôts minéraux.	Nettoyez chimiquement le filtre.
	3. Vanne partiellement fermée.	Ouvrez la vanne ou débouchez le tuyau de retour.
Cycles trop courts	1. Lavage à contre-courant incorrect.	Lavez à contre-courant jusqu'à ce que l'eau de lavage soit claire.
	2. Composition chimique de l'eau de la piscine inadéquate pour empêcher la croissance des algues.	Maintenez la composition chimique correcte e l'eau de la piscine ou consultez un technicien d'entretien spécialisé.
	3. Lit de sable sale.	Retirez à la main une épaisseur de 25 mm (1 po.) sur le dessus du lit de sable et nettoyez chimiquement l'ensemble du lit de sable comme indiqué dans la Section G.
	4. Débit trop élevé.	Ramenez le débit à la capacité du filtre.

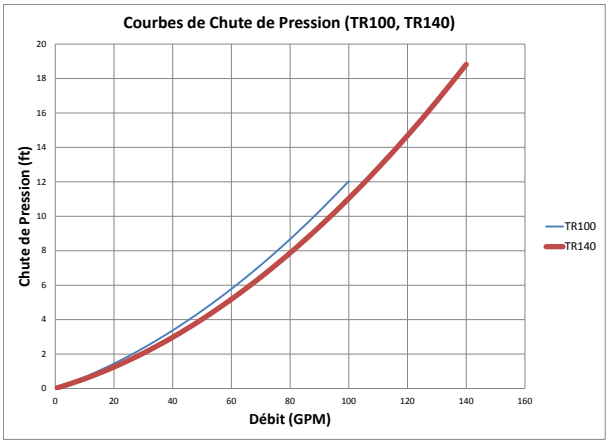
PROBLÈME	CAUSE	REMÈDE
Réduction du débit de retour de l'eau vers la piscine. Pression trop basse dans le filtre.	1. Colmatage du filtre à cheveux et peluches de la pompe.	Nettoyez le filtre.
	2. Obstruction dans la pompe.	Démontez et nettoyez la pompe.
	3. Tuyau d'aspiration de la pompe obstrué	Nettoyez le panier du collecteur. Débouchez les tuyaux. Ouvrez les vannes du tuyau d'aspiration.
Retour du sable dans la piscine.	1. Élément latéral de vidange par le bas cassé.	Remplacez les éléments latéraux cassés ou endommagés.
Perte de sable vers l'évacuation des déchets.	1. Débit de lavage à contre-courant trop élevé.	Réduisez le débit du lavage à contre-courant.
	2. Calibre de sable incorrect.	Utilisez le sable approprié.
	3. Le filtre à air est endommagé ou absent.	Remplacez les pièces endommagées.
Fuites au niveau du couvercle.	1. Couvercle mal serré.	Arrêtez la pompe, délestez la pression dans le réservoir, ouvrez le purgeur d'air, serrez bien le couvercle.
	2. Présence de saletés ou d'impuretés sur la surface d'etanchéité.	Arrêtez la pompe, délestez la pression dans le réservoir, ouvrez le purgeur d'air, retirez le couvercle & nettoyez toutes les surfaces d'étanchéité. Remettez le couvercle bien en place.
	3. Pièce endommagée.	Mêmes mesures que ci-dessus, si ce n'est que vous devez remplacer le joint torique, le couvercle, le réservoir ou toute combinaison de pièces, le cas échéant.
Fuite au niveau de la traversée de paroi étanche.	1. Ensemble de la traversée de paroi étanche mal serré.	Pour les modèles TR 40, 50, 60, TR60 ClearPro, 100, 100C, 140 ou 140C, arrêtez la pompe, délestez la pression dans le réservoir, ouvrez le purgeur d'air, retirez le couvercle, puis enlevez le sable afin d'atteindre la traversée de paroi étanche à l'origine de la fuite. En maintenant la traversée de paroi étanche de 2 po., resserrez le contre-écrou interne dont le diamètre est de 2 po. Pour les modèles TR 100C-3" et TR 140C-3", saisissez, à l'aide d'une clé spéciale no. 154020, la bague d'é-cartement de la bride de 3 po. et r esser-rez avec une clé no. 154019 l'adaptateur de la bride de 3 po. Serrez à la main d'un demi-tour supplémentaire.
	2. Saleté ou impuretés sur les surfaces d'étanchéité.	Arrêtez la pompe, délestez la pression dans le réservoir, ouvrez le purgeur d'air, retirez le couvercle, puis enlevez le sable afin d'atteindre la traversée de paroi étanche à l'origine de la fuite. Enlevez les éléments internes du réservoir et l'ensemble de la traversée de paroi étanche. Nettoyez toutes les surfaces de jointement ainsi que les surfaces d'étanchéité. Remettez en place l'ensemble de la traversée de paroi étanche, en vous assurant de bien le monter. Serrez l'ensemble en procédant de la façon indiquée ci-dessus.
	3. Pièce endommagée.	Procédez de la façon indiquée ci-dessus, en remplaçant la pièce (ou le groupe de pièces) endommagée.

Section 5
Pièces de Rechange

Courbes de Chute de Pression pour les Filtres à Sable de la Série Triton™



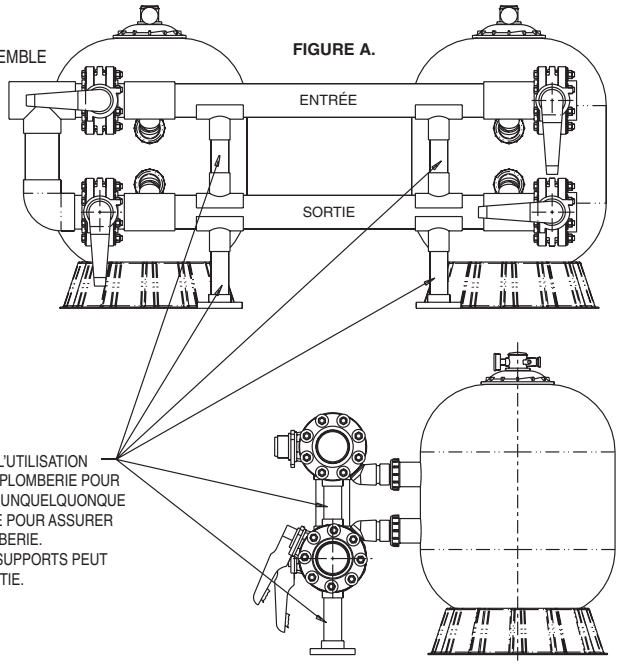




Installation des Filtres Multiples avec l'ensemble de Tuyauterie pour Filtres en Tandem

MISE EN GARDE: QUAND DE MULTIPLES FILTRES SONT INSTALLÉS, NOUS RECOMMENDONS FORTEMENT L'UTILISATION D'UN ENSEMBLE DE TUYAUTERIE POUR FILTRE EN TANDEM PENTAIR. CES ENSEMBLES COMPRENNENT DES SUPPORTS DE PLOMBERIE (ENTRE LES TUYAUTERIES D'ENTRÉE ET DE SORTIE ET ENTRE LA TUYAUTERIE DE SORTIE ET LE SOL) POUR ASSURER L'INTÉGRITÉ DE L'INSTALLATION. VOIR LA FIGURE A.

FIGURE A.

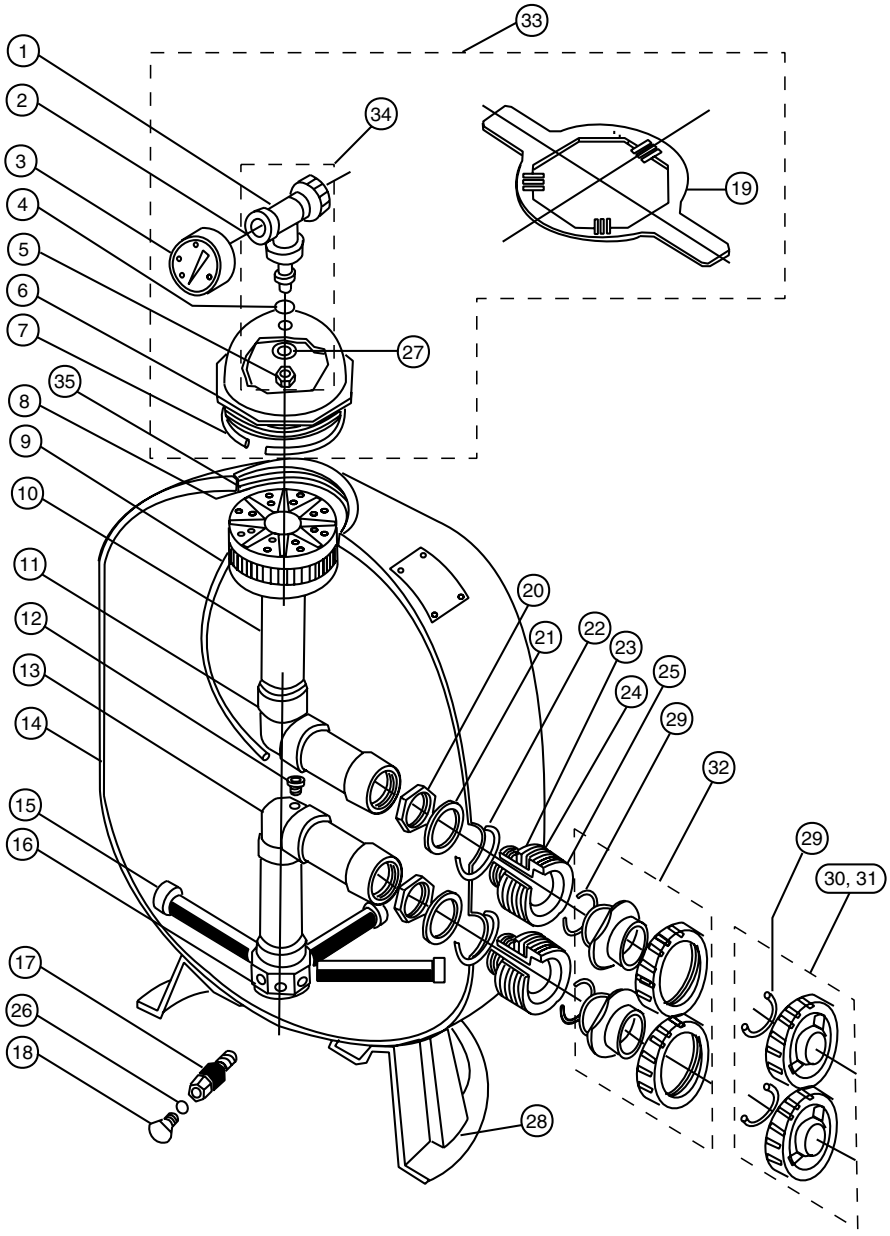


MISE EN GARDE: PENTAIR RECOMMENDE L'UTILISATION D' (UN) ENSEMBLE(S) DE PLOMBERIE POUR FILTRE EN TANDEM OU D'UNQUELQUONQUE SUPPORT DE PLOMBERIE POUR ASSURER L'INTÉGRITÉ DE LA PLOMBERIE. LA NON UTILISATION DE SUPPORTS PEUT ANNULER VOTRE GARANTIE.

FILTRE A SABLE EN FIBRE DE VERRE TRITON™ II ET TR60 CLEARPRO

Pièces de Rechange

TR40
TR50
TR60
TR60 ClearPro
TR100
TR140



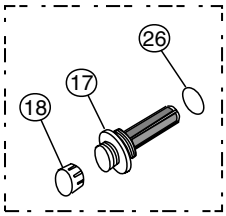
DÉTAIL A
Après 1er Déc. 1991
RACCORD FILETE 15 CM (6 PO.)

DÉTAIL B
Avant 1er Déc. 1991
FILETAGE TRIANGULAIRE 15 CM (6 PO.)

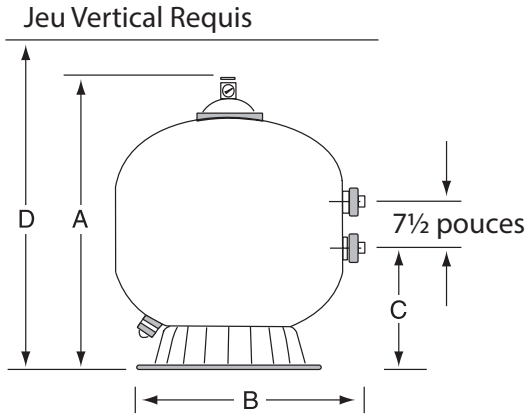
Filtres fabriqués après le 1er décembre 1991 : utiliser un filetage trapèze rectangulaire de 6 pouces pour l'ouverture supérieure du corps du filtre ainsi que pour le couvercle. Voir Détail A.

Filtres fabriqués avant le 1er décembre 1991 : utiliser un filetage en « V » de 6 pouces. Voir Détail B.

Les couvercles de 6 pouces des Détails A et B ne sont PAS interchangeables.



★ Utilisé sur les Filtres TR100 et TR140.



MODELE	DIM. A.	DIM. B.	DIM. C.	DIM. D.
TR40	77,5 cm	49,5 cm	27,3 cm	82,6 cm
TR50	88,3 cm	54,6 cm	30,2 cm	93,3 cm
TR60	90,2 cm	62,2 cm	34,6 cm	95,3 cm
TR60 ClearPro	90,2 cm	62,2 cm	34,6 cm	95,3 cm
TR100	101 cm	77,5 cm	41,3 cm	106 cm
TR140	115 cm	92,7 cm	47,6 cm	120 cm

UNITÉ	PIECE NO.	DESCRIPTION TRITON II ET TR60 CLEARPRO
1	154689	ENSEMBLE PURGEUR D'AIR/TE
2	154700	ADAPTATEUR-PURGEUR D'AIR EN LAITON
3	155050	MANOMETRE-MONTE PAR L'ARRIERE
4	154661	JOINT TORIQUE-ADAPTATEUR DE PURGEUR D'AIR
5	154664	ECROU 9,4 MM (3/8 PO.) - 16 INOX
6	154570	COUVERCLE-RACCORD FILETE 15 CM (6 PO.) (VOIR DETAIL A)
6	154559	COUVERCLE-FILETAGE TRIANGULAIRE 15 CM (6 PO.) NOIR - (VOIR DETAIL B)
7	154493	JOINT TORIQUE-COUVERCLE
8	150035	FILTRE-ECL/TR
9	150039	TUBE-PURGE D'AIR TR40
9	150040	TUBE-PURGE D'AIR TR50/60
9	150041	TUBE-PURGE D'AIR TR100
9	150042	TUBE-PURGE D'AIR TR140
10	154598	DIFFUSEUR TR40/50
10	154599	DIFFUSEUR TR60
10	154462	DIFFUSEUR TR100
10	154906	DIFFUSEUR TR140
11	154803	TUYAUTERIE-SUPERIEURE TR40
11	156814	TUYAUTERIE-SUPERIEURE TR50
11	154533	TUYAUTERIE-SUPERIEURE TR60
11	154426	TUYAUTERIE-SUPERIEURE TR100
11	154500	TUYAUTERIE-SUPERIEURE TR140
12	150036	RACCORD-TUBE DE PURGE D'AIR
13	154801	TUYAUTERIE-INFERIEURE TR40
13	156816	TUYAUTERIE-INFERIEURE TR50
13	154805	TUYAUTERIE-INFERIEURE TR60
13	155284	TUYAUTERIE-INFERIEURE TR60 ClearPro - 1/4 VIRAGE LATÉRAL
13	154807	TUYAUTERIE-INFERIEURE TR100
13	154489	TUYAUTERIE-INFERIEURE TR140
14	154636	ENSEMBLE RESERVOIR & PIED TR40-RACCORD FILETE 15 CM (6 PO.)-(VOIR DETAIL A)
14	154637	ENSEMBLE RESERVOIR & PIED TR50-RACCORD FILETE 15 CM (6 PO.)-(VOIR DETAIL A)
14	154638	ENSEMBLE RESERVOIR & PIED TR60-RACCORD FILETE 15 CM (6 PO.)-(VOIR DETAIL A)
14	154639	ENSEMBLE RESERVOIR & PIED TR100-RACCORD FILETE 15 CM (6 PO.)-(VOIR DETAIL A)
14	154640	ENSEMBLE RESERVOIR & PIED TR140-RACCORD FILETE 15 CM (6 PO.)-(VOIR DETAIL A)

FILTRE A SABLE EN FIBRE DE VERRE TRITON™ II ET TR60 CLEARPRO

Pièces de Rechange

TR40
TR50
TR60
TR60 ClearPro
TR100
TR140

REMARQUES

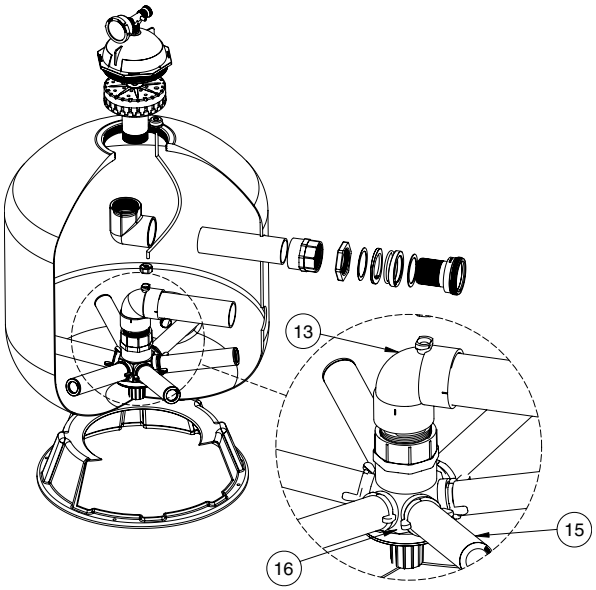
Filtres fabriqués après le 1er décembre 1991 : utiliser un filetage trapèze rectangulaire de 6 pouces pour l'ouverture supérieure du corps du filtre ainsi que pour le couvercle. Voir Détail A.

Filtres fabriqués avant le 1er décembre 1991 : utiliser un filetage en « V » de 6 pouces. Voir Détail B.

Les couvercles de 6 pouces des Détails A et B ne sont PAS interchangeables.

Pour déterminer la date de fabrication : les quatre premiers chiffres du numéro de série indiquent le mois et l'année où le produit fut fabriqué.

TR60 ClearPro - 1/4 Virage Latéral pour les filtres fabriqués après 15 Mai 2007 utilise Tuyauterie-Inferieure P/N 155284.



DETAILED VIEW

Détailler pour Triton™ II - TR60 Filtres avec ClearPro Technology™

UNITÉ	PIECE NO.	DESCRIPTION - TRITON II ET TR60 CLEARPRO
15	152290	ELEMENT LATERAL 17 CM (6 11/16 PO.) L TR40/50/60 (8 Requis)
15	150085	ELEMENT LATERAL - 1/4 VIRAGE TR60 (6 Requis)
15	150088	ELEMENT LATERAL TR60 ClearPro (6 Requis)
15	152202	ELEMENT LATERAL-23,2 CM (9 1/8 PO.) L TR100 (8 Requis) ❷
15	154543	ELEMENT LATERAL-16,5 CM (6 1/2 PO.) L TR100 (8 Requis) ❶
15	154540	ELEMENT LATERAL-30 CM (12 PO.) L TR140 (8 Requis)
16	154763	MOYEU-ELEMENT LATERAL TR40/50/60
16	152222	MOYEU-ELEMENT LATERAL TR60 ClearPro
16	154453	MOYEU-ELEMENT LATERAL TR100/140
17	152220	VIDANGE DE SABLE -5 CM (2 PO.) ❻
17	154698	ROBINET-19 MM (3/4 PO.) NPT, VIDANGE DE SABLE ❹
17	154685	ROBINET-12,7 MM (1/2 PO.) NPT, VIDANGE DE SABLE ❸
18	154871	CHAPEAU - FILETE - 3.8CM (1.1/2 PO.) ❻
18	357161	BOUCHON-6,3 MM (1/4 PO.) NPT, VIDANGE
19	154512	CLE-15 CM (6 PO.), COUVERCLE
20	154412	CONTRE-ECROU-5 CM (2 PO.) INTERNE (2 Requis)
21	154416	BAGUE D'ECARTEMENT-5 CM (2 PO.) INTERNE (2 Requis)
22	154492	JOINT TORIQUE-5 CM (2 PO.) TRAVERSEE DE PAROI ETANCHE (2 Requis)
23	154408	BAGUE D'ECARTEMENT-5 CM (2 PO.) EXTERNE (2 Requis)
24	154538	JOINT D'ETANCHEITE-5 CM (2 PO.) TRAVERSEE DE PAROI-ETANCHE (2 Requis)
25	154405	TRAVERSEE DE PAROI ETANCHE-5 CM (2 PO.) (2 Requis)
26	274494	JOINT TORIQUE-(3/16 PO. X 2-5/8 PO. - i.d.) ❻
26	192115	JOINT TORIQUE #2-12 - ADAPTATEUR DE AIR
27	154418	RONDELLE-9,4 MM (3/8 PO.) INOX
28	154926	PIED-40 CM (16 PO.) DE DIAMETRE, TR40/50 (Remarque 1)
28	154520	PIED-48.3 CM (19 PO.) DE DIAMETRE, TR 60
28	154596	PIED-60 CM (24 PO.) DE DIAMETRE, TR100/140 (Remarque 1)
29	274494	JOINT TORIQUE-ADAPTATEUR DE VANINE (2 Requis)
30	271092	KIT-ADAPTATEUR DE VANINE A FILETAGE 5CM (2 PO.) ❺
31	271094	KIT-ADAPTATEURS DE VANINE A FILETAGE 3.8CM (1.1/2 PO.) ❺
32	271096	KIT-ADAPTATEURS DE VANNE A EMBOITEMENT 5 & 3.8CM (2 & 1-1/2 PO.) ❺
33	154641	KIT-COUVERCLE, RACCORD FILETE 15CM (6 PO.)-NOIR (VOIR DETAIL A)
33	154697	KIT-COUVERCLE, FILETAGE TRIANGULAIRE 15CM (6 PO.) TAN - (VOIR DETAIL B)
33	154856	KIT-COUVERCLE, RACCORD FILETE 21,6CM (8½ PO.)-NOIR
34	154687	JEU DE RACCORDS - COMPLET (Remarque 2)
35	154611	BAGUE D'ECARTEMENT - FILTRE D'EVENT 9.4 CM (3-3/4 PO.) - TR40
35	154612	BAGUE D'ECARTEMENT - FILTRE D'EVENT 11.4 CM (4-1/2 PO.) - TR50/60
35	154613	BAGUE D'ECARTEMENT - FILTRE D'EVENT 14 CM (5-1/2 PO.) - TR100
35	154614	BAGUE D'ECARTEMENT - FILTRE D'EVENT 12.7 CM (5 PO.) - TR140
39	154492	JOINT TORQUE
–	154002	RUBAN ADHESIF-FIXATION DU PIED TR40/50/60 (3 Requis)
–	154007	RUBAN ADHESIF-FIXATION DU PIED TR100/140 (3 Requis)
–	151602	CLE POUR TRAVERSEE DE PAROI ETANCHE - 5CM (2 PO.)
–	154714	KIT-TRAVERSEE DE PAROI ETANCHE (COMPREND LES PIECES Nº 20 A 25)

FILTRE A SABLE EN FIBRE DE VERRE TRITON™ II ET TR60 CLEARPRO

Pièces de Rechange

TR40
TR50
TR60
TR60 ClearPro
TR100
TR140

REMARQUES

Filtres fabriqués après le 1er décembre 1991 : utiliser un filetage trapèze rectangulaire de 6 pouces pour l'ouverture supérieure du corps du filtre ainsi que pour le couvercle. Voir Détail A.

Filtres fabriqués avant le 1er décembre 1991 : utiliser un filetage en « V » de 6 pouces. Voir Détail B.

Les couvercles de 6 pouces des Détails A et B ne sont PAS interchangeables.

Pour déterminer la date de fabrication : les quatre premiers chiffres du numéro de série indiquent le mois et l'année où le produit fut fabriqué.

❶ Utilisé sur les Filtres fabriqués avant 5-85.
❷ Utilisé sur les Filtres fabriqués après 5-85.
❸ Utilisé sur les Filtres fabriqués avant 3-83.
❹ Utilisé sur les Filtres fabriqués après 3-83 et jusqu'en 3-96.
❺ Pour les Installations sans Vanne (Paire).
❻ Utilisé sur les Filtres TR100 et 140.

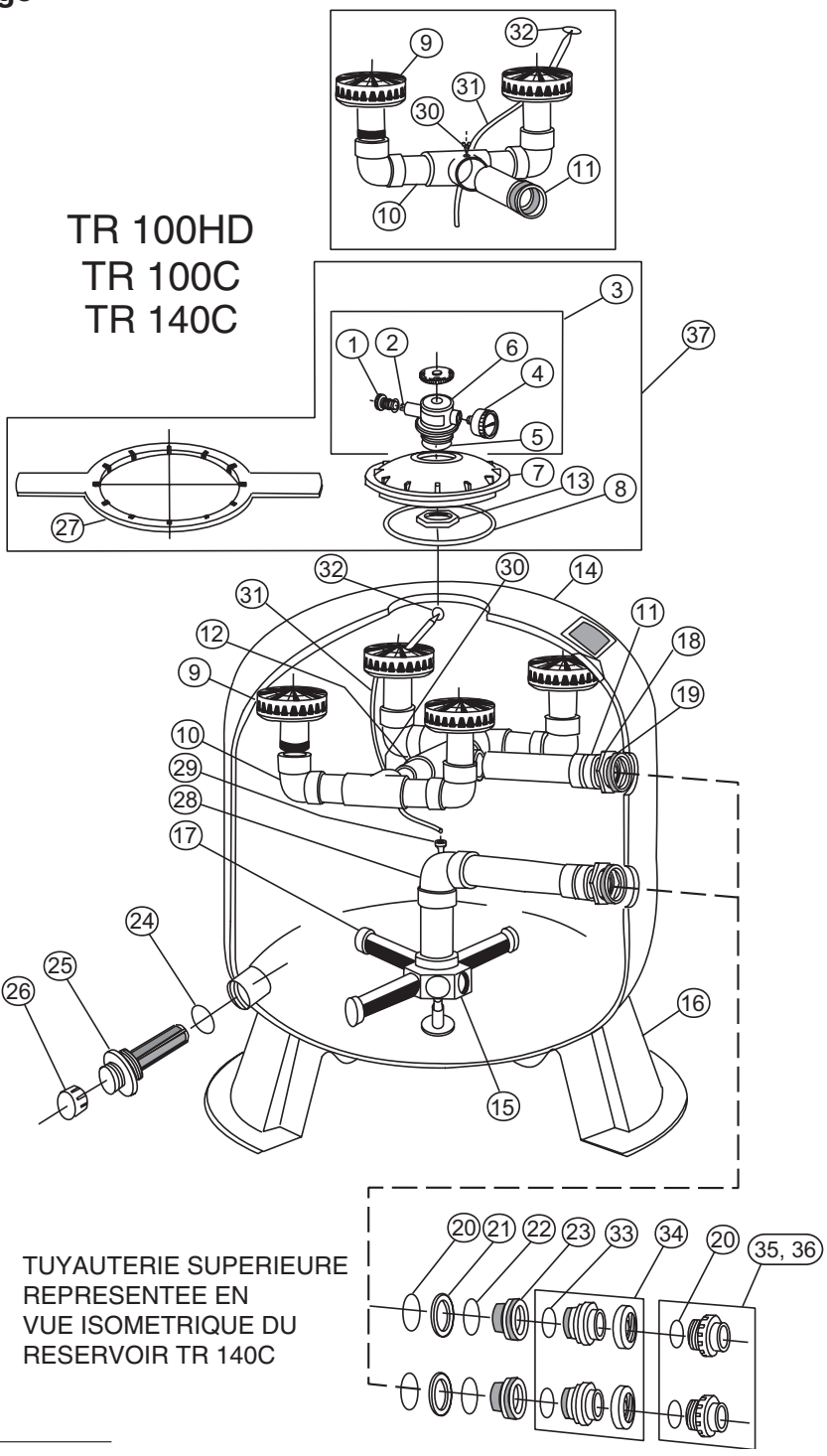
REMARQUE 1: Le remplacement du pied du réservoir exige l'utilisation d'une bande de montage de pied. Se référer aux numéros de pièces détachées.

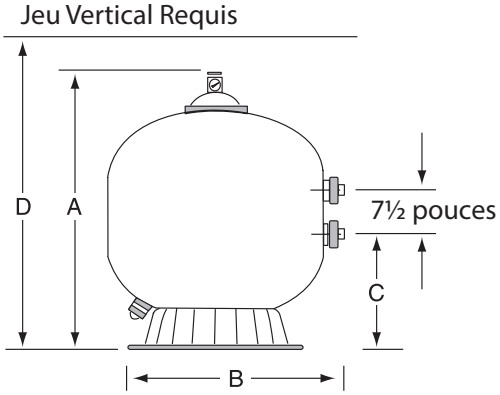
REMARQUE 2: L'ensemble des pièces de fixation inclue les articles 1, 2, 4, 5 et 27.

FILTRE A SABLE EN FIBRE DE VERRE TRITON™ 100HD, 100C ET 140C

Pièces de Rechange

TR100HD
TR100C
TR140C





MODELE	DIM. A	DIM. B	DIM. C	DIM. D
TR100C	100,9 cm	77,5 cm	41,9 cm	111,1 cm
TR140C	114,9 cm	92,7 cm	47,6 cm	125,1 cm
TR100HD	100,9 cm	77,5 cm	41,3 cm	106 cm

FILTRE A SABLE EN FIBRE DE VERRE TRITON™ 100HD, 100C ET 140C

Pièces de Rechange

TR100HD
TR100C
TR140C

UNITÉ	PIECE NO.	TRITON 100HD, 100C ET 140C DESCRIPTION
1	273512	PURGEUR D'AIR AVEC JOINT TORIQUE
2	273513	JOINT TORIQUE - VIS DE PURGEUR D'AIR
3	273564	CORPS DE PURGEUR D'AIR MANUEL
4	155050	MANOMÉTRE
4	991481	MANOMÉTRE TR100C/TR100HD ❷
5	154494	JOINT TORIQUE-(3/16 PO. X 2-5/8 PO. -i.d.)
6	273564	CORPS DE VANNE - USINÉ
7	154575	COUVERCLE - RACCORD 8-1/2 PO.
8	152509	ANNEAU CARRÉ 8-1/2 PO.
9	154599	DIFFUSEUR (2 REQUIS SUR TR100C/ TR100HD) ❶
9	154599	DIFFUSEUR (4 REQUIS SUR TR140C) ❶
10	156355	ENSEMBLE DE TUYAUTERIE SUPÉRIEURE-TR100C/TR100HD/TR140C ❶
11	156344	ENTRÉE D'EAU - TUYAUTERIE SUPÉRIEURE - TR100C/TR100HD
12	156354	ENSEMBLE RACCORD DE TUYAUTERIE SUPÉRIEURE - TR140C
13	154412	ÉCROU - 2 PO. INTERNE
14	153430	ENSEMBLE DE RÉSERVOIR ET PIED TR100C/ TR100HD RACCORD FILETÉ 8-1/2 PO. - NOIR
14	153431	ENSEMBLE DE RÉSERVOIR ET PIED TR140C RACCORD FILETÉ 8-1/2 PO. - NOIR
14	156224	ENSEMBLE DE RÉSERVOIR ET PIED TR100HD RACCORD FILETÉ 15 CM (6 PO.) - NOIR ❷
15	154453	MOYEU - ÉLÉMENT LATÉRAL TR100C/TR100HD/ TR140C
16	154596	PIED - DIAMÈTRE 24 PO. TR100C/TR100HD/ TR140C
17	152202	ÉLÉMENT LATÉRAL - LONGUEUR: 9-1/8 PO. TR100C (8 REQUIS)
17	154540	ÉLÉMENT LATÉRAL - LONGUEUR: 12 PO. TR140C (8 REQUIS)
18	154412	CONTRE-ÉCROU - 2 PO. INTERNE
19	154416	BAGUE D'ÉCARTEMENT - 2 PO. INTERNE
20	154492	JOINT TORIQUE - TRAVERSÉE DE PAROI ÉTANCHE - 2 PO.
21	154408	BAGUE D'ÉCARTEMENT - 2 PO. EXTERNE
22	154538	JOINT D'ETANCHEITE - TRAVERSÉE DE PAROI ETANCHE - 2 PO.
23	154405	TRAVERSÉE DE PAROI ETANCHE - 2 PO.
24	274494	JOINT TORIQUE-(3/16 PO. X 2-5/8 PO. -i.d.)
–	154407	RUBAN ADHÉSIF FIXATION DU PIED
25	152220	ENSEMBLE VIDANGE DE SABLE 2 PO.
26	154871	CHAPEAU - FILETÉ 1½ PO.
27	154527	CLÉ - COUVERCLE 8-1/2 PO.
27	151608	CLÉ - COUVERCLE 8-1/2 PO. ALUMINIUM
28	154807	ENSEMBLE DE TUYAUTERIE INFÉRIEURE TR100C/TR100HD
28	154489	ENSEMBLE DE TUYAUTERIE INFERIEURE TR140C
29	150036	RACCORD - TUBE DE PURGEUR D'AIR
30	273071	VIS #14 18-8 ❶

UNITÉ	PIECE NO.	TRITON 100HD, 100C ET 140C DESCRIPTION
31	150041	TUBE - PURGEUR D'AIR TR100C/TR100HD
31	150042	TUBE - PURGEUR D'AIR TR140C
32	150035	PURGEUR D'AIR DU FILTRE
33	274494	JOINT TORQUE - ADAPTATEUR DE VANNE
34	271096	KIT - PAIRE D'ADAPTATEUR SANS VANNE À EMBOÎTEMENT 2 PO. & 1-1/2 PO.
35	271092	KIT - PAIRE D'ADAPTATEURS SANS VANNE À FILETAGE 2 PO.
36	271094	KIT - PAIRE D'ADAPTATEURS SANS VANNE À FILETAGE 1-1/2 PO
37	154856	KIT - COUVERCLE, RACCORD FILETÉ 8-1/2 PO. NOIR
37	155738	KIT - COUVERCLE, RACCORD FILETÉ 8-1/2 ❷

REMARQUE

❶ Différentes quantités sont requises pour les Filtres TR100C etTR140C.

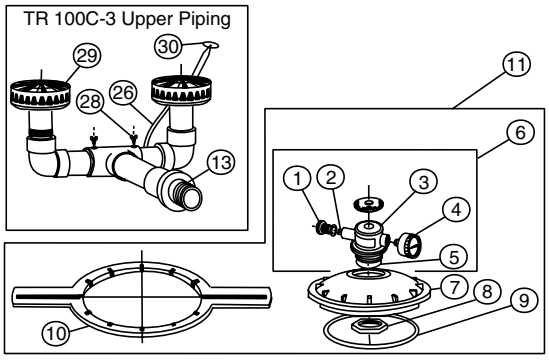
❷ Utilisé sur les Filtres TR100 HD.

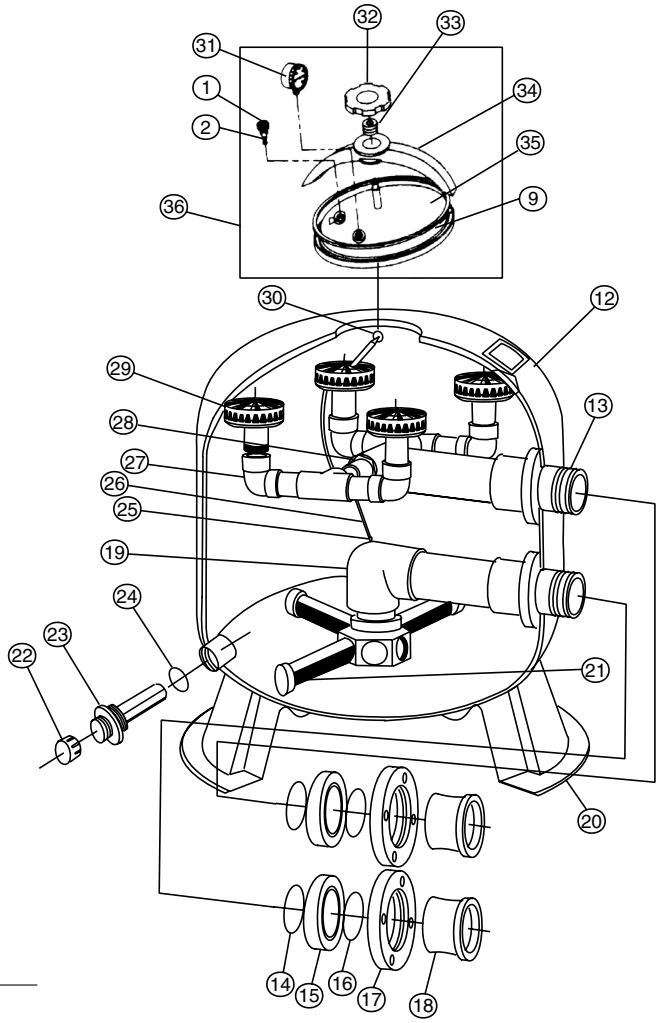
FRANÇAIS

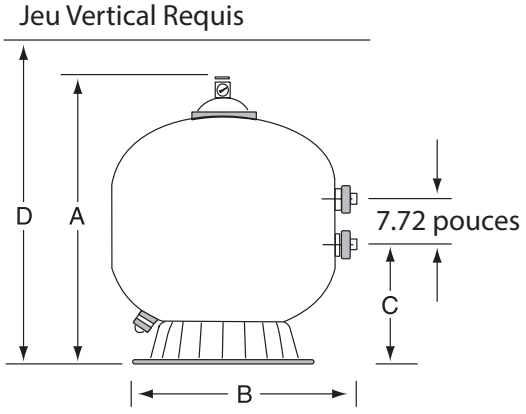
FILTRE A SABLE EN FIBRE DE VERRE TRITON™ 100C-3 ET 140C-3

Pièces de Rechange

TR100C-3
TR140C-3







MODELE	DIM. A	DIM. B	DIM. C	DIM. D
TR100C-3	100,9 cm	77,5 cm	40,8 cm	111,1 cm
TR140C-3	114,9 cm	92,7 cm	47 cm	125,1cm

FILTRE A SABLE EN FIBRE DE VERRE TRITON™ 100C-3 ET 140C-3

Pièces de Rechange

TR100C-3
TR140C-3

UNITÉ	PIECE NO.	TRITON 100C-3 ET 140C-3 DESCRIPTION
1	273512	PURGEUR D'AIR AVEC JOINT TORIQUE ❷❸
2	273513	JOINT TORIQUE -VIS DE PURGEUR D'AIR ❷
3	273564	CORPS DE PURGEUR D'AIR MANUEL ❷
4	155050	MANOMETRE ❷
5	154494	JOINT TORIQUE - (3/16 PO. X 2-5/8 PO. - i.d.) ❷
6	273564	CORPS DE VANNE - USINÉ ❷
7	154575	COUVERCLE - RACCORD 8-1/2 PO. ❷
8	154412	ÉCROU - 2 PO. INTERNE ❷
9	152509	ANNEAU CARRE - COUVERCLE ❷❸
10	154527	CLÉ - COUVERCLE 8-1/2 PO. ❷
11	154856	KIT - COUVERCLE, RACCORD FILETÉ 8-1/2 PO.❷
11	156842	KIT - COUVERCLE, AVEC LE JOINT 8-1/2 PO.❹
12	153430	ENSEMBLE DE RESERVOIR ET PIED TR 100C-3 RACCORD FILETE
12	153431	ENSEMBLE DE RESERVOIR ET PIED TR 140C-3 RACCORD FILETE
13	154007	ENSEMBLE DE TUYAUTERIE SUPERIEURE TR 100C-3
13	154008	ENSEMBLE DE TUYAUTERIE SUPERIEURE TR 140C-3
14	154005	JOINT TORIQUE - PARKER 2-343 (2 Requis)
15	154002	BAGUE D'ECARTEMENT 3 PO. (2 Requis)
16	154004	JOINT TORIQUE - PARKER 2-342 (2 Requis)
17	154003	BRIDE 3 PO. (2 Requis)
18	154001	ADAPTATEUR - BRIDE 3 PO. (2 Requis)
19	154009	ENSEMBLE DE TUYAUTERIE INFERIEURE TR100C-3
19	154010	ENSEMBLE DE TUYAUTERIE INFERIEURE TR140C-3
20	154596	PIED - 24 PO. DE DIAMETRE TR100C-3/140C-3
21	152202	ELEMENT LATERAL 9 PO. TR100C-3 (8 Requis)
21	154540	ELEMENT LATERAL 12 PO. TR140C-3 (8 Requis)
22	154871	CHAPEAU - FILETE 1-1/2 PO.
23	152220	ENSEMBLE VIDANGE DE SABLE 2 PO.
24	274494	JOINT TORIQUE-(3/16 PO. X 2-5/8 PO. -i.d.) (2 Requis)
25	154441	RACCORD - TUBE DE PURGE D'AIR
26	150041	TUBE - PURGE D'AIR TR100C-3 (23 PO.)
26	150042	TUBE - PURGE D'AIR TR140C-3 (27 PO.)
27	154018	ENSEMBLE DE TUYAUTERIE DU DIFFUSEUR TR140C-3 (2 Requis)
28	552474	VIS- #10 - 1-1/2 PO. A SIX PANS (2 Requis)
29	154599	DIFFUSEUR (2 Requis pour TR100-C3)
29	154599	DIFFUSEUR (4 REQUIS POUR TR140-C3)

UNITÉ	PIECE NO.	TRITON 100C-3 ET 140C-3 DESCRIPTION
30	150035	FILTRE - ELC/TR
31	190058	MANOMETRE, ¼ PO. PSI ❸
32	154581	BOUTON TR OVALE ❸
33	154582	RESSORT TR OVALE ❸
34	154579	PONT TR OVALE ❸
35	154576	COUVERCLE OVALE ❸
36	156841	KIT - COUVERCLE OVALE TRITON ❶❸

REMARQUE

❶ P/N 156841 inclue les articles: 1, 9, et 31 – 35.
❷ Utilisé sur les Filtres fabriqués avant 3-97.
❸ Utilisé sur les Filtres fabriqués après 3-97.
❹ Utilisé sur les Filtres fabriqués après 4-15.

1620 HAWKINS AVE., SANFORD, NC 27330 • (919) 566-8000
10951 WEST LOS ANGELES AVE., MOORPARK, CA 93021 • (805) 553-5000
WWW.PENTAIRPOOL.COM

© 2015 Pentair Water Pool and Spa, Inc. All rights reserved. Tous droits réservés. Todos los derechos reservados.
This document is subject to change without notice. Ce document pourra être modifié sans préavis. Este documento está sujeto a cambios sin previo aviso.

P/N 154901 REV. H 3/18/15