



# TRITON® NEO SAND FILTER



 **OPERATING MANUAL (P.2)**



**IMPORTANT SAFETY INSTRUCTIONS. READ, FOLLOW AND SAVE THESE INSTRUCTIONS**

AQUATIC SYSTEMS | G-INSB-NEO (REV. SEPTEMBER 2017)

## INTRODUCTION

We would like to thank you for buying our Triton® NEO Sand Filter. We are convinced that this Pentair filter will be a reliable, userfriendly and cost-efficient product for keeping your pool running.

## WEBSITE

In case you would need extra information, please have a look at the product's app or at our website [www.pentairpooleurope.eu](http://www.pentairpooleurope.eu). By scanning below QR code you will be immediately directed to our Pentair website.



## CUSTOMER SERVICE

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

**Customer Service Pisa, Italy** (8.30 AM to 4.30 PM CET)

**Phone number:** +39 050 71 61 66 or +39 050 71 61 69

**E-mail:** [orders.pooleu@pentair.com](mailto:orders.pooleu@pentair.com) or [poolemea@pentair.com](mailto:poolemea@pentair.com)

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## GENERAL INFORMATION

 **THESE OPERATING INSTRUCTIONS CONTAIN IMPORTANT INFORMATION ON THE SAFE, PROPER AND ECONOMICAL OPERATION OF THE SWIMMING POOL FILTERS. STRICT OBSERVATION OF THE OPERATING INSTRUCTIONS WILL HELP TO AVOID DANGERS, REDUCE REPAIR COSTS AND SHUTDOWN TIMES AND INCREASE THE RELIABILITY AND WORKING LIFE OF THE PRODUCT**

Warnings and safety instructions for Pentair Aquatic System filters and other related products are available at our website: [www.pentairpooleurope.com](http://www.pentairpooleurope.com)

 **THIS MANUAL CONTAINS CRITICAL SAFETY INFORMATION THAT MUST BE PROVIDED TO THE END USER. FAILURE TO READ AND TO FOLLOW INSTRUCTIONS COULD RESULT IN SERIOUS PERSONAL INJURY AND/OR MAJOR PROPERTY DAMAGE.**

**Check carton for any evidence of damage due to rough handling in shipment. If carton or any filter components are damaged, notify the carrier immediately.**

- This filter operates under pressure and if assembled improperly or operated with air in the water circulation system, the dome or top valve can separate or blowing off, which may result in an accident causing property damage or serious bodily injury.
- Keep safety labels in good condition and replace if missing or illegible.
- Failure to operate your filter system or inadequate filtration can cause poor visibility in your pool. This can result in serious personal injury or drowning as a consequence of diving into turbid water or on top of obscured objects.
- Please note that a filter removes organic matter and does not sanitize the pool. The pool water must be sanitized and the water must be balanced for sparkling clear water.
- Filters should never be tested or subjected to air or gas under pressure. All gases are compressible and constitute a serious hazard when under pressure. Severe injury or property damage could occur if the filter is subjected to air or gas pressure.
- Operating at excessive vacuum levels can cause the shell to crack and could cause property damage.
- To prevent damage to the equipment and possible injury, always turn the pump off before changing the valve position.
- Always visually inspect the filter components during normal servicing to ensure structural safety. Replace any item that is cracked, deformed or otherwise visually defective. Defective filter components can allow the filter top or attachments to be blown off and could cause severe injury or property damage.
- **Sidemount:** Use care when installing the dome. The dome should turn freely in the filter, if resistance to insertion of the dome is felt, then slowly remove the dome by turning counter-clockwise. The starting thread of the tank and the dome must engage properly in order to close the dome securely. Do not cross-thread the dome. Failure to install the dome properly can cause the dome to be blown off and could cause severe personal injury and/or property damage. Never attempt to tighten or loosen the dome while the pump is running. Failure to follow this instruction can result in the dome blowing off and causing severe injury and/or property damage. Failure to position the automatic breather vent correctly inside the dome will allow excessive trapped air to accumulate in the filter. Trapped air and failure to close the dome properly can cause the dome to be blown off and could cause severe injury and/or property damage.
- Dome may not come into contact with some grease type of products as these are causing cracks over time (p 32).

## INSTALLATION

Install the filter in a dry, well-ventilated location with adequate access for servicing. Place the filter in its permanent location on a completely level base, preferably made of concrete poured as a single slab or on a platform constructed of concrete blocks or bricks. Pipes should preferably be made of PVC. Set the suction pipe at a slight angle to avoid the formation of air bubbles. Fit the valve and position the filter in the correct place. Make sure that the valve on the filter can be easily accessed. Then fit the plumbing.

## OPERATION

Before pouring media, look inside and check lower underdrain for broken or loose laterals. The sand is put in through the opening in the top of the filter.

**Sidemount:** Turn the top diffuser system sideways until it clicks tight. Fill the tank 1/3 with water. Protect the thread on the filter by covering it with adhesive tape. Next fill the filter with the specified amount of gravel and then sand. Do this carefully to avoid damaging the bottom laterals. After filling, turn the top diffuser pipe back to its original vertical and centered position so that it again clicks into position. Remove the adhesive tape and clean the thread. Pull the air relief tubing slightly upwards, so the breather pipe strainer will fit into the dome after the dome has been fitted. Place the O-ring seal on the dome and tighten hand-tight with wrench. Shift valve handle to "Rinse" position. Now start the pump and open the bleed valve until water begins to appear from the blow-off opening in the bleed valve.

**Topmount:** Fill tank for 1/3 with water. Before filling the filter, sand guide should be on the pipe. Fill the filter with the specified quantity of gravel, afterwards with sand. Remove the sand guide. Assemble the valve to the filter and tighten with the clamp ring. Connect the piping. Turn the valve into position "Rinse" and start the pump for at least 1 minute.

 **NEVER SHIFT VALVE HANDLE POSITION WHILE PUMP IS RUNNING**

## FILTRATION

When the filter is used for the first time, shift the valve handle to 'Backwash' position, until you see clear water appearing through the sideglass. Do this at least 3 times before proceeding with below steps:

1. Shift multi-port valve handle to "Filtration" position.
2. Start the pump.
3. Bleed off any air in the filter.
4. Filter is running.
5. Make a note here of the pressure showing on the pressure gauge: \_\_\_\_\_ bar.

## TO CLEAN (BACKWASH) THE FILTER

When the pressure has increased by 0.5 bar or more (the measurement registered above) the filter sand needs to be backwashed. This is done as follows:

1. Shut off the pump.
2. Shift the valve handle to "Filter backwash".
3. Start pump and let it run until water is clean  
(**Sidemount**: about 5-10 minutes; **Topmount**: about 3 minutes).
4. Shut off the pump and turn off the water supply to the pump.
5. Clean the basket of the pump and turn on the water supply to the pump after closing the cleaning strainer dome.
6. Shift valve handle to "Rinse" position.
7. Start pump and run for approximately one minute.
8. Shut off the pump.
9. Shift valve handle to position "filtration" and start the pump.

## SERVICING AND MAINTENANCE

Proper care and maintenance will add many years of service and enjoyment to the pool. To clean filter exterior of dust, dirt, wash with a mild detergent and water, then hose off. Never wash the transparent dome with a solvent as it may become cloudy.

### REPLACEMENT OF SAND

Open the drain and let the water flow out. Remove the sand. This can be done by means of the vacuum system "Sandvak", which can be connected to the main water supply just like a garden hose. The filter can also be emptied by hand.

**Sidemount**: To replace the sand, turn the top diffuser system to the side. The thread of the filter should be protected, in the same way as with filling.

 **TAKE CARE NOT TO DAMAGE THE BOTTOM LATERALS. THE SAND IN THE FILTER MUST BE CHANGED EVERY 5 YEARS. DO NOT CLEAN OR SPRAY THE DOME WITH LUBRICANT THAT CONTAIN ALCOHOL.**

### WINTERIZING

In areas that have freezing winter temperatures protect pool equipment. The filter, pump and pipelines must be emptied to protect them from freezing. To do this move the valve handle to the "Backwash" position, open drain tap with hose connection end 180° to the left (do not unscrew) and open the bleed valve. Open all valves. A small flexible piece of tubing can be attached to the drain tap. Allow filter, pump and pipelines to drain completely.

## TROUBLESHOOTING

### 1. Short Cycle between backwashes.

- A. Flow rate too high or filter too small: consult dealer for system sizing recommendations.
- B. Water is chemically out of balance: consult pool serviceman.
- C. Excess dirt/dust in pool: vacuum pool directly to waste.
- D. Body oil/lotion build-up in filter: consult dealer for chemical filter cleaners and follow cleaner manufacturer's instructions.

**TIME BETWEEN BACKWASHES WILL VARY WITH EACH INSTALLATION AND BETWEEN DIFFERENT AREAS OF THE COUNTRY. ASK INSTALLER ABOUT NORMAL BACKWASH INTERVAL IN YOUR AREA. THE FOLLOWING CAUSES AND REMEDIES ARE FOR CYCLE TIMES SHORTER THAN NORMAL FOR YOUR AREA.**

- E. Filter inadequately backwashed:  
See instructions page 5: "To clean (backwash) the filter.."
- F. Algae in pool: consult pool professional about proper chemical maintenance.
- G. Residual chlorine level too low: consult pool professional about proper chemical maintenance.
- H. Inspect filter sand for solidification caused by dust, calcium, skin oils, of suntan lotions.

### 2. Low Flow

- A. Pipe blocked downstream from filter: remove obstruction.
- B. Piping too small: use larger pipe (consult dealer for sizing).
- C. Plugged pump; plugged hair and lint trap or skimmer basket. Clean thoroughly.

### 3. Pool Water Not Clear

- A. Water is chemically out of balance: consult pool professional.
- B. Filter is too small: consult dealer about equipment sizing.
- C. Sand in pool means broken lateral. Drain both water and sand out of tank. Remove valve and replace broken part. Reassemble filter.

## WARRANTY

- The filters are resistant against swimming pool water treatment products. Maximum working temperature is 50 degrees Celsius; maximum working pressure is 3.5 bar.
- Warranty period: 10 years on the shell, as from the production date.



# DOME COMPOUND RESISTANCE



The filters dome is not resistant to all lubricants and sprays. Next table indicates the resistance to most common compounds.

*Qualitative Ranking is based on visual appearance at ambient temperature.					
Compound Class/Name	Qualitative Ranking*	Compound Class/Name	Qualitative Ranking*	Compound Class/Name	Qualitative Ranking*
<b>ACIDS</b>		Turpentine	N	Butraldehyde	N
Acetic Acid, Glacial, 100%	N	Unleaded Gasoline	G	Carbon Disulphide	N
Acetic Acid, 5%	E	Wine	E	Chlorinated Solvents	N
Chromic Acid, 40%	F			Cyclohexane	N
Hydrochloric Acid, 38%	E	<b>INORGANIC COMPOUNDS</b>		Cyclohexanone	N
Lactic Acid	E	Ammonium Nitrate	E	Dimethyl Formamide	N
n-Bulyric Acid, 100%	N	Ammonium Phosphate	E	Dibutyl Sebecate	F
Nitric Acid, 70%	F	Calcium Hypochlorite	E	Diethyl Ether	F
Nitric Acid, 40%	G	Carbon Disulfide	N	Diocetyl Sebacate	F
Nitric Acid, 10%	E	Chlorine, Aqueous, 2%	E	Ethylene Dibromide	N
Oleic Acid	E	Ferric Chloride, Aqueous, 10%	E	Ethylene Glycol	E
Oxalic Acid, 100%	E	Hydrogen Peroxide, 28%	F	*Ethylene Oxide (Dry)	E
Stearic Acid	E	Hydrogen Peroxide, 3%	G	Ethylene Oxide (Moist)	F
Sulfuric Acid, 98%	N	Iron Perchloride	F	2-Ethylhexyl Sebacate	E
Sulfuric Acid, 30%	E	Mercury Chloride	F	Formaldehyde, Aqueous, 40%	E
Tartaric Acid, 50%	E	Metal Carbonates	E	Glycerol	E
Trichloroacetic Acid	N	Metal Chlorides	E	Heptane	E
		Metal Sulfates	E	Hexane	E
<b>BASES</b>		Potassium Chlorate	E	Isocane	G
Ammonium Phosphate	E	Potassium Cyanide	E	Metacresol	N
Ammonium Hydroxide, 28%	E	Potassium Dichromate, 10%	E	Methyl Benzoate	N
Sodium Carbonate, 20%	G	Potassium Permanganate	E	Methyl Cyclohexanol	N
Sodium Carbonate, 2%	G	Silver Nitrate	E	Methyl Ethyl Ketone	N
Sodium Hydroxide, 60%	E	Sodium Chloride, 10%	E	Methyl Naphthalene	N
		Sodium Cyanide	E	Methyl Salicylate	N
<b>COMMERCIAL PRODUCTS</b>		Sodium Fluoride	E	Methylamine	F
Ammonia Based Cleaners	E	Sodium Nitrate	E	Methylene Dichloride	N
Anti-Freeze	E	Sodium Phosphate	F	n-Octane	F
Bathroom Cleaners, Most	G	Sodium Thiosulphate, 40%	E	Naphtha	N
Beer	E			Nitrobenzene	N
Brake Fluid	G	<b>SOLVENTS &amp; ORGANIC COMPOUNDS</b>		Olefinic Carboic Acids	E
Car Wash Detergent	E	Acetaldehyde, 100%	N	Paraffin, Medicinal	E
Chlorine Based Cleaners	E	Acetates	N	Petroleum Ether (100-200°C)	F
Coffee	E	Acetic Anhydride	N	Phenol, Aqueous, 5%	N
Cosmoline Removers	G	Acetone	N	Phthalates	F
Cottonseed Oil	E	Acetonitrile	N	Pyridine	N
Detergent Solution	G	Acetophenone	N	Toluene	N
Epoxy Adhesives	E	Alcohol, Allyl	N	Trichloroethane	N
Fruit Juice	E	Alcohol, Amyl	N	Trichloroethylene	N
Potassium Sulfite	E	Alcohol, Benzyl	N	White Spirit	E
Kerosene	E	Alcohol, Ethyl, 50%	F	Xylene	N
Lacquer Thinner	N	Alcohol, Ethyl, 100%	N		
Milk	E	Alcohol, Isopropyl, 100%	F		
Mineral Oil	G	Alcohol, Methyl, 10%	G		
Motor Oil	E	Alcohol, Methyl, 50%	F		
Olive Oil	E	Alcohol, Methyl, 100%	N		
Paint Removers	N	Alcohol, n-Butyl	N		
Paint Thinner	N	Aniline	N		
Polishing Compounds	E	Aviation Fuel (100 Octane)	F		
Power Steering Fluid	E	Benzaldehyde	N		
Silicone Oil	E	Benzene	N		
Soap Solution	G	Benzoic Aldehyde	N		
Transformer Oil	G	Bulyl Acetyl Ricinoleate	F		
Transmission Fluid	E	Bulyl Stereate	F		

**LEGEND**  
 E = EXCELLENT  
 G = GOOD  
 F = FAIR  
 N = NOT RECOMMENDED



## TRITON® NEO SAND FILTER

### PENTAIR AQUATIC SYSTEMS

**INDUSTRIEPARK WOLFSTEE, TOEKOMSTLAAN 30, 2200 HERENTALS - BELGIUM,**

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