

MULTI CYCLONE

CENTRIFUGAL PRE-FILTRATION

Installation and Operation Manual



⚠ WARNING

This equipment must be installed and serviced by a qualified technician. Improper installation can create electrical hazards which could result in property damage, serious injury or death. Improper installation will void the warranty.



Notice to Installer

This manual contains important information about the installation, operation and safe use of this product. Once the product has been installed **this manual must be given to the owner/ operator of this equipment.**

WATERCO

Water, the Liquid of Life

www.waterco.com

SAFETY INFORMATION

1. Multicyclones are designed to work with water at a temperature > than 0°C and < than 45°C. The filter should never be operated outside of these temperatures or damage may occur.
2. The installation should be carried out in accordance to local safety standards and bylaws.
3. Any modification of the filter requires the prior consent from Waterco. Original replacement parts and accessories authorised by the manufacturer ensure a high level of safety. Waterco assumes no liability for the damage and injuries caused by unauthorised replacement parts and accessories.
4. The user should make sure that the installation is carried out by qualified authorised persons and that these persons have first carefully read the following instructions.
5. The operating safety of the filter is only guaranteed if the installation and operation instructions are correctly followed.
6. In the event of defective operation or fault, contact Waterco or its nearest authorised service agent.
7. To reduce the risk of injury, do not permit children to use this product.
8. Incorrectly installed equipment may fail, causing severe injury or property damage.
9. Chemical spills and fumes can weaken Swimming Pool / Spa equipment. Corrosion can cause filters and other equipment to fail, resulting in severe injury or property damage. Do not store pool chemicals near your equipment.



Rainbow Pool Products

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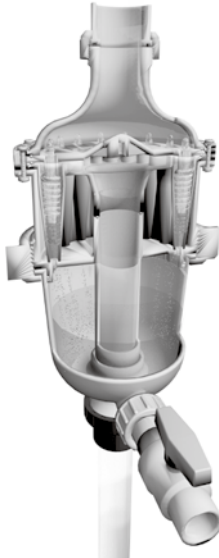
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MULTICYCLONE

MultiCyclone is a brilliant new prefiltration device that can save water and minimise pool filter maintenance.

Based on the principals of centrifugal water filtration, MultiCyclone filters up to 80% of the pool's dirt load before it reaches the pool filter and only requires 15 litres of water to cleanse.

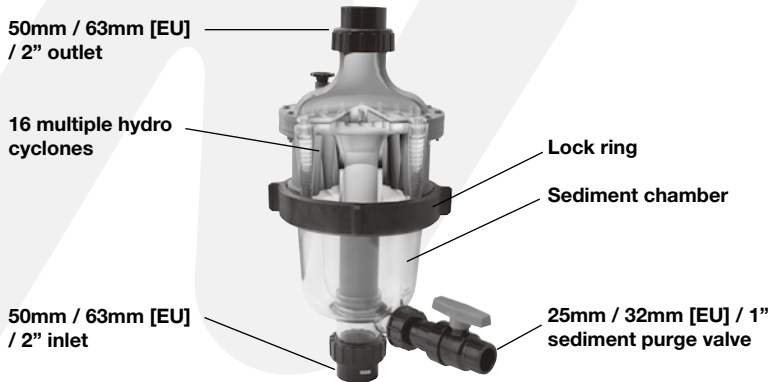


Centrifugal water filtration

The MultiCyclone works on the basis of centrifugal water filtration. There are no moving parts to wear and tear, and no filter media to clean or replace.

- i. Incoming water enters 16 hydro cyclones tangentially, generating a strong centrifugal effect.
- ii. The sediment is spun out to the hydro cyclone's wall, and then spirals down to the sediment chamber*.
- iii. The filtered water migrates towards the centre of the hydro cyclone where the flow reverses and spirals upwards through the outlet.
- iv. Accumulation of sediment can be visibly monitored through the MultiCyclone's clear sediment chamber.

*Note: The MultiCyclone is designed to filter sediment that is heavier than water, floating debris cannot be filtered out by centrifugal filtration.



INSTALLATION

1. Position the filter as close to the Swimming Pool / Spa as possible.
2. Position the filter so that it is free from flooding, away from sumps, guttering, garden hollows, etc.
3. Be sure that all provisions for wastewater disposal meet local, state or national codes. Do not discharge water where it will cause flooding or damage.
4. If the incoming water pressure is higher than the maximum operating pressure of 400kPa / 4Bar / 58psi, a Pressure Regulating Valve (PRV) must be installed upstream of the filter inlet. The PRV should be set to 90% of the maximum operating pressure of the tank.
5. Position the filter so that the piping connections are accessible for operation, servicing and winterising.
6. Ensure that the compliance label is facing the front to allow easy identification.
7. Allow sufficient clearance around the filter to permit visual inspection of the entire system.



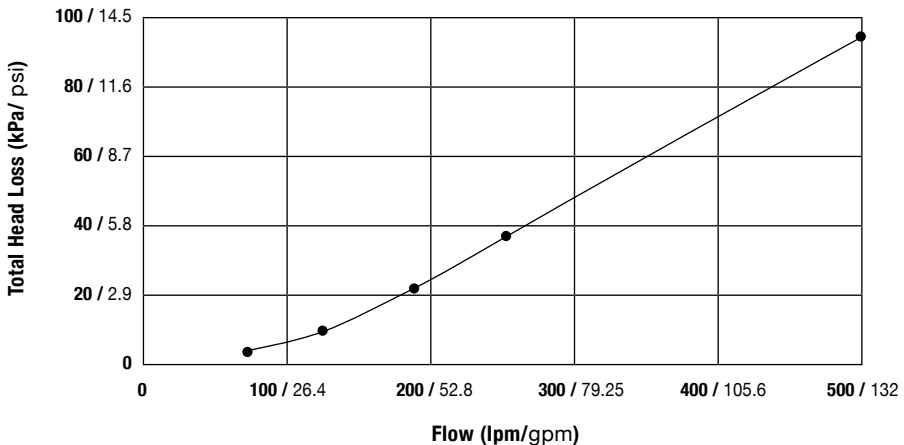
Typical installation with a sand filter



Typical installation with a cartridge filter

Mulitcyclone's minimum flow rate	50 lpm / 3 m ³ /hr / 13.2 gpm
Mulitcyclone's maximum flow rate	500 lpm / 30 m ³ /hr / 132 gpm

MultiCyclone Total Head Loss Curve

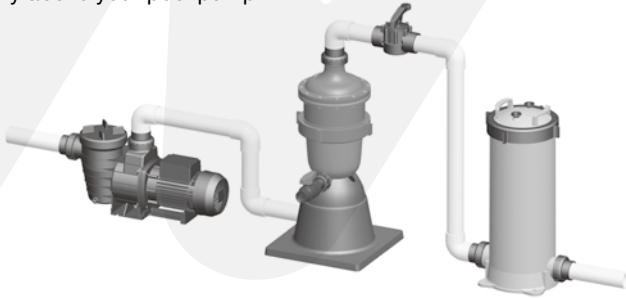


PLUMBING CONNECTION

1. Ensure that a foot valve / non return valve is installed if the pump is installed 500mm / 20" above the water level.
2. If the filter is installed below the water level or connected to mains water, isolation valves should be installed at the inlet and outlet of the filter. This will prevent water flow during any routine maintenance.
3. Minimise the length of pipe and the number of fittings to minimise restrictions to water flow.
4. Ensure solvents are not excessively applied to fittings as this could run into o'rings and create sealing problems.
5. Do not over tighten fittings or adapters.
6. Connect the outlet from your pool pump to the inlet of the MultiCyclone. Glue the plumbing to the Barrel unions and Allow 24 hours for glue (solvent) to set. Screw the barrel union on to the inlet of your MultiCyclone and hand tighten.
7. Connect from the outlet of the MultiCyclone to the inlet of your filter. Glue the plumbing to the Barrel unions and Allow 24 hours for glue (solvent) to set. Screw the barrel union on to the outlet of your MultiCyclone and hand tighten. (Waterco recommends that a shut off valve be installed after the MultiCyclone to assist with flushing out the collected debris. Please refer to "Insufficient Water Pressure")
8. Connect to Waste Line. Glue the plumbing from the Sediment Purge Valve to your waste line.
9. Turn on pool pump. Be sure to check that there are no leaks from the connectors. If required, tighten by hand.

OPTIONAL MOUNTING STAND [200373]

An optional Mounting Stand is also available for situations where the MultiCyclone cannot be installed directly above your pool pump.



Installation with optional Mounting Stand

FILTER MAINTENANCE

Filter maintenance determined by the following conditions:

1. The flow rate through the MultiCyclone is insufficient to meet the demand.
2. The sediment chamber is half filled with sediment.

The accumulation of sediment can be visibly monitored through the MultiCyclone's clear sediment chamber. The MultiCyclone is cleaned by simply opening the purge valve. Only 15 litres [4 gallons] of water is discharged to clean the MultiCyclone of sediment.

FLUSHING OUT THE SEDIMENT CHAMBER

With pump running

Whilst the water pump is running simply open the sediment purge valve until the sediment has been flushed out. This is visible through the clear sediment chamber. Once the sediment has been flushed out, close the sediment purge valve.

Without pump running

Alternatively, switch the pump, off. Open the air release valve and open the sediment purge valve until the sediment has been flushed out. This is visible through the clear sediment chamber. Once the sediment has been flushed out, close the sediment purge valve.

INSUFFICIENT WATER PRESSURE

In situations where your water pump is not powerful enough to force the sediment out of the sediment chamber. Waterco recommends fitting a 2 way shut off valve between the MultiCyclone and the filter. The shut off valve is closed off whilst you are purging the sediment chamber.

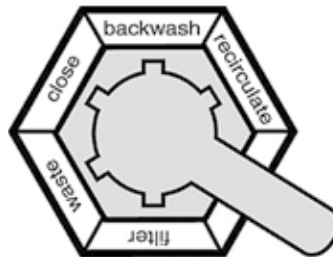
The closed valve increases the flow of water through the sediment chamber, improving the purging action of the MultiCyclone.

When the pump is not operating close the 2 way shut off valve and open the purge valve. Switch on the pump to purge the sediment chamber of its sediment. Once the sediment chamber is purged, switch off the pump and open the 2 way shut off valve and close the purge valve.



Installation with 2 way shut off valve

If the MultiCyclone is installed as a pre-filter to a sand filter, water flow to the sand filter can be closed via the sand filter's multiport valve.*



**NOTE: This position is not available on 4-Way Multiport Valves.*

⚠ CAUTION

Operation of the Multiport Valve or mode selection is to be always done with the pump switched off.

WINTERISING

Proper winterising procedures should always be taken in order to protect your filter in cold climates [temperatures below freezing point]

1. Switch off the Pump / Close the Inlet Valve,
2. Open the air release valve and open the purge valve.
3. Drain all water from the pipework.

WARRANTY

MultiCyclone is covered by a 2 warranty.

For more information please refer to the Waterco "Warranty Terms & Conditions" booklet.