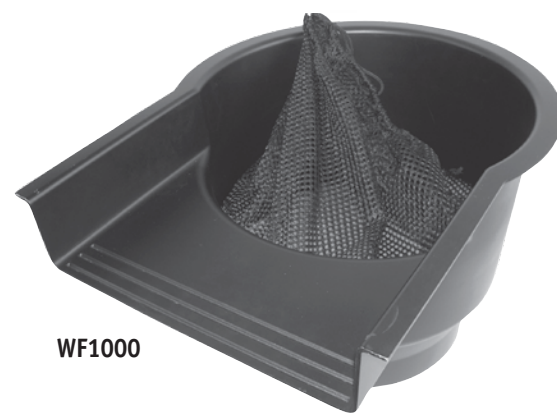




## Waterfall Filter

WF1000  
Mfg# 19090  
Item# 0304208

Suitable for providing mechanical and biological filtration for ponds up to 1,000 gallons. Create a beautiful natural waterfall in your pond.



WF1000

**Before you start:** Please visit [www.tetrawatergardening.com](http://www.tetrawatergardening.com) for more pond building instructions, time-saving tips, and inspirational ideas.

### SAVE THESE INSTRUCTIONS

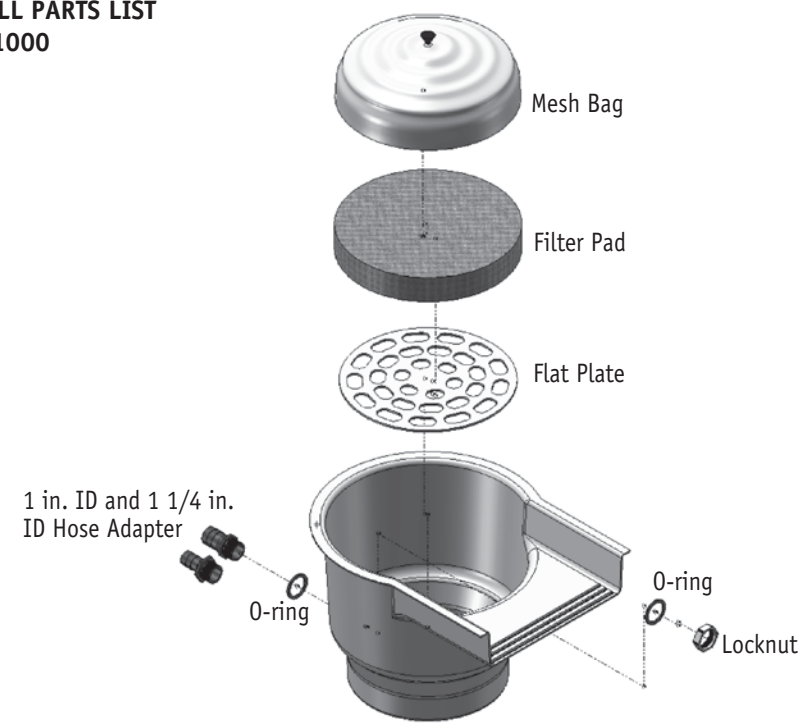
### PUMP RECOMMENDATIONS

Use with pumps between 500 and 4500 gallons per hour

Tetra Pumps	Gallons per hour @ 1 foot height
WGP550	550 GPH
WGP700	700 GPH
WGP1000	1000 GPH
WGP1200	1200 GPH
WGP1900	1900 GPH
HCP3600	3600 GPH

### WATERFALL PARTS LIST

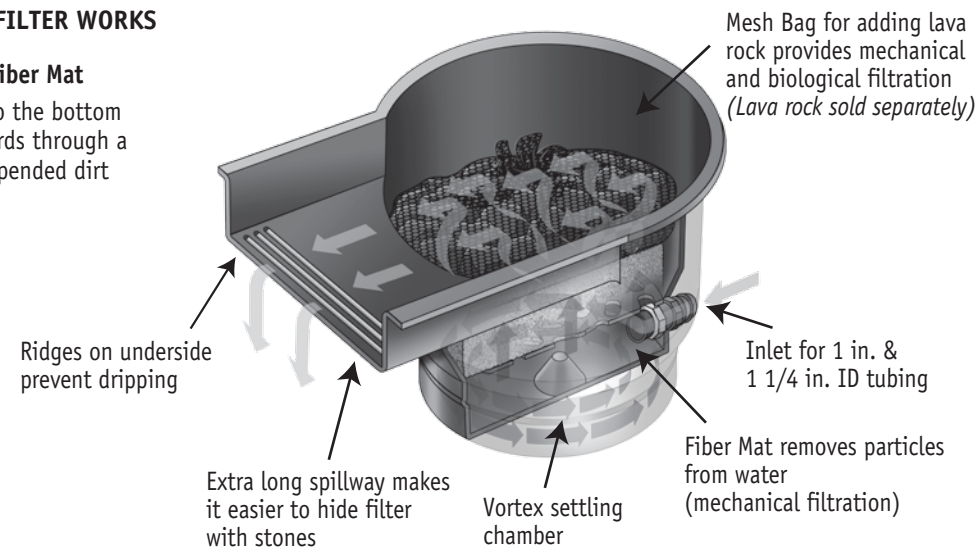
Tetra WF1000



### HOW THE WATERFALL FILTER WORKS

#### Mechanical Filtration – Fiber Mat

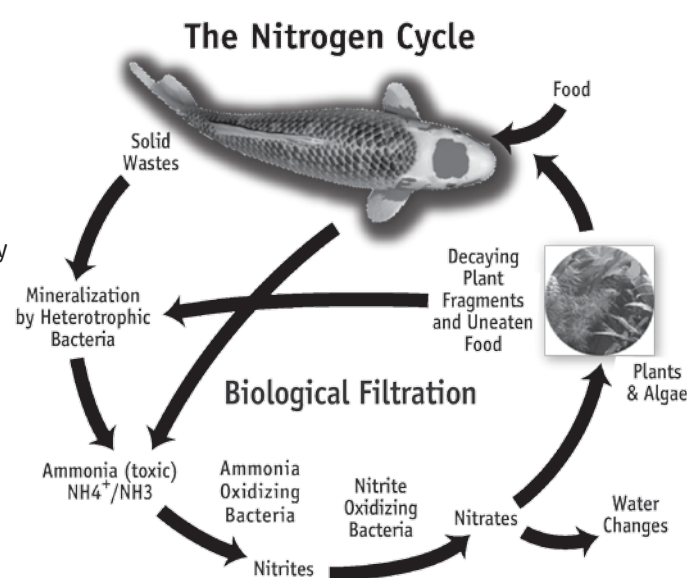
Pond water is pumped into the bottom of the filter. It rises upwards through a fiber mat, which traps suspended dirt and debris.



#### Biological Filtration – Lava Rock in Mesh Bag

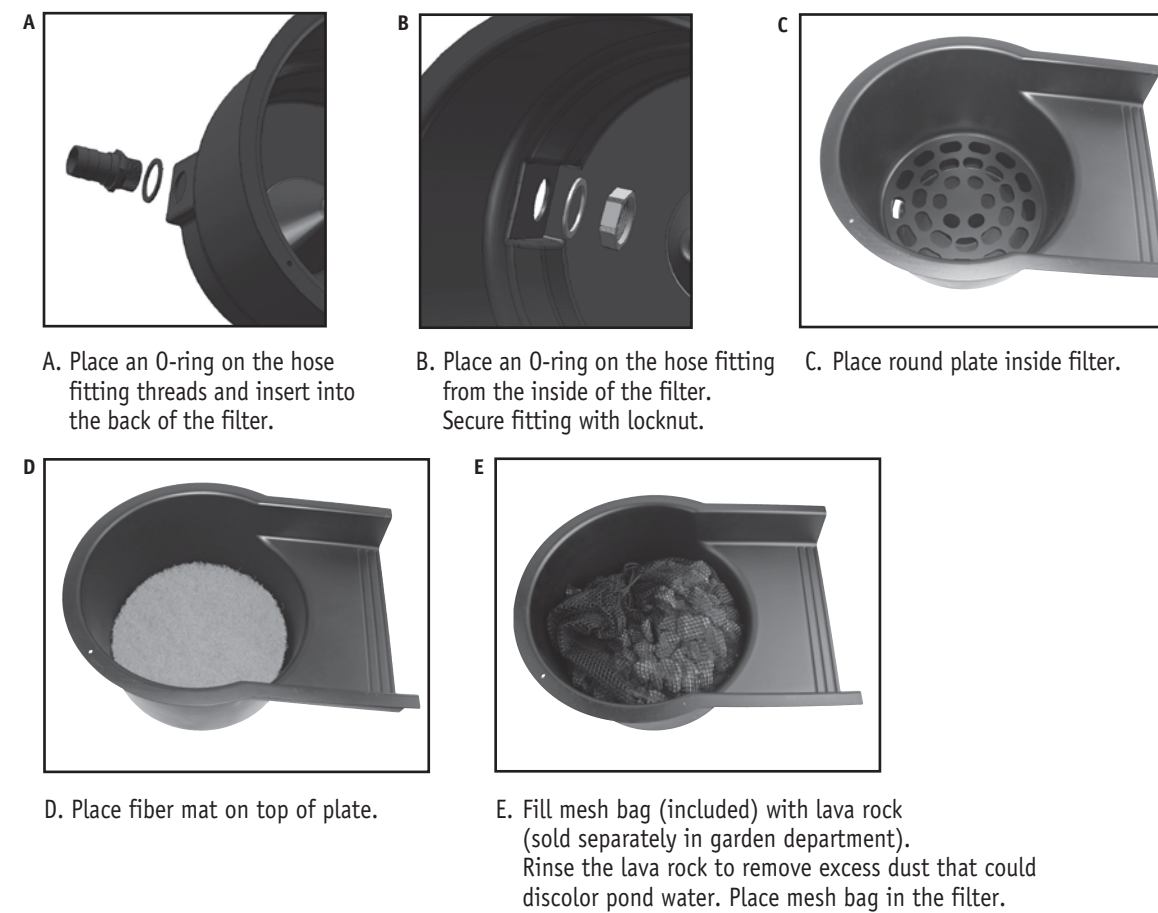
Beneficial bacteria will naturally colonize on the rough surfaces of the lava rock (not included) and convert harmful pollutants in the pond water into relatively harmless nitrates. Nitrates are absorbed by aquatic plants and can also be removed from the pond through partial water changes.

This process is known as the Nitrogen Cycle.



### ASSEMBLY OF WATERFALL FILTER

Choose either the 1 in. ID hose fitting or the 1-1/4 in. ID hose fitting depending on the tubing you are connecting to the pump. TIP: Where possible use the 1-1/4 in. ID tubing for greater water flow.

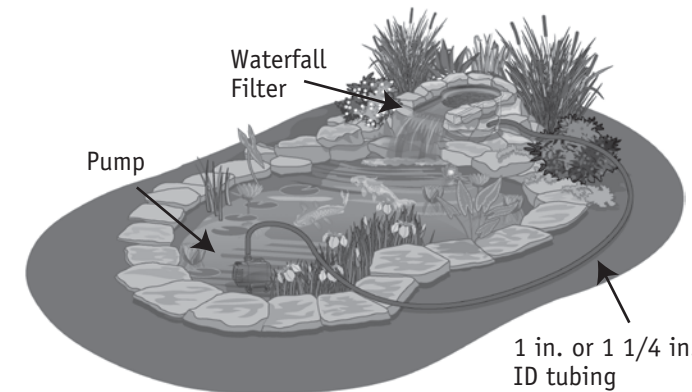


### POSITIONING THE WATERFALL FILTER

Typical Waterfall Filter Application

#### Options for positioning the filter

- Place next to the pond, either partially buried or above grade
- Bury into hill or mound next to pond
- Place at the top of a stream



### INSTALLATION TIP TO PREVENT LEAKAGE

Note: The number one cause of water loss in the pond is spillage from waterfalls and streams.

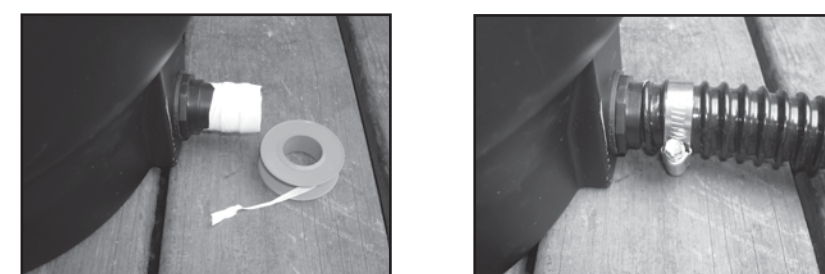
It is important that all water from the spillway falls directly into the pond, stream or onto a piece of pond liner that drains the water back into the pond. Even though the spillway has a triple drip edge, water can splash on the rocks and bounce out of the pond.

#### To prevent water loss:

Place a piece of pond liner underneath and up the back of the filter. Be sure the sides and back of the liner slope downwards towards the pond. The liner should overlap the water's edge so any water spilling onto the liner will flow back into the pond. Stack stones and/or backfill with soil to hide the filter and the liner material.



### CONNECTING THE PUMP TO THE FILTER WITH TUBING



- For a water-tight connection, wrap the hose barb fitting with plumber's tape (available in plumbing department)
- Secure with stainless steel hose clamp (available in plumbing department)

### TESTING WATERFALL



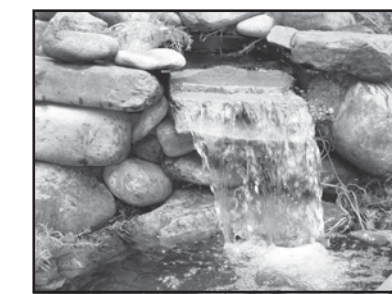
Plug pump in and allow waterfall to flow back into pond. Inspect the hose connection to ensure there is no leakage before burying the hose.

### HIDING THE WATERFALL FILTER

To create a beautiful, natural looking waterfall, the filter can be partially buried or have stones stacked around it.



Stack stones underneath the waterfall spillway to hide the filter body.



**Optional:** Place stones under spillway and on top to adjust the waterfall look and sound.

### MAINTENANCE



**Fiber Mat**  
The fiber mat should be inspected often and rinsed off.



**Lava Rock**  
Rinse the bag of lava rock in a bucket of pond water. Do not use municipal tap water since this may contain chlorine and chloramines that can harm the beneficial bacteria that have colonized on the lava rock. Water may be discarded in the garden to nourish plants. Note: Replace the lava rock before the spring every year, if the pores appear to be clogged.



The intervals between each cleaning is dependent on many factors such as the fish load, algae growth, and the size of the pond. A rule of thumb is about every two weeks.

**Never use soap or detergents to clean any parts of the filter.**

### Sludge on bottom of waterfall filter

Be sure sludge does not accumulate on the bottom of the filter. When the pump is shut off, water may drain back into the pond through the tubing, bringing sludge with it. Use a large sponge to clean sludge from bottom of filter.

### "Maturation" of your filter

A waterfall filter must undergo a period of "maturation" before it is fully efficient. During this period, beneficial bacteria grow and colonize on the lava rock until the population is large enough to biologically treat the waste in the water. To avoid dangerous levels of pollutants during this time, gradually introduce pond fish to new ponds and take great care not to overfeed them, especially before the filter has matured. Run the filter 24 hours a day.

### WINTER CARE

The waterfall filter may be left outdoors through the winter.

**WARNING** - This unit can withstand winter temperatures above 32°F. If temperatures drop below this level, make sure that water keeps running through the unit, otherwise, there is a chance of ice buildup that will stress the unit. In this case, bring the unit indoors until next pond season.

Be aware that ice formations may form around the waterfall spillway that can channel water outside the pond, and lead to water loss. If there is a risk of ice formation, unplug the pump that powers the waterfall filter. In areas having cold winters, the biological activity of pond filters will go dormant. Be sure not to feed pond fish after the water temperatures fall below 39° F. The biological colonies in the filter will rebuild themselves in the spring.

### Warranty

Tetra warrants the product indicated below will be repaired or replaced free of charge for the specified number of years from the date of purchase if it fails to work because of defective material or workmanship.

Waterfall Filter: WF1000 2 year Item# 0304208

#### This warranty is subject to the following terms:

- Should it become necessary to return the product during the warranty period, send the product directly to Tetra, Consumer Services, 3001 Commerce Street, Blacksburg, Virginia 24060-6671.
- Tetra's decision on all questions relating to alleged defects and repair shall be conclusive.
- This warranty does not invalidate your statutory rights, but preserves your full benefits.
- Repair parts or replacement product will be given on an exchange basis and will either be new, equivalent to new, or reconditioned. All customer returned parts or products that we replace become the property of Tetra.
- The warranty does not cover normal wear and tear, nor any deterioration suffered through overloading, improper use, negligence or accident or damage caused by running dry. Similarly, any modification made by the purchaser to the appliance will invalidate the warranty.
- Except as set forth in this Warranty, Tetra expressly disclaims any and all liability for any loss or damage whatsoever sustained by the purchaser to the fullest extent permitted by applicable law.



#### Questions? Problems? Missing Parts?

Before returning the product, please call our Customer Care department at 800-526-0650, Monday-Friday 7:30 a.m. to 5:30 p.m., Eastern USA Time Or e-mail us at [consumer@tetrawatergardening.com](mailto:consumer@tetrawatergardening.com)

Our Customer Care Department is here to provide assistance to help you solve your problem