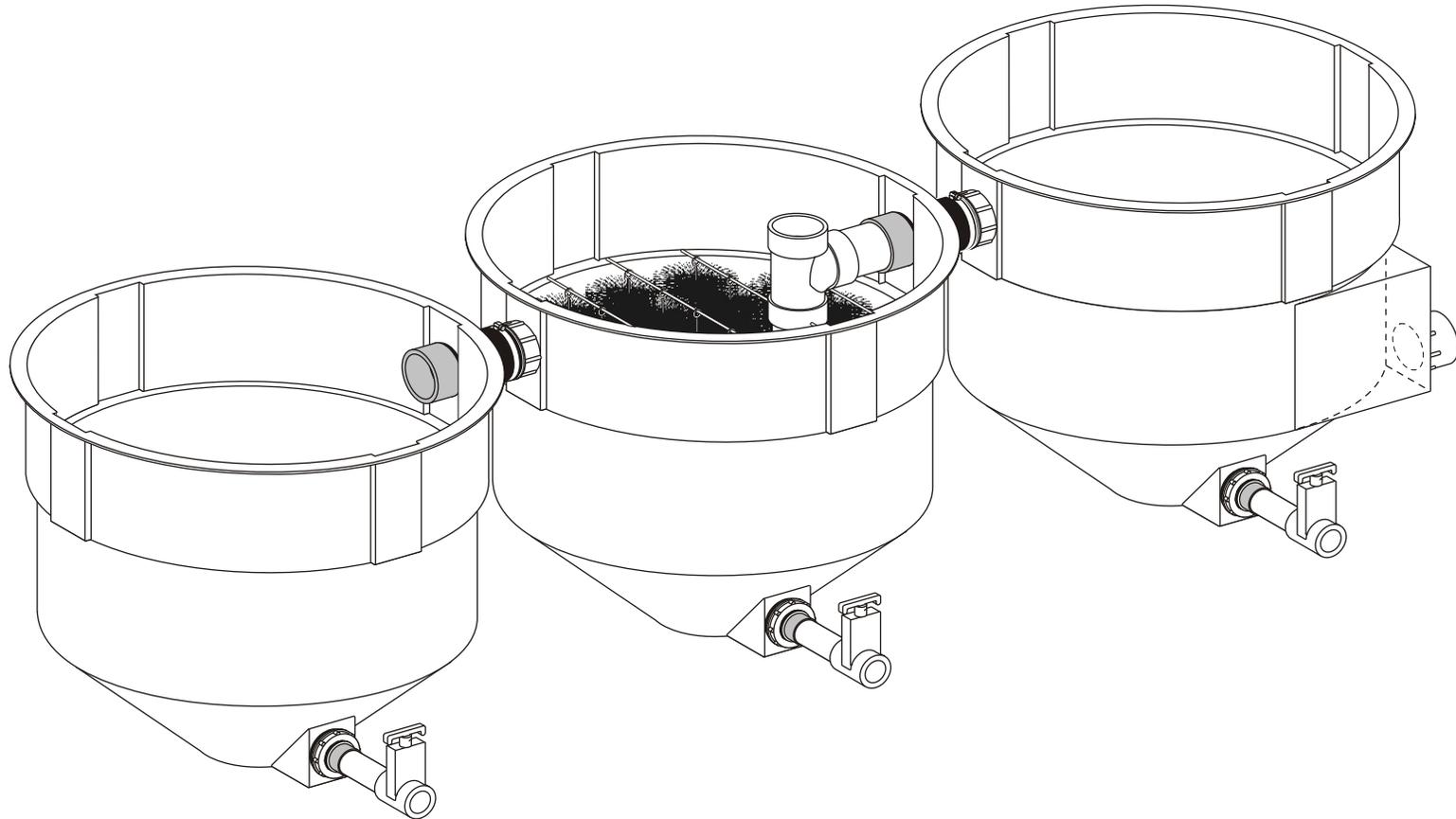


Cyclone 7500TM

MECHANICAL/BIOLOGICAL FILTER SYSTEM

Owner's Manual



Patio Ponds LtdTM

Building America's Best Filters Since 1987

2909 Urbana Pike • Ijamsville, MD 21754

Introduction

Thank you for choosing a Cyclone 7500 System from Patio Ponds. This booklet will assist you in understanding the features of your filter, as well as installation and maintenance. It has been sent to you before your filter system so you may begin preparing for installation. Let's get started by familiarizing ourselves with the components of the filter.

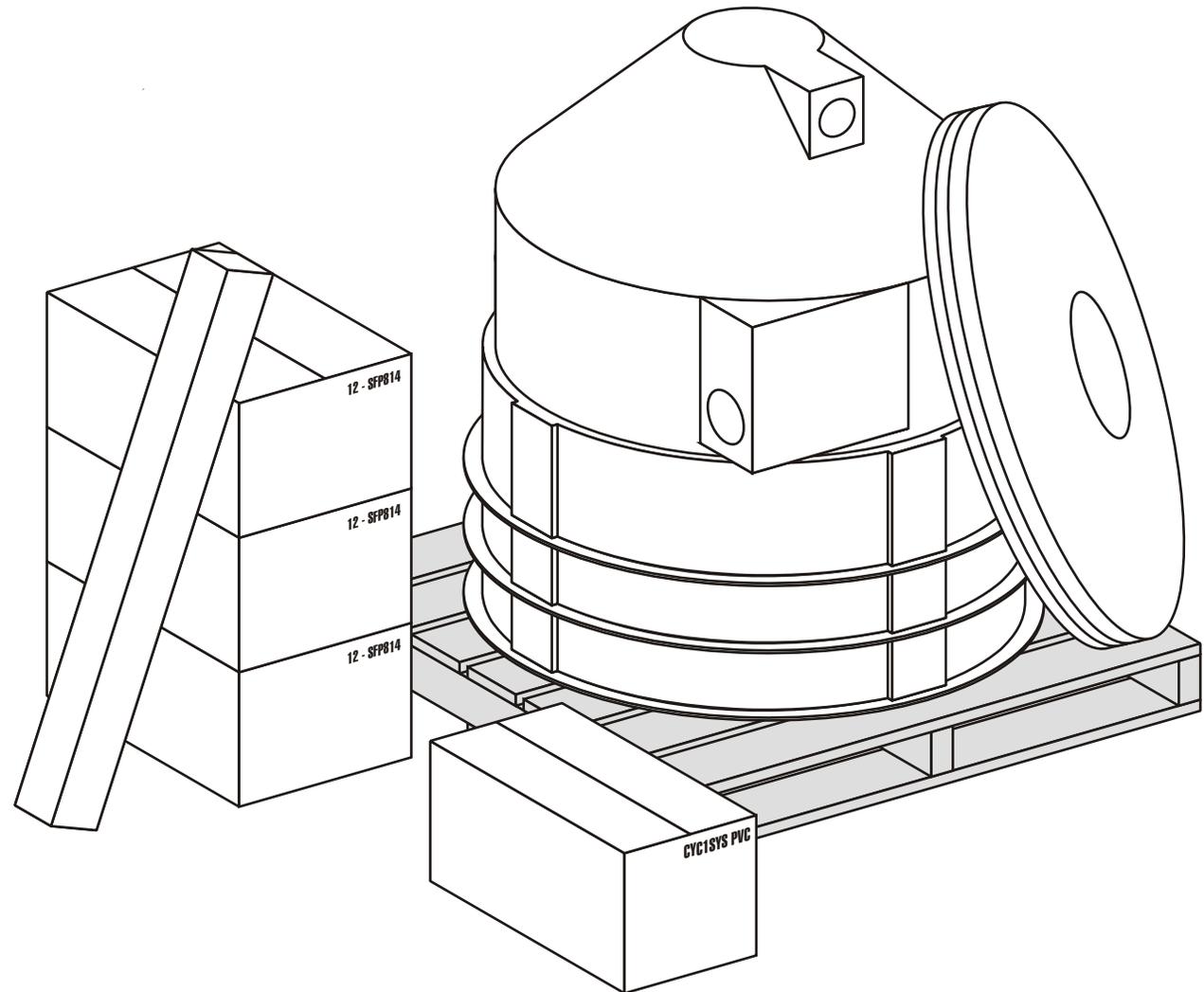
As it Arrives

Your Cyclone 7500 System is carefully packed and shipped to you in several containers. To keep your freight costs low, we ship the filter bodies and parts separate. Because of this, you may not receive all items on the same day.

Be sure to carefully inspect all packages for damage as they arrive. If an item appears to have minor or cosmetic damage, note the nature and extent of the damage on the freight bill before signing. If an item is severely damaged, do not sign for the shipment. Should you discover concealed damage later, please call the freight company immediately to request an inspection.

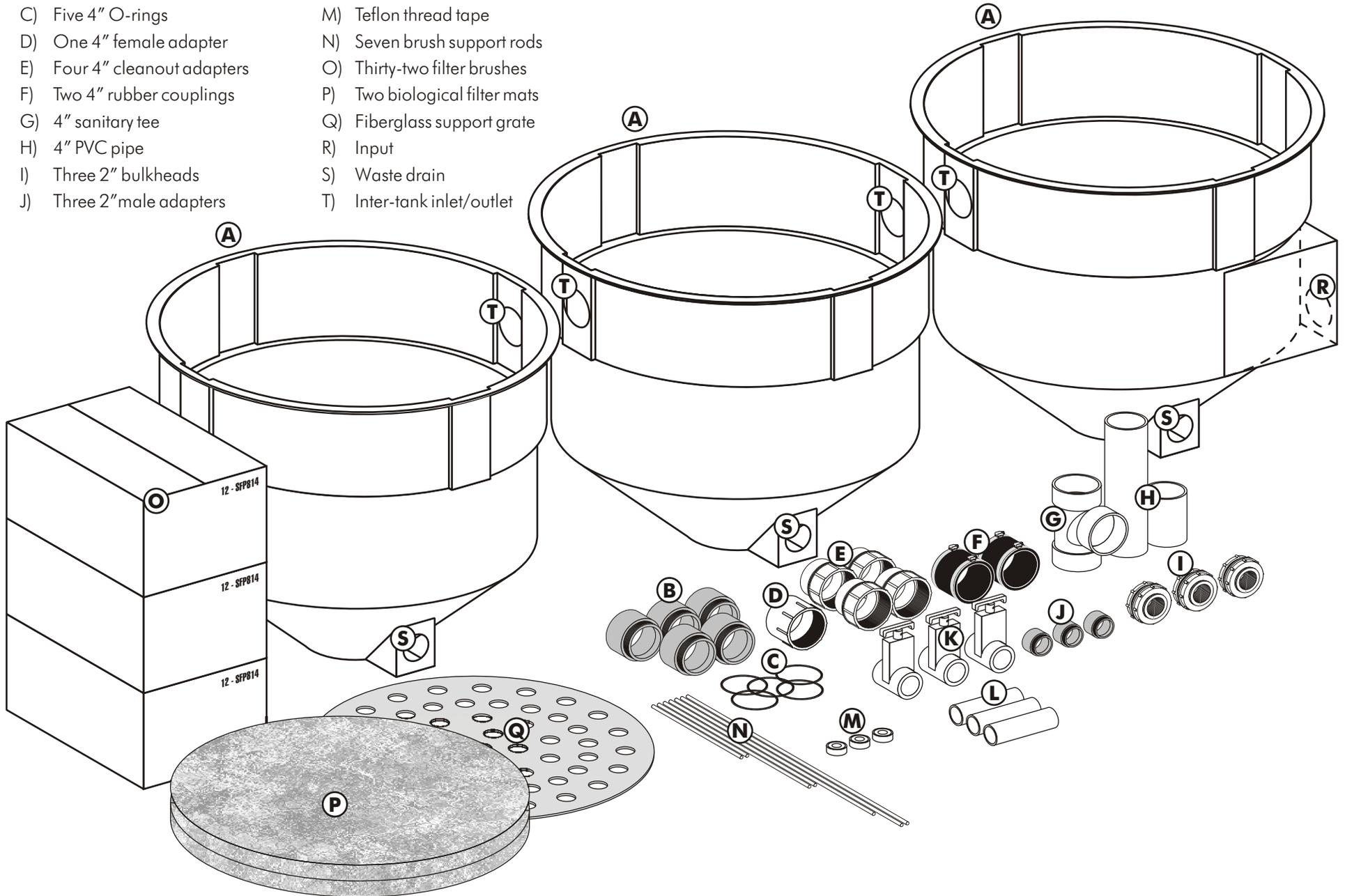
Federal law requires the freight company to deliver all items to you in perfect condition. However, if you sign for damaged items you release the freight company from all liability. If this should occur, Patio Ponds can assist you in placing a claim against the freight carrier, but we cannot assume replacement cost of the product.

THOROUGHLY INSPECT ALL PACKAGES BEFORE SIGNING FOR SHIPMENT!



Parts & Features List

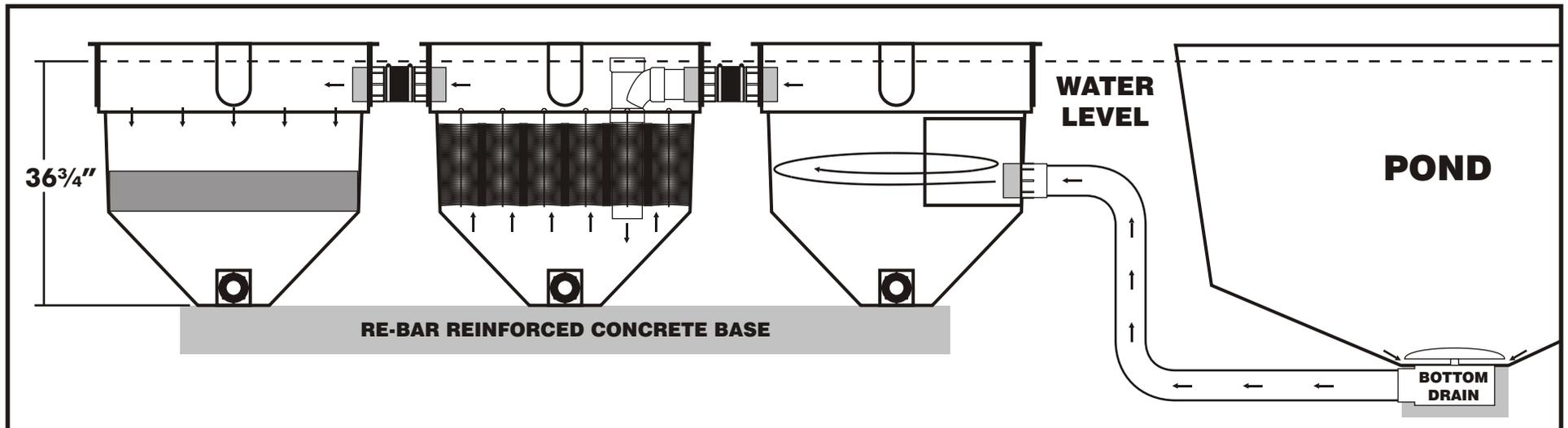
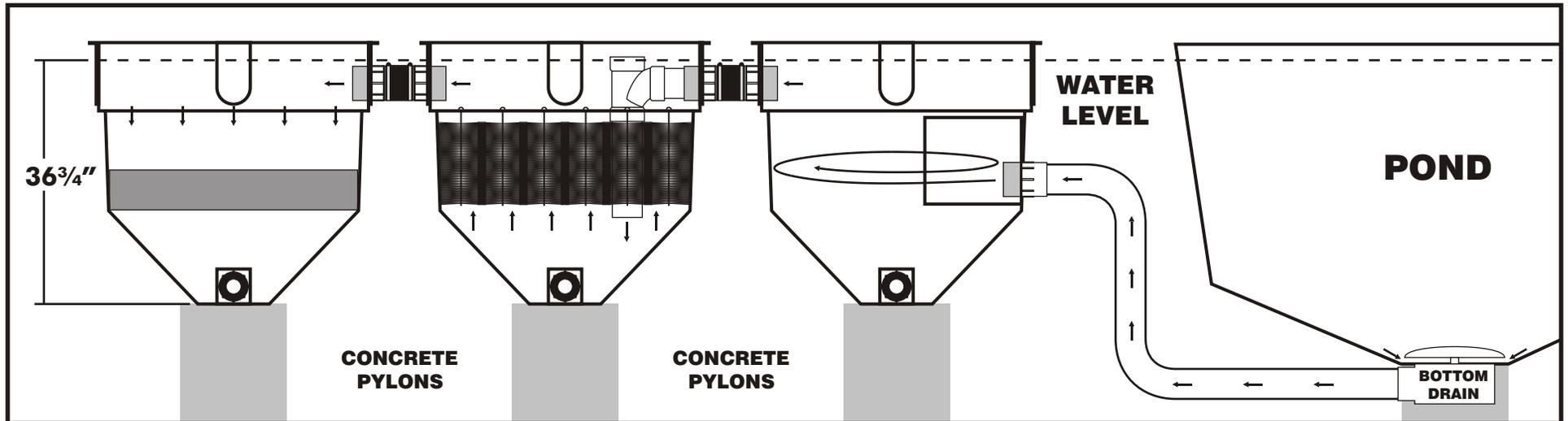
- | | |
|-------------------------------------|-------------------------------|
| A) Filter Bodies & Lids (not shown) | K) Three 2" drain valves |
| B) Five 4" male adapters | L) 2" PVC pipe |
| C) Five 4" O-rings | M) Teflon thread tape |
| D) One 4" female adapter | N) Seven brush support rods |
| E) Four 4" cleanout adapters | O) Thirty-two filter brushes |
| F) Two 4" rubber couplings | P) Two biological filter mats |
| G) 4" sanitary tee | Q) Fiberglass support grate |
| H) 4" PVC pipe | R) Input |
| I) Three 2" bulkheads | S) Waste drain |
| J) Three 2" male adapters | T) Inter-tank inlet/outlet |



Locating Your Filter System

Before you begin assembly, it's a good idea to find a permanent home for your Cyclone 7500 System. Start by finding an area close to the pond with easy access for cleaning. If possible, locate the system so the drain line from the Waste drains (S) can slope downhill.

Additionally, your filter system will need to be placed on a concrete base at a specific height in relation to your pond water level. This is necessary for gravity-fed operation, which requires the water level in the filter and the pond to remain the same. For the Cyclone 7500 System, the base of the cones should be located $36\frac{3}{4}$ " below pond water level.



IMPORTANT! Do not locate the filter system higher or lower than the recommended level. Failure to properly site the filter will severely effect operation!

Additional Parts Needed

Unfortunately, we can't include everything you need to install your Cyclone 7500 System. You will need the following items from your local hardware store:

PVC cement & primer

2" & 4" PVC pipe (length varies depending on application)

2" & 4" PVC elbows & connections (varies depending on application)

Concrete pylon mold & concrete mix and/or steel re-bar & concrete mix

You will also need these items from your local pond dealer:

4" Gate valve

External pond pump rated between 3,000 to 4,000 GPH at the height of your filter

Assembly

Now the fun begins! If you feel uncomfortable performing any of the following steps, ask an experienced friend to help or hire an appropriate contractor to complete the work.

STEP 1: Prepare concrete base

Because the Cyclone 7500 System will weigh nearly 3,900 lbs. when filled, it is necessary to pour a concrete base to prevent settling. This can be accomplished by either pouring a series of pylons or by pouring a 6" concrete pad reinforced with steel re-bar.

If you desire a concrete pad, it is best to hire an experienced contractor to handle the complex installation. However, if you've poured a deck footer, you can install the concrete pylons to support your filter system.

After you have chosen an area to place your filter system, use a hose level to mark the pond water level. Excavate down 36 $\frac{3}{4}$ " from the mark until you have enough room for the filter system and plumbing. Always call your local utility companies before beginning excavation.

Excavate an additional 24" of soil and place a concrete pylon mold in the excavation. Measure 36 $\frac{3}{4}$ " down from the pond water level and adjust the top of the mold to match. Level the mold and backfill, making sure to check your height and level periodically. After backfilling and leveling, pour well-mixed concrete into the mold. Stir and shake the concrete to remove any air pockets. Level the top of the concrete and allow it to set.

STEP 2: Construct plumbing from pond

The amount of water you will be able to pump through your filter system is dependant on the plumbing between the pond and the settling chamber. Because the filter system is fed by gravity only, pipe friction can reduce your

effective flow rate. Using the right diameter of pipe will ensure proper operation.

Distance from pond	Recommended
Piping	
Less than 15 feet	4" PVC
15-30 feet	Two 4" or one 6" PVC
30-50 feet	Two 6" PVC

After determining what pipe size to use, construct a feed line from your pond bottom drain to the settling chamber using PVC Pipe & Cement. Be sure to prime the fittings ahead of time, and follow all instructions and precautions given by the cement manufacturer. Make the line as simple as possible and avoid using hard 90° elbows – use two 45° elbows or one long-radius 90° elbow instead. Leave the end of the feed line unfinished until final chamber placement.

STEP 3: Wrap threaded fittings

Gather the threaded fittings (B) & (J). Using Teflon tape (M), wrap the threads of each fitting 3-4 times to prevent leakage.

Wrap the fittings like this ⇨

STEP 4: Install Input & Outlet Bulkheads

Take the 4" O-rings (C) and push them onto the 4" Male Adapters (B). Place the fittings on the inside of the

Input (J) and Output (L). While holding the Male Adapter (B) in place, thread the 4" Female Adapter (D) over the exposed threads until snug. Hand-tighten only.

STEP 5: Install Drain

Unscrew the nut from the 2" Bulkhead (E). Place the bulkhead into the Waste Drain (K) with the gasket on the inside of the tank. While holding the bulkhead in place, thread the nut over the exposed threads until snug. Thread the 2" Male Adapter (F) into the 2" Bulkhead (E). Hand-tighten only.

STEP 6: Place Settling Chamber & Connect Plumbing

After the concrete has hardened, place the settling chamber on the footer. With a spirit level, check that the tank is level. If needed, remove excess concrete from the base to allow the tank to set level.

Now that the tank is in place, you can begin connecting the plumbing to and from the pond. Using PVC Pipe and Cement, attach a 4" Gate Valve onto the 4" Female Adapter (D) located at the Inlet (J). Connect and glue the piping from the pond to the 4" Gate Valve.

Glue the 2" PVC Pipe (H) into the 2" Male Adapter (F) located on the Drain (K). Glue the 2" Drain Valve (G) onto the Pipe (H). Attach the Drain Valve (G) to a main drain line, if applicable.

The Outlet (L) can be plumbed to a gravity-fed biological filter or an external centrifugal pump. Follow the equipment manufacturer's installation instructions for