

Laguna

WATER GARDENS



BEAUTIFULLY
Simple

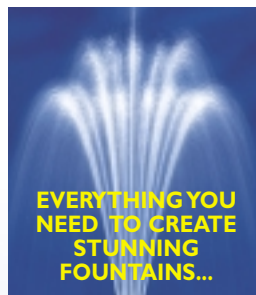


Introducing THE WORLD'S FIRST 'CLICK-FIT' POND SYSTEM!

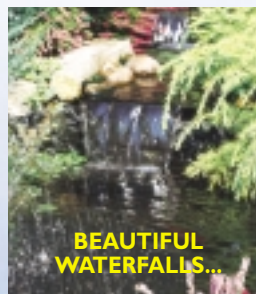
The Laguna pond system is practical, versatile and **complete**. Fully compatible, all Laguna pond products have unique "click-fit" couplings that make installation fast and easy. Simply "click" to "fit".



SIMPLE PRODUCTS
BEAUTIFUL RESULTS



EVERYTHING YOU
NEED TO CREATE
STUNNING
FOUNTAINS...



BEAUTIFUL
WATERFALLS...



AND A CLEAR,
HEALTHY POND!



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POWERJET POND PUMPS

A pump for every pond!

Large or small pond, there's a PowerJet pump to suit your needs. There are 8 PowerJets available, all built for powerful, reliable performance at **amazingly low operating costs**, significantly lower than other comparable pumps.



POWER FLO EXTERNAL FILTERS

The most advanced external filter today!

This unique 3-stage system provides the most complete mechanical and biological filtration ever. The "Click-Fit" system makes access to the filter simple, and removable media trays allow easy cleaning and maintenance.



POWER FLO UNDERWATER FILTERS

Every pond should have one!

"Click-fit" submersible filters protect pumps from clogging. Installed at the edge of the pond, PowerFlo filters are easy to reach.

Maintenance is only a "click" away!



POWER CLEAR

Ultraviolet STERILIZERS Effectively controls green water

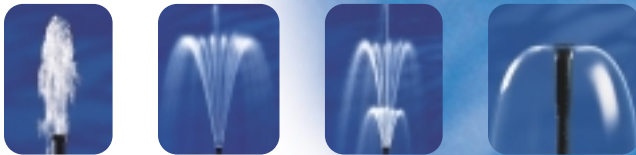
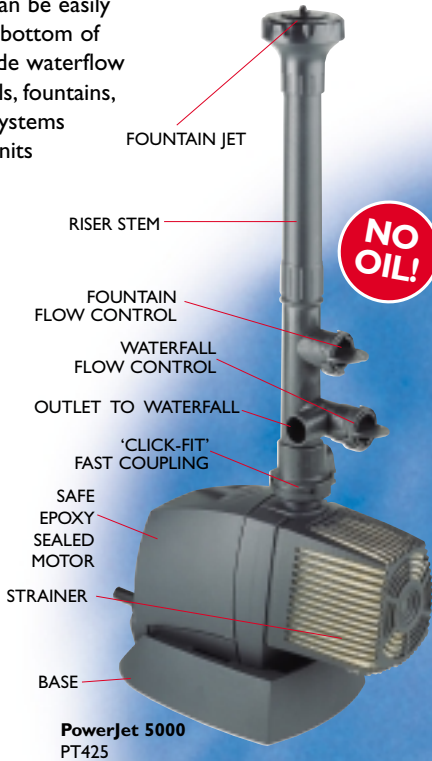
Laguna PowerClear attaches easily to almost any water pump and can be used in line with almost any new or existing filter system. Laguna PowerClear ultraviolet clarifier controls green water and many harmful parasites.

EVERYTHING BEGINS WITH A POWERJET PUMP

PowerJet Pumps can be easily submerged at the bottom of the pond to provide waterflow to power waterfalls, fountains, ornaments, filter systems and PowerClear units easily and reliably with low power consumption.

Every PowerJet Pump comes complete with a riser stem and two fountainheads.

Fountainheads are also available separately.



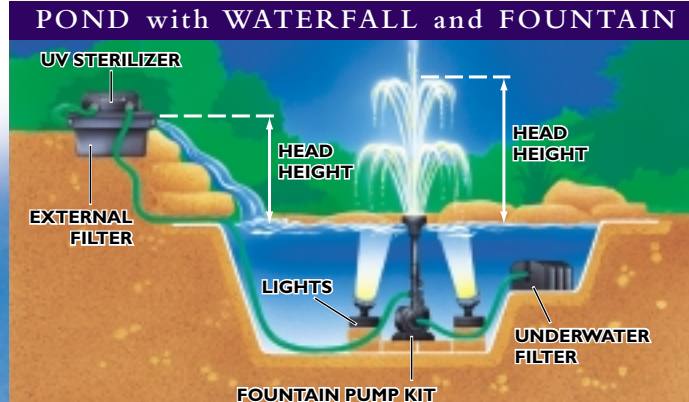
PowerJet Pumps are made to run quietly and reliably, with maximum power and performance and low operating costs!

Even the largest pump uses only 121 watts.



POWERJET

FOUNTAIN & WATERFALL PUMPS



CALCULATE THE NUMBER OF GALLONS IN POND
DETERMINE FLOW RATE (GPH) REQUIRED (See Page 10)

How to Pick the Right Laguna Pump

POND WITH FOUNTAIN: CHOOSE DESIRED HEAD HEIGHT OF FOUNTAIN (Distance between top of fountain and surface of pond). Then determine flow rate available from performance chart.

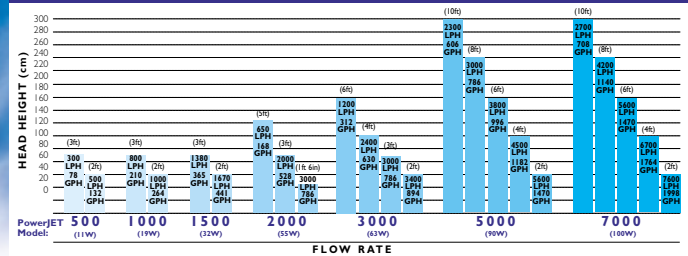
POND WITH WATERFALL: CHOOSE WATERFALL HEAD HEIGHT (Distance between top of waterfall and surface of pond). Add one foot of head height for every ten feet of connection hose required. Then determine flow rate available from performance chart. NOTE: Waterfall requires 75-100 gallons/hour flow rate for every inch of width.

POND WITH WATERFALL AND FOUNTAIN: COMBINE HEAD HEIGHT FOR FOUNTAIN PLUS WATERFALL. Add one foot of head height for every ten feet of connecting hose, then determine flow rate available from performance chart.

SPITTER FEATURE: Add one foot of head height for every ten feet of hose.

A LARGER PUMP PROVIDES THE FLEXIBILITY TO ADD MORE FEATURES LATER.

POWERJET PERFORMANCES



WHAT IS THE FUNCTION OF AN UNDERWATER FILTER?

Submersible filters can perform four functions:

1. Protect the pump from damage or clogging.
2. Filter pond water mechanically.
3. Filter pond water biologically.
4. Filter pond water chemically.

Mechanical Filtration

- Water is forced through a foam layer where detritus and debris are trapped, protecting the pump from damage.

Biological Filtration

- Microscopic beneficial bacteria occurring naturally in filter media convert harmful toxins (ammonia and nitrite) into safer nitrates that are a major food source needed by pond plants (ammonia and nitrite are created by decaying organic matter).

Chemical Filtration

- Submersible filters can be extended to include the use of beneficial medias such as carbon, PhosX, peat granules, etc.

POWER FLO

UNDERWATER & EXTERNAL FILTERS



POWER FLO

UNDERWATER FILTER

- Mechanical filtration (foam only).
- Prevents pump from clogging.
- Click-fit coupling for simple connections.
- Easily located near the pond's edge to ensure easy access.
- Modular design makes filter changes easy.
- Expandable for larger ponds or different applications.
- Carrying handle.



PowerFlo
(foam only) PT500



POWER FLO MAX

BIOLOGICAL AND MECHANICAL UNDERWATER FILTER

- Mechanical filter foam.
- High performance BioMax biological filter media.
- PowerFlo Max promotes room for massive populations of beneficial bacteria which break down harmful contaminants into beneficial nutrients for live plants.

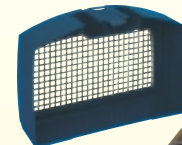
PowerFlo **MAX**
(with foam and BIOMAX
biological media) PT505



BIOMAX

BIOMAX media
PT560

PowerFlo Add-On Filter Chambers



BIOLOGICAL
(PT508)

MECHANICAL
(PT509)



Gives you the option to increase your biological or mechanical filtration or the addition of chemical filtration.



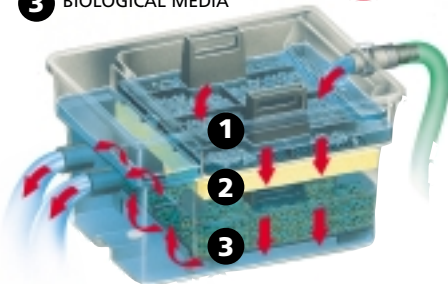
Any pond is subject to conditions that affect health and clarity. Cloudy water can occur when a new pond is installed. Factors like rotting leaves, disturbed detritus, organic sludge and algae can combine to inhibit ideal conditions. Generally, larger ponds are easier to maintain.

The introduction of pond plants help to maintain an ecological balance. To be absolutely sure that high water quality is maintained, install an adequate water filtration system. Remember, you can never have too much filtration.

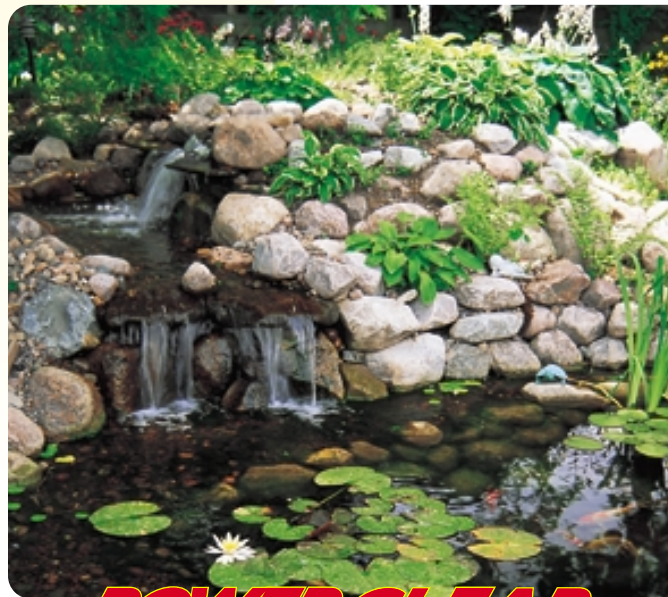
POWER FLO EXTERNAL BIOLOGICAL FILTERS

These large filters help make pond maintenance easier. They clarify the water and reduce harmful toxins. PowerFlo External Filters are ideal for larger ponds and require only monthly maintenance. The PowerFlo 4500 comes complete with biological media and features two lift-out trays. An intermediate foam layer plus a side compartment can be filled with any desired media (not included). There are two outlets allowing for the use of a UV sterilizer.

- 1** MECHANICAL FILTRATION
(media not supplied)
- 2** FOAM LAYER
- 3** BIOLOGICAL MEDIA



WHAT DOES A U.V. STERILIZER DO?



POWER CLEAR UV STERILIZERS

What is the function of a U.V. sterilizer? A U.V. sterilizer can be used to eliminate green water and reduce the amount of toxic pathogens, creating healthier pond water. Green water is caused by excessive light and nutrients. The perfect conditions for green water are often on warm sunny days. The PowerClear unit rapidly kills algae spores as they pass over the bulb. The germicidal effect of the lamp kills parasites before they become uncontrollable and cause fish disease. PowerClear works directly from a pond pump such as PowerJet series or as part of an external filtered configuration.

Available
in 8 and 16
watt sizes.



HOW TO BUILD A POND

TIPS BEFORE YOU START:

Choose a level site in a sunny, open location, preferably where it can be easily viewed from the house or patio. Keep pond away from overhanging trees and falling leaves. The fallen leaves will rot in the pond and tree roots may puncture the pond liner. Check with utility companies to make sure it is safe to dig in your site location. Choose a place near water and electrical G.F.I. outlets. Make sure the depth is adequate if you intend on over-wintering fish.



1 Outline the shape of the pond using pegs and string or a garden hose. Dig out the hole using the outline as a guide. Dig down 9 inches (23 cm) at a gently sloping angle. If you plan to grow plants along the edges, cut out a 9 inch (23 cm) wide shelf. Continue digging until you reach the desired depth.

TIP: Design your pond with large open curves and flowing lines. Avoid narrow channels that can block water flow.

TIP: Slope the sides inward at a 20° angle to prevent cave-ins. In the winter, a slope allows ice to expand upwards without causing damage.

This calculation gives you enough material to line the sides, shelves and to **OVERLAP THE EDGES.**

$$\begin{aligned}(\text{Depth} \times 2) + \text{Width} + 2 &= \text{Liner Width} \\ (\text{Depth} \times 2) + \text{Length} + 2 &= \text{Liner Length}\end{aligned}$$



3 Fill the pond with water slowly. The liner will stretch and adapt to the shape of the pond under the weight of the water. Adjust the stones and tug the edges of the liner to form neat folds as it starts to crease. Creases will hardly be visible once the pond is full.

TIP: Mix the excavated soil with topsoil to create a rock garden or the base of a waterfall feature.

TIP: Be careful not to let the liner twist or stretch too much when filling the pond. Too much stress can cause the liner to rip or puncture.

2 Use a two-by-four and a level to make sure that the hole is level. Check that there are no stones or roots to puncture the liner. Spread a 1 inch (2.5 cm) layer of damp sand in the hole. Cover with a layer of old carpet or matting. Place the liner evenly across the hole. Let the center of the liner touch the base and shelf edges. Anchor the overlap with concrete blocks or stones.

TIP: Make sure that the rim of the pool is level across both the length and width, otherwise the pond will turn out lopsided and unattractive.

TIP: Spreading the liner out in the sunshine makes the material more flexible and easier to handle.



4 When the pond is full, trim off any excess liner, leaving an overlap of at least 6 inches (15 cm). Cover the overlap with rocks, turf or paving stones.

TIP: If you place slabs or stones along the edge of the pond, let them overhang the edge slightly to hide the liner.

- **FLEXIBLE LINERS** can be easily shaped and sized to fit your needs and provide a natural look. Buy the heaviest liner available. We recommend black 45 mil. EPDM rubber liners (make sure you are using a pond liner that is fish- and plant-friendly).

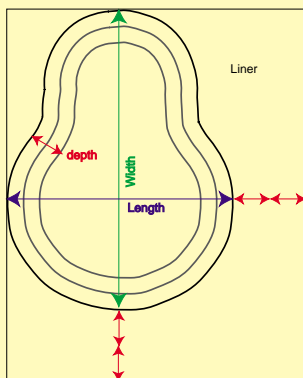
Building a pond with a flexible liner

A common mistake is to make a pond too small. If you want clear water and cool water temperatures, the pond should be at least 6 ft. x 4 ft. x 24 in. deep (1.8 m x 1.2 m x 60 cm). This is the optimum size to consider if you plan to keep fish and plants.

HOW TO CALCULATE THE REQUIRED LINER SIZE

- 1) Determine the maximum length, width and depth of your pond.
- 2) Double the depth and add it to both the length and width values.

Example:
If you want a pond that's 6 ft. x 8 ft. x 2 ft. deep (2 m x 2.5 m x 60 cm), you'll need a liner that's 10 ft. x 12 ft. (about 3 m x 3.5 m).



How to calculate the number of gallons of water in a pond

RECTANGULAR

RECTANGULAR & SQUARE PONDS:

$$\text{Length} \times \text{Width} \times \text{Average Depth} \times 7.5 = \text{TOTAL GALLONS}$$

ROUND

ROUND PONDS:

$$0.785 \times (\text{Top} \times \text{Bottom Diameter} \times \text{Depth}) \times 7.5 = \text{TOTAL GALLONS}$$

IDEAL FLOW RATE FOR POND:

Pond water should circulate every 2 hours. Minimum pump flow rate capacity required is the total gallons of water in pond, divided by 2 = GPH flow rate.

THE SHAPE OF NATURAL LOOKING PONDS

DURASHIELD POND LINERS



DURASHIELD soft rubber liners

provide you with the durability and flexibility you need to create your own unique and natural looking water garden. Constructed of 45 mil. EPDM, a highly flexible and durable synthetic rubber, these liners are guaranteed for 20 years and are safe for all pond inhabitants.

Rigid Pre-Form Ponds are the foundation for every new pond installation.

Available in a variety of sizes and guaranteed not to crack, peel or fade for ten years, these liners are non-toxic and safe for fish, plants and wildlife. Durashield Pre-Form Liners are made of heavy-duty polyethylene and designed to withstand the hottest summers and the harshest winters.



Simcoe

(39" x 28" x 15") 99 cm x 71 cm x 38 cm
32 gal., 122 L



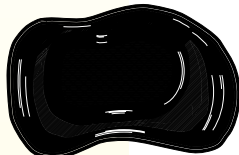
Tahoe

(71" x 50" x 18") 180 cm x 127 cm x 45.7 cm
150 gal., 568 L



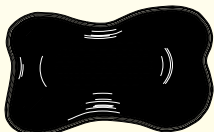
Champlain

(59" x 39" x 18") 150 cm x 99 cm x 45.7 cm
72 gal., 272 L



Hudson

(90" x 58" x 18") 228.6 cm x 147 cm x 45.7 cm
192 gal., 727 L



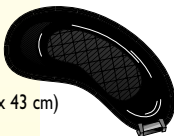
Huron

(58" x 94" x 18")
147 cm x 238.7 cm x 45.7 cm
264 gal., 1,000 L



Triple Cascade Channel

(48" x 24")
122 cm x 61 cm



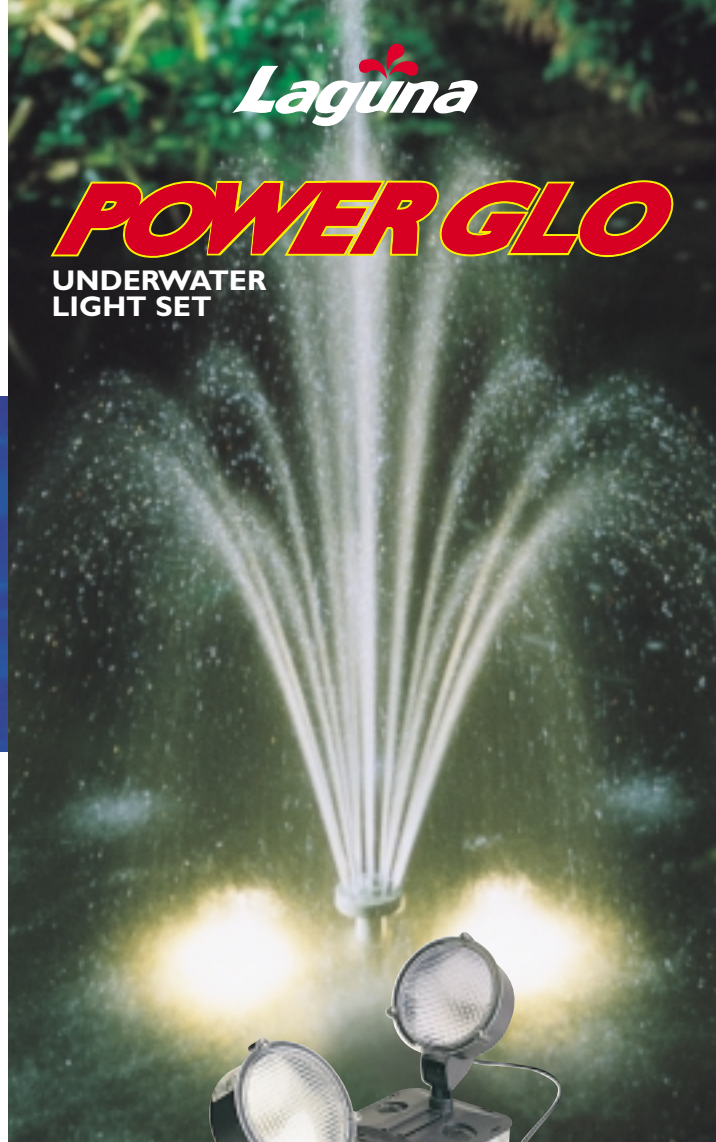
Spillway

54" x 30" x 17"
(137 cm x 76 cm x 43 cm)
50 gal., 189 L

Laguna

POWER GLO

**UNDERWATER
LIGHT SET**



PowerGlo
underwater
lighting
provides
stunning
lighting
effects at night.

Every light set
includes two lights. Each light is fixed on a weighted
base for easy submersion and stable placement —
no need for special tools. The lights operate from a
low-voltage transformer for safety. Colour lenses are
available to create a beautiful light display.



QUALITY NUTRITION FOR ALL FISH

Laguna Goldfish and Koi floating food pellets are available in a large variety of sizes. They contain multi-vitamins and stabilized vitamin C and are formulated with the highest quality ingredients. They do not contain corn or corn starches. They provide a balanced diet and easy digestion for all cold water fish ensuring a long healthy life.

Laguna Goldfish and Koi foods (100, 200 and 500 gram bags) are in reusable stand-up pouches ensuring food stays fresher longer.

Laguna Supreme Koi Color: Formulated for the special needs of koi to bring out their vibrant colours with 3 natural colour enhancers — Spirulina, Marigold petal extract, and algae meal. No artificial colorants are used. The HBV of each granule provides the right combination of nutrients to provide optimum growth rate. Tests at the University of Hawaii prove Supreme Koi Color is an extremely palatable excellent quality food.



Guaranteed Analysis

Crude Protein	Min. 29%
Crude Fat	Min. 3%
Crude Fiber.....	Max. 8%
Moisture	Max. 8%
Ash.....	Max. 9%
Vitamin A.....	1300 IU/kg
Vitamin D ₃	260 IU/kg
Vitamin E.....	13 IU/kg
Ascorbic Acid	35 mg/lb

pond health



WATER TREATMENTS

To keep ponds sparkling clear, pond water requires regular care for fish and plant health, and long-term pond stability.

TEST FIRST

Laguna Test Kits help provide all the necessary answers for perfect pond health. Simply test the water, evaluate the results, and take the appropriate action.



Hardness Test



pH Test



Ammonia Test

- Easy to use
- Immediate results
- Problem solving advice



Nitrite/Nitrate Test



Master Kit

THE COMPLETE TEST KIT





Introducing Laguna's new line of pond water treatments...Select from traditional treatment methods or from our exciting new line of biological formulations that naturally and gently correct problems while offering longer lasting effects.

Thoroughly researched and laboratory tested, Laguna water treatments are proven to be "pond friendly" and effective in treating many common pond conditions or ailments.

EFFECTIVE TREATMENTS FOR COMMON CONDITIONS

TREATMENTS FOR POND HEALTH



BIOLOGICAL

POND CLEAN

REMOVES ORGANIC SLUDGE

- Removes organic solids and pond sludge
- Replenishes beneficial micro-organisms
- Activates instantly

POND DETOX

REMOVES HARMFUL POLLUTANTS

- Reduces ammonia, nitrite and nitrate
- Effectively removes liquefied biological waste
- Keeps pond water healthy
- Replenishes beneficial micro-organisms

PHOSPHATE CONTROL

REDUCES PHOSPHATE NATURALLY

- Improves water clarity
- Longer lasting effects than chemical treatments
- Beneficial to aquatic life

FILTER MEDIA

For clean, clear ponds



Phos-X Phosphate Remover



WATER TREATMENTS FOR POND HEALTH



A GREAT SPRING STARTER KIT

Contains:

- Phosphate Control
- Pond Clean
- Pond Water Clarifier
- Water Prep

TRADITIONAL

WATER PREP

MAKES TAP WATER SAFE FOR FISH

- Eliminates chlorine and chloramine from tap water
- Neutralizes harmful metals
- Coats and protects fins and scales

PLANT GROW

GROWTH FOOD FOR AQUATIC PLANTS

- Promotes growth and color
- Helps plants fight disease
- Contains no phosphates or nitrates
- Non-toxic to plants or animals



POND WATER CLARIFIER

FAST-ACTING FORMULA

- Clumps suspended particles for easy removal
- Clarifies water rapidly
- Harmless to all aquatic life



pH Adjusters
Maintaining the right pH level is important to fish & plants.

- Safely increases pH & kH
- Beneficial for pond plants
- Safely reduces pH
- Phosphate free



YOUR QUESTIONS: ANSWERED.

● How deep should my pond be?

The minimum recommended pond depth for fish is 18", although 2 1/2 feet is considered ideal. Keep in mind that fish require cool water in the summertime and need to be able to live under the ice in the wintertime. In extremely hot or cold climates, 12" in pond depth may have considerable impact on the health of your fish.

● Is a fountain expensive to own?

Every PowerJet pump comes complete with two fountain heads, a traditional 2 or 3-step jet and a waterbell jet, so creating beautiful fountain effects is quick and easy. Even the largest Laguna pump costs as little to run as a 100-watt light bulb.

● Can I put fish in my pond?

The size and depth of your pond will determine whether or not your pond can accommodate them. When stocking a pond, it's usually a good idea to start small and add a few fish at a time. This will give you time to test your pond's water and the surrounding habitat before spending a lot of money. For goldfish and comets, one inch of fish for every three gallons of water is a good rule of thumb. For koi, five gallons of water for every inch of fish is recommended. As the fish begin to grow, you may need to remove some of them in order to maintain an ideal pond environment. Tap water can contain chlorine, chloramine and other harmful elements that are toxic to fish. In order to make your tap water safe, it should be treated with a conditioner such as Laguna Water Prep before fish are added.

● What types of plant are ideal for a garden pond?

There are four major types of pond plants - oxygenating, floating, deep water and marginal. Oxygenating plants provide vital oxygen for fish and other pond inhabitants. In a mature pond, 60-70% of the pond surface should be covered with floating plants in order to reduce the development of algae. Deep water plants at the bottom of the pond provide fish with shade and protection from predators. Marginal plants along the outer edge of the pond will blend with the surrounding landscape, making it more attractive.

● Why is oxygen so important in my pond?

Fish, plants and other pond inhabitants require large quantities of oxygen in order to survive. In an isolated pond, dirt, leaves, algae and other contaminants can quickly accumulate, depleting a pond's vital oxygen supply. Laguna fountains and waterfalls help to aerate oxygen-deficient ponds and help keep pond inhabitants healthy.

● Will I get clear pond water right away, and how can I prevent it from becoming cloudy or green with algae?

With a new pond installation, the water may become cloudy until things have a chance to settle. Algae can also result from several factors, including strong sunlight, warm water and the overstocking and overfeeding of pond fish. The Laguna PowerClear UV sterilizer, when used with a PowerFlo Filter, will kill and remove algae and other harmful bacteria for cleaner, clearer pond water. The use of Laguna PhosX and Pond Water Clarifier, combined with the introduction of aquatic plants will also improve water quality.

● Are there points I should consider if I have children?

A water garden can be a fascinating, natural learning environment for children. However, before installing a garden pond, it is important to consider the layout and depth of your pond, the type of water features you plan to use and other factors that may affect its accessibility to children. One option is a "bubble" fountain where the water is pumped up from an underground tank covered with pebbles on the surface. The foaming jet creates a very attractive display as the water trickles through the stones back into the tank.

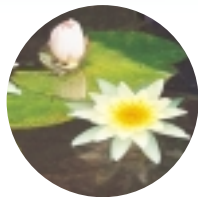
● What sort of maintenance is required with a garden pond?

Laguna PowerJet pumps require very little maintenance after installation. The strainer cage and foam insert should be checked periodically to be sure they are clear of debris in order to keep the pump running at peak performance. Laguna PowerFlo filters should be cleaned regularly (usually once every 2-3 weeks) so that they can continue to provide you with the clearest pond water possible.



TOP TIPS:

- 1** Always treat pond water before adding livestock. Chlorine and chloramine in tap water will kill fish. Use **Laguna Water Prep** for fast and effective dechlorination.
- 2** Keep sharp objects away from pond liners.
- 3** Install the pump on bricks or blocks to minimize clogging.
- 4** The maximum height of your fountain should be about half the width of your pond.
- 5** Allow for 1 inch of fish per square foot of surface area. You can allow 2 inches per square foot with improved filtration from a fountain or waterfall.
- 6** If you are going to keep large Koi, they should be housed in large, well filtered ponds. The pond should be at least 3 ft (1 m) deep and have vertical sides projecting above the surface to prevent Koi from jumping out.
- 7** Oxygenating plants provide oxygen only during daylight. Fish can suffer stress during warm, still nights unless extra oxygen is supplied. Water agitation created by a splashing fountain or waterfall is ideal.
- 8** Although most pumps operate using a normal electrical supply, the installation should be a permanent one using a GFI (Ground Fault Interrupter). Always use cables and connectors designed for outdoor and water garden use. Have your system installed or checked by an electrician.
- 9** **THE FINISHING TOUCHES**
It's important to choose the right fish and plants for your pond. Consult your local pet shop and garden center for advice.



POND DECORATION

GARDEN ORNAMENTS

- Durable poly resin
- Crack-resistant paint
- Lightweight, easy to carry
- Black hose with hose adapter



POND DECORATION

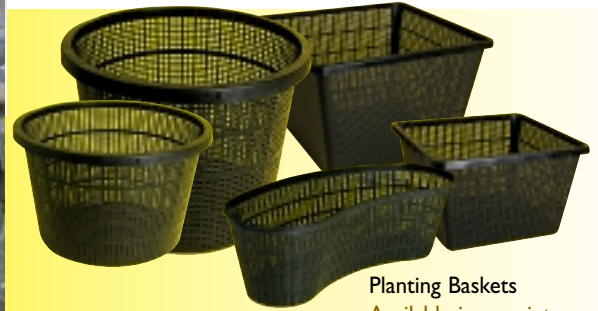
Enhancing the natural beauty of ponds with always-in-bloom accents.



Starlight Water Lilies



ACCESSORIES & SPECIAL PRODUCTS



ADDING LIVE PLANTS

- Ideally 60 - 70% of the pond's surface should be covered with plants.
- Ensure that lilies have 4-5 hours of sunlight daily to maximize blooming.

GENTLE FISH NETS & SKIMMERS



- Protects fish from predators
- Keeps leaves & debris out of ponds
- Prevents fish from jumping out
- Unique design allows easy access to round pond corners.
- Durable construction.
- Collapsible for easy storage

PARTS & ACCESSORIES

A wide selection of parts and accessories for the Laguna range is available.

FOUNTAIN JETS:

- PT650 2 / 3 STEP JET (Small)
- PT652 3 STEP JET (Medium)
- PT654 3 STEP JET (Large)
- PT660 WATERBELL JET (Small)
- PT662 WATERBELL JET (Medium)
- PT664 WATERBELL JET (Large)
- PT670 FOAM JET (Medium)
- PT672 FOAM JET (Large)

HOSE FITTINGS:

- PT676 MULTI-HOSE ADAPTER (SMALL)
- PT677 MULTI-HOSE ADAPTER (LARGE)
- PT680 1/2" HOSE TEE
- PT681 3/4" HOSE TEE
- PT682 1" HOSE TEE
- PT685 1/2" HOSE BEND
- PT686 3/4" HOSE BEND
- PT687 1" HOSE BEND
- PT690 1/2" HOSE MENDER
- PT691 3/4" HOSE MENDER
- PT692 1" HOSE MENDER
- PT695 1/2" HOSE CONNECTOR
- PT696 3/4" HOSE CONNECTOR
- PT697 1" HOSE CONNECTOR
- PT700 1/2" HOSE TAP
- PT701 3/4" HOSE TAP
- PT702 1" HOSE TAP
- PT705 1/2" HOSE CLIPS (x2)
- PT706 3/4" HOSE CLIPS (x2)
- PT707 1" HOSE CLIPS (x2)

FILTER MEDIA:

- PT550 POWERFLO UNDERWATER FOAM
- PT560 BIOMAX MEDIA
- PT565 BIOLOGICAL FILTER MEDIA



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