

PROECO

PRODUCTS



PRODUCT CATALOG

www.proecoproducts.com

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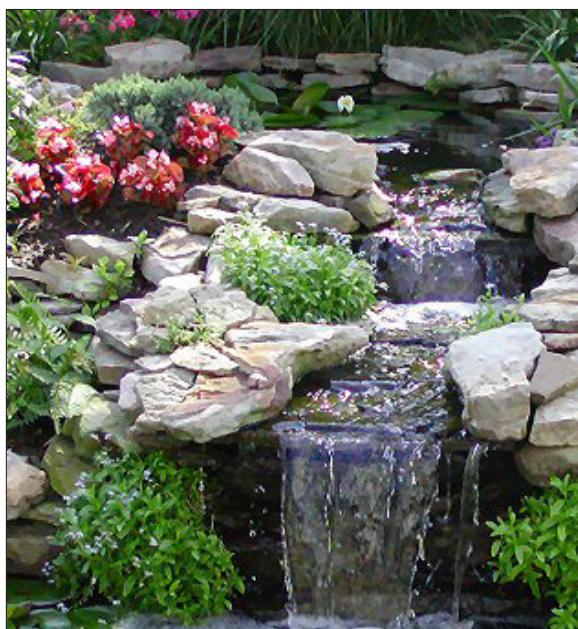
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Brenda Saunders
President of ProEco Products Ltd.



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PUMP SELECTION GUIDE

Pump Selection Guide

Buying the right pump for the right application is very important.



The two most common types of pumps are *mag drive* pumps, which are designed for the pond industry, and *direct drive or sump pumps*, which are not designed for use in ponds. The most common reason pumps fail is incorrect application, and this is extremely important to keep in mind when making your selection.

Mag drive pumps contain a natural magnet and are not as mass produced, so while they initially may have a higher purchase cost, their oil free and pond-specific design will save time, money and replacement costs over the life of the system.

Direct drive (sump) pumps have many disadvantages in pond use. They require back pressure to maintain the correct operating range and avoid overheating. They are susceptible to “dirty power” which is caused from using extension cords and placement far from the power source. They are oil filled for lubrication, which requires constant submersion to avoid overheating and possible failure. Direct drive pumps are mass produced, less expensive and easily found, but over time use more energy and may become expensive in problem solving and replacement costs.

Often when selecting a pump many people choose the largest flow rate and the least expensive price, which initially makes the direct drive / sump pump an attractive choice over a pump designed specifically for pond use. However the limitations of these pumps for this application will soon become apparent.






For example, if you need a pump that delivers 4000 GPH at 5 ft of head, you have two choices: a mag drive pump which will deliver 4000 GPH at 5' of head (such as the SP-5600), or a sump pump which will deliver 4000 GPH at 5' of head. However, a sump pump with this flow rate and head will fail very quickly because it will not have enough back pressure needed to make the pump operate in it's optimal range, and pumps in this condition will fail well inside the warranty period and not be covered. A much larger sump pump must be used, one that can deliver 6000 GPH at 5' of head, with a valve on the outlet closed down to reduce the flow to the 4000 GPH rate. This will create artificial head on the pump, forcing the motor to operate in it's optimal range, however this will also increase energy costs. An SP-5300 pump uses 430w of power, whereas a sump pump would use 750w to produce the same flow rate.

Another example, using a large flow rate such as 16,000 GPH, you would need to use a 20,000 GPH sump pump turned down to 16,000 GPH to create the back flow needed for the pump to last. However, using two SP-8000 pumps working together will create the perfect system to achieve the flow and head needed, as well as using only 1420w of power vs the sump pump which would use 2200w. A timer can also be used on one of the SP pumps, programmed to shut off at night, and further save on energy costs.

As you can see by these examples, pumps that are designed for pond use are more efficient and ultimately less expensive over the life of your system.

ProEco carries the right pumps, filters and equipment needed to keep your pond running smoothly, efficiently and looking beautiful. We would be happy to assist you in making your selections and answering any questions you may have with your pond, fountain, and water feature needs.

PUMP SELECTION GUIDE

Pump Features	 AP Pump Style	 SP Pump Style	 FP Pump Style	 HPP Pump Style	 Sump Pump Style
Mag Drive	Yes	Yes	Yes	No	No
Asynchronous	Yes	Yes	Yes	No	No
Oil Free	Yes	Yes	Yes	Yes	No
Thermal Overload Protection	Yes	Yes	Yes	Yes	No
Maximum Head	2.5 - 15 '	11.5 - 41 '	10 - 21.5 '	45 - 65 '	30 - 38 '
Solids Handling	N/A	8 mm	13 mm	8 mm	8 mm
Low Profile (Shallow water)	Yes	Yes	Yes	Yes	No
Skimmer Ready	Yes	Yes	Yes	Yes	Yes
Inline Capable	Yes	Yes	Yes	Yes	No
Self Priming	No	No	No	Yes	No
Minimum Water Depth	3 "	8 "	13 "	2 "	16 "
Pre Filter	Yes	Yes	Yes	Yes	No
Serviceable (Repairable)	Yes	Yes	Yes	Yes	No
Swim Pond Rated	No	No	No	Yes	No
Vertical Installation	Yes	Yes	Yes	No	Yes
Horizontal Installation	Yes	Yes	Yes	Yes	No
Out of Water Installation	No	Flooded	Flooded	Yes	No
Main Function	Statuary	Fountain/ Waterfalls	Filtration/ Waterfalls	Filtration/ Waterfalls	Waterfalls
Warranty	2 Years	5 Years	3 Years	2 Years	1 Year Average

Common Terms:

Flow Rate- The amount of water the pump can move, often listed in GPH (Gallons per Hour) Or GPM (Gallons per Minute)

Head- The measurement of the height or pressure the pump can create.



The **SP Series** pumps are perfectly suited for all waterfall, stream and fountain applications. The Split Tube hybrid motor design makes these pumps an ideal blend of performance and efficiency. These pumps also utilize asynchronous technology, which means that they are electronically controllable. The benefit of being electronically controllable is that the output is completely adjustable and the pump only uses the power necessary for the desired flow. Thermal protection is built into all SP pumps to ensure that the pump will protect itself from thermal damage. All SP pumps also include a pre-filter to prevent the pump intake from clogging.



SP Pump less Pre-filter



SP Packaging



	SP-1400	SP-1800	SP-2200	SP-3700	SP-5300	SP-6600	SP-8000	SP-8000-100
Power Consumption (watts)	75	100	170	170	430	430	710	710
Amps	.75	.85	1.5	1.5	3.5	3.5	6.5	6.5
Max. Flow Rate (gph)	1,400	1,900	2,350	3,700	5,300	6,600	8,000	8,000
Max. Head (ft)	11.5	14	22	17	36	26	41	41
Outlet	1"	1"	1"	1 1/2"	1 1/2"	2"	2"	2"
Inlet	1"	1"	1"	1 1/2"	1 1/2"	2"	2"	2"
Power Cable Length (ft)	33'	33'	33'	33'	33'	33'	33'	100'
Dimensions (in)	13x4.5x6	13x4.5x6	13x4.5x6	13x4.5x6	18x9x9	18x9x9	18x9x9	18 x 9 x 9
Warranty	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years

Pump Performance Chart

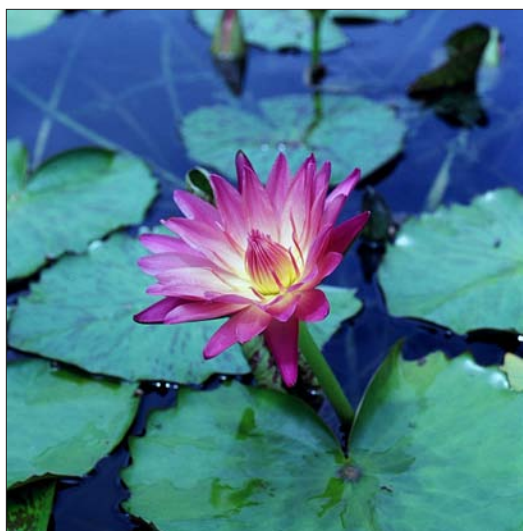
	5'	10'	15'	20'	25'	30'	35'
SP-1400	1100	400	-	-	-	-	-
SP-1800	1600	950	-	-	-	-	-
SP-2200	2150	1700	1200	350	-	-	-
SP-3700	3200	2300	950	-	-	-	-
SP-5300	4700	4000	3200	2500	1500	-	-
SP-6600	5900	5000	3900	2500	500	-	-
SP-8000	7200	6600	5700	4700	3500	2100	500

Note: For more information on pump performance, please refer to the pump curves on page 103

*Please note these images may not reflect the current product

FEATURES

- ★ Asynchronous motor
- ★ Hybrid mag drive pump
- ★ Pre-filter included
- ★ Thermally protected
- ★ Submersible or in-line
- ★ Fits well in skimmers
- ★ Great waterfall pump



The **FP and FPS Series** pumps are specifically designed for use in pond and water garden filtration systems. These pumps will handle up to 3/8" solids and remove them from the pond which greatly improves overall water quality and reduces maintenance. The FPS pumps add the feature of a second suction inlet, for use with skimmers or additional bottom suction. The FP and FPS pumps are specifically designed to deliver high water flow at very low energy consumption. This makes these pumps ideal for continuous operation. Since these pumps use asynchronous technology, the flow rate can be electronically controlled. This means the output is completely adjustable and the



pump only uses the power necessary for the desired flow. *The FP and FPS pumps are designed to be paired with the EZ-Press filters, SK and IPS skimmers.*



FP-1750, FP-2300 & FP-3200



FPS-4750



These products specifically designed for FP pumps

	FP-1750	FP-2300	FP-3200	FPS-4750
Power Consumption (watts)	110	150	200	315
Amps	1	1.25	1.67	2.7
Max. Flow Rate (gph / gpm)	1750 / 29.2	2300 / 38.3	3200 / 53.3	4750 / 80
Max. Head (ft)	10	13	18	21.5
Outlet	1 1/2"	1 1/2"	1 1/2"	1 1/2"
Second Suction	N/A	N/A	1 1/2"	1 1/2"
Power Cable Length (ft)	20	20	20	23
Dimensions	12"x10"x6"	12"x10"x6"	12"x10"x6"	16" x 14" 7"
Warranty	3 Years	3 Years	3 Years	3 Years

Pump Performance Chart

	1'	5'	10'	15'	20'
FP-1750	1,750	1,600	-	-	-
FP-2300	2,250	2,100	1,600	-	-
FP-3200	3,280	3,100	2,650	1,580	-
FPS-4750	4,750	4,650	4,250	2,800	800

Note: For more information on pump performance, please refer to the pump curves on page 103



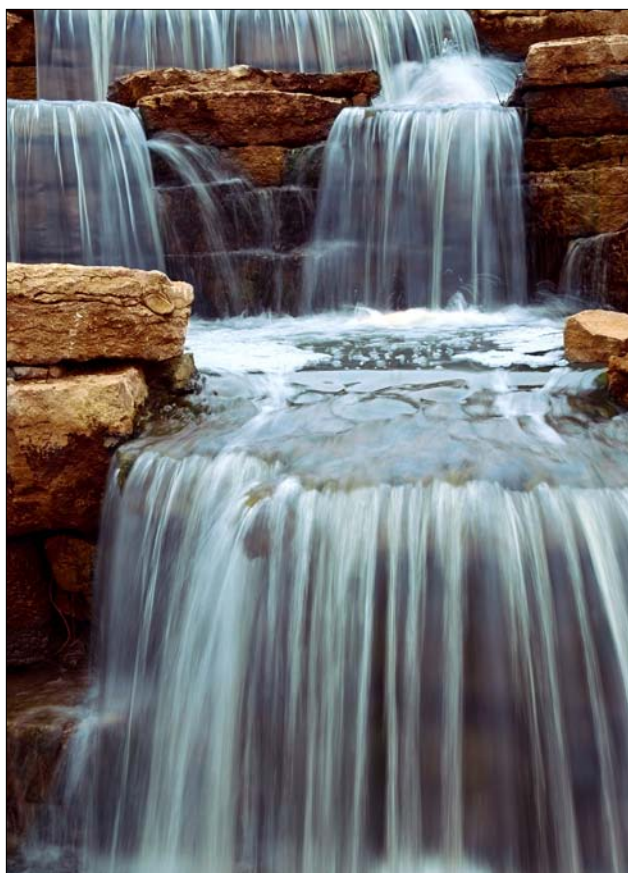
*The **FP and FPS pumps** are an integral part of the **Clearwater Guarantee**. When sized correctly and used with the proper filtration components, they will guarantee that the pond or water garden will have clear water for a lifetime.*

FEATURES

- ★ Solids handling, passes up to 3/8" particles
- ★ Energy efficient mag drive
- ★ In-line capable

*Please note these images may not reflect the current product





The **HPP Series** pumps are designed for high efficiency and quiet operation. These pumps can be used for waterfalls, filtration systems, pools and spas. The integrated large basket strainer with see-through cover makes maintenance simple and easy. The self-priming feature makes for simple and easy operation.



HPP



HCF Filter

The HCF Filter is designed for use with the HPP pumps



FEATURES

- ★ Self-priming (up to 6')
- ★ See-through strainer cover
- ★ High capacity strainer basket

	HPP-035	HPP-050	HPP-075	HPP-100	HPP-150
HP	.35 HP	.5 HP	.75 HP	1 HP	1.5 HP
Voltage	*115V, 60Hz	*115V, 60Hz	*115V, 60Hz	*115V, 60Hz	*115/230V, 60Hz
Power Consumption (amps)	3.6	5.3	8.8	9.7	15/7.5
Power Consumption (watts)	414	615	1000	1100	1700
Max. Flow Rate (gph / gpm)	2400 / 40	3200 / 53	5,200 / 87	5,800 / 97	6,400 / 107
Max. Head (ft)	25'	33'	45	50	65
Inlet / Outlet Size (in)	1.5	1.5	1.5	1.5	1.5
Power Cable Length (ft)	6	6	6	6	N/A
Dimensions (L x W x H) (in)	16 1/2 x 7 x 8 1/2	16 1/2 x 7 x 8 1/2	22 x 10 x 12	22.5 x 10 x 12	23 x 10 x 12
Warranty	2 Years	2 Years	2 Years	2 Years	2 Years

*20 amp rated power cord

Pump Performance Chart

	1'	5'	10'	15'	20'	25'	30'	40'	50'	60'
HPP-035	2400	2100	1900	1700	1500	1300	800			
HPP-050	3200	2800	2400	2000	1700	1200	750			
HPP-075	5,200	4,750	4,400	3,900	3,450	2,900	2,400	950	-	-
HPP-100	5,800	5,550	5,100	4,650	4,200	3,650	3,100	1,600	-	-
HPP-150	6,400	6,250	5,750	5,400	5,000	4,650	4,200	3,250	2,200	900

Note: For more information on pump performance, please refer to the pump curves on page 104

*Please note these images may not reflect the current product



The new **HPPHF Series** pumps are designed for high efficiency, high flow and quiet operation. These pumps can be used for waterfalls, filtration systems, pools and spas. Self-priming feature makes for simple and easy operation.



FEATURES

- ★ Minimum continuous flow rate 5 gpm
- ★ Low RPM motors are enclosed for long life
- ★ 316 Stainless Steel Shaft Seal



	HPPHF-075	HPPHF-100	HPPHF-150
HP	.75 HP	1 HP	1.5 HP
Voltage	*115/208-230V, 60Hz	*115/208-230V, 60Hz	*115/208-230V, 60Hz
Power Consumption (amps)	5.6	7.3	9
Power Consumption (watts)	1270	1640	1940
Max. Flow Rate (gph / gpm)	8,880 / 148	9,840 / 164	11,400 / 190
Max. Head (ft)	55'	65'	54'
Inlet / Outlet Size (in)	2	2	2
Power Cable Length (ft)	8	8	-
Dimensions (L x W x H) (in)	28 x 12 x 13	28 x 12 x 13	28 x 12 x 13
Warranty	3 Years	3 Years	3 Years

Pump Performance Chart

	1'	5'	10'	15'	20'	25'	30'	40'	50'	60'
HPPHF-075	10,200	9,600	8,900	8,400	7800	7200	6600	5100	3,000	-
HPPHF-100	11,100	10,800	10,200	9,600	9,120	8,520	7,920	6,600	5,100	3,000
HPPHF-150	13,800	13,200	12,600	11,580	10,920	10,140	9,240	7,320	3000	-

Note: For more information on pump performance, please refer to the pump curves on page 104

*Please note these images may not reflect the current product

Filter Selection Guide

When selecting a filter you must decide if you are going to use a pre-existing pump with it, or choose a new one. *The most common reason for a filter not performing to its fullest potential is that it's matched with an incorrect pump.* The pump and filter selection guides are vital tools for you to use in selecting the correct filter and pump to use for your application.



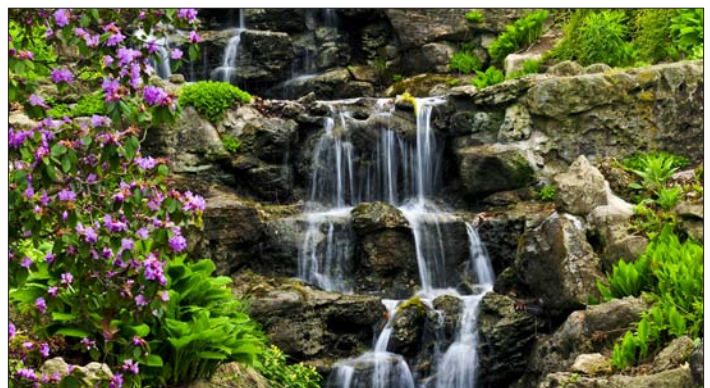
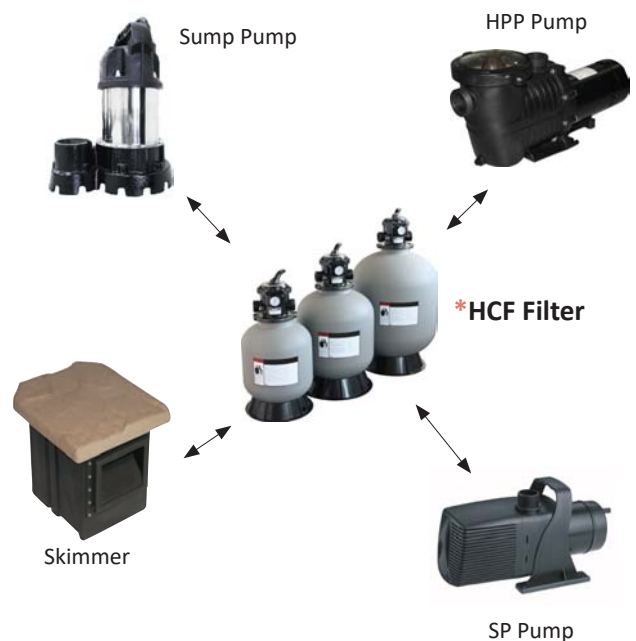
If you do have a pre-existing pump and are choosing a filter for it, you will need to know:

- The model of the pump
- The flow in GPH (Gallons per Hour)
- The maximum head the pump can create (Pressure)

Whether you have a pump already, or you are purchasing a pump based on your filtration system and requirements, ProEco can assist you in choosing the best one for your individual needs. We have three types of filters* to choose from, and each type has features and benefits that make it ideal for specific locations and applications.

Low Pressure System

High Pressure System



FILTER SELECTION GUIDE

Filter Features	 EZ-Press Style	 Bio Flow Style	 HCF Style	 SK-150 Skimmer	 IP-200 Skimmer
Recommended Pump	FP Pump	FP Pump	HPP/SP	FP Pump	FP Pump
Maximum Flow (GPH)	4000	4000	30,000	4500	4000
Maximum Head (Ft)	13'	0	120'	N/A	N/A
Pressurized	Yes	No	Yes	N/A	N/A
Power Required	Yes	No	No	No	No
UVC Built In	Yes	No	No	No	No
UVC Added On	No	Yes	Yes	No	No
Maximum Pond Size (Without Fish)	4000	10,000	30,000	N/A	N/A
Maximum Pond Size (With Fish)	2000	5000	15,000	N/A	N/A
Gravity Fed	No	Yes	No	No	No
Handles Large Solids	Yes	Yes	Yes	Yes	Yes
Gravity Fed	Yes	No	Yes	Yes	Yes
Clear Water Guarantee	Yes	Yes	Yes	N/A	N/A
Ionizer Compatible	Yes	Yes	Yes	Yes	Yes
Warranty	3 Years	3 Years	3 Years	5 Years	5 Years

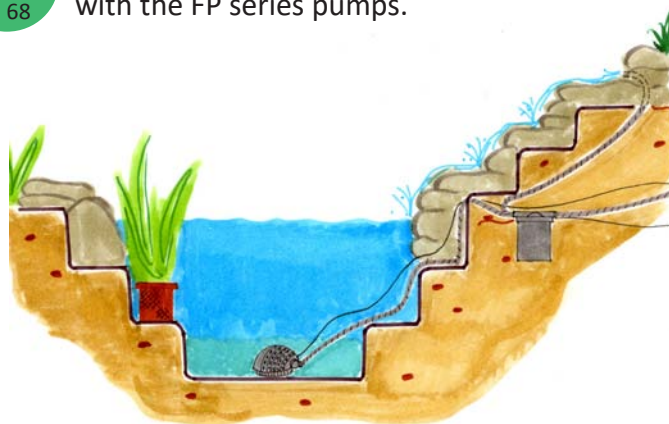
Common Terms:

Flow Rate- The amount of water the pump can move, often listed in GPH (Gallons per Hour) or GPM (Gallons per Minute)

Head- The measurement of the height or pressure the pump can create.



The **EZ-PRESS Series** pressure filters are ideal for ponds and water gardens up to 4000 gallons. These pressure filters deliver crystal clear water with very low maintenance. All of the EZ-PRESS filters include an integrated Ultraviolet Clarifier which flocculates (clumps) any algae that passes through the filter. The flocculated algae can then be captured by the filter and removed from the pond. The “Easy Clean” feature of these filters makes maintenance a quick and easy process that can be done without getting dirty. The EZ-PRESS Filters can be installed anywhere around a pond and can be buried right up to the lid of the filter, which makes them very easy to hide. They are designed to be used with the FP series pumps.



Installation example (See more examples on pages 90-92)



Clear water is Guaranteed when this product is used as part of a Clearwater Guarantee System. Visit www.proecoproducts.com for details

	EZ-2000	EZ-3000	EZ-4000
Max. Flow (gph)	2400	3200	3700
Max Pump Pressure (Head) *	13 ft	13 ft	13 ft
Max Pump Pressure (psi) *	6 psi	6 psi	6 psi
Outlet/Inlet (in)	3/4" - 1 1/2"	3/4" - 1 1/2"	3/4" - 1 1/2"
Recommended Pump *	FP-2300	FP-3200	FP-3200
Pond (no fish)	2000	3000	4000
Pond (with fish)	1000	1500	2000
UV-C (wattage)	18	18	36
Power cable (ft)	15	15	15
Dimensions (in)	15 x 15 x 15	15 x 15 x 20	15 x 15 x 28
Warranty	3 Years	3 Years	3 Years

*ProEco FP Pumps are recommended for use with the EZ Filters. EZ Filters are not to be used with pumps which produce more than the max flow rate and have a maximum pump pressure higher than 13ft (6 psi).

*Please note these images may not reflect the current product



Connect to all common pipe, tubing or hose with included fittings



Included ball valves insure no waste returns back to the pond during cleaning

The **HCF Series** filters combine both biological and mechanical filtration into one compact package. All filters include our Eco Media which is designed with a very high surface area, which propagates large quantities of beneficial bacteria. The HCF filters are designed for systems with high pressure. The Easy-Clean feature of this filter makes maintenance a simple and quick job. Combine the HCF filters with our HPP pumps for a wide variety of pond and water feature applications.



High Capacity Filters

- Designed for pools, spas, ponds and water features
- Top diffuser ensures even distribution over the media bed
- Tank made of durable HDPE Polymetric material
- Specifically designed for pumps that can deliver greater than 20' of head

	HCF-19	HCF-24	HCF-30
Design flow rate (gpm)	40	50	98
Outlet/Inlet (in)	1.5	1.5	2
Specific Surface Area of Media (sq ft)	1050	1500	2500
Maximum pressure (psi)	50	50	50
Recommended pump model	HPP-075	HPP-100	HPP-150
Recommended pump HP	.75	1	1.5
Recommended pond size (no fish)	9,000	20,000	40,000
Recommended pond size (with fish)	4,500	10,000	20,000
Eco Media Included (Bags)	2 Bags	3 Bags	5 Bags
Dimensions (L x W x H) (in)	19 x 19 x 37	24 x 24 x 44	30 x 30 x 48
Warranty	3 Years	3 Years	3 Years



ECO MEDIA



HCF Filter with HPP Pump



*Please note these images may not reflect the current product

CLEAR WATER GUARANTEE

By installing ProEco Clear Water Guarantee products you are assured that your pond will have clear, clean and healthy water. Use the Clearwater Guarantee chart below to choose the proper products for your Clear Water system.



CLEAR WATER GUARANTEE

ProEco guarantees that if you use the properly sized and maintained Clear Water Guarantee products, that you will have clean and clear water in your pond. The pond water will be clear enough to see the tip of a tape measure at a depth of two feet (24"). Fish and plant load must not exceed recommended levels for the system components that are in use.



Clear Water Guarantee Chart				
Pond Size in Gallons		Filter	Pump	UVC
No Fish	With Fish			
CPF Pressure Filters				
1,600	800	CPF-1600	FP-2300	13W included
2,000	1,000	CPF-2000	FP-3200	13W included
4,000	2,000	CPF-4000	FP-3200	36W included
EZ-PRESS Pressure Filters				
2,000	1,000	EZ-2000	FP-2300	18W included
3,000	1,500	EZ-3000	FP-3200	18W included
4,000	2,000	EZ-4000	FP-3200	36W included
Gravity Flow Filters				
5,000	2,500	BF-5000	FP-2300	CUV-18
10,000	5,000	BF-10000	FP-3200	CUV-36
20,000	10,000	2 x BF-10000	2 x FP-3200	CUV-36
25,000	12,500	2 x BF-10000	2 x FPS-4750	CUV-36

CLEAR WATER GUARANTEE PRODUCTS

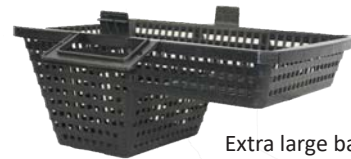
- ★ **FP & FPS series pumps**
Highly energy efficient pumps that pass large particles to the filtration system.
- ★ **BF series gravity filters**
Removes particulate and debris through a gravity filtration process.
- ★ **CPF series pressure filters**
Removes particulate and debris through a pressurized filtration process. Also includes a built-in ultraviolet clarifier.
- ★ **CUV series ultraviolet clarifiers**
Flocculates (clumps) microscopic green algae. Use with the BF series gravity filters.

A Skimmer is an important part of any pond system. By drawing water from the surface of the pond, a skimmer will pull in any floating debris that has fallen into the pond and collect it in an easy-to-clean basket. Removing the debris while it is still floating prevents it from becoming water-logged and sinking to the bottom of the pond and decomposing. ProEco offers several different skimmers which are designed to fit any pond application.

	SK-150
Recommended Max Flow Rate	5000 GPH
Skimmer Opening (in)	9W x 6H
Outlet Connection	3/4 x 1 1/2" Flex hose
Lid included	Yes
Filter Mat included	Yes
Leaf Net included	XL Leaf Basket
Dimensions (in)	22 x 15 x 18
Warranty	5 Years



SK -150



Extra large basket



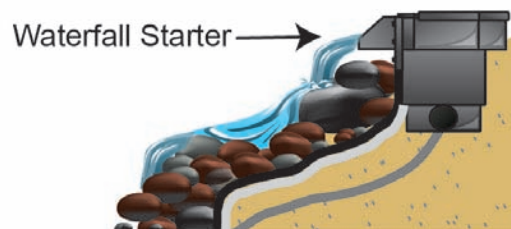
- Specifically designed for use with the FP-1750 to 3200 pumps
- Extra large basket design requires less frequent cleaning
- One of the most cost effective skimmers on the market

*Please note these images may not reflect the current product

WATERFALL STARTERS

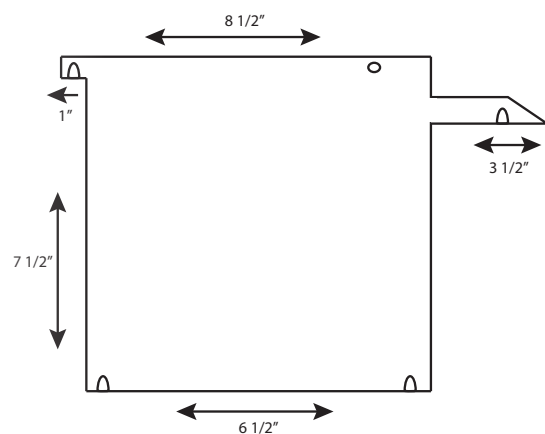


The **WS Series** waterfall starters are an ideal product for any waterfall. The ProEco waterfall starters ensure a simple installation and a visually appealing finished product.



WS-160

	WS-160
Recommended Max Flow Rate	1000-4000 GPH
Inlet Connection	3/4"-1 1/2" Flex Hose
Lid included	Yes
Filter Mat	N/A
Dimensions	12.25 x 14 x 16
Warranty	5 Years

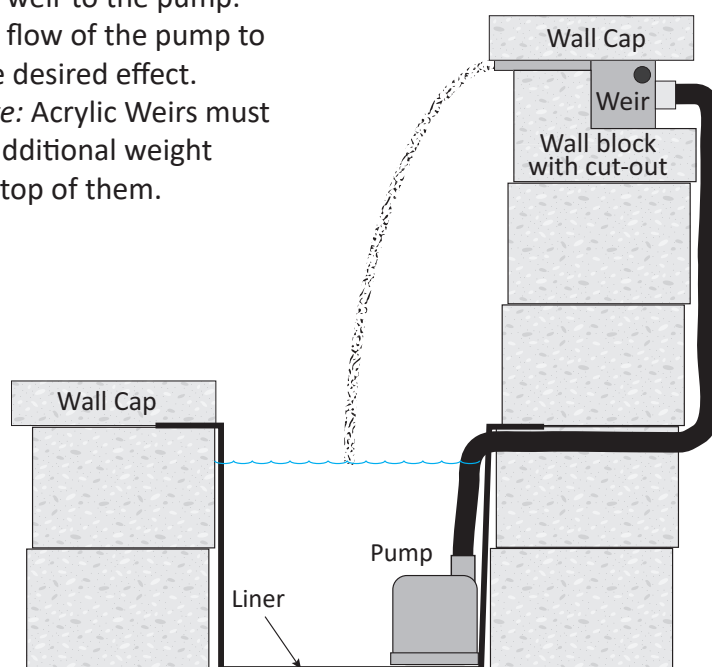


WS-160 Side view

*Please note these images may not reflect the current product

TYPICAL BLOCK WALL WEIR INSTALLATION

- Based on the width of the water and the block dimensions, determine the quantity of wall blocks to be specially cut.
- Using the dimensions of the weir, lay out the area of the block to be removed. Block sizes will vary so always measure from the top/front edge of the wall block when laying out your cuts.
- Use only factory recommended equipment and instructions from the wall block manufacturer when cutting the wall blocks.
- Install the cut blocks in the desired location in the wall.
- Install and level the weir into the wall.
- Plumb the weir to the pump.
- Adjust the flow of the pump to deliver the desired effect.
- *Please note:* Acrylic Weirs must not have additional weight placed on top of them.

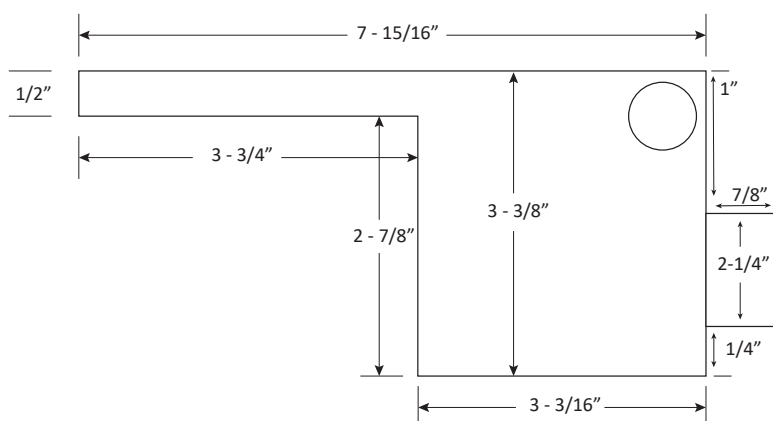
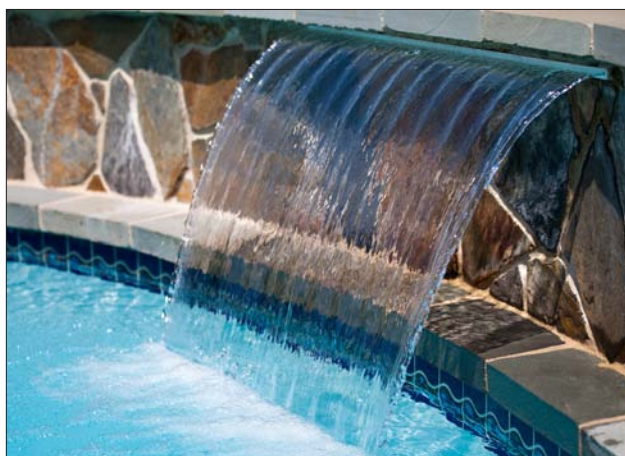


Acrylic Weirs

- Made from durable acrylic
- Increased internal support for the weir lip
- LED Lights can be easily added
- 1 1/2" FNPT Inlet
- 2 Year Warranty



Model #	Description	Minimum Flow		# of Inlets	Width between Inlets	Length
WA-12	Acrylic Weir - 12"	1000 GPH	17 GPM	1	N/A	11 7/8
WA-24	Acrylic Weir - 24"	2000 GPH	34 GPM	1	N/A	23 5/8
WA-36	Acrylic Weir - 36"	3000 GPH	50 GPM	1	N/A	35 7/16
WA-48	Acrylic Weir - 48"	4000 GPH	67 GPM	2	15 1/2" OC	47 1/4
WA-60	Acrylic Weir - 60"	5000 GPH	84 GPM	2	19 1/2" OC	59 1/2



*Please note these images may not reflect the current product

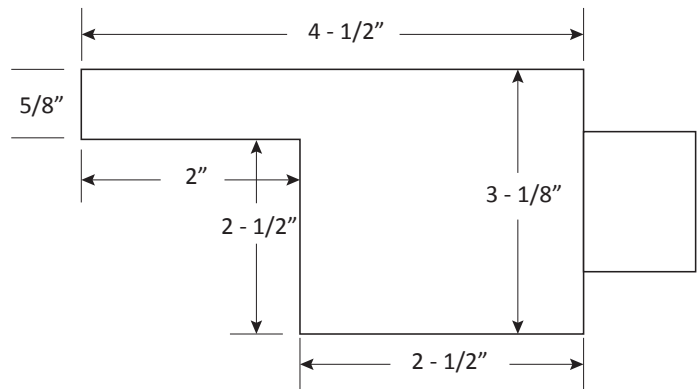
WEIRS

Stainless Steel Weirs

- Made from High Grade 304 Stainless Steel
- LED Lights can be easily added
- 1" FNPT Inlet
- Not for use in Chlorinated water
- 2 Year Warranty



Model #	Description	Minimum Flow		Qty of Inlets	Width between Inlets	Length
WSS-12	Stainless Steel Weir - 12"	1000 GPH	17 GPM	1	N/A	11 5/8
WSS-24	Stainless Steel Weir - 24"	2000 GPH	34 GPM	1	N/A	23 5/8
WSS-36	Stainless Steel Weir - 36"	3000 GPH	50 GPM	2	11 3/4"	36 7/16
WSS-48	Stainless Steel Weir - 48"	4000 GPH	67 GPM	3	12" OC	47 7/16
WSS-60	Stainless Steel Weir - 60"	5000 GPH	84 GPM	3	15" OC	59



*Please note these images may not reflect the current product



Solid Color LED Lights for Weirs

- For use with all Acrylic and Stainless Steel weirs
- Available in White and Blue, for controllable RGB see below
- Optional 3 and 5 way cable splitters available for solid colors, photocell also available
- All strip lights come with 32' cable between transformer and strip light.
- 6 Watt Transformer supplied for 11" and 23" strip lights
- 12 Watt Transformer supplied for 35", 47" and 59" Strip Light
- Higher wattage transformers available at an additional cost
- 2 Year Warranty

LED COLOR OPTIONS



WLED-XX-WH



WLED-XX-BL

Actual color of cool white and blue weir strip lighting



WLED-11-XX

Transformer

Optional Accessories



LAS-31
3 to 1 Splitter

LAS-PC
Photocell

LAS-51
5 to 1 Splitter

(3 to 1 and 5 to 1 Splitters used for solid color only)

Model #	Description	Use With	Wattage
WLED-11-WH	LED Light, White - 11"	12" Weirs	1.3
WLED-11-BL	LED Light, Blue - 11"	12" Weirs	1.3
WLED-23-WH	LED Light, White - 23"	24" Weirs	2
WLED-23-BL	LED Light, Blue - 23"	24" Weirs	2
WLED-35-WH	LED Light, White - 35"	36" Weirs	4.2
WLED-35-BL	LED Light, Blue - 35"	36" Weirs	4.2
WLED-47-WH	LED Light, White - 47"	48" Weirs	5.1
WLED-47-BL	LED Light, Blue - 47"	48" Weirs	5.1
WLED-59-WH	LED Light, White - 59"	60" Weirs	5.6
WLED-59-BL	LED Light, Blue - 59"	60" Weirs	5.6

*Please note these images may not reflect the current product

RGB LED Lights for Weirs

- For use with all Acrylic and Stainless Steel weirs
- Available in Controllable RGB
- All strip lights come with 16' cable between transformer and controller and 6' cable between controller and strip light.
- 6 Watt Transformer supplied for 11" and 23" strip lights
- 12 Watt Transformer supplied for 35", 47" and 59" Strip Light
- Optional 5-Way cable splitters and 10 foot (3 meter) extension cables available for RGB
- Higher wattage transformers available at an additional cost
- 2 Year Warranty

LED COLOR OPTIONS



Blue



Cyan



Green



Magenta



Red



Orange



Yellow



White

Examples of color options on RGB strip lighting



WLED-11-RGB
All parts included in box

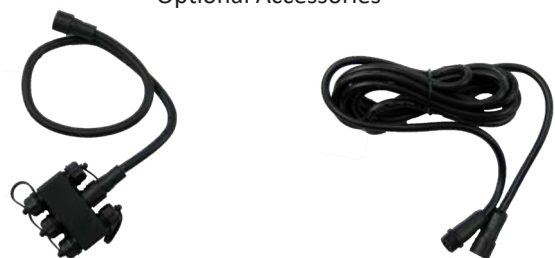
Cable

Remote

Transformer

Controller

Optional Accessories

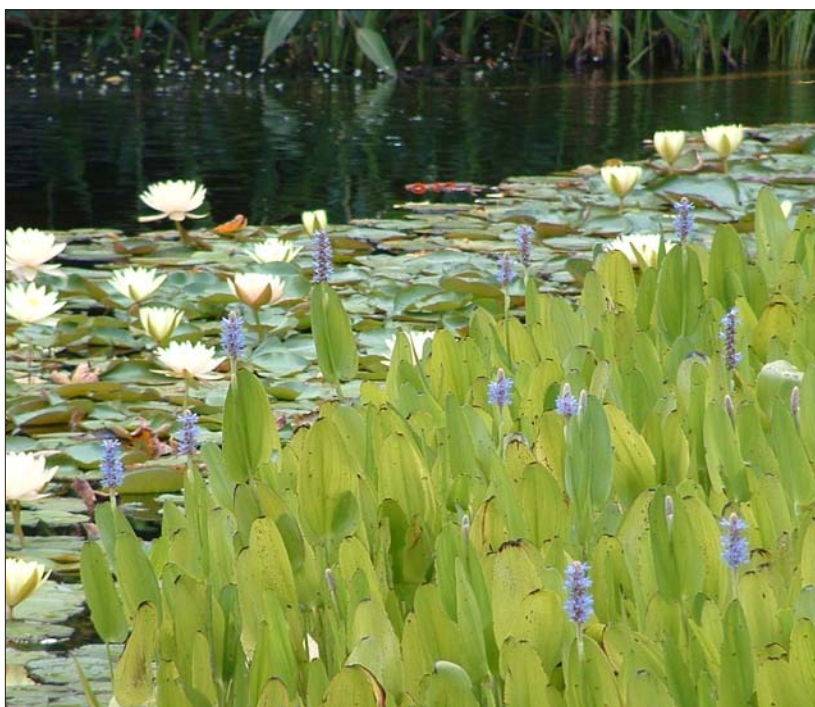


WLED-RGB-S
RGB 5 Way Splitter

WLED-RGB-C-3
RGB Extension Cable

Model #	Description	Use With	Wattage
WLED-11-RGB	LED Light, Controllable RGB - 11"	12" Weirs	2.1
WLED-23-RGB	LED Light, Controllable RGB - 23"	24" Weirs	3.4
WLED-35-RGB	LED Light, Controllable RGB - 35"	36" Weirs	4.6
WLED-47-RGB	LED Light, Controllable RGB - 47"	48" Weirs	5.3
WLED-59-RGB	LED Light, Controllable RGB - 59"	60" Weirs	7.8

*Please note these images may not reflect the current product



The **CUV Series** Ultraviolet Clarifiers (UVC) are an important part of any filtration system. In the clarification process, water is passed through the UVC chamber and the UVC bulb flocculates (clumps) the microscopic green algae, that are suspended in the water. The flocculated algae can then be captured by a mechanical filter. To ensure clear water the UVC must be properly sized for the filtration system and the correct flow rate must be maintained through the UVC.

*As a component of the Clearwater Guarantee the **CUV-18 or CUV-36** Ultraviolet Clarifiers along with a properly sized filter and filtration pump will guarantee that the pond or water garden will have clear water for a lifetime.*



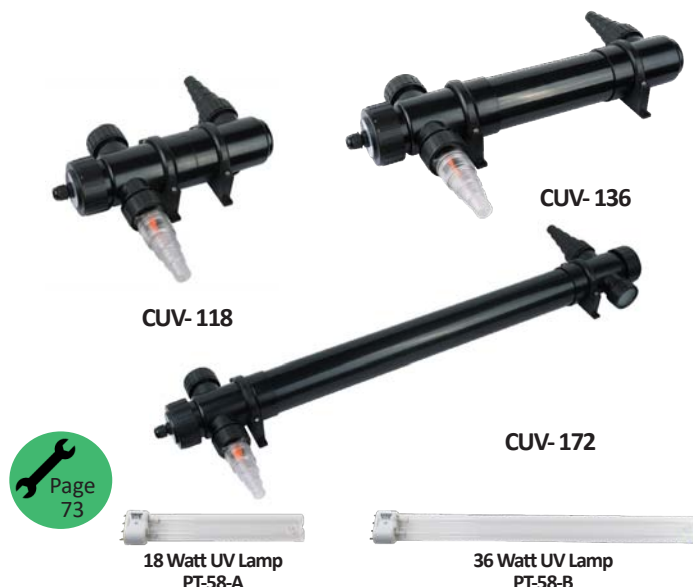
Ultraviolet Clarifiers for use with BF series filters

	CUV-18	CUV-36
Power (W)	20	40
UV-C (W)	18	36
Max Pressure (ft/psi)	10/4.35	10/4.35
Max Flow Rate (gph)	5,200	9,200
Max Flow Across Lamp (gph)	1600	2600
Max Flow with Bypass (gph)	5200	9200
Cable Length (ft)	16	16
Dimensions (in)	7 x 7 x 18	7 x 7 x 19
Replacement UV Lamp	PT-39-A	PT-39-B
UV-C Warranty	3 Years	3 Years
Lamp Warranty	1 Year	1 Year



Ultraviolet Clarifiers

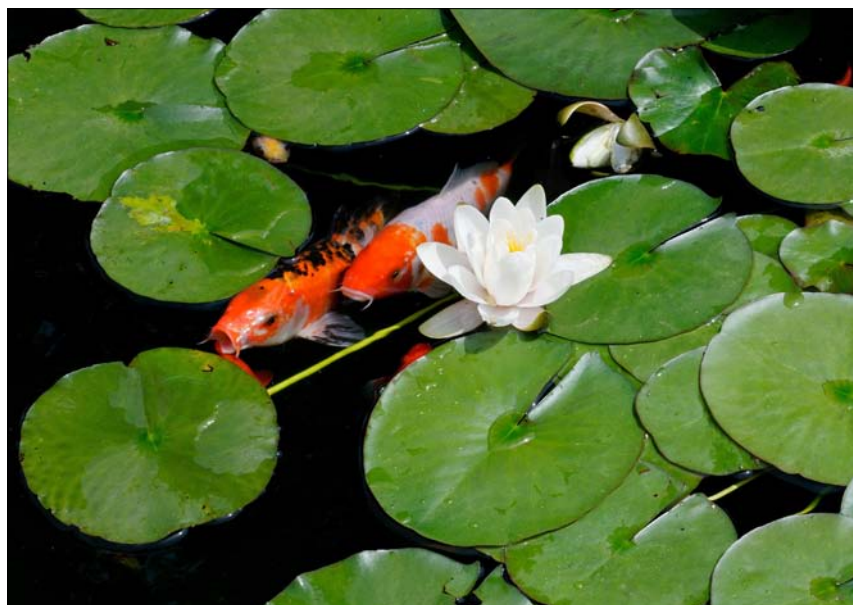
	CUV-118	CUV-136	CUV-172
Power (W)	20	40	80
UV-C (W)	18	36	72
Max Pond Size (Gallons)	5,200	9,200	11,900
Max Pressure (ft/psi)	10/4.35	10/4.35	10/4.35
Max Flow Rate (gph)	660	1,200	1,600
Max Flow Across Lamp (gph)	1000	1600	3000
Max Flow with Bypass (gph)	3000	5000	6000
Inlet & Outlet Adapter	3/4" - 1 1/2"	3/4" - 1 1/2"	3/4" - 1 1/2"
Cable Length (ft)	16	16	16
Product Length (in)	13	20	40
Replacement UV Lamp	PT-58-A	PT-58-B	PT-58-B x 2
UV-C Warranty	3 Years	3 Years	3 Years
Lamp Warranty	1 Year	1 Year	1 Year



*Please note these images may not reflect the current product

The **IO Series** Ionizers deliver clean, clear, healthy water by electronically releasing metal ions into the water. Ionization will dramatically reduce maintenance on any pond or water feature. The energy efficient electronic controller allows for complete control and adjustment of the ion levels in the water feature.

The **ionizers** use anodes that can be easily replaced and typically last 1-3 seasons, depending on water quality and usage. Ionizers can be quickly and easily installed on nearly every pond or water feature.



IO-1001



IO-2001



RA-X004
Anodes



TS-1002
Test Strips

	IO-1001	IO-2001
Recommended Max Flow Rate (gph)	6,000	6,000
Voltage	12V	12V
Connection	1.5" -2"	1.5"-2"
Maximum Volume (gallons)	5,000	25,000
Clear-View Tee Included	Yes	Yes
Anode Material	Copper	Copper
Test Kit Included	Yes	Yes
Cable Length (ft)	25	15
Transformer	Indoor	Outdoor
Replacement Anode Part #'s	RA-1004	RA-2004
Replacement Test Strips	TS-1002	TS-1002
Warranty	2 Years	2 Years

Parts for older ionizer versions available upon request

FEATURES

- ★ Reduces maintenance.
- ★ Easy to install.
- ★ **Clear-View** Tee Included
- ★ Energy efficient.
- ★ Treats string algae.

*Please note these images may not reflect the current product



POND AERATION SYSTEMS

POND AERATION SYSTEMS

Good pond aeration is essential to maintaining a healthy pond environment. Aerators can be operating all year round. In the summer they help ensure that oxygen levels in the pond are kept at a safe level. During the winter in cold climates an aerator can help keep a section of the pond surface from freezing, which in turn allows toxic gases to escape the pond.

All ProEco Product aeration systems come complete with everything required to add aeration to any pond up to 10,000 gallons.



POND AERATION SYSTEMS

- Designed for continuous operation
- Eco friendly - not oil lubricated
- Quiet operation
- Includes air stones
- Includes clear tubing
- Includes air manifold outlet



PA - 1, PA - 2 and PA - 3
Air Pumps

Pond Aeration Systems	PA - 1	PA - 2	PA - 3
Air Pump Included	P - 5	P - 7	P - 10
Air Flow Output (cfm)	.52	3	4.41
Air Flow Output (GPH)	4	23	34
Air Flow Output (LPM)	40	85	105
Noise Level (dba)	40	45	48
Power Rating (watts)	25	85	124
Maximum Pond Depth (ft)	4	11	13
Maximum Pressure (psi)	3.14	5.46	7.16
Maximum Pond Size (gal)	5,000	7,000	10,000
Air Stones Included	(2) AS - 3	(2) AS - 6	(2) AS - 12
Air Manifold Included	4 Outlets	8 Outlets	18 Outlets
Tubing Included	1/4" x 30 Feet	1/4" x 30 Feet	1/4" x 30 Feet
Voltage	110V	110V	110V
Power Cable Length (ft)	6	6	6
Warranty	2 Years	2 Years	2 Years



AS - 3
Ball Air Stone



AS - 6
6" Air Stone



AS - 12
12" Air Stone



CT - 30
30' Tubing Roll

*Please note these images may not reflect the current product

Warm White

- Waterproof Stainless Steel with tempered glass
- For underwater use, rated IP 68
- Available in Warm White
- Compatible with DMX-512 controllers
- 50,000 hour LED's
- Includes 1 meter cable
- Includes adjustable base



FL-6-WW



FL-12-WW



FL-18-WW



FL-12R-WW
Center opening is 38mm or 1 1/2"
(N118 Frothy Nozzle not included)

	FL-6-WW	FL-12-WW	FL-18-WW	FL-12R-WW
Power (watts)	6	12	18	12
Voltage	12VDC	12VDC	12 VDC	12VDC
Light Color	Warm White	Warm White	Warm White	Warm White
Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
DMX-512 Compatible	Yes	Yes	Yes	Yes
Power Cable Length (m)	1	1	1	1
Dimensions (in)	4.5 x 4.5 x 3	5 x 5 x 6	8.25 x 8.25 x 8.5	6.25 x 3.25
Warranty	2 Years	2 Years	2 Years	2 Years



C-WW-6



C-WW-18AWG-10
C-WW-18AWG-30



C-WW-18-22AWG



C-WW-3



C-WW-T



N112-Frothy Nozzle,
N122 Nozzle Base, N-123 Pipe
Extender, FL-6 Fountain Lights



N112-Frothy Nozzle,
N122 Nozzle Base, N-123 Pipe
Extender, FL-12 Fountain Lights



LED Dimmer 18AWG



N103-Cascade Nozzle,
N122 Nozzle Base, N-123 Pipe
Extender, FL-12 Fountain Lights

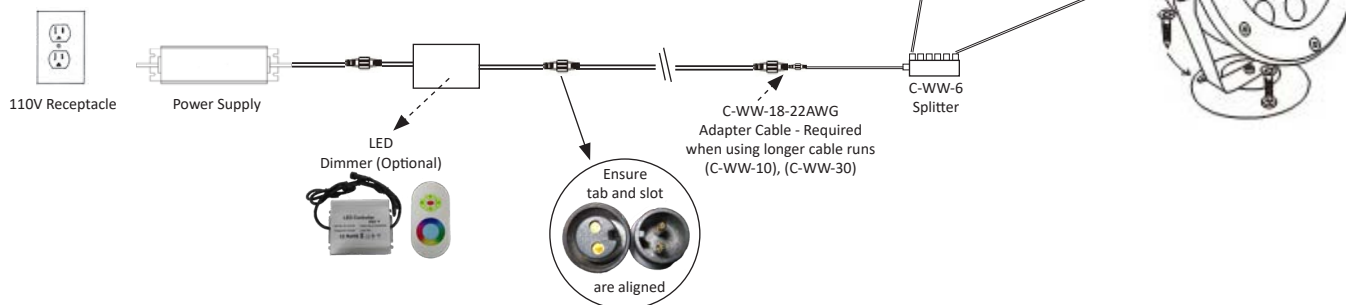
	C-WW-3	C-WW-18AWG-10	C-WW-18AWG-30	C-WW-18-22AWG	C-WW-T	C-WW-6	LED Dimmer 18AWG
Power	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v
Rating	IP68	IP68	IP68	IP68	IP68	IP68	IP68
Material	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
Cable length	3m	10m	30m	-	-	-	-
Submersible	Yes	Yes	Yes	Yes	Yes	Yes	Yes



*Please note these images may not reflect the current product

*All FL lights are available with DMX addressing by special order.

FOUNTAINLIGHTS

Warm White Ordering Instructions



STEPS	PRODUCT CODE	DESCRIPTION
1 - Choose Wattage and # of Lights *	FL-WW-6	6 Watt LED WW Fountain Lights*
 6 Watt  12 Watt  18 Watt	FL-WW-12	12 Watt LED WW Fountain Lights*
	FL-WW-18	18 Watt LED WW Fountain Lights*
2 - Wire Length required	C-WW-3	3 Meter (9 ft) cable (maximum 7 cables together 22-AWG)
	C-WW-10	10 Meter Cable (30 ft) (must include 18-22 AWG Adapter)
	C-WW-30	30 Meter Cable (100 ft) (must include 18-22 AWG Adapter)
	C-WW-18-22AWG	18 AWG to 22 AWG (adapter cable)
3 - Choose Connection Options	C-WW-6	6 Way Splitter (22 AWG)
	C-WW-T	Tee (22 AWG, max 2 lights per tee)
4 - Choose Controller **	LED Dimmer	LED Dimmer with Remote (22 AWG) OPTIONAL
	LED Dimmer - 18 AWG	LED Dimmer with Remote (18 AWG) OPTIONAL
5 - Choose Power Supply ***	WPS-30	30 Watt Power Supply * IP-67 Rated
	WPS-60	60 Watt Power Supply * IP-67 Rated
	WPS-100	100 Watt Power Supply * IP-67 Rated
	WPS-150	150 Watt Power Supply (2 Output Leads) * IP-67 Rated

* # of lights x wattage determines power supply required

** DMX controllers are also available, please call for pricing

*** larger Power Supplies are available, please call for pricing

RGB Controllable

- Waterproof Stainless Steel with tempered glass
- For underwater use, rated IP 68
- Available in RGB
- Compatible with DMX-512 controllers
- 50,000 hour LED's
- Includes 1 meter cable
- Includes adjustable base



FL-6-RGB



FL-12-RGB



FL-18-RGB



FL-12R-RGB
Center opening is 38mm or 1 1/2"
(N118 Frothy Nozzle not included)

	FL-6-RGB	FL-12-RGB	FL-18-RGB	FL-12R-RGB
Power (watts)	6	12	18	12
Voltage	12VDC	12VDC	12 VDC	12VDC
Light Color	Controllable RGB	Controllable RGB	Controllable RGB	Controllable RGB
Material	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
DMX-512 Compatible	Yes	Yes	Yes	Yes
Power Cable Length (m)	1	1	1	1
Dimensions (in)	4.5 x 4.5 x 3	5 x 5 x 6	8.25 x 8.25 x 8.5	6 .25 x 3.25
Warranty	2 Years	2 Years	2 Years	2 Years



C-RGB-3



C-RGB-18AWG-10
C-RGB-18AWG-30



C-RGB-18-22AWG



C-RGB-T



C-RGB-6



LC



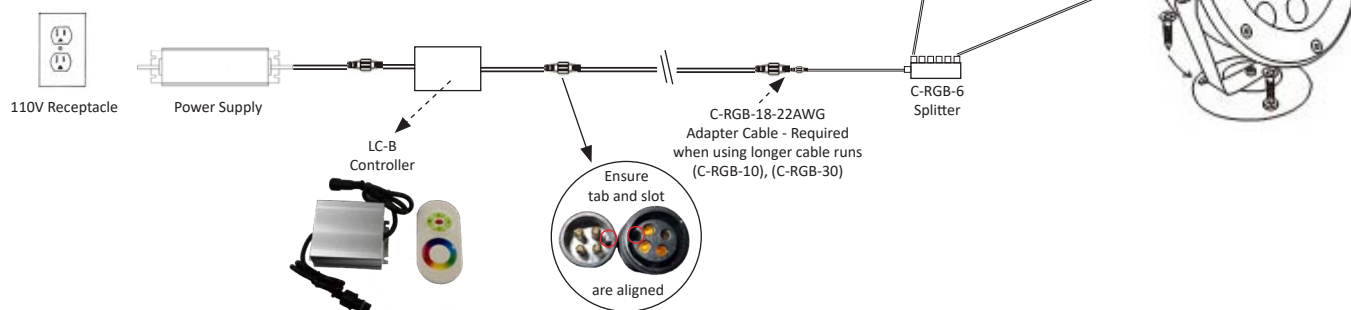
LC-B








	C-RGB-3	C-RGB-18AWG-10	C-RGB-18AWG-30	C-RGB-18-22AWG	C-RGB-T	C-RGB-6	LC Controller	LC-B Controller
Power	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v
Rating	IP68	IP68	IP68	IP68	IP68	IP68	IP68	IP68
Material	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
Cable length	3m	10m	30m	-	-	-	-	-
Submersible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*Please note these images may not reflect the current product

*All FL lights are available with DMX addressing by special order.

RGB Ordering Instructions



STEPS	PRODUCT CODE	DESCRIPTION
1 - Choose Wattage and # of Lights *	FL-RGB-6	6 Watt LED RGB Fountain Lights*
 6 Watt  12 Watt  18 Watt	FL-RGB-12	12 Watt LED RGB Fountain Lights*
	FL-RGB-18	18 Watt LED RGB Fountain Lights*
2 - Wire Length required	C-RGB-3	3 Meter (9 ft) cable (maximum 7 cables together 22-AWG)
	C-RGB-10	10 Meter Cable (30 ft) (must include 18-22 AWG Adapter)
	C-RGB-30	30 Meter Cable (100 ft) (must include 18-22 AWG Adapter)
	C-RGB-18-22AWG	18 AWG to 22 AWG (adapter cable)
3 - Choose Connection Options	C-RGB-6	6 Way Splitter (22 AWG)
	C-RGB-T	Tee (22 AWG, max 2 lights per tee)
4 - Choose Controller **	LC	LED RGB Controller with Remote (22 AWG)
 LC  LC-B	LC-B	LED RGB Controller with Remote (18 AWG)
5 - Choose Power Supply ***	WPS-30	30 Watt Power Supply * IP-67 Rated
	WPS-60	60 Watt Power Supply * IP-67 Rated
	WPS-100	100 Watt Power Supply * IP-67 Rated
	WPS-150	150 Watt Power Supply (2 Output Leads) * IP-67 Rated

* # of lights x wattage determines power supply required

** DMX controllers are also available, please call for pricing

*** larger Power Supplies are available, please call for pricing

LED Light Controllers

LC Our most basic IP67 outdoor rated controller is designed to operate RGB LED Lights. The pre-programmed controller (7 patterns) has an easy-to-use “Select-a-Color” remote control. Dimming levels and pattern speed can be fully adjusted.



LC

LC-B This IP67 outdoor rated controller is designed to operate RGB LED Lights. The pre-programmed controller (33 patterns) has an easy-to-use dial remote control. Dimming levels and pattern speed can be fully adjusted.



LC-B

LC-RGB-4 This powerful controller is fully DMX-512 compatible and offers 33 pre-programmed patterns. In addition to the standard programs this unit can be used as a DMX control interface (when combined with the DMX-2). Dimming levels and pattern speed can be fully adjusted. Optional Remote Control available



LC-RGB-4

DMX-2 The DMX-2 is a fully programmable DMX Interface. The included software makes for easy programming on any computer. Once a program is written it can be played with the software on the PC or downloaded onto the DMX-2 for playback. The controller is compatible with 32 and 64 bit systems, Windows XP/ Vista/7.



DMX-2

	LC	LC-B	LC-RGB-4	DMX-2
Input Voltage	12 VDC	12 or 24 VDC	12 or 24 VDC	N/A
Max 12V Power Output (watts)	72	72	360 (4 x 90)	N/A
Max 24V power Output (watts)	N/A	36	720 (4 x 180)	N/A
DMX-512 Compatible	No	No	Yes	Yes
Number of Channel Groups	1	1	4	N/A
Number of Channels	1	3	12	128
Amperage per Channel	4	6	8	N/A
Pre Programmed Patterns	3	16	33	N/A
Remote Transmittance (ft)	20'	60'	30'	N/A
Dimensions (in)	2 x 1.5 x 1	7.5 x 1.5 x 2	5.1 x 5.1 x 8.5	3 x 3.5 x 1.5
Warranty	1 Year	2 Years	2 Years	2 Years

*Please note these images may not reflect the current product



LED Power Supplies (Drivers)

	WPS-12D-30	WPS-12D-60
Output Wattage	30	60
Output Voltage	12 VDC	12 VDC
Input Voltage	120 VAC	120 VAC
Rated	IP-68	IP-67
Approval cULus	Yes	Yes
Warranty	1 Year	1 Year



WPS-12D-30

IMPORTANT NOTE:

- All 60 and 100 watt power supplies have 1 output lead.
- All 150 watt power supplies have 2 output leads.
- All 250 watt power supplies have 3 output leads.

	WPS-XXD-100	WPS-XXD-150	WPS-XXD-250
Output Wattage	100	150	250
Output Voltage	12,15,18,24 VDC	12,15,18,24 VDC	12,15,18,24 VDC
Input Voltage	120 VAC	120 VAC	120VAC
Rated	IP-67	IP-67	IP-67
Approval cULus	Yes	Yes	Yes
Warranty	1 Year	1 Year	1 Year



LED Dimmable Power Supplies (Drivers)

	DPS-12D-48	DPS-12D-60	DPS-12D-120
Output Wattage	48	60	120
Output Voltage	12 VDC	12 VDC	12 VDC
Input Voltage	120 VAC	120 VAC	120 VAC
Enclosure rated	Yes	Yes	Yes
Warranty	1 Year	1 Year	1 Year



DPS-XX

WPS-12D, 15D, 18D, 24D

	SL-Rectifier
Output Voltage	DC
Input Voltage	AC
Warranty	1 Year



SL-Rectifier

(to be used when operating DC LED products with AC power supplies)

*Please note these images may not reflect the current product



Warm White

	SL-12V-WW	SL-12V-WW
Power (watts per ft)	3.4	4.6
Voltage	12 VDC	12VDC
LEDs per ft	38	19
Outdoor rated	IP-65	IP-68
Submersible	No	YES
Light Color	Warm White	Warm White
Strip Length (ft)	15	15
Continuous length (ft)	20	20
Warranty	2 Years	2 Years

- Much brighter than standard rope light
- Available in RGB (Red, Green & Blue), Warm White and RGBWW
- RGB strips are compatible with DMX-512 controllers
- Tape that is rated IP-65 is outdoor rated and not submersible, comes complete with 3M adhesive backing
- Tape that is rated IP-68 is inside a silicone sleeve and is fully submersible, it does not have adhesive backing
- 24V available upon request



SL-12V-WW (Outdoor Rated IP-65)



SL-12V-WW (Submersible Rated IP-68)



Optional Accessories



SL-QC-WW-M
Quick Connect
WW-Male



SL-QC-WW-F
Quick Connect
WW-Female



SL-WW-2
WW 2 pin connector



SL-WW-SC
WW Splice Connector



SL-WW-EC
WW Elbow Connector

	SL-QC-WW-M	SL-QC-WW-F	SL-WW-2	SL-WW-SC	SL-WW-EC	SL-MS	SL-R	LED-D
Power	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v
Rating	IP68	IP68	IP68	IP68	IP68	IP68	IP68	IP68
Material	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
Cable length	155mm/6in	155mm/6in	155mm/6in	-	-	-	-	-
Submersible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes



SL-MS
Motion Sensor



SL-R
Rectifier
(to be used when operating DC Led
products with AC power supplies)



LED-D
Dimmer 18AWG

*Please note these images may not reflect the current product

RGB Controllable

- Much brighter than standard rope light
- Available in RGB (Red, Green & Blue), Warm White and RGBWW
- RGB strips are compatible with DMX-512 controllers
- Tape that is rated IP-65 is outdoor rated and not submersible, comes complete with 3M adhesive backing
- Tape that is rated IP-68 is inside a silicone sleeve and is fully submersible, it does not have adhesive backing
- 24V available upon request

	SL-12V-RGB	SL-12V-RGB
Power (watts per ft)	3.4	4.6
Voltage	12 VDC	24 VDC
LEDs per ft	19	19
Outdoor rated	IP-65	IP-68
Submersible	No	Yes
Light Color	RGB	RGB
Strip Length (ft)	15	15
Continuous length (ft)	20	20
Warranty	2 Years	2 Years



Actual colors of RGB color changing flexible strip lights



SL-12V-RGB (Outdoor Rated IP-65)



SL-12V-RGB (Submersible Rated IP-68)



Optional Accessories



SL-RGB-QC
Quick Connect Male



SL-RGB-QC
Quick Connect
Female



SL-RGB-4
RGB 4 pin
Connector



SL-RGB-SC
RGB Splice
Connector



SL-RGB-EC
RGB Elbow
Connector

	SL-QC-RGB-M	SL-QC-RGB-F	SL-RGB-4	SL-RGB-SC	SL-RGB-EC	SL-MS	SL-R	LC-B
Power	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v
Rating	IP68	IP68	IP68	IP68	IP68	IP68	IP68	IP68
Material	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
Cable length	155mm/6in	155mm/6in	155mm/6in	-	-	-	-	-
Submersible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes



SL-MS
Motion Sensor



SL-R
Rectifier
(to be used when operating DC Led
products with AC power supplies)



LC-B
Controller

*Please note these images may not reflect the current product

RGBWW Controllable

- Much brighter than standard rope light
- Available in RGB (Red, Green & Blue), Warm White and RGBWW
- RGB strips are compatible with DMX-512 controllers
- Tape that is rated IP-65 is outdoor rated and not submersible, comes complete with 3M adhesive backing
- Tape that is rated IP-68 is inside a silicone sleeve and is fully submersible, it does not have adhesive backing
- 12V standard, 24V available upon request

	SL-12V-RGB/WW	SL-24V-RGB/WW
Power (watts per ft)	4.6	4.6
Voltage	12 VDC	24 VDC
LEDs per ft	19	19
Outdoor rated	IP-68	IP-68
Submersible	Yes	Yes
Light Color	RGB/WW	RGB/WW
Strip Length (ft)	15	15
Continuous length(ft)	20	20
Warranty	2 Years	2 Years



SL-12V-RGBWW (Submersible Rated IP-68)

Optional Accessories



SL-QC-RGBWW-M
5 pin Male Quick
Connect



SL-QC-RGBWW-F
5 pin Female Quick
Connect



SL-RGBWW-5
5 pin Connector



SL-RGBWW-SC
Splice Connector



SL-RGBWW-EC
Elbow Connector

	SL-QC-RGBWW-M	SL-QC-RGBWW-F	SL-RGBWW-5	SL-RGBWW-SC	SL-RGB-EC	SL-MS	SL-R	SL-RF-RGBWW	SL-RF-C
Power	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v	DC12v
Rating	IP68	IP68	IP68	IP68	IP68	IP68	IP68	IP68	IP68
Material	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic	Plastic
Cable length	155mm/6in	155mm/6in	155mm/6in	-	-	-	-	-	-
Submersible	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No



SL-MS
Motion Sensor



SL-R
Rectifier
(to be used when operating DC Led
products with AC power supplies)



SL- RF RGBWW
Special 4 zone RGBWW Remote Control



SL-RF-C
RF + Wifi LED Controller

*Please note these images may not reflect the current product

PROECO'S NEW **PRO SERIES** LED bulbs will save you energy, time and money. LED's are a great choice for new and existing landscape lighting systems. Smaller gauge wire and longer runs can be used when designing and installing a new system with LED's. For existing systems you will dramatically reduce energy consumption and maintenance costs when you replace old halogen bulbs with new LED's.

**5 YEAR
Warranty**

- **Long Lasting** - 30,000 hour life expectancy. 12-15 years on average.
- **Energy Efficient** - LED's use 75 to 80% less energy than regular bulbs.
- **Warm White Light** - All **PRO SERIES** LED's produce a natural, warm colored light with Kelvin rating between 2700K and 3000K which matches the light produced by Halogen bulbs.

Compare the **PRO SERIES** LED Bulbs to Halogen bulbs.



MR11 - 3



MR16 - 3



MR16 - 5



MR16 - 7

Model #	Base	Wattage	Voltage	Beam Angle	Kelvin	Pack Qty	Case Qty
MR11 - 3	MR11	3	12V , AC/DC	15°	2700	10	90
MR11 - 3	MR11	3	12V , AC/DC	30°	2700	10	90
MR11 - 3	MR11	3	12V , AC/DC	60°	2700	10	90
MR11 - 3	MR11	3	12V , AC/DC	15°	3000	10	90
MR11 - 3	MR11	3	12V , AC/DC	30°	3000	10	90
MR11 - 3	MR11	3	12V , AC/DC	60°	3000	10	90
MR16 - 3	MR16	3	10-15V, AC/DC	15°	2700	10	90
MR16 - 3	MR16	3	10-15V, AC/DC	30°	2700	10	90
MR16 - 3	MR16	3	10-15V, AC/DC	45°	2700	10	90
MR16 - 3	MR16	3	10-15V, AC/DC	60°	2700	10	90
MR16 - 3	MR16	3	10-15V, AC/DC	15°	3000	10	90
MR16 - 3	MR16	3	10-15V, AC/DC	30°	3000	10	90
MR16 - 3	MR16	3	10-15V, AC/DC	45°	3000	10	90
MR16 - 3	MR16	3	10-15V, AC/DC	60°	3000	10	90
MR16-5	MR16	5	10-15V, AC/DC	15°	2700	10	90
MR16-5	MR16	5	10-15V, AC/DC	40°	2700	10	90
MR16-5	MR16	5	10-15V, AC/DC	60°	2700	10	90
MR16-5	MR16	5	10-15V, AC/DC	15°	3000	10	90
MR16-5	MR16	5	10-15V, AC/DC	40°	3000	10	90
MR16-5	MR16	5	10-15V, AC/DC	60°	3000	10	90
MR16-7	MR16	7	10-15V, AC/DC	15°	2700	10	90
MR16-7	MR16	7	10-15V, AC/DC	40°	2700	10	90
MR16-7	MR16	7	10-15V, AC/DC	60°	2700	10	90
MR16-7	MR16	7	10-15V, AC/DC	15°	3000	10	90
MR16-7	MR16	7	10-15V, AC/DC	40°	3000	10	90
MR16-7	MR16	7	10-15V, AC/DC	60°	3000	10	90

*Please note these images may not reflect the current product

Specialty LED Bulbs



G4-1.25
G4-2.5
Bi-pin Base



S25 - 2.4
Bayonnette
Base



T10 - 1.5
T10-2.5
Wedge Base



T25 - 2.4
Wedge Base

Model #	Base	Wattage	Voltage	Beam Angle	Kelvin	Pack Qty	Case Qty
G4 - 1.25-2700	G4	1.25	12-15V, AC/DC	360°	2700	10	100
G4 - 1.25-3000	G4	1.25	12-15V, AC/DC	360°	3000	10	100
G4 - 2.5-2700	G4	2.5	12-15V , AC/DC	360°	2700	10	100
G4 - 2.5-3000	G4	2.5	12-15V , AC/DC	360°	3000	10	100
S25 - 2.5-2700	S25	2.5	12-15V , AC/DC	360°	2700	10	100
S25 - 2.5-3000	S25	2.5	12-15V , AC/DC	360°	3000	10	100
T10 - 1.5-2700	T10	1.5	10-15V , AC/DC	360°	2700	10	100
T10 - 1.5-3000	T10	1.5	10-15V , AC/DC	360°	3000	10	100
T10 - 2.5-2700	T10	2.5	12-15V , AC/DC	360°	2700	10	100
T10 - 2.5-3000	T10	2.5	12-15V , AC/DC	360°	3000	10	100
T25 - 2.4-2700	T25	2.4	12-15V , AC/DC	360°	2700	10	100
T25 - 2.4-3000	T25	2.4	12-15V , AC/DC	360°	3000	10	100

Warm White and Color Controllable PAR 36 Bulb

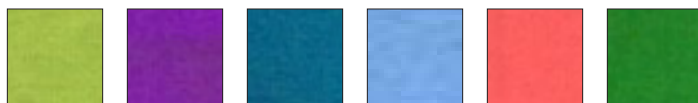
- RGB - LED color system
- 16 Million possible colors
- Included remote control can change color scheme options, brightness and color changing speed.
- 22 pre-programmed color scheme options. 7 Static colors and 15 color changing modes



PAR-36 LED RGB



	PAR36-LED-WW	PAR36-LED-RGB
Power Consumption (watts)	6	8
Voltage	12V	12V
Remote Control Included	N/A	Yes



Low Voltage Transformers

	DA-6-12WH-1	DA-60-12WH-1	DA-100-12WH-1	DA-150-12WH-1
Output Wattage	6 W	60 W	100 W	150 W
Output Voltage	12V	12 V	12 V	12 V
Input Voltage	115 / 120 V	115 / 120 V	115 / 120 V	115 / 120 V
Photo Cell Included	No	Yes	Yes	Yes
Timer Included	No	Yes	Yes	Yes
Rated for Outdoor Use	Yes	Yes	Yes	Yes
UL and CSA Listed	Yes	Yes	Yes	Yes
Warranty	2 Years	2 Years	2 Years	2 Years



DA-6-12WH-1



DA-60-12WH-1



DA-100-12WH-1

*Please note these images may not reflect the current product

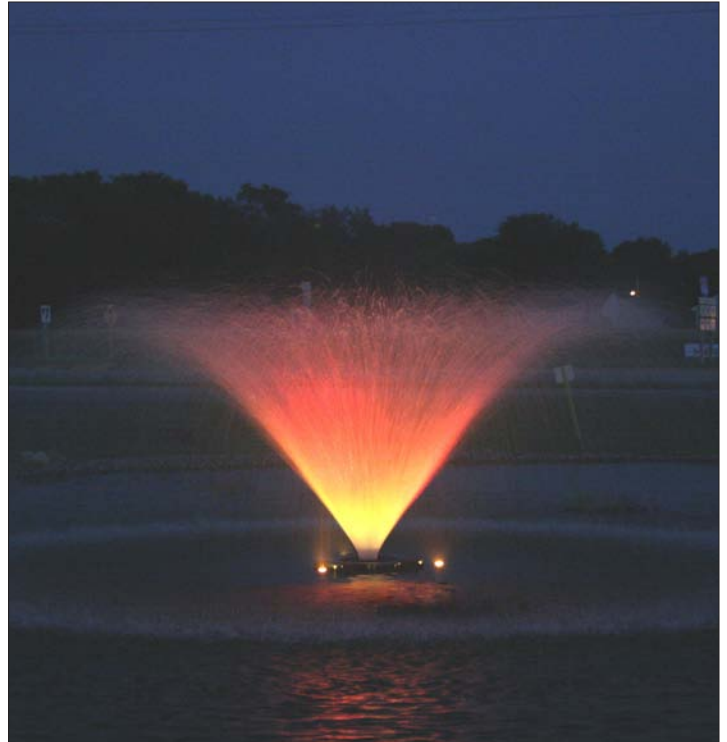
DECORATIVE FLOATING FOUNTAINS

A Decorative Fountain will improve the overall water quality of your pond or lake, while enhancing its appearance. A wide variety of interchangeable nozzle patterns and lighting options allow for easy customizing. These fountains are available in many different sizes, from plug-and-spray models designed for small ponds all the way up to large fountains that can be used on commercial projects. The decorative fountains also include multiple nozzles, power cable, mooring lines, control panel with GFCI, timer and photo eye.



AERATING FLOATING FOUNTAINS

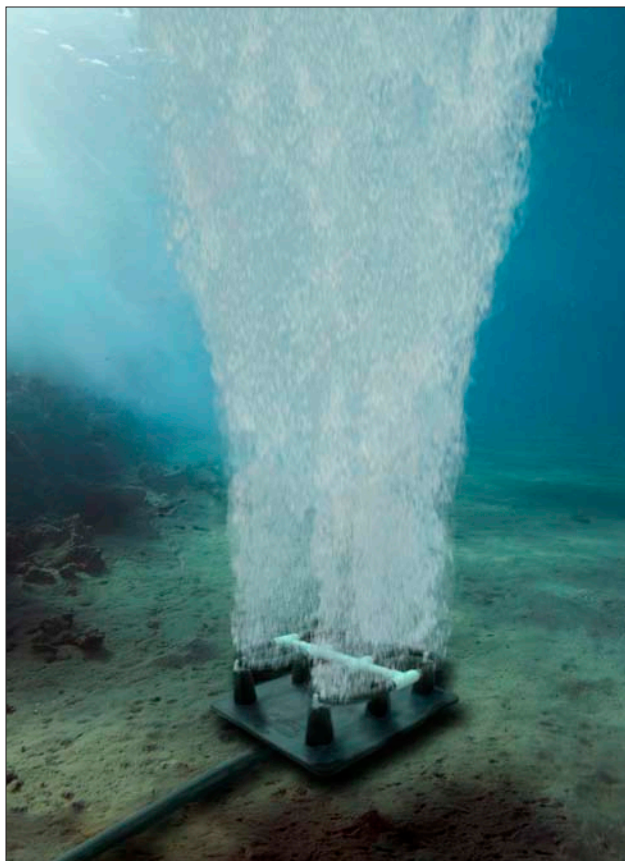
These aerating fountains are a great blending of a high flow aerator and an attractive water pattern. An aerating fountain will help improve water quality, keep fish alive, add vital oxygen, eliminate stagnant water and improve the decomposition of organic matter. The aerating fountains also include a power cable, mooring lines, control panel with GFCI, timer and photo eye.



FOUNTAIN AND AERATION SYSTEMS

SUB-SURFACE AERATION

Sub-Surface aerators inject diffused air into the bottom of a pond or lake which improves water quality by increasing overall oxygen levels and circulation. The very small air bubbles produced by the diffusers create an upward current as they rise from the bottom. This brings stagnant water with low oxygen levels up to the surface so it can be oxygenated.



CIRCULATORS AND DE-ICERS

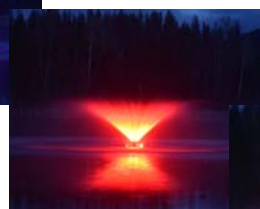
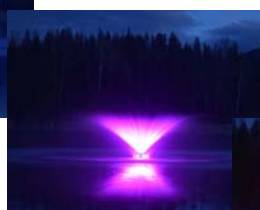
A circulator or de-icer is an economical way to move stagnant water, move debris, and prevent ice damage or winter kill due to low oxygen levels. These units can easily be installed on docks or tethered as a free floating unit.



FLOATING FOUNTAINS



Part #	FF-8000
Float	16"
Nozzle Included	KAL (wide cone nozzle)
Pump	SP-8000
Pattern Size	24'
Display Height	6'
Cable Length	100'
Warranty	2 Years



Available Accessories

Part #	FF-WW-LED	FF-RGB-LED
LED color	Warm White	RGB
Wattage	4 x 6W	4 x 6W
Color Changing	No	Yes
Cable Length	100'	100'
Power Supply	30 W	30 W
Controller	Dimmer	RGB Controller - 15 Modes
Warranty	2 Years	2 Years



Available Nozzle Options



N107-200



N108-200



N109-200



N117-150

See pages 31-34 for complete Fountain Light details

*Please note these images may not reflect the current product



PROECO
PRODUCTS

Warm White & RGB Controllable LED Fountain Light Kits

Can be added to other manufacturers' floating fountains

- Waterproof Stainless Steel with tempered glass
- For underwater use, rated IP 68
- Available in 6 or 12 watt Warm White and RGB
- Compatible with DMX-512 controllers
- 50,000 hour LED's
- Includes 1 meter cable
- Includes adjustable base



FL-6-WW/RGB



FL-12-WW/RGB



Actual colors of RGB color changing fountain lights

See pages 31-34 for complete Fountain Light details

FF-WW-LED / FF-RGB-LED light kits include:
3) 6 or 12 Watt LED Warm White or RGB Color changing lights, controller, cabling, mounting brackets and power supply



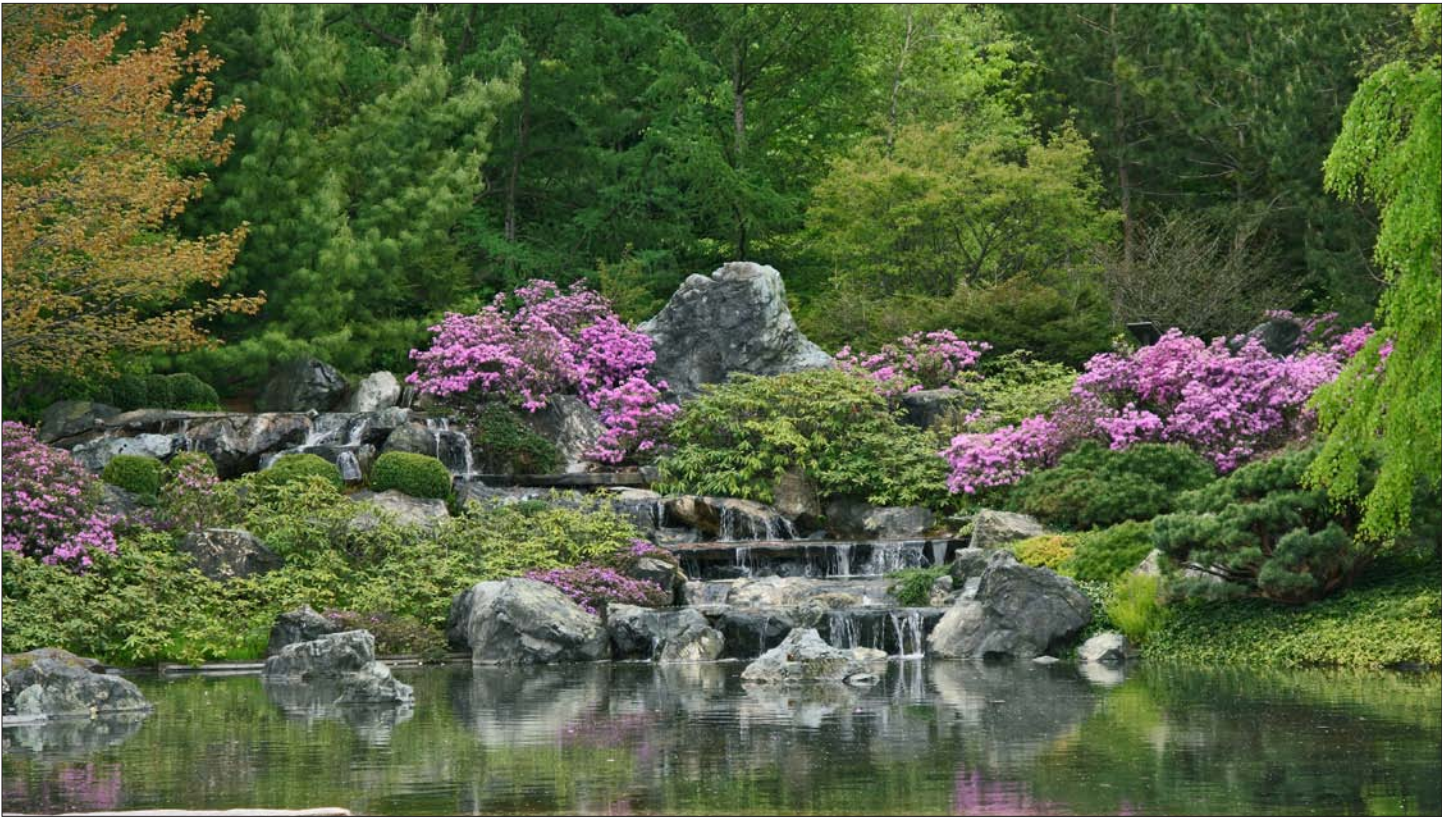
Float Valve

The float valve maintains a constant water level in your pond. It easily connects to a 1/2" water supply line.

	FV
Connection Size (in)	1/2"
Dimensions (in)	2 x 6
Warranty	2 Years



*Please note these images may not reflect the current product



WATER LEVEL CONTROL

Electronic Water Level Controller

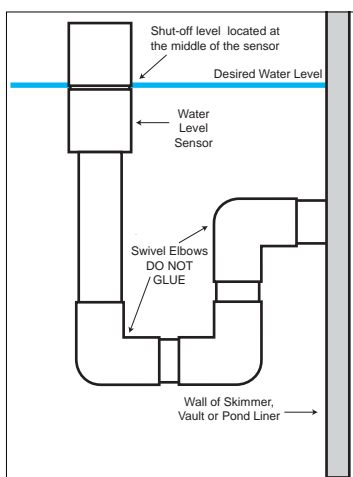
The Electronic Water Level Controller maintains a constant water level in your pond and easily installs into skimmers and vaults. Unlike standard mechanical float valves, this controller will not stick or jam. The controller is available separately if you already have an irrigation valve and controller, or in a kit, which includes everything necessary to install the controller to an existing water line.



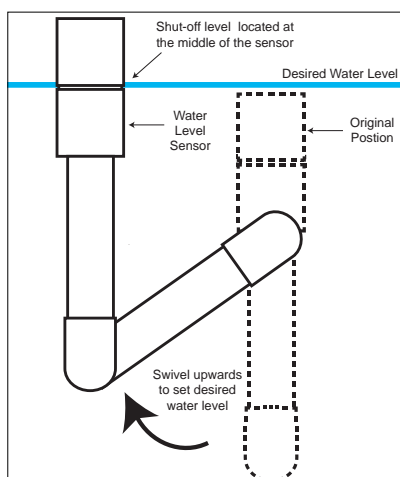
FVE



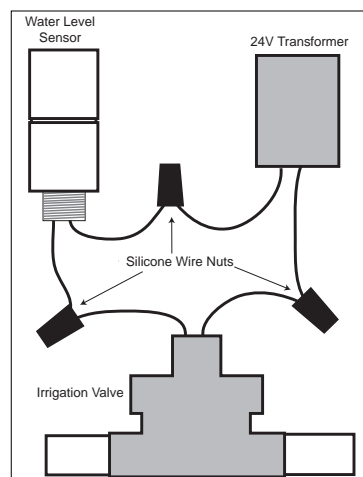
FVE-K



Side View



Front View



Wiring Diagram

	FVE	FVE-K
Connection Size (in)	1/2"	1/2"
Transformer Power	110V / 120V	110V / 120V
Sensor Power	24V	24V
Swivel Arm Assembly	Included	Included
Irrigation Valve Connection (in)	N/A	1"
Irrigation Valve Included	No	Yes
Transformer Included	No	Yes
Warranty	2 Years	2 Years

*Please note these images may not reflect the current product



NOZZLES

N101 – COMET / MALE



Display	N101-012		N101-025		N101-037		N101-050		N101-075		N101-100		N101-150		N101-200	
Height	G	H	G	H	G	H	G	H	G	H	G	H	G	H	G	H
2'	-	-	-	-	-	-	0.5	4'	3.0	3'	4.7	4'	10.6	3'	18.6	3'
3'	-	-	-	-	-	-	0.7	5'	3.4	4'	5.5	5'	11.1	4'	21.1	4'
4'	-	-	-	-	-	-	1.0	7'	4.0	5'	6.3	6'	11.6	6'	24.3	5'
5'	1.0	8'	2.5	8'	4.0	8'	1.3	8'	4.5	6'	7.4	8'	13.7	7'	29.0	6'
6'	-	-	-	-	-	-	1.4	10'	5.0	8'	7.9	9'	15.0	8'	32.2	7'
8'	-	-	-	-	-	-	1.6	14'	5.8	11'	8.7	12'	17.7	11'	37.0	10'
10'	1.0	14'	3.0	14'	5.5	14'	1.9	17'	6.4	13'	10.0	14'	20.0	15'	41.0	13'
12'	-	-	-	-	-	-	2.1	20'	7.0	16'	11.1	16'	22.5	18'	44.9	15'
15'	-	-	3.5	20'	6.0	20'	-	-	8.2	21'	12.4	20'	25.6	23'	51.5	20'
20'	-	-	-	-	6.5	27'	-	-	9.6	29'	14.8	26'	32.2	30'	62.0	27'
25'	-	-	-	-	-	-	-	-	-	-	17.4	31'	36.5	37'	72.7	34'
Inlet	1/8"		1/4"		3/8"		1/2"		3/4"		1"		1 1/2"		2"	
Thread	MNPT		MNPT		MNPT		MNPT		MNPT		MNPT		MNPT		MNPT	
Material	Brass		Brass		Brass		Brass		Brass		Brass		Brass		Brass	

G= GPM H= Head



*Please note 1/8", 1/4" and 3/8" nozzles do not have a flow adjustment screw.

N102 – COMET / FEMALE



Display	N102-050		N102-075		N102-100		N102-150		N102-200	
Height	G	H	G	H	G	H	G	H	G	H
2'	0.5	4'	3.0	3'	4.7	4'	10.6	3'	18.6	3'
3'	0.7	5'	3.4	4'	5.5	5'	11.1	4'	21.1	4'
4'	1.0	7'	4.0	5'	6.3	6'	11.6	6'	24.3	5'
5'	1.3	8'	4.5	6'	7.4	8'	13.7	7'	29.0	6'
6'	1.4	10'	5.0	8'	7.9	9'	15.0	8'	32.2	7'
8'	1.6	14'	5.8	11'	8.7	12'	17.7	11'	37.0	10'
10'	1.9	17'	6.4	13'	10.0	14'	20.0	15'	41.0	13'
12'	2.1	20'	7.0	16'	11.1	16'	22.5	18'	44.9	15'
15'	-	-	8.2	21'	12.4	20'	25.6	23'	51.5	20'
20'	-	-	9.6	29'	14.8	26'	32.2	30'	62.0	27'
25'	-	-	-	-	17.4	31'	36.5	37'	72.7	34'
Inlet	1/2"		3/4"		1"		1 1/2"		2"	
Thread	FNPT		FNPT		FNPT		FNPT		FNPT	
Material	Brass		Brass		Brass		Brass		Brass	

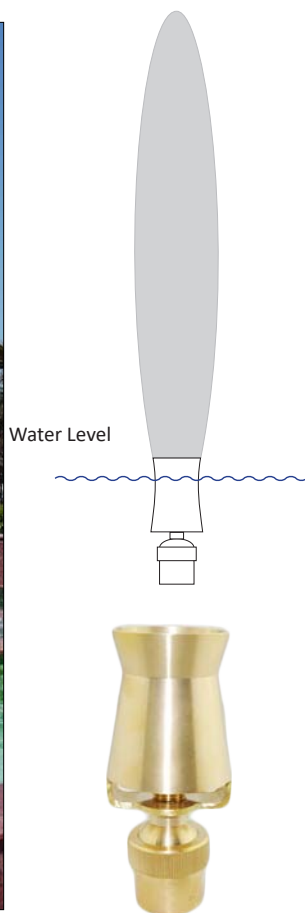
G= GPM H= Head



** For specific dimensions for our nozzles please refer to pages 105-107

*Please note these images may not reflect the current product

N103 - CASCADE



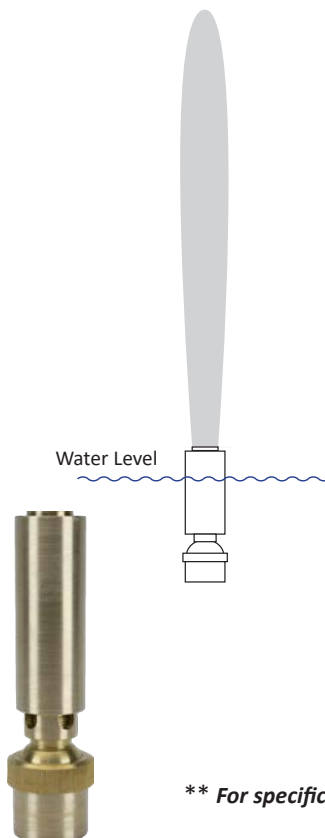
Display Height	N103-075		N103-100		N103-150		N103-200		N103-300	
	G	H	G	H	G	H	G	H	G	H
1'	7.6	5'	-	-	-	-	-	-	-	-
2'	9.5	7'	14.2	9'	22.3	8'	31.6	8'	42.5	11'
3'	11.9	12'	18.3	12'	24.1	11'	36.8	12'	48.4	13'
4'	13.3	16'	20.7	14'	26.6	13'	42.4	15'	51.7	16'
5'	14.7	20'	22.3	18'	30.2	17'	47.4	19'	63.2	18'
6'	16.1	24'	25.1	22'	34.4	18'	52.6	22'	75.2	21'
8'	18.5	32'	27.4	28'	40.8	24'	57.4	26'	89.1	26'
10'	-	-	-	-	48.7	30'	62.3	31'	106	32'
12'	-	-	-	-	-	-	70.1	36'	124	38'
14'	-	-	-	-	-	-	-	-	154	40'
16'	-	-	-	-	-	-	-	-	-	-
Inlet	3/4"		1"		1 1/2"		2"		3"	
Thread	FNPT		FNPT		FNPT		FNPT		FNPT	
Material	Brass		Brass		Brass		Brass		Brass	

G= GPM H= Head

Water Level Dependent Nozzle

To achieve optimum appearance and performance position this nozzle at the recommended water level

N104 - GEYSER



Display Height	N104-100		N104-150		N104-200	
	G	H	G	H	G	H
2'	5.1	10.1'	8.1	10.2'	-	-
3'	6.2	13.1'	10.2	11.3'	-	-
4'	6.7	18.7'	11.7	13.4'	-	-
5'	7.8	20.3'	12.4	15.4'	26.6	10.3'
6'	9.2	25.2'	14.6	18.5'	31.6	13.4'
8'	10.1	31.2'	16.9	20.2'	36.3	16.9'
10'	11.1	36.2'	19.1	23.4'	40.3	18.2'
12'	-	-	22.3	28.4'	44.5	22.4'
15'	-	-	24.3	32.5'	47.1	27.9'
20'	-	-	-	-	53.0	34.3'
30'	-	-	-	-	59.5	41.2'
Inlet	1"		1 1/2"		2"	
Thread	FNPT		FNPT		FNPT	
Material	Brass		Brass		Brass	

G= GPM H= Head

Water Level Dependent Nozzle

To achieve optimum appearance and performance position this nozzle at the recommended water level

**** For specific dimensions for our nozzles please refer to pages 105-107**

*Please note these images may not reflect the current product

NOZZLES

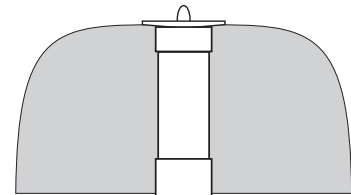
N105 - BELL



Photo courtesy of RingTru Fountain Spray Rings

Display Diameter	N105-050		N105-075		N105-100		N105-150		N105-200	
	G	H	G	H	G	H	G	H	G	H
6"	3.5	.9'	4.0	1.8'	5.0	1.8'				
12"	4.0	1.8'	5.0	2.0'	6.0	2.1'	6.0	1.8'	7.0	2.2'
24"	5.0	2.8'	6.5	2.8'	8.0	2.8'	9.0	2.8'	10.0	3.0'
30"	6.0	3.0'	7.0	3.0'	9.5	3.2'	12.0	3.0'	13.5	3.4'
36"	-	-	8.5	3.4'	11.0	3.4'	14.0	3.2'	16.0	3.6'
48"	-	-	-	-	14.0	3.9'	16.0	3.7'	18.0	4.2'
Inlet	1/2"		3/4"		1"		1 1/2"		2"	
Thread	FNPT		FNPT		FNPT		FNPT		FNPT	
Material	Stainless Steel		Stainless Steel		Stainless Steel		Stainless Steel		Stainless Steel	

G= GPM H= Head

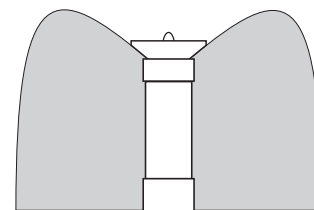


N106 - FLATLAVA



Display Diameter	N106-050		N106-075		N106-100		N106-150		N106-200	
	G	H	G	H	G	H	G	H	G	H
6"	3.5	.9'	4.0	1.8'	5.0	1.8'	-	-	-	-
12"	4.0	1.8'	5.0	2.0'	6.0	2.1'	6.0	1.8'	7.0	2.2'
24"	5.0	2.8'	6.5	2.8'	8.0	2.8'	9.0	2.8'	10.0	3.0'
30"	6.0	3.0'	7.0	3.0'	9.5	3.2'	12.0	3.0'	13.5	3.4'
36"	-	-	8.5	3.4'	11.0	3.4'	14.0	3.2'	16.0	3.6'
48"	-	-	-	-	14.0	3.9'	16.0	3.7'	18.0	4.2'
Inlet	1/2"		3/4"		1"		1 1/2"		2"	
Thread	FNPT		FNPT		FNPT		FNPT		FNPT	
Material	Stainless Steel		Stainless Steel		Stainless Steel		Stainless Steel		Stainless Steel	

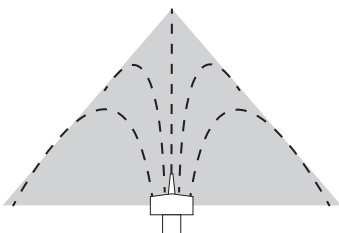
G= GPM H= Head



**** For specific dimensions for our nozzles please refer to pages 105-107**

*Please note these images may not reflect the current product

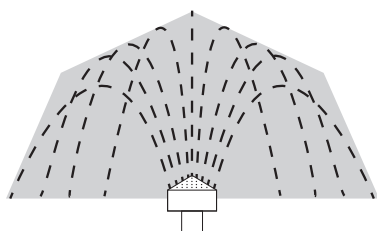
N107 - BLOSSOM



Display Height	N107-050		N107-075		N107-100		N107-150		N107-200	
	G	H	G	H	G	H	G	H	G	H
1'	2.0	2'	-	-	-	-	-	-	-	-
2'	3.5	3'	6.0	3'	10.0	3'	15.0	3'	23.0	3'
3'	4.5	5'	7.5	5'	12.5	5'	18.0	5'	27.0	5'
4'	5.0	7'	8.5	6'	14.2	6'	22.0	6'	34.0	6'
5'	6.0	8'	9.5	8'	15.8	8'	24.0	8'	37.0	8'
6'	6.5	9'	10.5	10'	17.5	10'	27.0	10'	42.0	10'
7'	7.0	11'	12.0	11'	20.0	11'	30.0	11'	47.0	11'
8'	7.5	12'	14.3	13'	23.0	13'	34.0	13'	52.0	13'
9'	-	-	16.0	18'	26.0	15'	38.0	15'	59.0	15'
10'	-	-	-	-	29.0	17'	42.0	18'	65.0	18'
Inlet	1/2"		3/4"		1"		1 1/2"		2"	
Thread	FNPT		FNPT		FNPT		FNPT		FNPT	
Material	Brass		Brass		Brass		Brass		Brass	

G= GPM H= Head

N108 - CLUSTER



Display Height	N108-050		N108-075		N108-100		N108-150		N108-200	
	G	H	G	H	G	H	G	H	G	H
1'	3.5	3.5'	-	-	-	-	-	-	-	-
2'	4.0	4.6'	6.5	3.6'	9.0	1.4'	-	-	-	-
3'	6.5	5.2'	9.0	4.2'	11.0	2.3'	13.0	4.8'	15.0	6.1'
4'	9.0	6.8'	12.0	5.0'	13.0	4.4'	16.0	5.7'	19.0	7.3'
5'	11.5	8.0'	15.0	6.2'	15.0	5.5'	19.0	6.7'	23.0	8.2'
6'	14.0	9.0'	18.0	7.8'	17.0	6.7'	22.0	8.2'	27.0	9.7'
7'	-	-	23.0	8.3'	18.0	7.8'	25.0	9.4'	31.0	10.2'
8'	-	-	-	-	20.0	9.0'	28.0	11.0'	35.0	12.8'
9'	-	-	-	-	22.0	11.0'	30.0	13.5'	39.0	14.3'
10'	-	-	-	-	-	-	-	-	43.0	16.2'
Inlet	1/2"		3/4"		1"		1 1/2"		2"	
Thread	FNPT		FNPT		FNPT		FNPT		FNPT	
Material	Brass		Brass		Brass		Brass		Brass	

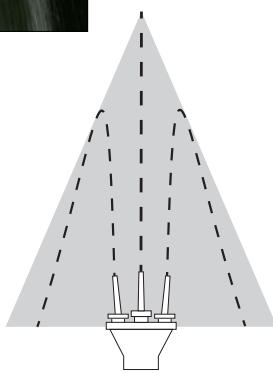
G= GPM H= Head

**** For specific dimensions for our nozzles please refer to pages 105-107**

*Please note these images may not reflect the current product

NOZZLES

N109 - LOTUS



Display Height	N109-100		N109-150		N109-200		N109-250		N109-300	
	G	H	G	H	G	H	G	H	G	H
1'	1.5	1.4'	10.0	1.2'	12.0	1.3'	15.0	1.4'	20.0	1.5
2'	3.0	2.3'	15.0	2.3'	16.0	2.4'	19.0	2.5'	24.0	2.4'
3'	4.5	3.2'	18.0	3.2'	20.0	3.4'	24.0	3.5'	28.0	3.6'
4'	5.5	4.4'	20.0	4.4'	24.0	4.6'	29.0	4.6'	34.0	4.8'
5'	7.5	6.4'	23.0	5.3'	27.0	5.6'	35.0	5.8'	40.0	6.0'
6'	9.0	8.7'	24.0	6.4	31.0	6.8'	40.0	7.0'	47.0	7.4'
7'	11.0	10.4'	25.0	7.4'	35.0	8.2'	44.0	8.8'	53.0	9.3'
8'	14.0	11.5'	27.0	8.7'	39.0	9.2'	49.0	10.8'	58.0	12.2'
9'	-	-	29.0	9.7'	42.0	11.2'	54.0	12.8'	63.0	14.4'
10'	-	-	31.0	10.8	46.0	14.5'	62.0	15.4'	72.0	16.3
12'	-	-	-	-	-	-	-	-	-	-
Inlet	1"		1 1/2"		2"		2 1/2"		3"	
Thread	FNPT		FNPT		FNPT		FNPT		FNPT	
Material	Brass		Brass		Brass		Brass		Brass	

G= GPM H= Head

N110-PVC SPRAY RINGS



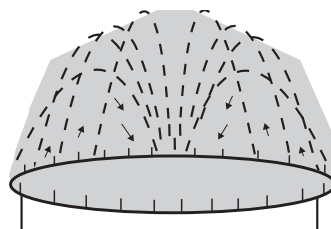
	N110-36	N110-48	N110-60	N110-72	N110-84	N110-96
Diameter	36"	48"	60"	72"	84"	96"
Nozzles	30+-	42+-	47+-	50+-	58+-	67+-
Inlets	2	2	2	2	2	2
Legs	3	3	3	4	4	4
Finishes	*	*	*	*	*	*
GPH	1260	1765	1975	2100	2430	2800
Warranty	1 Year	1 Year	1 Year	1 Year	1 Year	1 Year

*** Custom sizes available, call for a quote**

*** Finishes available:**

- Satin Black
- Stainless Steel
- Aged Copper Metal Flake
- White

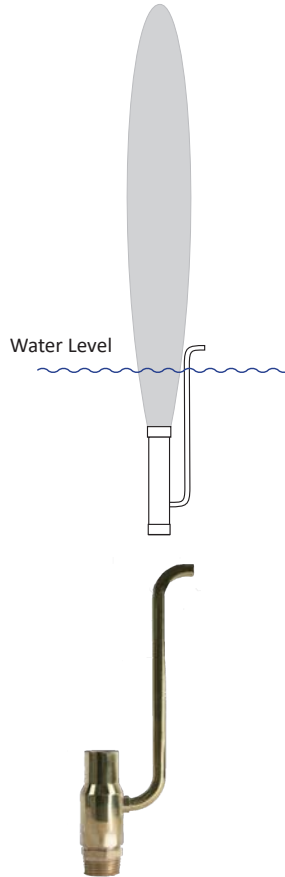
Copper and Stainless Steel Metal Rings available by special order



**** For specific dimensions for our nozzles please refer to pages 105-107**

*Please note these images may not reflect the current product

N111 - FOAM JET



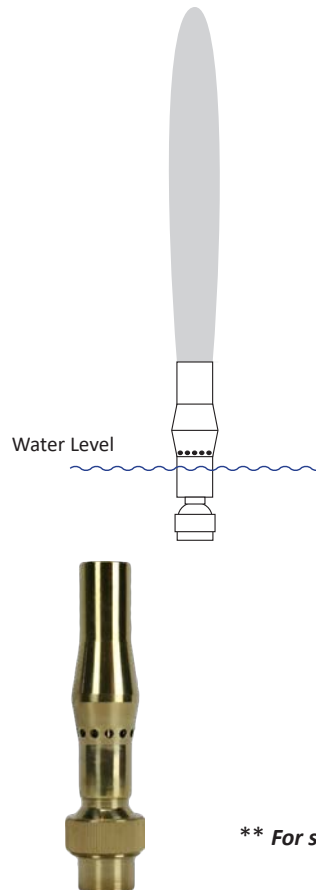
Display Height	N111-050		N111-075		N111-100		N111-150		N111-200	
	G	H	G	H	G	H	G	H	G	H
1'	6.2	7'	11.7	7'	17.7	7'	32.4	8'	50.2	6'
2'	8.4	14'	14.6	13'	20.4	12'	38.6	13'	60.3	9'
3'	9.7	19'	16.4	15'	22.3	15'	44.1	16'	68.2	12'
4'	11.4	23'	17.8	19'	24.8	17'	49.7	20'	73.5	16'
5'	12.7	26'	19.5	23'	26.6	19'	54.4	23'	80.1	18'
6'	-	-	21.3	26'	29.7	22'	58.7	28'	85.7	20'
8'	-	-	-	-	-	-	66.2	38'	94.0	22'
10'	-	-	-	-	-	-	74.3	55'	104	25'
15'	-	-	-	-	-	-	-	-	115	36'
Inlet	1/2"		3/4"		1"		1 1/2"		2"	
Thread	MNPT		MNPT		MNPT		MNPT		MNPT	
Material	Brass		Brass		Brass		Brass		Brass	

G= GPM H= Head

Water Level Dependent Nozzle

To achieve optimum appearance and performance position this nozzle at the recommended water level

N112 - FROTHY



Display Height	N112-050		N112-075		N112-100		N112-150	
	G	H	G	H	G	H	G	H
1'	5.9	2'	7.5	2'	18.4	2'	21.7	3'
2'	7.5	5'	10.0	4'	20.1	4'	26.2	5'
3'	9.0	9'	12.0	5'	22.6	6'	30.1	8'
4'	10.5	12'	15.0	7'	24.1	8'	37.2	10'
5'	11.5	15'	17.0	8'	26.3	10'	40.4	13'
6'	13.0	17'	18.0	10'	28.2	12'	44.2	15'
7'	14.1	21'	20.0	14'	30.1	14'	48.3	18'
8'	15.3	24'	22.0	18'	32.2	16'	52.3	20'
9'	-	-	-	-	-	-	-	-
10'	-	-	-	-	-	-	-	-
Inlet	1/2"		3/4"		1"		1 1/2"	
Thread	FNPT		FNPT		FNPT		FNPT	
Material	Brass		Brass		Brass		Brass	

G= GPM H= Head

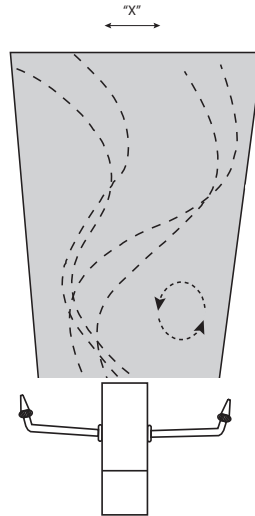
Water Level Dependent Nozzle

To achieve optimum appearance and performance position this nozzle at the recommended water level

** For specific dimensions for our nozzles please refer to pages 105-107

*Please note these images may not reflect the current product

N113 – PIROUETTE

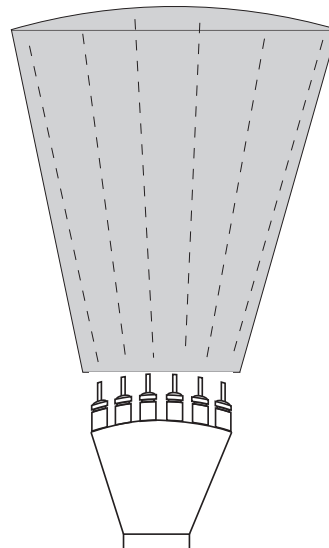


Display Height	N113-050		N113-075		N113-100		N113-150	
	G	H	G	H	G	H	G	H
1'	3	3'	4	4'	2.5	2'	-	-
2'	5	4'	5	5'	4.0	3'	-	-
3'	7	6'	8	7'	5.0	4'	-	-
4'	7	8'	8	9'	7.0	5'	25	18'
5'	8	10'	9	11'	8.0	8'	30	20'
6'	-	-	10	12'	10.0	9'	35	28'
7'	-	-	11	13'	12.0	11'	36	29'
8'	-	-	-	-	15.0	13'	37	35'
Inlet	1/2"		3/4"		1"		1 1/2"	
Thread	FNPT		FNPT		FNPT		FNPT	
Material	Brass		Brass		Brass		Brass	

G= GPM H= Head

"X": Display width is approximate to display height it can however be adjusted to wider or narrower spray pattern.

N114 – FINGER JET



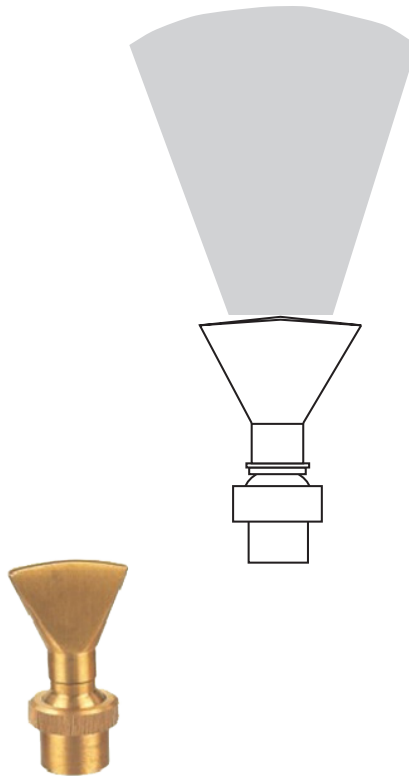
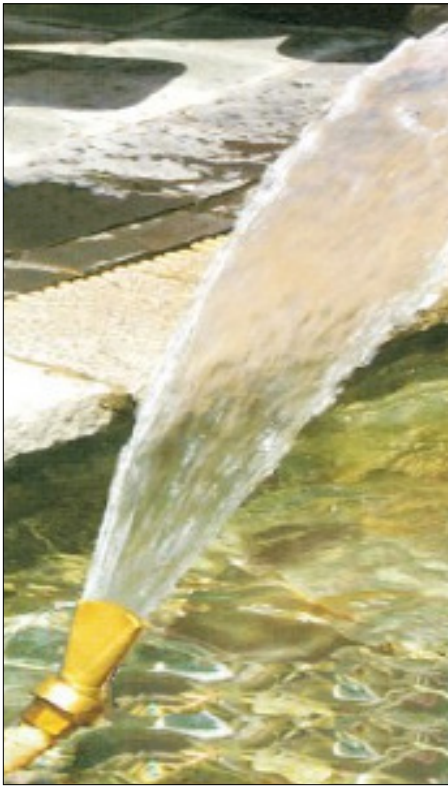
Display Height	N114-100	
	G	H
2'	8.0	5.5'
3'	10.0	7.3'
4'	12.0	9.4'
5'	14.0	11.8'
6'	16.0	14.0'
Inlet	1"	
Thread	FNPT	
Material	Brass	

G= GPM H= Head

** For specific dimensions for our nozzles please refer to pages 105-107

*Please note these images may not reflect the current product

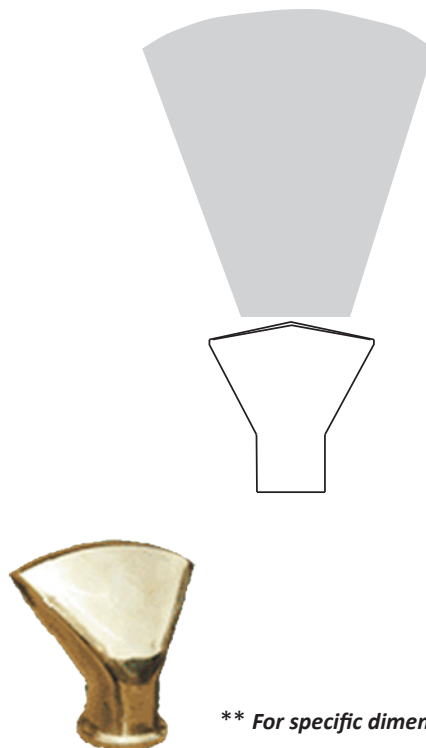
N115 – FANJET



Display Height	N115-100		N115-150	
	G	H	G	H
1'	3.5	1.4'	3.8	1.5'
2'	4.5	2.3'	5.0	2.5'
3'	5.5	3.2'	6.2	3.4'
4'	6.5	4.1'	7.8	4.4'
5'	-	-	9.2	5.6'
6'	-	-	11.4	6.9'
Inlet	1"		1 1/2"	
Thread	FNPT		FNPT	
Material	Brass		Brass	

G= GPM H= Head

N116 – ANGLED FANJET



Display Height	N116-100	
	G	H
1'	4.0	1.7'
2'	5.0	2.8'
3'	6.5	3.6'
4'	7.5	4.7'
5'	8.5	5.8'
6'	10.0	7.2'
Inlet	1"	
Thread	FNPT	
Material	Brass	

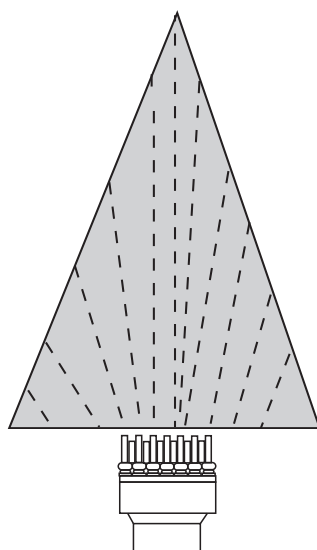
G= GPM H= Head

**** For specific dimensions for our nozzles please refer to pages 105-107**

*Please note these images may not reflect the current product

NOZZLES

N117 - 3TIER ADJUSTABLE



Display Height	N117-150	
	G	H
1'	9.0	1.2'
2'	12.0	2.3'
3'	15.0	3.2'
4'	19.0	4.6'
5'	21.0	5.5'
6'	23.0	6.4'
7'	25.0	7.8'
8'	26.5	8.7'
9'	28.0	9.7'
10'	30.0	10.8'
Inlet	1 1/2"	
Thread	FNPT	
Material	Brass	

G= GPM H= Head

N118-100-FROTHY-ADJUSTABLE



Display Height	N118-100	
	G	H
2'	19.0	4.5'
3'	22.5	10'
4'	26.0	13'
5'	29.0	16.5'
6'	30.5	18.5"
7'	33.0	21.5'
8'	35.5	25'
9'	37.5	27.5'
10'	39.0	30'
Inlet	1"	
Thread	FNPT	
Material	Stainless/Plastic	

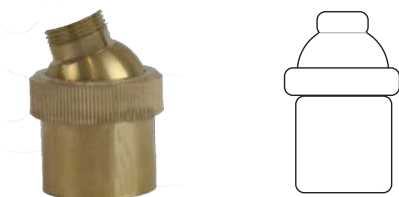
G= GPM H= Head

**** For specific dimensions for our nozzles please refer to pages 105-107**

*Please note these images may not reflect the current product

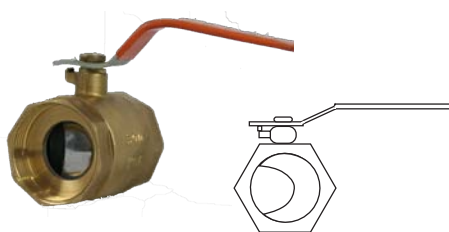
NOZZLES

N120-BALL JOINT



	N120-050	N120-075	N120-100	N120-150	N120-200
Style	Ball Joint	Ball Joint	Ball Joint	Ball Joint	Ball Joint
Thread (in)	1/2"	3/4"	1"	1 1/2"	2"
Dimensions L x D (in)	2 x 1	2 1/4 x 1 1/4	2 1/4 x 2	2 1/2 x 2 1/4	3 x 2 1/2
Thread	M X FIPT	M X FIPT	M X FIPT	M X FIPT	M X FIPT
Material	Brass	Brass	Brass	Brass	Brass

N121-BALL VALVE



	N121-050	N121-075	N121-100	N121-150	N121-200
Style	Ball Valve	Ball Valve	Ball Valve	Ball Valve	Ball Valve
Thread (in)	1/2"	3/4"	1"	1 1/2"	2"
Dimensions L x W x H (in)	4 x 1 x 2	4 3/4 x 1 1/4 x 2 1/2	5 1/4 x 1 1/2 x 3	6 1/4 x 2 1/4 x 3 3/4	7 1/2 x 2 1/2 x 4 1/2
Material	Brass	Brass	Brass	Brass	Brass

N123-PIPE EXTENDER



**Pump not included



	N123-075	N123-100	N123-150	N123-200
Style	Extender	Extender	Extender	Extender
Diameter (in)	1/2 x 3/4"	3/4 x 1"	1 x 1 1/2"	1 1/2 x 2"
Length (in)	16"-26"	16"-26"	16"-26"	16"-26"
Threads IPS	M x M	M x M	M x M	M x M
* BBI	1/2 x 3/4"	3/4 x 1"	1 x 1 1/2"	1 1/2 x 2"
Material	Copper	Copper	Copper	Copper

*Brass Bushing Included

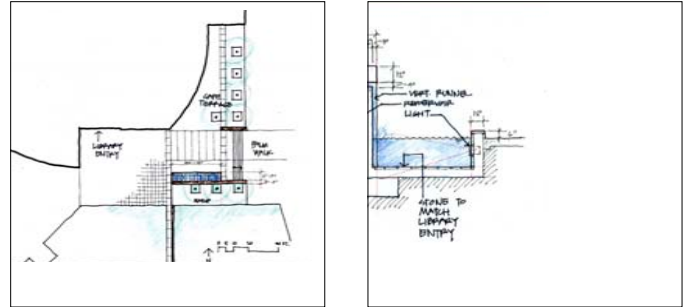


*Please note these images may not reflect the current product

ProEco offers a full range of custom fountain services. With many years of experience and a wide variety of fountains built, we can help with any part of a project or we can provide a turn-key solution to any client.

Conceptual Design

Every fountain starts with an idea or concept. We can help refine any rough idea into a working concept. During this part of the process we will be using our knowledge and experience to ensure that the finished project exceeds the clients needs.



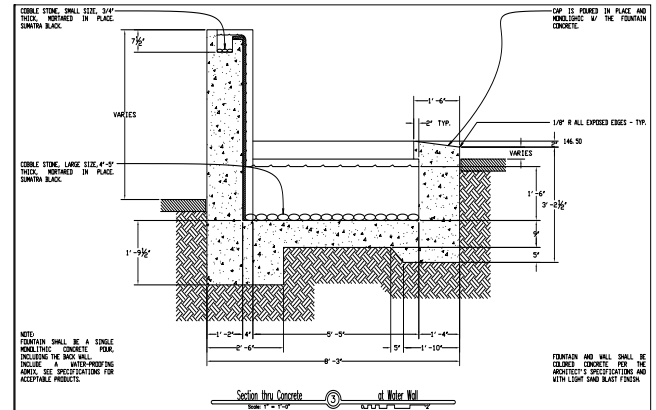
Renderings

Renderings are a great tool for showing a client what the finished project will look like. Depending on the needs of the client, we can produce a variety of different styles of renderings, from very simple to complex multimedia presentations.



Engineering

Once a client has decided on a concept, we move into the engineering phase of the project. For the project to come together smoothly, on time and on budget, it is critical that the engineering package is done properly and in great detail. Our engineering packages include all of the necessary hydraulic, mechanical and electrical system designs to bid and build the fountain.



Project Supervision

We can offer complete project supervision or we can oversee any part of the process. When we provide a complete package we will oversee the entire project from concept to fountain start-up.





Load Rated Underground Storage Tanks

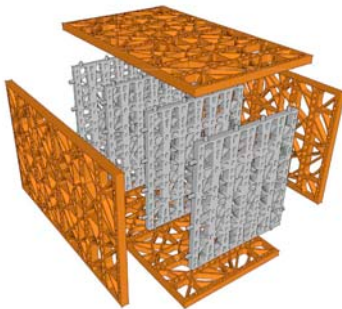
The H-25 Load Rated ECO-CUBE storage tanks can be used in a wide variety of underground installations where a vault or tank is required to capture or store water. ECO-CUBE products are manufactured with 100% Recycled Polypropylene. ECO-CUBE units are quickly and easily assembled on-site saving on freight and storage costs.

Applications

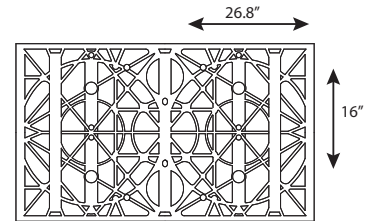
- Rainwater Harvesting
- Pondless Water Features
- Stormwater Retention
- Stormwater Detention
- Infiltration
- Bioswales



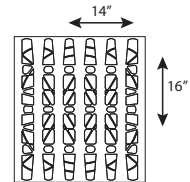
Single Tank



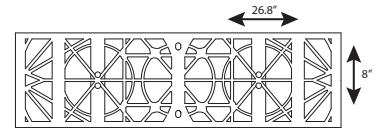
Earn LEED credits when specifying and using ECO-CUBE products.



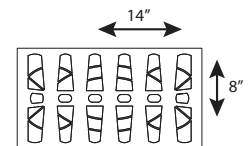
ECP- 1 Large Plate



ECP- 2 Small Plate



ECP- 3 Large Half Plate



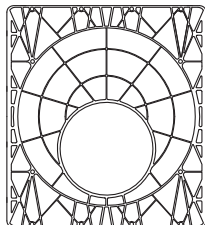
ECP- 4 Small Half Plate

	Half Tank	Single Tank	Double Tank	Triple Tank	Quad Tank	Pent Tank
Storage Volume (Gallons)	17.26	32.21	63.05	93.81	124.58	155.41
Storage Volume (Cubic Feet)	2.31	4.31	8.43	12.54	16.65	20.78
Tank Volume (Gallons)	17.82	33.22	64.97	96.72	128.47	160.21
Tank Volume (Cubic Feet)	2.38	4.44	8.69	12.93	17.17	21.42
Height (in)	9.50"	17.72"	34.65"	51.57"	68.50"	85.40"
Length (in)	16.06"	16.06"	16.06"	16.06"	16.06"	16.06"
Width (in)	26.97"	26.97"	26.97"	26.97"	26.97"	26.97"
Quantity of ECP-1 Large Plates	2	4	7	10	13	16
Quantity of ECP-2 Small Plates	-	4	8	12	16	20
Quantity of ECP-3 Large Half Plates	2	-	-	-	-	-
Quantity of ECP-4 Small Half Plates	4	-	-	-	-	-
Warranty	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years

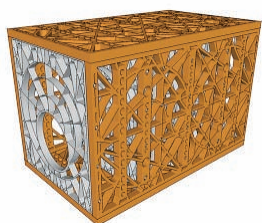
*Please note these images may not reflect the current product

Clean-Out Plate

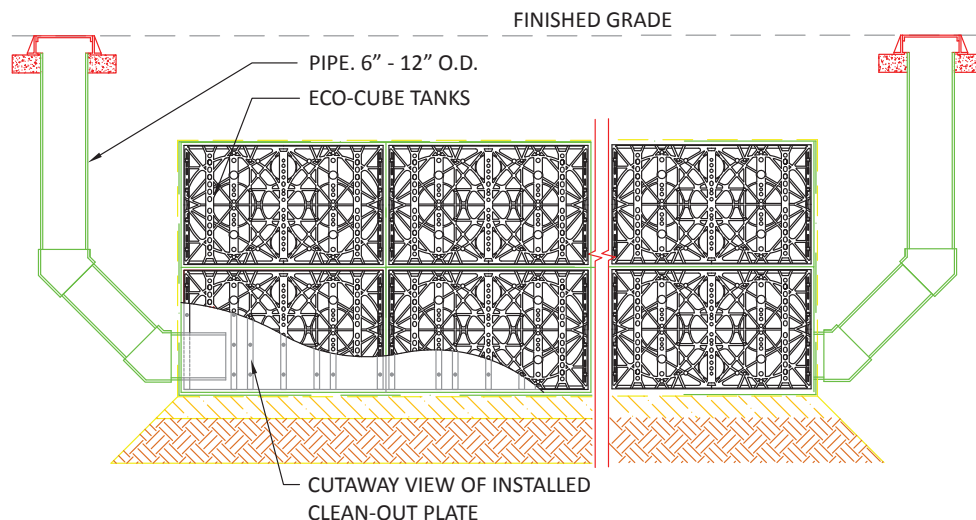
The ECO-CUBE Clean-Out plates can be used when inspection and clean out portals are required. Seven Clean-Out plates are required for each tank. The Clean-Out plate comes with a six-inch diameter hole at the center base of the plate which can be expanded to 12" diameter. Debris in the tank is flushed out of the system by inserting a high pressure hose in one of the portals and a vacuum into the portal on the opposite side.



ECP- 5 Clean-Out Plate



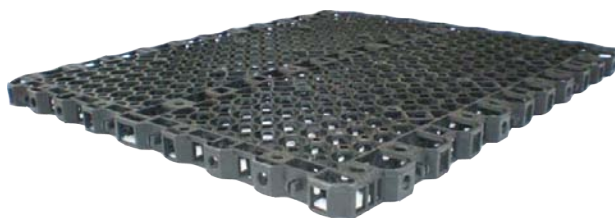
Single Tank with ECP- 5 Clean-Out Plates



1" Drainage Cells

The ECO-CUBE 1" Drainage Cells provides a flat, strong, 85% surface void and nearly 100% interior void space for water collection and discharge under the soil layer. They are easy to install, lightweight, and have a strong clipping system to create one large layer. Cut with snips or a saw.

	EC-101
Height (in)	1.00"
Length (in)	23.64"
Width (in)	19.68"
Surface Area (Sq. Ft.)	3.23
Warranty	20 Years



Applications

- Green roofs
- Retaining walls
- Sports fields
- Planter boxes
- Permeable pavers

2" Drainage Cell

The ECO-CUBE 2" Drainage Cells allow H20 load vehicle use with no compaction or reduction of infiltrative capacity. Layer 2" Drainage Cells 12" beneath the surface to eliminate surface buckling/ponding, & provide full drainage of excess water to the drain, or ECO-CUBE Tanks for infiltration or irrigation reuse. Eliminates need for 12" gravel sub-base.

	EC-201
Height (in)	2.00"
Length (in)	19.68"
Width (in)	12.00"
Surface Area (Sq. Ft.)	1.64
Warranty	20 Years

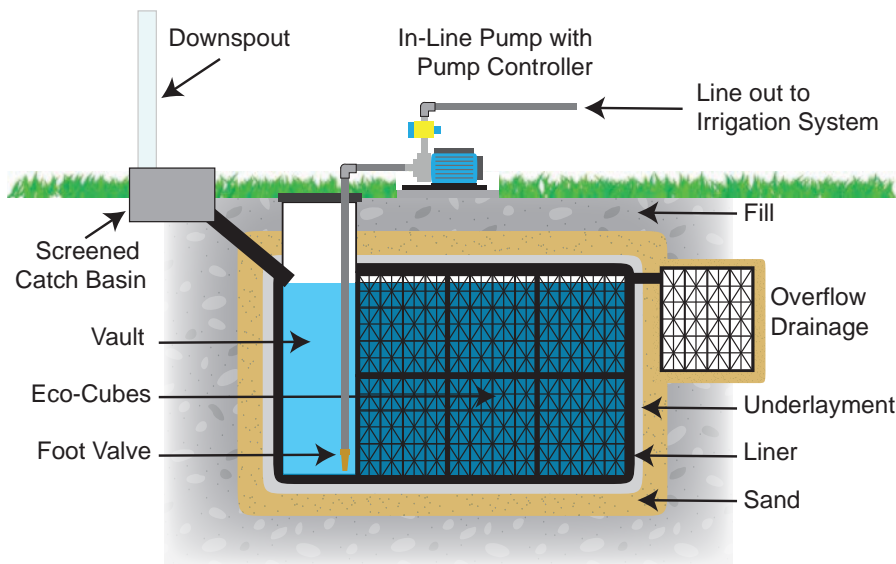


Applications

- Underground piping
- Retaining walls
- Permeable pavers
- Leach lines
- French drains

As water conservation and water management become more important issues in nearly every part of the world, many people are looking to Rainwater Harvesting as a solution. A Rainwater Harvesting system will decrease your dependence on local water supplies and can reduce your water costs dramatically. In addition to the financial benefits, you will also be helping the environment by reducing your water demands and helping to control storm water run-off. A Rainwater Harvesting system is a perfect addition to nearly any irrigation system. A properly designed system can dramatically reduce or completely eliminate your need for an outside water source for your irrigation system.

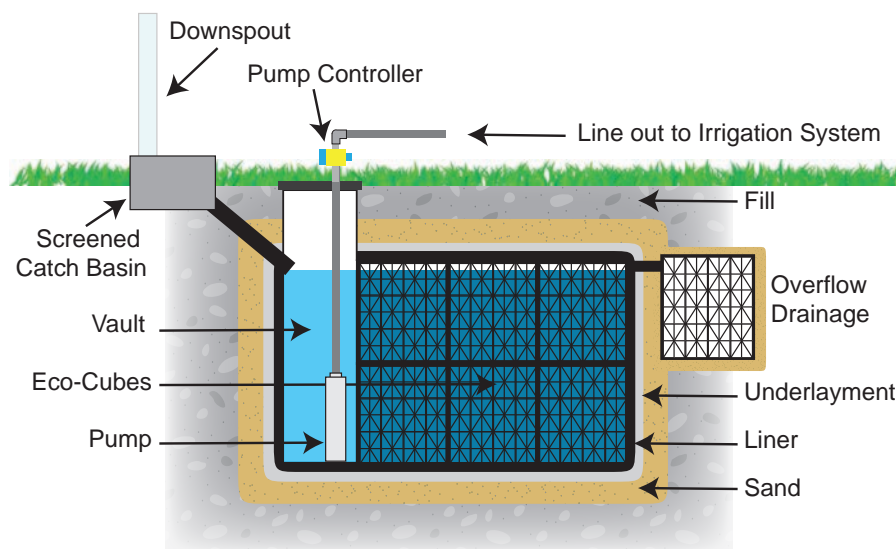
Rainwater Harvesting Irrigation System with In-Line Pump



RAINWATER FACTS

- ★ An average roof (2000 sq. ft.) yields 1,250 gallons of water for every 1 inch of rainfall.
- ★ In an area that receives 30 inches of annual rainfall, an average roof can yield 37,500 gallons of water.
- ★ The percentage of water used for irrigation can be as high as 50% of total household water demand during peak months.
- ★ People have been harvesting rainwater for over 4,000 years.
- ★ Tax credits are available in many areas for households that install Rainwater Harvesting systems.
- ★ By switching to drip irrigation you can reduce your water usage by up to 50%.

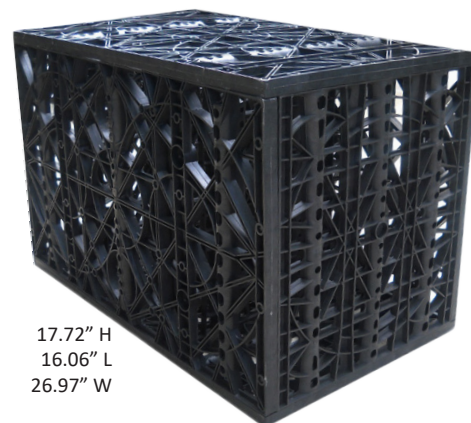
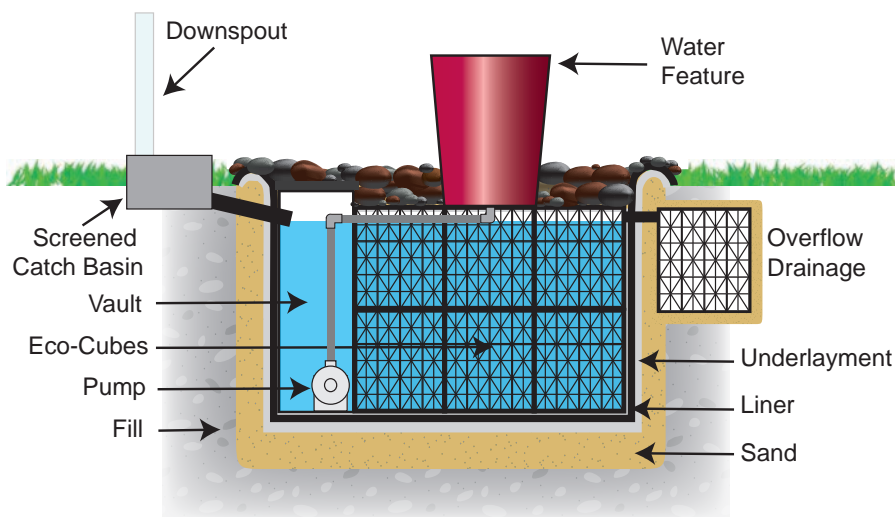
Rainwater Harvesting Irrigation System with Submersible Pump



ECO-CUBE SYSTEM

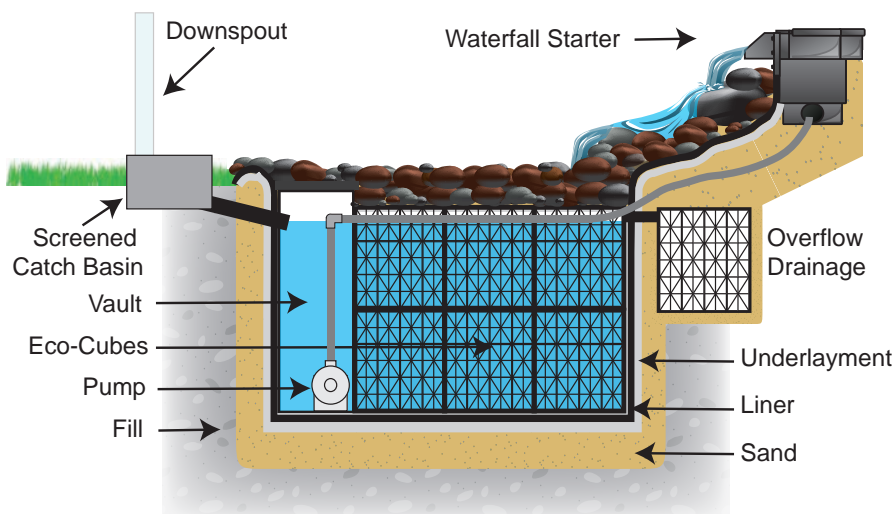
Using a Rainwater Harvesting system along with a decorative water feature is a great way to beautify your home and reduce your water needs. Rainwater Harvesting can be incorporated into nearly any decorative water feature.

Rainwater Harvesting and a Decorative Water Feature



Single Eco-Cube Tank

Rainwater Harvesting and a Pondless Waterfall



For more information on the Irrigation Pumps for Rainwater Harvesting systems please refer to the following page.



COMMERCIAL MISTING SYSTEMS



NOTE: SYSTEM SHOULD NOT BE DESIGNED TO USE LESS THAN 60% OF PUMPS FLOW.
3/8" Tubing run should not exceed 125', please contact our office for more information.

	1050	1051	1052	1053
GPM	.5	1	1.5	2
Horsepower (HP)	1/2	1	1 1/2	2
Power Rating (Amps)	7	14	17.4	17.4
Recommended Pressure (psi)	870	870	870	870
Maximum Pressure (psi)	1000	1000	1000	1000
Voltage	110V	110V / 220V	110V / 220V	110V / 220V
Power Cable Length (ft)	6	6	6	6
Plug	15 Amp	15 Amp	15 Amp	15 Amp
Dimensions (in)	10 x 22 x 10	10 x 22 x 10	10 x 22 x 10	10 x 22 x 10
Weight (lbs)				
Warranty	2 Years	2 Years	2 Years	2 Years



MN - 03
Misting Nozzle with
built-in filter

Nozzle Model #	MN - 01		MN - 02		MN - 03		MN - 04		MN - 05	
Minimum & Maximum number of nozzles @ 870 PSI	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
.5 GPM Pump (1050)	20	65	16	55	10	30	7	22	6	16
1 GPM Pump (1051)	40	66	32	53	20	33	15	24	12	19
1.5 GPM Pump (1052)	60	100	48	79	29	49	22	36	17	28
2 GPM Pump (1053)	80	133	63	105	39	64	29	48	23	28

Recommended Pressure

Nozzle Model #	Orifice Diameter		Spray Angle	435 PSI 30 BAR		580 PSI 40 BAR		725 PSI 50 BAR		870 PSI 60 BAR		1015 PSI 70 BAR	
	(mm)	(in)		GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM	GPM	LPM
MN-01	0.15	0.005	48°	0.011	0.042	0.013	0.050	0.014	0.054	0.015	0.057	0.016	0.063
MN-02	0.20	0.007	54°	0.014	0.052	0.016	0.059	0.018	0.067	0.019	0.072	0.021	0.079
MN-03	0.30	0.011	63°	0.022	0.085	0.025	0.097	0.029	0.110	0.031	0.117	0.034	0.130
MN-04	0.40	0.015	80°	0.030	0.115	0.035	0.130	0.039	0.148	0.042	0.159	0.046	0.175
MN-05	0.50	0.019	83°	0.038	0.145	0.044	0.167	0.049	0.187	0.053	0.201	0.058	0.220

MISTING SYSTEMS

HIGH PRESSURE MISTING ACCESSORIES



2001
Orifice Plug



2002
Drain Valve



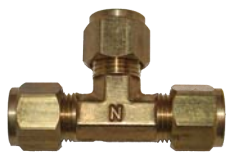
2003
Shut Off Valve



2004C Elbow
Double nut brass connector



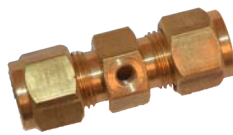
2005C Union
Double nut brass connector



2006C Tee
Double nut brass connector



2007
Push Lock Tee x MPT



2008C Nozzle Union
Double nut brass connector



2009
Hanger



2012
3/8" Nylon Tubing



2013
Filter Housing



2015C Male Adapter
Double nut brass connector



2016
Push Lock Double Hole



2018
Push Lock End



2021-4
4" Nozzle Extender



2021-6
6" Nozzle Extender



2021-8
8" Nozzle Extender



2023
Cluster Nozzle Fitting



2024
Tubing Cut Kit



2025
Push Lock Nozzle End

*For use with copper
pipe only*



2026
1/4 SW/3/8 SPG x 10/24 Noz



*Please note these images may not reflect the current product



Algae

Filamentous algae has a thread-like appearance. Often referred to as pond scum or moss. Forms surface mats. Growth begins at bottom. Rises to surface as a bubble-filled mass. May also form fur-like growths on logs and rocks at the bottom. Planktonic algae is visible as greenish tinge, suspended in the upper few feet of water. Commonly referred to as "pea soup" - it may actually thicken water during severe blooms.



Chara

Leaf-like structures whirled around a hollow stem. Dense growth attached, but not rooted to the bottom. May "carpet" large areas of the pond's bottom. Strong musky odor when crushed. May have a gritty texture due to mineral deposits. Do not confuse with other pond weeds.



Duckweed

Leaves the size of a pencil eraser. Individually or in clusters. Small root hairs may be seen hanging from the underside. No distinguishable stem. Heavy growth will blanket surface. Duckweed isn't interconnected as is filamentous algae. Do not confuse with algae.



Curly Leaf Pond Weed

Leaves thin and wavy and finely serrated at the edges. Stems branched. Upper leaves are often crispy and appear waxy. Leaves alternate on stem. Flowers born on spikes rise above the water surface.



Eurasian Milfoil

Leaves in whorls of 4 with as many as 20 pairs of leaf divisions. Reddish flower may be on water's surface. Plants reach lengths of 10' or more. Exotic plant, rapidly becoming an aquatic nuisance in North America. Spreads quickly, and grows by fragmentation.



Hydrilla / Elodea

These two weeds are very similar. Both leaves are whirled in groups. Whirls of leaves are compact near growing tips. Spacing between whirls increases further down the stem. Hydrilla leaves have a serrated edge.



Naiad

Leaves are wider at the base and arranged opposite each other or in whirls of three on the plant stem. Often grows in thick clumps or beds. Good coverage and dispersion of chemical is required to achieve control.



American Pond Weed

The floating leaves are oval. Submerged leaves are not abundant and are blade-like. Fruits are on spikes that often stand above the water's surface and are brownish to reddish, 3 to 21 inches long and 1/8 to 1/4 inches wide.



Coon tail

Leaves whirled around the stem and have a serrated appearance. Spacing between leaf whirls is variable. Consequently, the end of the stem leaves and whirls are crowded. Branches are forked repeatedly. Do not confuse with Chara.

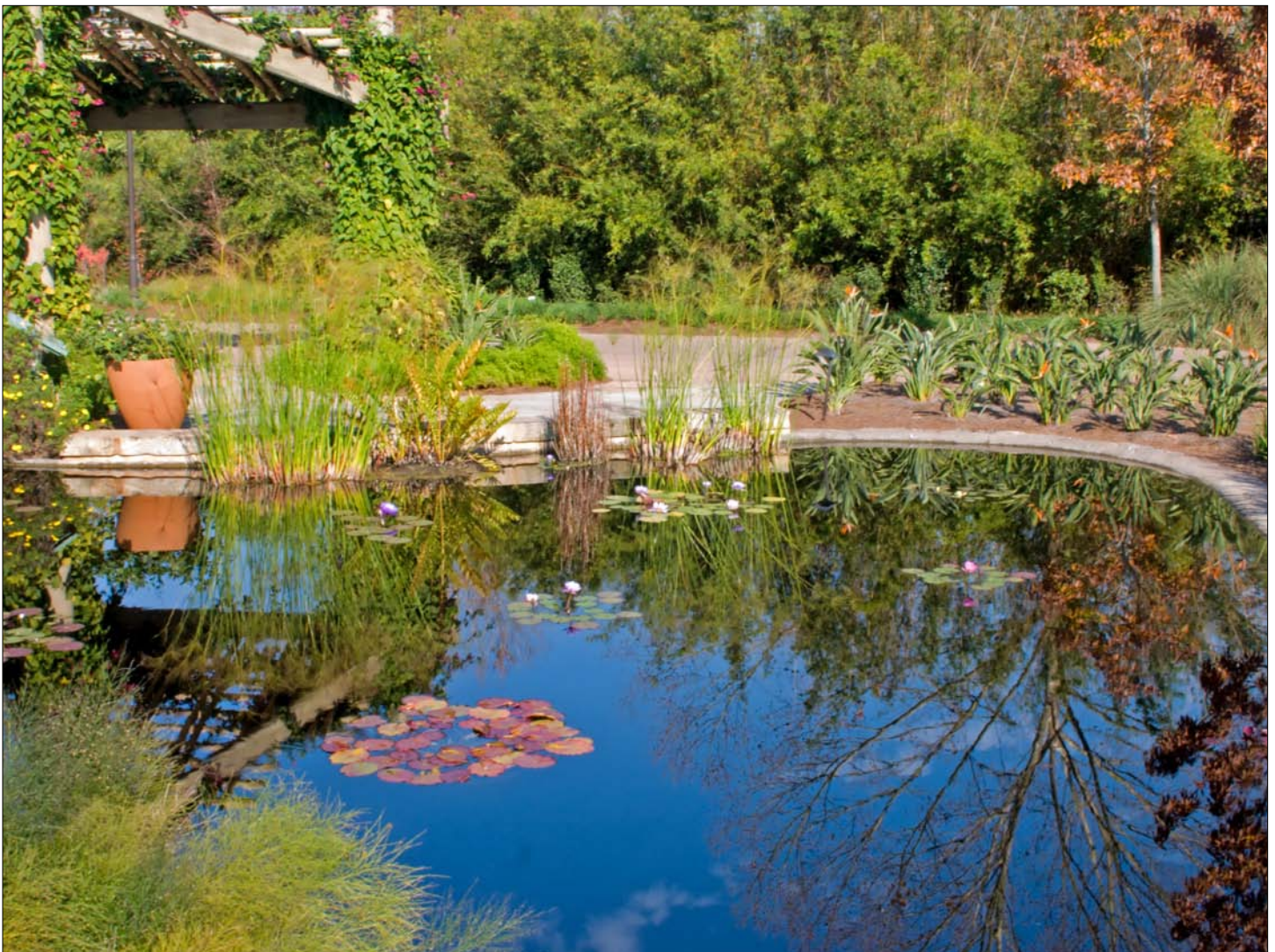


The ProEco Nature's Pack: The products included in the Nature Pack provide beneficial bacteria, trace minerals, and a fish-plant safe pond cleaner. These are essential to maintain a clean, clear and healthy ecosystem.

Fish Load: When calculating your fish load, think of it in pounds of fish or total inches. For example, one 6" fish can weigh as much as four 4" fish. The number of fish will affect the overall fish load. Although 10 small fish may only produce the waste of one large fish. With this said, remember that your fish are growing and in many cases multiplying. Always plan for the future and be careful not to overstock your pond.

Proper Filtration: The size and type of your filtration system will depend on your total fish load. If your filter is not properly sized for maximum potential, your fish will outgrow the filter. In most cases filters on the market are rated for ponds containing no fish or a minimal fish load. It is always best to get a filter that is rated for at least 2x the water volume of your pond.

Aquatic Plants: A rule of thumb is to have 60% plant coverage. This should consist of submerged, floating and marginal plants. Floating plants pull their nutrients directly from the water. Rooted plants and marginal plants, create a great place for your fish to hide from predators. Please note when aquatic plants are not present, algae will take their place.



Estimating Gallons

Volume for Rectangular Pond

Width x Length x Depth = Cubic Feet

Cubic Feet x 7.5 = Gallons

Volume for Circular Pond

Radius x Radius x 3.14 x Depth = Cubic Feet

Cubic Feet x 7.5 = Gallons

Example for a Rectangular Pond

10' x 15' x 3' = 450 Cu. Ft.

450 Cubic Feet x 7.5 gallons = 3375 gallons

***Knowing gallons helps with the following:
Sizing Pumps, Filters, Fish quantities and Water treatments.***

Calculating Liner Size

To Calculate Liner Length

$L = \text{Max Length} + \text{Twice Depth} + 3'$

To Calculate Liner Width

$W = \text{Max Width} + \text{Twice Depth} + 3'$

EXAMPLE

Pond Size: 15' Long x 12' Wide x 3' Deep

Length = $15' + 3'(2) + 3' = 24'$

Width = $12' + 3'(2) + 3' = 21'$

Allow at least 1.5' of overlap around the pond's perimeter. 3' included in Length & Width.

Estimating Rock for Construction

Boulders in Pond

Pond Length x Pond Width / 65 = _____

Tons

Rocks in Pond

Tons of Boulders x 0.45 = _____ Tons

Boulders in Stream

Every 10' = 3/4 Ton

Rocks in Stream

Every 10' Section = 1/2 Ton

The above are estimates only as rocks vary in size.

Conversions & Formulas

Length

1in = 2.54 cm

1in = 25.4 mm

1ft = 30cm

Area

1 acre = 43,560 sq ft

1 acre foot = 325,851 gallons

Volume

1 Gallon = 3.8 L

Weight

1 lb = 0.45 kg

Power

1 HP = 746 Watts

Watts = Amps x Volts

Amps = Watts ÷ Volts

Pump Terms

TDH - Total Dynamic Head

This is the total lift in feet that a pump will produce combining vertical lift from the surface of a pond plus friction loss in tubing and fittings.

BEP - Best Efficiency Point

Point on a centrifugal pump performance curve at which the pump is designed to work and has the most efficient use of electricity.

Note: Pump Head is calculated by measuring how many feet the water will drop from the top of the waterfall to the water's surface. Also, add one foot of head for every 10' tubing.

ProEco Products is not an engineering firm nor should the information presented be interpreted as an installation recommendation. ProEco Products does not have any site specifics, installation control or actual site application information. We recommend that any information required for the installation or application of products be reviewed and approved by the required professionals. ProEco Products is not responsible for the application or interpretation of any information supplied in our catalogue.

Calculating Waterfall Flow Rate

Light Flow =	100 gph per inch of spillway
Average Flow =	150 gph per inch of spillway
High Flow=	200 gph per inch of spillway

Width of Spillway x Desired Flow Rate = Total GPH

Examples for waterfalls with a 24" wide spillway:

Light Flow	24" Spillway x 100 GPH = 2,400 gph
Average Flow	24" Spillway x 150 GPH = 3,600 gph
High Flow	24" Spillway x 200 GPH = 4,800 gph

Sizing a Waterfall Pump

1. Calculate waterfall flow rate
2. Determine length of hose needed
3. Determine height of waterfall
4. Determine number of elbow hose fittings

Add 1 ft of head for every 10 ft of hose
Add 1 ft of head for every elbow fitting

Example of a 24" wide waterfall that requires 3,600 gph and is 5ft above the pond and has 20 ft of hose and 2 elbow fittings:

Waterfall height + Hose+ Fittings = Total Pump Head
5 ft + 2 ft + 2 ft = 9 feet of head

You will need a pump that provides 3,600 gph at 9ft of head.

Pump Facts

HP:	1HP = 746 Watts
Amps:	Watts ÷ Volts
Watts:	Volts x Amps
Volts:	Watts ÷ Amps
1 PSI:	2.31' Head
PSI:	Head ÷ 2.31
Max Head:	Maximum lift that a pump can move water through tubing.

Sizing a Stream or Waterfall Reservoir

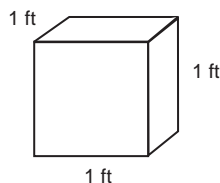
A good rule of thumb for waterfall reservoirs is to make the reservoir 2 to 3 times the volume of the total water in the stream or waterfall.

Example of a 3 ft wide stream that is 30 ft long and has a average depth of 3".

3 x 30 x .25 x 7.5 = 168.75 gallons
Recommended reservoir size is 350 to 500 gallons.

Gallons of water per cubic foot

One Cubic Foot of Water = 7.48 Gallons
(7.5 is often used for easier calculations).



Benefits of the Eco-Cube Water Reservoir

- Can replace up to 90% of gravel that is traditionally used in ponds without reservoirs
- Has up to three times more storage capacity than gravel
- Allows for smaller reservoir
- Easier to maintain water levels
- Stackable



Tubing Selection Chart

Only a certain amount of water can physically fit through any diameter of tubing. Despite the dimensions of the pumps discharge, tubing must be sized based on the amount of flow required.

Tubing Size (Inside Diam)	Max Flow (GPH)
1/2"	300
3/4"	720
1"	1,200
1 1/4"	2,000
1 1/2"	3,000
2"	4,800
2.5"	6,000
3"	9,000
4"	12,000

Estimating Operating Cost

To calculate the estimated annual operating cost of a pump, insert the operating watts of your pump into the formula below. The formula is based on an average kWh cost of \$.10.

$$\frac{\text{Watts}}{\text{Watts}} \times .876 = \frac{\text{Annual Cost}}{\text{Annual Cost}}$$

Example of annual energy cost if you have a pump which is rated at 200 watts.

$$200 \text{ watts} \times .876 = \$175 \text{ per year}$$

Your annual energy cost is \$175

Koi Growth General Guidelines

Months	Average Size (in)
1	0.3"
3	2.8"
6	5.1"
12	9.2"
18	12.6"
24	15.6"
36	20.1"
48	23.4"
96	29.4"

Fish Feeding Tips

Feeding Rate - Only feed as much food as your fish can consume in 5 minutes.

Food Quality - Higher quality (and most of the time more expensive) foods typically have less filler and higher nutritional values. Less filler means less fish waste and healthier fish.

Seasonal Foods - Fish have different nutritional needs at different times of the year. Buy foods that are specifically produced for feeding at different times of the year.

Winter - Stop feeding when the water temperature drops below 50° F / 10° C.

Auto-Fill Valves or Water Level Controllers

Auto-Fill valves or Water Level Controllers are a convenient way to control the water level in any pond or water feature. They ensure that there is always a sufficient amount of water in your pond or water feature to prevent the pump from running dry and burning out.



Importance of Water Temperature and Fish Feeding

- Feed only as much as fish can consume in 5 minutes.
- Above 65° - feed color-enhancing and high protein food.
- 65° and below - feed wheat germ food (spring, fall and winter).

General Pond Tips

- 80°+ Increase pump circulation or add air pump.
- 75°+ Fertilize plants 2x per month.
- 70°+ Add tropical aquatic plants.
- 60°+ Begin fertilizing aquatic plants.
- 50°+ Begin using bacteria treatments. Re-pot aquatic plants (spring).
- 50°- Cut back aquatic plants.
- 45°+ Start pump and filters for season.
- 40°- Keep opening in ice using De-Icers in cold climates, air stones in mild climates.

Stocking Tips

1" Gold fish per sq. ft. of surface area

1/2" Koi per sq ft of surface area

Plan for average mature fish - Goldfish = 10" Koi = 24"

*** Greater stocking loads are possible when using larger filtration.**



Limited Warranty

All PROECO products are covered by a limited warranty by PROECO PRODUCTS. Please refer to the owners manual of each product for the duration of the warranty. The limited warranty period begins from the date of purchase and covers material and manufacturing defects or failure of the product to operate as specified by PROECO PRODUCTS LTD during the duration of the limited warranty period.

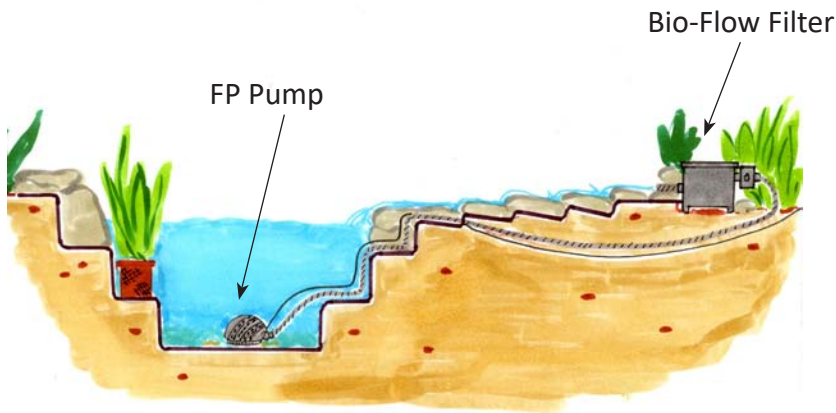
This limited warranty does not cover failure or problems related to:

- Improper installation, see owners manual for proper installation procedures.
 - Modification of the product in any way, including attempts to repair the product by someone other than a PROECO PRODUCTS trained and authorized repair technician.
 - Failure to follow proper safety, care and maintenance guidelines as outlined in this manual.
- It also does not cover those parts of the product that are subject to normal wear and tear during usage of the product, such as:
- Impellers on pumps
 - Filter pads and filter medium in filters
 - Lamps in lights and UV clarifiers
 - Anodes in Ionizers

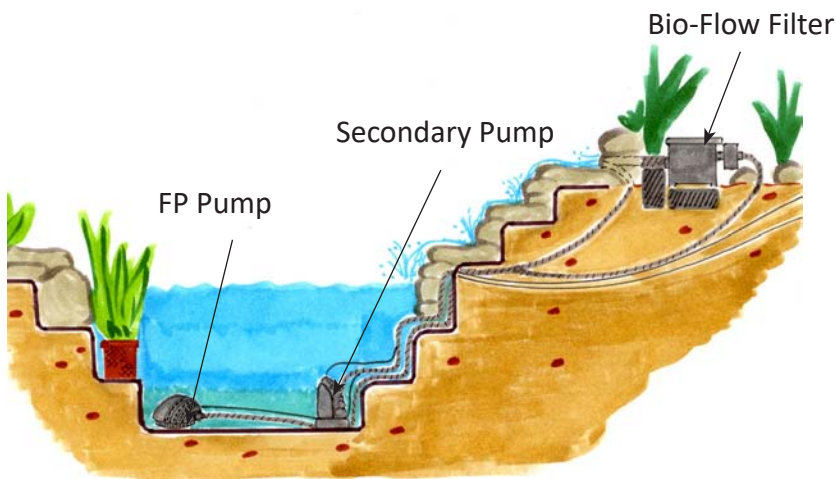
PROECO PRODUCTS' sole liability shall be to replace or repair the defective product covered by this limited warranty. PROECO PRODUCTS shall not be liable for any consequential damage to any other part of the water garden, pond, water feature, landscape, structure, or the contents of any structure where the product is located or used including no liability for damage or harm to fish, animals, or plants in or around the water garden, pond or water feature.

THE EXPRESS WARRANTIES SET FORTH HEREIN ARE THE ONLY WARRANTIES WITH RESPECT TO THE PRODUCTS, AND THE REMEDIES SET FORTH HEREIN ARE THE EXCLUSIVE REMEDIES IN THE EVENT OF A BREACH OF SUCH WARRANTIES. PROECO PRODUCTS EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. PROECO PRODUCTS SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE, FOR ANY BREACH OF SUCH WARRANTIES OR OTHERWISE.

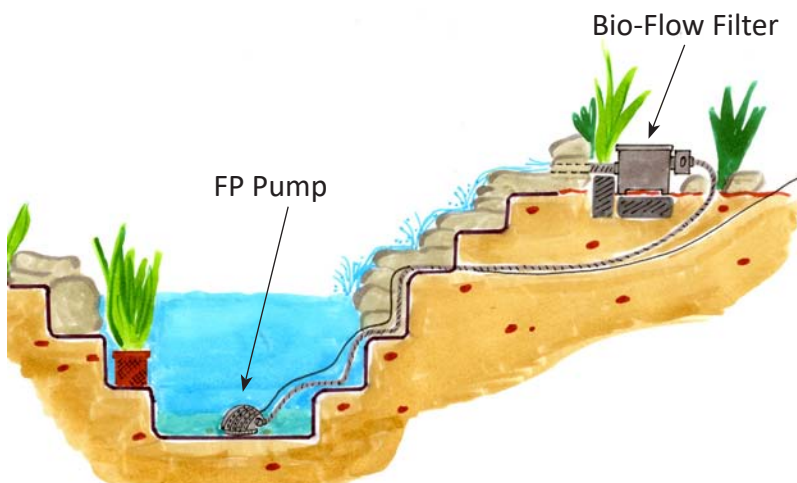
Should your PROECO PRODUCTS product be defective or fail under the terms of this limited warranty, you should return the product to your PROECO PRODUCTS dealer, along with your original receipt of purchase and any other limited warranty documentation you have, for replacement or repair. Should you have any question about this limited warranty, please contact PROECO PRODUCTS at info@proecoproducts.com



Bio-Flow gravity fed filter with FP pump installed on a creek



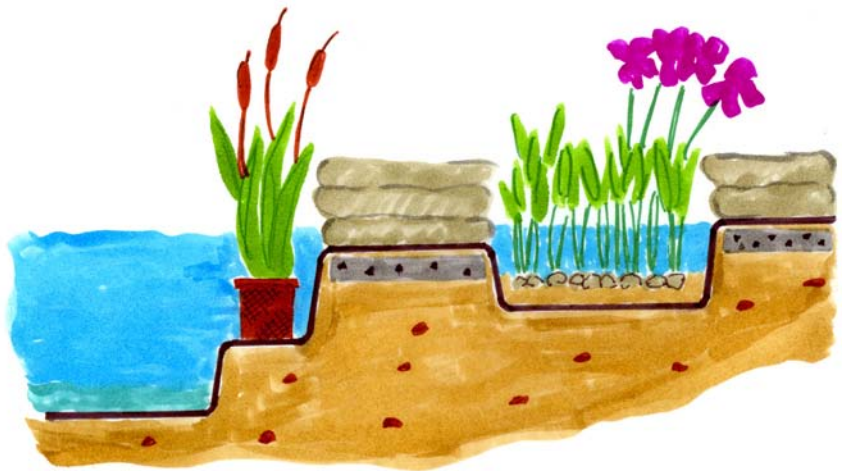
Bio-Flow gravity fed filter with FP pump and secondary pump installed on a waterfall



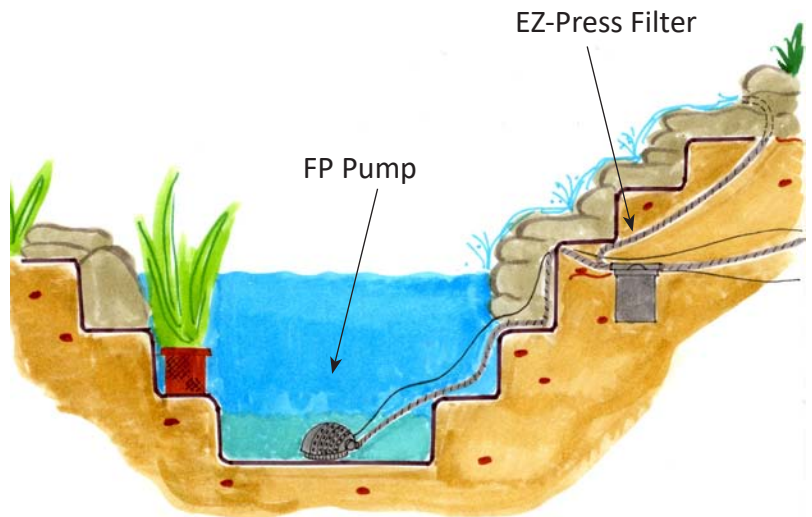
Bio-Flow gravity fed filter with FP pump installed on a waterfall

INSTALLATION EXAMPLES

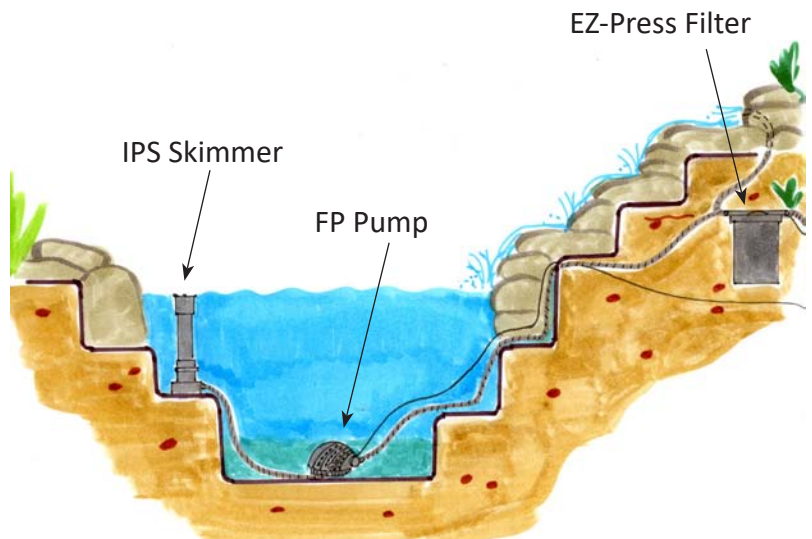
Bog Area Example

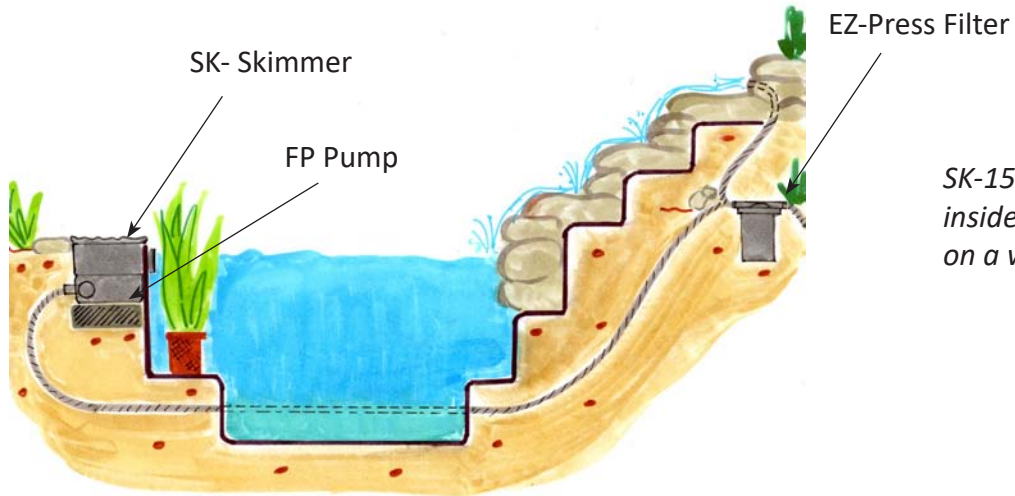


EZ-Press filter with FP pump installed on a waterfall

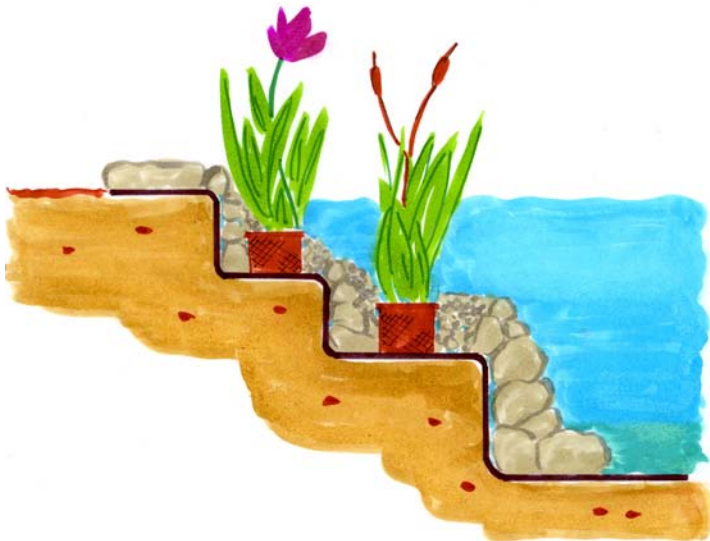


IPS skimmer, EZ-Press filter and FP pump installed on a waterfall





SK-150 skimmer with an FP pump inside and a EZ-Press filter installed on a waterfall

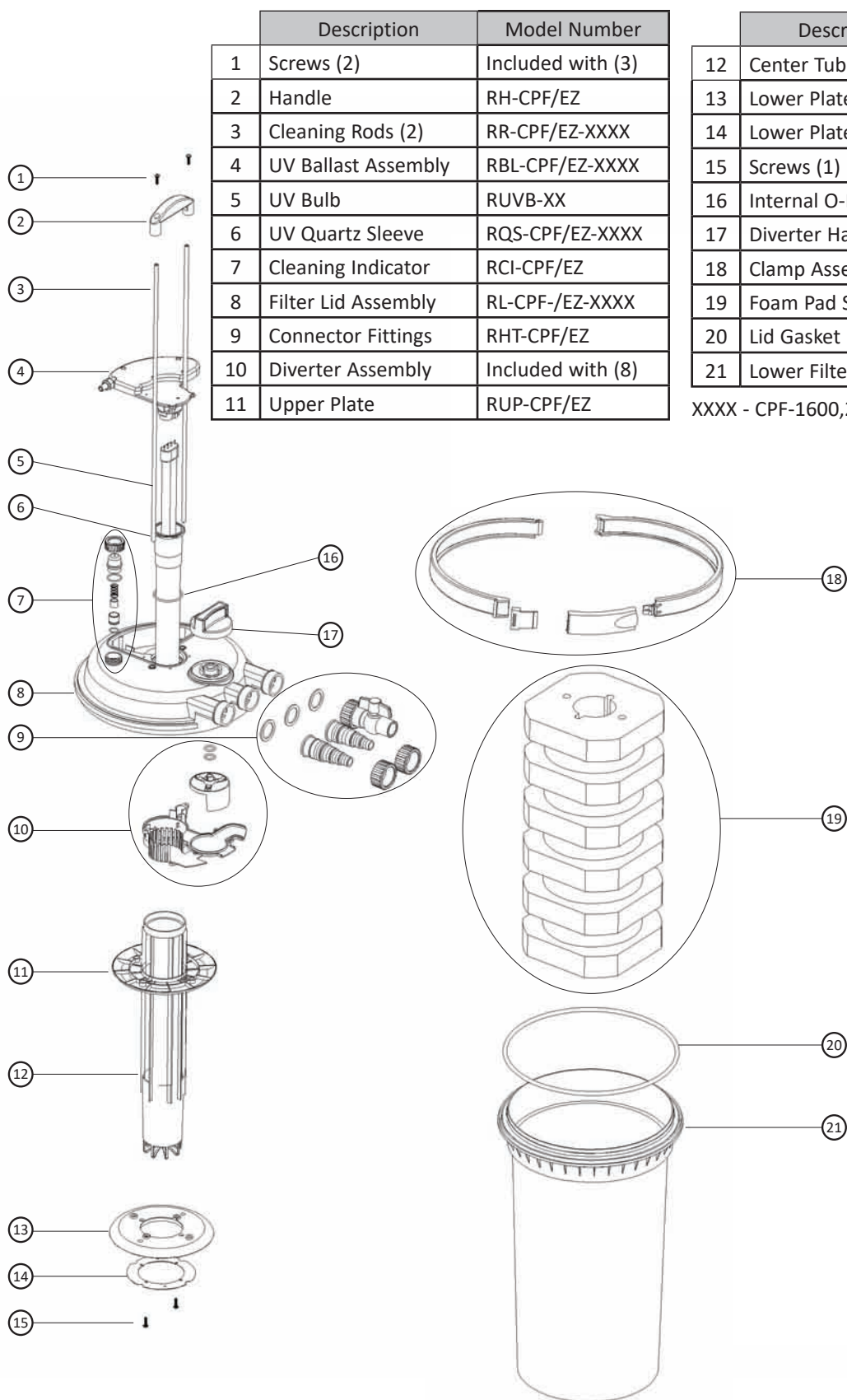


Plant Shelf Example



Pond Edge Example

CPF & EZ-PRESS Filter Parts



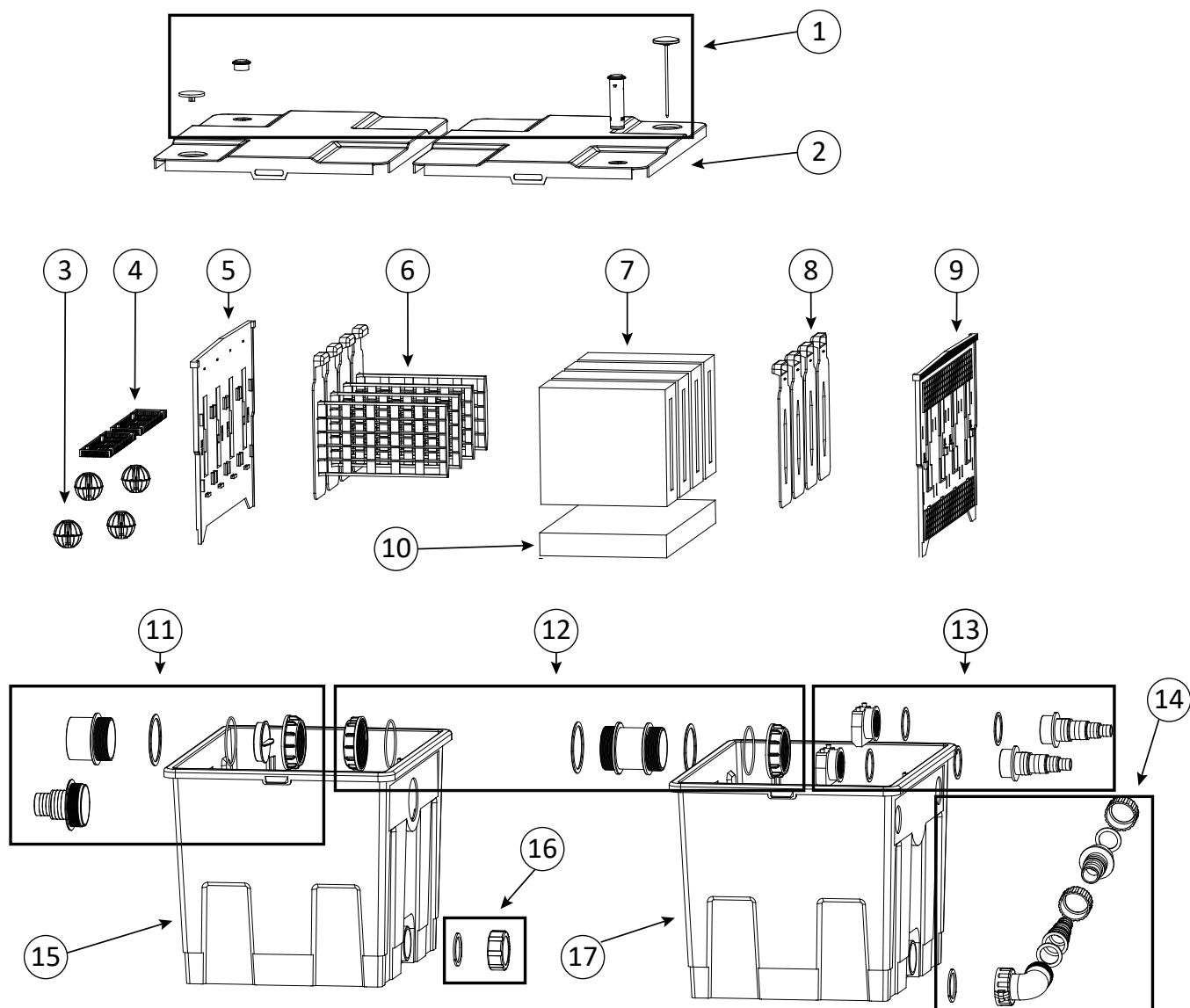
	Description	Model Number
1	Screws (2)	Included with (3)
2	Handle	RH-CPF/EZ
3	Cleaning Rods (2)	RR-CPF/EZ-XXXX
4	UV Ballast Assembly	RBL-CPF/EZ-XXXX
5	UV Bulb	RUVB-XX
6	UV Quartz Sleeve	RQS-CPF/EZ-XXXX
7	Cleaning Indicator	RCI-CPF/EZ
8	Filter Lid Assembly	RL-CPF-/EZ-XXXX
9	Connector Fittings	RHT-CPF/EZ
10	Diverter Assembly	Included with (8)
11	Upper Plate	RUP-CPF/EZ

	Description	Model Number
12	Center Tube	RPT-CPF/EZ-XXXX
13	Lower Plate	RB-CPF/EZ
14	Lower Plate Insert	Included with (13)
15	Screws (1)	Included with (3)
16	Internal O-Ring	RORK-CPF/EZ
17	Diverter Handle	Included with (8)
18	Clamp Assembly	RCL-CPF/EZ
19	Foam Pad Set	RFP-CPF-/EZ-XXXX
20	Lid Gasket	RG-CPF/EZ
21	Lower Filter Housing	RLFH-CPF/EZ-XXXX

XXXX - CPF-1600,2000,4000 & EZ-2000, 3000, 4000

Model #	Part #	Ref #	Model #	CPF-1600	CPF-2000	CPF-4000	EZ-2000	EZ-3000	EZ-4000
RH-CPF/EZ	PT-01	2	Handle, All CPF/EZ Filters	X	X	X	X	X	X
RR-CPF-1600/EZ-2000	PT-02-A	3	Cleaning Rod Set, CPF-1600/EZ-2000	X			X		
RR-CPF-2000/EZ-3000	PT-02-B	3	Cleaning Rod Set, CPF-2000/EZ-3000		X			X	
RR-CPF-4000/EZ-4000	PT-02-C	3	Cleaning Rod Set, CPF-4000/EZ-4000			X			X
RR-OR-CPF/EZ	PT-03	3	Cleaning Rod O-Ring Set (4), All CPF/EZ Filters	X	X	X	X	X	X
RBL-CPF-1600/2000	PT-04-A	4	UV Ballast Assembly, CPF-1600/2000	X	X				
RBL-CPF-4000	PT-04-B	4	UV Ballast Assembly, CPF-4000			X			
RBL-EZ-2000/3000	PT-04-C	4	UV Ballast Assembly, EZ-2000 & EZ-3000				X	X	
RBL-EZ-4000	PT-04-D	4	UV Ballast Assembly, EZ-4000						X
RUCG-CPF/EZ	PT-05	4	UV Compartment Gasket, All CPF/EZ Filters	X	X	X	X	X	X
RUVB-13	PT-06-A	5	Replacement UV Bulb - 13 Watt	X	X				
RUVB-18	PT-06-B	5	Replacement UV Bulb - 18 Watt				X	X	
RUVB-36	PT-06-C	5	Replacement UV Bulb - 36 Watt			X			X
RUVC- CPF4000/All EZ Filters	PT-07	5	UV Bulb Clip - CPF-4000/ All EZ-PRESS Filters			X	X	X	X
UV Bulb End Protector	PT-07-A	5	UV Bulb end Protector - small 13 watt	X	X				
UV Bulb End Protector	PT-07-B	5	UV Bulb end Protector - Large 18, 36 watt			X	X	X	X
RQS-CPF-1600/2000	PT-08-A	6	Replacement Quartz Sleeve_CPF-1600 & 2000	X	X				
RQS-CPF-4000/EZ-4000	PT-08-B	6	Replacement Quartz Sleeve_CPF-4000/EZ-4000			X			X
RQS-EZ-2000/3000	PT-08-C	6	Replacement Quartz Sleeve_EZ-2000/EZ-3000				X	X	
RCI-CPF/EZ	PT-09	7	Clogging Indicator, All CPF / EZ Filters	X	X	X	X	X	X
RLBL-CPF-1600/2000	PT-10-A	8	Lid Assembly, CPF-1600/2000, Includes Ballast	X	X				
RLBL-CPF-4000	PT-10-B	8	Lid Assembly, EZ-2000/3000, Includes Ballast				X	X	
RLBL-EZ-2000/3000	PT-10-C	8	Lid Assembly, EZ-4000, Includes Ballast						X
RLBL-EZ-4000	PT-10-D	8	Lid Assembly, Fits All CPF/EZ Filters, No Ballast						X
RFIT- ALL CPF/EZ Press fittings bag	PT-11	9	3) Sched 40 fittings, 3) ball valves, 1) clear hosetail, 3) female hosetail, 3) male hosetail, 4) nuts, 1) glass disc, 7 rubber gaskets	X	X	X	X	X	X
RBV-CPF/EZ	PT-12	9	Ball Valves set (3), 6 rubber gaskets - All CPF/EZ Filters	X	X	X	X	X	X
RG-CPF/EZ	PT-12-A	9	Rubber Gaskets for ball valves, Sched 40 fittings, Hosetail Nuts Set of 3	X	X	X	X	X	X
SCH40-CPF/EZ	PT-12-B	9	Sched 40 fittings, rubber gaskets Set of 3	X	X	X	X	X	X
RHT-CPF/EZ	PT-12-C	9	1) clear hosetail, 3) female Hosetail, 3) male hosetail, 4) nuts, 1) glass disc, 4) rubber gaskets						
RUP-CPF/EZ	PT-13	11	Upper Plate for Filter Pads - All CPF/EZ Filters	X	X	X	X	X	X
RPT-CPF-1600/EZ-2000	PT-14-A	12	Center Tube, CPF 1600/EZ-2000	X			X		
RPT-CPF-2000/EZ-3000	PT-14-B	12	Center Tube, CPF-2000/EZ-3000		X			X	
RPT-CPF-4000/EZ-4000	PT-14-C	12	Center Tube, CPF-4000/EZ-4000			X			X
RB-CPF/EZ	PT-15	13	Lower Plate for Filter Pads - All CPF/EZ filters	X	X	X	X	X	X
RORK-CPF/EZ	PT-16	16	Internal UV O-Ring Kit, All CPF/EZ Filters	X	X	X	X	X	X
RCL-CPF/EZ	PT-17	18	Lid Clamp, All CPF/EZ Filters	X	X	X	X	X	X
RFP-CPF-1600/EZ-2000	PT-18-A	19	Foam Pad Set, CPF 1600 / EZ-2000	X			X		
RFP-CPF-2000/EZ-3000	PT-18-B	19	Foam Pad Set, CPF 2000 / EZ-3000		X			X	
RFP-CPF-4000/EZ-4000	PT-18-C	19	Foam Pad Set, CPF 4000 / EZ-4000			X			X
RG-CPF/EZ	PT-19	20	Lid Gasket, All CPF / EZ Filters	X	X	X	X	X	X
RLFH-CPF-1600/EZ-2000	PT-20-A	21	Lower Filter Housing, CPF-1600 /EZ-2000	X			X		
RLFH-CPF-2000/EZ-3000	PT-20-B	21	Lower Filter Housing, CPF-2000 / EZ-3000		X			X	
RLFH-CPF-4000/EZ-4000	PT-20-C	21	Lower Filter Housing, CPF-4000 / EZ-4000			X			X

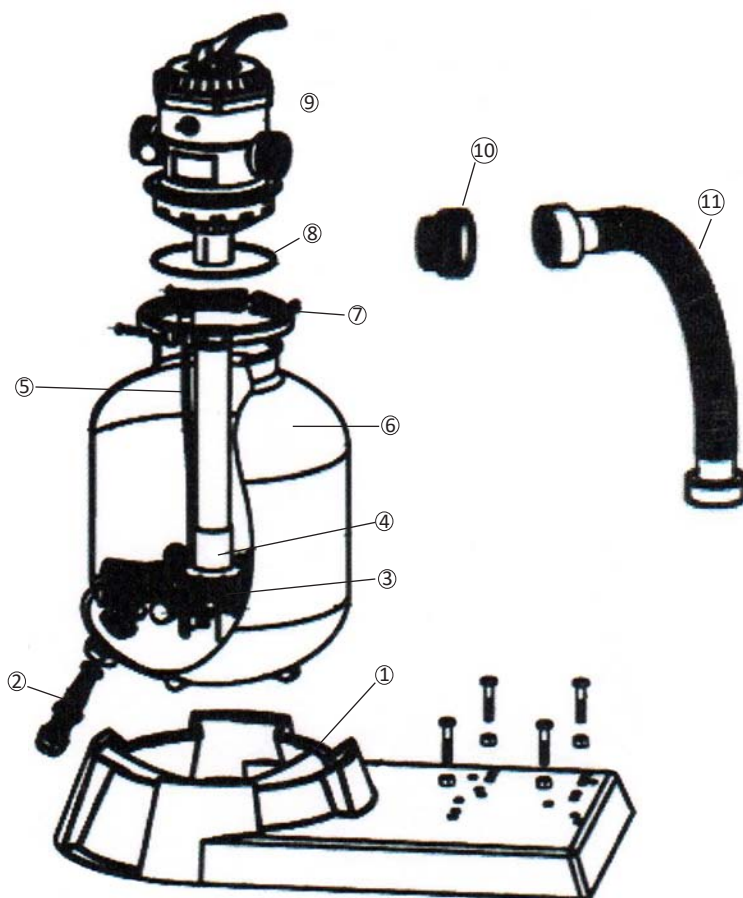
BF Filter Parts



Model #	Part #	Ref #	Description
RPS-BF-5000/10000	PT-21	1	Plugs (2), Thermometer, Cleaning Indicator
RC-BF-5000/10000	PT-22	2	Cover
RBB-BF-5000/10000	PT-23	3	Bioballs
REEF-BF-5000/10000	PT-24	4	Entrance/Exit Filter
RFD-BF-5000/10000	PT-25	5	Filter Divider
RFPH-BF-5000/10000	PT-26	6	Filter Pad Holder (includes part #8)
RFP-BF-5000	PT-27-A	7	Foam Inserts
RFP-BF-10000	PT-27-B	7	Foam Inserts
RFPHE-BF-5000/10000	PT-28	8	Filter Pad Holder - End
RFD-BF-5000/10000	PT-25	9	Filter Divider

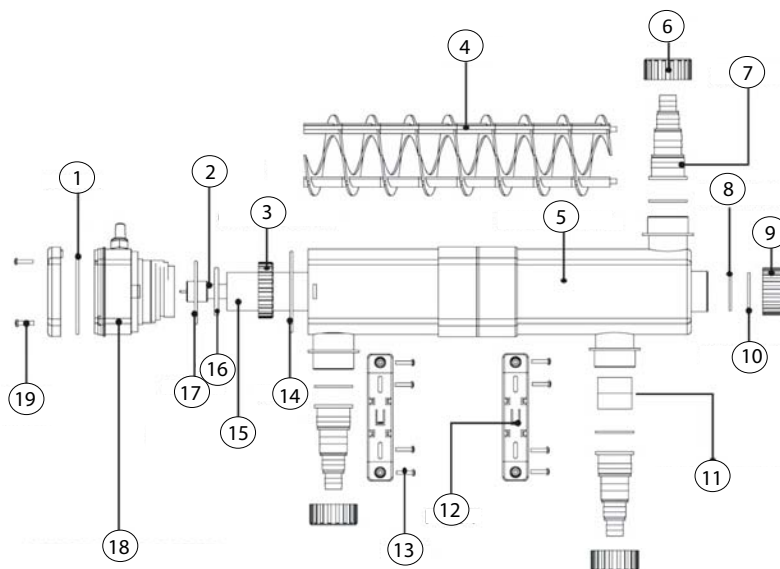
Model #	Part #	Ref #	Description
RWFP-BF-5000/10000	PT-29	10	Woven Fibre Pad
ROAS-BF-5000/10000	PT-30	11	Outlet Adapter set
RFBCS-BF-10000	PT-31	12	Filter Body Coupler Set
RIAS-BF-5000/10000	PT-32	13	Inlet Adapter Set
RBDAS-BF-5000/10000	PT-33	14	Bottom Drain Adapter Set
RC2-BF-10000	PT-34	15	2nd BF-10000 Chamber
RDS-BF-5000/10000	PT-35	16	Drain Set
RC1-BF-10000	PT-36	17	1st BF-10000 Chamber
RCI-BF-5000/10000	PT-37	18	BF 5000 Chamber (not Shown)

HCF Filter Parts



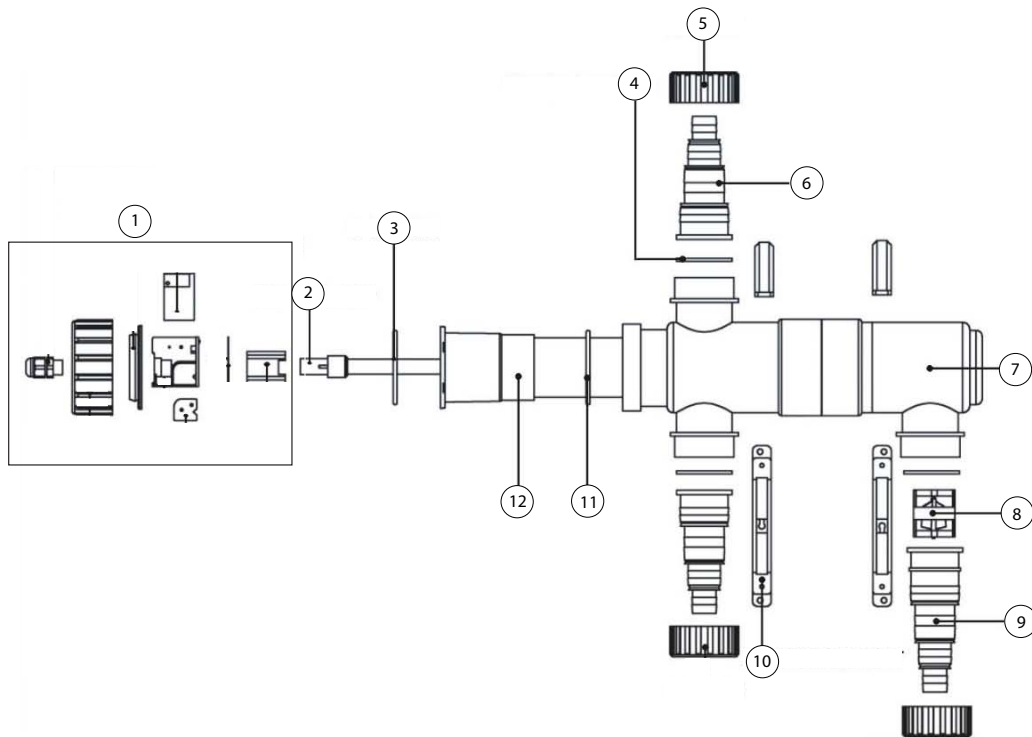
Model Number	Part #	Ref #	Description
Filter Base	PT-85	1	Filter Base
Drain Plug	PT-86	2	Drain Plug
Lateral (HCF-19) (set of 8)	PT-87A	3	Lateral for HCF-19
Lateral (HCF-24) (set of 8)	PT-87B	3	Lateral for HCF-24
Lateral (HCF-30) (set of 8)	PT-87C	3	Lateral for HCF-30
Center Pipe (HCF-19)	PT-88A	4	Center pipe for HCF 19
Center Pipe (HCF-24)	PT-88B	4	Center pipe for HCF 24
Center Pipe (HCF-30)	PT-88C	4	Center pipe for HCF 30
Air release tube (all models)	PT-89	5	Air release tube
Tank HCF-19	PT-90A	6	Tank HCF-19
Tank HCF-24	PT-90B	6	Tank HCF-24
Tank HCF-30	PT-90C	6	Tank HCF-30
Flange Clamp	PT-91	7	Flange Clamp
O-ring	PT-92	8	O-ring
6-Way Valve (HCF-19/24)	PT-93A	9	6-Way Valve (HCF-19/24)
6-Way Valve (HCF-30)	PT-93B	9	6-Way Valve (HCF-30)
Adapter	PT-94	10	Adapter
Hose (HCF-19)	PT-95A	11	Hose (HCF-19)
Hose (HCF-24)	PT-95B	11	Hose (HCF-24)

CUV-18 and CUV-36 Parts



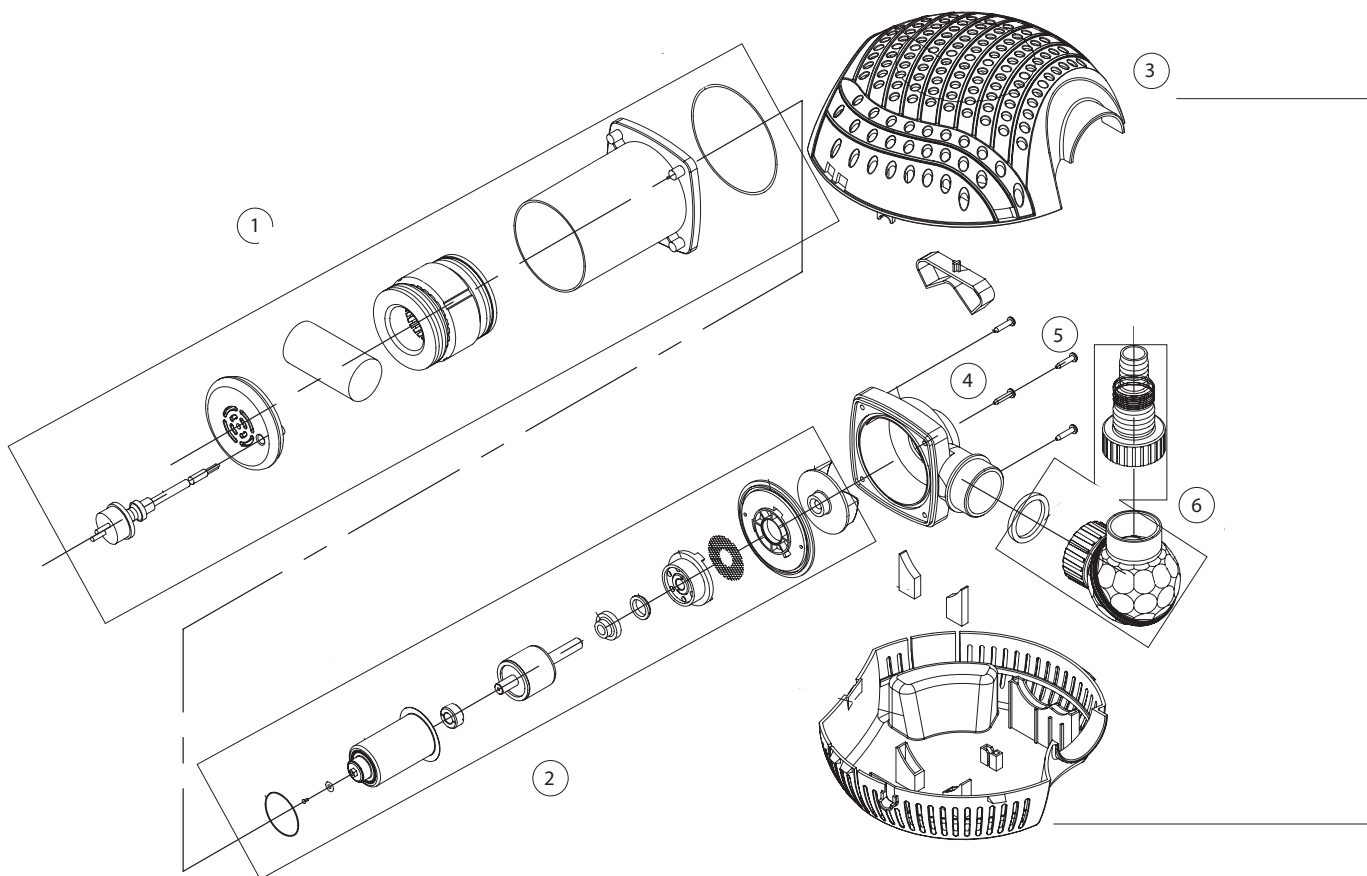
Model #	Part #	Ref #	Description
CUV 18/36 O-ring (1)	PT-38	1	O-Ring
CUV 18 watt UVC-lamp	PT-39-A	2	18 watt UVC lamp
CUV 36 watt UVC-lamp	PT-39-B	2	36 watt UVC lamp
CUV 18/36 Screw Clamp	PT-40	3	Screw Clamp
CUV 18/36 Helix	PT-41	4	Helix
CUV 18/36 Body Shell	PT-42	5	Body
CUV 18/36 Nut	PT-43	6	Screw Nut
CUV 18/36 Outlet	PT-44	7	Hosetail
CUV 18/36 Rubber gasket	PT-45	8	Rubber Gasket
CUV 18/36 Nut	PT-46	9	Screw Nut
CUV 18/36 Indicator Glass	PT-47	10	Glass Viewing Disk
CUV 18/36 Adj. Switch	PT-48	11	Switch
CUV 18/36 Foot	PT-49	12	Body Foot
CUV 18/36 Screw	PT-50	13	Screw
CUV 18/36 O-ring (2)	PT-51	14	O-Ring
CUV 18-Quartz Sleeve	PT-52-A	15	Quartz Sleeve CUV-18
CUV 36-Quartz Sleeve	PT-52-B	15	Quartz Sleeve CUV-36
CUV 18/36 O-ring (3)	PT-53	16	O-Ring
CUV 18/36 O-ring (4)	PT-54	17	O-Ring
CUV 18 Watt UVC Ballast	PT-55-A	18	UVC Ballast - 18 watt
CUV 36 watt UVC Ballast	PT-55-B	18	UVC Ballast - 18 watt
CUV 18/36 Screw	PT-56	19	Screw

CUV-118, CUV-136 and CUV 172 Parts



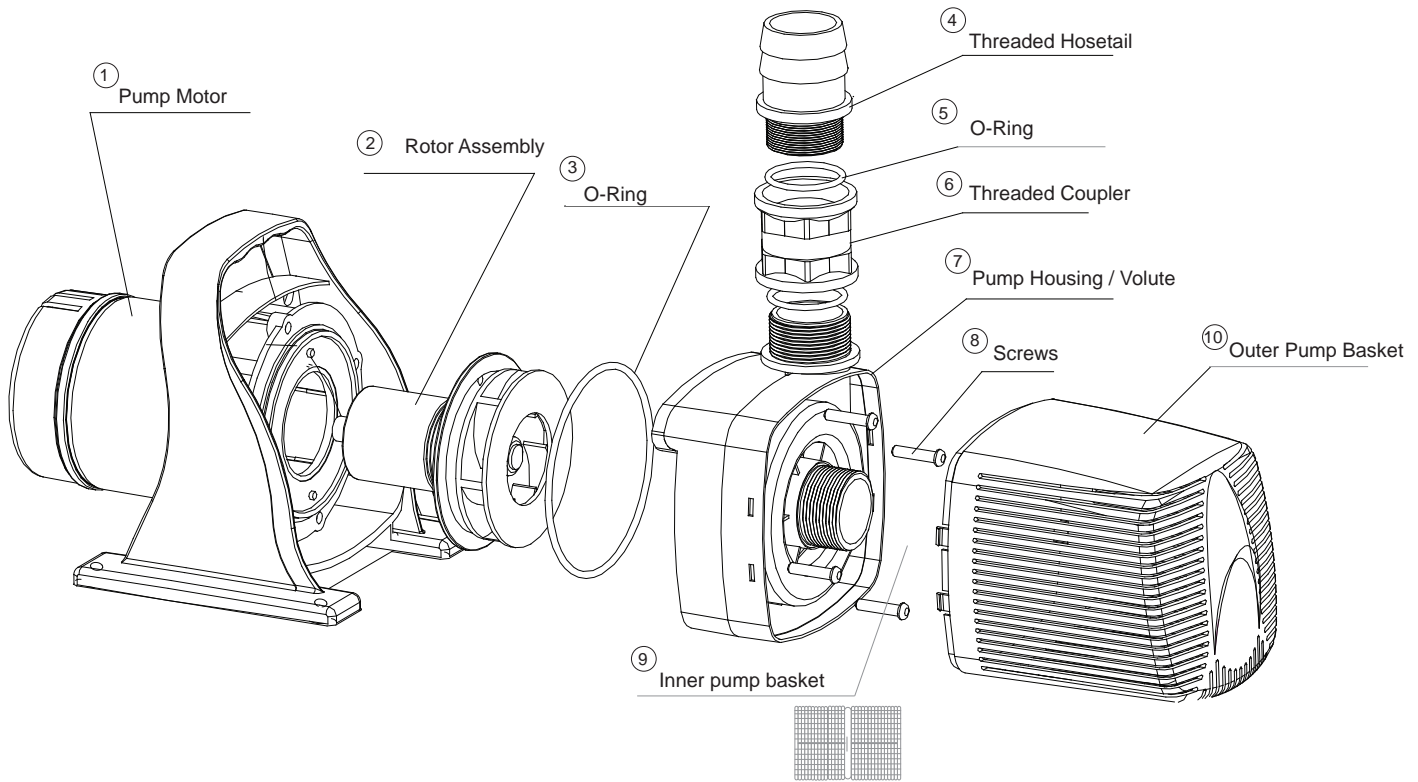
Model #	Part #	Ref #	Description
CUV 118 Watt Ballast Assembly	PT-57-A	1	Ballast Assembly
CUV 136 Watt Ballast Assembly	PT-57-B	1	Ballast Assembly
CUV 172 WattBallast Assembly	PT-57-B x 2	1 x 2	Ballast Assembly
CUV 118 Watt UVC lamp	PT-58-A	2	18 Watt UVC lamp
CUV 136 Watt UVC lamp	PT-58-B	2	36 Watt UVC lamp
CUV 172 Watt UVC lamp	PT-58-B x 2	2 x 2	72 Watt UVC lamp
CUV 118-172 O-Ring (1)	PT-59	3	O-Ring (1)
CUV 118-172 Rubber Ring	PT-60	4	Rubber Ring
CUV 118-172 Screw Nut	PT-61	5	Screw Nut
CUV 118-172 Outlet Hosetail	PT-62	6	Outlet Hosetail
CUV 118-172 Body	PT-63-A	7	Body - CUV-118
CUV 118-172 Body	PT-63-B	7	Body - CUV-136
CUV 118-172 Body	PT-63-C	7	Body - CUV-172
CUV 118-172 Flow Meter	PT-64	8	Flow Meter
CUV 118-172 Inlet Hosetail	PT-65	9	Inlet Hosetail
CUV 118-172 Mounting Bracket	PT-66	10	Mounting Bracket
CUV 118-172 O-Ring (2)	PT-67	11	O-Ring (2)
CUV 118 Quartz Sleeve	PT-68-A	12	Quartz Sleeve - CUV 118
CUV 136 Quartz Sleeve	PT-68-B	12	Quartz Sleeve - CUV 136
CUV 172 Quartz Sleeve	PT-68-B x 2	12 x 2	Quartz Sleeve - CUV 172

FP Pump Parts



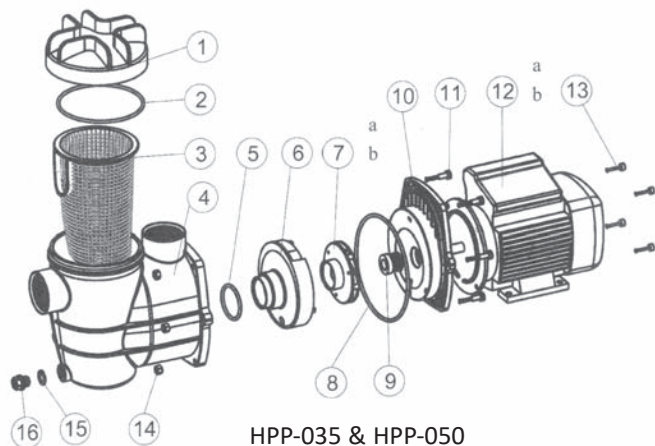
Model #	Part #	Ref #	Description
FP-1750	PT-69-A	1	Motor
FP-2300	PT-69-B	1	Motor
FP-3200	PT-69-C	1	Motor
FP-4750	PT-69-D	1	Motor
FP-1750	PT-70-A	2	Rotor/Impeller
FP-2300	PT-70-B	2	Rotor/Impeller
FP-3200	PT-70-C	2	Rotor/Impeller
FPS-4750	PT-70-D	2	Rotor/Impeller
FP-1750	PT-71-A	3	Upper/Lower Body
FP-2300	PT-71-B	3	Upper/Lower Body
FP-3200	PT-71-C	3	Upper/Lower Body
FPS-4750	PT-71-D	3	Upper/Lower Body
FP-1750	PT-72-A	4	Pump Housing/Volute
FP-2300	PT-72-B	4	Pump Housing/Volute
FP-3200	PT-72-C	4	Pump Housing/Volute
FPS-4750	PT-72-D	4	Pump Housing/Volute
FP-1750/3200	PT-73-A	5	Screws
FPS-4750	PT-73-B	5	Screws
FP-1750/3200	PT-74-A	6	Fittings
FPS-4750	PT-74-B	6	Fittings

SP Pump Parts

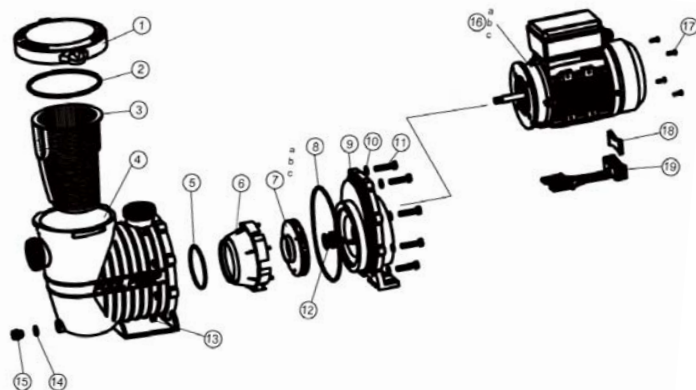


Model #	Part #	Ref #	Description	Model #	Part #	Ref #	Description
SP-1400	PT-75-A	1	Pump Motor	SP-6600/8000	PT-78-C	4	Threaded Hosetail
SP-1800	PT-75-B	1	Pump Motor	SP-1400/2200	PT-79-A	5	O-Ring
SP-2200	PT-75-C	1	Pump Motor	SP-3700/5300	PT-79-B	5	O-Ring
SP-3700	PT-75-D	1	Pump Motor	SP-6600/8000	PT-79-C	5	O-Ring
SP-5300	PT-75-E	1	Pump Motor	SP-1400/2200	PT-80-A	6	Threaded Coupler
SP-6600	PT-75-F	1	Pump Motor	SP-3700/5300	PT-80-B	6	Threaded Coupler
SP-8000	PT-75-G	1	Pump Motor	SP-6600/8000	PT-80-C	6	Threaded Coupler
SP-1400	PT-76-A	2	Rotor Assembly	SP-1400/2200	PT-81-A	7	Pump Housing/Volute
SP-1800	PT-76-B	2	Rotor Assembly	SP-3700	PT-81-B	7	Pump Housing/Volute
SP-2200	PT-76-C	2	Rotor Assembly	SP-5300	PT-81-C	7	Pump Housing/Volute
SP-3700	PT-76-D	2	Rotor Assembly	SP-6600/8000	PT-81-D	7	Pump Housing/Volute
SP-5300	PT-76-E	2	Rotor Assembly	SP-1400/3700	PT-82-A	8	Screws
SP-6600	PT-76-F	2	Rotor Assembly	SP-5300/8000	PT-82-B	8	Screws
SP-8000	PT-76-G	2	Rotor Assembly	SP-1400/2200	PT-83-A	9	Inner Pump Basket
SP-1400/2200	PT-77-A	3	O-Ring	SP-3700/5300	PT-83-B	9	Inner Pump Basket
SP-3700	PT-77-B	3	O-Ring	SP-6600/8000	PT-83-C	9	Inner Pump Basket
SP-5300/8000	PT-77-C	3	O-Ring	SP-1400/3700	PT-84-A	10	Outer Pump Basket
SP-1400/2200	PT-78-A	4	Threaded Hosetail	SP-5300/8000	PT-84-B	10	Outer Pump Basket
SP-3700/5300	PT-78-B	4	Threaded Hosetail				

HPP Pump Parts



HPP-035 & HPP-050

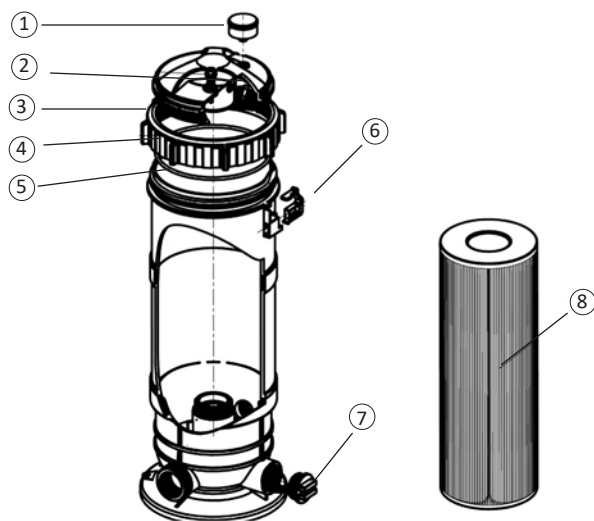


HPP-075, HPP-100 & HPP-150

Model Number	Part #	Ref #	Description
Cover	PT-96	1	Cover, all models
O-ring	PT-97	2	O-ring, all models
Basket	PT-98	3	Basket, all models
Pump Housing	PT-99	4	Pump Housing, all models
O-ring	PT-100	5	O-ring, all models
Diffuser	PT-101	6	Diffuser, all models
Impeller HPP-035	PT-102A	7	Impeller HPP-035
Impeller HPP-050	PT-102B	7	Impeller HPP-050
O-Ring	PT-103	8	O-ring, all models
Seal Assembly	PT-104	9	Seal Assembly, all models
Pump Cover	PT-105	10	Pump Cover, all models
Screws (6)	PT-106	11	Screws, set of 6, all models
.35HP Motor	PT-107A	12	.35HP Motor
.5HP Motor	PT-107B	12	.5HP Motor
Screws (5)	PT-108	13	Screws, set of 5, all models
Nuts (6)	PT-109	14	Nuts, set of 6, all models
Gasket	PT-110	15	Gasket, all models
Drain Plug	PT-111	16	Drain Plug, all models

Model Number	Part #	Ref #	Description
Cover	PT-112	1	Cover, all models
O-ring	PT-113	2	O-ring, all models
Basket	PT-114	3	Basket, all models
Pump Housing	PT-115	4	Pump Housing, all models
O-ring	PT-116	5	O-ring, all models
Diffuser	PT-117	6	Diffuser, all models
Impeller HPP-075	PT-118A	7	Impeller HPP-075
Impeller HPP-100	PT-118B	7	Impeller HPP-100
Impeller HPP-150	PT-118C	7	Impeller HPP-150
O-Ring	PT-119	8	O-ring, all models
Pump Cover	PT-120	9	Pump Cover, all models
Gasket (8)	PT-121	10	Gasket, set of 8, all models
Screws (8)	PT-122	11	Screws, set of 8, all models
Seal Assembly	PT-123	12	Seal Assembly, all models
Nuts (8)	PT-124	13	Nuts, set of 8, all models
Gasket	PT-125	14	Gasket, all models
Drain Plug	PT-126	15	Drain plug, all models
HPP-075 Motor	PT-127A	16	.075 Motor
HPP-100 Motor	PT-127B	16	1.0 Motor
HPP-150 Motor	PT-127C	16	1.50HP Motor
Screws (4)	PT-128	17	Screws, set of 4, all models
Supporting foot	PT-129	18	Supporting foot, all models
Mounting Foot	PT-130	19	Mounting foot, all models

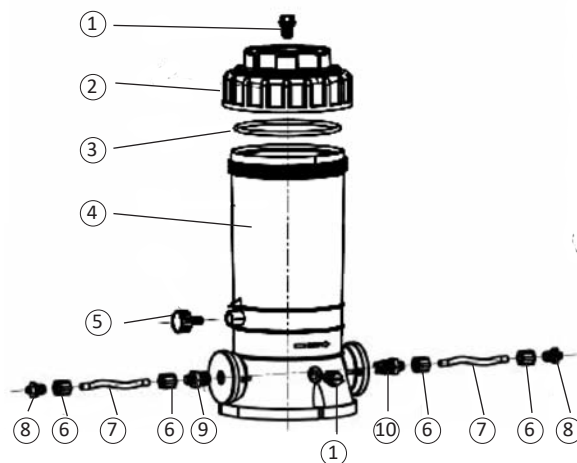
HPPCF-35 Cartridge Filter



Model Number	Part #	Ref #	Description
Pressure Gauge	PT-131	1	Pressure Gauge
Drain Plug with Gasket	PT-132	2	Drain Plug with Gasket
Seal Cover	PT-133	3	Seal Cover
Locking Ring	PT-134	4	Locking Ring
O-Ring	PT-135	5	O-ring
Locking Ring Latch	PT-136	6	Locking Ring Latch
Plug with o-ring 1 1/2"	PT-137	7	Plug with o-ring 1 1/2"
Cartridge Element	PT-138	8	Cartridge Element

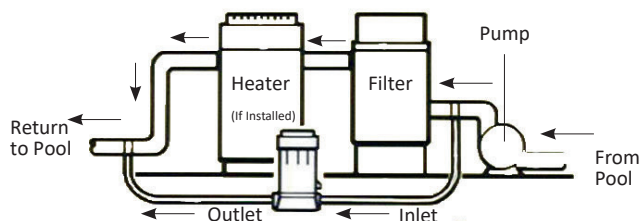


HPPCL Chlorinator

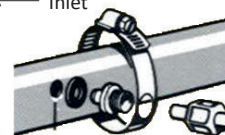


Model Number	Part #	Ref #	Description
Drain Plug with Gasket	PT-139	1	Drain Plug with Gasket
Cover	PT-140	2	Cover
O-Ring	PT-141	3	O-Ring
Chlorinator Body	PT-142	4	Chlorinator Body
Control Valve	PT-143	5	Control Valve
Compression Nuts	PT-144	6	Compression Nuts
Plastic Tubing	PT-145	7	Plastic Tubing
Saddle Fitting	PT-146	8	Saddle Fitting
Inlet Fitting Adapter	PT-147	9	Inlet Fitting Adapter
Check Valve Assembly	PT-148	10	Check Valve Assembly

Chlorinator Installation

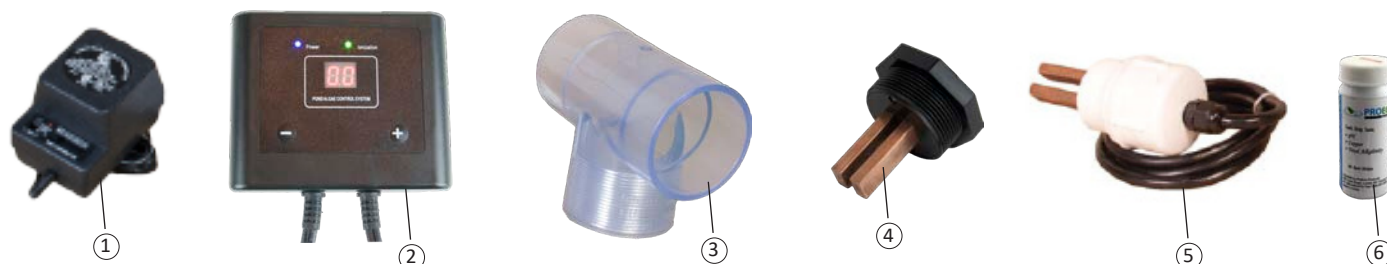


HPPCL off-line feeders install next to filter system and work on system pressure differential. Connects easily with compression couplings for new or existing system piping. Connectors and tubing are included with each feeder.



3/8" Hole Saddle Clamp Assembly system piping

Ionizer Replacement Parts



Model Number	Part #	Ref #	Description
IO-1001 transformer	PT-149	1	Reverse Polarity Transformer - IO-1001
IO-2001/3001 Controller	PT-150	2	Programmable controller IO-2001 & IO-3001
Clear Tee - 2" S x T	PT-151	3	Clear Tee - 2" S x T
Replacement Anode for IO-1001/2001/3001	PT-152	4	Replacement Anode IO-1001/2001/3001
Replacement Anode for IO-2001/3001 1 1/2"	PT-153	5	Replacement Anode for IO-2001/3001 1 1/2"
Test Strips	PT-154	6	Test Strips

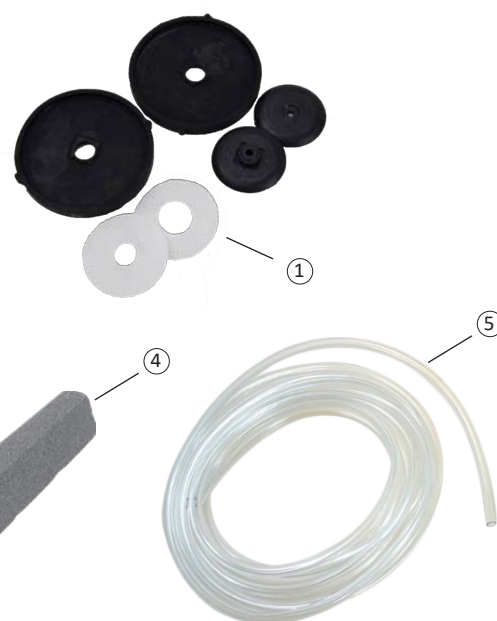
Note:

When ordering replacement Anodes for the IO-2001 and IO-3001 ionizers, please pay careful attention to the size of the Anode required, current models are in 2" only, previous models (prior to 2014) were manufactured in 1 1/2".

If you are unsure of the model that you have, please provide a picture of the anode and plug end, email to info@proecoproducts.com, we would be happy to help with determining which replacement Anode you require.

PA Pump Replacement Parts

Model Number	Part #	Ref #	Description
PA-1 Pump Diaphragm	PT-155A	1	Pump Diaphragm
PA-2 Pump Diaphragm	PT-155B	1	Pump Diaphragm
PA-3 Pump Diaphragm	PT-155C	1	Pump Diaphragm
AS-3	PT-156	2	Ball Air Stone
AS-6	PT-157	3	6" Air Stone
AS-12	PT-158	4	12" Air Stone
CT-30	PT-159	5	30' Tubing



AS - 3
Ball Air Stone



AS - 6
6" Air Stone

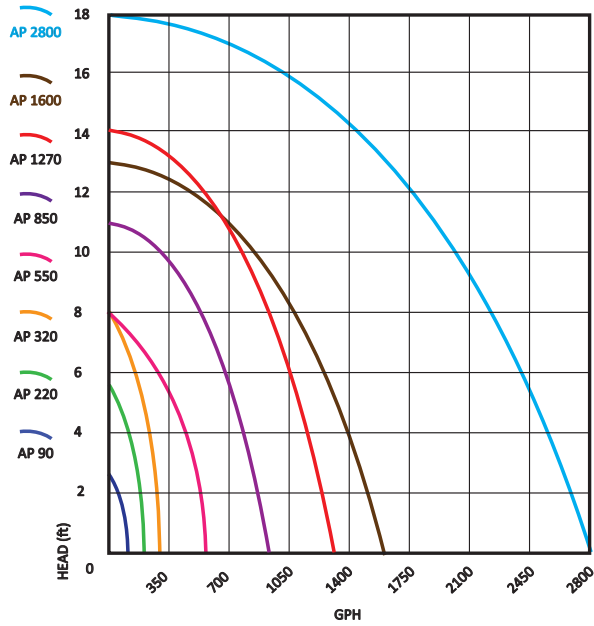


AS - 12
12" Air Stone

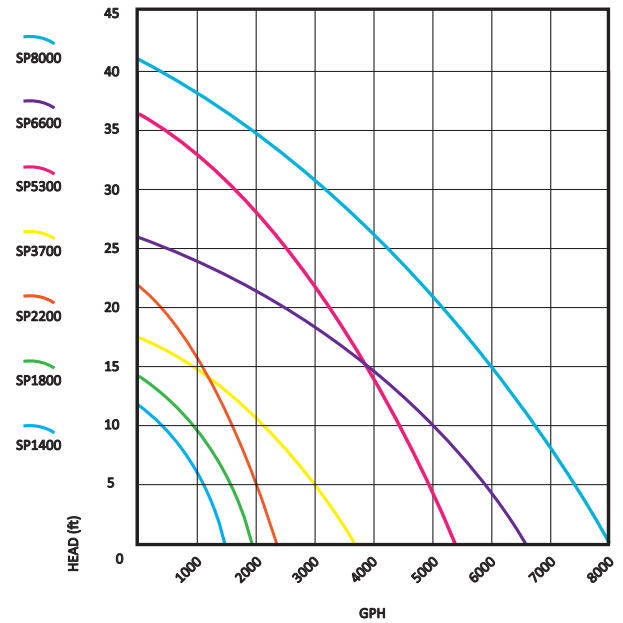


CT - 30
30' Tubing Roll

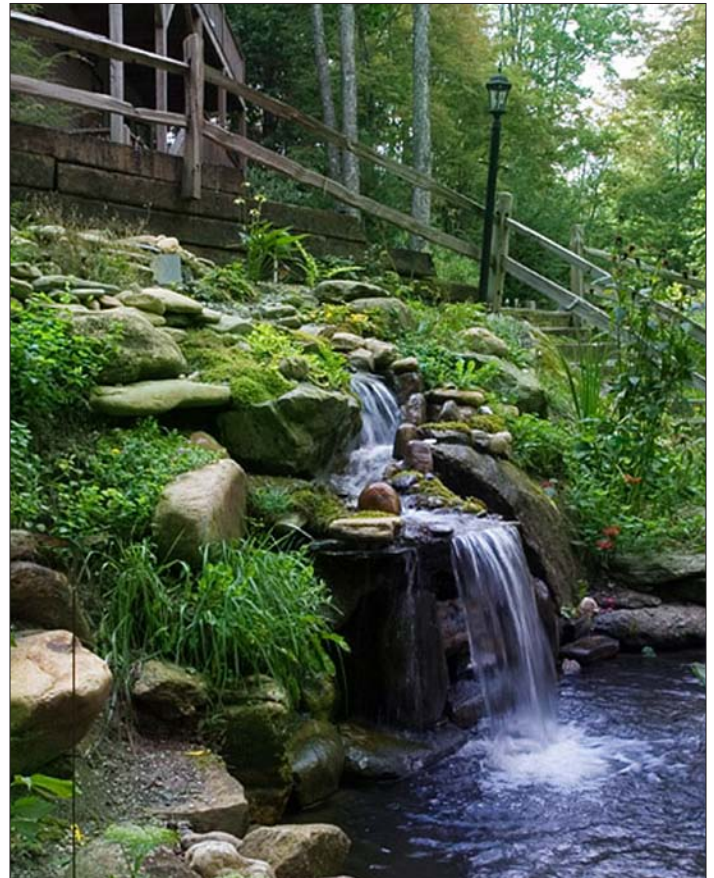
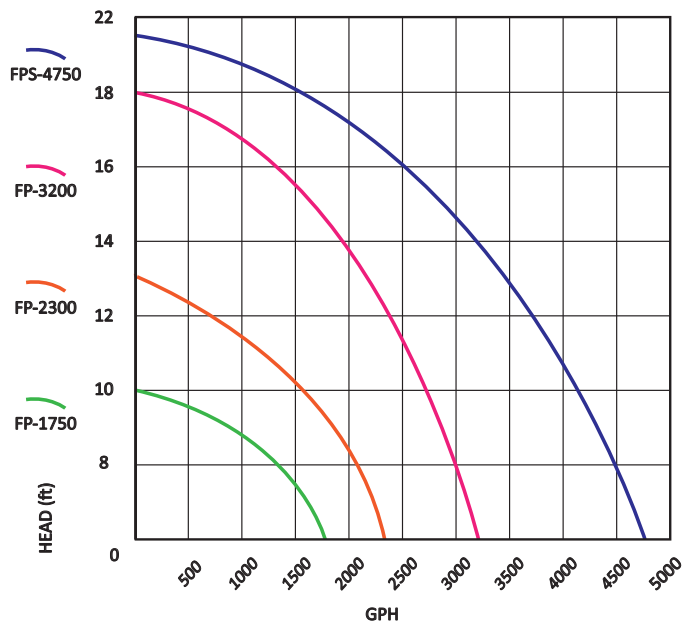
AP PUMPS



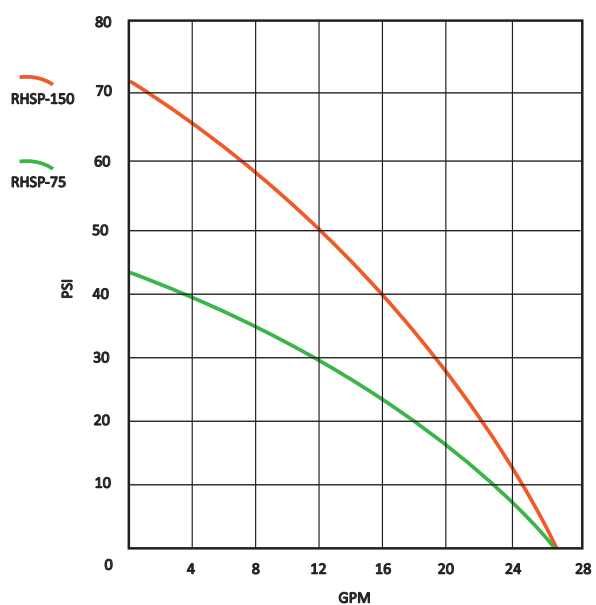
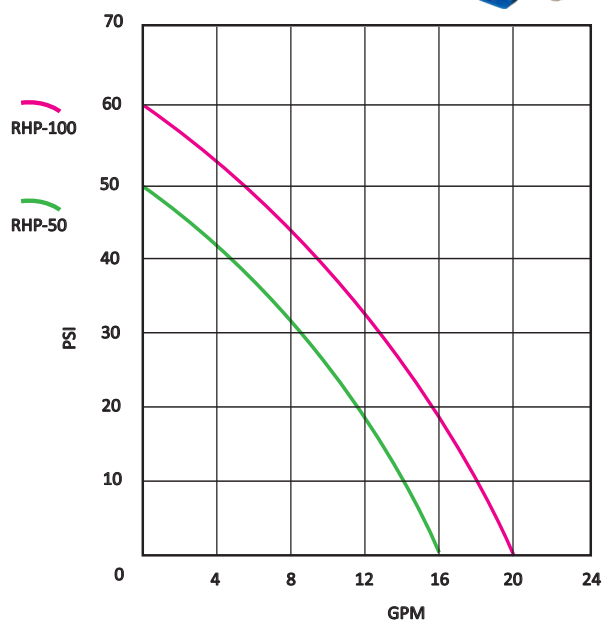
SP PUMPS



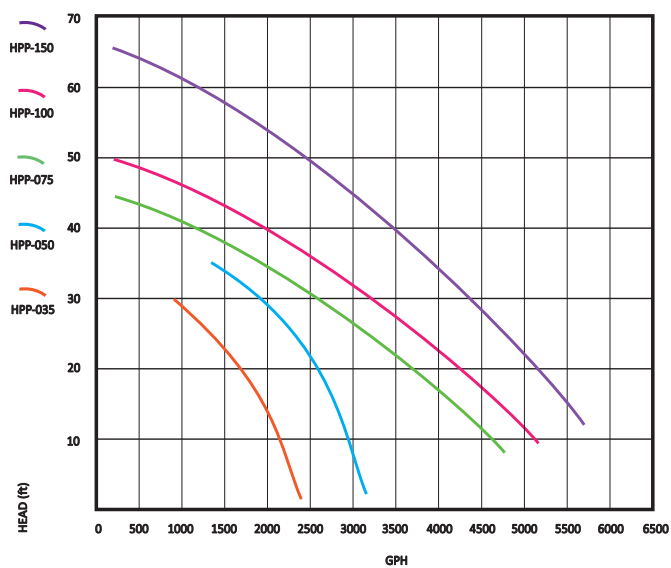
FP PUMPS



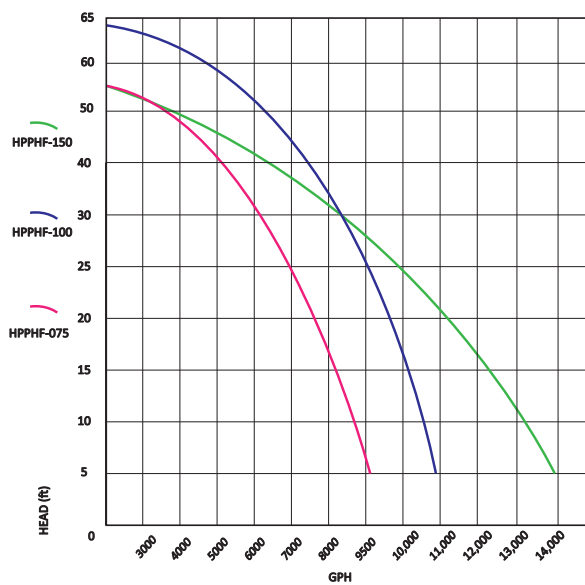
PUMP CURVES









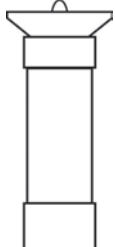
HPP PUMPS




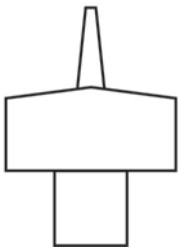
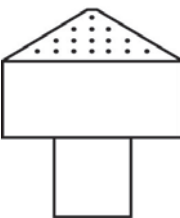
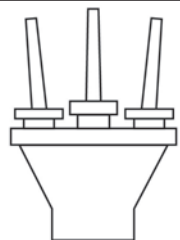

HPPHF PUMPS





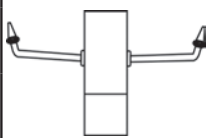
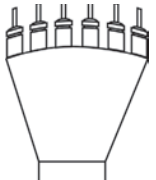
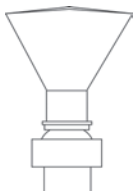

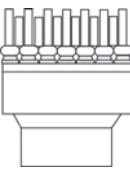

NOZZLE DIMENSIONS

	ProEco Item #	Orifice Diameter in/mm	Width at base in/mm	Width at widest point in/mm	Width at top in/mm	Height in/mm	Thread
	N101-0125	.118 / 3	.375 / 9.5	.48 / 12	.28 / 7.2	1.75 / 44	MNPT
	N101-025	.15 / 3.75	.526 / 13.25	.55 / 14	.28 / 7.13	2.1 / 53	MNPT
	N101-0375	.25 / 6	.65 / 16.25	.83 / 21	.35 / 9	2.75 / 71.5	MNPT
	N101-050	.25 / 6.5	1 / 25.5	1 / 25.5	.4 / 8	3.4 / 85	MNPT
	N101-075	.31 / 8	1.1 / 28	1.1 / 28	.4 / 8	3.75 / 95	MNPT
	N101-100	.31 / 8	1.4 / 36	1.6 / 41.5	.475 / 12	4.25 / 108	MNPT
	N101-150	.61 / .15	2 / 51.5	2.1 / 53	.7 / 18	9.75 / 248	MNPT
	N102-050	0.24 / 6	1 / 24	1 / 24	.4 / 8	3.4 / 85	FNPT
	N102-075	.31 / 8	1.15 / 29	1.15 / 29	.4 / 8	3.75 / 95	FNPT
	N102-100	.305 / 7.75	1.4 / 36	1.4 / 36	.45 / 11.5	4.5 / 115	FNPT
	N102-150	.61 / 15.25	2.1 / 52.5	2.1 / 52.5	.7 / 118	6.5 / 165	FNPT
	N102-200	.6 / 15.25	2.5 / 64	2.75 / 72.5	.8 / 20	8.5 / 216	FNPT
	N103-075	.45 / 11	1.1 / 28	1.8 / 46	1.4 / 36	4.6 / 116	FNPT
	N103-100	.46 / 12	.84 / 21.5	1.7 / 43.25	1.5 / 38	5.5 / 140	FNPT
	N103-150	.59 / 15	1.425 / 36	2.5 / 63.5	2.25 / 57	7.25 / 184	FNPT
	N103-200	.75 / 19	2 / 51	3 / 76	2.5 / 63.5	.8 / 20	FNPT
	N104-100	.15 / 3.75	.75 / 19	1.6 / 41.5	1.3 / 33	5.5 / 140	FNPT
	N104-150	.625 / 15.75	1.45 / 37	1.75 / 44.5	.75 / 19	7.25 / 183	FNPT
	N104-200	.63 / 16	1.95 / 49.5	2.25 / 57	.63 / 16	8.25 / 210	FNPT
	N105-050	.5 / 12.5	1 / 25	1 / 25	1 / 25	11 / 280	FNPT
	N105-075	.75 / 19	1 / 25	1 / 25	1 / 25	11 / 280	FNPT
	N105-100	1 / 25.5	1 / 25	1 / 25	1 / 25	11.25 / 288	FNPT
	N105-150	1.5 / 38	1.5 / 38	1.5 / 38	1.5 / 38	14.75 / 372	FNPT
	N105-200	2 / 51	2 / 51	2 / 51	2 / 51	15 / 378	FNPT
	N106-050	.5 / 12.5	.5 / 12.75	.5 / 12.75	.5 / 12.75	11 / 280	FNPT
	N106-075	.75 / 19	.75 / 19	.75 / 19	.75 / 19	11 / 280	FNPT
	N106-100	1 / 25.5	1 / 25	1 / 25	1 / 25	11 / 280	FNPT
	N106-150	1.5 / 38	1.5 / 38	1.5 / 38	1.5 / 38	14.25 / 362	FNPT
	N106-200	2 / 51	2 / 51	2 / 51	2 / 51	14.25 / 362	FNPT

NOZZLE DIMENSIONS

	ProEco Item #	Orifice Diameter in/mm	Width at base in/mm	Width at widest point in/mm	Width at top in/mm	Height in/ mm	Thread
	N107-050	7 x .10 / 2.5 12 x .11 / 2.75	1 / 26	1.75 / 44.5	1.75 / 44.5	1.75 / 44	FNPT
	N107-075	7 x .10 / 2.5 12 x .11 / 2.75	1.25 / 32	2.15 / 55.5	2.15 / 55.5	1.90 / 48	FNPT
	N107-100	7 x .11 / 2.8 12 x .13 / 3.3	1.5 / 38	2.5 / 64	2.5 / 64	2.15 / 54.5	FNPT
	N107-150	7 x .11 / 2.8 12 x .13 / 3.3	2.1 / 53.5	2.75 / 69	2.75 / 69	2.25 / 57	FNPT
	N107-200	7 x .12 / 3 12 x .135 / 3.5	2.5 / 64	3.2 / 80	3.2 / 80	2.2 / 55	FNPT
	N108-050	7 x .11 / 2.75 12 x .09 / 2.4 24 x .08 / 2.05	1.05 / 26.75	1.75 / 44.5	1.75 / 44.5	1.75 / 46	FNPT
	N108-075	7 x .11 / 2.75 12 x .09 / 2.4 24 x .08 / 2.05	1.255 / 32.25	2.15 / 54.5	2.15 / 54.5	2 / 51.55	FNPT
	N108-100	7 x .11 / 2.75 12 x .09 / 2.4 24 x .08 / 2.05	1.575 / 40	2.5 / 64	2.5 / 64	2.1 / 53.5	FNPT
	N108-150	7 x .14 / 3.65 12 x .11 / 2.75 24 x .09 / 2.42	2.1 / 53.5	2.75 / 70	2.75 / 70	2.5 / 65	FNPT
	N108-200	7 x .14 / 3.65 12 x .11 / 2.75 24 x .09 / 2.42	2.5 / 65	3 / 78	3 / 78	3 / 76	FNPT
	N109-100	7 x .19 / 4.8	1.5 / 38	2.9 / 73.5	2.9 / 73.5	3.9 / 99	FNPT
	N109-150	1 x .375 / 9.5 5 x .25 / 6.5	2 / 51	4.5 / 114	4.5 / 114	7.25 / 184	FNPT
	N109-200	1 x .375 / 9.5 5 x .25 / 6.5	2.5 / 64	4.75 / 120.5	4.75 / 120.5	7.5 / 190.5	FNPT
	N111-050	1 x .25 / 6.3 1 x .6 / 15	.9 / 23	1.75 / 45	1.75 / 45	6.75 / 172	MNPT
	N111-075	1 x .4 / 10 1 x .9 / 23	1.125 / 28.5	2.5 / 65.5	2.5 / 65.5	7.75 / 197	MNPT
	N111-100	1 x .4 / 10 1 x 1 / 25	1.4 / 35.5	3 / 76	3 / 76	9.5 / 241	MNPT
	N111-150	1 x .5 / 13 1 x 1.5 / 38	2 / 51	3.5 / 90	3.5 / 90	10.5 / 270	MNPT
	N111-200					11.5 / 290	MNPT

NOZZLE DIMENSIONS

	ProEco Item #	Orifice Diameter in/mm	Width at base in/mm	Width at widest point in/mm	Width at top in/mm	Height in/mm	Thread
	N112-050	.75 / 90	.975 / 24.75	1.5 / 38	1.5 / 38	5.5 / 141	FNPT
	N112-075	.95 / 24	1.25 / 31.75	1.5 / 38	1.5 / 38	6.25 / 157	FNPT
	N112-100	1.25 / 31.75	1.5 / 38	1.75 / 44.5	1.75 / 44.5	6.5 / 167	FNPT
	N112-150	1.25 / 31.75	2 / 51	2.1 / 53	2.1 / 53	8 / 203	FNPT
	N112-200						FNPT
	N113-050	6 x .125 / 3.175	1 / 25	7.5 / 190.5	7.5 / 190.5	4.1 / 104	FNPT
	N113-075	6 x .125 / 3.175	1.4 / 35.5	7.75 / 197	7.75 / 197	4.5 / 112	FNPT
	N113-100	6 x .15 / 3.8	1.5 / 38	8.5 / 216	8.5 / 216	4.75 / 118	FNPT
	N113-150	6 x .2 / 5	2 / 51	14.5 / 368	14.5 / 368	5.35 / 136	FNPT
	N114-100	7 x .15 / 3.8	1.5 / 38	5.5 / 140	5.5 / 140	7 / 178	FNPT
	N115-100	2.75 / 70 x .1 / 2.5	1.5 / 38	3 / 76	3 / 76	5.75 / 148	FNPT
	N115-150	2.75 / 70 x .1 / 2.5	2 / 51	3 / 76	3 / 76	5.75 / 148	FNPT
	N116-100	3.5 / 89 x .2 / 5	1.5 / 38	4 / 101	4 / 101	4.25 / 110	FNPT
	N117-150	19 x .225 / 5.75	2.125 / 54	4.5 / 114	4.5 / 114	4.6 / 117	FNPT
	N118-100	1.25 / 32	1.25 / 32	2.25 / 56	2 / 51	6 / 153	MNPT



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