

Recreational Pond Instructions

RPK1020



Components of a Rec Pond



PV-CUBE
Pit Viper™ Module



PV-COUP
Pit Viper™
Diffuser Connector



PV-CO410
4" to 10" Single Wall
Pit Viper™ Connector



PV-CAP10
Pit Viper™ End Cap



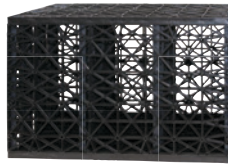
EBC44
EasyBog™ Cube



JAFIB3
Intake Bay Vault



CVA30IB
Intake Bay Check
Valve



HSC44
High Strength Res-Cube



JAFM
Clean Out Vault



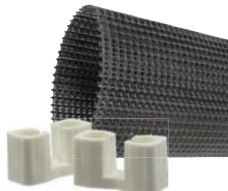
JAFME x2
Clean Out Vault Extension



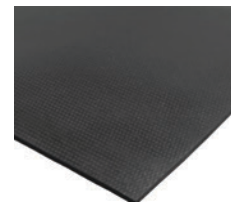
SPVS165
Swim Rated Pump



FMV20
2' Flow Meter



PN125 & HSCCLIP
Res-Cube Mesh & Clips

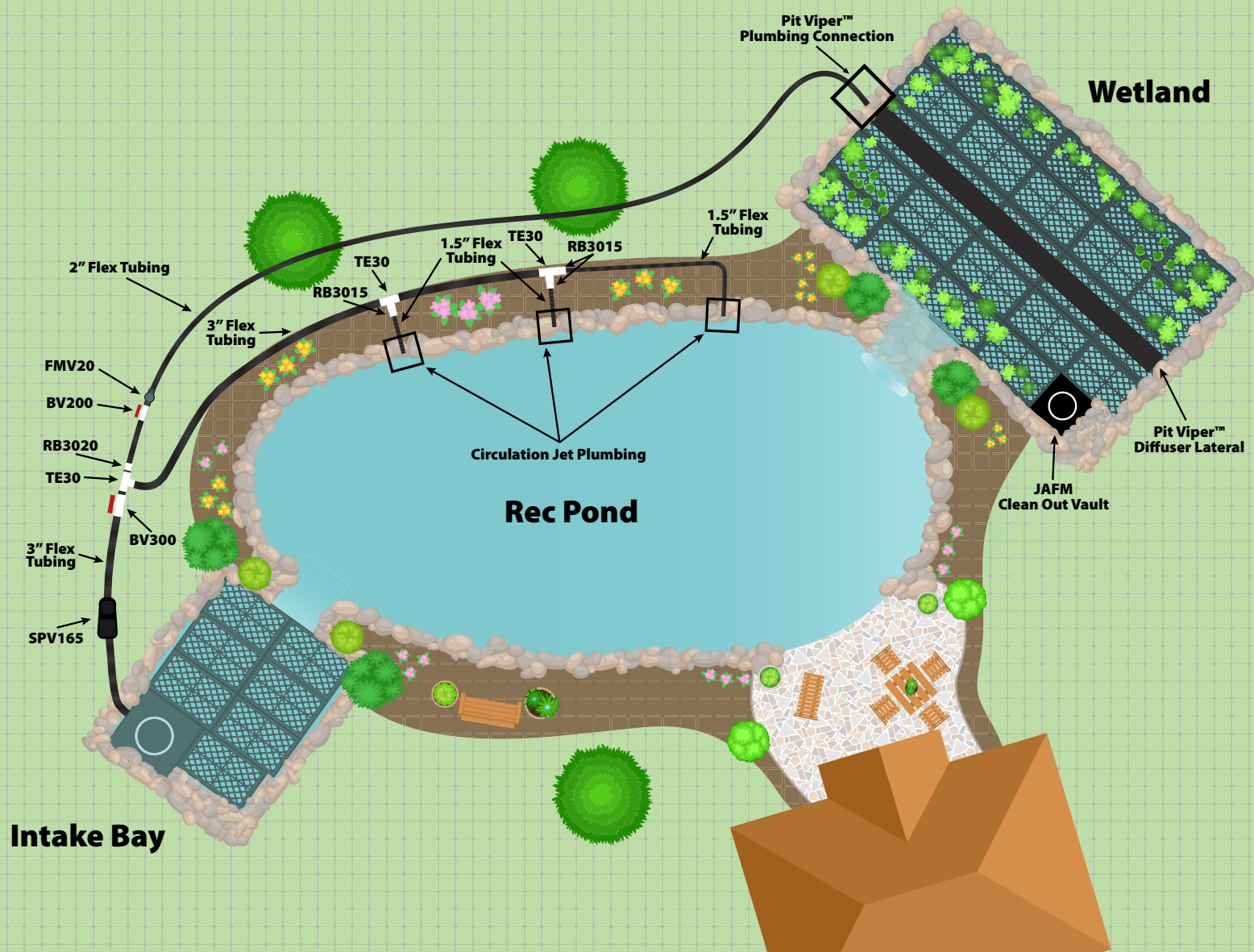


DuraLiner™
EPDM Pond Liner



DuraLiner™
Underlayment

RPK1020 Recreational Swim Pond Overview



Included in RPK1020

DuraLiner™ 45mil EPDM Liner	Wetland Clean Out Vault & 2 Extensions
10 oz. Liner Underlayment	Intake Bay System
(5) Pit Viper™ Diffuser Modules	Plumbing Package
1.65 hp SPVS165 Pump	2" Flow Meter
(24) EasyBog™ Cubes (with Media)	Screen Mesh
(26) HSC44 Res Cubes	5 lbs. EasyPro® Beneficial Bacteria

****Read and follow all equipment instructions. Always follow local and national codes.**

① Excavate the Pond

Pond Size: 10' x 20' x 6'

② Excavate the Wetland Filter

Wetland Size: 7' x 11.5' x 4'

A. 4' Minimum Depth. 3' required for the **PV-CUBE** Pit Viper™ & **EBC44** EasyBog™ Cubes and 6" minimum covering of stone and gravel to hide the cubes, plus 6" of water over the wetland.

B. Over dig the length and width by 1'. This gives room for folds in the liner and plumbing connections to the Pit Viper™. (Step 18) *The Clean out vault is recommended to be at a slightly lower elevation than the rest of the wetland.*

③ Excavate the Intake Bay

Intake Bay Size: 6' x 5' x 2.5'

2.5' minimum depth. 17.5" for the cubes and vaults, 4" of gravel covering the intake bay and 6" minimum of water over the gravel. Over dig by 6" to account for folds in the liner.

④ Intake Channel to the Intake Bay

Intake Channel Width: 1.5' Wide

Recommended 6"-1' depth in the intake channel

⑤ Using DuraLiner™ EPDM Liner, Underlayment

For Pond & Intake Bay: 35' x 50' Roll

For Wetland: 25' x 10' Panel

Make sure the wetland liner overlaps the pond liner above water level. If larger boulders are being used, DuraLiner™ Rock Pads are recommended to protect your liner.

Learn how the
Wetland System
works here!



Wetland Installation

⑥ Create the Pit Viper™ Lateral

A. Layout the **PV-CUBE** Pit Viper™ lateral, centered in the longest length of the wetland.

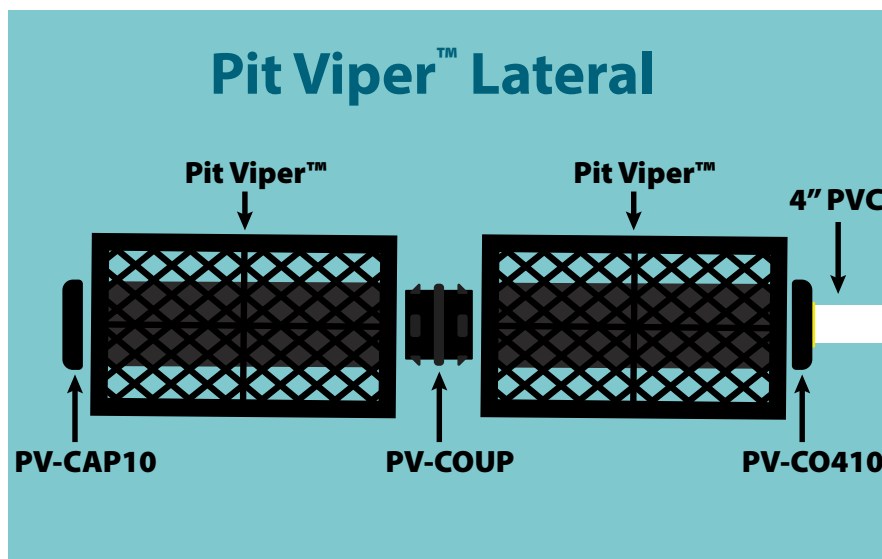
B. Each Pit Viper™ cube connects with a 10" coupling **PV-COUP**.

C. Water enters the first Pit Viper™ through the 10" x 4" Cap **PV-CO410**. This is a friction fit where 4" PVC slides into the yellow sleeve on the PV-CO410. This connection is made within the liner/ wetland.

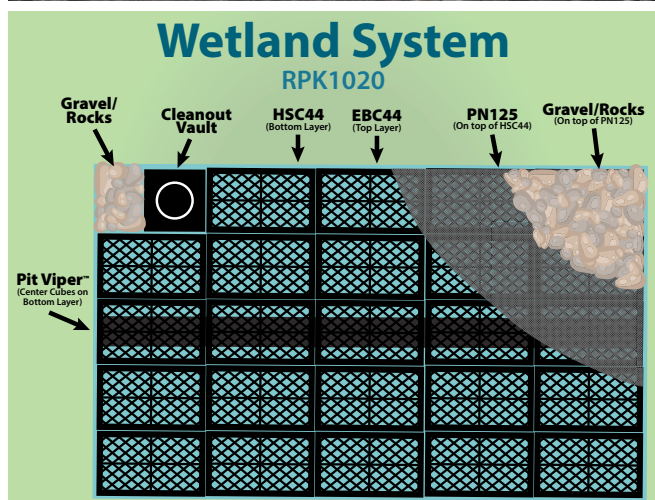
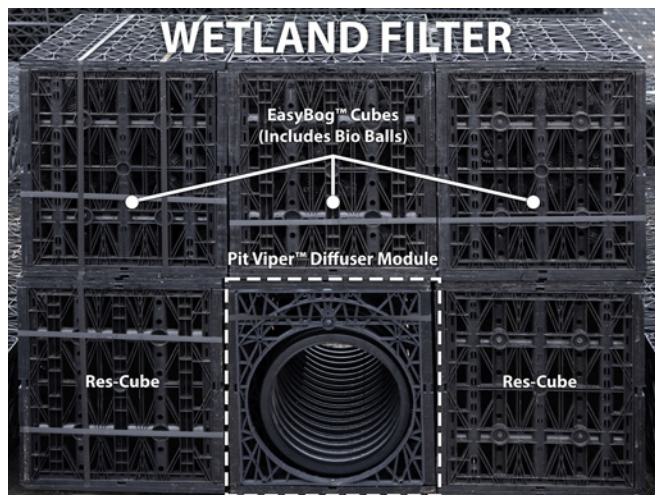
To make this connection, bring your plumbing up over the liner into the wetland and connect to the PV-CO410. (see illustration pg 5)

D. Install the 10" cap, **PV-CAP10**, on the far side of the last Pit Viper™.

E. Use **HSCCLIPS** Res-Cube Clips to Secure all Pit Viper™ Modules, Res Cubes™ and EasyBog™ Cubes.



Wetland Installation Cont.



7 Install Empty HSC44 Res-Cubes, Next to the Pit Viper™ Lateral

Two cubes on each side of the Pit Viper™ lateral, for 5' x 5' grid (See *Wetland System* image to Left). Use clips to secure the Pit Viper™ Modules and Res-Cubes together.

8 Install JAFM (Clean Out Vault) in a Low Spot

Install two JAFME (Clean Out Vault Extensions) on JAFM.

9 Install the EasyBog™ Cubes

Install a layer of EasyBog™ Cubes over the lower layer of empty Res-Cubes and the Pit Viper™ Modules. Use clips to secure the EasyBog™ cubes together.

10 Install ¼" Plastic Mesh

11 Cover the Wetland with Stones & Gravel

Install a 6" layer of stones and gravel over the wetland.

12 Return Water Back to the Pond

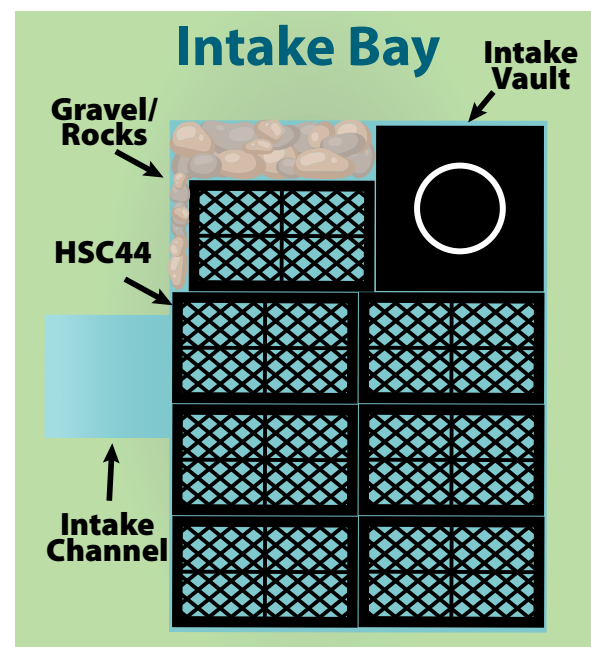
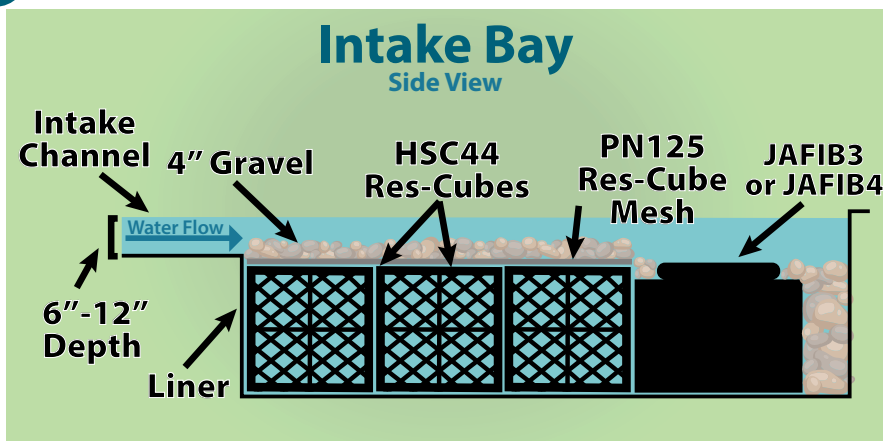
- Overlap the Wetland liner over the pond liner above water level. *If desired, seam the pond and wetland liners together.*
- Using liner, stone and waterfall foam, create a waterfall or stream, to return filtered water to the pond
- If a waterfall or stream is not desired, you can install the wetland just above water level and return the filtered water to the pond over a wider distance creating a calmer more serene setting.

Intake Bay Installation

13 Install the HSC44 Res-Cubes, Intake Bay Vault, and Check Valve Assembly

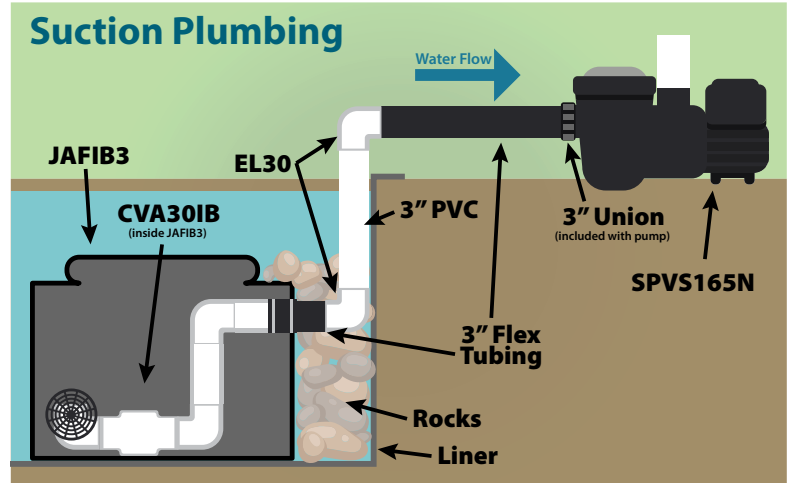
14 Install the PN125 Plastic Mesh Over the Cubes

15 Install Gravel and Stone Over the Intake Bay



16 Install the suction plumbing from the intake bay, to the pump

- A.** Using the rubber coupling on the intake bay check valve assembly, connect the suction line to the intake bay.
- B.** Using the union supplied with your pump, connect the suction line to the pump to 3" line.
- C.** Always make sure all suction plumbing is airtight and full of water before starting the pump.
- D.** Read and follow all pump instructions.



17 Install the discharge plumbing

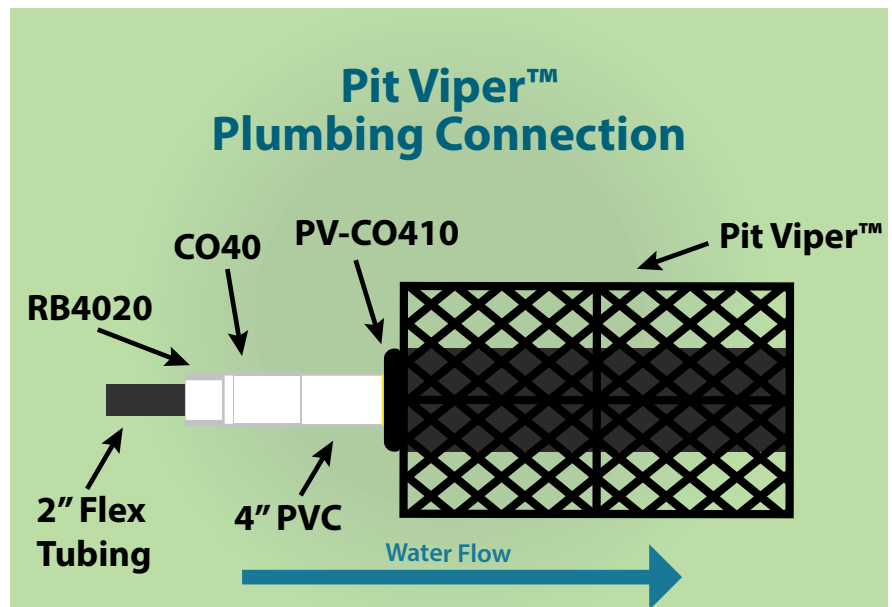
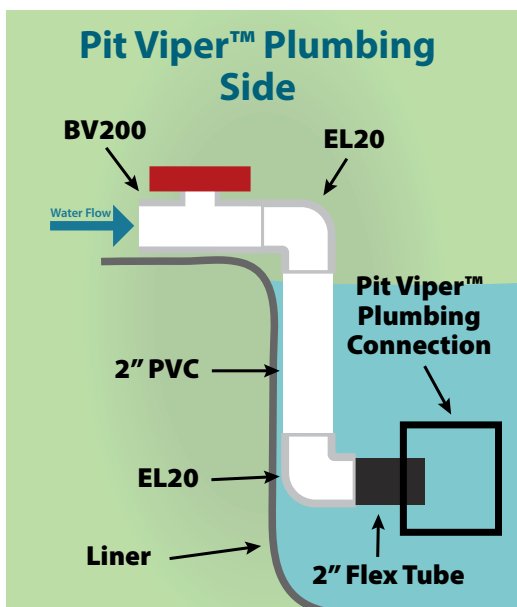
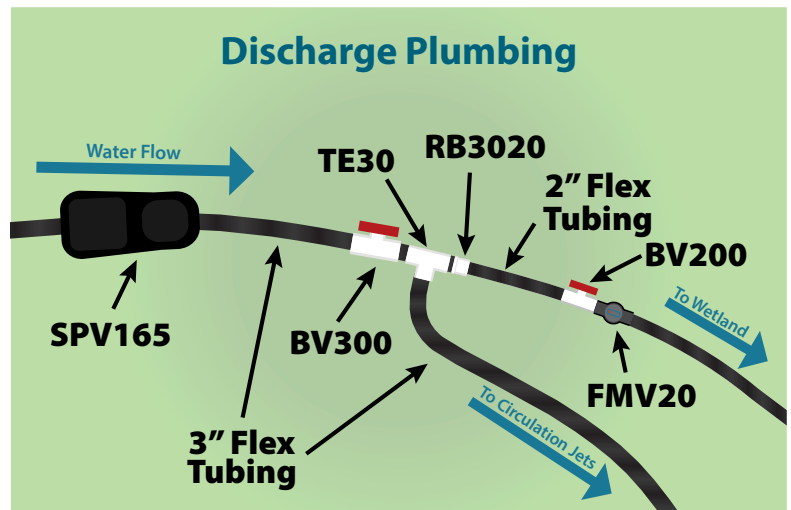
Use a tee to split the main 3" discharge plumbing to two lines. One line will feed the circulation jets with 3" Flex Tubing the other will feed the wetland filter with 2" Flex Tubing. (see illustration on page 2)

18 Plumbing the wetland filter

- A.** Install the flow meter on the line feeding the wetland. It can be located anywhere between the pump and wetland on the supply line running to the wetland.
- B.** Install a ball valve before the flow meter. This will allow you to dial into the wetland's required flow rate.

Flow Rate: 50 gpm

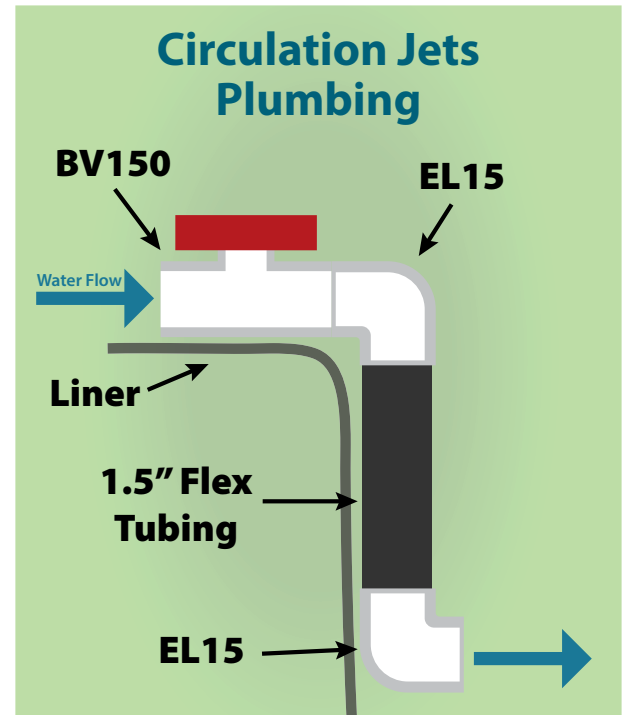
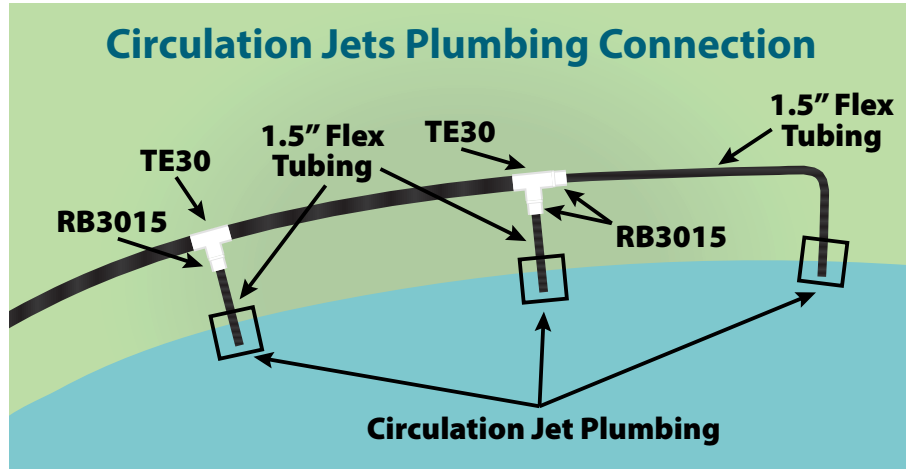
- B.** Connect to the supply line feeding the Pit Viper™ lateral in the wetland.



Plumbing, Pump, & Jets Installation Cont.

19 Plumbing the Circulation Jets

- A. The jets are comprised of open 1.5" PVC.
- B. Each jet requires 3,000 gph.
- C. Use tees, reducer bushings, and ball valves, to plumb each jet from the main line supplying water to the jets. The ball valves are used to adjust flow to each jet. (see illustrations)



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- Ensure adequate oxygen and circulation during hot summer months
- De-icing capability during freezing months
- Kits available for water gardens and koi ponds up to 30,000 gallons
- Quiet and energy efficient
- All kits include compressor with 6' power cord, rubber membrane diffuser(s), connectors and $\frac{3}{8}$ " QuickSink™ tubing



LA1

KLC25 Compressor
23 watt / 1.3 cfm

Estimated operating cost: \$1.51/mo.*



LA2

KLC40 Compressor
36 watt / 2.1 cfm

Estimated operating cost: \$2.37/mo.*



LA3

KLC60 Compressor
60 watt / 3.1 cfm

Estimated operating cost: \$3.94/mo.*



LA4

KLC80 Compressor
70 watt / 3.7 cfm

Estimated operating cost: \$4.60/mo.*



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CL-SFL10



CL-SBL10



CL-AB18



CL-SUL20



CL-PSMR16



CL-AL675

CL-BBL3
2 Watt Bamboo Lights
Aluminum Stems with
Black Polyester Coated,
Textured Finish





Sludge Remover Beneficial Bacteria - SRB

Contains a proven blend of enzyme producing pond bacteria which naturally reduces odor causing, decomposing organic debris and muck. This product also contains barley straw powder which helps keep pond water clean. Packaged in water soluble packets that simply dissolve in the water for easy applications.

- Reduces toxic ammonia and nitrite
- Reduces problem causing nitrate and phosphate
- Reduces murky water caused by organic wastes
- Reduces organic bottom sludge (muck)
- Reduces odors
- Works in water temperatures down to 45° F



Liner Seam Kit - LSK

- Essential for connecting multiple liner pieces
- Contains three 2 oz. bottles of EPDM primer, one 25' roll of 3" double sided seam tape, one seam roller, one pair of latex gloves and scrubber pads



Water Fill Valve - WFS50

- Brass fill valves replace water lost from evaporation or splash.
- Ideal for skimmers, vaults, and water fill boxes (WFB) to maintain water levels.
- Heavy-duty brass body and rods offer superior durability compared to plastic fill valves.
- Adjustable valve rod (arm) for precise fit.



Folding, Telescoping Pond Net - EPFN

- Great all-around pond net for skimming leaves, catching fish, etc.
- Aluminum frame and handle are light weight and very strong
- Net measures 13" x 18" x 16" deep mesh and is flat along the front making it easier to catch fish
- 27" - 47" telescoping handle is super strong and folds for storage.



4" Bottom Drain Kit - BDK3N

- Heavy duty, roto-molded design offers superior strength
- Designed to connect bottom drain into skimmer box
- Kit includes bottom drain, 3" bulk head fitting, 3" valve and fittings (flex pipe sold separately)