STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES
& ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
20653 DUPONT BLVD
UNIT 5
GEORGETOWN, DE 19947

August 11, 2014

Tim Smith
Delta Environmental
c/o Eric Valentine
E3 Environmental, LLC
2872 Deer Valley Road
Milford, DE 19963

RE: Approval of the Delta Environmental Products ecoFilter Pump Vault System, Models DEPV-49-20-1 and DEP-57-20-1

Dear Mr. Smith,

The Division of Water Resources has received and reviewed your request to approve your ecoFilter Pump Vault System models DEPV-49-20-1 and DEP-57-20-1 pre-engineered lift station; to be used in conjunction with Class B designed on-site wastewater treatment and disposal systems in Delaware. We are pleased to inform you that we are able to **approve** the lift station referenced above, provided that they are installed in accordance with the designers proposed components and specific permit conditions.

Additionally, specific components (brands, model numbers, etc…) should be listed on permit insert sheet. As a condition of this approval, no substitution of components is allowed without written approval from the design engineer and pre-approval from the Department.

If you have any other questions please contact me at 856-4561.

Sincerely,

James Cassidy
Program Manager I
Ground Water Discharges Section

Product Approval

1. Application Information
   a. Manufacturer Information
      Delta Environmental
      8263 Florida Blvd.
      Denham Springs, LA 70726

      800-219-9183
      www.deltaevnironmental.com

      Contact: Tim Smith, 540-255-5984, Tim.Smith@Pentair.com

   b. Delta Environmental Products ecoFilter Pump Vault Systems
      These systems are designed for septic and effluent tank pumping. System includes a molded LDPE housing, polypropylene and PVC filter, scheduled 40 PVC discharge kit, schedule 80 PVC support pipes, level controls, submersible high head effluent pump and control panel. The filter and float tree are designed to allow removal for cleaning without removal of the pump or housing. The housing is capable of accommodating a simplex or pumping configuration.

      The filter draws effluent from the middle layer of the septic tank which is the clear zone. In a properly functioning septic tank, gross solids will settle to the bottom of the tank and grease and scum will rise to the top of the tank's water level creating this clear zone. Septic effluent from this zone enters the ecofilter where the remaining unwanted solids are filtered from the pump system. The pump system will then deliver the effluent to the disposal system.

      Two configures are the DEPV-49-20-1 and DEP-57-20-1 with associated equipment.
   c. See attached construction drawings, specifications, materials and etc.
   d. See attached OM procedures for system
   e. Local Distributor Information
      E3 Environmental, LLC
      2872 Deer Valley Road
      Milford, DE 19963

      www.e3onsite.com
      Contact: Eric Valentine, 703-309-6916, ericv@e3onsite.com

The Applicant herby certified that, to the best of his/her knowledge and beliefs, a complete factual representation of the information requested above has been provided.

Eric Valentine
Applicant

8-11-13
Date

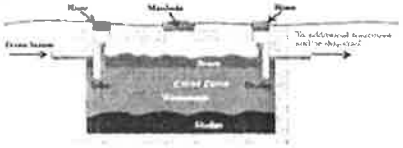
Delta Environmental™
Pentair Water

"Collection"

ECOFILTER™

Why Filter the Clear Zone

- Large solids settle down to the sludge layer
- Oil and grease float to the top to form the scum layer
- ECOFILTER™ filters out all solid matter 1/8" or greater in diameter that stays floating in the Clear Zone

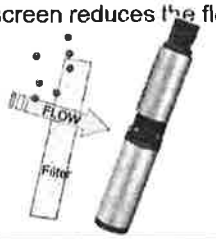


Pump Vault

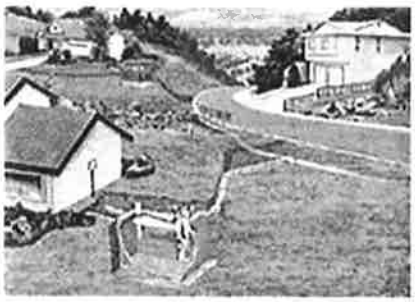
The ECOFILTER™ Pump Vault System filters out additional remaining solids and transports "clear zone" effluent from your septic tank to the wastewater treatment system.

Filtering Helps the Pump

- Solids can clog the inlet screen on the pump
- A clogged screen reduces the flow through the pump



STEP SYSTEM



Filtering Protects On-Site Discharge Units

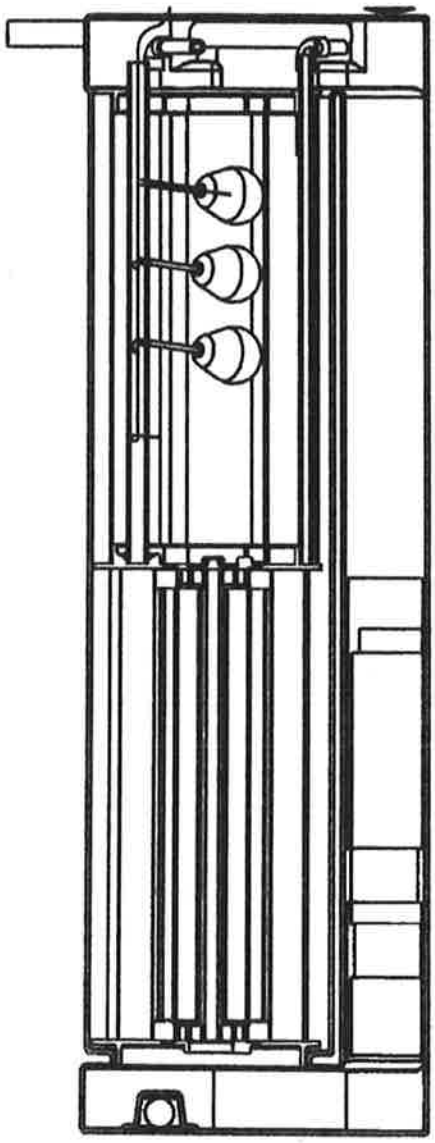
- Repair costs minimized
  - Solids clog weep holes in drain field lines
- Environmental impact reduced and treatment effectiveness optimized
  - Non-biodegradable matter reduces drain field effectiveness

Delta Environmental™
Pentair Water

ecoFILTER Pump Vault

Septic Tank Pump Vault Filter System

Delta Environmental™
Pentair Water
eco FILTER PUMP VAULT™
S.T.E.P. System



NOTE! To the installer: Please make sure you provide this manual to the owner of the pumping equipment or to the responsible party who maintains the system.

Safety Instructions
Installation and Service Manual

23833A630 05/10

STANDARD LIMITED WARRANTY

Delta warrants its products against defects in material and workmanship for a period of 12 months from the date of shipment from Delta or 18 months from the manufacturing date, whichever occurs first - provided that such products are used in compliance with the requirements of the Delta catalog and technical manuals for use in pumping raw sewage, municipal wastewater or similar, abrasive free non-corrosive liquids.

During the warranty period and subject to the conditions set forth, Delta, at its discretion, will repair or replace to the original user, the parts which prove defective in materials and workmanship. Delta reserves the right to change or improve its products or any portions thereof without being obligated to provide such a change or improvement for prior sold and/or shipped units.

Start-up reports and electrical schematics may be required to support warranty claims. Warranty is effective only if Delta authorized control panels are used. All seal fail and heat sensing devices must be hooked up, functional and monitored or this warranty will be void. Delta will only cover the lower seal and labor thereof for all dual seal pumps. Under no circumstance will Delta be responsible for the cost of field labor, travel expenses, rented equipment, removal/reinstallation costs or freight expenses to and from the factory or an authorized Delta service facility.

This limited warranty will not apply: (a) to defects or malfunctions resulting from failure to properly install, operate or maintain the unit in accordance with the printed instructions provided; (b) to failures resulting from abuse, accident or negligence; (c) to normal maintenance services and parts used in connection with such service; (d) to units which are not installed in accordance with applicable local codes, ordinances and good trade practices; (e) if the unit is moved from its original installation location; (f) if unit is used for purposes other than for what it is designed and manufactured; (g) to any unit which has been repaired or altered by anyone other than Delta or an authorized Delta service provider; (h) to any unit which has been repaired using non factory specified/OEM parts.

Warranty Exclusions: DELTA MAKES NO EXPRESS OR IMPLIED WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. DELTA SPECIFICALLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE.

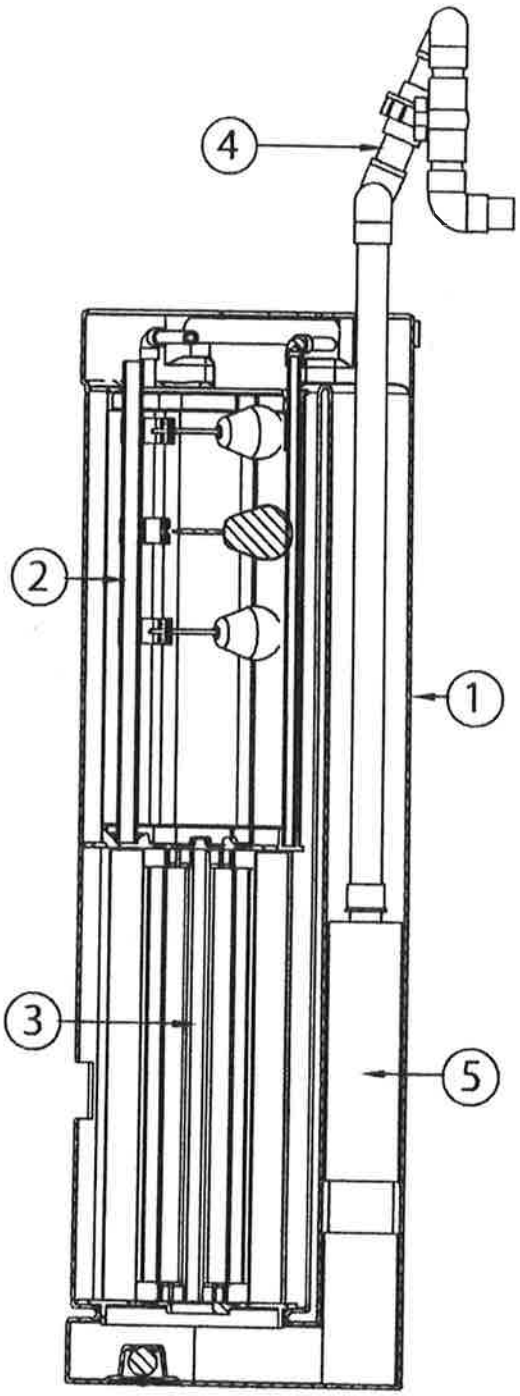
Liability Limitation: IN NO EVENT SHALL DELTA BE LIABLE OR RESPONSIBLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES RESULTING FROM OR RELATED IN ANY MANNER TO ANY DELTA PRODUCT OR PARTS THEREOF. PERSONAL INJURY AND/OR PROPERTY DAMAGE MAY RESULT FROM IMPROPER INSTALLATION. DELTA DISCLAIMS ALL LIABILITY, INCLUDING LIABILITY UNDER THIS WARRANTY, FOR IMPROPER INSTALLATION. DELTA RECOMMENDS INSTALLATION BY PROFESSIONALS.

Some states do not permit some or all of the above warranty limitations or the exclusion or limitation of incidental or consequential damages and therefore such limitations may not apply to you. No warranties or representations at any time made by any representatives of Delta shall vary or expand the provision hereof.

Delta Environmental™
Pentair Water

1101 Myers Parkway
Ashland, Ohio 44805-1969
419-289-1144

23833A630 05/10



No.	Description	49"	57"
1	Housing	27623D003	27623D004
2	Filter Assembly	27628D001	27624D002
3	Float Tree w/ Floats	27628D001	27628D002
4	Discharge Kit*	27418A805	27418A805
5	Effluent Pump**	D4E30M-10	D4E30M-10

*Discharge kit includes union, ball valve, pipe, and pump/pipe adapter.
** Other pump capacities are available. Consult the factory for details.

⚠ WARNING: RISK OF ELECTRICAL SHOCK OR ELECTROCUTION. FAILURE TO HEED THESE WARNINGS MAY RESULT IN SERIOUS INJURY OR DEATH OR FIRE HAZARD. INSTALLER MUST DISCONNECT ALL ELECTRICAL SOURCES PRIOR TO INSTALLATION. ONLY QUALIFIED PERSONNEL MAY INSTALL OR SERVICE THIS SYSTEM. NFPA 70/NATIONAL ELECTRIC CODE (NEC) OR LOCAL CODES MUST BE FOLLOWED. SYSTEM MUST BE PROPERLY GROUNDED ACCORDING TO NEC OR LOCAL CODES.

⚠ WARNING: BEFORE INSTALLING OR SERVICING YOUR PUMP, BE CERTAIN THAT THE PUMP POWER SOURCE IS TURNED OFF AND DISCONNECTED.

Pump won't run

1. Blown fuse, circuit breaker is in Off position, broken (or loose) electrical connections. Check fuses, breakers, and all electrical connections.
2. Motor overload protection contacts open. Contacts will close automatically within short time.
3. Low voltage. Check voltage at control panel.

Pump runs, but no water pumped

1. Check valve installed backward. Reverse and reinstall.
2. The intake strainer is clogged. Remove the pump and clean the strainer.

Reduced capacity

1. The strainer or impellers partially clogged or plugged. Remove the pump and clean the strainer. Basin level is pumped down with H-O-A in Hand or Manual position, but will not pump down in Automatic.
1. Floats are not hanging free in the basin or are covered with grease. Pump the level down with the H-O-A switch in Hand or Manual, so that the floats can be observed. Relocate and clean float(s) as necessary.
2. If this is a new installation and original start-up, the floats may be miswired in the control/alarm panel. If the On and Off floats are reversed, the pump will short-cycle On and Off and will not pump the level down.
3. Floats are malfunctioning. Pull the floats out of the basin and hang the Off and On floats from your hand. Turn the H-O-A switch to Auto. Tilt the Off float so that the large end is above the cord end (nothing should happen). While keeping the Off float tilted, tilt the On float in the same manner (the pump should come on). Suspend the On float again from your hand (the pump should continue to run). Finally, suspend the Off float from your hand (the pump should stop running). If this procedure does not cause the pump to operate as described, replace the float(s).

⚠ BIOHAZARD RISK. ONCE THE WASTEWATER SOURCE HAS BEEN CONNECTED TO SYSTEM, BIOHAZARD RISK EXISTS. INSTALLER(S) AND/OR SERVICE PERSONNEL MUST USE PROPER PERSONAL PROTECTIVE EQUIPMENT AND FOLLOW HANDLING PROCEDURES PER OSHA 29 CFR 1910.1030 WHEN HANDLING EQUIPMENT AFTER WASTEWATER SOURCE HAS BEEN CONNECTED TO SYSTEM.

⚠ RISK OF FIRE OR EXPLOSION. DO NOT SMOKE OR USE OPEN FLAMES IN OR AROUND THIS SYSTEM. THIS SYSTEM IS NOT INTENDED FOR USE IN HAZARDOUS LOCATIONS PER NFPA 70 NATIONAL ELECTRIC CODE. CONSULT FACTORY FOR OPTIONAL EQUIPMENT RATED FOR THIS USE.

⚠ WARNING: BEFORE INSTALLING OR SERVICING YOUR PUMP, BE CERTAIN THAT THE PUMP POWER SOURCE IS TURNED OFF AND DISCONNECTED.

The pump vault system requires periodic maintenance to ensure proper operation.

The pump vault system prevents solids larger than 1/8" from entering drain lines. As a result, solids will periodically build up between the housing and filter. This requires the filter to be cleaned off. The service interval will depend upon usage patterns.

At a minimum, the pump vault housing and filter should be cleaned each time the septic or pump tank is pumped out. Annual inspections by certified service personnel are recommended.

Any high water alarm is an indication that attention to the system is required. Frequent high water alarm activation is an indication that system service is required.

The following tasks should be performed each time the pump vault system is serviced:

Step 1: Turn off power to the system.

Step 2: Check the sludge level of the septic tank. If the sludge level reaches the bottom of the pump vault housing inlet, the septic tank must be pumped out.

Step 3: Remove the pump, clean off the pump screen, and inspect the pump for any damaged or malfunctioning components. Repair or replace components as necessary.

Step 4: Remove the filter and remove any debris. Inspect the filter for damage. Replace the filter if there are any tears or breaks.

Step 5: Remove any debris from the vault housing and inspect the housing for damage.

Step 6: Reassemble the housing, filter and pump and reinstall in the tank.

Step 7: Turn system power back on.

Step 8: Test float and alarm/control panel operation and repair/replace any malfunctioning components.

TYPICAL INSTALLATION

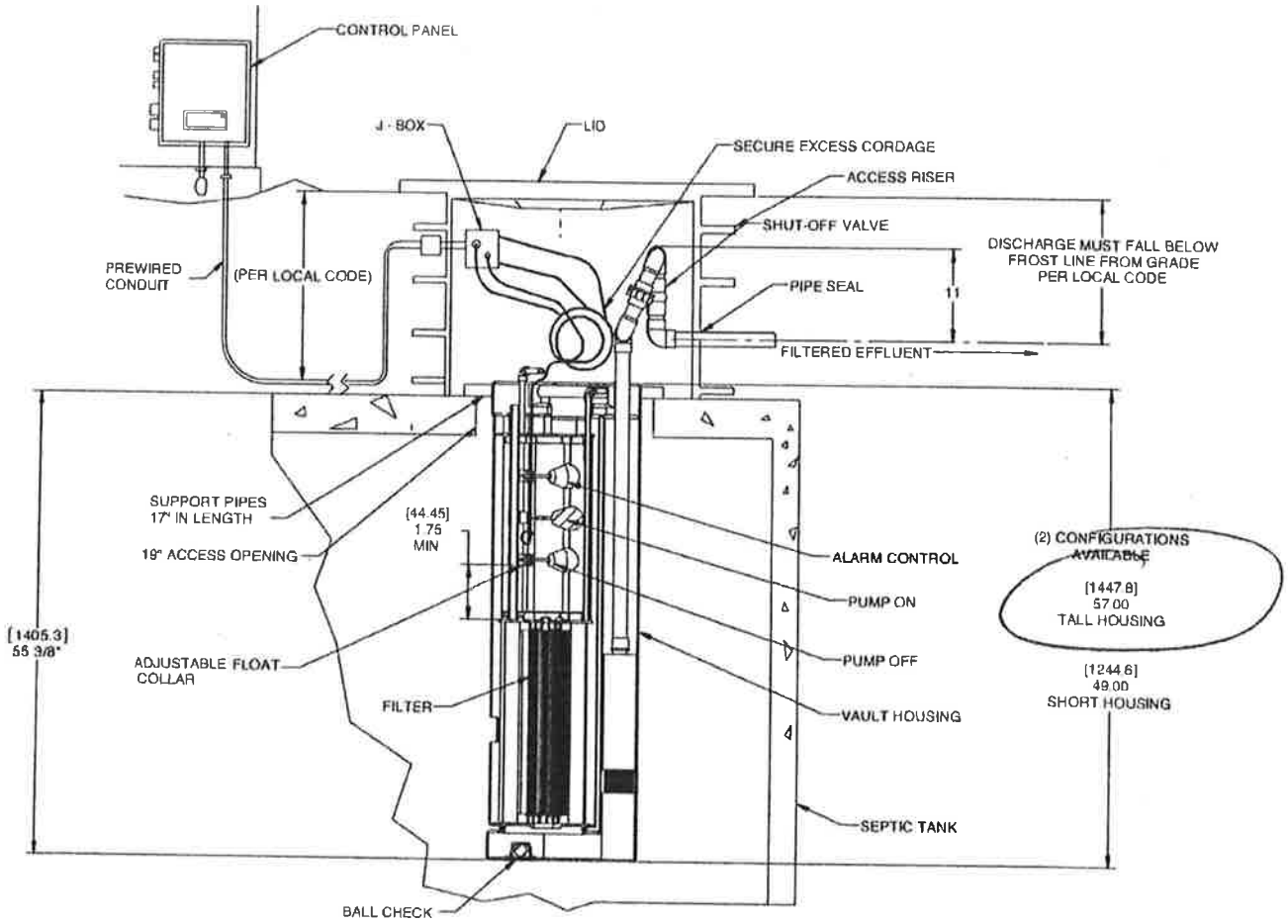


Figure 2

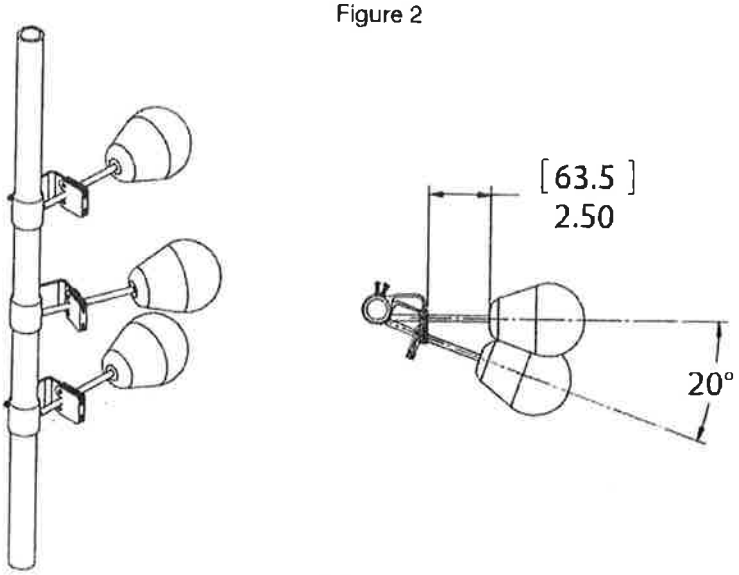


Figure 3

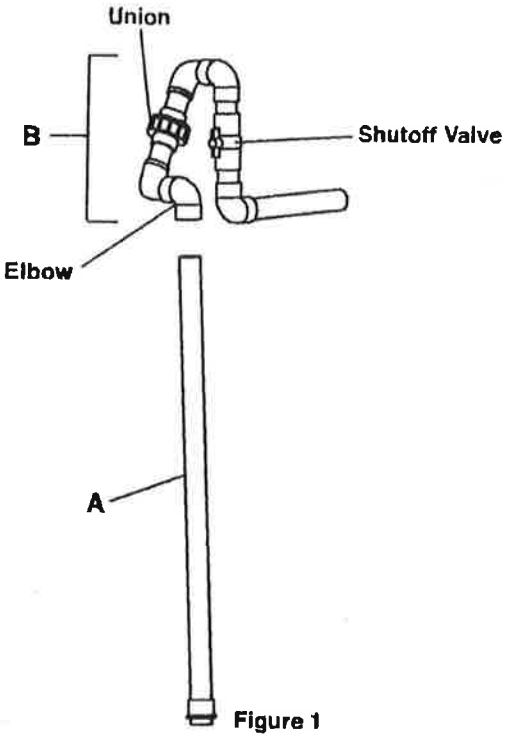


Figure 1

⚠ WARNING: RISK OF ELECTRICAL SHOCK OR ELECTROCUTION. FAILURE TO HEED THE WARNINGS MAY RESULT IN SERIOUS INJURY, DEATH, OR FIRE HAZARD. THE INSTALLER MUST DISCONNECT ALL ELECTRICAL SOURCES PRIOR TO INSTALLATION. ONLY QUALIFIED PERSONNEL MAY INSTALL THIS SYSTEM. NFPA 70/NATIONAL ELECTRIC CODE (NEC) OR LOCAL CODES MUST BE FOLLOWED. SYSTEM MUST BE PROPERLY GROUNDED ACCORDING TO NEC OR LOCAL CODES.

⚠ CAUTION: ALL LOCAL WIRING CODES MUST BE OBSERVED. CONSULT THE LOCAL INSPECTOR BEFORE INSTALLATION TO AVOID COSTLY DELAYS THAT CAN OCCUR DUE TO REJECTION AFTER THE JOB IS FINISHED. ONLY QUALIFIED ELECTRICIANS SHOULD MAKE THE INSTALLATION. COMPLETE WIRING DIAGRAMS ARE INCLUDED FOR USE IN MAKING THE INSTALLATION. ALL WIRES SHOULD BE CHECKED FOR SHORTS TO GROUND WITH AN OHMMETER OR MEGGER AFTER THE CONNECTIONS ARE MADE. THIS IS IMPORTANT, AS ONE GROUNDED WIRE CAN CAUSE CONSIDERABLE TROUBLE.

Follow STEP pump installation instructions for safe and correct pump operation.

Float Tree Assembly

The float tree assembly is shipped from the factory with all floats preassembled to the tree. If the float tree assembly is not already attached to the filter, simply snap the PVC tree into the slots on the top chamber of the filter. The float positions must be verified to provide proper reserve capacity, pump on level, pump off level, alarm level, and to meet local codes.

The floats must be staggered 20 degrees as shown in figure 3 to ensure proper operation.

The float tether length must be 2.5" as shown in figure 3 to avoid float failure.

Lower the filter assembly into the housing until it bottoms out. Turn the PVC latch to lock the filter in place (The filter must be installed in the housing before the pump vault assembly is installed).

Junction Box Connections (when used)

Step 1: Ensure power source is off or disconnected.

Step 2: Install the junction box in the riser in a location which will not interfere with the removal of the filter.

Step 3: Install a conduit seal outside the basin to prevent surface water from entering the junction box.

Step 4: Push pump power and float cords through cord grips in the junction box and tighten the cord grips. To prevent corrosion or electrical short, plug any unused holes.

Step 5: Remove junction box cover and make all connections inside junction box to all incoming alarm/control panel wires.

Electrical Connections

Note: Failure to use a manufacturer approved alarm or control panel voids the pump warranty and guarantee.

IMPORTANT: Properly connect the panel ground wire to a grounding rod. Improper grounding voids warranty.

Panel Wiring

Ensure power source is off or disconnected.

Follow the alarm/control panel installation instructions as provided by the manufacturer.

Before placing the pump into operation, verify the following:

- Septic tank or pump chamber installed according to local regulations
- Septic tank or pump chamber is watertight
- Access riser and cover are installed according to manufac turer's instructions and local regulations
- Pump vault is installed according to instructions
- Float tree is installed and wired into control panel
- Float switches are free to move within vault housing
- All electrical connections are watertight and conform to the National Electric Code (NEC) and state and local regula-tions

Step 1: Run clean water into the septic tank or pump chamber.

Step 2: Open the shut-off valve.

Step 3: Turn the H-O-A switch to the Off position and turn on the main breaker.

Step 4: Start the pump by turning the H-O-A switch to the Hand or Manual position.

Step 5: Check the pump amperage with a clamp-on amp meter on the black pump lead. Readings higher than the nameplate indicate a clogged pump, miswiring, or improper voltage.

Step 6: Ensure H-O-A switch is set to Auto before placing system into service.

Below is a list of common problems and possible solutions. Refer to the pump and panel installation service manuals for details regarding any necessary adjusting, dismantling, or repair work.

THANK YOU FOR PURCHASING YOUR DELTA PUMP VAULT SYSTEM.

DO NOT THROW AWAY THIS MANUAL. KEEP IT IN A SAFE PLACE SO THAT YOU MAY REFER TO IT OFTEN FOR THE CONTINUED SAFE OPERATION OF THE PRODUCT.

This manual contains important information for the safe use of this product. Read this manual completely and follow the instructions carefully. Reasonable care and safe methods relating to the installation and operation of this product should be practiced. Check local codes and requirements before installation.

Biohazard Risk. Once the wastewater source has been connected to system, biohazard risk exists. Installer(s) and/or service personnel must use proper Personal Protective Equipment and follow handling procedures per OSHA 29 CFR 1910.1030 when handling equipment after wastewater source has been connected to system.

Failure to heed warnings and caution could result in injury or death.

⚠ WARNING: BEFORE INSTALLING OR SERVICING YOUR PUMP, BE CERTAIN THE PUMP POWER SOURCE IS TURNED OFF AND DISCONNECTED. ONLY QUALIFIED PERSONNEL MAY INSTALL THIS SYSTEM. NFPA 70/NATIONAL ELECTRIC CODE (NEC) OR LOCAL CODES MUST BE FOLLOWED. THE SYSTEM MUST BE PROPERLY GROUNDED ACCORDING TO NEC.

⚠ WARNING: RISK OF ELECTRICAL SHOCK – TO REDUCE RISK OF ELECTRICAL SHOCK:

- **CONNECT ONLY TO A PROPERLY GROUNDED CONTROL PANEL.**
- **DO NOT SMOKE OR USE SPARKABLE ELECTRICAL DEVICES OR FLAME IN ASEPTIC (GASEOUS) OR POSSIBLE SEPTIC SUMP.**
- **DO NOT INSTALL PUMP IN LOCATIONS CLASSIFIED AS HAZARDOUS PER N.E.C., ANSI/NFPA 70 - 1999.**

⚠ ADDITIONAL WARNINGS:

- **TANK SHOULD BE VENTED IN ACCORDANCE WITH LOCAL PLUMBING CODES**
- **A SEPTIC SUMP CONDITION MAY EXIST AND IF ENTRY INTO SUMP IS NECESSARY, THEN (1) PROVIDE PROPER SAFETY PRECAUTIONS PER OSHA REQUIREMENTS AND (2) DO NOT ENTER SUMP UNTIL THESE PRECAUTIONS ARE STRICTLY FOLLOWED.**
- **FOR USE WITH MAXIMUM 120°F WATER.**

This manual covers pump vault units of both 49" and 57" heights. Please make sure which system you are installing. The applicable size is determined by the depth of your septic tank.

Application: The pump vault is designed for installation into either a one- or two-chamber septic or pump tank to assist in the removal of filtered effluent. Effluent is screened to filter out all solids greater than 1/8". This screened effluent is then pumped by a high-head effluent STEP pump to the next stage of processing.

Receiving the System: Remove pump vault, STEP pump, and components to be sure all items are included and inspect for possible concealed damage. Any damage should be reported immediately to the delivering carrier. Claims for damage must originate with the receiver. Claims for shipping damage cannot be processed at the factory.

Vault System Handling: Factory built filter systems must not be dropped, dragged, rolled, or handled with sharp objects. Improper handling of filter systems may result in damage to the basin, damage to basin components, or leaks in the piping assemblies.

Step 1: Determine the type of septic or pump tank you have.

Concrete Tank: A 19" access hole is required in a concrete tank. A 24" or 30" diameter riser with a minimum height of 18" is required for use of the pump vault. Manufacturer's instructions must be followed for riser installation to ensure a watertight seal.

Fiberglass / Polyethylene Tank: These tanks typically have 24" diameter riser integral to the tank design. Refer to and follow manufacturer's instructions if a riser of different diameter is needed (24" minimum diameter riser is required for use of the pump vault).

Step 2 (Existing Tank use only): Empty and clean out the tank.

Step 3: Lower the housing into the tank, resting the support pipes on the top of the tank.

Step 4: Insert the preassembled 40" PVC pipe with pipe adapter (Figure 1, part A), pipe adapter end first, into the pump. Lower the pump into the pump chamber of the housing. Note: The chamber is designed to handle either one or two STEP pumps. A single pump can be located in either side of the chamber. Place a mark on PVC pipe "A" at the height necessary to be below frost line, per local code.

Step 5: Position the rest of the discharge kit (Figure 1, part B) with the open end of the elbow beside the pipe marking. This determines the discharge exit location on the riser. Mark the location where the discharge pipe will exit on the riser.

Remove the pump and discharge assembly. Using a properly maintained, 2-1/2" piloted hole saw, cut a hole in the riser at the marked location. Insert the flexible grommet (provided with the discharge kit) into the drilled hole.

Step 6: Cut the PVC pipe (part A) at the marked location. Remove any shavings from the cut PVC pipe. Disassemble the union from part B. Use pipe cleaner to clean off the pipe and inside of the elbow from part B. Using PVC cement, attach the pipe and elbow.

Step 7: Cement the remaining loose joints in the discharge kit (figure 1, part B). Several joints in the discharge kit are left uncemented at the factory to allow adjustments during instillation. Verify that all joints are properly cemented and leak free before puting the filter into service.

Step 8: If you removed the discharge pipe from the pump to cut and assemble the kit, reattach it to the pump. Lubricate the inside lip of the discharge grommet with pipe soap. Slide the discharge pipe through the grommet. Reinstall the pump and discharge piping into the pump chamber. Align the assembly as shown in Figure 2 and assemble the union. Close the shut-off valve and attach the discharge pipe to the lateral field pipe with PVC solvent/cement. It is strongly recommended that an additional shut-off valve and redundant check valve be located outside the basin at any force main entrances - check local codes for specific requirements.

Delta Environmental Products

eco FILTER PUMP VAULT™

S.T.E.P. System

SYSTEM SPECIFICATIONS

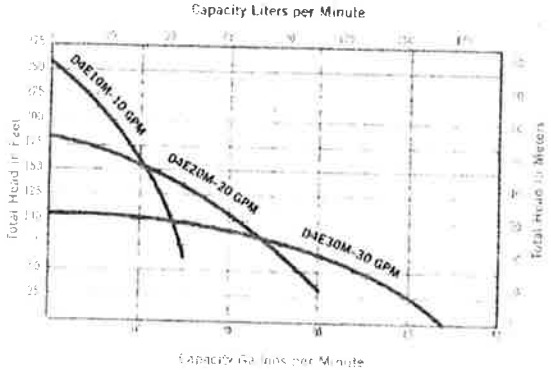
PUMP SPECIFICATIONS

Pump Flow Rate (Gallons per Minute / GPM)	Standard – 20 Optional – 8, 12 20, 30, 50 GPM
RPM	3450
HP	1/2
Voltage	115
Phase	1
Frequency	60 Hz
Full Load Amps	14.5 – 8 to 20 GPM only
Motor Protection	Built-in overload and surge protection
Max Starts per Hour	300
Discharge Size	1-1/4"
Cable Length	25'
Cable Type	14-3 Jacketed SJOW-A
Max Liquid Temperature	122°F
Backflow Protection	Built-in check valve

PUMP MATERIALS OF CONSTRUCTION

Pump Housing	300 Series Stainless Steel
Shaft	300 Series Stainless Steel
Impeller	Thermoplastic
Suction Bowl	Chemically Resistant Reinforced Nylon
Discharge Bowl	Corrosion Resistant Reinforced Polycarbonate

PERFORMANCE DATA



CONTROL PANEL SPECIFICATIONS

Enclosure Dimensions	10"x8"x4"
Overall Dimensions	12"x10"x5.5"
Enclosure Type	UL Type 4X with Molded Mounting Feet
Audible Alarm	Includes Normal – Silence switch
Alarm Light	Flashing Red
Controller Temp Range	–140°C thru 185°C
Humidity Range	95% non-condensing
Voltage to Floats	120 – 230 VAC
Voltage to Pump Relays	120 VAC

CONTROL PANEL FEATURES

Standard Features

- Standard control devices
- Pump on/off
- Alarm light and buzzer
- Lockable latch
- HOA switch
- Normal-Silence switch
- Pump and controls circuit breakers
- Motor Magnetic Contactor
- 2 or 3 float operation
- All finger safe components

Available Options

- Elapsed Time Meter
- Cycle Counter
- Run Indication Light
- Power Indication Light
- Programmable Timer
- PLC Smart Panel
- Lighting Arrestor
- Remote Mentoring
- Custom – Call Factory

SYSTEM SPECIFICATIONS

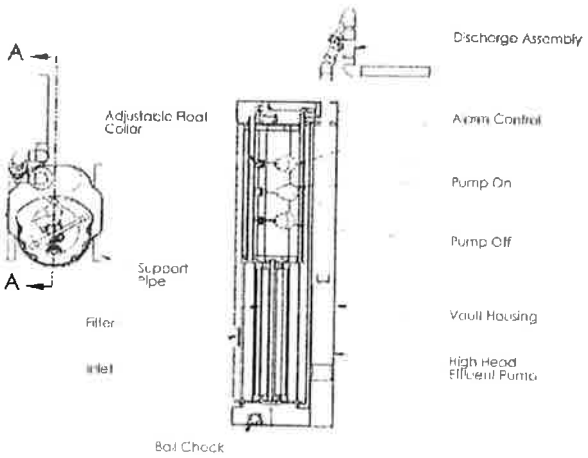
Delta Environmental Products
eco FILTER PUMP VAULT™
S.T.E.P. System

PRODUCT USE

Delta Environmental Products ecoFILTER™ Pump Vault systems are designed for septic and effluent tank pumping. The ecoFILTER™ can either be used in an advanced wastewater treatment system or in a STEP collection system. The ecoFILTER™ Pump Vault has a unique structural design to ensure long life and performance.

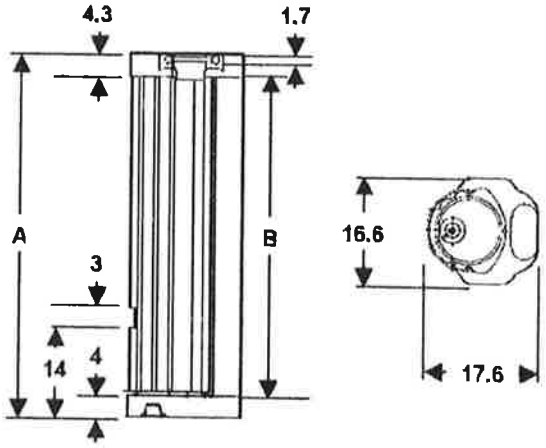
PRODUCT DESCRIPTION

Delta Environmental Products ecoFILTER™ Pump Vault systems include a molded LDPE housing, polypropylene and PVC filter, schedule 40 PVC discharge kit, schedule 80 PVC support pipes, float level controls, submersible high head effluent pump, and control panel. The filter and float tree are designed to allow removal for cleaning without removal of the pump or housing. The housing is capable of accommodating a simplex or pumping configuration.



PUMP VAULT SPECIFICATIONS

Model	DEPV-49-20-1	DEPV-57-20-1
A - Vault Height (in)	49	57
Filter Diameter (in)	9-3/4	9-3/4
B - Filter Height (in)	40-11/16	48-11/16
Filter Screen Opening (in)	0.125 0.0625	0.125 0.0625
Filter Surface Area	1848 in^2	2208 in^2
Filter Open Area	814 in^2	973 in^2
Housing Inlet Height (in)	14	14
Pump Off/On/Alarm Level (from top of vault, in)	14 / 10 / 6.25 Adjustable	22.5 / 17.5 / 12.5 ~~Adjustable~~



MATERIALS OF CONSTRUCTION

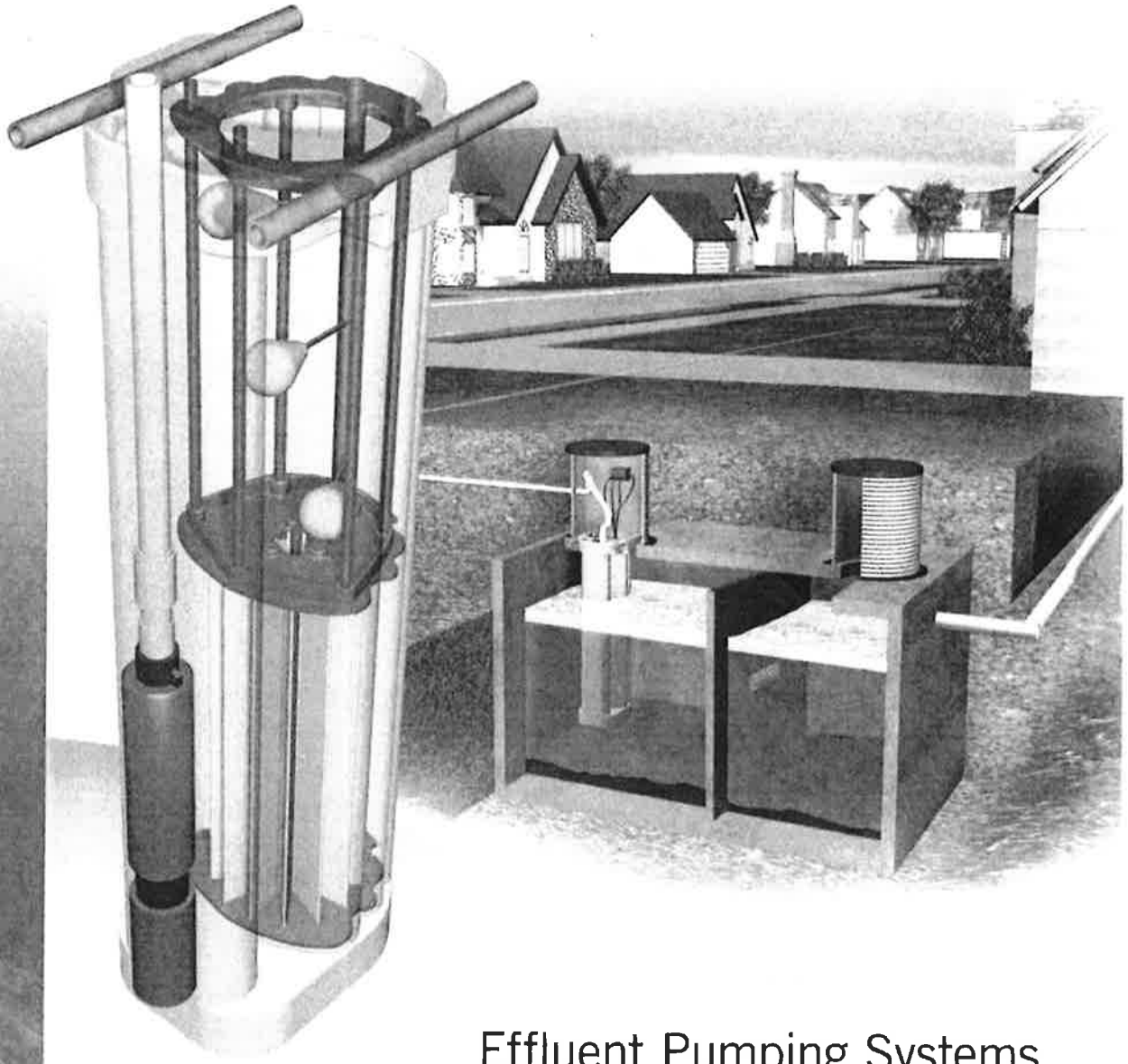
Housing	100% Recycled Low Density Polyethylene
Filter	Polypropylene / PVC
Float Tree	Schedule 40 PVC
Support Pipe	Schedule 80 PVC
Float Control	Narrow Angle, Normally Open Mercury Level Control
Discharge Kit	Schedule 40 PVC

K4561

Delta Environmental™

ECOFILTER

PUMP VAULT



Collection

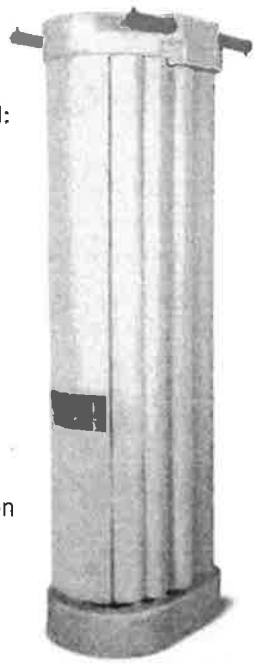
Effluent Pumping Systems

ECOFILTER
PUMP VAULT

Effluent Pumping Systems

FOR USE WITH:

Drainfields
Textile Filters
Sand Filters
Peat Filters
Mounds
Trickling Filters
Aerobic Units
Wetlands
Lagoons
Effluent Irrigation



Introducing ECO FILTER

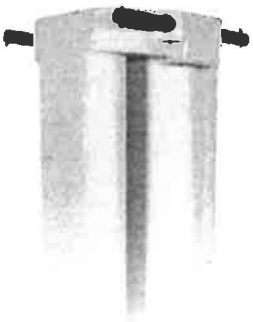
Delta Environmental™ developed the ECO FILTER in answer to environmental concerns and the growing number of S.T.E.P. Collection wastewater systems. S.T.E.P. Collection systems transport effluent from individual septic tanks through a piping system to either a dispersal or wastewater treatment system. Delta has years of wastewater treatment experience and extensive use of subsurface drip disposal technology.

Easy Access and Maintainance

The ECO FILTER by Delta has been designed to allow easy access through a 24" opening for service and maintenance. This design gives the service provider the ability to pull and clean the filters without the time-consuming removal of the pump. In addition to saving time and money, the unit has an innovative float system that is easy to remove with a positive locking mechanism. All this makes ECO FILTER the ideal solution for effluent pumping applications.

Materials and Construction

The Delta ECO FILTER is constructed of polyethylene and polypropylene, which are superior materials for wastewater applications. Our design and construction techniques, coupled with these materials, provide long service life for your system.



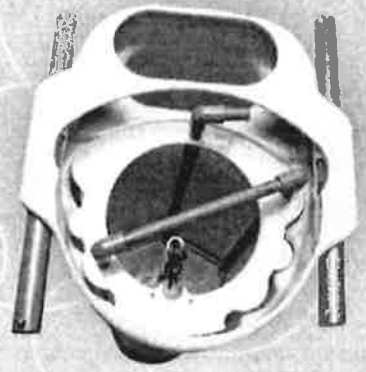
Rotational molded polyethylene housing with UV inhibitors for durability and shelf life.

The System

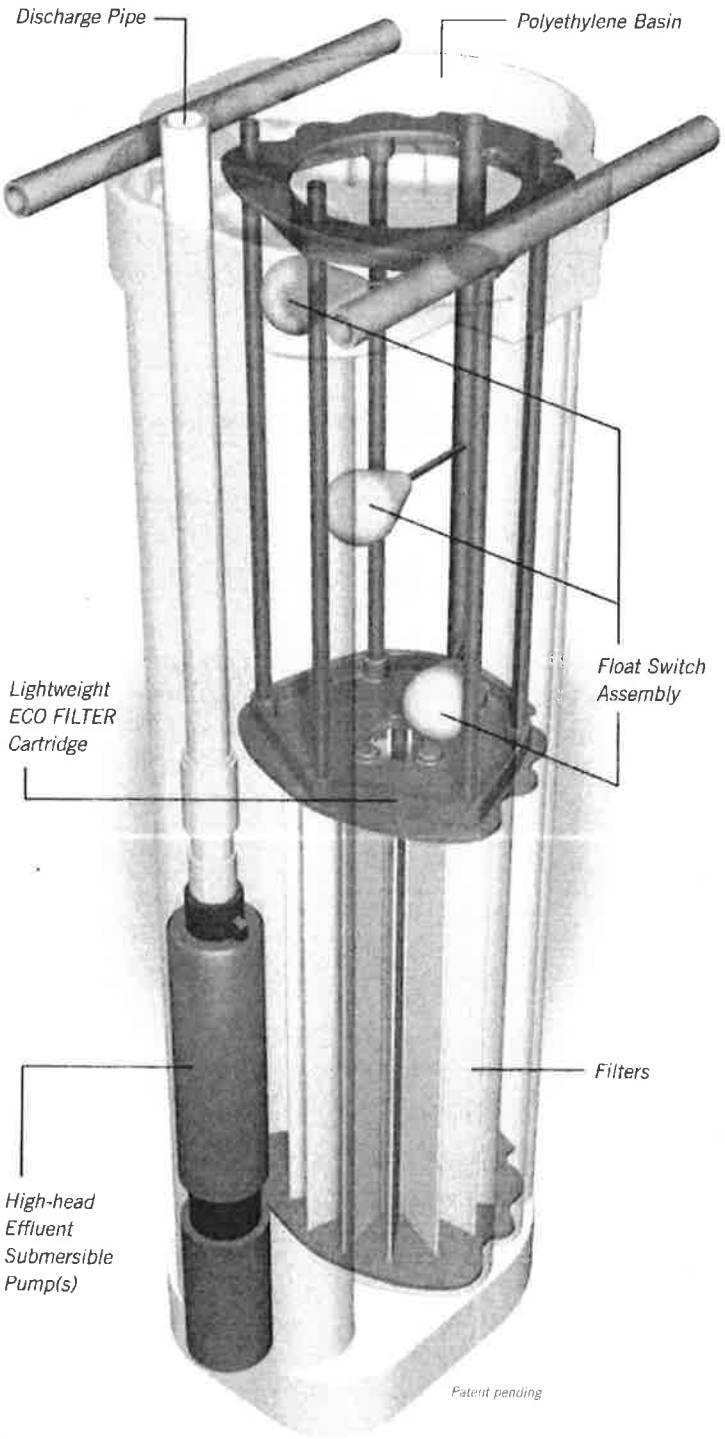
Delta Environmental™ offers a complete pump system. Our engineered system includes the pump filter vault, the high-head turbine submersible pump, and float controls. We will design a system to fit your needs and the special requirements of your project.

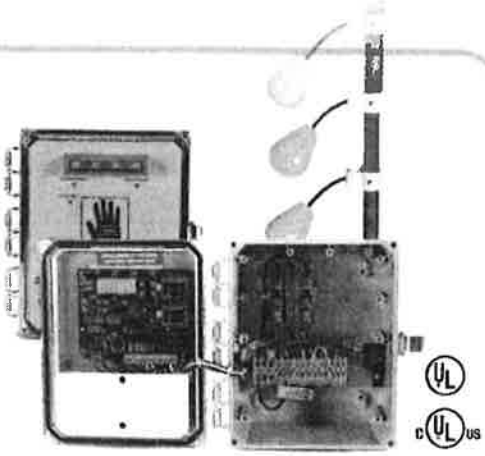
Features and Benefits

- Installs quickly in new or existing concrete or fiberglass tanks
- Easy access design allows filter cartridge removal without pulling the pump or vault; simplifies filter inspection and maintenance
- Removes a significant amount of suspended solids
- Accommodates simplex or duplex configuration
- Float stem bracket allows easy removal and adjustment of float assembly
- Sturdy, molded polyethylene and corrosion-proof construction ensure long life



The ECO FILTER features a dual compartment design housing which can be used for your simplex or duplex application needs.



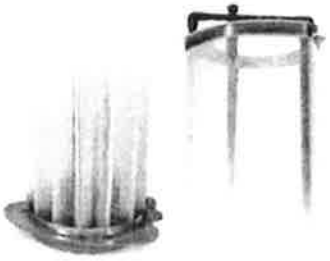


CONTROLS

The controls are one of the most important components of a pumping system. The control panel of the Delta ECO FILTER system is engineered to operate the system at maximum efficiency. Using a robust and low-maintenance design, these controls vary according to your needs and have numerous options. The panel comes with features to indicate that your system is functioning 24 hours a day.

HIGH-HEAD EFFLUENT PUMP

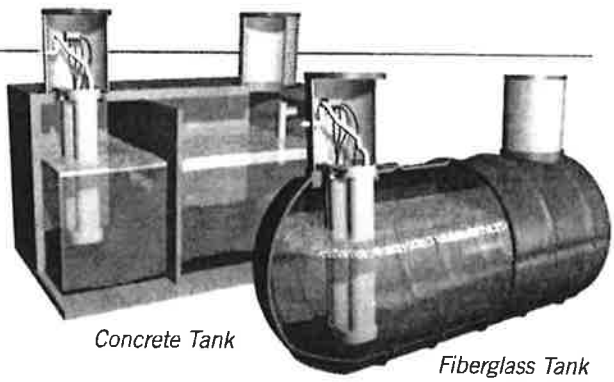
The powerful, yet lightweight DE Series features stainless steel construction, built-in overload and electric surge protection. Delta Environmental™ offers a wide range of pump selection for any application and incorporates features designed from our years of experience to provide you with trouble-free service.



Perforated quality polypropylene medium allows ease of filter cleaning.

Filtering

The Delta ECO FILTER draws effluent from the middle layer of your septic tank. This area is considered the "clear zone" of a septic tank. In a properly functioning septic tank, gross solids will settle to the bottom of the tank and grease and scum will rise to the top of the tank's water level, creating this "clear zone". Septic effluent from this zone enters the ECO FILTER, where the remaining unwanted solids are filtered from the pump system. The unit is designed to maximize the surface area of the filter to prolong the filter's life, providing you the ideal solution for your wastewater needs.



Concrete Tank

Fiberglass Tank

Other Delta Products

A respected leader in wastewater treatment with decades of technical design and manufacturing experience, Delta is committed to the continuing development of new products in the 21st century.

WHITEWATER® DF SERIES

ECODRIP SERIES

ECOPOD SERIES

CONTROLSERIES

Packaged Wastewater Treatment Plants

Application

At Delta Environmental™, our engineers have designed wastewater systems for many years, and all are field-tested. We have applied our vast experience in building residential and industrial wastewater systems to bring you the Delta ECO FILTER.

This system efficiently removes solids, which translates into improved wastewater quality. In addition, the Delta ECO FILTER prolongs the life of downstream treatment systems. The system is completely engineered and designed to meet your specifications. You have the choice of pumps, floats, enclosure size and control panels. You have the peace of mind knowing that an industry leader built your system.

Technical Support/Distributor Network

Distributors and corporate technical support are ready to help you with any questions. Delta Environmental has distributors around the country. Each of these professionals is factory-trained on the Delta ECO FILTER to provide the help you need. The nework of support included with your purchase of the Delta ECO FILTER is second to none. The distributors of Delta Environmental are ready to provide the service you expect.

Delta Environmental™

8263 Florida Blvd.
Denham Springs, LA 70726

(800) 219-9183

www.deltaenvironmental.com

Dealer contact information:

Represented By:
e3 Environmental, LLC
p: 302-725-0788
www.e3onsite.com
ericv@e3onsite.com

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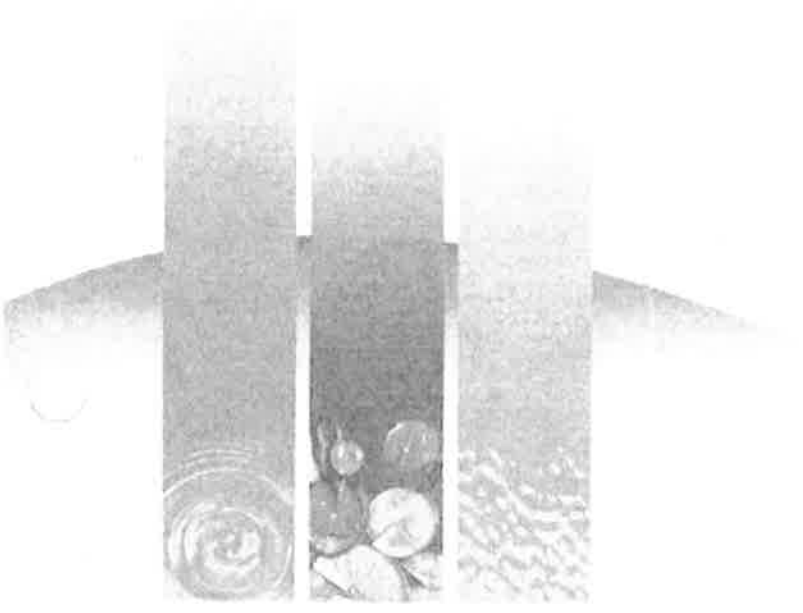
Delta Environmental Products™



Wastewater Systems

Accessories

Delta Environmental Products™

Delta Environmental Products was founded in 1985, and is a firm dedicated to the research, development, manufacture and marketing of commercial and residential wastewater treatment systems and related adjunct products worldwide. Delta Environmental Products is a subsidiary of Pentair, a diversified operating company headquartered in Minnesota, whose Water Group is a global leader in providing innovative products and systems used worldwide in the movement, treatment, storage and enjoyment of water.

Delta Environmental Products offers a full spectrum of wastewater treatment products to the on-site and commercial marketplace. Products include NSF certified aerobic wastewater treatment systems, pre-engineered drip/filter disposal systems, and custom electrical alarm and control panels.

Delta on-site wastewater treatment products are the most effective and simplest on the market. They can be used on a broad spectrum of applications from single family residences to small commercial jobs. The effluent can be discharged to the surface, drip disposal, or other approved dispersal methods. Delta offers design layouts, combination controls, and necessary components for a wide variety of on-site wastewater treatment needs.

Denham Springs, Louisiana

Ashland, Ohio

Our Mission

Delta Environmental Products is a respected leader in wastewater treatment with more than 25 years of technical design and manufacturing experience. Delta Environmental Products is committed to the continuing development of new products in the 21st century. Our mission is to be a leading provider of solutions to the decentralized wastewater treatment industry. Delta Environmental Products employs the highest quality products, technology and services.

Accessories Index

DSP SERIES

CAST IRON SUBMERSIBLE SUMP PUMPS

- Tethered float switch operates in sump diameters of 14" or larger.
- Rugged cast iron motor housing and upper volute. Corrosion resistant composite base ideal for sump and effluent applications.
- Screened intake prevents debris from entering the pump.
- Oil-cooled motor transfers heat to sump water efficiently while lubricating internal motor components.
- Heavy-duty lift-out ring, field serviceable.
- Models range up to 62 gallons per minute at 5' of lift.
- Anti air lock hole built into base; eliminates added labor.
- ½" solids-handling capability.
- Ball bearings and shaft seal are lubricated for long life.
- Pump intake screen, impeller, base, switch, and power cord are easily serviceable.

DE33 SERIES

CAST IRON SUBMERSIBLE EFFLUENT PUMPS

- Bearings and mechanical seal permanently lubricated for long life.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Non-clog vortex style impeller, pump-out vanes for seal protection.
- Built-in thermal overload protection with automatic reset.
- Cord design prevents oil loss from and moisture protection for motor. Easily replaceable power cord.
- Heavy-duty lift-out ring, field serviceable.
- ¾" spherical solids-handling capability.
- Stainless steel hardware allows for easy disassembly after extended service.
- Standard controls available for automatic operation.

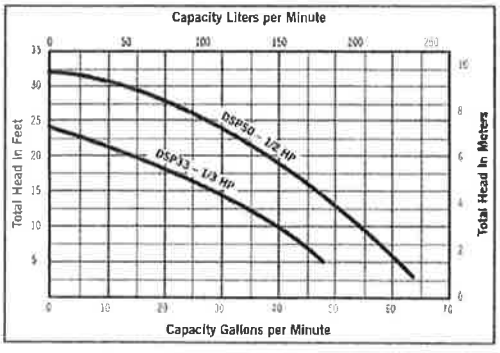
Specifications

Motor Cover	Cast iron	
Upper Volute	Cast iron	
Lower Volute	Fiberglass reinforced polypropylene	
Impeller	Fiberglass reinforced Noryl® with threaded brass insert	
Bearings	Upper sleeve and lower ball bearings, oil lubricated	
Exterior Hardware	Stainless steel	
Shaft Seal	Mechanical, carbon/ ceramic	
Motor	Oil-cooled ½ HP and ½ HP versions available, 115V, single phase, 60 Hz	
Switch	Tethered float or vertical	
Power Cord	10' or 20' grounded three-prong, water-resistant, type SJTW-A/SJTW	
Discharge	1½" FNPT	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

Noryl® is a registered trademark of General Electric Co.

In order to provide the best products possible, specifications are subject to change.

Performance Curves



Specifications

Motor Cover	Cast iron	
Volute	Cast iron	
Impeller	Fiberglass reinforced Noryl® with threaded insert	
Mechanical Seal	Type 6A or equal, Buna-N elastomers, carbon and ceramic sealing faces, stainless steel metal parts	
Bearings	Upper sleeve and lower ball bearings, oil lubricated	
Lower Motor Housing O-Ring	Buna-N	
Exterior Hardware and Nameplate	Stainless steel	
Motor	⅓ HP, 1550 RPM, 115V or 230V, single-phase, 60 Hz. Oil-filled. Built-in thermal overload protection with automatic reset	
Power Cord	20' water resistant 16-3 SJTW-A/SJTW with integrally grounded three-prong plug	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

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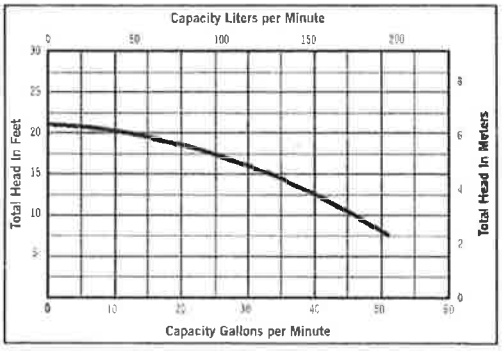
Performance Curve



DE40 SERIES

CAST IRON SUBMERSIBLE EFFLUENT PUMPS

- Heavy-duty cast iron motor housing and upper volute. Corrosion-resistant composite base ideal for effluent applications.
- Bearings and mechanical seal permanently lubricated for long life.
- Pump-out vanes for seal protection.
- Built-in thermal overload protection with automatic reset.
- Cord design prevents oil loss from and moisture protection for motor if cord is damaged.
- Heavy-duty lift-out ring, field serviceable.
- ½" spherical solids-handling capability.
- Field replaceable power cord.
- Built-in suction screen on intake.

Specifications

Motor Cover	Cast iron	
Upper Volute	Cast iron	
Lower Volute Base	Fiberglass reinforced polypropylene	
Motor Housing	Cast iron	
Impeller	Fiberglass reinforced Noryl® with threaded brass insert	
Shaft Seal	Mechanical, carbon/ceramic	
Bearings	Upper sleeve and lower ball bearings, oil lubricated	
O-Rings	Buna-N	
Exterior Hardware and Nameplate	Stainless steel	
Motor	1/10 HP, 1550 RPM, 115V, 60 Hz. Class B insulation. Oil-filled shaded pole containing built-in thermal overload protection with automatic reset	
Power Cord	20' water resistant 16-3 gauge, type SJTW-A/SJTW with integrally grounded 3-prong plug	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

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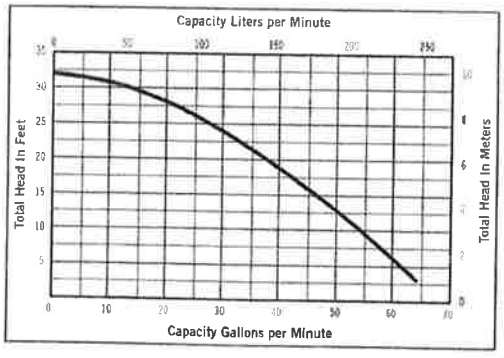
Performance Curve



DE40H SERIES

CAST IRON SUBMERSIBLE HIGH HEAD EFFLUENT PUMPS

- Bearings and mechanical seal permanently lubricated for long life.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Non-clog vortex style impeller, pump-out vanes for seal protection.
- Built-in thermal overload protection with automatic reset on single phase.
- Cord design prevents oil loss from and moisture protection for motor.
- Heavy-duty lift-out ring, field serviceable.
- ¾" spherical solids-handling capability.
- Stainless steel hardware allows for easy disassembly after extended service.
- Standard controls available for automatic operation.

Specifications

Motor Cover	Cast iron	
Volute	Cast iron	
Impeller	Fiberglass reinforced Noryl® with threaded insert	
Mechanical Seal	Type 6A or equal, Buna-N elastomers, carbon and ceramic sealing faces, stainless steel metal parts	
Bearings	Lower ball, upper sleeve type, oil lubricated	
Exterior Hardware and Nameplate	Stainless steel	
Motor	1/10 HP, 3450 RPM, 115V or 230V single phase, 60 Hz. Oil-filled. Built-in thermal overload protection with automatic reset and permanent split capacitor on single phase only. Stainless steel motor shaft.	
Power Cord	20' oil and water resistant 18-3 SJTW-A/SJTW with integrally grounded 3-prong plug, single phase. UL Listed. Stainless steel cord connector.	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

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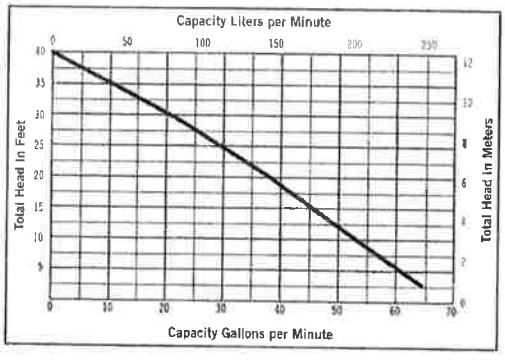
Performance Curve



DE50/DE50H/DE100 SERIES

CAST IRON SUBMERSIBLE EFFLUENT PUMPS

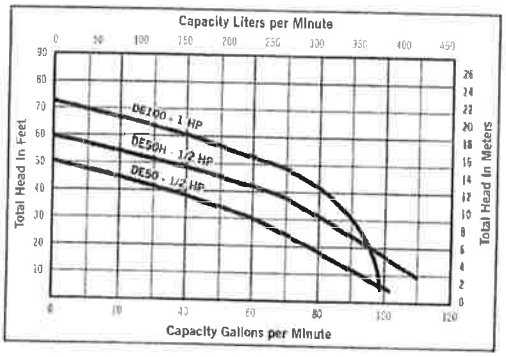
- Bearings and mechanical seal permanently lubricated for long life.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Non-clog vortex style impeller, pump-out vanes for seal protection.
- Built-in thermal overload protection with automatic reset on single phase.
- Cord design prevents oil loss from and moisture protection for motor.
- Heavy-duty lift-out ring, field serviceable.
- ¾" spherical capability solids handling.
- Stainless steel hardware allows for easy disassembly after extended service.
- Standard controls available for automatic operation.
- Mechanical float (non mercury).
- Silicon Carbide Seals

Specifications

Volute Casing	Cast iron	
Upper and Lower Motor Housing	Cast iron	
Impeller	Cast iron	
Mechanical Seal	Type 6A or equal, Buna-N elastomers, silicon carbide sealing faces, stainless steel metal parts	
Bearings	Ball type, oil lubricated	
Exterior Hardware and Nameplate	Stainless steel	
Motor	½, and 1 HP, 3450 RPM, 115 Volts (½ HP only) or 230 Volts single phase or 208-230/460 Volts three phase, 60 Hz. Oil-filled. Built-in thermal overload protection with automatic reset and permanent split capacitor on single phase only. Stainless steel motor shaft and impeller lock nut.	
Power Cord	Single Phase: 20' oil and water resistant 16-3 SJTW-A/SJTW with integrally grounded 3-prong plug. UL listed. Three Phase: 20' oil and water resistant 16-4 STW-A/STW.	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

In order to provide the best products possible, specifications are subject to change.

Performance Curves



DE200 SERIES

CAST IRON SUBMERSIBLE EFFLUENT PUMPS

- Dual Shaft Seals – Primary mechanical seal with a secondary self-lubricating lip seal.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Bearings and mechanical seal permanently lubricated for long life.
- Non-clog semi-open impeller.
- Built-in thermal overload protection with automatic reset on single phase.
- Cord design prevents oil loss from and moisture protection for motor.
- ¾" spherical capability solids handling.
- Stainless steel hardware allows for easy disassembly after extended service.
- Standard controls available for automatic operation.

Specifications

Volute Casing	Cast iron	
Upper and Lower Motor Housing	Cast iron	
Impeller	Cast iron	
Shaft Seal	Primary: mechanical type 6A or equal, Buna-N elastomers, silicon carbide sealing faces, stainless steel metal parts Secondary: self-lubricating lip seal	
Mechanical Seal	Type 6A or equal, Buna-N elastomers, silicon carbide sealing faces, stainless steel metal parts	
Bearings	Ball type, oil lubricated	
Exterior Hardware and Nameplate	Stainless steel	
Motor	2 HP, 3450 RPM, 230V single phase, 60 Hz, oil-filled. Built-in thermal overload protection with automatic reset and permanent split capacitor on single phase only. Stainless steel motor shaft and impeller lock nut.	
Power Cord	20' oil and water resistant 16-3 SJTW-A/SJTW with integrally grounded 3-prong plug. UL Listed.	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

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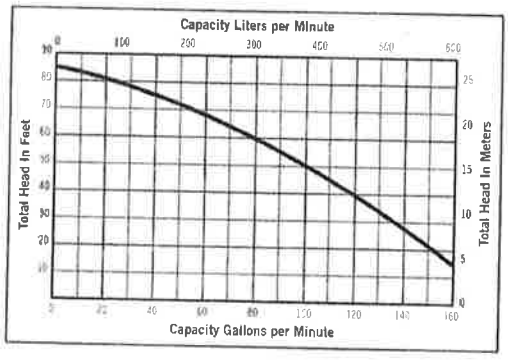
Performance Curve



D4EM SERIES

HIGH HEAD MULTISTAGE SUBMERSIBLE EFFLUENT PUMPS

- Proven "Floating Impeller" Staging System incorporates 1st-in-class performance, sand-handling and thrust management staging system with the industry exclusive "dry-run" design element. Reinforced engineered composites and stainless steel, offering high resistance to corrosion and abrasion.
- Tested-tough, fiberglass-reinforced thermoplastic discharge, with proven internal check valve. Large wrench flats and rope hole.
- 300-grade stainless steel pump shell offers high corrosion resistance.
- ⅜" Hexagonal, 300-grade stainless steel pump shaft offers generous impeller drive surfaces.
- Exclusive self-lubricating Nylatron® shaft bearing resists surface wear from sand.
- Tested-tough fiberglass-reinforced thermoplastic motor bracket incorporates an integral suction screen.

Specifications

Shell	Stainless steel
Discharge	10, 20 and 30 GPM models, fiberglass-reinforced thermoplastic
Discharge Bearing	Nylatron®
Impellers	Delrin®
Diffusers	Polycarbonate
Suction Caps	Polycarbonate with stainless steel wear ring
Thrust Pads	Proprietary spec.
Shaft and Coupling	Stainless steel 300 grade
Intake	Fiberglass-reinforced thermoplastic
Intake Screen	Polypropylene
Jacketed Cord	300V "SOOW" jacketed 10' leads (2-wire with ground); optional 20', 30', 50' and 100' lengths available
Agency Listing	CSA

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Delrin® is a registered trademark of E.I. DuPont de Nemours and Co.

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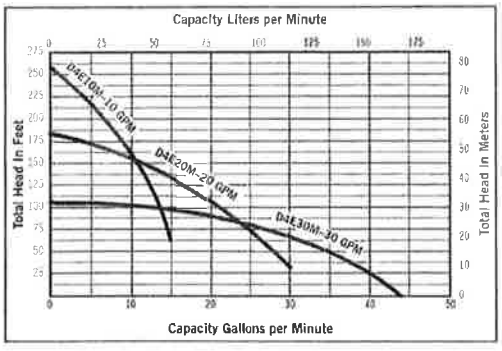
Performance Curves



D4EB SERIES

4" MULTISTAGE SUBMERSIBLE EFFLUENT PUMP

- The proven patented staging system uses a patented ceramic wear surface. When incorporated with Delta's "true" independent floating impellers it dominates with 1st-in-class performance, superior sand-handling, and a thrust management staging system with industry exclusive "dry-run" capabilities.
- Features a draw-down of 4½".
- Over 25% less amp draw (9.5 amps vs. 12.7 amps, 115V) than a 4" NEMA submersible, reducing operating costs and extending the service life of float switch contacts.
- The D4EB Series uses the pumped liquid to cool the motor as it passes over the motor. The water passing over the motor dampens the motor noise, eliminating expensive "flow-inducer sleeves" required when using a standard 4" NEMA submersible.
- Precision molded impellers for perfect balance...ultra smooth for the highest performance and efficiency. Allows for .080" solids.
- Positive drive, hexagonal 7/16", 300-grade stainless steel shaft offers generous impeller drive surfaces.
- Exclusive self-lubricating Nylatron® shaft bearing resists surface wear from sand and abrasives.
- 300-grade heavy-walled stainless steel shell, corrosion resistant.

Specifications

Shell	Stainless steel (300 grade)
Discharge	1¼" Fiberglass-reinforced thermoplastic
Discharge Bearing	Nylatron®
Impellers	Acetal
Diffusers	Polycarbonate
Suction Caps	Polycarbonate with stainless steel wear ring
Thrust Pads	Proprietary spec.
Shaft and Coupling	Stainless steel (300 grade)
Intake	Fiberglass-reinforced thermoplastic
Intake Screen	Stainless steel
Jacketed Cord	600V "SJOW" jacketed 10' leads, 2-wire with ground
Agency Listing	CSA

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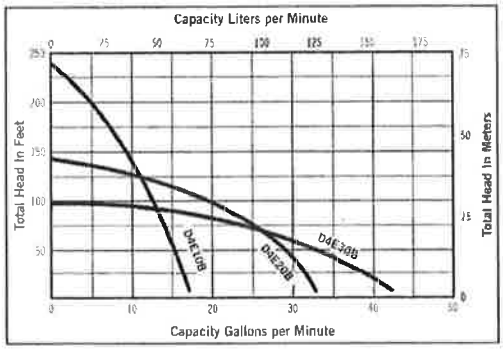
Performance Curves



DS40 SERIES

CAST IRON SUBMERSIBLE SEWAGE PUMPS

- Bearings and mechanical seal permanently lubricated for long life.
- Non-clog vortex style impeller.
- Built-in thermal overload protection with automatic reset.
- Heavy-duty lift-out ring, field serviceable.
- 2" spherical solids-handling capability.
- Stainless steel hardware allows for easy disassembly after extended service.
- Tethered float switch available for automatic operation.

Specifications

Motor Cover	Cast iron	
Upper Volute	Cast iron	
Lower Volute	Fiberglass reinforced polypropylene	
Impeller	Fiberglass reinforced Noryl® with brass threaded insert	
Mechanical Seal	Type 6A or equal, Buna-N elastomers, carbon and ceramic sealing faces, stainless steel metal parts	
Bearings	Upper sleeve and lower ball bearings	
Exterior Hardware and Nameplate	Stainless steel	
Motor	4/10 HP, 1500 RPM, 115V single phase, 60 Hz, oil-filled. Thermal overload protection with automatic reset	
Power Cord	20' water resistant 16-3 SJTW-A/SJTW with integrally grounded three-prong plug	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

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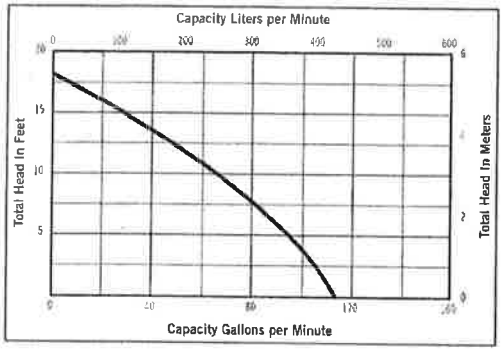
Performance Curve



DS50 SERIES

CAST IRON SUBMERSIBLE SEWAGE PUMPS

- Bearings and mechanical seal permanently lubricated for long life.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Non-clog vortex style impeller.
- Built-in thermal overload protection with automatic reset on single phase.
- Heavy-duty lift-out ring, field serviceable.
- 2" spherical solids-handling capability.
- Stainless steel hardware allows for easy disassembly after extended service.
- Standard controls available for automatic operation.

Specifications

Motor Cover	Cast iron	
Volute	Cast iron	
Impeller	Fiberglass reinforced Noryl® with brass threaded insert	
Mechanical Seal	Type 6A or equal, Buna-N elastomers, carbon and ceramic sealing faces, stainless steel metal parts	
Bearings	Ball/sleeve type, oil lubricated	
Exterior Hardware and Nameplate	Stainless steel	
Motor	½ HP, 1550 RPM, 115V, single-phase, 60 Hz. Oil-filled. Built-in thermal overload protection with automatic reset	
Power Cord	20' water resistant 16-3 SJTW-A/SJTW with integrally grounded three-prong plug	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

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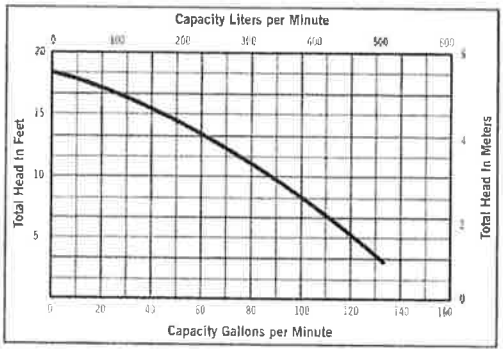
In order to provide the best products possible, specifications are subject to change.

Performance Curve



DS50F SERIES

CAST IRON SUBMERSIBLE HIGH FLOW SEWAGE PUMPS

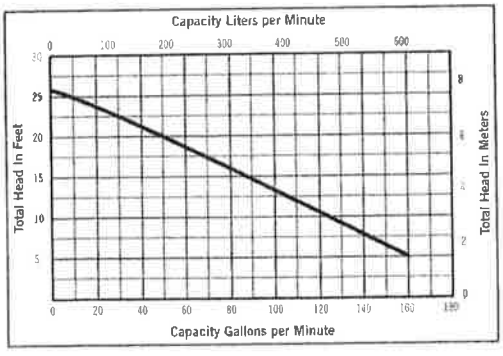
- Bearings and mechanical seal permanently lubricated for long life.
- Non-clog semi-open vane impeller.
- Built-in thermal overload protection with automatic reset.
- Heavy-duty lift-out ring, field serviceable.
- 2" spherical solids-handling capability.
- Stainless steel hardware allows for easy disassembly after extended service.
- Optional automatic float switch.
- Oil-filled capacitor greatly enhances the continuous duty motor rating.

Specifications

Volute Casing	Cast iron	
Upper and Lower Motor Housing	Cast iron	
Impeller	Cast iron	
Mechanical Seal	J. Crane™ type 6A or equal, Buna-N elastomers, silicon carbide seal faces, stainless steel metal parts	
Bearings	Upper sleeve and lower ball bearings, oil lubricated	
Exterior Hardware and Nameplate	Stainless steel	
Motor	½ HP, 1725 RPM, 115V single-phase, 60 Hz. Oil-filled. Permanent split capacitor. Built-in thermal overload protection with automatic reset	
Power Cord	20' oil and water resistant SJTW-A/SJTW 16/3 cord with UL/CSA Listed integrally grounded three-prong plug	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

In order to provide the best products possible, specifications are subject to change.

Performance Curve



DS50H/DS75 SERIES

CAST IRON SUBMERSIBLE SEWAGE PUMPS

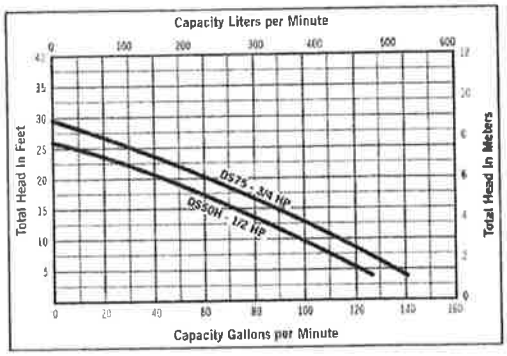
- Bearings and mechanical seal permanently lubricated for long life.
- Non-clog vortex style impeller with integral rim to reduce casing and impeller wear.
- Built-in thermal overload protection with automatic reset on single phase.
- Heavy-duty lift-out ring, field serviceable.
- 2" spherical solids-handling capability.
- Stainless steel hardware allows for easy disassembly after extended service.

Specifications

Volute Casing	Cast iron	
Upper and Lower Motor Housing	Cast iron	
Impeller	Cast iron	
Mechanical Seal	Type 6A or equal, Buna-N elastomers, silicon carbide sealing faces, stainless steel metal parts	
Bearings	Ball type, oil lubricated	
Lower Motor Housing O-Ring	Buna-N	
Exterior Hardware and Nameplate	Stainless steel	
Motor*	½ and ¾ HP, 1725 RPM, 115V or 230V single-phase, 60 Hz. Oil-filled. Permanent split capacitor. Built-in thermal overload protection with automatic reset. Stainless steel motor shaft and impeller lock nut.	
Power Cord	20' oil and water resistant 16-3 SJTW-A/SJTW with UL Listed integrally grounded three-prong plug.	
Oil-Filled Capacitor	Greatly enhances the continuous duty motor rating.	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

In order to provide the best products possible, specifications are subject to change.

Performance Curves



DS100/DS150/DS200 SERIES

CAST IRON SUBMERSIBLE SEWAGE PUMPS

1, 1½, & 2 HP

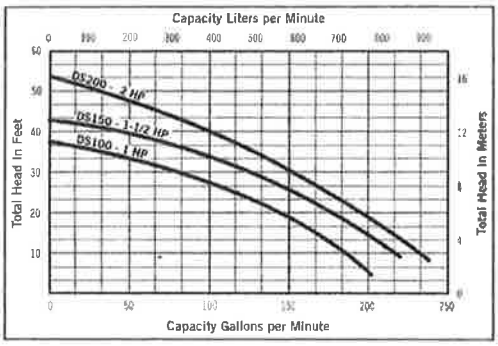
- Bearings and mechanical seal permanently lubricated for long life.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Non-clog two vane semi-open style impeller.
- Built-in thermal overload protection with automatic reset on single phase.
- Heavy-duty lift-out ring, field serviceable.
- 2" spherical solids-handling capability.
- Dual Shaft Seals–primary mechanical seal with a secondary self-lubricating lip seal.
- Standard controls available for automatic operation.

Specifications

Volute Casing	Cast iron	
Upper and Lower Motor Housing	Cast iron	
Impeller	Cast iron	
Shaft Seal	Primary: mechanical type 21 or equal, Buna-N elastomers, silicon carbide seal faces, stainless steel metal parts; Secondary: self-lubricating energized nitrile lip seal	
Bearings	Ball type, oil lubricated	
Exterior Hardware and Nameplate	Stainless steel	
Motor*	1, 1½ and 2 HP, 1725 RPM, 230V single phase, 60 Hz. Oil-filled. Built-in thermal overload protection with automatic reset and permanent split capacitor on single phase only. Stainless steel motor shaft and impeller lock nut.	
Power Cord	20' UL/CSA Listed, 3-wire 16-3 SJTW-A/ SJTW water resistant cord with integrally grounded three-prong plug.	
Oil-Filled Capacitor	Greatly enhances the continuous duty motor rating	
Maximum Liquid Temperature	130°F	55°C
Agency Listing	CSA	

In order to provide the best products possible, specifications are subject to change.

Performance Curves



D1C20-21 SERIES

SUBMERSIBLE GRINDER PUMP

2 HP, 3450 RPM

- High torque oil-filled motor conducts heat and lubricates bearings.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Cable entry system provides double seal protection. Cable jacket sealed by compression fitting. Individual wires sealed by potting epoxy. Power cord can be replaced without disturbing motor.
- Overload-heat sensor protects motor from burn-out due to excessive heat from any overload condition. Automatically resets when motor has cooled.
- The mechanical shaft seal is constructed with a ceramic stationary face and a carbon rotating face and is field proven for long service life.
- Grinder impeller and shredding ring are replaceable without dismantling pump. Constructed of 440 SST hardened to 56-60 Rockwell.
- Engineered thermoplastic recessed impeller handles ground slurry without clogging or binding. Provides unobstructed flow passage. Reduces radial loads. pump-out vanes help keep trash from seal, reduces pressure at seal face.

Capabilities

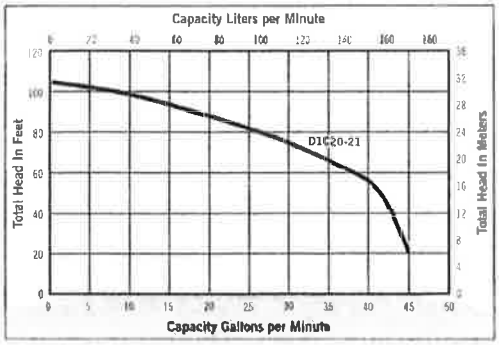
Liquids Handling	Domestic raw sewage	
Intermittent Liquid Temperature	Up to 140° F	Up to 60° C
Winding Insulation Temp. (Class F)	311° F	155° C
Motor Electrical Data	2 hp, 3450 RPM, 1 ph–Capacitor start/run 230V, 60 Hz, 15.0 amps	
Acceptable pH Range	6–9	
Specific Gravity	.9–1.1	
Viscosity	28–35 SSU	
Discharge Size, NPT	1¼ in.	31.75 mm
Minimum Sump Diameter Simplex	24 in.	61.0 cm
Duplex	36 in.	91.4 cm

Construction Materials

Motor Housing, Seal Housing, Volute Case	Cast iron, Class 30, ASTM A48
Power Cord	20 ft., 14/3, SJOW/SJOW-A
Mechanical Shaft Seals Standard	Carbon and ceramic
Optional	Tungsten carbide
Pump, Motor Shaft	416 SST
Fasteners	300 series SST
Shredding Ring, Grinder Impeller	440 SST, 58–60 Rockwell
Recessed Impeller	Engineered thermoplastic
Agency Listing	CSA, UL

In order to provide the best products possible, specifications are subject to change.

Performance Curve



D1P20-21 SERIES

SUBMERSIBLE GRINDER PUMP

2 HP, 1750 RPM

- High torque oil-filled motor conducts heat and lubricates bearings. Class F VFD/continuous duty rated.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Water resistant power cord with molded plug is available in 20' (6m) lengths.
- The heavy-duty ball bearings, upper (radial) and lower (thrust), are continuously lubricated by oil to ensure long service life.
- Overload heat sensor protects motor from burn-out due to excessive heat from any overload condition. Automatically resets when motor has cooled.
- The mechanical seal is constructed with a ceramic stationary face and a carbon rotating face and is field proven for long service life.
- Grinder impeller and shredding ring are replaceable without dismantling pump. Constructed of 440 SST hardened to 56-60 Rockwell.

Capabilities

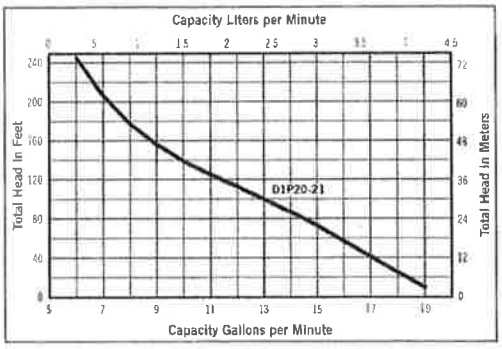
Liquids Handling	Domestic raw sewage	
Intermittent Liquid Temperature	Up to 140° F	Up to 60° C
Winding Insulation Temp. (Class F)	311° F	155° C
Motor Electrical Data	2 hp, 1750 RPM, 1 ph–capacitor start/run 230V, 60 Hz, 12.0 amps	
Acceptable pH Range	6–9	
Discharge Size, NPT	1¼ in.	31.75 mm
Unit Weight	85 lbs.	38 kg

Construction Materials

Motor Housing, Volute Case	Cast iron, Class 30, ASTM A48
Shaft	Stainless steel
Cutters	440C hardened 55–60 Rockwell C
Power Cord	20 ft., 14/3, SJOW/SJOW-A
Rotor	Buna-N, DBL helix
Stator	300 series SST, single lobe
Mechanical Seals	Seal–carbon and ceramic Seal body–stainless steel Spring–stainless steel Bellows–Buna-N
Bearings Upper and Lower	Single ball
Agency Listing	CSA, UL

In order to provide the best products possible, specifications are subject to change.

Performance Curve



D2C20-21 SERIES

SUBMERSIBLE GRINDER PUMP
2 HP, 3450 RPM

- Powerful motor is press fit for perfect alignment and best heat transfer. Oil-filled motor conducts heat and lubricates bearings. Class F VFD/ continuous duty rated.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Cable entry system provides double seal protection. Cable jacket sealed by compression fitting. Individual wires sealed by compression grommet. Power cord can be replaced without disturbing motor.
- Overload-heat sensor (1 phase only) Protects motor from burn-out due to excessive heat from any overload condition. Automatically resets when motor has cooled.
- Grinder impeller and shredding ring are replaceable without dismantling pump.
- Cast iron recessed impeller handles ground slurry without clogging or binding. Provides unobstructed flow passage. Reduces radial loads. Pump-out vanes help keep trash from seal, reduces pressure at seal faces.
- Optional seal leak probe detects water in seal housing, activates warning light in control panel.

Capabilities

Liquids Handling	Domestic raw sewage	
Intermittent Liquid Temperature	Up to 140° F	Up to 60° C
Winding Insulation Temp. (Class F)	311° F	155° C
Motor Electrical Data	2 hp, 3450 RPM, 1 ph–capacitor start/run 230V, 60 Hz	
Acceptable pH Range	6–9	
Specific Gravity	.9–1.1	
Viscosity	28–35 SSU	
Discharge Size, NPT	1¼ in.	31.75 mm

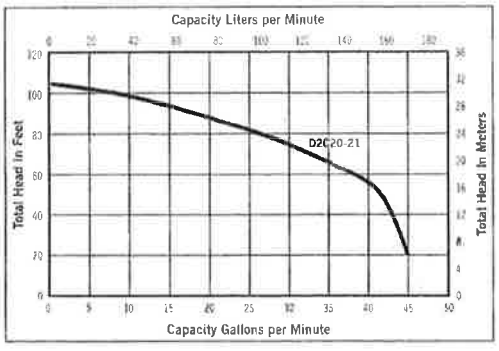
NOTE: Consult factory for applications outside of these recommendations.

Construction Materials

Motor Housing, Seal Housing, Cord Cap, Volute Case, Recessed Impeller	Cast iron, Class 30, ASTM A48
Power Cord w/Seal Probe w/o Seal Probe	15 ft., 14/5, SOOW 15 ft., 14/5, SOOW
Mechanical Seals	Double tandem carbon and ceramic
Pump, Motor Shaft	416 SST
Fasteners	300 series SST
Shredding Ring, Grinder Impeller	440 SST, 58–60 Rockwell
Agency Listing	CSA, UL

In order to provide the best products possible, specifications are subject to change.

Performance Curve



D2CX20-21 SERIES

SUBMERSIBLE EXPLOSION PROOF GRINDER PUMP
2 HP, 3450 RPM

- Powerful motor is press fit for perfect alignment and best heat transfer. Oil-filled motor conducts heat and lubricates bearings.
- Rugged Cast iron pump body and motor housing for applications needing a durable pump.
- Cable entry system provides double seal protection. Cable jacket sealed by compression fitting. Individual wires sealed by epoxy potting.
- Heat sensor protects motor from burn-out due to excessive heat from any overload condition. Automatically resets when motor has cooled.
- Double tandem mechanical shaft seals protect motor. Oil-filled seal chamber provides continuous lubrication.
- Grinder impeller and shredding ring are replaceable without dismantling pump. Constructed of 440 SST hardened to 56-60 Rockwell.
- Bronze recessed impeller handles ground slurry without clogging or binding. Provides unobstructed flow passage. Reduces radial loads. Pump-out vanes help keep trash from seal, reduces pressure at seal faces.
- Seal leak probe detects water in seal housing, activates warning light in control panel.

Capabilities

Liquids Handling	Domestic raw sewage	
Intermittent Liquid Temperature	Up to 140° F	Up to 60° C
Winding Insulation Temp. (Class F)	311° F	155° C
Motor Electrical Data	2 hp, 3450 RPM, 1 ph–capacitor start/run 230V, 60 Hz	
Acceptable pH Range	6–9	
Specific Gravity	.9–1.1	
Viscosity	28–35 SSU	
Discharge Size, NPT	1¼ in.	31.75 mm

Construction Materials

Motor Housing, Seal Housing, Cord Cap, Volute Case	Cast iron, Class 30, ASTM A48
Impeller	Recessed, bronze
Power Cord	15 ft., 14/4, SOOW
Control Cord	15 ft., 18/5, SOOW
Mechanical Shaft Seals Standard Optional	Double tandem carbon and ceramic Lower tungsten carbide
Pump, Motor Shaft	416 SST
Fasteners	300 series SST
Shredding Ring, Grinder Impeller	440 SST, 58–60 Rockwell
Agency Listing	CSA, FM

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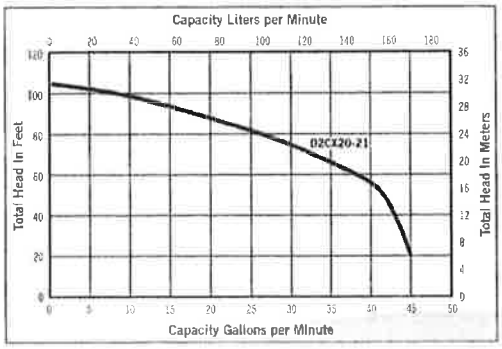


High Water Alarms

Delta Environmental Products alarm panels are the intelligent choice in alarm panel technology. Delta Environmental Products also manufactures a variety of control panels designed to meet specific customer needs. All panels can be supplied with UL and/or Canada cUL 508A listings upon request. Custom panels can be furnished to meet specific local requirements. Contact Delta for more information on custom controls.

Part Number	Description	Features & Benefits
SA-1	Indoor Alarm	• Polycarbonate construction • Audible alarm • Visual alarm • Fuse protected • Mercury-free switch
OSA-1	Outdoor Alarm	• Polycarbonate construction • Audible alarm • Visual alarm • Fuse protected • NEMA 4 outdoor rated
OSA-1MF	Outdoor Alarm	• Polycarbonate construction • Audible alarm • Visual alarm • Fuse protected • NEMA 4 outdoor rated • Includes mercury-free switch

Features & Benefits

- One panel design
- Controls more than one component in system
- Fiberglass NEMA 4X or steel 3R enclosure
- UL listed available
- All panels finger safe

Aerobic Treatment Air Compressors

Delta Environmental Products offers a wide variety of air compressors for individual aerobic treatment units. Extreme conditions/applications such as high altitudes, extreme temperatures or excessive dust require careful air compressor consideration. Consult the factory to choose from one of the following air compressor options for your application.

Compressor	Repair Kit	Shuttle	Air Filter
Thomas™			
5060 **5078S**	C50397-P C50402-P (Kit includes diaphragm and base, head and valve, air cleaner, o-tube)	C50159 C50272	C56300 C50318
HiBlow™			
HP40 **HP60/80** **HP100/120** **HP150/200**	HP40SRVKIT HP60/80SRVKIT HP100/120SRVKIT HP150/200SRVKIT (Kit includes filter, semi cover packing, casing block, diaphragm and base, hose band)		HP60-80-Filter HP100-120-Filter
Rotary			
QR-0050 **QR-0080** **QR-0100**	L32100-P L32103-P L32103-P (Kit includes shims, vane kit, gasket)		L84196 L84198-P L84198-P
Air Blowers (FPZ™)			
SCL-06 **SCL06-PC** **SCLV3**			FS-14S-100 FS-14S-100 FS-185-125

Linear Air Compressors

Thomas™ 5060 (old style)
Thomas™ 5060
Thomas™ 5078S

HiBlow™ HP40
HiBlow™ HP60/80
HiBlow™ HP100/120
HiBlow™ HO150/200

Features & Benefits

- Ultra quiet
- Ultra energy efficient
- Proven technology
- Low flow and low pressure

Rotary Air Compressors

QR-0030
QR-0050
QR-0080
QR-0100

Features & Benefits

- Durable
- High heat applications
- High pressures
- Higher air volumes
- Bases and covers

Regenerative Air Blowers

SCL-06
SCL06-PC
SCLV3

Features & Benefits

- Durable
- Quiet
- Proven technology
- Long life
- High air volume

Chlorinator Tablets

CHLOR10 10 pound pail of chlorine tablets
CHLOR25 25 pound pail of chlorine tablets
CHLOR45 45 pound pail of chlorine tablets
DE-**CHLOR25** 25 pound pail of de-chlorine tablets

Float Switches

D20NO – Mercury Float Switch, Wide Angle
PM20NO – Mercury Float Switch, Narrow Angle

For use in sewage and many chemical solutions, the UL & cUL listed (for Canada) 8300 float switches are designed for operating pumps through a magnetic starter or contactor to control liquid level in sumps or tanks. Can also be used to operate alarms to indicate high water conditions. The switch is sealed in a solid foam-filled polypropylene shell that is leakproof, shockproof and corrosion resistant. The cord weight is zinc plated cast iron. The hard wire is 18/2 SJOOW and the dependable steel tube switch is rated to 3.0 fla at 115 or 230V.

Junction and Distribution Boxes

3 x 5 x 4 with 1½" Hub and either 3" or 4½" Cord Grips
5 x 7 x 4 with 2" Hub and either 4" or 5½" Cord Grips
(Other sizes available, contact Delta for details)

4HD2 4 Hole D-Box with Seals and Plugs
6HD2 6 Hole D-Box with Seals and Plugs
7HD2 7 Hole D-Box with Seals and Plugs

Plastic distribution boxes are complete with seals, flow equalizers and lids.

Basin Accessories

20-RISL 20" Lid
20-RTT 20" Tank Adapter
20-RIS 20" x 6" Riser
24-RISL 24" Lid
24-RTT 24" Tank Adapter

AKP10010 Adaptaflex™ Fittings ½"
AKP10030 Adaptaflex™ Fittings 1"
AKP10035 Adaptaflex™ Fittings 1¼"
AKP10070 Adaptaflex™ Fittings 2"
AKP10080 Adaptaflex™ Fittings 3"
AKP10110 Adaptaflex™ Fittings 4"

Drip Disposal Components

Hydraulic Index Valves

Fimco™

1000 Series

1004F-23 Includes cams for 2, 3, or 4 zones
1006F-5 Includes cams for 5 or 6 zones
1008F-7 Includes cams for 7 or 8 zones

2000 Series

2004F-23 Includes cams for 2, 3, or 4 zones
2006F-5 Includes cams for 5 or 6 zones

4000 Series

4004F-23 Includes cams for 2, 3, or 4 zones
4006F-5 Includes cams for 5 or 6 zones

K-Rain™

4000 Series

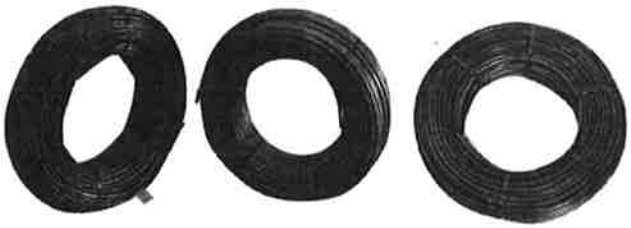
4402 Cammed for 2 zones
4403 Cammed for 3 zones
4404 Cammed for 4 zones

6000 Series

6402 Cammed for 2 zones
6403 Cammed for 3 zones
6404 Cammed for 4 zones
6605 Cammed for 5 zones
6606 Cammed for 6 zones

Drip Emitter Tubing–Bioline™

0.4GPH – Dripper
0.6GPH – Dripper
.09GPH – Dripper



Available in 500 ft. rolls

Drip Emitter Tubing–Geoflow™

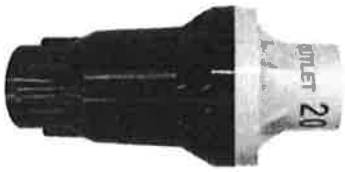
.5GPH Pressure Compensating, 12" or 24" spacing
1GPH Pressure Compensating, 12" or 24" spacing
1GPH Classic, 12" or 24" spacing

Tube Fittings

LT SLIP-600 ½" Lock Slip Tee
LTC-600 ½" Lock Slip Coupling
LTEL-600 ½" Lock Slip Elbow

Pressure Regulators

PMR-20MF Pressure Regulator Medium Flow ¾" 20 psi
PMR-20HF Pressure Regulator High Flow ¾" 20 psi
PMR-25MF Pressure Regulator Medium Flow, ¾" 25 psi
PMR-30MF Pressure Regulator Medium Flow, ¾" 30 psi
PMR-40MF Pressure Regulator Medium Flow, ¾" 40 psi
PMR-40HF Pressure Regulator High Flow, ¾" 40 psi

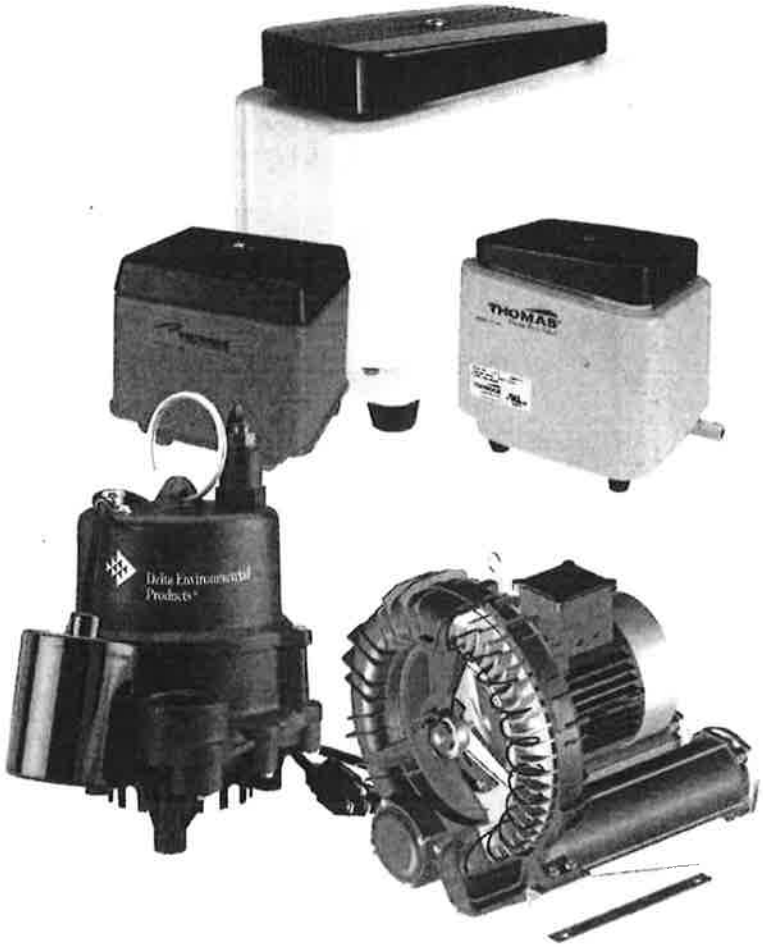


Vacuum Release Valve

VBK-1 1" Vacuum Breaker

Spin Filter

G1012 Spin Filters 1", Max 20 GPH
G2089 Spin Filters 1½", Max 30 GPH
G3000 Spin Filters 2", Max 50 GPH



Delta Environmental Products™ is dedicated to the manufacturing and marketing of advanced on-site treatment and low pressure sewer systems for wastewater markets worldwide.

For additional information, please consult a Delta Environmental Products sales representative. Delta Environmental Products is a part of Pentair Water, a division of Pentair, Inc. Pentair is a diversified operating company headquartered in Minnesota and a global leader in providing innovative products and systems used worldwide in the movement, treatment, storage and enjoyment of water. For additional information regarding Pentair, visit **www.pentair.com**.

Delta Environmental Products™

www.deltaenvironmental.com

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Ashland, OH 44805

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e3 Environmental, LLC
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ericv@e3onsite.com

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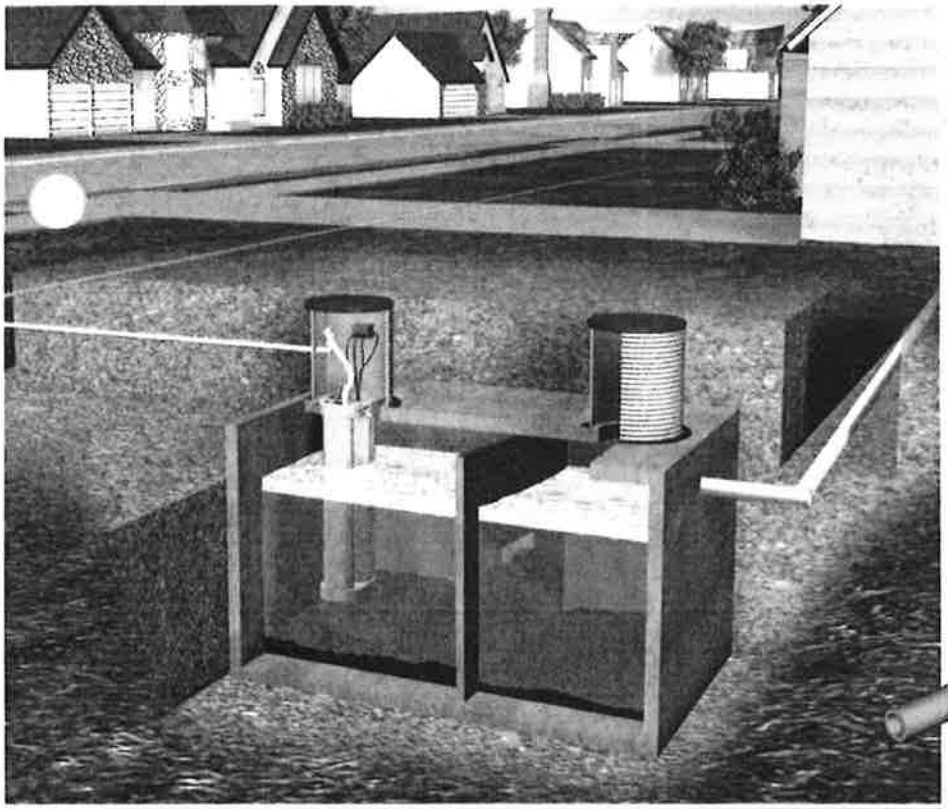
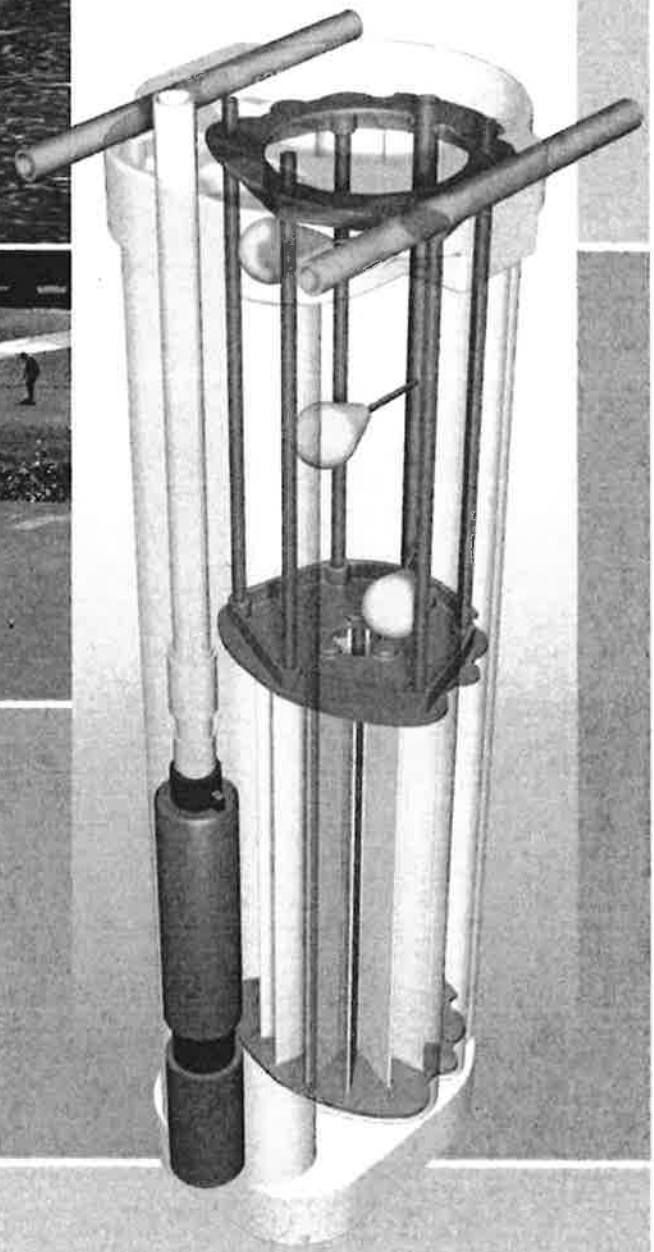


Delta
Environmental
Products™

eco FILTER
PUMP VAULT™
S.T.E.P. System



EFFLUENT PUMPING SYSTEMS

FOR USE WITH:

Drainfields	*Trickling Filters*
Textile Filters	*Aerobic Units*
Sand Filters	*Wetlands*
Peat Filters	*Lagoons*
Mounds	*Effluent Irrigation*

Delta Environmental Products™

Pentair Water

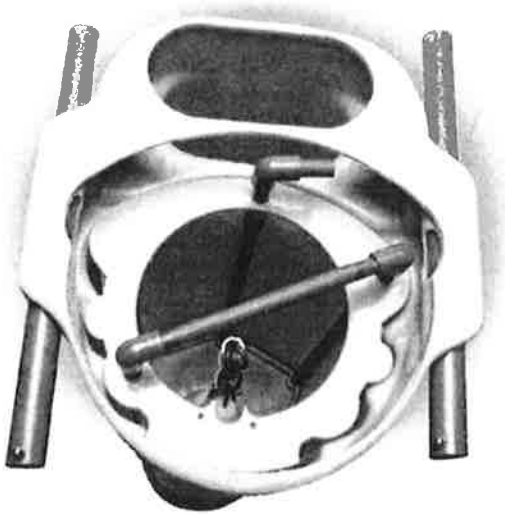
Delta
Environmental
Products™

eco FILTER PUMP VAULT™

S.T.E.P. System

INTRODUCING ECO FILTER

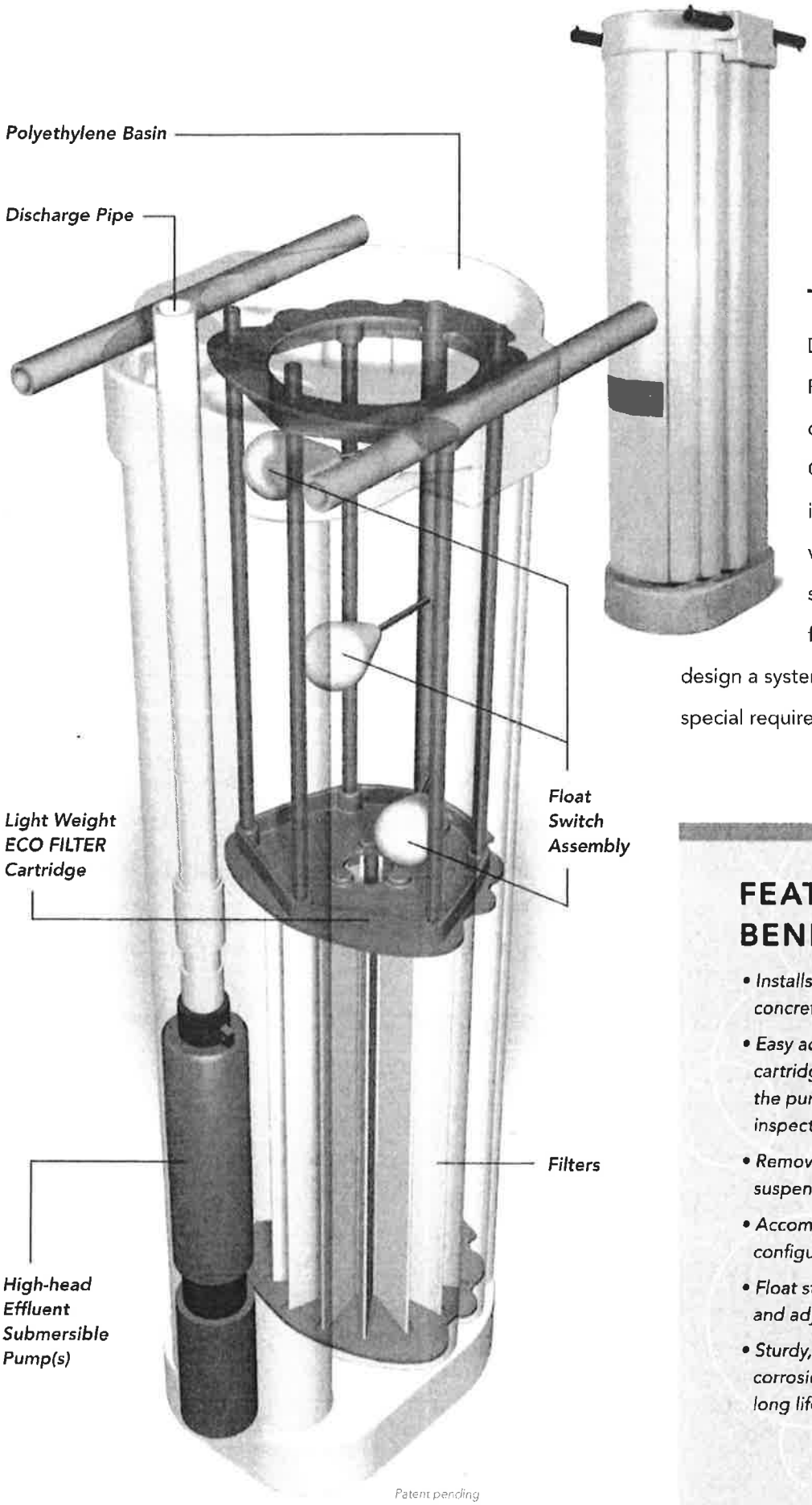
Delta Environmental Products™ developed the **ECO FILTER** in answer to environmental concerns and the growing number of S.T.E.P. Collection wastewater systems. S.T.E.P. Collection systems transport effluent from individual septic tanks through a piping system to either a dispersal or wastewater treatment system. Delta has years of wastewater treatment experience and extensive use of subsurface drip disposal technology.



The ECO FILTER features a dual compartment design housing which can be utilized for your simplex or duplex application needs.

EASY ACCESS AND MAINTENANCE

The **ECO FILTER** by Delta has been designed to allow easy access through a 24" opening for service and maintenance. This design gives the service provider the ability to pull and clean the filters without the time-consuming removal of the pump. In addition to saving time and money, the unit has an innovative float system that is easy to remove with a positive locking mechanism. All this makes **ECO FILTER** the ideal solution for effluent pumping applications.



Patent pending

THE SYSTEM

Delta Environmental Products™ offers a complete pump system. Our engineered system includes the pump filter vault, the high-head turbine submersible pump, and float controls. We will design a system to fit your needs and the special requirements of your project.

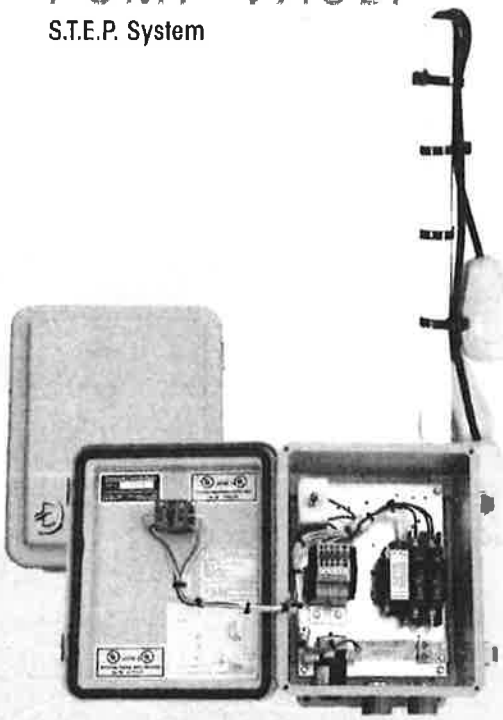
FEATURES AND BENEFITS

- *Installs quickly in new or existing concrete or fiberglass tanks*
- *Easy access design allows filter cartridge removal without pulling the pump or vault; simplifies filter inspection and maintenance*
- *Removes a significant amount of suspended solids*
- *Accommodates simplex or duplex configuration*
- *Float stem bracket allows easy removal and adjustment of float assembly*
- *Sturdy, molded polyethylene and corrosion-proof construction ensure long life*

Delta
Environmental
Products™

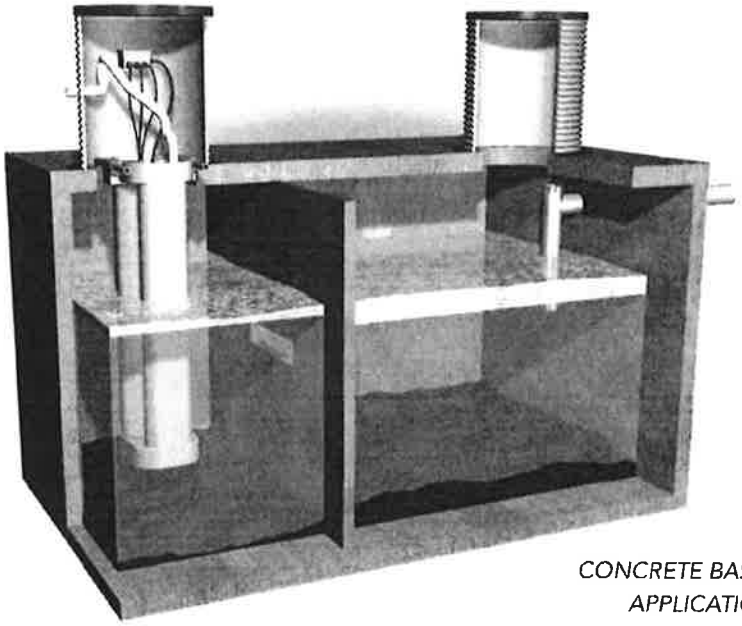
eco FILTER PUMP VAULT™

S.T.E.P. System



CONTROLS

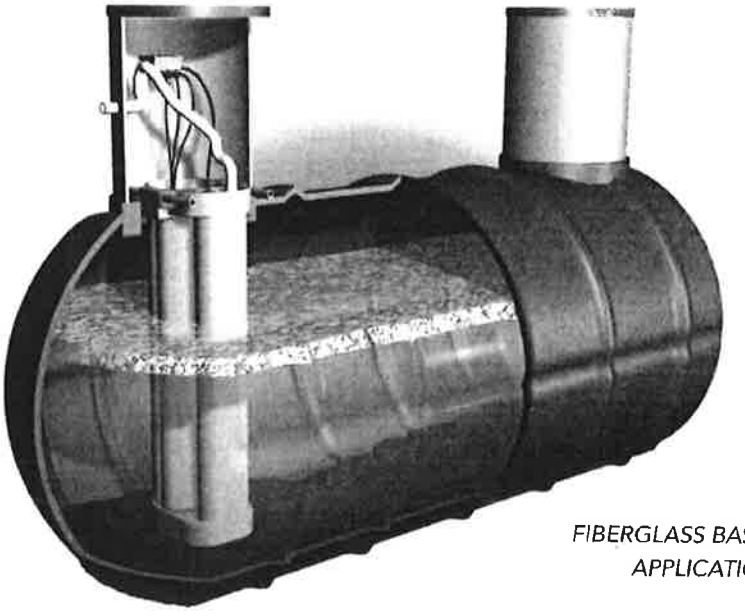
The controls are one of the most important components of a pumping system. The control panel of the Delta **ECO FILTER** system is engineered to operate the system at maximum efficiency. Using a robust and low-maintenance design, these controls vary according to your needs and have numerous options. The panel comes with features to indicate that your system is functioning 24 hours a day.



CONCRETE BASIN APPLICATION

FILTERING

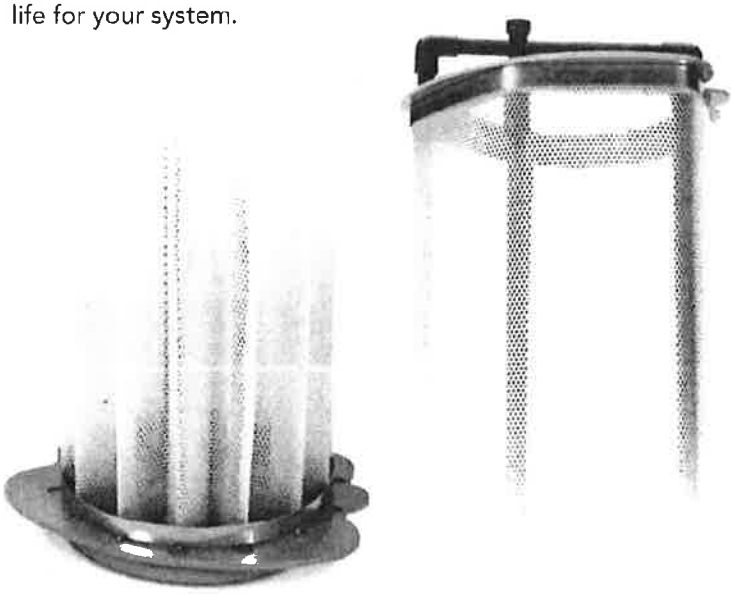
The Delta **ECO FILTER** draws effluent from the middle layer of your septic tank. This area is considered the "clear zone" of a septic tank. In a properly functioning septic tank, gross solids will settle to the bottom of the tank and grease and scum will rise to the top of the tank's water level, creating this "clear zone". Septic effluent from this zone enters the **ECO FILTER**, where the remaining unwanted solids are filtered from the pump system. The unit is designed to maximize the surface area of the filter to prolong the filter's life, providing you the ideal solution for your wastewater needs.



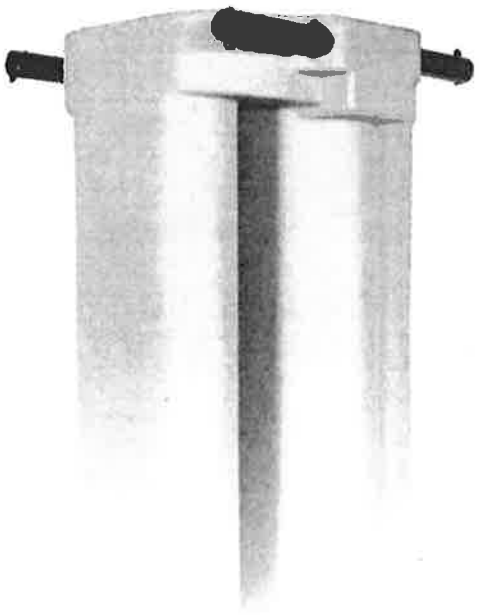
FIBERGLASS BASIN APPLICATION

MATERIALS AND CONSTRUCTION

Delta Environmental Products™ has decades of experience in the wastewater pumping industry. This experience has shown us the optimal materials and construction techniques needed for prolonged wastewater pumping applications. The Delta **ECO FILTER** is constructed of polyethylene and polypropylene, which are superior materials for wastewater applications. Our design and construction techniques, coupled with these materials, provide long service life for your system.



Perforated quality polypropylene medium allows ease of filter cleaning.



Rotational molded polyethylene housing with UV inhibitors for durability and shelf life.

TECHNICAL SUPPORT/ DISTRIBUTOR NETWORK

Distributors and corporate technical support are ready to help you with any questions. Delta Environmental Products™ has distributors around the country. Each of these professionals is factory-trained on the Delta **ECO FILTER** to provide the help you need. The network of support included with your purchase of the Delta **ECO FILTER** is second to none. The distributors of Delta Environmental Products are ready to provide the service you expect.

HIGH-HEAD EFFLUENT PUMP

The powerful, yet lightweight DE Series features stainless steel construction, built-in overload and electric surge protection. Delta Environmental Products™ offers a wide range of pump selection for any application and incorporates features designed from our years of experience to provide you with trouble-free service.

Delta Environmental Products™

ECO FILTER PUMP VAULT™

S.T.E.P. System

APPLICATION

At Delta Environmental Products™, our engineers have designed wastewater systems for many years, and all are field-tested. We have applied our vast experience in building residential and industrial wastewater systems to bring you the Delta **ECO FILTER**.

This system efficiently removes solids, which translates into improved wastewater quality. In addition, the Delta **ECO FILTER** prolongs the life of downstream treatment systems. The system is completely engineered and designed to meet your specifications. You have the choice of pumps, floats, enclosure size and control panels. You have the peace of mind knowing that an industry leader built your system.

ENGINEERING

Delta Environmental Products learned a long time ago that engineering requires field experience to produce the best results. What that means for you is our engineering team regularly gets out into the field to refine the performance of our products. We are not content with mediocrity. Our goal is to be your manufacturer of choice long into the future. By working with our distributors and customers we see first hand the situations you face, and we respond with the type of engineering that has made us the industry leader.

ADDITIONAL PRODUCTS AVAILABLE

Delta Environmental Products is dedicated to the advancement of wastewater collection and on-site treatment systems, including low pressure sewer grinder systems. Delta offers simplex and duplex systems with either semipositive displacement grinder pumps or centrifugal submersible grinder pumps, coupled with a range of quality controls and accessories.

For additional information, please consult a Delta Environmental Products sales representative.

WHITEWATER SERIES

POD SERIES

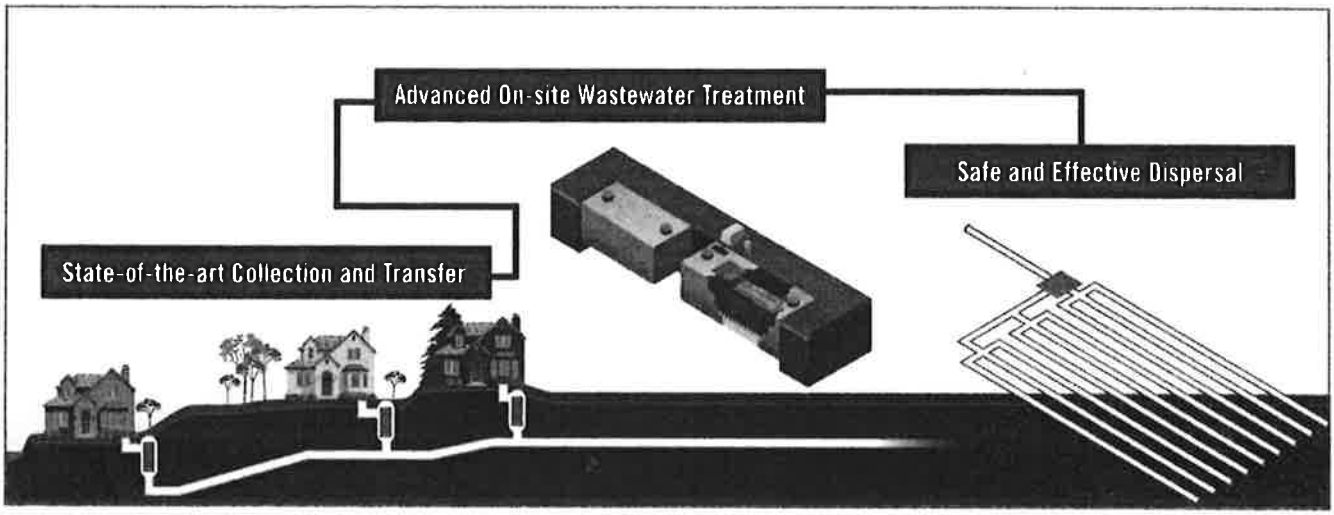
DRIP SERIES

CONTROL SERIES

PACKAGED WASTEWATER Treatment Plants

Collection Series

CLEAR



COMPLETE DECENTRALIZED WASTEWATER SOLUTIONS ■■

Delta Environmental Products™ offers a complete engineered system that works together to offer the best alternatives for decentralized wastewater management. The Delta system incorporates best-in-class solutions to handle all wastewater management on-site, including all three key elements of wastewater management: **collection and transfer** with a pump vault or a low pressure sewer grinder system; a **treatment system** through an advanced biological treatment system; and advanced drip, spray or other **dispersal technologies.**

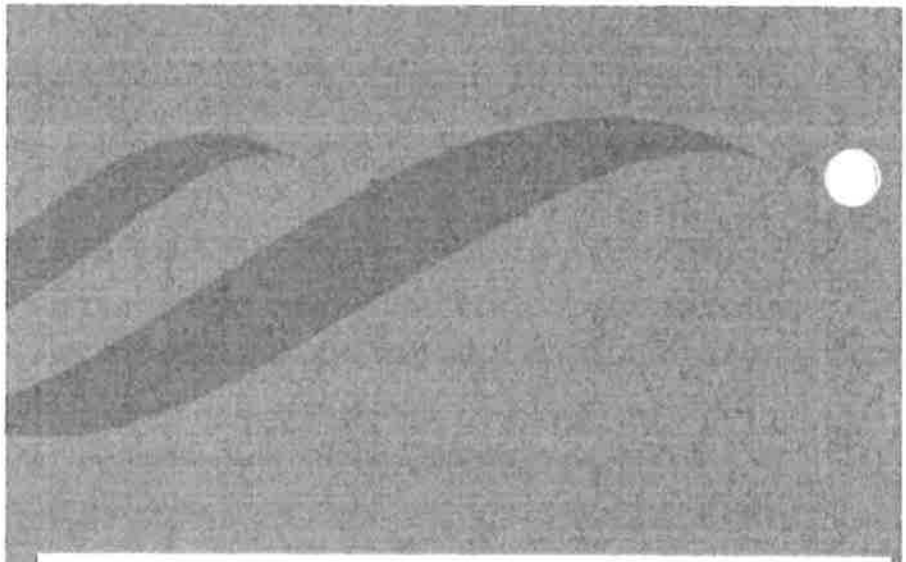
Delta Environmental Products™ is dedicated to the manufacturing and marketing of advanced on-site treatment and low pressure sewer systems for wastewater markets worldwide. The wastewater-focused operations in Ohio offers complete, packaged low pressure sewer grinder pump and effluent pump systems. They are offered in simplex or duplex design with either semipositive displacement or centrifugal submersible grinder pumps, coupled with a range of quality controls and accessories. For additional information, please consult a Delta Environmental Products sales representative.

Pentair Water™

Delta Environmental Products is a part of Pentair Water™, a division of Pentair, Inc.

Pentair is a diversified operating company headquartered in Minnesota and a global leader in providing innovative products and systems used worldwide in the movement, treatment, storage and enjoyment of water.

For additional information regarding Pentair, please visit **www.pentair.com** today.



Authorized Distributor

Delta Environmental Products™

Pentair Water

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