FARRIS MATHEWS BRANAN
BOBANGO HELLEN & DUNLAP, PLC

ATTORNEYS AT LAW

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NASHVILLE, TENNESSEE 37219

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Jamie R. Hollin
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Writers Direct Dial:
615-687-4243

February 12, 2007

Sara Kyle, Chairman
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, Tennessee 37243

VIA ELECTRONIC & HAND DELIVERY

Re: Integrated Resource Management, Inc.'s ("IRM") Data Responses in Docket No. 07-0008 Ashley Meadows.

Dear Chairman Kyle:

Please find IRM's data responses in the referenced docket enclosed herewith.

If I may be of further assistance in this matter, please do not hesitate to contact me. I am

Very truly yours,

Jamie R. Hollin

Enclosure

1. **An estimated timeframe for construction of the system including estimated date construction will begin and the date it is estimated to end.**

RESPONSE:

Construction should begin in April 2007 and should be completed by July 2007.

2. The engineering and construction plans for the proposed area.

RESPONSE:

See attached.

Preliminary Engineering Report
&
Design Specifications

Ashley Meadows Subdivision
Blount County, Tennessee

An Addition to Integrated Resource Management, Inc.
(IRM Utility, Inc.)

SCAT Treatment System and Slow Rate Land Treatment Disposal

Prepared by:

Richard J. Epling, P.E.
121 North Cumberland
Morristown, Tennessee 37814

Environmental Soil Consulting
3444 Saint Andrews Drive
White Pine, Tennessee 37890

1 Preliminary Engineering Report

2 Calculations

3 Design Specifications

4 Quanics Tech Sheets

5 Tank Specifications

6 uV Treatment

7 Drip Emitter Line

8 Soils Information

Ashley Meadows Subdivision Development

Description of Wastewater Generating Facility

- *The Ashley Meadows Development consists of residential lots. It will contain a maximum of 66 bedrooms upon completion contained in a maximum of 22 lots.*

System Design Flow

- *The Ashley Meadows Development System has a design flow rate as follows:*

  Peak Flow – 100 gpd per bedroom X 66 bedrooms = 6,600 gpd

Collection System

- *Collection will be accomplished through STEP Effluent Sewer. Each house will have a water tight 2-compartment 1,000 gallon septic tank and a 1,000 gallon dosing tank. The septic tank will provide primary treatment though natural, organic decomposition. Quanics (Zabel) Pump Vaults will filter out solids, pumping filtered effluent through small-diameter collection lines to the treatment facility.*

Treatment System

- *Treatment will be by means of a Quanics SCAT recirculating filter system. Effluent from the collection system will enter a 7,000 gallon recirculating tank. Effluent will then be pumped through Quanics (Zabel) Pump Vaults to the SCAT Filter Modules. Effluent passes through the SCAT Module and is collected back to a Gravity Recirculation Device (GRD). From the GRD, 80% will return to the recirculating tank and 20% will flow to a 2,500 gallon dosing tank. Effluent from the dosing tank will pass through a Manual Management System disk filter and UV Treatment on its way to a drip emitter field for final disposal. Final disposal. Final disposal will be through 2 drip emitter zones with a total drip area of 1.5 acres. Geoflow pressure compensated drip lines w/ 24" emitter spacing will be placed on 2.5' centers for added surface area contact to allow for poorer soils in the drip field area.*

Treatment Alternatives

- *Connection to existing municipal/public sewer:*

Nearest municipal/public sewer is located in the City of Alcoa. Nearest site for connection is approximately 8 miles away from site. Construction of a collection line from the site to the Maryville/Alcoa connection would be financially impractical, due to distance and the presence of shallow limestone rock.

- *Connection to conventional subsurface sewage disposal system/systems:*

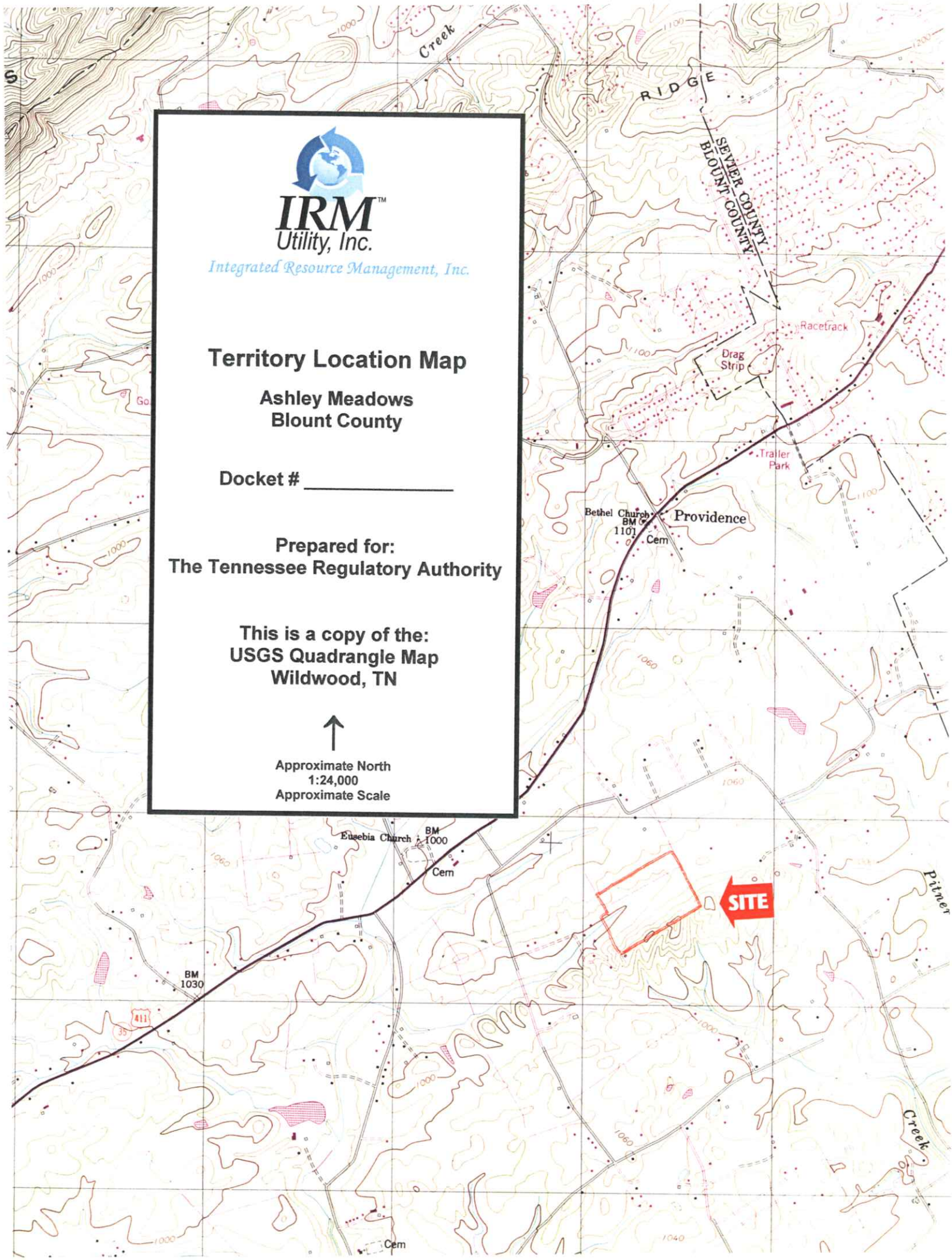
  The site had previously been approved for subsurface sewage disposal. Concerns with soil conditions on individual lots had consequentially resulted in the disapproval of platted lots. In order to rectify the situation a detail study was performed. An area was discovered and evaluated for drip irrigation to be employed as a Slow Rate Land Treatment process for treated effluents.

  Use of on-site disposal as Regulated by Division of Water Pollution Control:

  Extra-High Intensity Soil Mapping, Permeability Studies at depths of eight inches (8") and sixteen inches (16"), and an aggressive agronomical program indicated that this application is practical. Also, it was considered that installing soil improvement practices that are employed with standard subsurface sewage disposal systems be employed to provide additional surety for the functioning of the soils hydraulic load. Additionally, the spacing of the drip emitter lines and dosing has been adjusted to further facilitate the use of the soils specific to the site.

  Included is a report from Environmental Soil Consulting of Baneberry, Tennessee that includes a summary of findings that address Chapter 16 for Slow Rate Land Treatment Concepts. The studies include soil mapping and descriptions by Hershel Dollar and David McKinney. Also included are permeability studies and an agronomic plan by Environmental Soil Consulting.

  The willingness of Integrated Resource Management, Inc (IRM Utility Inc.) of White Pine, Tennessee to accept the Development and System into their area of service has made the use of a STEP collection system and recirculating filter system with drip emitter effluent disposal feasible.



IRM™ Utility, Inc.

Integrated Resource Management, Inc.

Territory Location Map

Ashley Meadows
Blount County

Docket # _____

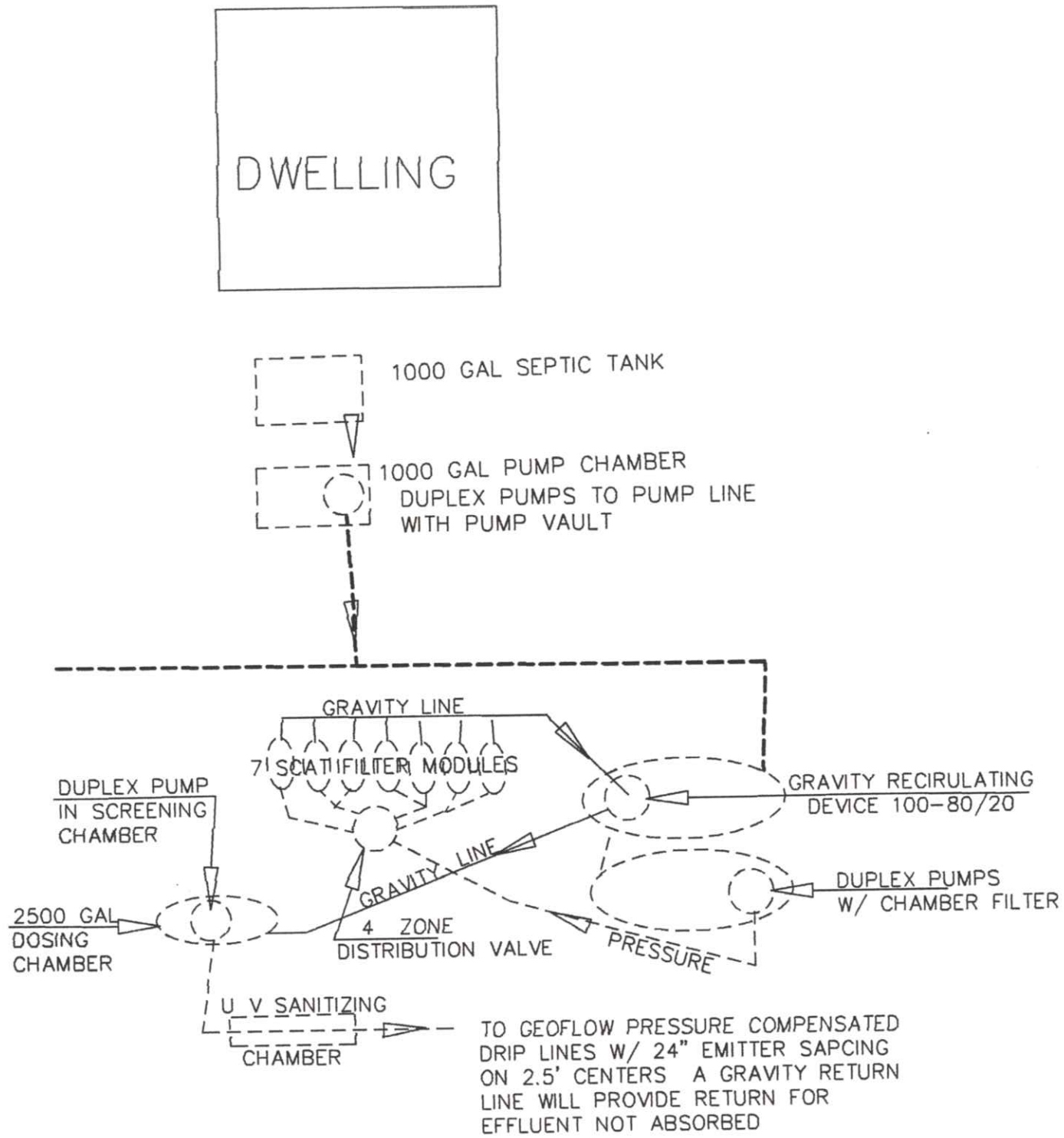
Prepared for:
The Tennessee Regulatory Authority

This is a copy of the:
USGS Quadrangle Map
Wildwood, TN

↑

Approximate North
1:24,000
Approximate Scale

TYPICAL FOR 3 BEDROOM DWELLING
PROPOSED A TOTAL OF 22



SCHEMATIC OF PROPOSED SEWAGE COLLECTION AND TREATMENT SYSTEM FOR ASHLEY MEADOWS SUBDIVISION

Ashley Meadows Subdivision Development
Blount County, Tennessee

Calculations for Hydraulic Loading Rates, Nitrogen Loading Levels and Field Area Size Calculations were based on the formulas in Chapter 16, Equation16-5. The Table on the following page is a copy of the Master Spreadsheet provided by the Tennessee Department Environment and Conservation:

From the table of calculations the Lwn for the month of August (4.88 in/mo) is the limiting month. Acreage requirement is calculated from Equation 16-6:

$$A = \frac{(Qy + V)C}{Lwn} = \frac{(.198\ MG/mo + 0)(36.83)}{4.88\ in/mo} = 1.494\ Acres$$

Based on proposed Lwh the equation is as follows:

$$A = \frac{(Qy + V)C}{Lwh} = \frac{(.198\ MG/mo + 0)(36.83)}{4.86\ in/mo} = 1.500\ Acres$$

The Lwn and the proposed Lwh are almost the same with the acreage requirements.

The added distribution in the fields with the narrower spacing of drip lines will provide better absorptions to the middle of the distribution area and prevent saturations.

No aggressive agronomic plan is proposed due to the low nitrogen application rates.

There is area tested and preliminarily soil mapped for reserve for drip area.

Wastewater Application Rates Based on Nitrate Concentration

Ashley Meadows - Blount County (Master)

Nitrate Loading Rate = Lwn = (Cp)(Pr - PET) + U (4.424) / [(1-f)(Cn) - Cp] -- *Eqn. 16-5*

Lwn =		Calculated Allowable Nitrate Loading Rate
Pr =		Table A-3 of Chapter 16 - 5-year return monthly precipitation (in/month)
PET =		Table A-2 of Chapter 16 - Potential Evapotranspiration (in/month)
N-	**Uptake**	Table A-5 of Chapter 16 - Monthly Nitorgen Uptake Rate by Vegetation (lbs/acre/month)
f =		Applied Nitrogen Fraction Removed by Denitrification / Volatilization (%)
Cp =	10	Maximum Nitrate Concentration in Leachate (mg/L)
Cn =	**25**	Nitrogen Concentration in Applied Wastewater (mg/L)
	4.424	Conversion Factor
U =	**50**	Annual Nitrogen Uptake Rate for Crop, Variable (lbs/acre/yr)

MONTH	Pr in/mo	PET in/mo	N Uptake %/mo	N Uptake lb/ac/mo	f (Denitrif) %/mo	Lwn in/mo	Lwn in/wk	Lwn in/day	Lwn GPD/SF	Lwh GPD/SF
JAN	7.62	0.10	1%	0.5	25%	8.85	2.00	0.29	0.178	
FEB	6.72	0.27	2%	1	25%	7.88	1.97	0.28	0.175	
MAR	8.85	0.97	4%	2	27%	10.62	2.40	0.34	0.214	
APR	6.59	2.30	8%	4	29%	7.82	1.82	0.26	0.162	
MAY	6.13	3.59	12%	6	31%	7.16	1.62	0.23	0.144	
JUN	5.52	4.90	15%	7.5	33%	5.83	1.36	0.19	0.121	
JUL	6.85	5.44	17%	8.5	35%	8.27	1.87	0.27	0.166	
AUG	4.73	5.00	15%	7.5	35%	4.88	1.10	0.16	0.098	
SEP	5.54	3.79	12%	6	34%	6.78	1.58	0.23	0.141	
OCT	4.47	1.98	8%	4	32%	6.09	1.37	0.20	0.122	
NOV	6.11	0.82	4%	2	29%	7.97	1.86	0.27	0.165	
DEC	7.55	0.27	2%	1	26%	9.09	2.05	0.29	0.183	
TOTALS	**76.68**	**29.43**	**100%**	**50**		**91.23**				

ASHLEY MEADOWS SUBDIVISION

DESIGN SPECIFICATIONS

TREATMENT SYSTEM

- Quanics SCAT Recirculating TREATMENT SYSTEM
- ATS-SCAT-8-AC-1000 MODULES PRODUCING RECIRC-BLEND EFFLUENT
- NUMBER OF MODULES BASED ON THE FOLLOWING:

PEAK FLOW PER MODULE 1,000 GPD

PEAK FLOW FOR SITE 6,600 GPD

NUMBER OF MODULES NEEDED:

6,600 GPD / 1,000 GPD = 7 MODULES

7 ATS-SCAT-8-AC-1000 MODULES USED

- THE SCAT TREATMENT SYSTEM IS TO BE INSTALLED BY AN AUTHORIZED SCAT INSTALLER. THE SYSTEM IS TO BE INSTALLED TO THE MOST CURRENT CONSTRUCTION AND INSTALLATION METHODS AT TIME OF INSTALLATION.

RECIRCULATING TANK

- 7,000 GALLON RECIRCULATING TANK MANUFACTURED BY BARGER AND SONS OF HARRIMAN, TENNESSEE.
- SEE ATTACHED INSTALLATION GUIDELINES AND DESIGN SPECIFICATIONS
- RECIRCULATING TANK SHALL CONTAIN 1 SET OF QUANICS DUPLEX PUMPS (OR EQUIVALENT) (MODEL NUMBER TO BE SPECIFIED BY SUPPLIER) W/ FILTERED PUMP VAULT
- RECIRCULATING TANK SHALL CONTAIN QUANICS GRAVITY RECIRCULATING DEVICE W/ 100/80/20 SPLIT
- RISERS – RISERS SHALL BE QUANICS WITH A 26" DIAMETER. RISER IS TO EXTEND BEYOND GROUND WITH THE FOLLOWING:

- *RUBBER GROMMETS. ONE FOR EACH SPLICE BOX AND PUMP DISCHARGE AND SHALL BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS.*
- *RISERS SHALL BE POURED IN PLACE WITH CAST-IN-PLACE TANK ADAPTERS.*
- *ONE LID SHALL BE FURNISHED WITH EACH RISER. LIDS SHOULDS BE SUPPLIED WITH GASKET, STAINLESS STEEL SAFETY SCREWS, AND SCREW FITTING.*

DRIP FIELD DOSING TANK

- *2,500 GALLON SUPER LOWBOY DOSING TANK MANUFACTURED AND SUPPLIED BY C.R. BARGER & SONS, INC. (OR EQUIVALENT). PLANS HAVE DOSING TANK INSTALLATION SPECIFICATIONS*
- *DOSING TANK TO CONTAIN 1 SET OF QUANICS DUPLEX PUMPS (OR EQUIVALENT) (MODEL NUMBER TO BE SPECIFIED BY SUPPLIER) W/ FILTERED PUMP VAULT*
- *EACH SET OF DUPLEX PUMPS IS TO SUPPLY 30 DOSES AT 12 MINUNTES EACH DOSE WITH A FLOW RATE OF 19.24 GPM. TOTAL FLOW TO DRIP FIELD TO BE APPROXIMATELY 6,600 GALLONS PER DAY.*
- *RISERS – RISERS SHALL BE QUANICS WITH A 26" DIAMETER. RISER IS TO EXTEND BEYOND GROUND WITH THE FOLLOWING:*
  - *RUBBER GROMMETS. ONE FOR EACH SPLICE BOX AND PUMP DISCHARGE AND SHALL BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS.*
  - *RISERS SHALL BE POURED IN PLACE WITH CAST-IN-PLACE TANK ADAPTERS.*
  - *ONE LID SHALL BE FURNISHED WITH EACH RISER. LIDS SHOULD BE SUPPLIED WITH GASKET, STAINLESS STEEL SAFETY SCREWS, AND SCREW FITTING.*

PUMPING ASSEMBLIES

- *ALL PUMPING SYSTEMS SHALL BE QUANICS SYSTEMS HIGH-HEAD PUMPING ASSEMBLY OR ENGINEER APPROVED EQUAL AND SHALL BE COMPOSED OF:*

- *THE SCREENED PUMP VAULT FILTER SHALL BE A QUANICS FILTER PUMP VAULT (OR EQUIVALENT).*

- *DISCHARGE HOSE AND VALVE ASSEMBLY SHALL BE QUANICS MODEL PDS-TD-2.0-D (OR EQUIVALENT), 2" DIAMETER OR PDS-TD-1.25-D)OR*

EQUIVLENT) 1.25" DIAMETER, 150 PSI PVC BALL VALVE AND CHECK VALVE, PVC FLEX HOSE WITH WORKING PRESSURE RATING OF 100 PSI, SCHEDULE 40 PVC PIPE, AND A 12" LENGTH OF PVC FLEX HOSE WITH FITTINGS TO BE INSTALLED OUTSIDE THE RISER

- *MERCURY SWITCH FLOAT ASSEMBLY SHALL BE QUANICS MODEL AC-MFS (OR EQUIVALENT), WITH FOUR MERCURY SWITCH FLOATS MOUNTED ON A PVC STEM ATTACHED TO THE EFFLUENT SCREEN. THE FLOATS MUST BE ADJUSTABLE WITHOUT REMOVING SCREENED PUMP VAULT. THE HIGH/LOW ALARM FUNCTIONS SHALL BE PRESET AS SHOWN ON THE DRAWING. EACH MERCURY SWITCH FLOAT SHALL BE SECURED WITH A NYLON STRAIN RELIEF BUSHING OR APPROVED EQUAL. THE "A" FLOATS SHALL BE UL OR CSA-LISTED AND SHALL BE RATED FOR 4.5A @ 120V.*

- *HIGH-HEAD EFFLUENT PUMP SHALL BE MODELS SPECIFIED ABOVE WITH A 20 FOOT LONG EXTRA HEAVY DUTY (SO) ELECTRICAL CORD WITH GROUND TO MOTOR PLUG. PUMP SHALL BE UL AND/OR CSA LISTED AS AN EFFLUENT PUMP. PUMP SHALL BE PROVIDED WITH A NON-PRORATED THREE (3) YEAR WARRANTY.*

- *ELECTRICAL SPLICE BOX SHALL BE QUANICS MODEL AC-JSB-5 (OR EQUIVALENT), UL APPROVED FOR WET LOCATIONS, EQUIPPED WITH ELECTRICAL CORD GRIPS AND A 3/4-INCH OUTLET FITTING. ALSO INCLUDED SHALL BE UL LISTED BUTT SPLICE CONNECTORS.*

- *CONTROLS AND ALARMS SHALL BE CUSTOM QUANICS MODEL AC-CP-D-C-T (OR EQUIVALENT)*
    - *PANELS SHALL BE FIELD REPAIRABLE WITHOUT USE OF SOLDERING IRONS OR SUBSTANTIAL DISASSEMBLY. CONTROL PANELS SHALL MEET THE FOLLOWING AT A MINIMUM:*
    - *AUDIBLE ALARM: PANEL MOUNT WITH A MINIMUM OF 80 DB SOUND PRESSURE AT 24 INCHES AS A WARBLE TONE.*
    - *VISUAL ALARM: NEMA 4, 7/8-INCH DIAMETER, OIL-TIGHT WITH PUSH-TO SILENCE FEATURE.*
    - *AUDIO-ALARM RESET RELAY: 115 V, AUTOMATIC, WITH DIN RAIL MOUNT SOCKET BASE.*
    - *TOGGLE SWITCH: 15 AMP MOTOR RATED, SINGLE-POLE. DOUBLE-THROW WITH THREE POSITIONS: MANUAL (MAN), (OFF), AND AUTOMATIC (AUTO) (PER PUMP)*
    - *CIRCUIT BREAKER DISCONNECT: RATED FOR 20 AMPS. OFF/ON SWITCH. DIN RAIL MOUNTING WITH THERMAL MAGNETIC TRIPPING CHARACTERISTICS.*

- *CURRENT-LIMITING CIRCUIT BREAKER: RATED FOR 10 AMPS. OFF/ON SWITCH, DIN RAIL MOUNTING WITH THERMAL MAGNETIC TRIPPING CHARACTERISTICS.*
- *ENCLOSURE: NEMA 4X, STAINLESS STEEL OR NON-METALLIC HINGES, STAINLESS STEEL SCREWS AND PADLOCKABLE LATCH.*
- *ALARM CIRCUIT: WIRED SEPARATELY FROM THE PUMP CIRCUIT SO THAT, IF THE PUMP INTERNAL OVERLOAD SWITCH OR CURRENT-LIMITING CIRCUIT BREAKER IS TRIPPED, THE ALARM SYSTEM REMAINS FUNCTIONAL.*
- *MOTOR START CONTRACTOR: RATED FOR 24 FLA, SINGLE-PHASE. 60 HZ.*
- *ELAPSED TIME METERS*
- *SIEMENS LOGO PLC CONTROLLER*
- *PUMP RUN LIGHTS (PER PUMP)*

- *SEQUENCE OF OPERATION SHALL BE AS FOLLOWS:*

  THERE IS AN MF4A FLOAT TREE ASSEMPLY, OPERATING AS FOLLOWS (FROM THE BOTTOM GOING UP):

  FS 1 TIMER OFF
  FS 2 TIMER ON
  FS 3 PUMP TIMER OVERRIDE
  FS 4 HIGH WATER ALARM

- *THE PANEL IS TO CONTROL AND OPERATE THE TWO PUMPS IN THE FOLLOWING MANNER:*

  THE PUMPS ARE TO OPERATE IN THE FOLLOWING SEQUENCE AFTER FS2 INITIATES THE PROGRAMMABLE PUMP ON/OFF TIMER:

  P1 ON FOR DESIGNATED DURATION
  PUMPS OFF FOR DESIGNATED DURATION
  P2 ON FOR DESIGNATED DURATION
  PUMPS OFF FOR DESIGNATED DURATION
  P1 ON FOR DESIGNATED DURATION
  PUMPS OFF FOR DESIGNATED DURATION
  P2 ON FOR DESIGNATED DURATION
  PUMPS OFF FOR DESIGNATED DURATION
  CYCLE REPEATS AS LONG AS TIMER FLOAT IS ENGAGED

  IF FS3 "MAKES" THEN THE FOLLOWING IS TO HAPPEN:

  IF P1 IS RUNNING THEN P2 IS TO COME ON IN PARALLEL AND VICE VERSA

IF P2 IS RUNNING THEN P1 IS TO COME ON IN PARALLEL AND VICE VERSA

IF FS4 "MAKES" THEN THE LIGHT/HORN SHOULD FLASH/SOUND AND ALL PUMPS SHALL BE ENERGIZED. UPON THE DE-ENERGIZING OF FS3 NORMAL OPERATION SHALL RESUME.

- *INSTALLATION*

ALL PUMPING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTUREER'S RECOMMENDATIONS AND THE STANDARD PLANS.

- *LOCATION*

CONTROL PANEL IS TO BE FIELD LOCATED AT THE TIME OF INSTALLATION

<u>GRD- GRAVITY RECIRCULATION DEVICE</u>

- *FURNISH AND INSTALL ONE (1) QUANICS MODEL AST-GRD-100/80/20 GRAVITY RECIRCULATING VALVE (OR EQUIVALENT).*

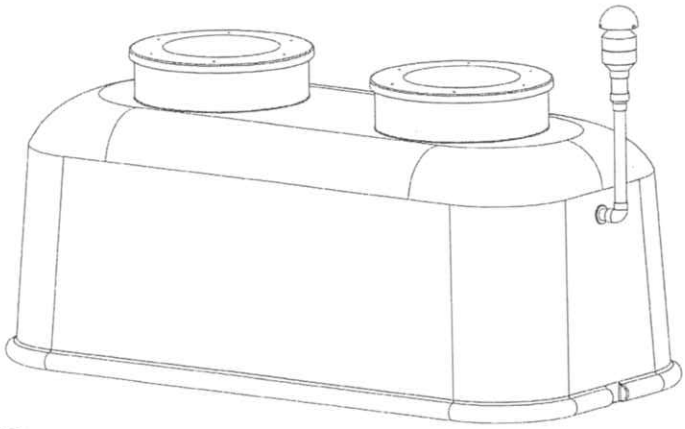
- *THE GRD SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.*

<u>UV TREATMENT</u>

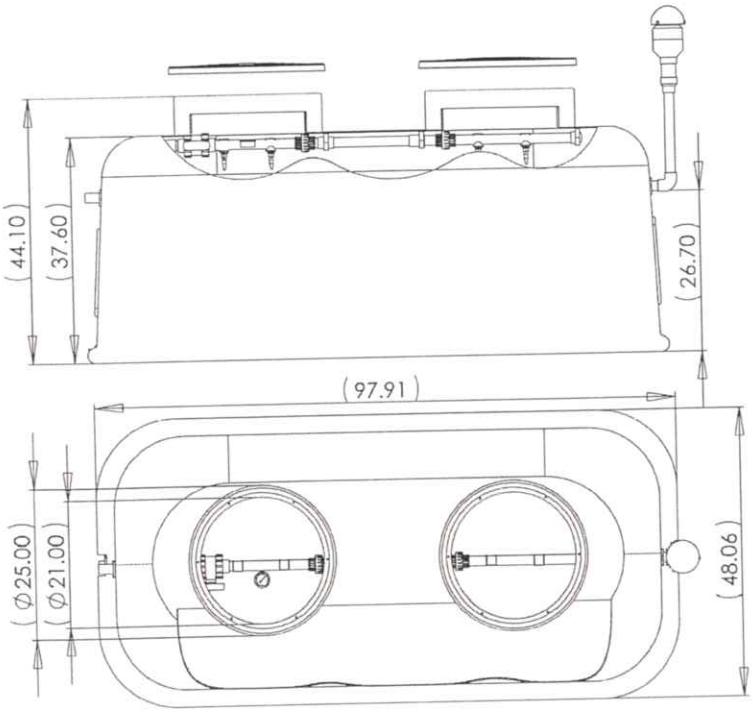
- *UV TREATMENT UNITS ARE TO SANITRON MODEL NUMBER S50C (OR EQUIVALENT)*
  MANUFACTURED BY:
  ATLANTIC ULTRAVIOLET CORP.
  275 MARCUS BLVD.
  HAUPPAUGE, NY 11788

TechData

ADVANCED TREATMENT
SCAT® Biofilter
ATS-SCAT-1000



Features
- 1000 gallon per day Advanced Treatment System
- Single-piece fiberglass construction
- Utilizes open cell foam fixed media
- Treats wastewater to secondary or tertiary levels



Materials

SCAT Module
- ISO Resin Fiberglass for corrosion and chemical resistance
- Nominal 3/16" wall thickness
- Sealed interior and exterior finish with no laminate exposure
- Contact molded with optimum 33% glass to resin ratio
- Stainless steel tamper resistant hardware
- Two 26" diameter flat fiberglass lids

Effluent Discharge and Vent Assembly
- 1.25" Sch 40 PVC Piping
- Oil-filled pressure gauge
- True union ball valve
- Four PVC Snap-on spray nozzles
- Carbon Filter Vent

Open Cell Foam
- 85ft^3 of open cell foam cubes
- 12.3 gpd/ft^3 hydraulic loading rate
- .015 - .016 lbs/ft^3/day organic loading rate
- Open cell foam contains 82% void space

Warranty for Defects in Material and Workmanship
- Fiberglass SCAT Module - 2 years
- Effluent Discharge and Vent Assembly - 2 years
- Open Cell Foam - 10 years

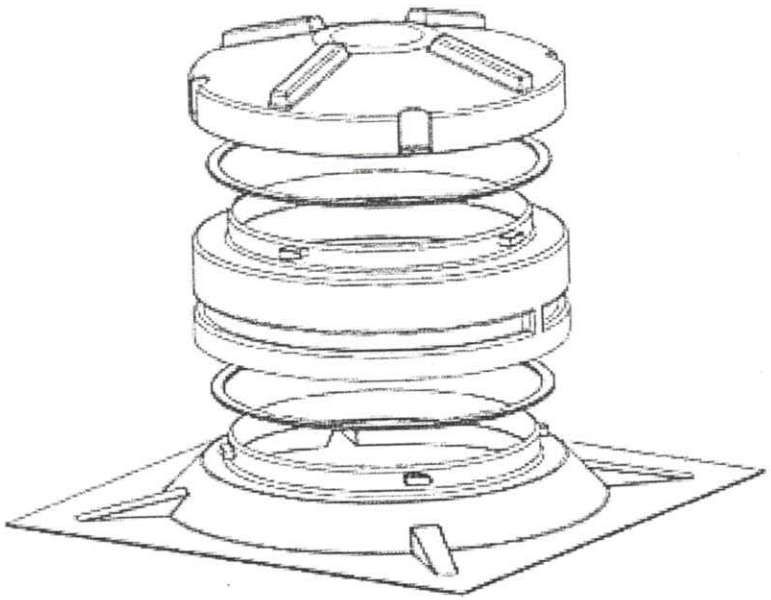
AutoCad R-14 dwg files at **www.quanics.net**

Quanics
Engineering Water Solutions™

TechData

Replacement Parts

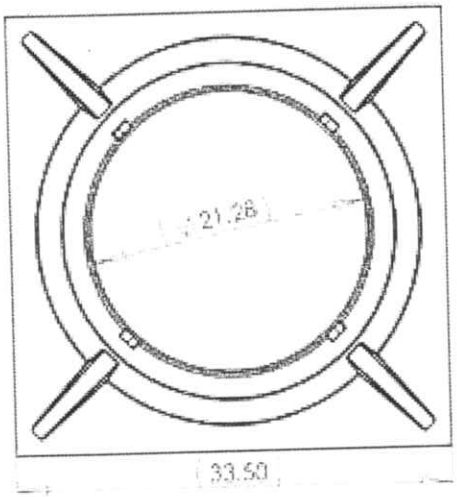
Risers & Lids (26" Diameter)



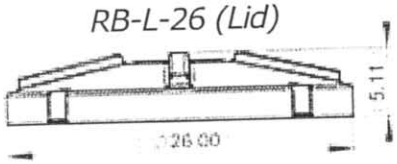
Features:

- Patented 26" polyethylene risers
- All components include twist lock tabs
- Tamper resistant fasteners and fastening tool included with each lid
- Tested to withstand up to 2500 lb wheel load
- May be cast-in or retrofit to any concrete tank

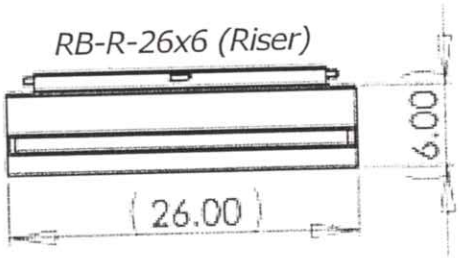
RB-RTA-26x2
(Retrofit Tank Adapter)



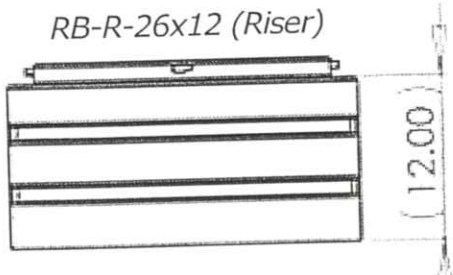
RB-L-26 (Lid)



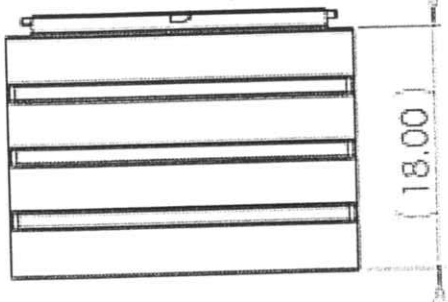
RB-R-26x6 (Riser)



RB-R-26x12 (Riser)



RB-R-26x18 (Riser)



Materials:

Risers and Lids

- High density non-corrosive polyethylene plastic
- Stainless steel screws
- Neoprene gasket

Warranty for Defects in Material and Workmanship

- Risers and Lids - 2 Years

IMPORTANT:

- When adding risers together for deeper installations Zabel does not recommend exceeding a maximum depth of 48".
- Neoprene gaskets must be installed as per instructions
- To prevent unauthorized entry install all tamper resistant fasteners as per instructions

AutoCad R-14 dwg files at www.**quanics**.net

1-877-QUANICS - www.quanics.net

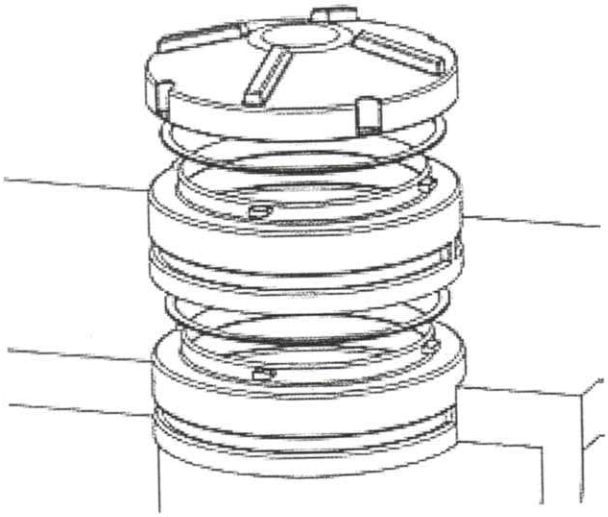
Quanics
Engineering Water Solutions ™

DOWNLOAD AutoCAD DRAWINGS

TechData

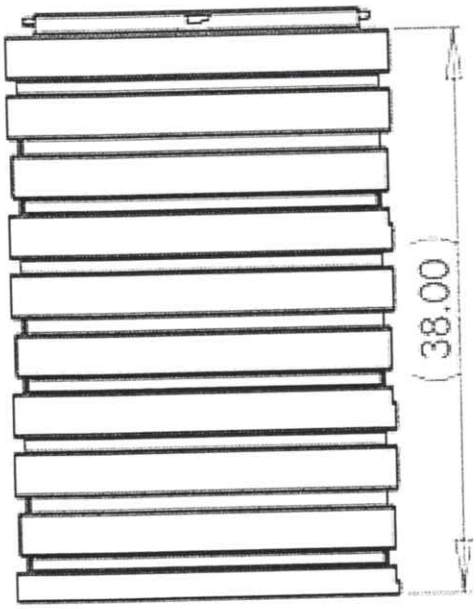
Replacement Parts

Risers & Lids (26" Diameter)

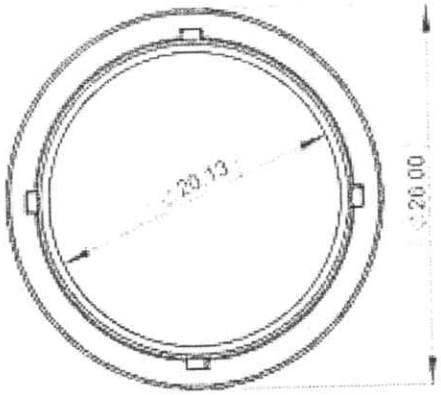


Features:

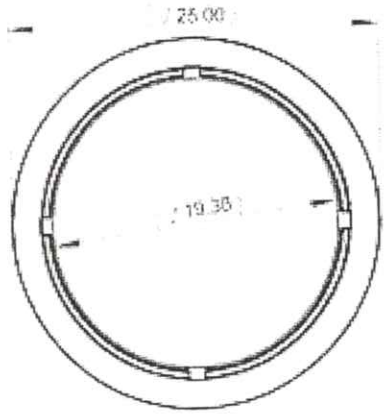
- Patented 26" polyethylene risers
- All components include twist lock tabs
- Tamper resistant fasteners and fastening tool included with each lid
- Tested to withstand up to 2500 lb wheel load
- May be cast-in or retrofit to any concrete tank



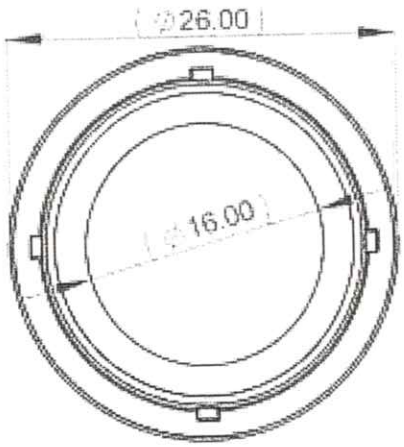
RB-R-26x18 (Riser)



RB-PTA-26x2
(Poly Tank Adapter)



RB-CTA-26x6
(Cast-in Tank Adapter)



Materials:

Risers and Lids

- High density non-corrosive polyethylene plastic
- Stainless steel screws
- Neoprene gasket

Warranty for Defects in Material and Workmanship

- Risers and Lids - 2 Years

IMPORTANT:

- When adding risers together for deeper installations Zabel does not recommend exceeding a maximum depth of 48".
- Neoprene gaskets must be installed as per instructions
- To prevent unauthorized entry install all tamper resistant fasteners as per instructions

AutoCad R-14 dwg files at www.**quanics**.net

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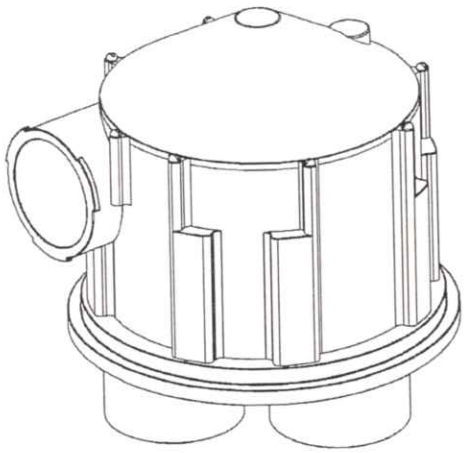
TechData

STEP Systems
Pressure Distribution *(Distribution Valves)*

PDS-DV-6-4-2, PDS-DV-6-4-3, PDS-DV-6-4-4, PDS-DV-6-6-5, PDS-DV-6-6-6



Features

- *6000 Series pressure distribution valve*
- *Utilized to alternate flows between up to 6 different zones*
- *Operates within a flow range of 15-150 gpm*
- *Rated at 25-150 psi*
- *Pressure loss through valve:*

4 outlet

Flow (gpm)	20	40	60	80	100
Psi Loss	2.5	3.5	5.0	7.5	10.0

6 outlet

Flow (gpm)	20	40	60	80	100
Psi Loss	3.0	4.0	6.0	9.0	11.0

Materials

6000 Series Valve Top and Housing

- *Die cast metal*

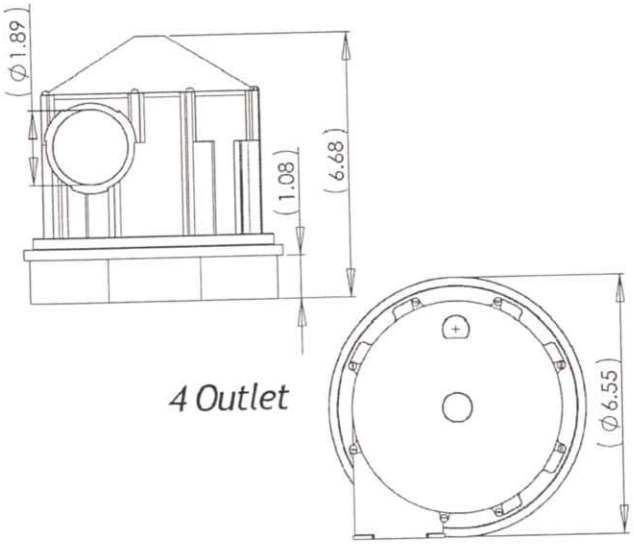
Valve Outlets

- *High Strength ABS polymer*
- *1.5" inlet hub*
- *1.5" outlet hubs*

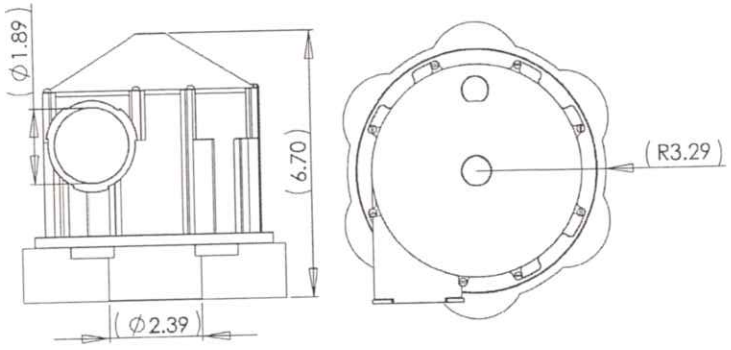
Warranty for Defects in Material and Workmanship

- *6000 Series Valve - 2 Years*

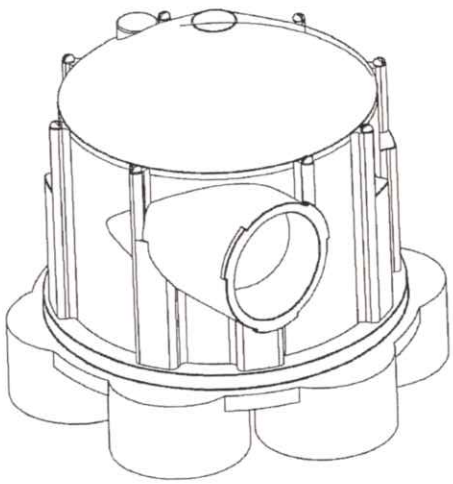
AutoCad R-14 dwg files at ***www.quanics.net***



4 Outlet



6 Outlet



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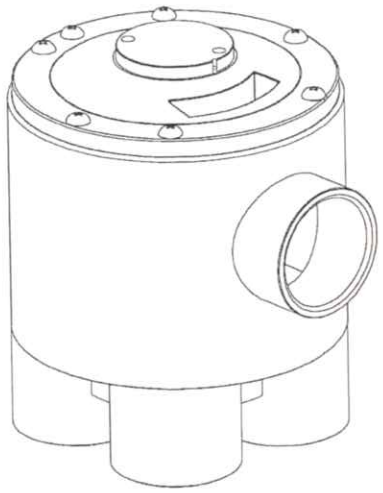


STEP Systems
Pressure Distribution (Distribution Valves)

PDS-DV-4-4-2, PDS-DV-4-4-3, PDS-DV-4-4-4, PDS-DV-4-6-2, PDS-DV-4-6-3, PDS-DV-4-6-4, PDS-DV-4-6-5, PDS-DV-4-6-6

Features

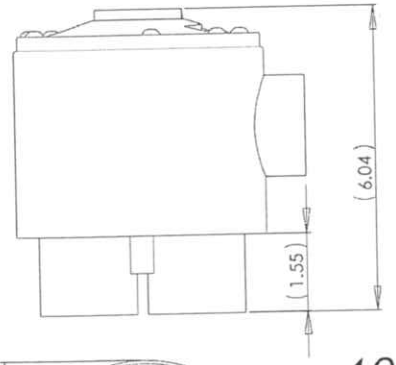
- 4000 Series pressure distribution valve
- Utilized to alternate flows between up to 6 different zones
- Operates within a flow range of 10-25 gpm
- Rated at 25-75 psi
- Pressure Loss through valve:

4 outlet

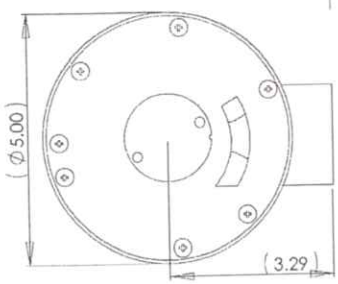
Flow (gpm)	10	20	30	40
Psi Loss	2.0	3.0	4.5	6.4

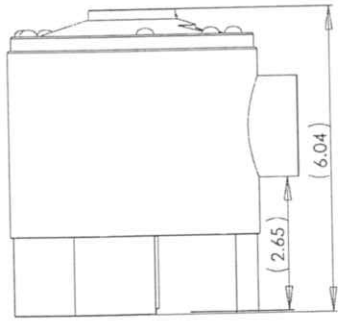
6 outlet

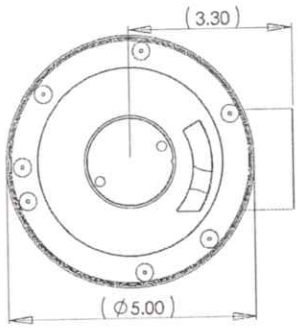
Flow (gpm)	10	20	30
Psi Loss	2.5	4.5	7.5



4 Outlet







6 Outlet

Materials

4000 Series Valve Top and Housing

- Die cast metal

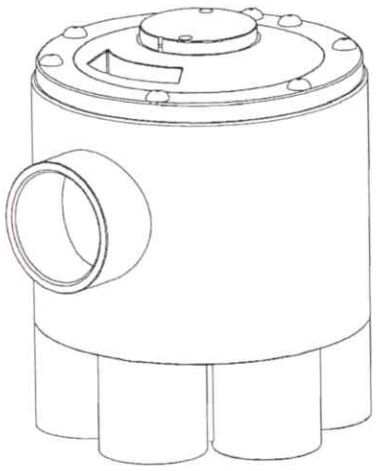
Valve Outlets

- High Strength ABS polymer
- 1.25" inlet hub
- Outlet hubs - 4 outlet 1.5", 6 outlet 1"

Warranty for Defects in Material and Workmanship

- 4000 Series Valve - 2 Years

AutoCad R-14 dwg files at **www.quanics.net**



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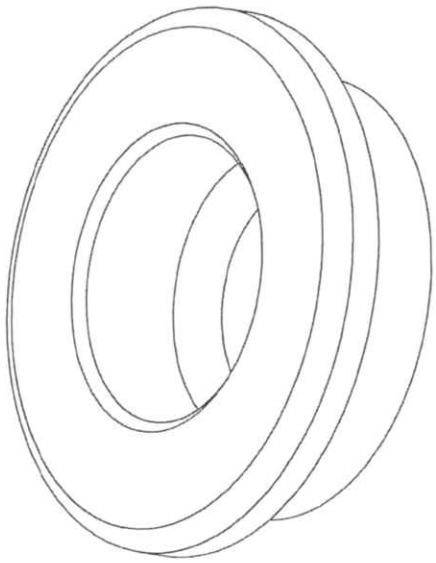
TechData

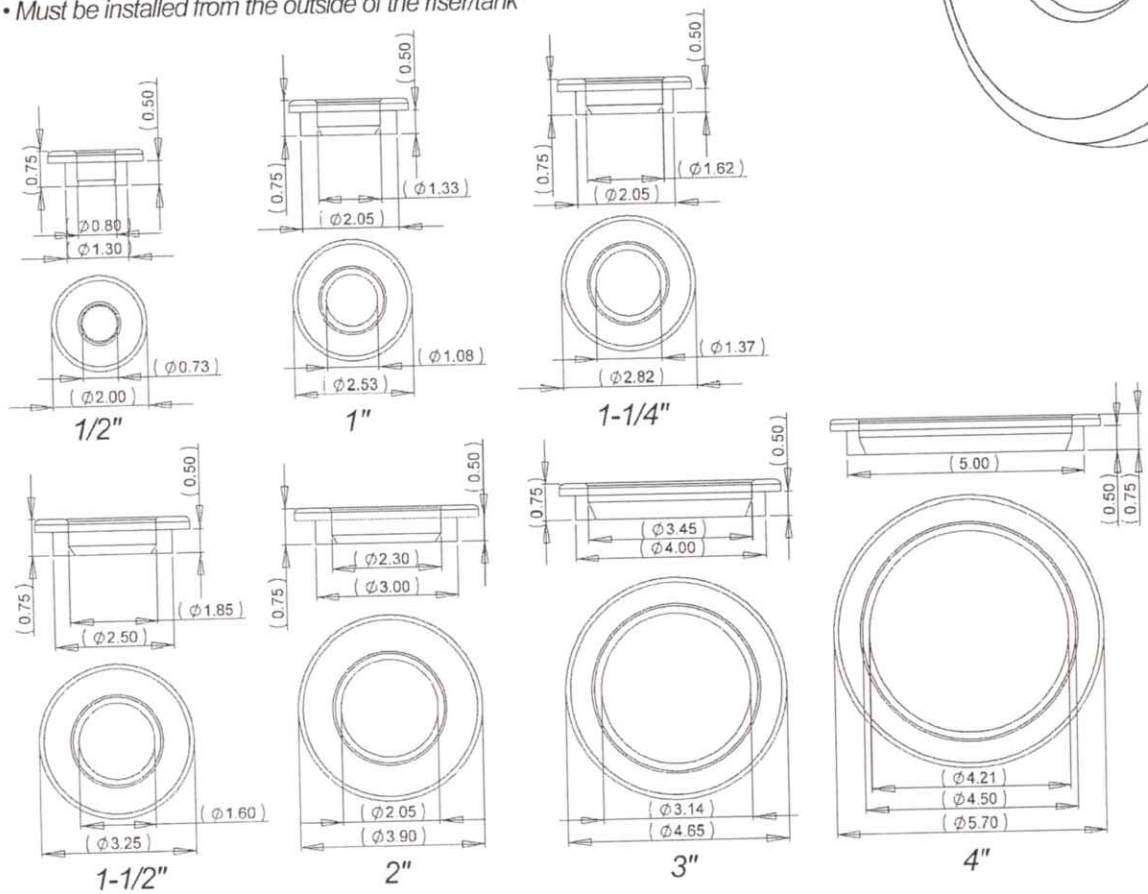
STEP Systems
Pressure Distribution (Grommets)

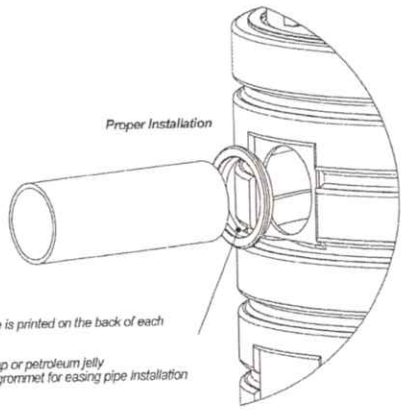
PDS-GT-.50, PDS-GT-1.0, PDS-GT-1.25, PDS-GT-1.5, PDS-GT-2.0
PDS-GT-3.0, PDS-GT-4.0-35, PDS-GT-4.0-40



Features

- Rubber grommets may be installed in plastic or fiberglass risers/tanks
- Create a watertight seal around a variety of pipe diameters
- Install using an appropriately sized hole saw as listed on the back of each grommet
- Must be installed from the outside of the riser/tank





Installation Tips:

Proper hole saw size is printed on the back of each Grommet.

Put dishwashing soap or petroleum jelly on the inside of the grommet for easing pipe installation

Materials

- 65 Durometer PVC

Warranty for Defects in Material and Workmanship

- Grommets - 2 Years

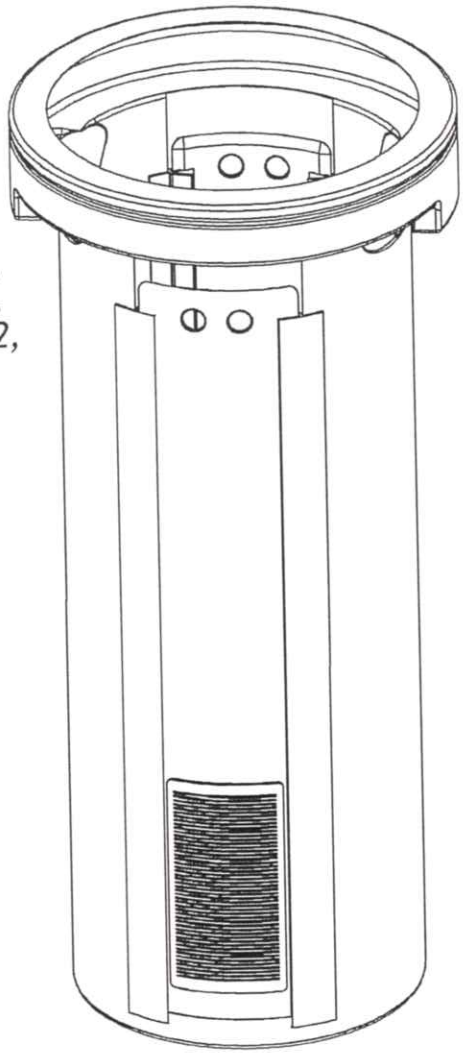
AutoCad R-14 dwg files at **www.quanics.net**

Quanics Engineering Water Solutions™

TechData

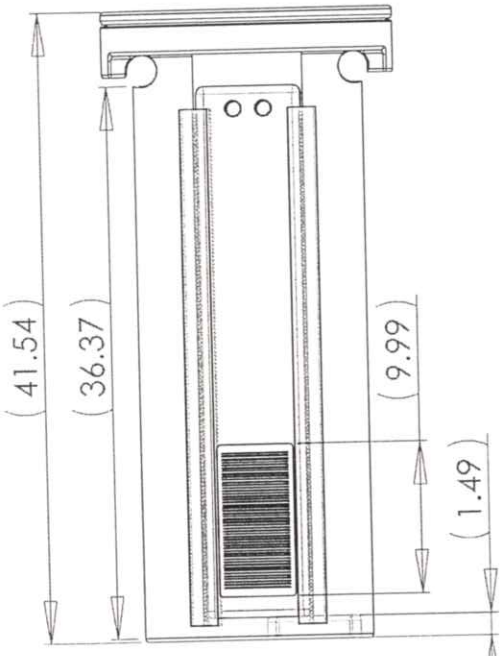
STEP Systems Filtered Pump Vaults (Hanging)

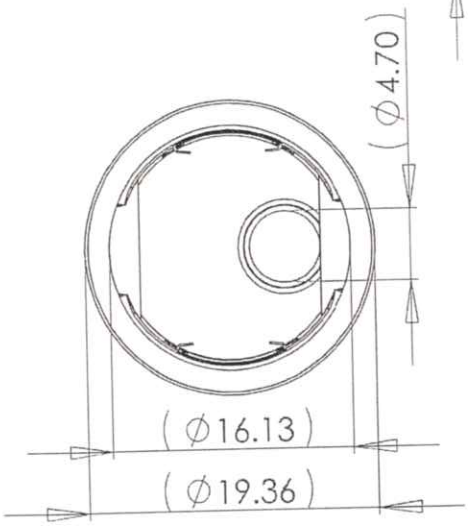
FPV-H36-2, FPV-H36-4, FPV-H44-2, FPV-H44-4, FPV-H50-2, FPV-H50-4, FPV-H56-2, FPV-H56-4, FPV-H62-2, FPV-H62-4, FPV-H68-2, FPV-H68-4, FPV-H84-2, FPV-H84-4, FPV-H102-2, FPV-H102-4



Features

- Hanging filtered pump vault installs into primary or pump tanks
- Protects pump and disposal field from solids larger than 1/16"
- Available with either 2 or 4 filter plates
- Includes maintenance plate for servicing ease
- Available in 36", 44", 50", 56", 62", 68, 84 and 102" hanging lengths





Materials

Vault

- High density non-corrosive polyethylene plastic
- Stainless steel screws
- Polypropylene filter panels

Warranty for Defects in Material and Workmanship

- Hanging Filtered Vault - 2 Years
- Hanging Filtered Vault when used with a Quanics® Pump - 10 Years

AutoCad dwg files at **www.quanics.net**

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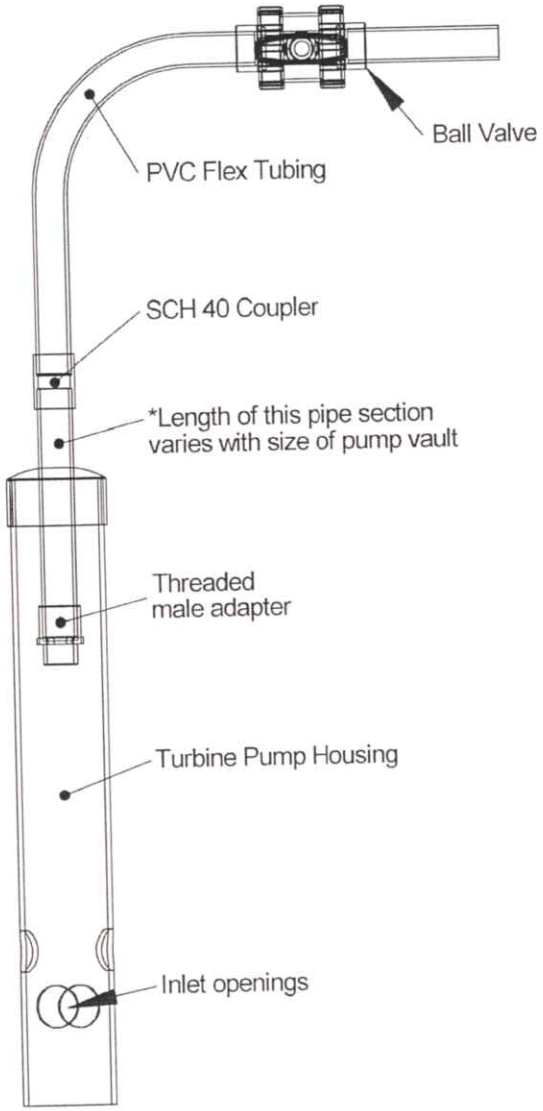
STEP Systems

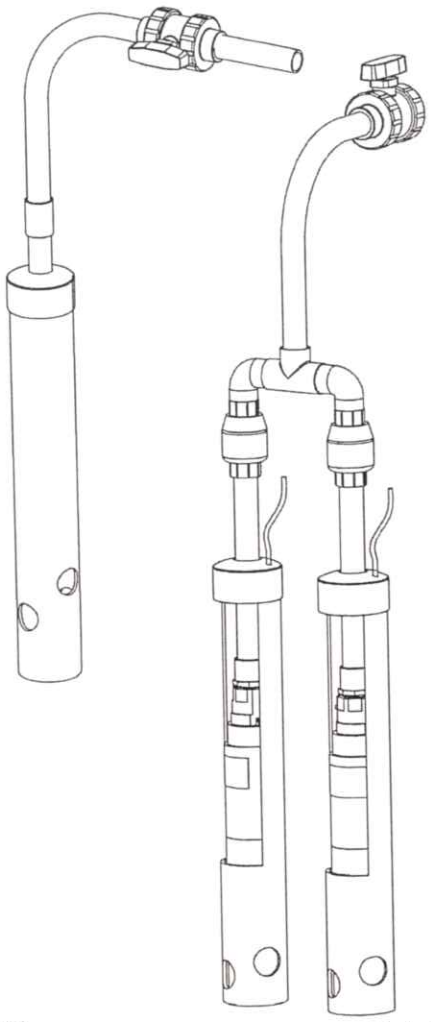
Pressure Distribution *(Discharge Assemblies)*

PDS-TD-1.25, PDS-TD-2.0, PDS-TD-1.25-D, PDS-TD-2.0-D

Features

- *Pump discharge for high head filtered effluent pumps*
- *Includes all components to bring discharge from pump out of tank*
- *True union ball valve*
- *Includes flex tubing for easy installation*
- *4" flow inducer sleeve with cap*





Duplex model, pumps not included

Materials

Pipe

- *1.25" or 2" SCH 40 PVC*
- *1.25" or 2" PVC flex tubing*
- *4" SCH 40 PVC flow inducer*

True Union Ball Valve

- *PVC Plastic*
- *Double block, full port design*
- *1.25" or 2" slip/slip hubs*

Check Valve

- *PVC Plastic swing type (Duplex model only)*

Fittings

- *SCH 40 PVC threaded slip adapter*
- *SCH 40 PVC slip/slip adapter*

Warranty for Defects in Material and Workmanship

- *All components - 2 Years*

AutoCad R-14 dwg files at ***www.quanics.net***

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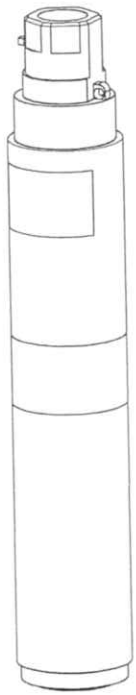
STEP Systems

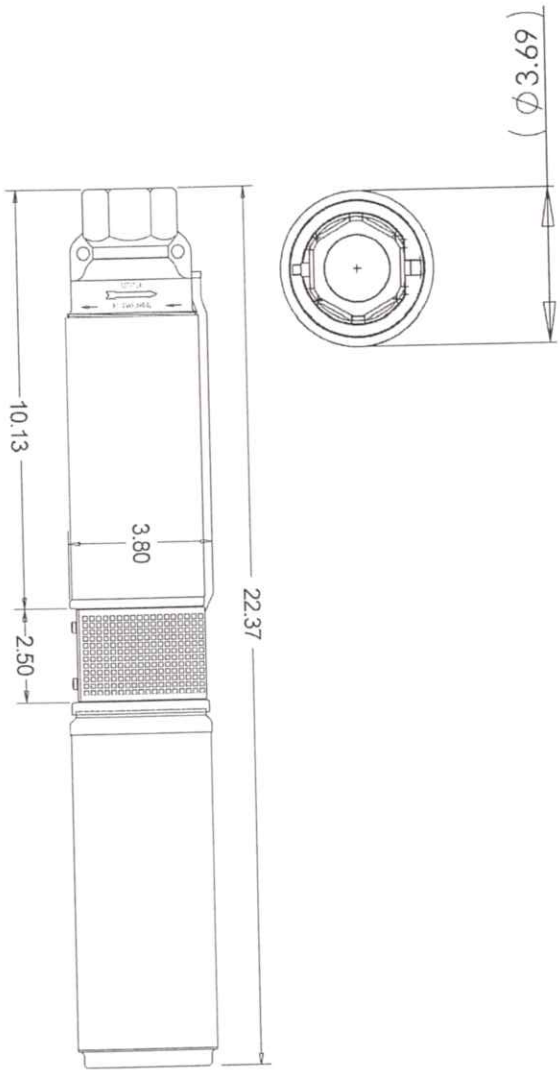
Pumps (Turbine Effluent)

P-TE-10, P-TE-20, P-TE-30, P-TE-50



Features

- Dry-run capability
- Patented Staging System handles sand conditions with ease
- Self-lubricating Nylatron® resists wear from sand
- 7/16" (12mm) positive drive 300 series stainless steel hexagonal shaft
- Carbon/Ceramic mechanical seal
- Ball bearing construction for long life



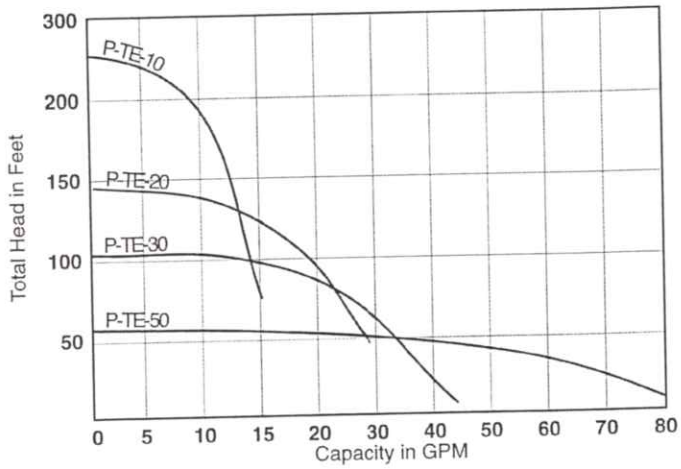
Specifications

Capacities: From 15 - 80 GPM
Heads: To 260 FT
Motor: 1/2 HP; hermetically sealed with automatic thermal overload
Electrical: 115V, 12.0 FLA, 1PH, 60Hz
Operation: Manual model (controls required)
Minimum Diameter: 4" (102mm)
Impeller: Delrin®, closed vane type
Solids handling: 1/8" (3.2mm)
Power Cord: 10' (3M), 300 V SJOW jacketed, 2-wire with ground
Materials of Construction: 300 grade stainless and cast-iron
Discharge: 10, 20, 30 GPM = 1-1/4"; 50 GPM = 2"

Warranty for Defects in Material and Workmanship

- All components - 3 Years

AutoCad R-14 dwg files at **www.quanics.net**



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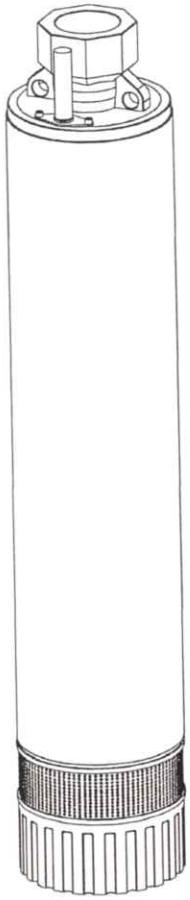
STEP Systems

Pumps (Turbine Effluent)

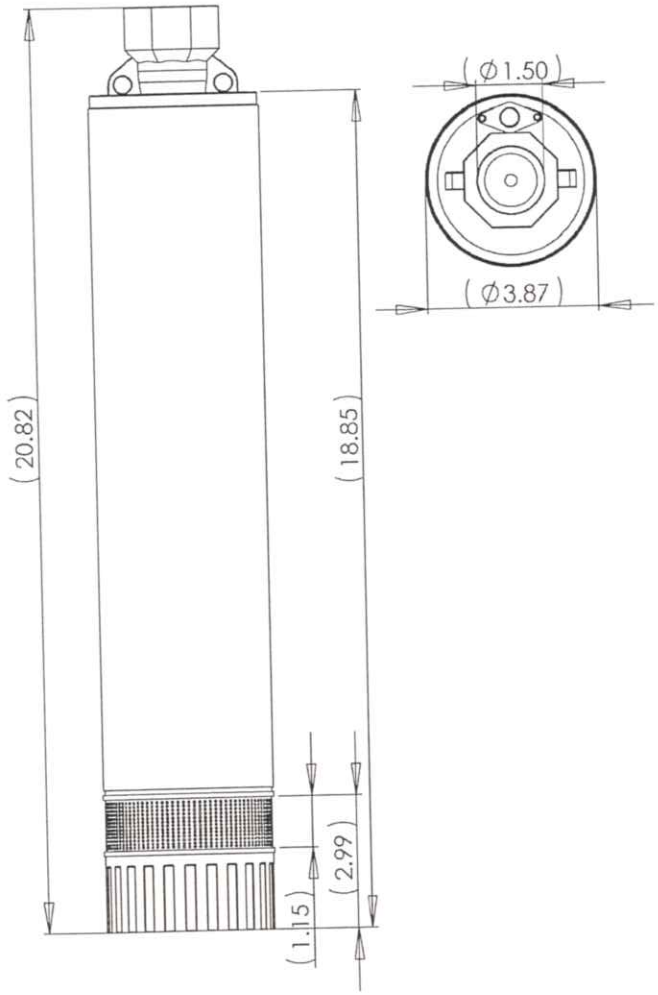
P-TE-10 Plus, P-TE-20 Plus, P-TE-30 Plus



Features

- Bottom intake allows effluent to move across motor without the need for a flow inducer sleeve
- Bottom intake saves storage volume
- High head performance at 10, 20 or 30 GPM
- Dry run capability

Product Information 026 / Pricing 187



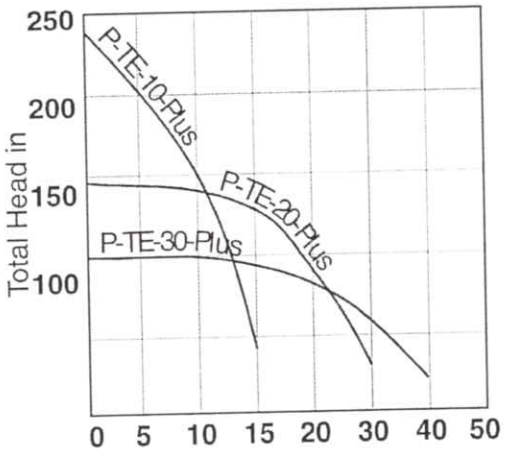
Specifications

Capacities: To 40 GPM
Heads: To 250 FT
Motor: 1/2 HP, PSC with thermal overload
Electrical:
P-TE-10 Plus 115V, 11.0 FLA, 1PH, 60Hz
P-TE-20 Plus 115V, 9.5 FLA, 1PH, 60Hz
P-TE-30 Plus 115V, 9.5 FLA, 1PH, 60Hz
Operation: Manual model controls required
Impeller: Delrin®, closed vane type
Solids handling: 1/8" (3.2mm)
Power Cord: 10' (3M), 300 V SJOW jacketed, 2-wire with ground
Materials of Construction: 300 grade stainless steel
Discharge: 1-1/4"

Warranty for Defects in Material and Workmanship

- All components - 3 Years

AutoCad R-14 dwg files at **www.quanics.net**



Quanics Engineering Water Solutions™

TechData

Disposal Systems

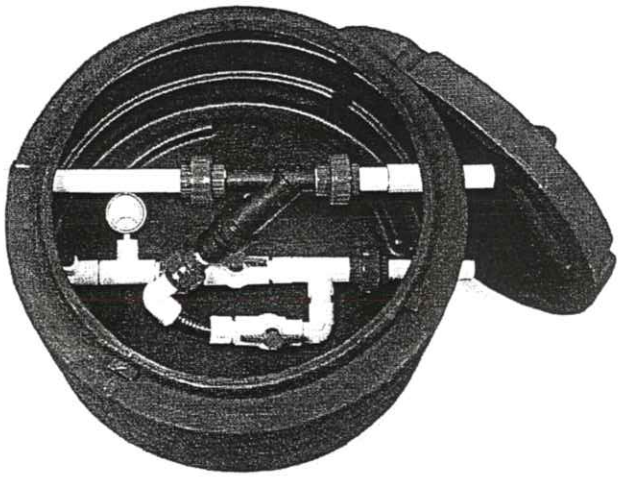
Drip Irrigation (Management Systems)

GDS-MS-1-MAN

Features

- Manual management system utilized to provide backwashing of drip field and spin filter
- Pre-assembled with all necessary components
- Requires no special controller for operation
- Flow rates of 10 gpm - 28 gpm
- Pressure loss between inlet and outlet:

Flow (gpm)	10	15	20	25	28
Psi loss	3.5	7.2	12	18.5	24



Components

- Spin filter
- Two ball valves
- Pressure gauge reading up to 60 psi
- Air vent
- 1" SCH 40 pipe and fittings
- Quick disconnects
- 26" x 12" polyethylene basin and lid

Warranty for Defects in Material and Workmanship

- Basin and Lid - 2 Years
- Internal Components - 1 year

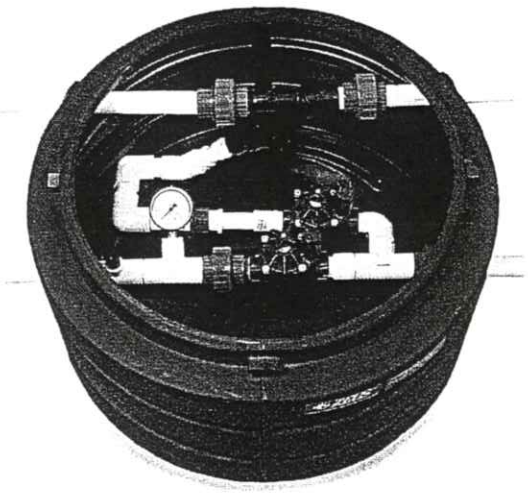
AutoCad R-14 dwg files at **www.quanics.net**

GDS-MS-1-AUT

Features

- Automated management system utilized to provide backwashing of drip field and spin filter
- Pre-assembled with all necessary components
- Must be used in conjunction with a PDS-CNTR controller
- Flow rates of 10 gpm - 28 gpm
- Pressure loss between inlet and outlet:

Flow (gpm)	10	15	20	25	28
Psi loss	3.5	7.2	12	18.5	24



Components

- Spin filter
- Two solenoid valves
- Pressure gauge reading up to 60 psi
- Air vent
- 1" SCH 40 pipe and fittings
- Quick disconnects
- 26" x 12" polyethylene basin and lid

Warranty for Defects in Material and Workmanship

- Basin and Lid - 2 Years
- Internal Components - 1 year

AutoCad R-14 dwg files at **www.quanics.net**

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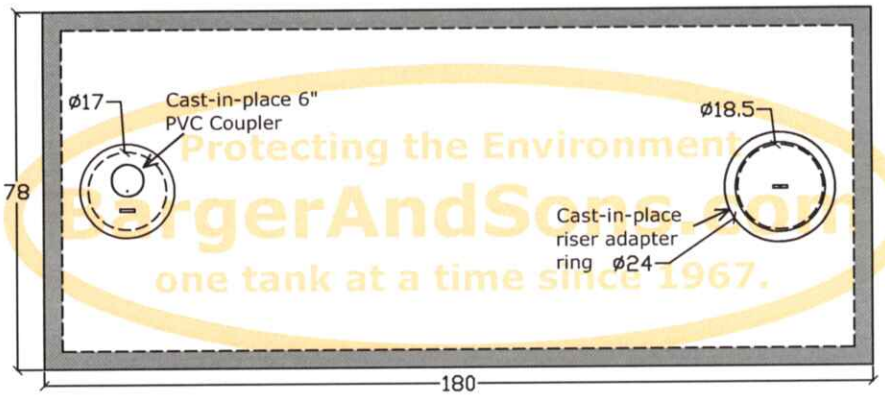
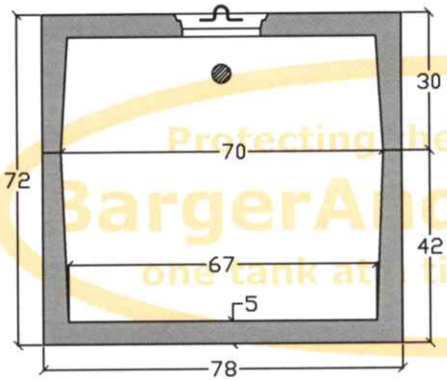
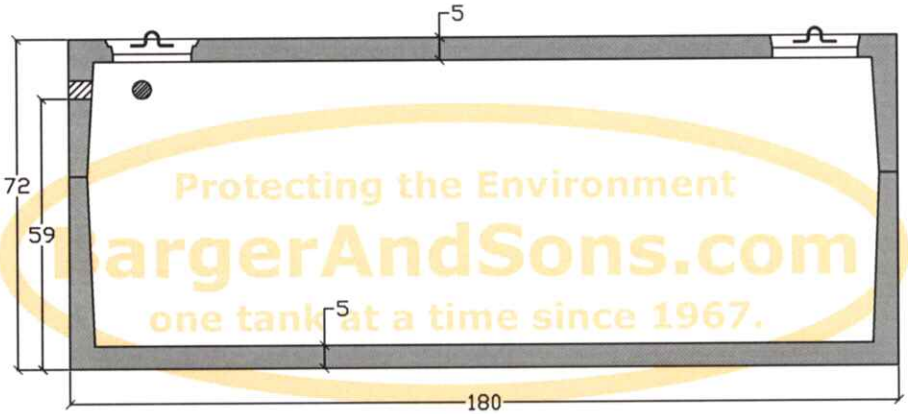
Top View

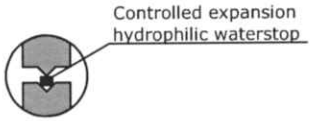


End View



Side View





Specifications

Concrete: 5,000 psi minimum strength (28 day)

Reinforcing: Primary reinforcement will be top, side, and bottom #3 and/or #4 rebar (Grade 60) rebar.

Risers: All risers, if required, will be watertight and at least 8" in diameter.

Sealant: Sealant used in the seam of the tank will meet or exceed ASTM C990.

Pipe Penetrations: Inlet and outlets are fitted with seals that meet or exceed all ASTM C923 specifications.

Partition Wall: The partition wall, if present, is poured monolithically.

Installation: The tank hole is not to be more than one foot longer and wider than the tank. There shall be a minimum of 6" of $\frac{3}{4}$" stone bedding in soil terrain and a 12" stone bedding in rock terrain. Do not install across path of vehicles or heavy equipment. This tank is designed for one hundred fifty pounds per square foot (150 lb/ft2) uniform loading on the top of the tank with a maximum backfill cover of 36" and a minimum of 6".

Tank Warranty: The C. R. Barger & Sons, Inc. septic tank when installed in accordance with manufacturer's instructions is warranted against defective materials and/or workmanship for 1 year from the date of delivery to the project site. Should a defect appear within the warranty period, C. R. Barger & Sons, Inc. will supply a new septic tank in replacement thereof. C. R. Barger & Sons, Inc. liability is limited to the value of the septic tank itself and specifically excludes the cost of installation and/or removal and consequential damages.
Failure to comply with C. R. Barger & Sons, Inc. installation procedures and general notes will void warranty.

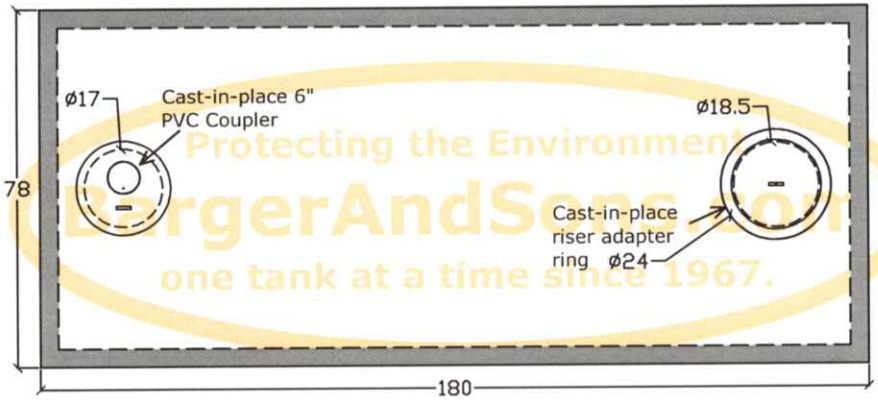
NPCA CERTIFIED PLANT

Manufactured by:
C.R. Barger & Sons, Inc.
238 Mays Valley Road
Harriman Tn 37748
Phone 865.882.5860 **Fax** 865.882.6394
www.bargerandsons.com

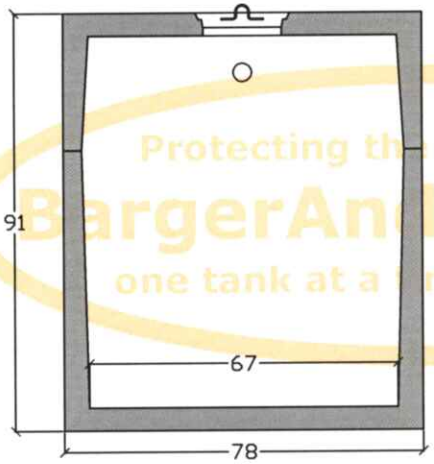
General Notes:
All vertical measurements are accurate within ± 1 inch on the tank. The lids can be moved and resized if necessary. Written specifications are available upon request.

Tank Type: Pump Tank 2500 Gallon Mid-Seam	
Date: 3.252006	Approx. Weight: 25,000 lbs.
Drawn By: Eric Barger	Build: Single Compartment

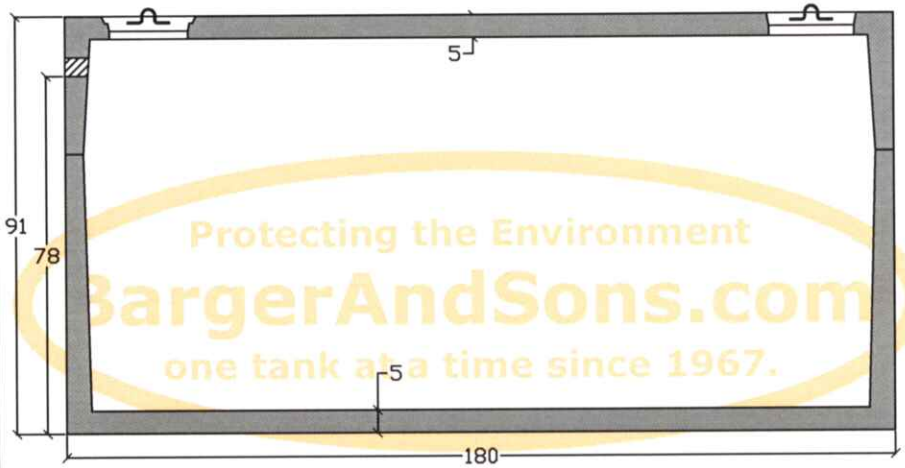
Top View

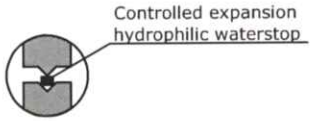


End View



Side View





Specifications

Concrete: 5,000 psi minimum strength (28 day)

Reinforcing: Primary reinforcement will be top, side, and bottom #3 and/or #4 rebar (Grade 60) rebar.

Risers: All risers, if required, will be watertight and at least 8" in diameter.

Sealant: Sealant used in the seam of the tank will meet or exceed ASTM C990.

Pipe Penetrations: Inlet and outlets are fitted with seals that meet or exceed all ASTM C923 specifications.

Partition Wall: The partition wall, if present, is poured monolithically.

Installation: The tank hole is not to be more than one foot longer and wider than the tank. There shall be a minimum of 6" of $\frac{3}{4}$" stone bedding in soil terrain and a 12" stone bedding in rock terrain. Do not install across path of vehicles or heavy equipment. This tank is designed for one hundred fifty pounds per square foot (150 lb/ft2) uniform loading on the top of the tank with a maximum backfill cover of 36" and a minimum of 6".

Tank Warranty: The C. R. Barger & Sons, Inc. septic tank when installed in accordance with manufacturer's instructions is warranted against defective materials and/or workmanship for 1 year from the date of delivery to the project site. Should a defect appear within the warranty period, C. R. Barger & Sons, Inc. will supply a new septic tank in replacement thereof. C. R. Barger & Sons, Inc. liability is limited to the value of the septic tank itself and specifically excludes the cost of installation and/or removal and consequential damages.
Failure to comply with C. R. Barger & Sons, Inc. installation procedures and general notes will void warranty.

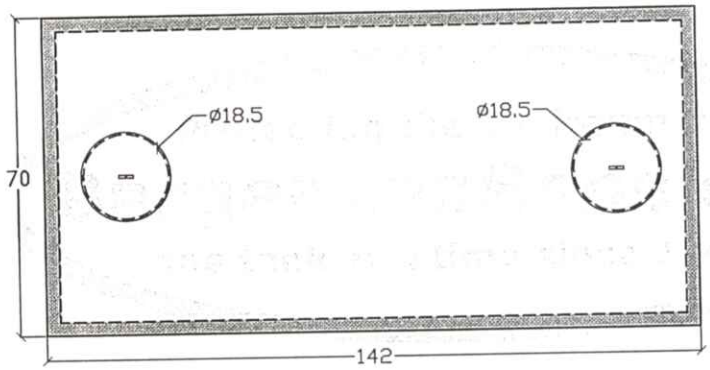
NPCA CERTIFIED PLANT

Manufactured by:
C.R. Barger & Sons, Inc.
238 Mays Valley Road
Harriman Tn 37748
Phone 865.882.5860 **Fax** 865.882.6394
www.bargerandsons.com

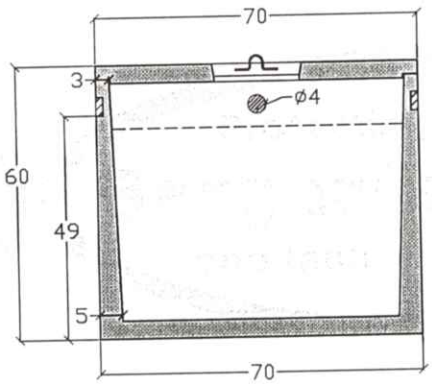
General Notes:
All vertical measurements are accurate within ± 1 inch on the tank. The lids can be moved and resized if necessary. Written specifications are available upon request.

Tank Type: Pump Tank 3500 Gallon	
Date: 3.252006	Approx. Weight: 33,000 lb.
Drawn By: Eric Barger	

Top View

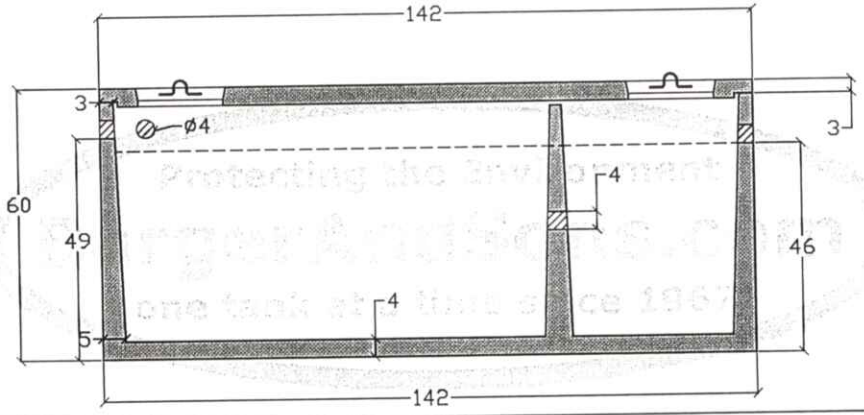


End View

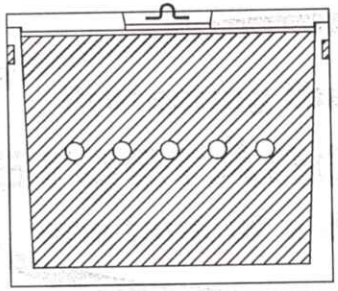


NPCA
CERTIFIED PLANT

Side View



Baffle View



Specifications

Concrete: 5,000 psi minimum strength (28 day)

Reinforcing: Primary reinforcement will be top, side, and bottom #3 and/or #4 rebar (Grade 60) rebar.

Risers: All risers, if required, will be watertight and at least 8" in diameter.

Sealant: Sealant used in the seam of the tank will meet or exceed ASTM C990.

Pipe Penetrations: Inlet and outlets are fitted with seals that meet or exceed all ASTM C923 specifications.

Partition Wall: The partition wall, if present, is poured monolithically.

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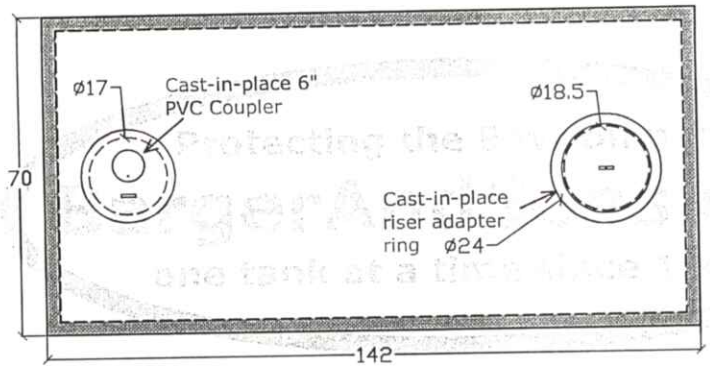
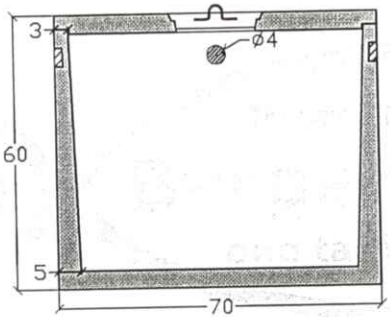
General Notes:
All vertical measurements are accurate within ± 1 inch on the tank. The lids can be moved and resized if necessary. Written specifications are available upon request.

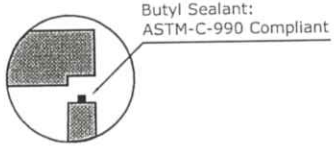
Tank Type: Septic Tank 1500 Gallon		
Date: 3.262006	Approx. Weight: 15,000 lbs.	
Drawn By: Eric Barger		

Top View

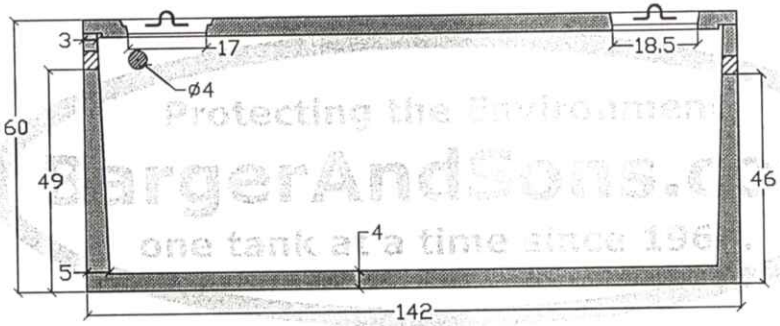


End View





Side View



Specifications

Concrete: 5,000 psi minimum strength (28 day)

Reinforcing: Primary reinforcement will be top, side, and bottom #3 and/or #4 rebar (Grade 60) rebar.

Risers: All risers, if required, will be watertight and at least 8" in diameter.

Sealant: Sealant used in the seam of the tank will meet or exceed ASTM C990.

Pipe Penetrations: Inlet and outlets are fitted with seals that meet or exceed all ASTM C923 specifications.

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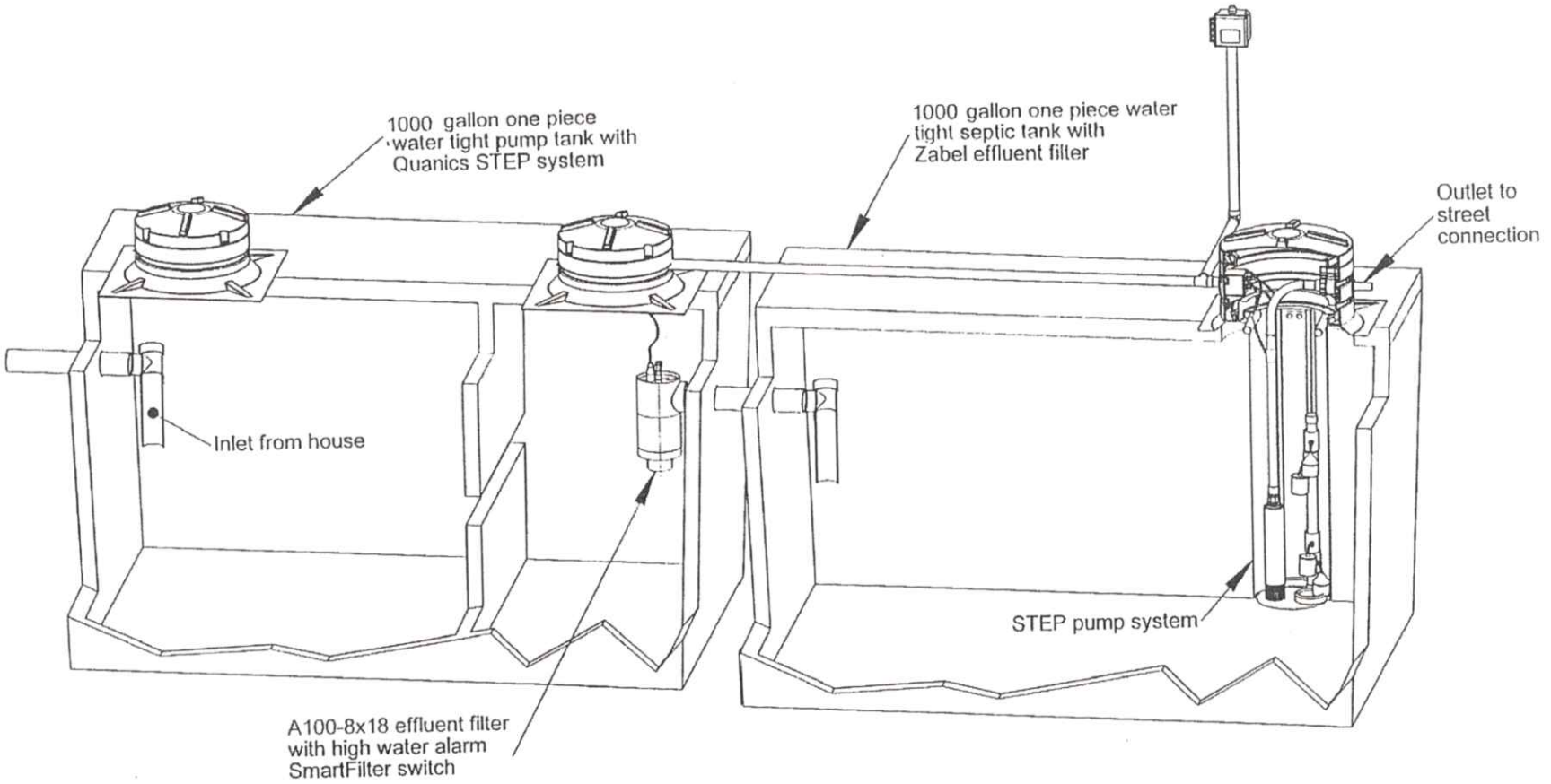
Harriman Tn 37748
Phone 865.882.5860 **Fax** 865.882.6394
www.bargerandsons.com

General Notes:
All vertical measurements are accurate within ± 1 inch on the tank. The lids can be moved and resized if necessary. Written specifications are available upon request.

Tank Type: Pump Tank 1500 Gallon Top Seam	
Date: 3.252006	Approx. Weight: 15,000 lbs.
Drawn By: Eric Barger	

1000 gallon STEP system for 3 bedrooms



For questions and concerns please contact
Aquatics Resources, Inc.
P.O. Box 645
White Pine, Tennessee 37890
(865) 674-0838

SCALE 1 : 30

	NAME	DATE
DRAWN	TNJ	03-24-06
CHECKED	BB	03-24-06
UPDATED		

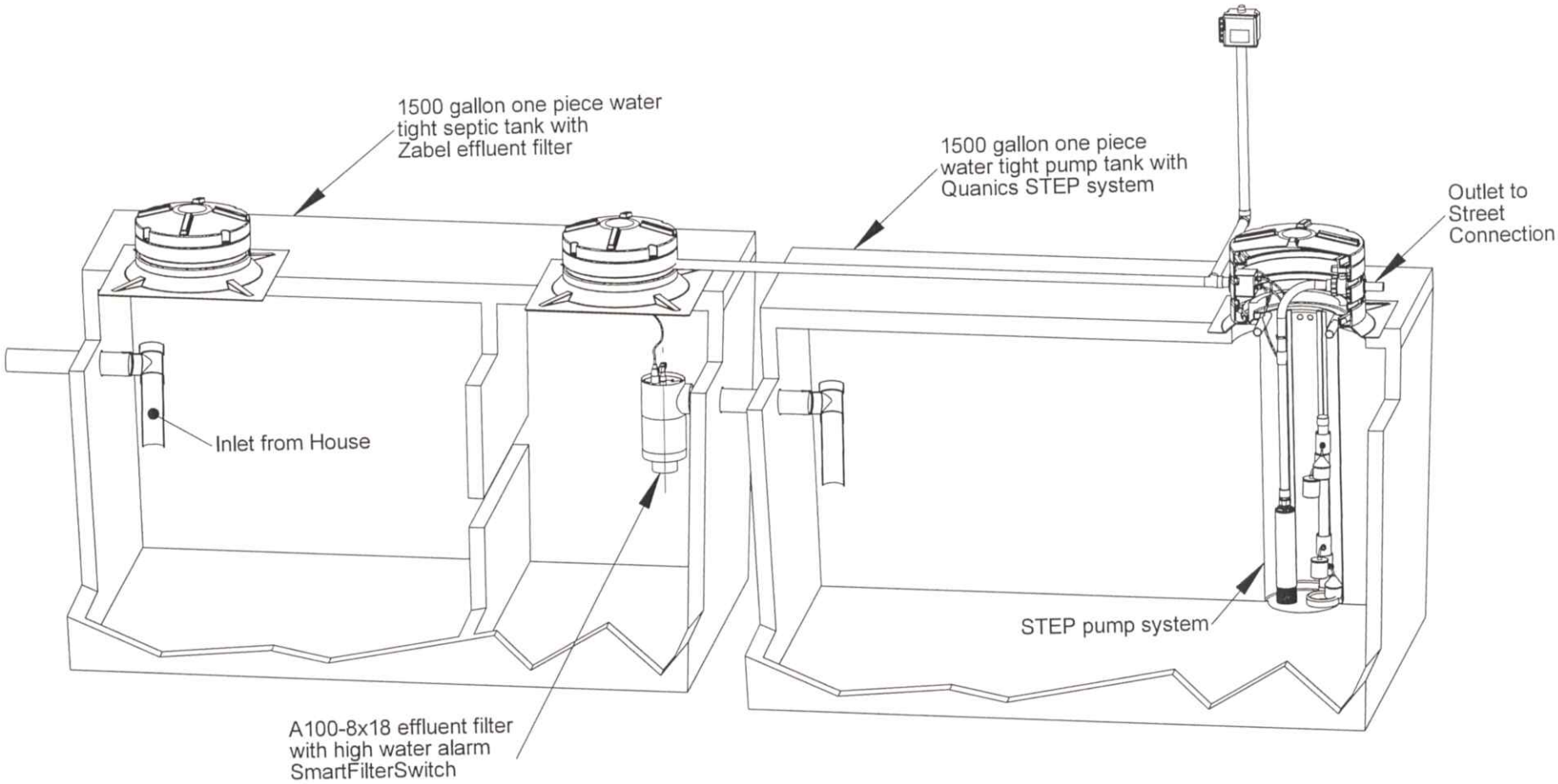
Quanics
INTELLIGENT WATER MANAGEMENT

P.O. Box 1520, Crestwood KY. 40014
www.quanics.net

SIZE A | DESCRIPTION: 1500 gal. STEP system 4 bedrooms or more | REV.

SHEET 1 OF 1

1500 gallon STEP system for 4 bedrooms or more



For questions and concerns please contact:
Aquatics Resources, Inc.
P.O. Box 645
White Pine, Tennessee 37890
(865) 674-0838

SCALE 1 : 30

	NAME	DATE
DRAWN	TNJ	03-24-06
CHECKED	BB	03-24-06
UPDATED		

Quanics
Engineering Water Solutions

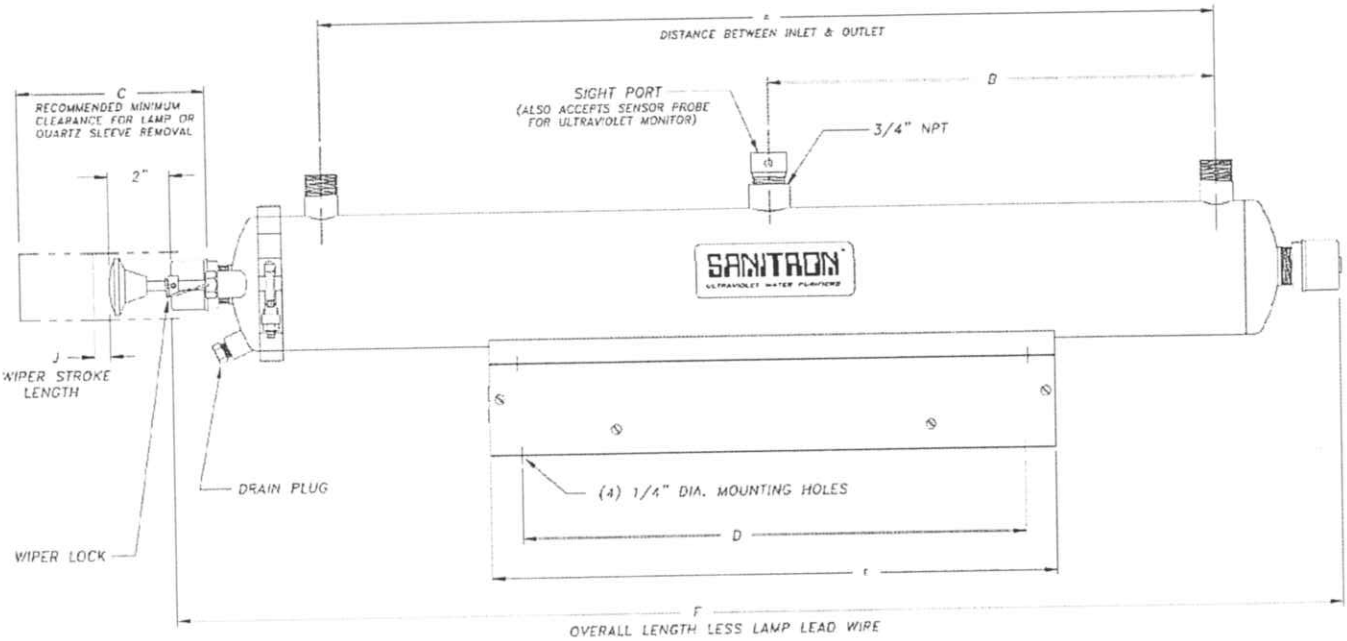
P.O. Box 1520, Crestwood KY. 40014
www.quanics.net

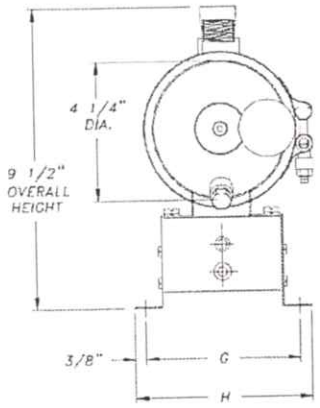
SIZE	DESCRIPTION	REV.
A	1000 gal. STEP System 3 bedrooms or less	

SHEET 1 OF 1

TechData

Replacement Parts
Pressure UV Disinfection Unit (20 gpm)





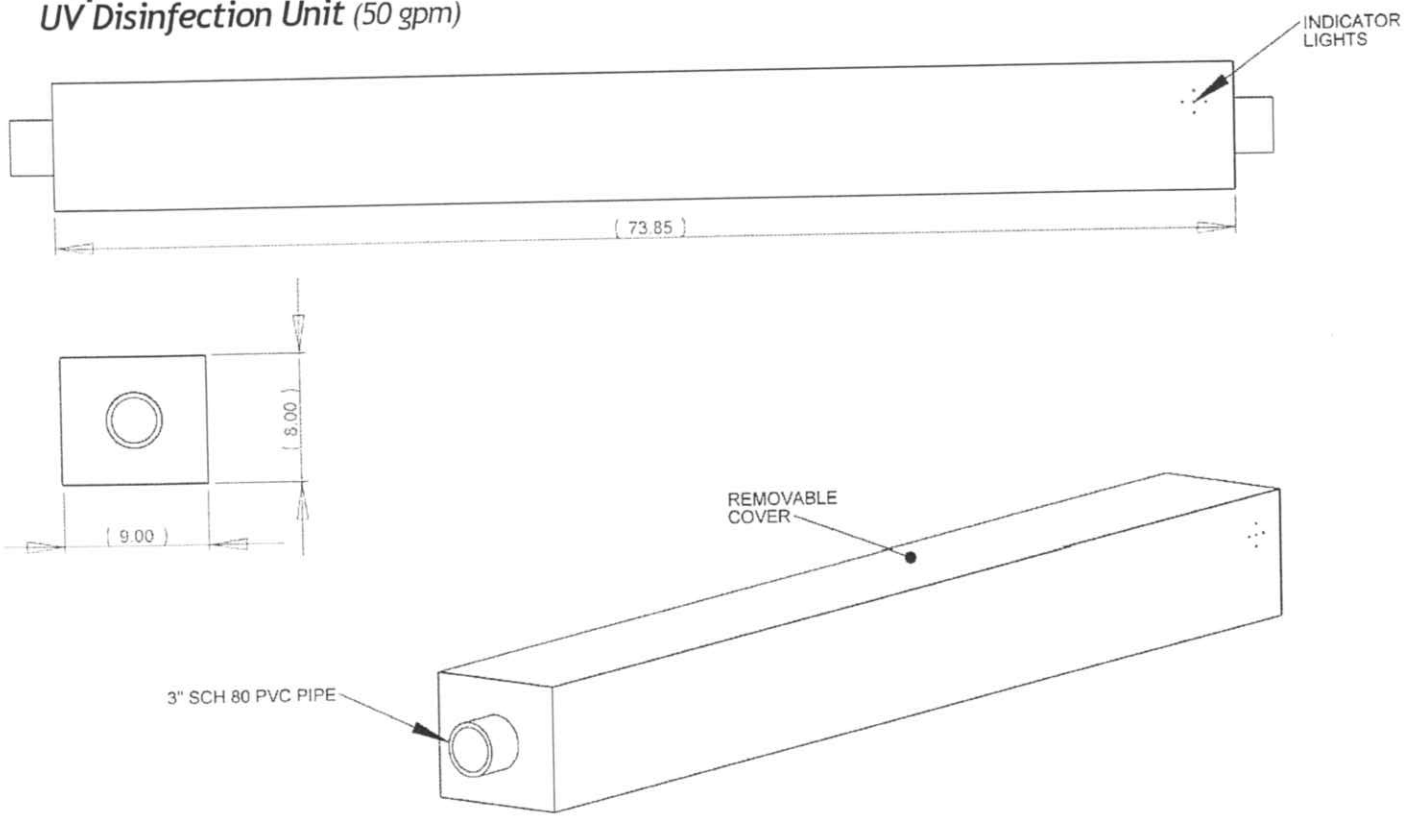
Rated Flow Rate	20 GPM
Inlet/Outlet size	1-1/2" NPT
Replacement Lamp	Sanitron 051334
Power Consumption	54 watts
Lamp output	50 watts
Effective Life	10,000 hours
Shipping Weight	36 lbs.
Voltage	120V
Max Operating Pressure	100 PSI

NOTE: LINE CORD AND LAMP LEAD WIRE OMITTED FOR CLARITY

MODEL:	A	B	C	D	E	F	G	H	J	INLET & OUTLET SIZE
S37B	28 1/2"	14 1/4"	37"	16"	18"	37 3/8"	4 15/16"	5 11/16"	11 1/8"	1" MALE PIPE THREAD
S50B	40 7/8"	20 7/16"	50"	26"	30"	50 3/8"	4 15/16"	5 11/16"	13 13/16"	1 1/2" MALE PIPE THREAD

TechData

Replacement Parts
UV Disinfection Unit (50 gpm)



Rated Flow Rate	50 GPM
Design UV Dose	80,000 µws/cm^2 at end of lamp lif (90% T/cm)
Max Operating Pressure	25 psig @ 100 degree F.
Teflon Tubing	3.5" ID. 0.030" wall, 70" long
Teflon Banks	1
Elapsed Time Meter	1
Ballasts	4
Cooling Fans	2
Lamps	8
LED Indicators	8
Power	520 watts
Voltage	120 VAC, 60 Hz
Shipping Weight	105 lbs.

Parts List:
- *LED Indicator Assembly*
- *Resistor Assembly*
- *Ballast*
- *PVC Stubs (Inlet and Outlet)*
- *Lamp Holders*
- *"O" Ring*
- *Lamp*
- *Stainless Steel Clamps*
- *Teflon Tube*
- *14-pin Connector*
- *Cooling Fan*
- *Fan Gaurd*
- *Elapsed Time Meter*
- *Safety Switch*

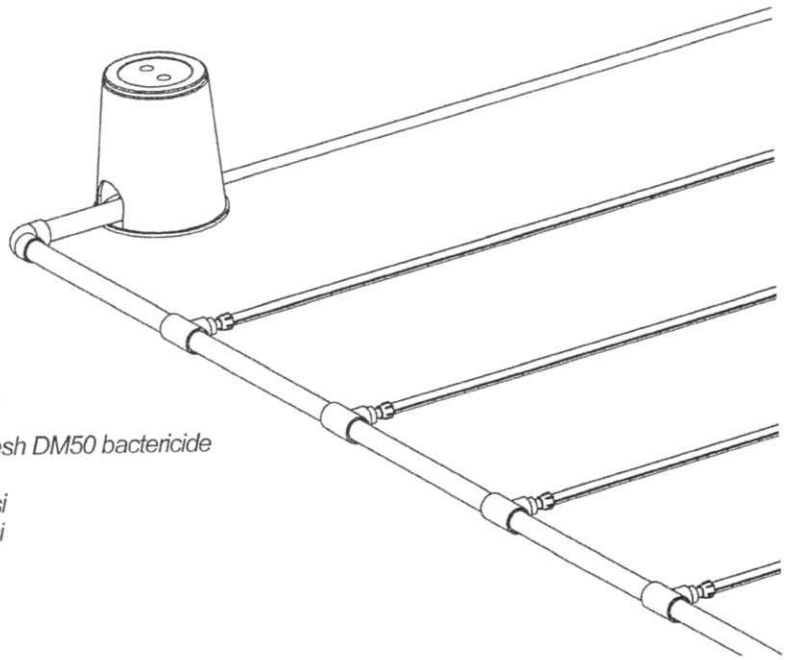
Warranty for Defects in Material and Workmanship
- *1 Year*

TechData

Disposal Systems

Drip Irrigation (Drip Tubing)

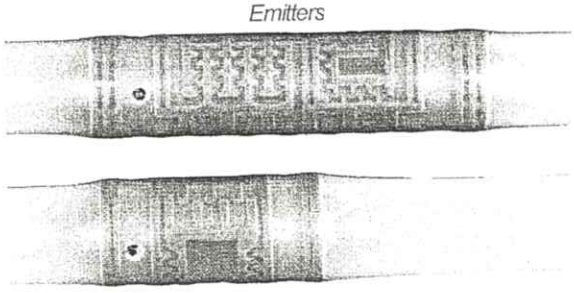
PDS-DT-24, PDS-DT-24-PC, PDS-DT-24-PC-1



Features

- Flexible 1/2" polyethylene drip tubing for uniformly distributing secondary quality effluent
- Drip tubing includes ROOTGUARD® protection and Ultra-Fresh DM50 bactericide
- Emitters spaced every 2 feet along tubing
- Non-pressure compensating emitter delivers 1.3 gph at 20 psi
- Pressure compensating emitters delivers 0.53 gph at 7-60 psi
- PDS-DT-24-PC-1 delivers 1.0 gph at 7-60 psi

Emitters



Materials:

Drip Tubing

- Nominal sized one-half inch linear low density polyethylene tubing
- Bactericide incorporated into inside layer of tubing
- Turbulent flow drip emitters bonded to the inside wall molded from virgin polyethylene resin
- Each emitter impregnated with Treflan to prevent root intrusion

Warranty for Defects in Material and Workmanship

- Drip Tubing - Ten years when installed below ground
- Drip Tubing - Two years when installed above ground
- ROOTGAURD - Products containing the ROOTGAURD protection are warranted to be free from root intrusion for a period of ten years from the date of purchase

AutoCad R-14 dwg files at **www.quanics.net**

Quanics
Engineering Water Solutions™

3. **Please provide any estimates for growth for the first five years. Please include a breakdown of the class of customers served (residential, commercial, apartments, recreational, institutional etc.).**

RESPONSE:

All customers will be full time residential customers. The expected build out of the subdivision will take place as follows:

- 3 existing homes
- 5 in 2007
- 5 in 2008
- 5 in 2009
- 4 in 2010

4. **Please provide the estimated amount of contributed capital to IRM once the system is transferred to IRM.**

RESPONSE:

The estimated contributed capital for materials and labor to construct the system is approximately $175,000.00.

5. **What is the size of the Ashley Meadows Subdivision? How many acres? Please provide specifically, where Ashley Meadows Subdivision is located?**

RESPONSE:

The size of the Ashley Meadows Subdivision is approximately 871,200 square feet or 20 acres. The subdivision is located at 36 Degrees and 50 Minutes Latitude and 83 Degrees and 4 Minutes Longitude.

6. A pro forma statement of the cost of operating the system and estimated revenues for the first five years.

RESPONSE:

See attached.

IRM Utility, Inc
Ashley Meadows Subdivision
Five Year Pro Forma Income Statement

		2007	2008	2009	2010	2011
Customers:						
Residential		8	13	18	22	22
Commercial		0	0	0	0	0
Total		**8**	**13**	**18**	**22**	**22**
Revenue:						
Residential	**A/**	$3,371	$5,477	$7,584	$9,269	$9,269
Commercial		0	0	0	0	0
Total Revenues		**$3,371**	**$5,477**	**$7,584**	**$9,269**	**$9,269**
Expenses:						
Operation & Maintenance Expense	**B/**	$859	$1,396	$1,933	$2,363	$2,363
Treatment System Expense	**C/**	598	972	1,346	1,645	1,645
Utility Expense	**D/**	125	203	281	343	343
Disposal Expense	**E/**	147	239	330	404	404
Sampling & Testing Expense	**F/**	672	1,092	1,512	1,848	1,848
Bill & Collecting Expense	**G/**	144	234	324	396	396
Miscelleaneous Expense	**H/**	38	62	86	106	106
Management Fees & Expenses	**I/**	461	749	1,037	1,267	1,267
TDEC Regulatory Expense	**J/**	50	81	112	137	137
Franchise & Excise Tax Expense	**K/**	79	128	177	216	216
Public Utility Ad Valorum Tax Expense	**L/**	91	148	205	251	251
Federal Tax Expense	**M/**	107	173	240	293	293
Total Expenses		**$3,371**	**$5,477**	**$7,584**	**$9,269**	**$9,269**
Net Income		**$0**	**$0**	**$0**	**$0**	**$0**

A/	Residential Customer Charge	$35.11
	Months per Year	12
	Total Annual Residential Charge/Customer	$421.32

B/ O&M Expense = $8.95/Month * Number of customers.
C/ Treatment Expense = $6.23/Month * Number of customers.
D/ Utility Expense = $1.30/Month * Number of customers.
E/ Disposal Expense = $1.53/Month * Number of customers.
F/ Sampling & Testing Expense = $7.00/Month * Number of customers.
G/ Billing & Collecting Expense = $1.50/Month * Number of customers.
H/ Miscellaneous Expense = $0.40/Month * Number of customers.
I/ Management Expense = $4.80/Month * Number of customers.
J/ TDEC Expense = $0.52/Month * Number of customers.
K/ F&E Tax Expense = $0.82/Month * Number of customers.
L/ Ad Valorum Tax Expense = $0.95/Month * Number of customers.
M/ Federal Tax Expense = $1.11/Month * Number of customers.

7. **An estimate of the maximum capacity of the system being installed in Ashley Meadows Subdivision.**

RESPONSE:

The maximum capacity will be 6,600 gallons per day.

8. **The pre-filed testimony stated that there would be 22 residential customers; however, the tariff was submitted to include both commercial and residential properties. The tariff states that the residential rate of $35.11 will apply unless the owner rents the unit to the public for any portion of the year and then the commercial rates will apply. Additionally, the tariff states that the commercial rate will be determined based upon total projected gallons per day. Who will determine, and how will it be determined to convert from residential to commercial status/rates? How will the projected gallons be determined? If the home is occupied by the owner during a portion of the year, will that portion be billed as residential?**

RESPONSE:

This subdivision will be 100% residential and the standard tariff rate of $35.11 will apply.