

Loudoun County Public Safety Firing Range

<u>Category:</u>	Clubs, Community Centers	<u>Project ID #:</u>	1004756523
<u>Street Address:</u>	Shreve Mill Rd Leesburg VA 20175	<u>Staff Estimate Value</u>	\$2,000,000.00
<u>County:</u>	Loudoun	<u>Stage:</u>	BIDDING - Biddate Set
<u>Bid Date:</u>	5/23/2018 , 11:00AM		
<u>Architect:</u>	Clarknexsen		
<u>Documents Available:</u>	Plans, Specs, Addenda available in Insight		
<u>Last Update:</u>	5/2/2018	Plans were Added/Updated	

Project Events

Event	Date	Details
Bid Date	5/23/2018 , 11:00AM	crisak requests bids 5/23/18 by 11:00am
Start Date	7/23/2018	Actual Start Date

Notes

<u>Scope</u>	Site work and new construction of a clubhouse / community center in Leesburg, Virginia. Completed plans call for the construction of a 54,150-square-foot clubhouse / community center; and for site work for a 4,500-square-foot clubhouse / community center. New Public Safety Firing Range in Loudoun County, VA.
<u>Notes</u>	Development include(s): New Construction, Site Work Bid Date: 05/23/2018 11:00AM crisak requests bids 5/23/18 by 11:00am
<u>Details</u>	[Division 2]: Clearing, Shoring, Earthwork, Grading, Slope Protection & Erosion Control, Paving & Surfacing, Water Systems, Sewerage & Drainage, Fences & Gates, Landscaping. [Division 3]: Concrete Formwork, Concrete Reinforcement, Structural Concrete, Structural Precast Concrete. [Division 4]: Clay Unit Masonry, Concrete Unit Masonry, Stone, Marble. [Division 5]: Structural Steel, Metal Decking, Cold Formed Metal Framing, Metal Fabrications, Metal Stairs, Metal Railings. [Division 6]: Rough Carpentry, Custom Casework. [Division 7]: Dampproofing, Insulation, Manufactured Roofing & Siding, Membrane Roofing. [Division 8]: Metal Doors, Wood Doors, Coiling Doors and Grilles, Sectional Overhead Doors, Entrances & Storefronts, Hardware, Glass & Glazing. [Division 9]: Ceiling Suspension Systems, Drywall/Gypsum, Tile, Acoustical Ceilings, Resilient Flooring, Painting. [Division 10]: Compartments & Cubicles, Louvers & Vents, Wall & Corner Guards, Interior Signs, Lockers, Protective Covers, Partitions, Storage Shelving, Toilet & Bath Accessories. [Division 11]: Parking Control Equipment, Water Supply/Treatment Equipment. [Division 12]: Window Treatment, Furniture, Rugs & Mats. [Division 13]: Pre-Engineered Structures, Ground Storage Tanks. [Division 15]: Mechanical Insulation, Fire Protection Systems, Plumbing Piping, Plumbing Fixtures, Water Heaters, Hydronic Piping, HVAC Pumps, Boilers, Water Chillers, Packaged A/C Units, Air Handling, Ductwork, Testing & Balancing. [Division 16]: Service/Distribution, Interior Lighting, Lightning Protection Systems, Alarm & Detection Systems, Television Systems, Electric Heating Cables & Mats.

Additional Details

<u>Listed On:</u>	4/26/2018	<u>Floor Area:</u>	58,650Square Feet
<u>Contract Type:</u>		<u>Work Type:</u>	New
<u>Stage Comments 1:</u>		<u>Floors Below Grade:</u>	
<u>Stage Comments 2:</u>		<u>Owner Type:</u>	County
<u>Bid Date:</u>	5/23/2018	<u>Mandatory Pre Bid Conference:</u>	
<u>Invitation #:</u>	QQ-01798, 13106.001.00	<u>Commence Date:</u>	7/23/2018
<u>Structures:</u>	2	<u>Completion Date:</u>	
<u>Single Trade Project:</u>		<u>Site Area:</u>	
<u>Floors:</u>		<u>LEED Certification Intent:</u>	
<u>Parent Project ID:</u>		<u>Units:</u>	
<u>Parking Spaces:</u>			

Project Participants

Company Role	Company Name	Contact Name	Address	Phone	Email	Fax
Owner	Loudoun County - Parks, Recreation & Community Services		20145 Ashbrook Place Ste. 170, Ashburn, VA 20147	(703) 777-0343		(703) 771-5354
Electrical Engineer, Mechanical Engineer.	Clark Nexsen Architecture &	Joe Willard	4525 Main St. Ste. 1400. Virginia Beach.	(757) 455-5800	jwillard@clarknexsen.com	(757) 455-5638

Plumbing Engineer	Engineering - Corporate Headquarters		VA 23462			
Architect	Clarknexsen	John Shields	333 FAYETTEVILLE STREET RALEIGH, , Raleigh, NC 27601	(919) 836-9751		(919) 836-1751
Electrical Engineer, Mechanical Engineer, Plumbing Engineer	Clark Nexsen Architecture & Engineering - Corporate Headquarters	Jonathan Dover	4525 Main St. Ste. 1400, Virginia Beach, VA 23462	(757) 455-5800	jdover@clarknexsen.com	(757) 455-5638
Civil Engineer	Christopher Consultants	Katie Mcdaniel	9900 Main St. 4th Floor, Fairfax, VA 22031	(703) 273-6820		(703) 591-4220
Structural Engineer	Clark Nexsen Architecture & Engineering - Charlotte	Marcus Whitaker	1523 Elizabeth Ave. Ste. 300, Charlotte, NC 28204	(704) 377-8800		(704) 358-1037
Electrical Engineer, Mechanical Engineer, Plumbing Engineer	Clark Nexsen Architecture & Engineering - Corporate Headquarters	Michael Phillips	4525 Main St. Ste. 1400, Virginia Beach, VA 23462	(757) 455-5800		(757) 455-5638

Bidders

Company Name	Contact Name	Added Date	Address	Phone	Email	Bidding Role	Bid Rank	Bid Value	Fax Number
W.M. Schlosser Company, Inc. - Main Office / Hyattsville		4/27/2018	2400 51st Place, Hyattsville, MD 20781	(301) 773-1300	info@wmschlosser.com	Bidder - General Contractor			(301) 773-9263
Crisak, Inc.		4/26/2018	37174 E Devon Wick Ln, Purcellville, VA 20132	(540) 751-0606	estimating@crisak.com	Bidder - General Contractor			(540) 751-0615

Contracts

Classification	Conditions	Bonding	Bid Date	Bids To	Bid Type
General Contractor		Perf:100.00%,Pay:10.00%	5/23/2018	General Contractor	Open Bidding

History

User	Viewed	First Viewed Date	Currently Tracked?	Date Tracked
Adam Sweet	True	5/3/2018	True	5/3/2018

FIBERGLASS TANK SPECIFICATIONS

FIBERGLASS UNDERGROUND TANK SPECIFICATION

SHORT FORM SPECIFICATION

The contractor shall provide the appropriate underground fiberglass storage tank and accessories as indicated on tank drawings. Capacity, dimensions, and fitting locations and sizes will also be indicated on tank drawings. Tanks shall be single-wall fiberglass as manufactured by Containment Solutions, Inc. or other approved equal. The tank must be installed according to manufacturer's current installation instructions.

LONG FORM SPECIFICATION

1. GENERAL

- 1.1. Quality Assurance
 - 1.1.1. Acceptable Manufacturers: Containment Solutions, Inc., Xerxes, STE Oil Company, or approved equal
 - 1.1.2. Governing Standards, as applicable:
 - 1.1.2.1. Tank manufacturer shall be in the business of manufacturing tanks to Underwriters Laboratories (UL) Standard 1316.
 - 1.1.2.2. Tank manufacturer shall be in the business of manufacturing tanks with materials conforming to the requirements of ANSI/AWWA - D120 (Thermosetting Fiberglass-Reinforced Plastic Tanks).
 - 1.1.2.3. Tank manufacturer must be listed by International Association of Plumbing and Mechanical Officials (IAPMO)/ANSI Z1000 Standard - Prefabricated Septic Tanks.
- 1.2. Submittals
 - 1.2.1. Contractor shall submit to engineer copies of shop drawings for each tank and copies of manufacturer's literature (including installation instructions).

2. PRODUCTS

- 2.1. Single-Wall Fiberglass Underground Tanks
 - 2.1.1. Product-Storage Requirements:
 - 2.1.1.1. All primary tanks must be vented. Tanks are designed for operation at atmospheric pressure only.
 - 2.1.1.2. Tanks shall be capable of storing non-potable water not to exceed 140°F at the tank interior surface.
 - 2.1.1.3. Tank shall be capable of storing products identified in the manufacturer's current limited warranty.
 - 2.1.2. Loading Conditions - Tanks shall meet the following design criteria:
 - 2.1.2.1. External hydrostatic pressure: Buried in ground with 7' of over burden over the top of the tank, the hole fully flooded and a safety factor of 5:1 against general buckling.
 - 2.1.2.2. Surface Loads: When installed according to manufacturer's current installation instructions, tanks will withstand surface HS-20 axle loads (32,000 lbs/axle).
 - 2.1.2.3. Internal Load: Tanks shall withstand 5 psig (3 psig for 12' tank) air pressure test with 5:1 safety factor.
 - 2.1.2.4. Tanks shall be designed to support accessory equipment such as submersible pumps, ladders, drop/fill tubes, etc. when installed according to manufacturer's recommendations and limitations.
 - 2.1.3. Materials:
 - 2.1.3.1. The tank shall be manufactured as a matrix of premium resin, glass fibers and silane-treated silica that together result in a composite providing improved corrosion protection.

- 2.1.3.2. Tank inner wall shall be fabricated against a mold to produce a non-air inhibited and high gloss laminate to provide fully cured inner surface without the need of wax coats, a low coefficient of friction and a natural resistance to the build-up of algae or other contamination on the surface. Wax and wax resin coatings cannot be used to achieve full surface cure on tank shells and endcaps.
- 2.1.4. Tank Dimensions and Capacity: (refer to CSI sales literature and drawings)
 - 2.1.4.1. Inside tank diameter shall be as noted in the construction drawings.
 - 2.1.4.2. Tank length shall be as noted in the construction drawings.
 - 2.1.4.3. Nominal tank capacity shall be as noted in the construction drawings.
- 2.2. Accessories
 - 2.2.1. Optional Anchor Straps:
 - 2.2.1.1. Straps shall be standard as supplied by tank manufacturer.
 - 2.2.1.2. Provide glass fiber reinforced plastic anchor straps for each tank shown.
 - 2.2.1.3. Number and location of straps shall be as specified by manufacturer.
 - 2.2.1.4. Soil density shall be assumed to be 90 pounds per cubic foot or as determined by the geotechnical engineering report for this project. This value shall be used by the manufacturer to determine loading on the anchor strapping system.
 - 2.2.1.5. The manufacturer shall design the anchoring system and utilize a minimum factor of safety of 1.5.
 - 2.2.1.6. Ground water shall be assumed to be equal to grade for fully saturated conditions.
 - 2.2.1.7. Deadman design shall be specified by the manufacturer.
 - 2.2.2. Access Collar:
 - 2.2.2.1. The standard access collar is 24", which is supplied by the manufacturer. (30" and 36" collars are optional)
 - 2.2.2.2. All access collars will be furnished complete with exterior adhesive channel.
 - 2.2.2.3. Manufacturer supplied adhesive kit (Model Kit-AD) shall be used for watertight collar/riser connection.
 - 2.2.2.4. Location(s) shall be indicated on tank drawings.
 - 2.2.2.5. Optional access riser shall be FRP with lockable composite lid.
 - 2.2.3. Optional Ladders: Ladders shall be supplied by the tank manufacturer
 - 2.2.4. Optional Pump Platform:
 - 2.2.4.1. Pump platforms shall be FRP as supplied by the tank manufacturer.
 - 2.2.4.2. Contact tank manufacturer with pump details, such as dimensions, mounting configuration and weight.
 - 2.2.5. Optional Fittings:
 - 2.2.5.1. All standard threaded fittings are carbon steel NPT half couplings. Reducers can be used for smaller sizes where specified and provided by the contractor.
 - 2.2.5.2. All standard threaded fittings to the primary tank are 4" in diameter.
 - 2.2.5.3. All optional inlet/outlet stub outs shall be FRP or PVC.
 - 2.2.5.4. Flexible connectors must be used on all piping connections. Piping must be free to move independent of the tank.

3. TESTING AND INSTALLATION

- 3.1. Testing and Installation
 - 3.1.1. Testing - Tank shall be tested and installed according to the CSI Installation Instructions in effect at time of installation.
 - 3.1.2. Installation - Tank shall be installed according to the CSI Installation Instructions in effect at time of installation. Contractor shall be trained by the tank manufacturer, state, or other approved agency. The installing contractor must complete the tank installation checklist (CSI Pub. No. INST 6001) provided with the tank and return the completed checklist to the tank owner upon completion of the installation. The signed checklist, and applicable written approvals from Containment Solutions, should be retained by the tank owner and must be provided later to CSI to validate any future warranty claim.

4. LIMITED WARRANTY

- 4.1. Limited Warranty
 - 4.1.1. Warranty shall be Containment Solutions limited warranty in effect at time of delivery.

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SUBMERSIBLE EFFLUENT AND DOSING PUMPS

STA-RITE® ST.E.P Plus D Series

4" multi-stage submersible effluent pumps



The ST.E.P Plus D Series 4" submersible pump in 10, 20 and 30 GPM models dominate with superior "draw-down" capability.

The ST.E.P Plus D Series 4" submersible pump dominates with reduced amp draw.

The ST.E.P Plus D Series 4" submersible pump dominates with cooler and quieter operation.

APPLICATIONS

Clean and Gray Water... for residential, commercial, and agricultural use.

SPECIFICATIONS

- Motor** - Available in 115 or 230 volt versions. Dry-wound, double ball-bearing, double-seal and thermal overload protected, UL and CSA approved.
- Shell** - Stainless steel (300 grade)
- Discharge** - 1-1/4" 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** - 000 Volt "5JOW" jacketed 10' leads, 2-wire with ground
- Agency Listing** - CSA

FEATURES

- ST.E.P. Plus DOMINATES with a... Proven Stage System** - The proven SignaSeal staging system utilizes a patented ceramic wear surface. When incorporated with STA-RITE's "true" independent floating impellers, dominates with 1st-in-class performance, superior sand handling, and a thrust management staging system with industry exclusive "dry-run" capabilities.
- Superior "draw-down" capability** - The ST.E.P. Plus Dominates in this class with the lowest draw-down of 4-1/2" (a standard 4" NEMA submersible only draws-down to 13-1/2").
- Reduced amp draw** - The ST.E.P. Plus Dominates in this class with less energy consumption - over 25% less amp draw (9.5 amps vs. 12.7 amps, 115 volt) than a 4" NEMA submersible, reducing operating costs and extending the service life of float switch contacts.
- Cooler and quieter operation** - The ST.E.P. Plus Dominates by using 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.
- Impellers** - Precision molded for perfect balance... ultra smooth for the highest performance and efficiency. Allows for .080" solids.
- Shaft** - Positive drive, hexagonal 7/16" - 300-grade stainless steel shaft offers generous impeller drive surfaces.
- Shaft bearing** - Exclusive self-lubricating Nylatron® bearing resists wear surface from sand and abrasives.
- Shell** - Corrosion resistant 300-grade stainless steel.

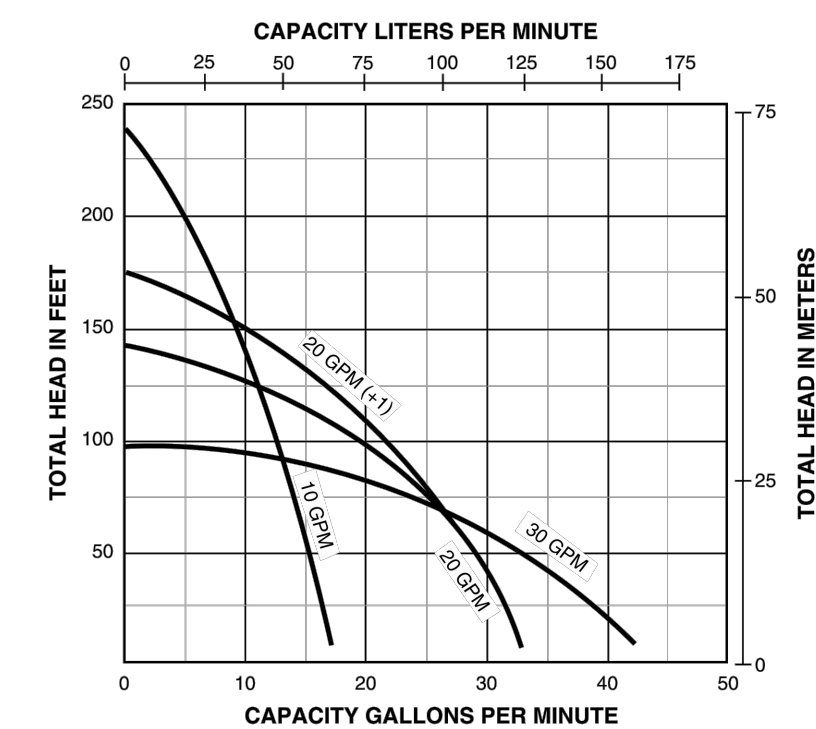
ORDERING INFORMATION						
CATALOG NUMBER	HP	MAX. LOAD AMPS	VOLTS	PHASE/ CYCLES	CORD LENGTH	WEIGHT (LBS.)
10DDM05221	1/2	5.5	230	1/60	10'	80
10DDM05121	1/2	11.0	115	1/60	10'	80
20DDM05221	1/2	4.6	230	1/60	10'	80
20DDM05121	1/2	9.5	115	1/60	10'	80
30DDM05221	1/2	4.6	230	1/60	10'	80
30DDM05121	1/2	9.5	115	1/60	10'	80
20DDM05221+1	1/2	5.3	230	1/60	10'	80
20DDM05121+1	1/2	10.6	115	1/60	10'	80

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

STA-RITE® ST.E.P Plus D Series

4" multi-stage submersible effluent pumps

PUMP PERFORMANCE



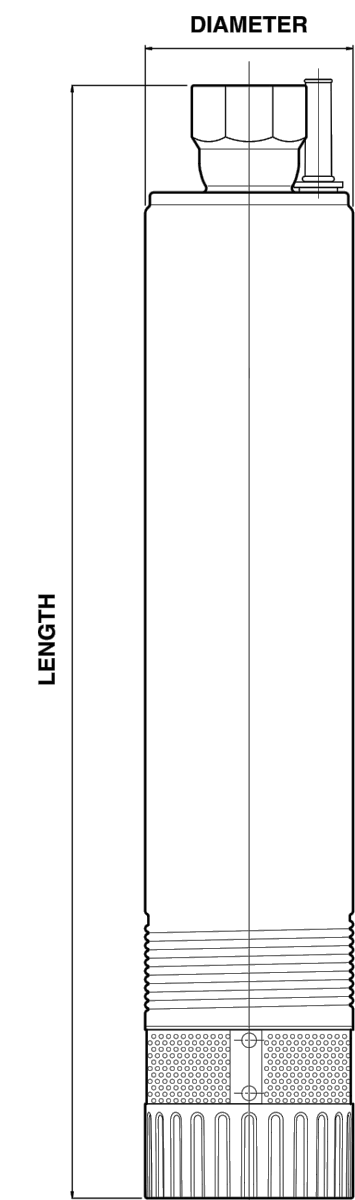
PUMP PERFORMANCE (CAPACITY IN GALLONS PER MINUTE)													
PUMP MODEL	FLOW RATE (GPM)	PSI											
		0	10	20	30	40	50	60	70	80	90	100	110
10DDM05221	10		15.0	13.7	12.7	11.5	10.2	8.4	6.5	4.3	1.0		
10DDM05121	10		15.0	13.7	12.7	11.5	10.2	8.4	6.5	4.3	1.0		
20DDM05221	20		30.0	26.0	21.5	14.2	4.4						
20DDM05121	20		30.0	26.0	21.5	14.2	4.4						
30DDM05221	30		38.5	33.3	25.8	16							
30DDM05121	30		38.5	33.3	25.8	16							
20DDM05221+1	20 + 1		30	27.5	24	20	13.5	6					
20DDM05121+1	20 + 1		30	27.5	24	20	13.5	6					

PUMP PERFORMANCE (CAPACITY IN LITERS PER MINUTE)													
PUMP MODEL	FLOW RATE (LPM)	BAR											
		.69	1.38	2.07	2.76	3.45	4.13	4.82	5.51	6.20	6.89	7.58	8.27
10DDM05221	37.85		56.8	51.9	48.1	43.5	38.6	31.8	24.6	16.3	3.8		
10DDM05121	37.85		56.8	51.9	48.1	43.5	38.6	31.8	24.6	16.3	3.8		
20DDM05221	75.7		113.6	98.4	81.4	53.7	16.7						
20DDM05121	75.7		113.6	98.4	81.4	53.7	16.7						
30DDM05221	113.55		145.7	126.0	97.7	66.8							
30DDM05121	113.55		145.7	126.0	97.7	66.8							
20DDM05221+1	75.7 + 1		113.4	103.9	90.7	75.6	51.0	22.6					
20DDM05121+1	75.7 + 1		113.4	103.9	90.7	75.6	51.0	22.6					

STA-RITE® ST.E.P Plus D Series

4" multi-stage submersible effluent pumps

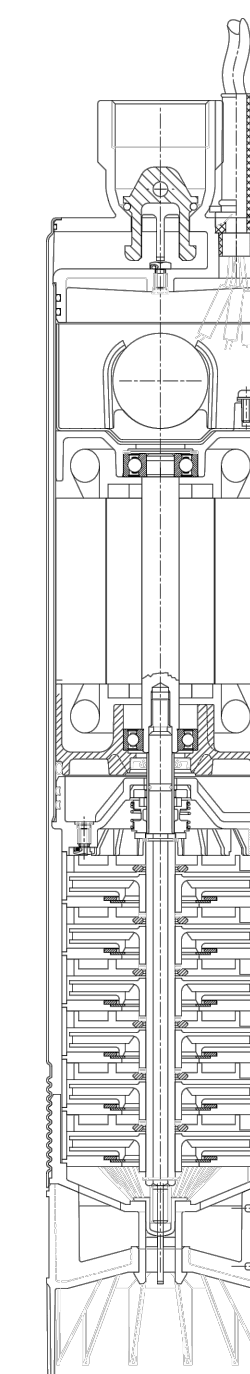
OUTLINE DIMENSIONS



GPM	LENGTH	DIAMETER
10	21.6" (549 mm)	3.86" (98 mm)
20	20.8" (529 mm)	3.86" (98 mm)
30	20.6" (523 mm)	3.86" (98 mm)
20+1	22.3" (567 mm)	3.86" (98 mm)

Dimensions are for estimating purposes only.

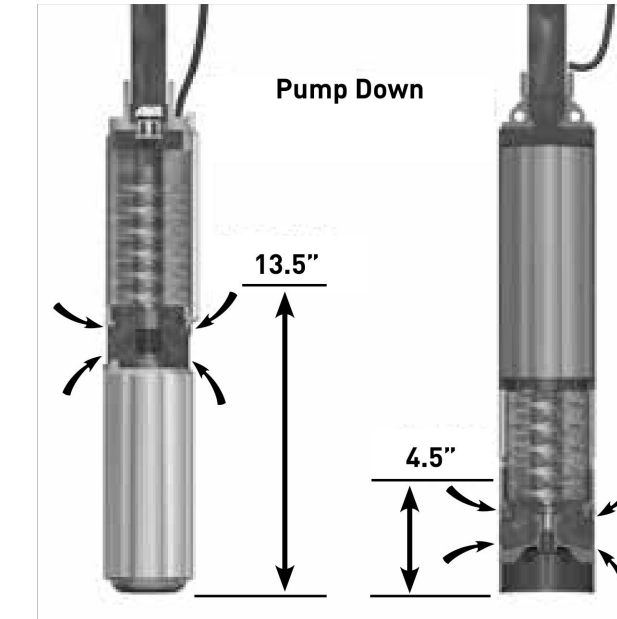
CROSS SECTION



STA-RITE® ST.E.P Plus D Series

4" multi-stage submersible effluent pumps

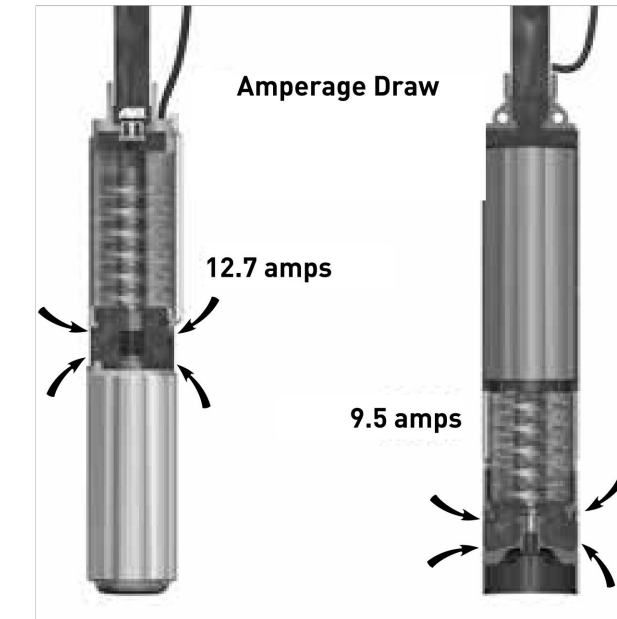
INCREASED DRAWDOWN



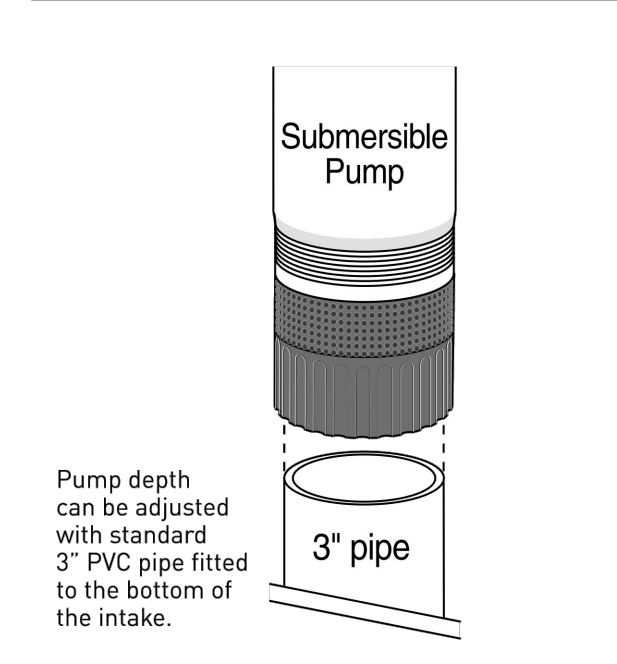
ELIMINATES FLOW-INDUCER



REDUCED AMP DRAW

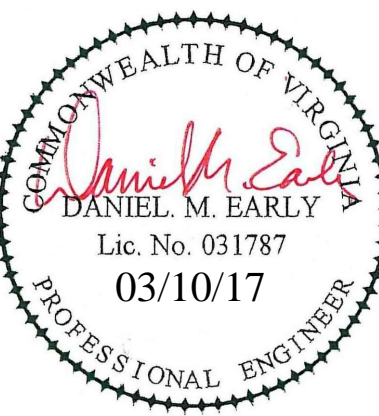


ADJUSTABLE DEPTH SETTING



293 WRIGHT STREET, DELAWARE, WI 53115 WWW.STA-RITE.COM PH: 888-782-7463 ORDERS FAX: 800-426-9444
Because we are continuously improving our products and services, Pentair reserves the right to change specifications without prior notice.

S11410WS (09/08/14)



ACS DESIGN

ENGINEERING • PLANNING
CONSTRUCTION MANAGEMENT

1910 9TH STREET SE
ROANOKE, VA 24013
P 540.380.5600

Loudoun County Firing Range
Wastewater Treatment System
Loudoun County, VA

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DRAWN BY: CBH/JMS
DESIGNED BY: JMS
CHECKED BY: DME
DATE: NOVEMBER 2016
JOB NUMBER: 13094

REVISIONS:
No. 1 Per VDH
03/10/17
No. 2
No. 3
No. 4

Wastewater Treatment Hydraulic Profile & Electrical Schematic

SHEET NO.: WW6