



135 Years of Tradition, History & Quality Manufacturing
American-Marsh Test Lab Expansion



One of the most undervalued assets that American-Marsh Pumps possesses is the ability to test the products that we manufacture. Many companies in our industry claim to be "pump manufacturers" and do not possess the most basic of tools to confirm performance of products they claim to manufacture.

Our test lab has been one of the most important tools we

Project Focus
Army Corps of Engineers



The vertical turbine product line has three components that make up our current of-

use to go after engineered projects. Our current test lab has ISO 9001 and FM certifications used in the testing of Municipal, Industrial and Fire Protection products. Without the test lab, we simply could not pursue this business. The last several years have presented American-Marsh Pumps with larger opportunities and with these come larger testing requirements.

This quarter has been exciting with regards to our test lab expansion. We have added a larger test loop to max out our test lab's capability. This larger 36"

fering. We have traditional Francis vertical turbine, Axial Flow and Mixed Flow components that make up our entire hydraulic offering.

Recently, we were awarded a project for the Army Corps of Engineers. This project, which was 24 months in the making, will ultimately be used for flood control due to runoff from snow melt. The project consists of two pumps and was nearly \$500,000 in value.

The two pumps were sized

test loop will allow us to test flows out past 40,000 GPM. This extends the testing capability beyond our current product offering and will present more opportunities on future projects for American-Marsh Pumps.

At present, we possess one of the largest test facilities in the Southeastern United States.



www.american-marsh.com

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Third Quarter
1 July - September 2011



At American-Marsh, we are proud of the loyalty of our customers. Many have been with us for more than a century. We thank you for your interest in our products and invite you to join our long list of satisfied customers.



for 14,000 GPM against a head of approximately 63 feet. These 24 inch, two stage Mixed Flow pumps, operate at 880 RPM and pulls approximately 350 horsepower. Custom below base, mitered discharge elbows and flanged column finish out the package.

Each pump will be witnessed tested in our test facility by Army Corps of Engineer personnel. We are hopeful to ship this product during the last quarter of 2011.

PIPELINE is a quarterly publication for our distributors and representatives. Its mission is to provide useful product information and company communication. We welcome your comments and suggestions.

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Engineered Process Group

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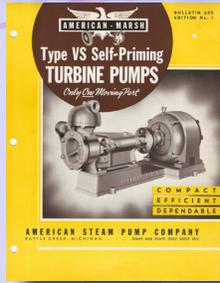


From the Archive - VS Self-Priming Regenerative Turbines

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Many, many years ago, water supply for home use was only a dream. Home well pump applications were new and the pumps

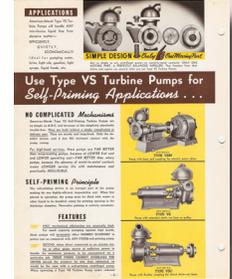
designed for these applications were new as well. Today, the 4" residential home well market is saturated with product and competitors.

Before what we today call traditional 4" well pumps existed, many people relied on self-primer regenerative pumps for home water service. The VS Series of product from American-

Marsh focused solely on this market. As an extension of the VF, standard regenerative product line, the VS featured a suction chamber for self-priming applications. This was perfect for lower flow, residential use.

The suction chamber was designed to allow for suction lifts all the way up to 28 feet, a suction characteristic unheard of today.

The VS product line has since been replaced by thermoplastic and stainless steel 4" pumps. The VS product line was discontinued in approximately 1975.



American-Marsh University, Shane Wright B.S.M.E.

Vertical turbine pumps are a unique pump design. One of the characteristics that make this pump so unusual is the large amount of downward axial force that is exerted down the shaft. This axial force must be offset by the thrust bearing located in the motor. This force is commonly known as the pump's "down thrust".

Down thrust in a vertical turbine pump is caused by the pressure generated pushing against the impel-

lers added to your hanging weight of all rotating parts. Because of the difference in impeller shapes, sizes, and performance, each impeller design has its own thrust factor. This is known as the "K-Factor". This K-Factor is listed on the pump curve for use in calculating down thrust.

To calculate this down thrust the follow formula can be used:

$$\text{Down Thrust} = (K \times H \times SG) + (W_s \times L) + (W_i \times N)$$

Where: K = K-Factor, H = Total Head in feet (Bowl Head less Column Friction Loss), SG = Specific Gravity, W_s = Shaft Weight in lbs/ft, L = Total length of shaft in feet, W_i = Weight of Impeller in lbs, and N = Number of impellers.

The amount of down thrust in a pump is an important factor in determining the bearing size in the motor, the pump shaft size needed for a specific application, the critical speed of the shaft, the impeller

setting and whether or not bowls need to be machined for extra lateral.

Calculating axial thrust is one of the first steps that needs to be completed after model selection. Without a proper axial thrust calculation it is impossible to select the proper shaft size.

If additional information is needed please feel free to contact the Engineering Department at American-Marsh Pumps.

Upcoming Events Training Schools & Trade Shows

Training schools and trade shows allow American-Marsh Pumps some of the most efficient means of educating our distributors. To allow for intensive distributor training, American-Marsh offers a training school every six to eight weeks. These training schools cover product features and benefits, competition, market

overview, catalog familiarity, AMPNET and *Water Works* software operation.

Sales Training School Schedule

● Newly Updated

The Fourth Quarter **PIPELINE** newsletter will detail 2012 school dates.

To cover specific markets and allow end user interaction with our products, American-Marsh Pumps participates in several market specific trade shows. These trade shows cover the agricultural, commercial, municipal, industrial, mining and government markets.

Trade Show Schedule

Irrigation/Agriculture 2011

November 6 - November 8, 2011
San Diego, CA, USA

Work Boat 2011

November 30 - December 2, 2011
New Orleans, LA, USA

NGWA 2011

November 30 - December 1, 2011
Las Vegas, NV, USA

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Product Line Highlights

Series 1000 - Neptune Booster Systems

As previously covered in past issues and articles, The Neptune Booster System is now available and has a virtually unlimited potential from a configuration standpoint. The Neptune Booster System features:

- Any product line offered by American-Marsh Pumps can be incorporated into a Neptune Skid System.
- The ability to mix product types on the

- same skid system.
- Constant speed or optional variable speed with PLC controllers.
- Solid state pressure transducers standard for suction and discharge pressure monitoring.
- Grooved suction and discharge manifolds for ease in manufacturing and system installation.

- Stainless steel suction and discharge manifolds standard.
- Custom programming on VFD systems for applications up to quadplex arrangements standard.

The Neptune Booster product line can be used in the Commercial, Municipal and Fire Protection markets worldwide. Please check out our website or

call your salesperson for additional information.



1000 Series Neptune Booster Product Line

On the Inside

It takes an incredible amount of resources to grow a company in today's world. What makes this task even more complicated is concurrently trying to re-establish your name at the same time. It has been 10 years since the merger of American-Marsh Pumps and J-Line Pump Company.

In that time period, we have covered ground more quickly than nearly any one of our competitors. Having a good management organization is the key to making a program like ours successful.

To continue the focus on our vision, we have made a significant change at the upper management level.

We would like to introduce Terry Kerbough as our new President here at American-Marsh Pumps. Terry has been with our company for 27 years and possesses the drive and philosophy we need to continue our growth.

Ron Cheek, our previous President, will assume the role and responsibility of

Chief Executive Officer and together, we hope to mold the next decade of growth here at American-Marsh Pumps.

Join me in extending a congratulations to Terry Kerbough. He has worked hard and deserves this opportunity. I am sure he will be looking to everyone for support in the future.

On The Web Neptune Booster System Information

<http://www.american-marsh.com/epg/products/series/1000/1000neptune.html>

We have covered the Neptune Booster System a lot in the last several issues of **PIPELINE**. This new product line has a lot of potential and we have started off with a running start. Several of our domestic and international distributors have taken a lot of interest in this newest product line from American-Marsh Pumps.

Maintenance Manual for this product line on our website.

The Color Brochure details our offering with all of the features and benefits we have to brag about. One thing to consider regarding the Neptune product line is that any pump we have in our offering can be included on a skid system. This is the one, most powerful offering of the entire Neptune Booster System concept.

Also newly published is the IOM Manual for the Neptune Booster product line. This manual details all that is needed for proper installation, startup and maintenance of the

complete skid system. Always supplementing this manual would be a copy of the pump specific IOM used on the skid in question.



American-Marsh Pumps

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American-Marsh Pumps, one of the oldest pump lines in America, are pump products steeped in heritage. Since 1873, the American-Marsh line of pumps have withstood the test of time. Over the last 135 years, over 100 varieties of pumps have been designed and built. From steam pumps to centrifugal pumps, American-Marsh pumps have been built to meet the ever changing requirements of society. Over the last century, through continuous product development, more American-Marsh models have been retired than most other pump manufacturers have ever produced. Hundreds of thousands of pumps have been built, all designed with long life in mind, allowing many of them to last over 50 years in service.

Today, look to us for the complete offering of American-Marsh Pumps, consisting of 18 product lines to serve your every need. Whether your need

is a self-priming diaphragm pump, a stainless steel vertical sump pump, or anything in between, American-Marsh Pumps will provide you with a durable, hi-quality solution.

Build a world class quality product, and back it with knowledgeable customer service staff just as experienced and proven as our pumps.

Take a specialized product, and provide a simple process to obtain the information and delivery you require. Our heritage of quality pumps goes back to 1873 and continues today, emphasizing durability in the design and construc-

tion of every pump we make. American Marsh Pumps, an American tradition since 1873.

Our entire product family reflects years of customer input, product upgrades, redesign and new product development...all focused on meeting and exceeding our customers expectations. For over 135 years, the American-Marsh Pump designs have proven their durability by withstanding the test of time. Our commitment to customer service and satisfaction will ensure that the American-Marsh Pumps Product line will be around for the next 135 years.



The original American-Marsh facility located in Battle Creek, Michigan, USA (Photo taken around 1950).

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