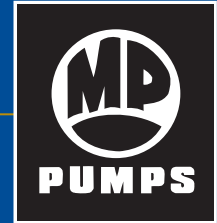


the Primer



SPRING ISSUE 2006

From **BILL PETERSEN:**

When we were kids, an hour seemed like a lifetime. Now, it seems to pass in the wink of an eye. That's why it's more important than ever to make the most of every minute. MP Pumps is aware of how valuable your time is and we're constantly looking for new "time-savers" and ways to help you improve efficiency to keep you one step ahead of the game.

Check out our website for instance. Here, you have 24-hour access to our pump info, including pricing that is updated any time there is even the slightest change.

www.mppumps.com

At first you might not think that's so important, but the increasing demand for copper and other raw materials has been driving material costs up for quite a while now, so having access to real-time numbers is really quite helpful. No surprises that way.

We also aim to save you time by posting all service bulletins on our website. In other words, you don't have to

wait to call us for assistance with identifying a service component part number – you can get your answers anytime day or night online.

Simply click on the "installation and service bulletin" section to find the parts list as well as the service bulletin for the specific MP Pump model you are searching for. All bulletins were updated with regard to item availability and with corrections that may have been required prior to the web listing. And, the bulletins are PDF files, so if you need a hard copy, it can be printed from the site.

Take advantage of these new time-saving features we've added to our website. And while you're online, take a minute to complete our new customer survey. Our goal is to make doing business with MP Pumps easier than ever. By completing our survey, you can help us meet that goal, so everyone wins.

William Petersen
Vice President, Sales and Marketing

The Lil' Squirt Delivers High Performance

Did you know that the daily indoor per capita water use in a typical American single family home is 74 gallons? Experts say that by installing more efficient water fixtures and checking for leaks, we can reduce that number by about 30 percent bringing it down to 51.9 gallons per day. So you save a little on your water bills, while doing the environment a favor.

But what if you're looking to save water and money on the job? SBS Corporation in Rochester, Michigan came up with a product to help many companies accomplish this goal. The Watersaver System offers a cost effective alternative to straight through city water or over-burdened cooling tower loops used in industrial and manufacturing processes.

"The Watersaver system is a completely self-contained water cooling system, including air-cooled heat exchanger for contaminant-free cooling of process water," said Gary Berwick,

Vice President – Engineering for SBS. "With a closed-loop system, you never need to add more water – the water is recycled – saving our customers time and money."

The SBS Watersaver system is custom built to order and arrives at your plant, pre-piped and pre-wired on a unitized base, ready to be plumbed to the location requiring cooling water. Each Watersaver System comes complete with a Lil' Squirt circulating pump to keep the water flowing. Designed and manufactured by MP Pumps, the Lil' Squirt 316 investment cast stainless steel pump provides superior corrosion resistance and up to 7,000 hours of reliable operation.

"This is a great low flow pump, delivering the five gallons per minute we need for our closed loop water cooling system," Berwick said. "It also provides high performance without consuming an excessive amount of power. It's very efficient and the perfect fit for our Watersaver system."



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In Search of the Perfect Pump

When you need a tough player on the front line, you scout out the best. The process takes time, energy and some trial and error, but it's the only way to ensure a winning season. The same can be said when searching for the perfect pump.

Pat Magrum has been with Falcon Pump and Supply in Casper, Wyoming for more than 27 years where he is now the Vice President. Not too long ago, he went searching for a pump that could handle an 18-foot vertical lift at 4,500 feet above sea level while maintaining 200 to 300 GPM.

"I had a knot in my stomach for three months while we tried several pumps for this application without success," he explained.

The customer, Lance Oil & Gas in Gillette, Wyoming, produces oil, but its main application is in the production of Coal Bed Methane (CBM). In the production of CBM, a blanket of water must be pumped off the well and it could be thousands of BBLs before any methane production develops. Although relatively clean, this "produced" water must meet

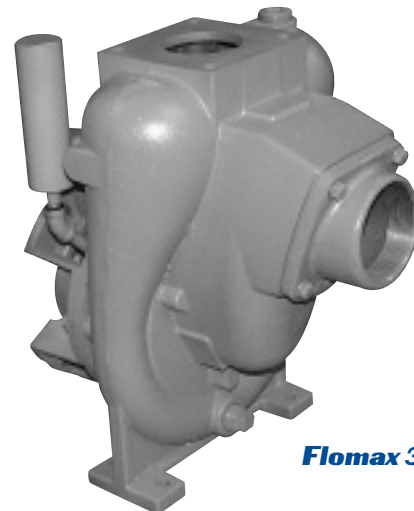
certain quality standards before it can be considered safe for the environment. To get the job done, Lance Oil & Gas chose to use a reservoir filled with layers of gypsum, acting as a natural filter. There are two reservoirs beside each other, each about the size of a football field - one filled from the wells while the other is full and settling.

"The pump is circulating water and at the end of the filtering cycle, the reservoir must be pumped all the way down, which again is 18 feet from where the pump is located," Magrum said. "This is where the Flomax 30 has provided the results the customer hadn't had from the other self-priming centrifugal manufacturers."

While their hydraulic performance curves may have looked very equal, Magrum said he believes the success was MP's casing design which allowed the pump to maintain its quick self-priming time on demand and the consistent flow rate from start to finish. Needless to say, after battling the other guys pumps, Lance was extremely excited to see the results. So far, they've purchased eight

units with the intention of purchasing 40 all together.

"Additional advantages with the MP Flomax 30 is the pricing, the delivery, and the mechanical quality of the product," Magrum said. "Not to mention MP is friendly and helpful from customer service to engineering. I have since sold five more Model 30s in other challenging applications with the same success."



Flomax 30

Flomax 15 – Now in Stainless Steel

The Stainless Steel Flomax 15 is now in stock and available for sale. By adding Stainless Steel to the current bronze and cast iron materials of construction offerings, this popular 3" x 3" self priming model now allows its users to place it in agricultural spraying applications, industrial brine applications and marine applications.

In addition, the Stainless Steel material makes it an excellent choice for self-priming applications of transferring such fluids as caustic chemicals, anti-icing or deicing agents such as calcium chloride and magnesium chloride as well as deionized water.

The standard mechanical seal will be viton with optional seals available. As with the other Flomax models, MP Pumps will also offer standard impeller trims. The pump will be available in three (3) mounting options:

• Pedestal Mount:	Part No. 34792
• Engine Mount:	Part No. 34793
• Close Cpld:	Part No. 34801

The close coupled models can be purchased as a pumpak or coupled to C-Face motors, frame type 182TC, 184TC, 213C or 215C.

For more information: Service bulletins, sales bulletins and pricing are available at mppumps.com.

Bigger is Not Always Better

If you haven't figured it out already, MP Pumps is here to set the record straight: bigger is not always better. This fall, we're going to prove it to you with the introduction of a redesigned "small" hydraulic pedestal that is used with the Flomax 5 and 8, as well as the Series 30, 60, 80, 110 and 130.

Unlike the previous hydraulic pedestal, the hydraulic motor will be assembled by MP Pumps using fewer components. And because MP is handling assembly, we'll also be stocking service parts for your convenience.

Customers will appreciate a number of benefits the new unit offers, including:

- It is capable of higher speeds.
- It will not have a reverse rotation protection.
- The hydraulic connectors will be rear ported – not side ported.
- The motor and pedestal will share a common shaft.
- There will be fixed clearance; no pressure balance plate.
- Elimination of problems due to drive interface.

For more information on this new "little powerhouse," contact sales at MP Pumps, 800-563-8006.

A Better Bus Deserves A Better Pump

The days of walking four miles through rain, sleet and snow to get to school are long gone. Today kids ride in what our grandparents would consider luxury. Blue Bird Corporation, one of the world's leading bus manufacturers, can take a lot of credit for that. Since its beginnings in 1927, the company has grown to 3,000 employees and three facilities in two countries where thousands of buses are manufactured each year.

Over the years, Blue Bird's success has been based on innovation and customer service. Most recently, for instance, Blue Bird announced the availability of a full-size propane-powered school bus for 2007 – designed

to cut emissions of soot, smoke and particulates virtually down to zero.

To continue designing top-of-the-line school buses, commercial buses, and motor coaches, Blue Bird has built a base of reliable vendors that help ensure quality every time. And wouldn't you know MP Pumps is on that list.

"Blue Bird is using the RBS Circulator Pump on all 24 volt applications in the coachworks division and it's using the aluminum school bus pump on all new and replacement 12 volt school bus applications," said Rodger Purdy, MP Pumps' southeast regional sales manager in Peachtree City, Georgia. "The first pumps were installed in September 2005 delivering excellent

performance and a marked improvement over the previous manufacturer's pumps."

"The RBS is utterly reliable with a rotorless, brushless, seal-less design," added Michael Martin, Blue Bird's purchasing agent for service parts. "And both pumps offer the exceptional quality and longevity our customers demand. We also chose MP Pumps because they offer excellent delivery, personalized service and a partnership we can count on."

After all is said and done, it looks like MP Pumps and Blue Bird take very similar approaches to success: listen to your customers and respond with innovative solutions.



Special Orders Don't Upset Us

Whether you tie a string around your finger or get an appointment postcard in the mail - every now and then little reminders are needed to keep us on track. MP Pumps would like to throw out a reminder of its own: **we make custom pumps.**

"Our custom pumps are perfect for OEMs that need a pump designed for a very specific application," said William Petersen, MP Pumps' Vice President Sales and Marketing. "OEMs typically have applications or machines that require unique physical characteristics to fit a designated space. So we'd like to remind distributors and customers alike that our custom pumps are built for efficiency and optimal performance. Now you don't have to build the machine around the pumps capabilities - our custom pumps are built to do what the machine needs them to do."

Consider this your reminder. For further information, contact sales at MP Pumps, 800-563-8006.

What Do You Think MP Pumps Wants To Know

Did you know that Starbucks is named after the first mate in the novel Moby Dick? And did you know that worldwide, approximately 35 million customers visit a Starbucks coffeehouse every week?

Most of us at MP Pumps love a good cup of coffee, too. That's why we're offering you the chance to win a free Starbucks gift card when you visit us online and answer our new customer survey. We recently "changed up" the questions that were previously posted so we could learn a little more about you and a little more about how we can be a better business partner to all of our customers. So, take a minute to submit your input. We want to know what you think and we promise to put this information to good use. And who knows, maybe you'll even get a few good cups of coffee out of it.



Did You KNOW ?

The Team Approach Works

There's no doubt, MP Pumps makes a great business partner. We provide the highest quality products with unbeatable support and we always take a "team approach" to ensure our customers get the best service across the board. We did a little research to see just how effective a team can be. Here's what we found at www.guinnessworldrecords.com.

Furthest 737 Plane Pulling By A Team

A team of ten Royal Marine reserves from all over the UK pulled a Boeing 737-300, weighing 81,500 pounds, a distance of 328 feet in 43.2 seconds at Manchester Airport (UK) on 27 January 2001.

Pump Performance Curves And Applications

Part 2



Dave DeClerck

The last issue discussed the basics of performance curves with velocity head as a component of the pump curve. Picking up where we left off: Here are a few good common sense

rules that can be applied to pump selection with the knowledge of the application and the performance curve.

1. Never increase the application requirements without knowledge that someone else may have rounded them up. When application padding is compounded the pump selection is over stated to a point where an entirely different pump may need to be installed or the impeller trim is great with a severe reduction in efficiency.
2. For applications that require a pump and motor that uses over 10 horsepower. Never select a pump with an impeller at maximum diameter. If more pump performance is needed after the installation or future requirement dictate, a larger impeller is a better solution than replacing the entire pump.

3. The best pump selection can be made where the flow rate requirement is a between 50% to 120% of best efficiency from the pump curve. Pumps that are applied to run at very low flow rates below 50% of BEP are susceptible to internal wear from flow separation at the cutwater, inlet recirculation and the possibility of high noise. NPSH required usually goes up exponentially for flow rates higher than BEP because the negative pre-rotation directly increases impeller blade loading at the inlet. High uncontrolled flow rates may lead to cavitation conditions and pump damage.
4. Use extreme caution when applying a pump for a high flow/low head application. Inlet losses that are usually neglected may become important to the selection. Velocity head should also be considered. Neglecting flow restrictions may require resizing the pump to a larger model.
5. Do not oversize the AC motor from thoughts that there will be more pump performance. AC motors will run to a speed based upon frequency not maximum horsepower capability.

Increasing the motor power will not result in more pump performance. An AC motor that is running at a low load will operate inefficiently. The same motor that is overloaded will overheat and may damage the windings.

6. Apply pump performance correction factors when viscosity and specific gravity are different than water. Specific gravity (S.G.) affects horsepower requirement and selection. Viscosity affects mainly flow and head. Whenever both are apparent correct for viscosity first followed by S.G. for the final power selection.
7. When selecting a gas or diesel engine use the continuous power rating of the engine. Engines cannot run at maximum load for extended time periods. All engines should be governed and will run at a speed where supply and demand power intersects, unless the engine is running at the governed speed.
8. Do not neglect calculating NPSH because the inlet of the pump is a positive pressure. This is common where a flooded suction at no flow becomes a high lift at the desired flow from losses in the inlet. Elevated viscosity will compound this problem.

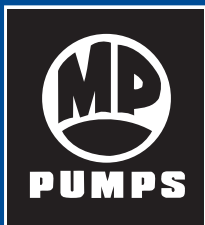
What's Your STORY?

Our Pumps Don't Need A Break! But You Do!

Most of us learned how to share at the innocent age of two years old. By the time we were three, we were swapping toys and candy. Well, it's time to put these lessons to good use. Share with us how your MP Pump product solved a unique problem and we'll give you an even better swap. If we publish it, you'll also receive a \$250 gift certificate from Marriott hotels.

Now that's worth sharing!

Send your favorite MP Pumps success story to William Petersen, MP Pumps, 34800 Bennett Drive, Fraser, MI 48026-1686.



It is the policy of MP Pumps to satisfy customers by consistently supplying them with products that fully meet their requirements.

Customer Satisfaction Today, Tomorrow, Always.

Go to www.mppumps.com and take the Customer Survey to become eligible to Win Starbucks Gift Certificates.



For more information in the United States,

call 800-563-8006

Outside the United States, call 586-293-8240



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