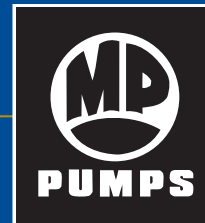


the Petroleum Edition Primer



WINTER ISSUE 2008

From **BILL PETERSEN:**

Lead, follow, or get out of the way.

Founding Father Thomas Paine's bold declaration rings as true today in the business world as it did on the eve of the American Revolution. With a national economic slowdown looming, this is no time for any successful company to embrace the status quo.

You may not know that MP Pumps was, quite literally, forged on the battlefields of World War II in 1942. We've been around long enough to weather and in many cases, prosper during tough economic times, learning along the way that in battle or in business history seldom rewards the meek.

Which is exactly why we are going to continue to do what we've always done—introduce innovative new products, improve existing ones and offer you a level of support unrivaled in the centrifugal pump industry.

Take a look, for example, at the new sales opportunities that our new Flomax Petroleum Pump Series offers to distributors, OEMs and integrators who've been seeking a premium transfer pump at a highly competitive price. This new series is the latest result of our unrelenting focus on product research and development.

Our job is to ensure your complete satisfaction with our products and support so that you, too will prosper, regardless of the way the economic winds are blowing during any given year. There's no better time to take advantage of MP Pump's engineering and manufacturing superiority than right now.

Think of it as our own little revolution in a marketplace that's ripe for a partnership between you and MP Pumps. Together we'll lead. Let everyone else follow.

William Petersen
Vice President, Sales and Marketing

Fuel Tech And MP Pumps Ready For Takeoff

Like a 400,000-pound sprinter clad in an aluminum skinsuit, a sleek corporate jet is poised for takeoff into American airspace even as you read this. Engines howling, it will hurtle down the runway at 160 miles per hour to break the bonds of earth's gravity.

Ironically, none of this can happen without the help of a much quieter device that will never leave the ground—an elegantly simple machine called a stationary fueling cabinet, more often than not built by a company called Fuel Tech Inc., headquartered in Mims, Florida.

Fuel Tech designs, fabricates, installs and services aviation fueling systems, and since its founding in 1984 has grown into the nation's largest supplier of fixed-installation aviation fuel storage and dispensing systems. The systems are often custom-engineered and manufactured to suit customers' applications, but essentially consist of a lockable, weatherproof aluminum or stainless steel cabinet housing an explosion-proof pump, hose reel, nozzle and a transfer pump.

Fuel Tech Vice President of Sales Neal Edgington says the recent introduction of MP Pump's Flomax PG Series means that it's likely that MP will be playing a greater role than ever in Fuel Tech's success by supplying more of those transfer pumps for the company's fuel dispensing systems.

"We offer only premium products and components, and the new MP pumps offer more value to our customers. The upgraded materials of construction put us in a better competitive position to supply our aviation fueling products," Edgington explains.



MP's reengineered Flomax Self Priming Pump Series incorporates ductile iron, stainless steel and other alloys that are approved for clean, non-abrasive fuel applications. The "PG" series' target market is customers such as Fuel Tech whose products transfer gasoline, kerosene, aviation and jet fuels.

According to Fuel Tech's Neal Edgington, the new MP pump materials also offer one other important competitive advantage: Durability.

"We want to not only offer our customers better value in their original purchase price, but lower annual maintenance costs, too. We think the new Flomax designs will do both," he says.

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As Alternative Fuels Grow, So Do We

Rising oil prices, the war in Iraq, global warming – no doubt, the pressure is on to pursue alternative fuels and reduce global dependence on fossil fuels and its emissions of carbon dioxide—a key greenhouse gas. The sense of urgency increases with a continuously growing demand: Global petroleum demand grew by 3.2 percent in 2004 – or by more than 100 million gallons a day – and continued climbing in 2005 and 2006. U.S. gasoline consumption alone reached a record high last August, averaging nearly 400 million gallons a day.

Fortunately, the ball is already rolling. Alternative fuels such as biodiesel, electricity, ethanol, hydrogen, natural gas, and propane are currently being used worldwide in a variety of vehicle applications. All of these renewable fuel sources help reduce pollutants and exhaust emissions and all can be domestically produced. But so far, ethanol is leading the pack. This year the U.S. ethanol industry will grow to provide more than five billion gallons of clean burning, renewable fuel to the U.S. supply.

No matter the fuel source, the rapidly growing alternative fuels market has a place for everyone who is willing to work

hard for the cause. One such company is Total Control Systems in Fort Wayne, Indiana – a manufacturer of fluid handling equipment and precise measurement devices.

“Petroleum products, chemicals, alternative fuels – they all need to be measured accurately and that’s what our meters are built to do,” said Steve Murray, president of Murray Equipment, the parent company to Total Control Systems. “Murray Equipment has been working with MP Pumps for more than 45 years in the agricultural industry and with the push for alternative fuels growing, we knew they could provide the right pump for that market as well. They carry a broad line of pumps, they know pumps and they can design them to meet any requirements.”

To assist its distributors in using and selling these innovative products, Total Control Systems matches up the pumps that work best with each of its meters. MP Pumps FLOMAX® 8, FLOMAX® 15, 700 Series and 300 Series all made the list.

“MP offers a good product, good price and dependable delivery,” said Murray. “There’s a big alternative fuels market out there and MP Pumps has the potential to

take a nice chunk of it. It’s really a great opportunity for all of us.”



FLOMAX® 8

FLOMAX® 15

FLOMAX® For Petroleum

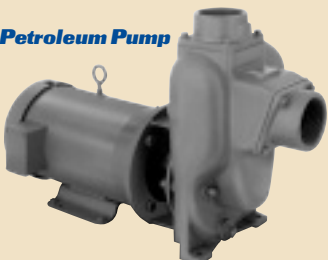
The most obvious change that current FLOMAX® customers will realize is the Petroleum self-primers will all be painted “Gray” as opposed to the standard MP “Blue”. Additional changes or modifications that were necessary for handling fuels include:

- Flange gasket material change for both intake and discharge.
- Modification of the clamp material eliminating spark possibility.
- Ductile iron material for the adapter, housing, and flanges.
- Additional construction material options for compatibility.

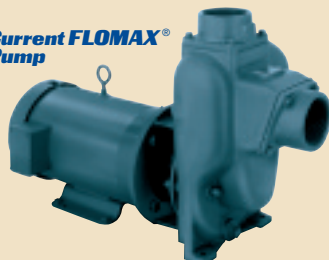
FUTURE PETROLEUM MODELS

The transfer of petroleum based products is an application that MP has ignored in the past but is committed to in the future. We have current customers that are committed to making this industry a major portion of their business and we plan to support them. You can count on MP adding straight centrifugals to the portfolio of petroleum pumps in the near future.

Petroleum Pump



Current FLOMAX® Pump



New Petroleum Brochure Is ONLINE!

See the new 6 page FLOMAX® Petroleum 4 color brochure on MP Pumps website-MPPUMPS.com. While on the site review previous PRIMER newsletters, and familiarize yourself with the MP Pumps product catalog featuring its complete product line. The website is continuously updated with new product information and allows you to contact MP Pumps with any pump engineering or manufacturing questions you may have.



mppumps.com

Petroleum Pump

Product Name
Full Name
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City
State
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New MP Petroleum Pumps Put Dealers In The Driver's Seat

You don't need the evening news to remind you. You can't stomach the thought of another politician lecturing you. And you really, really don't want to hear it from Madonna at yet another "Live (fill in the cause of your choice)" concert. You're living the result of the planet's skyrocketing demand for fuel every day and in every way. A visit to the gas station is about as much fun as a trip to the dentist—and the dentist is now cheaper. The mere thought of your home heating oil budget this winter gives you the chills.

Here's some news to cheer you up: MP's new line of Petroleum Pumps puts dealers in the driver's seat and capitalizes on the need for self-priming pumps to handle all those fossil and bio-fuels that keep the economies of the world growing.

Targeted at the bulk transfer market and designed for use in agricultural, fuel transport, aviation and other applications, the new Petroleum Pump line will be introduced this spring, according to MP Pumps Marketing Manager David Lewandowski.

"The new line puts our end users in a terrific position to capitalize on a market that's expanding very rapidly," Lewandowski adds.

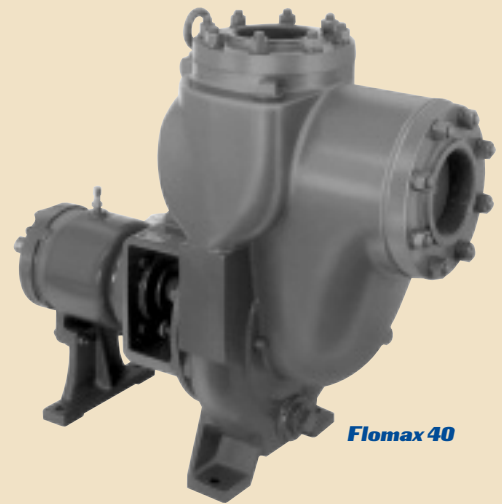
To create the new pump line, MP reengineered the popular FLOMAX® Self Priming Pump Series, modifying

materials of construction and extensively testing for material compatibility and safety. The new pump series reflect their respective applications: "PG" is for use in petroleum transfer, including gasoline, kerosene, aviation and jet fuel; "PO" is for fuel oil, biodiesel and diesel applications; "PE" is for ethanol and E85 transfer. Depending on the use, MP replaced key FLOMAX® cast iron components with ductile iron, stainless steel and other alloys that are approved for clean, non-abrasive fuel applications. By classifying various fuels into distinct segments, MP dealers can recommend a new Petroleum Pump or series of Petroleum Pumps that can handle a specific fuel group without incurring the typical additional cost associated with "one pump for all fuels"—a real competitive advantage.

Five sizes (8, 10, 15, 30, & 40) will be introduced with various drive options and mechanical seal offerings. Lewandowski says that, given the criticality of the applications, specific packaging configurations of the new Petroleum Pump line will be MP's responsibility.

CONFIGURATION

All three series will be available in five performance ranges. Pedestal mounting will be offered for all five sizes. Three performance sizes are available in a close



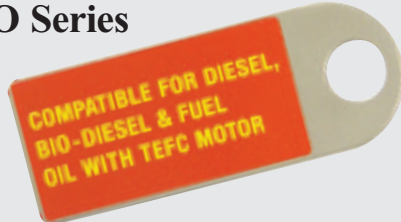
Flomax 40

coupled mounting to C Face electric motors with base plates (sizes 10 & 15). Base plates for the smaller close coupled size 8 will be available as an option.

IF YOU DON'T SEE IT...JUST ASK

To launch the product in a simple, expedient manner we started with basic models and sizes structured with the full diameter impeller. We realize that many additional impeller diameters and horsepower's are forthcoming and we will address these with our normal expedient new part number procedure. This is something that we do on a daily basis and will be carried over with the Petroleum pumps... so if you require a performance less than the full diameter... you will be accommodated. All standard impeller trims that are offered and published in the standard FLOMAX® performance section of the catalog will be available.

PO Series



Cast Iron is the standard material for the volute, flanges, adapter and impeller with a steel wear plate. As an optional material for the volute, ductile iron can be considered.

The standard self lubricated type 21 mechanical seal is equipped with a carbon rotating face, viton elastomer and stainless steel spring. The stationary face is Ni-Resist.

Electric motors will available in C Face, TEFC. The smaller PO 8 will be offered in either 56C or 145TC frame. The larger PO 10 & PO 15 are available with 184TC frame electric motors.

PG Series



Ductile Iron is the standard material for the volute, flanges, and adapter with an aluminum wear plate. The standard impeller material is cast iron with aluminum as an option.

The standard self lubricated type 2 mechanical seal is equipped with a carbon rotating face, viton elastomer and stainless steel spring. The stationary face is silicon carbide.

Electric motors will available in C Face, explosion proof class 1 group D. The smaller PG 8 will be offered in either 56C or 145TC frame. The larger PG 10 & PG 15 are available with 184TC frame electric motors.

PE Series



Ductile Iron is the standard material for the volute, flanges, and adapter with a steel wear plate. The standard impeller material is cast iron with 316 stainless steel as an option.

The standard self lubricated type 2 mechanical seal is equipped with a carbon rotating face, viton elastomer and stainless steel spring. The stationary face is silicon carbide.

Electric motors will available in C Face, explosion proof class 1 group D. The smaller PE 8 will be offered in either 56C or 145TC frame. The larger PE 10 & PE 15 are available with 184TC frame electric motors.

The Right Pump For The Right Fuels



Dave DeClerck

During the early stages of product definition and design, various fuel types were researched. A table was formed that listed a specific fuel, its flammability rating,

compatible materials, excluded materials, mechanical seal compatibility, and the corresponding electric motor requirement per flammability rating.

The purpose of this exercise was to identify the proper pump configuration for the fuel type being pumped. After final review of this compilation it was determined that all fuels of interest could be separated into 3 basic groups. From this research was born the PO series, the PG series and the PE series.

The significance is that MP addressed the basic design and compatibility parameters so that the end user can purchase specific to their application. Each pump manufactured will contain a tag identifying MP's endorsement of the pump construction for the specific fuel application.

Flammability Ratings

The NFPA (National Fire Protection Association) is a non-profit organization that rates materials for health, flammability, reactivity, and special hazards. All MSDS files carry the flammability rating from the NFPA. The flammability rating is a number from 0-4 where the flammability risk increases as the number goes up.

Flammability is the ease with which a substance will ignite, causing fire or combustion. Most flammable liquids that are pumped at standard temperature and pressure will not support a flame but the vapor with air will support combustion or flame. Basically the liquid will not burn but the vapor will with the addition of air. Factors that determine vaporization are vapor pressure and flash point.

The vapor pressure is an important parameter in determining the ease of ignition. The higher the vapor pressure, the more flammable vapor is evolved from a free liquid surface at a given temperature.

The flash point of a flammable liquid is the lowest temperature at which it can form an ignitable mixture in air. At this temperature the vapor may cease to burn when the source of ignition is removed. As the flash point temperature rises the flammability rating goes down.

NFPA Flammability Rating Number

4. Will rapidly or completely vaporize at normal atmospheric pressure and temperature, or is readily dispersed in air and will burn readily (e.g., propane). Flash point below 23°C (73°F).
3. Liquids and solids that can be ignited under almost all ambient temperature conditions (e.g., gasoline, ethanol). Flash point below 38°C (100°F) but above 23°C (73°F).
2. Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur (e.g., diesel fuel, kerosene). Flash point between 38°C (100°F) and 93°C (200°F).
1. Must be pre-heated before ignition can occur (e.g., canola oil). Flash point over 93°C (200°F).
0. Will not burn (e.g., argon).

Fuel	Flash point	Autoignition Temperature
Gasoline (petrol)	<-40°C (-40°F)	246°C (475°F)
Diesel	>62°C (143°F)	210°C (410°F)
Jet fuel	>38°C (100°F)	210°C (410°F)
Kerosene (paraffin oil)	>38-72°C (100-162°F)	220°C (428°F)
Vegetable oil (Canola)	>275°C (527°F)	365°C (690°F)

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 Dave Lewandowski, MP Pumps, 34800 Bennett Drive, Fraser, MI 48026-1686.

For more information in the United States,
call 800-563-8006

Outside the United States, call 586-293-8240



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