

Steady growth: A strategic corporate accomplishment at Grundfos Pumps

Phc News recently had the opportunity to conduct an exclusive interview with the president of Grundfos Pumps U.S., Dennis Wierzbicki. For four years, Wierzbicki has served Grundfos as director of sales. Two years ago he was named the head of U.S. operations. Wierzbicki has worked in the pump industry for more than 25 years, having held key positions with WICOR/Pentair Industries, DeZURIK, Sta-Rite and Goulds Pumps.

While many company executives wear a sober expression brought on by steadily eroded business hangover here in the U.S., the Grundfos group is rather upbeat. Grundfos' sales in North America are approximately \$450 million. The U.S. pump market alone is estimated to be \$6 billion, so the business potential for Grundfos is significant. Grundfos has had a presence in the U.S. market since 1973. Phc News was interested to learn more about the pump company. The following is a Q&A with Dennis Wierzbicki.

Phc: *It appears that Grundfos continues its steady growth here in the U.S. How do you do it? How are current economic conditions influencing business for you?*

Wierzbicki: You can't escape the news of a bailout for Wall Street, banks and the U.S. automakers, and there's no doubt the downturn in housing has affected the hydronics market, but we continue to make gains in market share. In fact, in 2008 we experienced double digit growth globally and nationally. Since our commercial market is more project-based, consumers are holding back a bit, but overall we are up 11% from last year. Growth is still happening in the commercial and industrial markets, but on the residential side I think '09 might be tough sledding; replacement business has helped — actually up 14%.

We're still projecting a 12-14% percent growth rate long term, but that could involve some swings as the economy wavers. Fortunately, we have an enormously skilled, experienced and motivated sales force and an incredible group of engineers and product development professionals — both here in the North America and in Denmark. In fact, that's one of our most exciting shifts. We now design and develop products here in North America. That begins with a robust R&D effort, all the way through to product introductions here.

We also have a great marketing

team; they've certainly helped to stake out and hold the industry leader position we now enjoy.

A lot of our growth will be tied to product development, and that's compatible with a U.S. market that's becoming increasingly more sophisticated, hydronically speaking.

Grundfos — acquisitions that add to the strong organic growth of Grundfos North America. Five years ago, Grundfos laid out a plan for growth in the North American pump market. In addition to adding sales resources and significant investments in product development and supply chain infra-

Fresno, Calif. and Mexico; our acquired facilities in Indianapolis through the Peerless Pumps acquisition, a much larger and modernized facility in Allentown, Pa., and the Paco Pumps plant in Houston, Texas also through recent acquisition. We're also planning a new North American headquarters facility in the Kansas City area. Despite the current downturn, we're investing long term in a market that's very important to us. At Grundfos, product innovation and new technology is important, and our



Dennis Wierzbicki, president of Grundfos Pumps U.S. is all business during his Phc News interview.

Our foray into the solar, geothermal and renewables markets also has pushed business.

Today, we're doing about \$450 million worth of business in North America. We plan to double that amount in the next five years.

Phc: *What is your unique vision for the company. What's happening at Grundfos at this moment... and what can we look forward to in the next 12 months?*

Wierzbicki: We continue to aggressively invest and develop new technologies in pump controls (see page 77). For example, at the AHR Expo in Chicago this month, we are releasing upgrades/improvements to our core products for the residential heating market.

We also are committed to looking at acquisitions that make sense for

structure, a selected list of acquisition targets was developed.

A great example of this is just one year after Grundfos added Peerless Pump Company to its group of companies, it acquired Yeomans Chicago Corp. (YCC) of Aurora, Ill., which specializes in pumps for waste water. The Yeomans acquisition strengthens the Grundfos product offering, specifically to the waste water segment of the market. Yeomans sells products under the Yeomans Pump, Chicago Pump and Morris Pumps brands and focuses primarily in the waste water and sewage markets.

Phc: *You're based in Olathe, Kansas, but there's more to your facilities here in North America, right?*

Wierzbicki: That's right. Here in North America, we have factories in

ability to respond and get product to where they need to be is key.

Some important questions we ask ourselves: How do more people have access to our product? How do we achieve energy efficiency? How can we help achieve access to water sources, reduce energy costs and attain sustainability?

Phc: *Please give me your thoughts about the current status of the hydronics market here in North America. Do you see problems, or opportunity?*

Wierzbicki: A key shift the industry is seeing right now is that older, traditional cast iron boilers are giving way to condensing, fully-modulating boilers and wall-hung, instantaneous hot water heaters. Heating systems are getting smaller.

Also affecting the industry techno-

logically, variable speed technology is emerging quickly and pre-assembled, pre-engineered control panel systems are becoming more sophisticated, and yet at the same time, are more appealing because of their simplicity.

Systems as a whole — not just the boiler, but the sum of all parts — are becoming a great deal more fuel efficient, and this is especially important as the market focuses on sustainability. This is happening in both the commercial and residential markets.

Among some of the challenges is the need for us to develop our distribution channel. Wholesaler consolidations have helped this in some respects, but not in others. Our goal is to grow our business with independent wholesalers and, as well, to strengthen or ties among new and

existing manufacturer's rep agencies.

Taking technology to a new level, last year we unveiled our new commercial MAGNA pump, a variable speed circulator that is arguably the world's "smartest" pump available today.

Although the MAGNA can be used for new installations, it's ideally suited for the replacement market because the performance curve for replaced pumps is so rarely known. Once it's set in the pump flanges, its 'Autoadapt' function — activated simply with the push of a button — sets it on an autopilot-like course to read the hydronic map before it, taking note of the performance level it needs to achieve, and setting itself accordingly. There's no guesswork at all. The pump meets the performance level needed and adjusts its perfor-

mance immediately to any change in system needs.

And, soon... we will have an entire line of small, residential pumps on the market that offer similar variable-speed performance.

Sure, we'd like to sell more pumps into a booming, home construction business. But what manufacturer wouldn't like to see the return of a robust new construction market? We weren't surprised by the turn of events; the signs of an implosion were there. Grundfos' diversification has helped, and by strengthening our presence in the commercial and industrial industries, we've seen growth. The next year will have its challenges, but our positioning is careful and deliberate, and we're still hard at work to stay in the lead.

Phc: You also have a growing line of hydronic components and accessories. Please explain.

Wierzbicki: In 2008, we introduced a growing line of advanced zone controls for hydronic systems. We built them with a lot of input from contractors and engineers. Models include single, three, and four expandable to six zone configurations. The units offer high-res LED display for system status and zone function, freeze protection and multi-panel linking.

We also have a broad line of hydronic components, and — on the plumbing side — we offer the Comfort System hot water recirc for retrofit application and the completely self contained UP10-16 hot water recirc pump for new construction, recognized as among the best on the market today. ■

Smart circulators: The new generation of intelligent pumps

At this year's AHR Expo in Chicago, attendees from all over the world will see a wealth of new technology that includes one of the true breakthroughs to enter the hydronic realm: smart circulators or, you could say, intelligent, pumps.

Fortunately, leading manufacturers in our industry tend toward conservatism. That is, they place great value in knowing — before products are introduced — that the technology will work reliably. But the hue and cry for this technology has been heard in the United States for a few years, especially at the encouragement of hydronics experts Dan Holohan and John Siegenthaler. News of this technology, already well established in Germany and Asia, has sharpened our interest.

The future is here, and the newest technology has already found its place in a wide range of mechanical installations. In a sense, multi-speed circulators led the way to more sophisticated constant pressure systems with variable frequency drives (VFDs). These then led to the more advanced proportional pressure control — availing pressure loss that's proportionate to flow demand within the piped system. VFDs were then integrated into the pumps and, from these, a whole new generation of intelligent pumps has sprung up. Even more recent advancements have entered the "gene pool" now, giving some pumps the ability to automatically adjust their own performance, based on the needs of the environment, or system, they're placed in.

Manufacturers introduced some very exciting new pumps at last year's AHR Expo. One of the newest and most innovative circulators to enter this rapidly evolving arena is Grundfos's MAGNA pump, a variable speed commercial circulator with a

unique capability. The installer, system engineer or end user can choose, with the simple push of its "Autoadapt" button, to activate the pump's ability to read system need, calibrating function to meet system demand at the lowest possible control curve, maximizing energy savings.

Variable speed circulators — Grundfos offers them — provide a broad range of capability, making them an ideal choice for retrofit situations where there may be little known information about what the system's original design spec was, or whether the pump was oversized.

"I spent a lot of time looking into the capabilities of the MAGNA pump," said

Dave Yates, president of F. W. Behler Inc., a full service mechanical contracting firm based in York, Pa. "It's an answer to every service man's or maintenance engineer's dream. When a pump fails, we rarely know its operating parameters. And it's common that, when a pump goes down, there's a loss of heat or no circulation as part of some important process. If a new pump could be installed quickly, and a button on it could be pushed so that the circulator calibrates its operation entirely on the system's demand and responds to changes in need, that's ideal, an answer to dreams.

"A pump like that offers a speedy replacement, with reliability built in

like never before," added Yates. "Variable speed operation, based on system demand, will lengthen the life of the pump and save enormous amounts of energy for the end user. It will reduce the installation cost substantially, as well, because the installer won't have to reverse-engineer the system to gauge exactly what it calls for."

"We respond to what the market calls for. When design engineers and mechanical contractors ask for new technology to meet specific needs like those Dave Yates has mentioned — and especially when recognized experts like John Siegenthaler champion the cause — we've got to be on (Turn Pumps, page 78.)

The Grundfos MAGNA automatically adapts to system needs

MAGNA, the newest wet rotor circulator by Grundfos, now enters North America after years of duty in Europe, where it won all A ratings for energy conservation and reliability. Magna's broad performance range, with three cast iron and three stainless steel models now available, covers flows from 10 to 170 gpm, making it an ideal choice for a wide range of commercial retrofit applications and for many hydronic, radiant heat and snowmelt uses.

The circulator's patented Autoadapt control function automatically adjusts performance to meet demand and save energy. It "learns" what works best for the system, continually changing its settings to provide the temperature and comfort required. This translates to substantial savings on running costs.

MAGNA pumps exceed the performance of simpler, proportional-pressure circulators. Though proportional pressure pumps operate with a higher minimum head (pressure), the Magna retains a very low "foot point" at 5 feet. The factory-set curve already saves more energy than an ordinary proportional pressure setting. As flow demand increases, the pump pressure follows the Autoadapt performance setting until the pump operates on the maximum curve. At that point it continues downwards until it reaches the required flow. When flow is



reduced, the MAGNA learns what the system needs and sets a new, lower pump speed. It analyzes system conditions and adjusts its performance accordingly.

MAGNA pumps are virtually maintenance free. The pump is oilless and sealless and does not require a fan, because it's cooled and lubricated by the water it pumps. Flange connections are designed for easy replacements.

Also, bus communication permits use of the pumps with building management systems or with data collection features offered by GENIBus and LONWorks.

For more information, visit www.grundfos.com/Magna.

Pumps

(Continued from page 77.)

our toes,” said Joe Rice, product specialist for Grundfos Pumps.

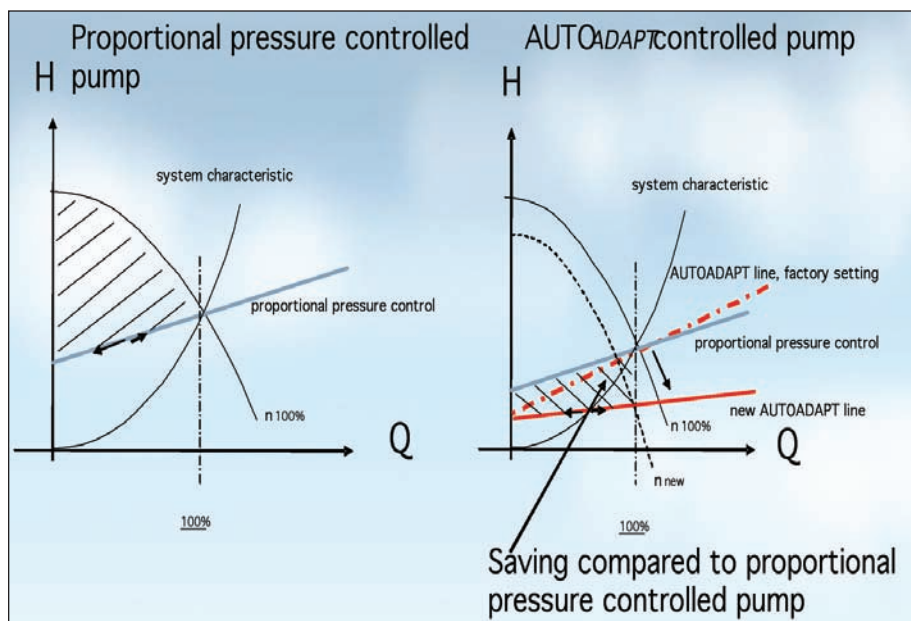
“In a heating system, the primary variable is flow to carry and deliver the requisite Btu,” added Rice. “When compared to a basic constant speed pump, or even constant pressure control, proportional pressure controlled pumps seamlessly deliver higher flow at times of higher Btu demand. At lower heat demand and lower flow a proportional pressure pump can reduce head without any detriment; this allows for much greater energy savings. Essentially, proportional pressure control provides friction loss

snowmelt system is activated.

Suddenly, the system calls for the movement of a large volume of fluid that it had not “known about.” Yet, the circulator’s range of performance easily covers the new ground and welcomes the need to move warmed fluids into the snowmelt loops. Mission accomplished — and with no human interaction.

When the storm leaves, leaving behind only gently steaming concrete surfaces above the snowmelt tubing, controls deactivate the snowmelt zones, and the pump resumes its role as a supplier of inside radiant heat.

How does it work? The new Autoadapt function immediately defaults to a proportional pressure curve at a point on the curve at 50 per-



The circulator’s patented Autoadapt control function automatically adjusts performance to meet demand and save energy.

compensation. This is most advantageous in closed loop systems, where friction loss is the primary component of total head.”

According to Rice, Grundfos’s new Magna has an even more advanced form of proportional pressure — a programmed mode that continuously alters pump performance based on real-time system need. New pumps “know” their own pump and power characteristics and have the capability to continuously monitor their own performance, with no transducers or external sensors. They are designed to collect and use this information, altering performance instantaneously. With that sort of intelligence on the front end, a built-in VFD then drives variable speed performance based on the real-time system need.

Say, for instance, that the pump was installed as the main hydronic circulator at a warehouse facility that feeds 10 radiant heat zones inside and two snowmelt zones outside — an access ramp and a driveway-sidewalk area. When the pump was installed, only the interior radiant heat zones were operational. But, weeks later, a storm front moves in, and the

cent of head capability. The built-in control then seeks out the need for greater or lesser need for flow within the piped system. This starts a mode of continuous monitoring so that, as the system opens more zones and the need for more flow, creating the need for more heat and more head loss, it eventually hits its maximum speed curve.

But it also recognizes that system demand does not match the original (50%) setpoint. As pump operation falls down that curve, with lower head, it calculates a new proportional pressure control line to meet the new setpoint, charting a path quickly along that new line of operation.

“Which, again, further reduces head pressure and, in doing so, saves more energy. These new generation circulators have energy savings of 55%, compared to non-controlled pumps and 35%, compared to existing controlled circulators,” said Rice. “We see this new family of pumps as the best solution for the replacement market. New, smaller residential and light commercial circs are on the way, adding greater breadth to what system designers and installers will have at their disposal to solve a broader range of challenges.” ■

Executive’s Club

(Continued from page 18)

and receive substantial relief from their electric utility bill. I am confident that his system will appeal to the social conscientiousness we all have to preserve, and do it in a way that will not negatively affect our quality of life. To achieve the environmental benefits of freewatt® does not require you to turn off appliances, drive a compact car or move into a smaller home but just requires one to have a freewatt® installed in their home in place of the existing heating system. One thousand installed freewatt systems is the equivalent of removing 660 cars from the road — that’s a lot!

Does this show the company’s dedication to green building?

Paparone: Yes, we do believe green is the right thing to do, not only from an environmental standpoint, but also from a business standpoint. Our company has a long history of innovative, energy efficient products including full lines of boilers and furnaces with EnergyStar rating.

Now freewatt® takes the heating industry to the next level of environmental friendliness and is the first in what will be a series of products in years to come. We would expect that this level of reduced carbon footprint, i.e., 66% less than traditional systems, will become the new standard. In fact, EnergyStar will give way to a new EPA rating, namely “Climate Choice,” which designates products that are most environmentally friendly. Our freewatt® Mchp system will be among the initial recipients of this designation.

Our commitment to “green building” also extends to all modifications in our facilities going forward as well as our approach to marketing and other materials we use to conduct business.

Can you talk about the quality and support of the product?

Paparone: ECR has been an ISO 9001 certified company for many years and understands that exceptional quality in products and services provided to our customers is our greatest responsibility. From supplier qualification, first piece inspections, auditing and continuous oversight we challenge each ECR employee to always improve our products, processes and services.

What is ECR’s commitment to the community?

Paparone: ECR was founded in Utica, N.Y. and Dunkirk, N.Y., respectively and has never left its roots; ECR has remained loyal to the communities it serves. To abandon communities that depend on you when they have the most need is just not right in our view. Hundreds of community and local charitable

organizations are beneficiaries of the company’s spirit of giving and also, the kindness of the Reed family who have been exemplarily contributors to the community with time, money and all types of support. Probably the most well known community event is the 15K Boilermaker race, which was founded by Earle Reed and has grown to the largest, most famous 15K races in the country over the last 35 years. Over 6,000 Volunteers participate in this major event which gathers over 11,000 runners each year in July with week long festivities for everyone. It is a spectacular event and I would encourage anyone who enjoys running to participate.

In December, our commitment to our employees, and to the New York communities we serve, was reinforced with our announcement of our new capital investment in our Dunkirk and Utica facilities, respectively for 2009, the largest such investment in our history. The investment includes construction of a state-of-the-art laboratory facility in Utica, and in keeping with our commitment to “green,” the energy from the lab testing equipment will be used to heat the facility. There is no question ECR intends to stay and succeed in N.Y. State.

Where do you see the company in five to 10 years?

Paparone: To answer that let’s go back to our vision, namely to become a recognized leader in heating and air conditioning products and services that have the most positive impact on the environment, society and customers.

In five to 10 years then, we would expect ECR to have become a well-known force and a brand that is leading the revolution of our heating and air conditioning industry to green, environmentally friendly products. We would expect our growth to be very high and, as a much larger company, to have created opportunities for our employees and communities to achieve both business and personal growth. The breadth of product line and services will include development of new “smart” appliances and new categories of value-added services that help consumers enjoy maximum performance from the appliances. The ultimate compliment is to have consumers recognize ECR as a company they admire and a company who they seek out for products and services.

We realize our goals are ambitious but I believe that without ambition few things are achieved. Our success will be facilitated by the work and dedication of our employees and our partners, including suppliers, distributors and dealers. I have no doubt we will achieve our goals and approach our vision. ■