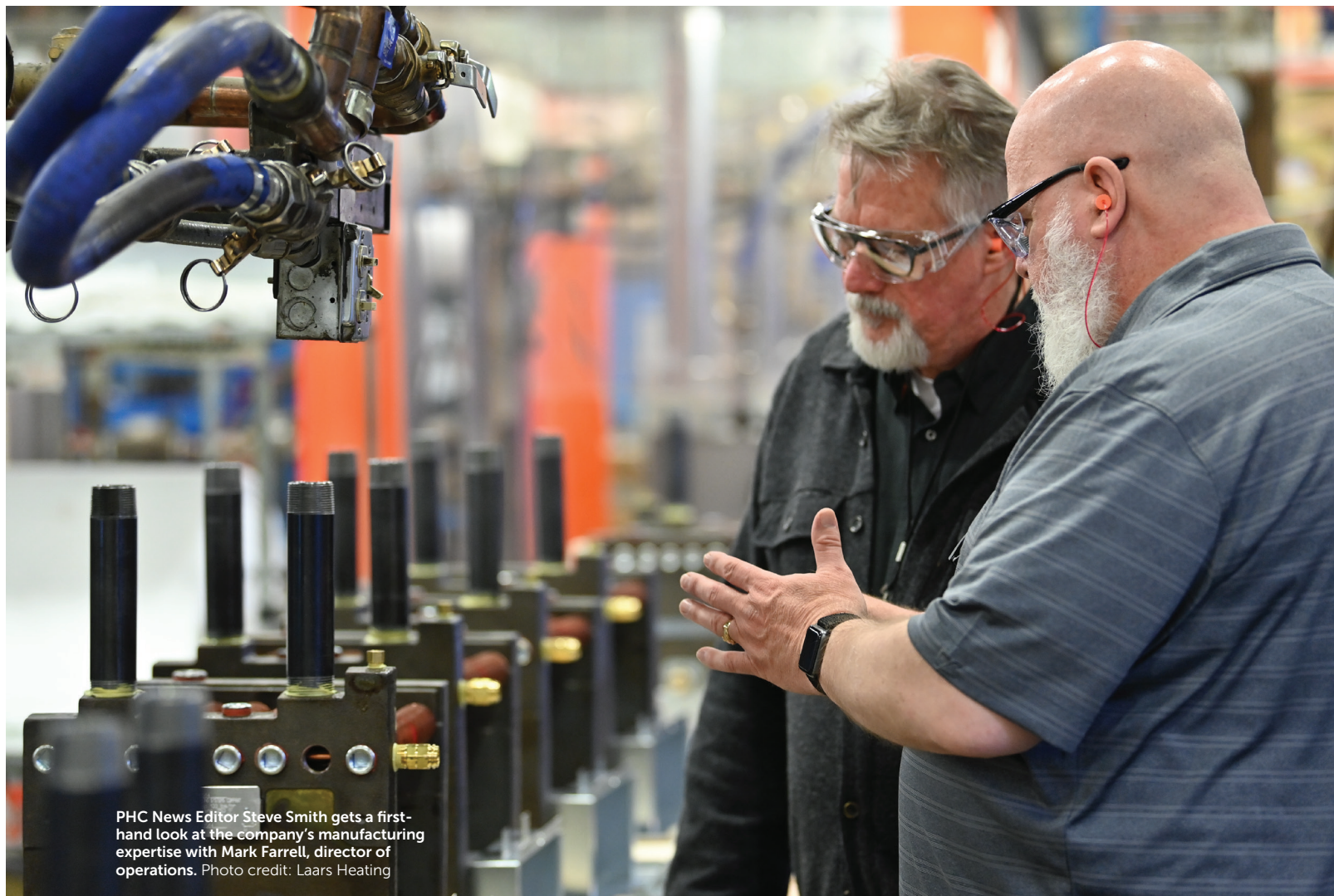




LAARS MARKS 75 YEARS IN BUSINESS



PHC News Editor Steve Smith gets a first-hand look at the company's manufacturing expertise with Mark Farrell, director of operations. Photo credit: Laars Heating

With a strong reputation for product innovation and customer support, Laars has evolved from the days of atmospheric boilers to electrified heat pumps.

By Steve Smith

When we met Domingo Mohedano, vice president and general manager of Laars Heating Systems, based in Rochester, N.H., he had a few items on his mind to tell us.

Innovative products and manufacturing excellence were a natural two.

"For many years, Laars focused on the commercial side

of heating," Mohedano says, "but we've also expanded our residential lines with condensing wall-hung boilers and traditional floor models."

Laars has steadily expanded its product line of hydronics and water heaters over the years, in particular, following Bradford's acquisition of the company 18 years ago. Just how "in particular?" According to a *PHC News* story from 2009, Laars had introduced 20 new products in just four years post-acquisition.

And things haven't slowed down since then. Just last September, Laars introduced its new FT Series light commercial boilers available in 301 and 399 MBH sizes.

Currently, Laars is busy readying its introduction of the Laars E-Therm, the company's first commercial heat pump water heater. Anyone attending the AHR Expo earlier this year would have seen the new product on display at the Laars booth.

According to the company, the Laars E-Therm is a fully packaged, commercial air-to-water heat pump water heater with a nominal heating capacity of 325,000 Btu/hr. (95kW) and a COP of 4 at AHRI Standard 1300 test conditions. The Laars E-Therm uses R744 (CO₂), a natural refrigerant, which allows the unit to operate equally well at freezing or warm incoming air temperatures, and to easily output sanitizing hot water temperatures of 180 degrees.

And while "electrify everything" seems to be a common phrase these days, Laars was going electric before electric was cool. About five years ago, we remember being puzzled by a commercial electric boiler Laars had on display at the AHR Expo. Who'd want to rely on electricity to run heating equipment? As it turned out, plenty of property owners and homeowners would if the equipment had the proper technology. (And for the record, Laars has offered commercial electric water heaters for decades.)

Even long before its deal with Bradford White, Laars had a great reputation for product development by taking what it learned from its beginnings in the pool heating market and expanding its high velocity flow system into the commercial water heating market in the 1960s. Laars eventually diversified into the residential hydronics market and in the 1990s developed the Rheos+, one of the industry's first high-efficiency condensing boilers.

"Today, we have a large product

offering for space and radiant floor heating, volume water heating for commercial and industrial markets powered by fossil fuels to now electricity." Mohedano adds. "Our equipment has evolved over the years from copper finned tube to stainless steel. And we offer a very wide variety of output range — from 50,000 Btu to 5 million Btu."

Meanwhile, Laars has continued to modernize its manufacturing expertise. Other major improvements include a new R&D lab; a warehouse expansion, new distribution center and contractor training center, which have resulted in big improvements for engineering, supply, sales and education.

Yet Mohedano's No. 1 concern is good old-fashioned customer support.

"If you look back on our long company history," Mohedano explains, "the key has always been to stay relevant with our customers. We stay close to our customers to understand their applications and needs and, as a result, we invest heavily in engineering and research and development to create our products. Plus, we invest in training our customers to help them every step of the way to install and service Laars products."

Mohedano adds that staying relevant to its contractor customers extends just as much to the company's suppliers and employees.

"Everyone is a partner," he explains. "Unfortunately, I've seen companies not operate that way. And one reason I joined Laars is that it was clear that's not the way we do it here. I really identify with thinking of customers, suppliers and employees as a three-legged stool. There's no way to do it without all three. Put a plan together for all involved, make sure that everyone can succeed in their own ways



Laars is well known for its commitment to training. The live-fire training center includes a 70-seat tiered classroom that can be divided into two 35-seat classrooms. Photo credit: Laars Heating Systems

along the way and Laars can deliver the results."

History of Laars

Mohedano has been at the helm of Laars for only one of the company's 75 years. So let's take a look back at the company's rich history before we double back for more on what Laars looks like today.

In all our years covering the PHCP industry, we never stopped to think about the meaning behind the Laars name, figuring it must be the founder's last name. Close. Avy Miller founded Laars Engineering in 1948 and named the company using the first letters of the first names of his wife, Roberta; their three daughters, Lindsey, Andrea and Stephanie; and rounding it out with his own, too.

During WWII, Miller, an engineer by training, was commissioned by the U.S. government to convert a civilian gas appliance company into a manufacturing plant that made generators for anti-aircraft guns and sheet metal shell casings for howitzers.

After the war, Miller put his engineering knowledge to work on the increasingly popular swimming pool market that followed the building boom after WWII, at least in SoCal. Miller pioneered the then-novel idea of quickly heating water through a finned copper tube heat exchanger. Thanks to low-mass copper tubing, Miller found

he could heat water nine times faster than with traditional cast-iron.

The technique he perfected also had another huge benefit – virtually eliminating the scaling and electrolytic corrosion that shortened the life of the cast-iron and steel tube boilers used for commercial heating and hot water supply.

As a result, Miller broadened his pool heating business into the much larger commercial water heating market. By the 1960s, Laars heating equipment found applications in commercial laundry facilities, restaurants, car washes and apartment buildings. Later, Laars further diversified into the residential boiler market.

One of the biggest changes in those early years for Laars came in 1966 when it was acquired by Teledyne Inc., where it remained until 1999.

The Teledyne acquisition brought investment in plant automation, which helped Laars respond rapidly to the demands of the marketplace through the 1970s and 1980s. Although a number of other copper tube boilers were available at the time, Laars remained the dominant force, both in reputation and sales volume.

Also, the company's current manufacturing and corporate headquarters in Rochester, N.H., was opened in 1989. And in the 1990s, the company acquired Trianco-Heatmaker, which helped Laars on the path to the condensing boiler and water heater markets, as well as Jandy Industries, which rounded out the company's heritage in pool heating with all the controls, valves, lighting, and other accessories that it didn't make.

Teledyne eventually merged with another conglomerate, becoming Allegheny Teledyne Industries.

After some reorganization, ATI operated with three segments: Aerospace and Electronics, Specialty Metals, and Consumer Products. By 1999, however, Allegheny Teledyne spun off Teledyne Laars and Teledyne Waterpik becoming the new Waterpik

Technologies, Inc.

During this time Laars still continued to innovate and expand existing lines all while taking care of its contractor base. They remained steadfast to their core value of providing the kind of customer support Laars has always been known for.

Bradford White Acquisition

Clearly, a major event for Laars, not to mention the plumbing and heating industry overall, came in 2005 when Bradford White bought Laars from Waterpik Technologies for \$24.3 million.

The deal came on the heels of two other Bradford White acquisitions — Niles Steel Tank, a manufacturer of large storage vessels and Aero Environmental, a manufacturer of water heaters and burners — with all the companies going on to develop more products and services for the professional plumbing and heating installer.

"It made a huge difference in daily operations at Laars," says Tom Gervais, senior director of regulatory affairs. "Bradford White is so customer focused and run by such a talented sales team. Plus, they knew what water heaters and boilers were, and they knew how our products were sold."

In short order, Laars increased its manufacturing and engineering capacity in a number of different ways, and further emphasized industry training.

Let's take a look at these two:

Manufacturing Expertise: To hear Mark Farrell, director of operations, tell it, all his wishes for manufacturing operations came true after 2005.

"On the first day after Bradford White bought Laars," Farrell says, "they asked me what I needed to be successful. I said, the first thing we needed to do was to expand our receiving department so we could better stock materials for manufacturing. They said, if you need it, get it done. No questions asked."

Soon the team at Laars turned their attention to the factory floor and

obtained more investment dollars for advanced manufacturing equipment such as robotic welding, laser cutting, automated sheet metal punch and forming equipment.

Standardization was the key for most of this new needed machinery.

"Previously, we would basically buy the least expensive model that was available," Farrell adds. "At one time I had nine different variants of the same type of machine from six different vendors, which made it very difficult to stay on top of the maintenance because of all the differences between makes and models."

After shopping around, which included at least one overseas trip to a manufacturer, Farrell settled on one vendor and says that within four years after the Bradford White acquisition, he got about \$12 million worth of new machines.

The new equipment also comes with new technology that allows authorized staff, whether that be from Laars or the vendor, to tap into the internet to monitor machinery health. In most cases, Farrell says any issues identified can be typically rectified in-house. But in other cases, he can rely on quick dispatch from the manufacturer with a local tech. Farrell added, "The goal with our real time monitoring is to maximize machinery up-time so we can meet our commitments to our customers."

Perhaps, one of the biggest recent additions to the Laars manufacturing lineup is a sheet metal tower that can be loaded up for "lights out" operation, meaning when the factory is empty for the night, the tower can load presses and lasers to cut material needed for the next day's shift.

In all, Laars expanded its Rochester facility by 2007 to include larger warehouse and manufacturing space, and a year later consolidated its manufacturing operations to Rochester.

Also, in order to accelerate product development, Laars opened in 2014 a 7,000-square-foot R&D Lab for design and testing purposes. The lab includes

15 indoor test stations, three outdoor test stations and an environmental chamber for accurate efficiency testing (up to 30 million Btu), all linked with latest data acquisition equipment.

Laars engineers use the lab for new product development, and to conduct safety and functional tests.

Finally, in 2017 to better manage inventory and further open up the manufacturing process, a new 30,000-square-foot distribution center was built across from the main Rochester campus.

Training: The company's training center, the Laars Customer Center, was opened in 2011. The first floor of the 12,800-square-foot two-story addition to the Rochester facility consists of a main lobby, a 70-seat tiered classroom that can be divided into two 35-seat classrooms, a cafe that can seat up to 70 and a large patio adjacent to the cafe.

The center features radiant heat running through the lobby and cafe. Outside, a snowmelt system keeps the sidewalks and patio clear during winter.

The big draw for contractors, engineers and wholesalers looking for training is that each of the classrooms has two bays to provide live fire to Laars boilers or water heaters on display. The classroom ties into a cooling loop to the factory floor that allows for equipment up to 1 million BTU to operate in the front of the class.

Each classroom has recently been upgraded to include large high definition 4K televisions used for standard presentations that tie into ceiling-mounted HD cameras to pan and zoom into Laars trainers or equipment. While video conference technology for live streaming as well as the ability to record and post sessions for later viewing all came in handy during COVID, Laars was offering online coursework long before the pandemic.

The center had been in the works for

years prior to its opening and is a far cry from the old days when Laars relied on renting out local hotel conference centers for training or using smaller meeting space in the Rochester facility.

Over the years, Laars has built up other options for training outside of the center's classrooms. For example, we've written in the past about how Laars has used mobile training vehicles to



travel around to various locations. The traveling show now includes one trailer for commercial products and two others for residential products.

Laars also offers a host of online training courses on demand through its Laars Academy. In addition, the company's network of manufacturers reps offers additional training across the country in partnership with its distributors.

During our visit to Laars, the company was in the process of a soft launch of incorporating training into its Laars Pro loyalty program to a select audience of residential installers.

"We want to use the program not just to have contractors simply buy our products," says Dru Bussiere, marketing program specialist, "but to partner with contractors to help them grow their businesses."

Growth Mindset

Mohedano joined Laars in September 2022 and his responsibilities encompass the overall operation of Laars as well as the company's strategic direction and financial results. He succeeded Rich Simons, who has since moved to serving as senior vice president of product strategy and product marketing at Bradford White.

Mohedano most recently served in a leadership position at IDEMIA, a payment card manufacturer in Exton, Pa., where he was responsible for P&L and managing all aspects of the manufacturing operation, including continuous improvement, quality, environmental health and safety, supply chain, engineering and human resources.

Prior to IDEMIA, Mohedano served in multiple leadership and strategic capacities for Rheem Manufacturing and Cummins, Inc. He is a graduate of the European School of Management in Seville, Spain, and received an MBA at Southeastern Louisiana University.

Mohedano brings a strong work ethic to the job as a result of growing up in a family that operated a business in Spain.

"My parents had retail stores," Mohedano adds, "so I grew up in that environment where you're just always working. The rest of my friends may have been on vacation during the summers, but we weren't. So, with that, I think I built up a committed approach to business."

Mohedano told us while he wasn't looking for a new opportunity when a recruiter called him, the more he learned about Laars the more he liked

BUSINESS

the chance to join. He explained that this position gave him an opportunity “to have a larger scope” of running a business and build on his past experience of running different departments within a company.

“In addition, there’s a real growth mindset at Laars,” he adds, “and we have tremendous people throughout the company that I have already learned so much from.”

Mohedano will need that growth mindset since he shared with us that Laars has a very aggressive growth plan over the course of the next five years.

While there’s plenty of other

heating products in the mix that Laars brings to the market, Mohedano is banking on the relatively untapped potential of electric products, such as the Laars E-Therm, particularly considering some of the company’s old-school atmospheric boilers are bound to be regulated out of the market.

“We certainly don’t see high efficiency gas-fired equipment going away any time soon,” Mohedano explains. “But there’s a demand from property owners and homeowners for carbon-cutting electric products.”

It’s also not one or other.

“We do see hybrid systems of

combined boilers and heat pumps as a reasonable and viable solution,” he adds. “In many cases, it’s really the best of both worlds allowing for heat pump usage most of the year, and a high efficiency gas boiler or electric resistive heater usage during peak demands. We’re very bullish on this approach and it’s a natural extension of our product portfolio.”

Laars definitely does have other expansion plans that, for now anyway, it’s keeping under wraps. We were shown an overhead map of the campus that showed about an 8-acre parcel of empty land that Laars recently purchased for its future growth. ●

Giving Back

During our meeting, Domingo Mohedano, vice president and general manager of Laars Heating Systems, also outlined another important item for us: employee development.

“We have taken several of our employees through different training on sales inventory and operations planning,” he adds, “and we’re also training on leadership.”

But in this day and age of labor shortages for all types of industries, whether that be makers of product or installers of product, Mohedano also says he’s “working on tomorrow” with local schools to introduce a new generation of workers to manufacturing.

Recently, students from Spaulding High School, Rochester, N.H., along with the help of Laars employees took part in the WorkReadyNH, a free job readiness course offered through the state’s community college system.

Students getting ready to enter the workforce can build job skills through the course, such as effective communication, team building, problem solving and decision-making.

For this class, seven Spaulding seniors gathered for three hours every Tuesday and Thursday afternoon over the course of a few months. Laars’ employees shared their workforce experiences and helped prepare the students for the transition from school to work.

Also, from talking with Mark Farrell, director of operations, we learned that Laars is

helping out Spaulding and other schools in additional ways.

“Spaulding provides CTE programs at its Creteau Technology Center,” Farrell adds. “There’s a number of programs offered, one of which is an HVAC program that we want to help.”

Meanwhile, the Great Bay Community College, Rochester, N.H., also offers a welding program.

“We’re in talks with them about providing the program with welding wire, gases and other supplies they’ll need to teach the craft,” Farrell says. “And they’ve already recommended Laars to some of their students for employment opportunities.”

In addition, Laars hosts field trips for the local grade schools. Fifth graders from Chamberlain Street School recently took a tour of Laars’ factory and saw all the steps of a manufacturing process from flat sheet metal to fabrication and from assembly to shipping. They also learned about work safety and teamwork.

Afterward, Mark Campbell, principal at the school shared with Laars feedback from his students: “I’ve had a huge number of students tell me that was the ‘coolest’ field trip they’ve had and they are still talking about it a week later, including some who talked about wanting to work there when they get older.”

The fifth graders also shared the experience with the fourth graders.

“The fourth graders were so ‘stoked’ about it,” Campbell added, “they wanted to know if they will be able to go to Laars next year.”

In addition, Laars encourages its employees to volunteer in community outreach events.

“At Laars we believe giving back to the community is an important aspect of all our jobs,” says Laurie Bridges, HR manager. “It’s a rewarding way to build teamwork across the company while helping those in need. The non-profit agencies that we have worked with have been so appreciative of the time we’ve given to them and our employees love being able to help. It’s a win-win for all!”

Typically, groups of eight to 10 volunteers will spend time helping a local non-profit with any number of needs. Some recent examples including the following:

- **MONARCH SCHOOL OF NEW ENGLAND** is a day school that serves children with significant physical, medical, developmental, behavioral, and emotional disabilities from ages 5-22. Laars volunteers helped stain its playground equipment and paint interior spaces.

- **CORNERSTONE VNA** is a nonprofit organization providing home, health and hospice care to people of all ages. Laars volunteers helped by undertaking their spring season clean up and preparation of their Memorial Garden with mulching, pruning, spreading pebbles and general gardening.

- **GERRY’S FOOD PANTRY**, Rochester N.H. Laars volunteers helped with light renovation of their store area by installing new shelving in their grocery area and painting interior spaces to give the store a fresh new look.