

TODAY'S BOILER

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LIMITING LITIGATION

When it comes to hydrogen blending, boiler manufacturers should consider what changes need to be made to product warnings and engage legal counsel as appropriate to assist with warnings and confidentiality.



Examining the Partnership Between Superior Boiler & Nationwide Boiler Inc.

Under a new agreement, Nationwide Boiler will lead the marketing and sales activity of watertube boilers with the DFW design incorporated in Superior's O-type and Ds-type boilers for rental boiler applications and other joint projects worldwide.

By Herb Woerpel



FIGURE 1. The DFW boiler. Images courtesy of Superior Boiler and Nationwide Boiler Inc.

This summer, two longtime ABMA members, Superior Boiler and Nationwide Boiler Inc., made headlines by announcing a partnership agreement to jointly market and sell certain watertube boilers using Superior's recently patented DFW design. Under the agreement, NBI will lead the marketing and sales activity of watertube boilers with the DFW design incorporated in Superior's O-type and Ds-type boilers for rental boiler applications and other joint projects worldwide. Superior and Nationwide will jointly promote sales

of all watertube boilers utilizing the DFW design within California, Nevada, Oregon, Washington, and the gulf coast of Texas, where Nationwide Boiler is Superior's long-standing authorized sales representative.

This Q&A examines that agreement, the benefits of the manufacturers' ongoing partnership, and much more.

Today's Boiler: First, please take a second to introduce yourselves and your companies to those who are reading this.



Doug Wright: I'm Doug Wright, president and CEO of Superior Boiler, which is located in Hutchinson, Kansas. We're a full-line firetube and watertube boiler and boiler room

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equipment manufacturer. Superior has been in business since 1917.



Larry Day: I'm Larry Day, president and CEO of Nationwide Boiler Inc. With headquarters in Fremont, California, Nationwide Boiler is a rental boiler supplier that also offers new and used boilers for sale, custom control systems, and the CataStak™ SCR for 2.5-ppm NOx compliance.

Today's Boiler: Tell us about the partnership between the two companies. How long have you been working together and what have the companies already accomplished through this partnership?

Wright: Superior Boiler and Nationwide Boiler have done business together in various capacities for almost 40 years. Within the past 10 years, Nationwide Boiler has become Superior's exclusive sales representative on the West Coast. Nationwide also utilizes Superior's manufacturing expertise to provide firetube and watertube boilers for NBI's rental fleet.

Over the years, Superior and NBI have jointly supported numerous boiler projects, including some where specially designed and engineered systems were needed to meet individual customer requirements.

Today's Boiler: The companies recently announced that Nationwide has formalized a partnership with Superior to market and sell Superior's newly patented DFW boiler design. First off, can you introduce us to the DFW boiler design? What makes it so revolutionary?

Wright: The recently announced partnership agreement is the culmination of a joint effort to optimize boiler operating performance through engineering design advancement. The DFW design was first con-



FIGURE 1. A 120,000-pound-per-hour DFW boiler sale that was completed last year. The boiler shown here was lifted off the trailer to be set in place upon delivery.



FIGURE 2. One of Nationwide's 100,000-pound-per-hour, 399-psig, trailer-mounted rental boilers. The company now has six of these units in its rental fleet.

ceived and developed by Superior's engineering team to help address the ongoing challenge of how to maximize boiler performance in as small a footprint as possible.

By incorporating some unique and advanced tube configurations within the boiler furnace area, we were able to generate sizeable performance improvements and overall efficiency as well. NBI reviewed and felt comfortable putting the DFW design into its fleet, and the design has been successfully demonstrated in the field.

Day: The DFW design for watertube boilers allows for more radiant heat versus convective heat transfer by adding significant heating surface

within the boiler's furnace, which has several positive benefits, including an increase in capacity in approximately the same overall footprint; a lower heat release rate within the furnace, which reduces heat duty on the tubes; lower overall temperature within the furnace, which helps contribute to lower thermal NOx; and a design that allows the boiler to react or ramp up quickly to steam load or demand.

Today's Boiler: How has it been received, and has it evolved at all since its inception? Can you point to any key applications where it's been used?

Wright: The DFW design has been installed and used in a fixed-location



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— Doug Wright, president and CEO, Superior Boiler

customer site. Normally, that site would have required a larger footprint, but the DFW design allowed NBI to meet customers' needs in a smaller footprint.

Day: Our first design was to take the overall footprint of an 80,000-pound-per-hour boiler and achieve 100,000 pounds per hour from it, so we were able to achieve about a 25% increase in capacity. We've since applied this concept to three other sizes of boilers in our rental fleet. In the example Doug mentioned, a customer of ours was looking to replace a 50,000-pound-per-hour boiler with a 100,000-pound-per-hour boiler; however, the existing boiler room was space-limited, and a normal 100,000-pound-per-hour boiler would not fit. The compactness of the DFW allowed the existing room to accommodate the larger-capacity DFW boiler, saving the customer hundreds of thousands of dollars in new building costs.

Today's Boiler: What makes this unit, in particular, so beneficial to the rental market?

Day: Transportability is critical to the boiler rental business. First, a rental boiler needs to be highway shippable, at a reasonable cost and timeframe, which means it has to meet over-the-road height and width shipping requirements. Often, fast delivery is critical, because many rental customers are in dire need of the unit. The delivery time needs to be days, not weeks, and remain cost-effective. The DFW boiler meets those criteria.

Today's Boiler: Tell us about Nationwide's decision to gain exclusive rights to market and sell the unit?

Wright: We felt comfortable partnering with Nationwide Boiler based

upon our years of experience working together as a sales rep. and end customer. We believe NBI is well suited to help market and sell the product jointly with Superior.

Day: The DFW design gives us a competitive edge over our rental boiler competition by offering a more compact unit, which greatly reduces delivery time and freight cost. Now in our 55th year of business, Nationwide Boiler also has a long history of supplying large package boilers to industrial facilities worldwide, making us an ideal candidate to take this technology global.

Today's Boiler: It's always nice to see two companies in the same space play well together. Seeing that this partnership is a win-win for both parties, is this a model others in the boiler marketplace should consider?

Wright: I can only speak for our agreement and our relationship with Nationwide Boiler, but we feel like this is definitely a plus for the marketplace and, ultimately, for our end customers.

Day: Yes, it's been a great relationship working together to develop a "better mousetrap" that should increase the competitiveness and overall sales for both companies. The more successful our rental business, the more units we will be buying from Superior.

Today's Boiler: It's hard to believe, but we're nearly three-quarters of the way through 2022 already. Care to mention anything else exciting that's occurred for your companies throughout the first eight months of the year?

Wright: From Superior's side, we introduced the Cheyenne high-efficiency condensing boiler, and we're encouraged about the prospects for that boiler model in the marketplace.

We're also seeing more requests for boiler package systems utilizing hydrogen as a fuel source.

Day: The decarbonization of our industry is already happening, creating more interest in alternative fuels, such as biofuels and hydrogen firing, designed to reduce carbon emissions. Electric boilers and industrial heat pumps are also gaining traction.

Today's Boiler: What are you most looking forward to in 2023?

Wright: Hopefully fewer supply chain disruptions and issues along with lower inflation — the same issues all of us are facing. But, we'll continue to strive to provide a quality product our customers can be proud of that helps them in their particular operations.

Day: Finally seeing our efforts over the past several years come to fruition in terms of applying the DFW designs to more applications and developing new sales, especially for emerging technologies and alternative fuels.

Today's Boiler: And, in conclusion, any parting advice for the boiler industry?

Wright: The industry continues to be relevant in the ever-changing energy environment, and I have no doubt that all of us will evolve to where our customers want us to be.

Day: You have to stay ahead of the curve and keep innovating so you're not caught off guard with older technology that's now out of vogue. That is the way we think at Nationwide Boiler. The way things are headed, the overall carbon footprint you offer will be more important than just price. TB

By Herb Woerpel, editor-in-chief, Today's Boiler