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NORA Throws Support Behind New Technology

Dornback Oil Fired Condensing Furnace's Efficiency Rates High

THE NATIONAL OILHEAT RESEARCH Alliance (NORA) is making good on its promise to foster modern heating oil technology.

Thanks in part to a grant from NORA, heating oil dealers will be able to purchase an oil-fired condensing furnace with a combustion efficiency approaching 98 percent, on par with some of the most energy efficient natural gas furnaces on the market.

Members of the NORA board recently toured the production facility of Dornback in Cleveland, Ohio for a glimpse into Oilheat's future.

The firm, which also markets furnaces under the Dornback brand, has been redesigning a condensing furnace model over the last few years (the furnace is based on an oil-fired model produced in the 1980s).



The Dornback oil-fired condensing furnace features simple standard time proven controls, spin-off fuel oil filter and positive venting flue.



NORA President John Huber (left) and NORA First Vice Chairman Don Allen review Dornback condensing oil-fired furnace during their recent visit to the Ohio plant.

Once a prototype was in place, Dornback was able to secure CSA approval and bring the product to market with the assistance of a NORA grant.

At press time, Dornback was in the process of obtaining UL approval.

The system has been running through cycle tests equivalent to two years worth of use at the Ohio plant.

Dornback Vice President of Sales Jerry Stimson reports the system passed the test.

"Based on the test results, we're ready to go full bore with production," said Stimson. The first wave of furnace shipments was being prepared for release later this month.

The oil-fired condensing furnace will utilize three burners: Riello, Beckett and Dornback own INTERburner.

The oil-fired condensing furnace is available in residential and commer-

cial BTU output ranges (50,000 BTUs and up). The twin commercial size models of the condensing oil-fired furnace features two-stage capability. The system can also be set up for cooling applications.

Stimson sees three markets where the condensing furnace would be a perfect fit: light commercial, new construction and retrofits.

"If you have a retrofit of an aging oil furnace that has a deteriorating chimney, you can direct vent our furnace, there's no need to use that chimney," said Stimson.

One of the major initiatives when Dornback went about redesigning the condensing furnace was improving the venting of the appliance. The system now incorporates a positive venting flue. Because the furnace is so efficient, PVC piping can be used to vent the furnace instead of stainless steel.

"The flue products are vented from the furnace with inexpensive 3" PVC eliminating the need for the costly stainless steel flue required on less efficient 80 percent oil furnaces," said Stimson.

Because the cost to vent the product is comparatively minor, Dornback estimates the cost to install the condensing furnace may be less than an equivalent 80 percent efficient model.

Stimson said he's received several inquiries about the furnace from

contractors involved in new construction. Especially, in new homes not outfitted with chimneys.

The furnace's stellar efficiency also makes the product appealing to housing authorities who are required to use Energy Star rated or equivalent equipment.

"As far as I know we're the only oil-fired condensing furnace on the market," said Stimson. "If they're going to have to use oil-fired equipment with high efficiencies, they're going to come to us."

The other major initiative of the product redesign was to make the condensing furnace easy to service.

The new model features a spin-off oil filter and an easy access heat exchanger.

"The problem we had before revolved around service issues. We wanted to make a product that was easy to service. So we've designed it so that any service technician can go out to his van and the tools to work on this product are in his truck," Stimson stated.

The condensing furnace is one of several industry Research and Development projects sponsored by NORA. To find out more about other NORA-supported R&D initiatives, visit: www.nora-oilheat.org.

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