NEW-PRODUCT RELEASE

CONTACT:
Andrew Tran
Noritz America
(714) 433-7831
atran@noritz.com

Noritz NRCP Condensing Tankless Water Heaters Couple High Efficiency with Programmable Hot-Water Recirculation

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The ENERGY STAR-qualified NRCP98-DV and the NRCP1112-DV, with an Energy Factor of 0.95, use a built-in pump to circulate hot water on demand, eliminating long waits at the shower and the wasting of water and energy down the drain.

FOUNTAIN VALLEY, CALIF. (AUGUST 7, 2014) — The new NRCP line of residential tankless water heaters from Noritz America combines the high efficiency of condensing technology with the comfort and savings of hot-water recirculation. A circulating pump inside the water heater keeps hot water close to the outlet, minimizing the wait and, therefore, the waste of unused potable water down the drain. Saving water, in this case, is doubly beneficial, because recirculation also avoids wasting the energy used to heat that water.

The Noritz NRCP Series of tankless water heaters features an integral circulator (lower left in photo) to keep hot water close to the outlet, minimizing the wait and saving both water and energy.

Using the integral digital display on the front of the water heater, homeowners can program the recirculation system to operate only when needed, with a precision down to the hour. An alternative, "auto" setting allows the system to quickly "learn" a household's water-usage routines and automatically control the recirculation loop activation times, allowing for immediate hot water when it is needed most.

High efficiency for larger homes: Part of the **Noritz ecoTOUGH™ Series** of gas-fired residential tankless water heaters, the NRCP98-DV and the NRCP1112-DV have an Energy Factor of 0.95 for both natural gas and LP gas. These ratings are more than 10 points higher than that of a comparably sized, conventional tankless unit, and approximately 30 points higher than a standard, tank-type gas-fired water heater.

- With a maximum input of 180,000 BTU per hour (BTU/hr), the **NRCP98-DV** has a maximum flow rate of 9.8 gallons per minute (gpm), making it generally suitable for homes with up to two-and-a-half baths.

- The **NRCP1112-DV**, with a maximum input of 199,900 BTU/hr and a maximum flow rate of 11.1 gpm, is suitable for homes with up to three and a half baths.

Each unit delivers water from 100°F to 140°F, with a minimum flow rate for activation of 0.5 gpm.

How recirculation works: Recirculation is accomplished through a combination of an integral pump and temperature sensor and the home's water-distribution system. The recirculation control works by monitoring the temperature of the water exiting the heat exchanger inside the water heater.

- When exiting water reaches the maximum cutoff temperature, the recirculation pump shuts off, which also shuts down the burner.
- Both remain off until the water temperature falls to the minimum cutoff — or there is demand for hot water — at which point they reactivate until the maximum cutoff level is attained again. Homeowners can choose whatever minimum cutoff temperature best meets the comfort and energy-saving needs of their households.

Warm water returns to the tankless unit from the various outlets in a home via one or more recirculation loops. The maximum loop run from the tankless unit is 200 feet for 1/2-inch pipe; 500 feet for 3/4-inch pipe.

Easier, less costly venting: Using a half-inch gas line up to 120 feet in length, the NRCP98-DV and the NRCP1112-DV can be vented with PVC or CPVC pipe. With two-inch PVC, vent lines can extend up to 50 feet; with three-inch, 100 feet. (See adjacent box.)

"Condensing technology results in lower flue gas temperatures, permitting the use of plastic piping, which is less expensive than the Category III Stainless Steel venting required by conventional tankless units," explains Noritz marketing manager Jason Fleming. "The zero-clearance plastic piping provides greater installation flexibility, as well as a lower installation cost, for the plumbing installer."

How does "condensing" water heating technology work?

Similar to conventional tankless water heaters, condensing models save energy and protect the environment by heating water strictly on demand; i.e., only when the faucet, shower or appliance is turned on. These units require no standing pilot light and no storage, permitting substantial energy savings because there is no wasteful reheating of stored water, as with traditional storage-type heaters.

However, in addition to the primary heat exchanger heating the water moving through it, a condensing unit incorporates a secondary heat exchanger to extract even more heat from the by-products of the combustion process, as these gases enter the venting at the top of the flue. This secondary heat exchanger then preheats the incoming cold water on its way to the primary heat exchanger, using the residual combustion by-products, thus increasing the unit's efficiency.

The plastic advantage: By extracting so much additional heat from the flue gases, the condensing process cools them enough to permit venting with PVC or CPVC piping, instead of the more costly Category III Stainless Steel required by conventional tankless units. Many installers have never used Category III Stainless Steel, says Noritz Vice President of Sales & Marketing Jay Hassel.

"But virtually every plumber knows PVC inside and out," he continues. "What's more, the material requires zero clearance to combustibles. All of which is why, as more and more buyers opt for energy-saving tankless water heaters in their new homes, the path of least resistance for builders and their plumbing subs will be to go condensing tankless to vent with PVC."

Two other key features further simplify and speed installation:

- Two units can be quick-connected and then vented through a common termination point, saving installation material as well as time.
- There is no need for extra dipswitches to accommodate different vent runs.

No buffer tank needed: Unlike some condensing units, the NRCP98-DV and the NRCP1112-DV do not need a built-in buffer tank to stabilize water temperature at the outlet. Not having to maintain a reservoir of hot water inside the unit further saves energy. "Hot water on demand with no storage whatsoever is what tankless technology is all about," says Fleming.

Measuring 17.3 inches wide x 27.6 inches high x 14.8 inches deep, both units are equipped with a gas leak detector and a water leakage cutoff. Other key features include:

- **BUILT-IN DIGITAL DISPLAY:** In addition to controlling operations, the integral digital display permits basic servicing without the need for a remote device. Located on the front panel, this readout assists in the troubleshooting by indicating flow rates, temperature and common error codes.
- **12-YEAR WARRANTY:** Like other eco-TOUGH models, the NRCP98-DV and the NRCP1112-DV protect the environment by heating water strictly on demand, while offering a longer product life cycle than storage tank-type models. The warranty for each unit is 12 years on the two heat exchangers, made of long-lasting, high-grade stainless steel; five years on parts; one year on labor.

Designed to make the job of the installer and service tech easier, the integral digital display on NRCP tankless water heaters permits basic servicing without the need for a remote device.

- **ECO-FRIENDLY OPERATION, COMPONENTS:** Both models promise lower emissions, reduced electrical consumption, smaller amounts of potentially hazardous construction materials, and easier recyclability of those materials and components once the product is removed from service.

For more information on the NRCP98-DV and the NRCP1112-DV condensing tankless water heaters, visit www.noritz.com/professionals.

NORITZ AMERICA CORPORATION, a subsidiary of Noritz Japan, has corporate offices in Fountain Valley, Calif., and Atlanta, offering a full line of tankless water heaters to meet the hot water demands of residential and commercial applications. Noritz supports its products with a national network of skilled representatives and employees who are committed to providing the finest products and services to our communities by helping consumers live in a more comfortable, efficient and healthy lifestyle. For more information on Noritz America and the entire line of Noritz's ENERGY STAR® tankless water heaters, please call (877) 986-6748 or visit our website at www.Noritz.com.

For editorial assistance, contact John O'Reilly at O'Reilly-DePalma, 32 West Nebraska Street, Suite 1C, Frankfort, IL 60423; tel.: – 815.469.9100; e-mail – john.oreilly@oreilly-depalma.com.

Hi-res versions of photographs to accompany this release are available for immediate download in .tif format by using this link: http://noritz.oreilly-depalma.com/2014/nrcp-tankless-water-heater.shtml

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