



## Circulating Hot Water?

*Our bath is a long was from the water heater. When we are ready to take a bath in the mornings, we turn on the hot water and then go for a cup of coffee. It seems it takes five minutes for the hot water to reach the bath. Is there a better method to conserve water other than installing another water heater closer to our bath?*

New-home builders and contractors now have the opportunity to conserve water, time and money by installing a hot water re-circulation pump in addition to a hot water heater in the houses they build. With a hot water re-circulation pump, as soon as a faucet is opened up, hot water gushes out, and no time is wasted watching cold water run down the drain, unused, tout manufacturers.

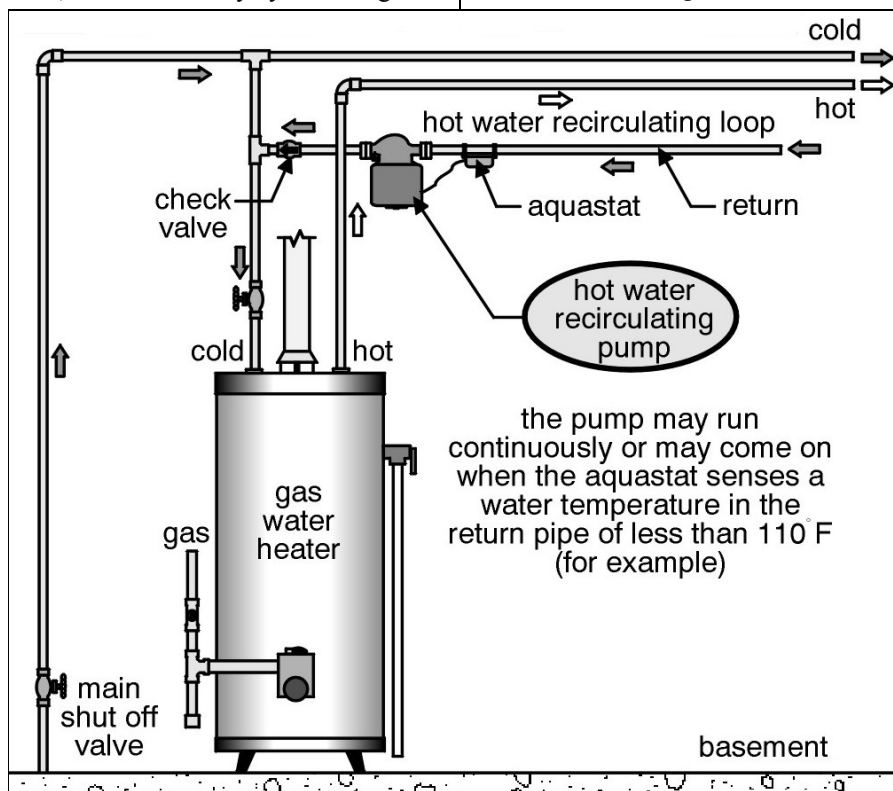
"Hot water re-circulation is a conservation method but it's done for convenience. People were spending time waiting at the tap for water to get hot, which took a long time and was too much of a waste. The need came up for convenience first, which resulted in conservation," said Attilio Giordani, spokesperson for Grundfos Pumps Corp.

A hot water re-circulation pump works like this: A return line is installed to the faucet farthest from the water heater. The return line is connected to the hot water re-circulation pump to move water through the pipes back to the heater. The pump creates a continuous loop of slow-moving warm water throughout the pipe system. When a faucet is turned on, warm water is instantly available for use without having to wait for the cold water to warm up. The direction of flow moves from the water heater through the hot water supply

line, through the return line, through the re-circulating pump, and then back to the water heater.

A hot water re-circulation pump also improves the operating efficiency and effectiveness of household appliances including washing machines and dishwashers by having hot water available instantly, eliminating the lag time from the water heater to the appliance, according to Grundfos.

Hot water re-circulation pumps are not temperature control devices and will deliver water at the temperature set on the hot water heater. Giordani recommends that homebuilders pre-plumb their new house with the extra return line for a continuous flow of hot water to all fixtures. In an average new home, hot water re-circulation systems typically cost less than \$1,000, including parts and installation and take two hours to install, according to Grundfos.



"This loop is an extension of the hot water heater. The homeowner or user doesn't have to compromise either convenience or conservation," said Giordani.

Depending on the style of pump, it uses from 55 to 85 watts of power and is more cost efficient than other non-circulating pumps, according to Giordani. "The energy it takes to heat the water without the pump is more than you would use running the pump all year," he said.

The pumps can also

be set with a 24-hour timer to run during peak hours of water use, like the morning and afternoon. And if copper pipes are used with the system, Giordani recommends insulating them so no heat dissipates out of the pipes.

A re-circulation pump provides significant water and sewer disposal savings, keeping 12,000 to 38,000 gallons of water a typical U.S. home wastes down the drain annually waiting for hot water, according to Grundfos. Some fast-growing counties are making the installation of hot water re-circulation pumps mandatory for all new construction projects, said the pump manufacturer.

Source: <http://www.cnn.com/NATURE/9909/20/hot.water.enn/>

