



Computer-controlled water system cuts heat bills

Proponents say Pro-Temp can save up to 30% of heating costs

By Chris Cassidy

Hotels, large apartment buildings and other multi-occupancy facilities can save 20 percent to 30 percent on domestic hot water heating bills, without inconveniencing guests, according to James Behr, vice-president of Energy Savers, Inc. of Pittsburgh.

Establishments utilizing the Pro-Temp Domestic Water Controller, manufactured by Fluidmaster, Inc., of Anaheim, Cal., are experiencing hot water heating costs averaging 75 percent of previous bills, said Behr.

Pro-Temp is a computerized system for adjusting the temperature of shower and tap water. The computer stores the hot water usage data from the previous week and then increases or decreases water temperature according to what was used the prior week.

Because of constant changes in usage from one week to the next, Pro-Temp checks water demand every 10 seconds, and makes appropriate changes in temperature.

The common method of providing hot water for hotel or apartment buildings is to store large amounts of hot water for the day, even when the hot water is not in high demand. Pro-Temp increases water temperature during the busiest times of the day, and decreased temperature during slow times.

The Marriott in Green Tree was the first hotel in the Pittsburgh area to install a Pro-Temp system installed by Energy Savers.

The Pro-Temp has been heating the water in the hotel's 480 guest rooms and laundry for the past seven months.

Dan Krawowski, chief engineer at the Marriott said, the Pro-Temp has cut the hotel's oil-burning consumption by about one-half. The hotel used to burn 200 gallons of oil daily and now uses about 90 gallons.

Krawowski said oil consumption used to cost about \$4,000 to \$5,000 monthly, and now costs \$1,500 to \$1,900. He attributes the drop in cost to the Pro-Temp and lower fuel prices.

“The main advantage is the energy savings”, Krawowski said. We are not heating water excessively when not needed any more, he said.

Krawowski said the Marriott is saving an average of \$2,500 a month on hot water. According to Behr, this is about a 60 percent savings over the hotel’s hot water bill without the device.

Energy Savers will install Pro-Temp free for a 30-day demonstration to prove potential savings. However, they do not offer the free trial to facilities using electric water heaters, due to a different approach used when installing the system.

If a building manager decides to keep Pro-Temp, a \$4,000 fee is assessed. After the initial fee, clients are charged a monitoring fee of \$50 per month, or \$600 per year. The client may also choose to purchase a monitor and avoid the monitoring fee.

Energy Savers monitors Pro-Temp devices from its office. A monthly report containing daily information is sent to the client. The report contains an explanation of how the device is working, and the amount of money the building is saving.

According to Behr, a 200-unit apartment building will save about \$10,500 a year on its domestic hot water costs. Over a five-year period, with no increase in utility rates, the building will save about \$52,500. A hotel using the Pro-Temp will save about \$120,000 in five years, according to Behr.

The microprocessor Pro-Temp unit is 14 inches high and 10 inches wide. It comes with a back-up battery in case of a power failure.

Even though the Pro-Temp system is fully computerized, when the computer malfunctions, a client’s old system will take over. The Pro-Temp saves the information from the prior week to pick-up where it left off before malfunctioning. The computer also updates itself each week with the previous week’s data.

Another advantage of the Pro-Temp is that it can spot boiler problems before they become serious, Behr said. Krawowski added that the device can prolong the life of a boiler by decreasing the lime build-up caused by excessive high temperatures.

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