

Sioux Chief Releases Water Hammer Control Engineer Report

Sioux Chief Water Hammer Control Engineer Report for plumbing engineers, contractors, and code officials, focuses on: The science of water hammer and the damage it causes to plumbing and piping systems; piston arrester sizing and placement guidelines; and key certified products that satisfy national and international codes for residential, commercial, and industrial installation.

Kansas City, Missouri (**PRWEB**) November 20, 2012 – Kansas City based rough plumbing manufacturer, Sioux Chief, announced its latest Engineer Report, **Water Hammer Control**.

The report is a technical resource for plumbing engineers that addresses uncontrolled water hammer and its damaging effects to plumbing and piping systems.

The term "water hammer" is used to describe the pressure surges, noise, and destructive forces associated with the transfer of kinetic energy into the piping system due to an abrupt change in velocity of a non-compressible fluid.

Water hammer is commonly identified as the loud banging sound which can result from **shutting water off quickly**, for example on a faucet or washing machine.

"The kinetic energy formula shows us that the pressure rise in metal pipe due to a sudden change in velocity is approximately 60 times the original flow velocity in feet per second," said Vice-President and Senior Product Group Director, Michael Meagher.

"So a common half inch supply line, flowing at 6 fps, can generate a pressure rise of 360 psig above and beyond the flow pressure itself."

Meagher says an equal amount of kinetic energy exists in both metal and plastic systems and that the wide variety of fitting systems for plastic pipe, such as solvent weld, mechanical crimp, pinch clamps, expansion fittings, made from brass and hard plastic, are at risk for damage due to uncontrolled water hammer.

All other products throughout an entire plumbing system are at risk for failure as a result of **water hammer pressure**. Items such as water heaters, safety relief valves, pressure reducing valves, backflow preventers, faucets, solenoid valves, fittings, and hangers and brackets, have been known to crack and fail as a result of repetitive water hammer shock waves.

The report states that water hammer must be controlled by means of an engineered water hammer arrester of piston design.

"The most efficient and widely used type of arrester is the piston style," Meagher said. "Its simplicity of design is cost efficient and with few moving parts, it promotes high quality and longevity."

Sioux Chief is an industry leader in the development and manufacture of piston-designed residential, commercial, and industrial water hammer arresters. The Sioux Chief Mini-Rester, Hydra-Rester, and Mega-Rester products are endurance tested to 500,000 cycles without failure and are made in America.

Sioux Chief water hammer arresters have the smallest carbon footprint of any arrester brand on the market and come with a wide variety of connection options, all certified to the ASSE 1010 Standard (AA - F sizes). Sioux Chief's water hammer experts and software are available to help with new project sizing and troubleshooting existing installations.

More About Sioux Chief:

Since 1957, Sioux Chief has manufactured innovative plumbing products. It is a leader in providing rough plumbing solutions for residential, commercial, industrial and government applications. Sioux Chief's comprehensive product line is comprised of three core groups: Supply, Drainage and Support. Sioux Chief products are sold to qualified wholesale distributors and retailers worldwide. The company is headquartered in Peculiar, Missouri — just outside of Kansas City.

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