

The Client

SAJ Holdings
State of Johor,
Malaysia

The Challenge

- Help reduce water loss average of 30%
- Unable to control daytime and nighttime pressures
- Increased nighttime pressure increases water loss

The Solution

Singer's PRV with Latching Solenoid Selectable Setpoint

The Result

- Accurate control of daytime and nighttime pressures
- Improved water loss management

Singer PRV Reduces Malaysia's Water Loss

With the privatization of Malaysia's water infrastructure, water utilities are keen to reduce water loss and improve water revenue due to escalating costs. In the southern state of Johor, SAJ Holdings is responsible for sourcing raw water as well as the treatment and distribution of potable water. With an average water leakage rate of 30 per cent, SAJ Holdings wanted to find a way to reduce nighttime pressures, thus reducing leakage and major line breaks.

SVM Water Controls represents Singer Valve throughout Malaysia. For decades, managing director Anand Anandarajah has been working with SAJ Holdings and the water utility's consultant, Ranhill Water Services. In fact, the state of Johor's water system is fitted with a variety of Singer Valves, including 300 Singer pressure reducing valves (PRV).



With the help and expertise of Singer Valve, Malaysia's Ranhill Water Services is achieving its pressure management goal.

Reducing leaks in some areas, however, required more than a standard PRV. Having the ability to accurately control both daytime and nighttime pressures was an important element of the application. In conjunction with Anandarajah, Singer Valve achieved that by customizing a standard PRV with two pilots—one set for daytime pressure and one set for nighttime pressure—and a latching solenoid equipped with a battery-operated timer.

"Instead of controlling the pressure based on flow requirement," says Brad Clarke, Singer Valve's general sales manager, "this application controls pressure via a timing device. This enables the utility to minimize pressure spikes during the night and provide sufficient pressure during the day." The one exception, says Clarke, is you need to know your system's maximum flow so there's enough pressure if there were a major fire.

Within two years, more than 50 units of the Singer PRV with Latching Solenoid Selectable Setpoint were installed throughout the state.

Ludin Khanafee, Ranhill Water Services' works manager, is delighted with their performance. "They are working well," he says, "and repairing and servicing them is quite easy. We have been able to keep our consumers happy by controlling their water pressure."

"The two-pilot system is quite simple," adds Anand Anandarajah of SVM Water Controls who trained the water utility's technicians how to operate the customized PRV. "It's not too technical, it's inexpensive and it's low maintenance. And the timer needs only one 9 volt batteries for one year."



With the help and expertise of Singer Valve and its Malaysian sales and service representatives, Ranhill Water Services is achieving its pressure management goal. "Our relationship with Singer Valve is very good and Anand's service is excellent," says Khanafee. "By 2010, we want to reduce our water loss to 24 per cent, maybe even to 20 per cent."

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Benefits of Singer's 2PR-SC-BT Pressure Reducing Valve with Latching Solenoid Selectable Setpoints

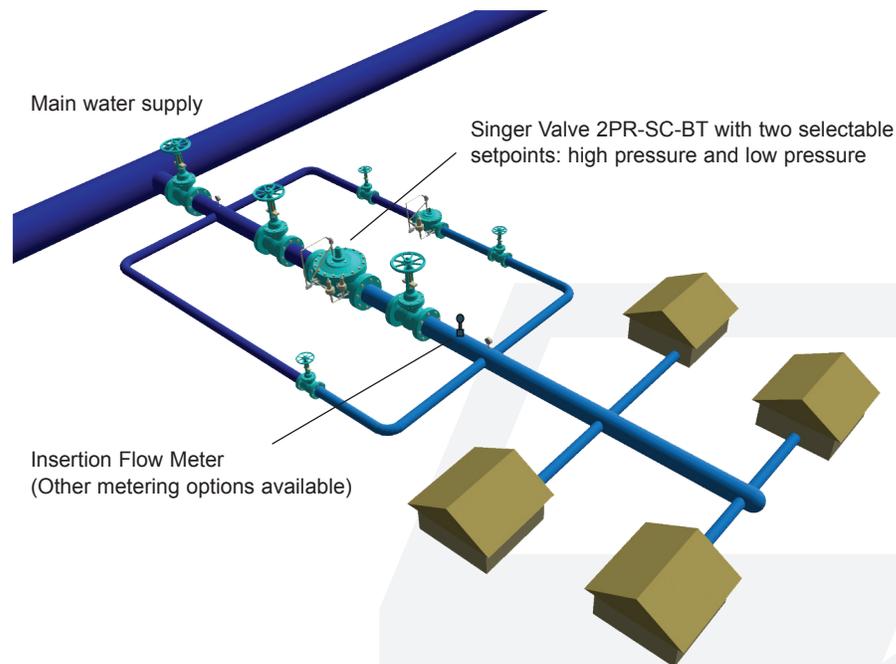
- Accurately controls daytime and nighttime pressures
- Enables a District Metering Area (DMA) to control pressures based on time
- Reduces pressure at designated times
- Reduces water loss and minimizes pipe breaks
- Battery-operated latching solenoid requires minimal power

How It Works

A standard Singer PRV is fitted with two pilots, one for daytime pressure and one for nighttime pressure. A battery-operated latching solenoid and timer is used to select either the daytime or nighttime pilot. When the solenoid is latched open, the daytime pilot controls the downstream pressure. When the solenoid latch is closed, the nighttime pilot controls the downstream pressure.

Did You Know...

Water loss management is a primary concern in many developing countries. The state of Johor in Malaysia has identified pressure management as a key area for reducing water loss. With a variety of Singer Pressure Reducing Valves, including the PRV with Latching Solenoid Selectable Setpoint, the state aims to dramatically reduce its water loss.



Singer Clients Who Use It

- SYABAS, Selangor, Malaysia
- Palyja, Indonesia

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