

The Client

São Bernardo do Campo, Brazil

The Challenge

- Reduce water loss from pipelines feeding residential suburbs

The Solution

Singer's PFC Valve

The Result

- Reduced water loss by lowering high nighttime pressures depending on demand
- Increased economic savings by reducing costly water loss and reducing maintenance on broken main lines

Singer PFC Valve Saves Brazil Water

São Bernardo do Campo, Brazil – Sergio Mendonça was troubled. How could he reduce the municipality's water losses by controlling the pressure and flow of its major pipelines?

One source of São Bernardo do Campo's water supply is 120 metres above four residential suburbs. During the day, the water pressure was sufficient due to the high demand. At night, with reduced customer demand, the pressure would increase substantially. And, because the main supply lines were manually closed, they would often leak or break.

Wanting a solution, Mendonça contacted Singer Valve Inc. for information about its pressure regulating valves. After hearing about São Bernardo's problem, Alejandro Duque, Singer's territory manager, introduced him to Singer's Pressure/Flow Control Valve. By comparing Singer's PFC Valve with another brand, Mendonça looked at each valve's specifications, price, availability, ease of installation and performance. The winner? Singer's PFC Valve.

Since 2002, when São Bernardo installed five Singer PFC valves, Mendonça has been documenting the results and the savings. After two months, studies showed that water loss had been reduced by 15 per cent; the economic savings were just as great. And the results continued even after one year.

"We have had zero line breaks and we have less maintenance," says Mendonça, the chief engineer of São Bernardo's water and sewage department. "With Singer's PFC, we can keep the line open day and night regardless of flow. We reduced our overall maintenance budget by 68 per cent and we recovered our investment in only 90 days."

Impressed with the results, Mendonça has specified Singer valves for other São Bernardo do Campo applications. Is he concerned about a Brazilian city depending upon a Canadian company for its valves?

Not at all. "The information we received about the installation procedure was easy to follow and we had no problems," he says. "Our crew installed them all."

In countries like Brazil, reducing water loss is the number one priority. In North America, an additional concern is maintaining a constant pressure at a remote location. Singer's PFC Valve solves both of these problems.

"The PFC pilot is a simple, reliable device that you can easily maintain," says Brian Blann, president of Singer Valve Inc. "Although it's used to solve water loss applications, the PFC is also ideal in maintaining pressure at a distant point without any electrical requirements because it functions 100 per cent on hydraulics."



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Did You Know...

“The leakage in a District Metered Area varies with the system pressure, which depends on factors such as age and materials,” says Singer territory manager Mike Botha. “The international standard for leakage relationship is reduced pressure by one per cent equals reduced leakage by 1.15 per cent.”

Benefits of Singer's PFC Valve

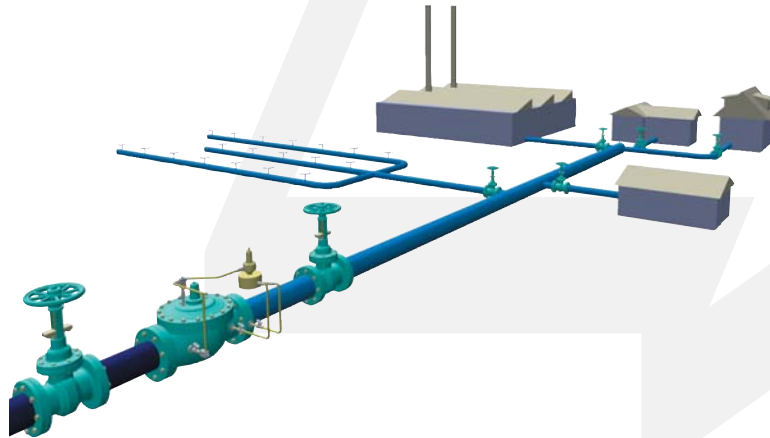
- Supplies water at preferred pressures regardless of flow conditions
- Offers significant water loss savings
- Limits maximum pressure under fire flow or extreme conditions
- Maintains constant pressure at a distant point
- Hydraulic controlled; no electronics required
- Submersible in a flooded vault

How It Works

An orifice plate and pilot actuator are added to a standard pressure-reducing valve. A force derived from the pressure differential across the orifice plate reflects the rate of flow. That force is transmitted to the yoke of the PR pilot, increasing the downstream pressure as the flow increases. A simple, adjustable travel stop limits the actuator movement and therefore, the maximum pressure.

Singer Clients Who Use It

- St. George, Utah
- Alor Setar, Malaysia
- Monterrey, Mexico
- Nassau, Bahamas



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