

## CONTROL VALVES

Welcome to Steam Lines, in this issue we will be dealing with issues pertaining to Parallel Steam Pressure Reducing Stations. We will try and address some of the costs associated with installing such a system and how with today's new valve technology we can potentially reduce the number of valves required. A Parallel Steam Pressure Reducing Station installation allows for two pressure-reducing valves to share the load. As the system begins winter loads, the larger valve is called upon to open and deliver the increased steam required. This system requires a significant investment in piping and valving to ensure that the peak load demand is met. A two stage parallel system is generally not recommended for applications with frequent and/or fast changing loads. However you can eliminate the need for multiple valves by selecting a properly designed valve with good rangeability and excellent control. Tight shut off is another key component. Valving which is constantly leaking reduces the energy efficiency in the system, increasing plant costs. As discussed previously rangeability is a key factor in selecting the proper valve for the application. Rangeability is defined as the ratio of the maximum controllable flow to the minimum controllable flow. The higher the rangeability number, the more precise the valve can control fluids that flow through pipes, and the less energy wasted in heating and cooling buildings. For example, a valve with a rangeability of 100 to 1 and having a total flow capacity of 10000 lbs./hr. fully opened, will control flow accurately down as low as 100 lbs/hr. A single valve may very well be able to handle the entire range of service conditions, however we may want to consider a back up valve in case of system failure. The back up valve in question should have enough flow capacity to ensure freeze protection of the building and have an inherently high rangeability to handle both low and high flow rates. It may or may not be part of the building control scheme and can be a stand alone PRV. Pressure Reducing Valves that are fast acting have High Rangeability and offer pack-less construction are your best choice.

## COST SAVINGS

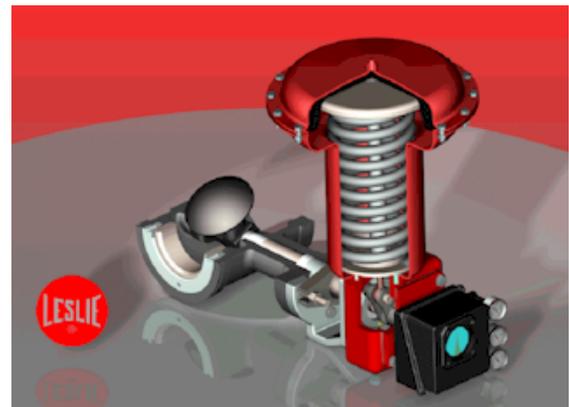
There are a number of advantages when considering replacing Parallel Steam Pressure Reducing Stations with one properly sized control valve. With only one valve, less piping would be needed, and by extension fewer pipe supports would be required. Your overall installation costs would also be lowered.

## LINEAR TYPE GLOBE VALVES

They have limited rangeability, which typically requires them to be split ranged. They are typically twice the weight of rotary style valves. In order to provide a tight shut off, they rely on high maintenance plug seals.

## LESLIE CONTROL'S ROTARY STYLE VALVES

Work equally well on clean, corrosive, dirty, and viscous applications. There is a 28 tooth splined connection from the Plug to the Shaft, and the Shaft to the Actuator. 100:1 Rangeability is better than any Globe style Valve.



KMAX Series

**“Ability can take you to the top, but it takes character to keep you there.”**