

The Importance of Check Valve Selection and Sizing

Knowing which check valves can withstand different environmental factors, and how check valve sizing works is the key to a longer lifetime of use, proper flow and overall efficiency of your fluid, steam or gas flow system.

It is important that check valves be sized for their application and flow, not based just on their line size. Choosing the appropriate-sized check valve means it will be working at its highest level, providing efficient service with maximum protection. Proper check valve sizing will optimize a system's reliability, providing the longest and most trouble free service.

An undersized valve will cause higher pressure losses and create excessive noise and vibration, and an oversized valve can lead to premature wear and failure of the valve's internal components. When the valve's disc is stable and in the fully open position against the internal stop or fully closed position against the seat, no disc fluttering will occur.

The correct valve selection not only allows the valves to last longer, but pumps and other related components on the same system will have increased longevity as well, resulting in reduced overall maintenance and costs. Well- functioning check valves also enhance the safety of their applications.

Lower Lifetime Maintenance Costs

Every fluid handling system has its own unique requirements. When customers purchase inappropriately sized valves, it can create costs that go far beyond the valves themselves. When a valve fails, the labor costs to fix it can be very high. For example, if a maintenance team is needed only two people are sent to replace a valve, the costs will accumulate depending on time and number of crew needed.

When you add in down time and lost production time on top of that, the costs can be staggering—sometimes exceeding up into thousands of dollars per hour or higher.

The price of poor valve choice could be even higher when working with potentially hazardous materials. A valve malfunction could create a spill that could harm the environment. Most chemical spills need to be reported, impacting environmental safety, worker safety, and damage to the reputation of the company as well as the potential for large fines.

When maintenance, safety and replacement costs are included in the purchasing decision, it becomes clear that higher-quality check valves are a much more cost-effective option. DFT® check valves are made to last, designed for durability and superior sealing.

A professional consultation to get the most appropriate and best-sized valve is far more cost effective when considering lifetime maintenance costs, system reliability and optimizing system performance through maintenance reductions. Contact DFT Inc. for more information.

