Question 1: What Materials are Being Used?
Make sure you know what the different components of the valve are made of, as this will certainly affect the life of your valve, specifically:

**Body Material** – Is the valve body cast iron or ductile iron? Traditionally valves were cast iron but ductile iron has become the new standard due to its superior physical properties that are much better at weathering the elements.

**Body Coating** – Most of the world insists on fusion bonded coating of a valve, inside and out. Unfortunately here in North America, that is not always requested. This just makes common sense for valves that are constantly wet and sit in locations that are not always dry and pristine. A valve should last for many years, so insisting on a coated valve is a wise choice.

**Seat Material** – Bronze is typically the common material for seats but over time, depending on water quality and velocities, bronze wears resulting in the need for replacement. This is time consuming and expensive as seat replacement requires a complete disassembly of the entire valve. Ideally go for stainless steel.

**Valve Internals** – Most valve manufacturers utilize stainless steel for their valve stems. Make sure that you ask what grade of stainless you are getting as not all stainless steel is created equal. 316 SS is always the best choice because it is harder and least likely to corrode.

External Fasteners – Over time valves experience condensation or flooding and this can play havoc with coated studs or bolts. There is nothing worse than trying to remove heavily rusted studs out of an old valve to perform maintenance. Request stainless steel fasteners as this will ensure that bolts will be removable at any age.

**Question 2: Does the Valve Supplier Fully Understand your Application?**
Too frequently a specification will be requested and a valve is supplied that is simply the wrong valve for the job. It may also be the case that there is just a better solution. Ensure you give your valve supplier all the necessary pressure and flow details including details of the actual application and what you want this valve to do. Having the wrong valve for the wrong application, at best case will result in a significantly shorter life and worst case, a malfunction that can result in destruction of the valve and other parts of your water distribution system.

**Question 3: Will this New Valve Fit into my Existing Piping Layout?**
Don’t be tempted to just stay with brand X because that is the valve you may be replacing and has the same lay lengths. Most manufacturers can be quite innovative and replace valves that are not the same size or have similar performance characteristics.

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**“Ensure you give your valve supplier all the necessary pressure and flow details including details of the actual application and what you want this valve to do.”**

Mark Gimson
when Purchasing a Control Valve

Mark Gimson is the Business Development and Marketing Manager for Singer Valve. Mark has an engineering background that gives him a deep understanding of valve mechanics. He has worked around the globe in the valve industry for over 35 years. Mark also runs operator training sessions around the world and speaks at industry conferences.