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A valve comprises of several internal parts that help in its functioning. These parts also come into direct contact with the fluid being processed; these parts are collectively known as the valve trim. Such components need to be made from the best materials because they undergo heavy wear and tear, often on a daily basis. Thatâ€™s precisely why materials such as tungsten carbide are preferred for this purpose. These trims are also subject to a lot of friction, because of which they face the risk of wearing away. But these concerns are effectively addressed with the use of carbide trims. Another important aspect to note here is that trims should not corrode easily because they could contaminate the fluids that are passing through a valve. In comparison with steel or other metals, carbide meets this criterion effectively.

This compound is a result of the combination of tungsten and carbon and is often simply referred to as â€˜carbideâ€™. This metal is chosen because it demonstrates extreme resistance to scratches and wear. Hence, it can be used for making cutting and drilling tools as well. So, right from surgical instruments to jewelery, one can find carbide tools being used in different arenas. It is also finding uses in sectors such as adventure sports and nuclear power generation.

Apart from being used in a valve trim, tungsten carbide has several other uses as well. Letâ€™s take a look at some of the characteristics of this metal that make it useful in a valve:

It demonstrates a high amount of resistance to temperature as well as pressure. These qualities make it suitable for use with different types of chemicals and high temperature fluids.

Since these balls do not wear out easily, they offer impeccable alignment even after repeated use. This ensures that the flow management operations are not hindered.

Another most important attribute is that such carbide balls that are used in a valve trim are very easy to operate and still easier to repair/replace, if so required.

Interestingly, ball valves are also one of the most commonly used valve types in the world, which explains the high demand for carbide balls.

With the presence of firms that manufacture a variety of surface finishes, sizes and hardness, different trims for myriad purposes can be used.

Over all, users can expect a high level of versatility and usability and low maintenance requirements.

Carbide wear parts are known to outlast steel as much as 8 to 10 times longer. This means that you get better value for your investment.

Different types of wear parts are used in the flow control and instrumentation products industries. A long-lasting valve trim is the requirement of several different industries such as oil and gas refineries and processing plants, petrochemical, heating, ventilation and air conditioning, mining, and the pulp and paper industry.

Prince - About Author:
Technology has always fascinated the technician inside me. And writing about the latest in technologies and mechanisms in usage has been my forte over the last few years. Follow my write ups to know about the latest in technologies and mechanisms this season for one. This fall a valve trim, a tungsten carbide balls are very much in demand among the technical and mechanical industries across the world. Keep yourself updated on these products exclusively from USA.

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