

## Steering Valves

Valves assist to regulate the flow of a fluids like for example slurries, fluidized gases or regular gases, liquids by closing, partially obstructing or even by opening some passageways. Regular valves are pipe fittings but are discussed as a separate category. In cases where an open valve is concerned, fluid flows in a direction from higher to lower pressure.

Numerous applications like residential, transport, commercial, military and industrial industries make use of valves. Some of the main industries that rely on valves include the water reticulation, sewerage, oil and gas sector, mining, chemical manufacturing and power generation.

Most valves being utilized in day to day activities are plumbing valves, which are used in taps for tap water. Several popular valves consist of those fitted to washing machines and dishwashers, gas control valves on cookers, valves inside car engines and safety devices fitted to hot water systems. In nature, veins within the human body act as valves and control the blood circulation. Heart valves likewise control the circulation of blood in the chambers of the heart and maintain the right pumping action.

Valves can be operated in several ways. Like for example, they can be worked either by a handle, a pedal or a lever. Valves can be driven by changes in flow, temperature or pressure or they could be automatic. These changes may act upon a piston or a diaphragm which in turn activates the valve. Several common examples of this particular type of valve are seen on boilers or safety valves fitted to hot water systems.

There are more complicated control systems making use of valves that need automatic control which is based on external input. Like for example, regulating flow through a pipe to a changing set point. These situations normally require an actuator. An actuator will stroke the valve depending on its input and set-up, that allows the valve to be places accurately while allowing control over different requirements.