Control Valve for Forklift

Forklift Control Valve - Automatic control systems were initially created over two thousand years ago. The ancient water clock of Ktesibios in Alexandria Egypt dating to the 3rd century B.C. is considered to be the first feedback control tool on record. This particular clock kept time by regulating the water level inside a vessel and the water flow from the vessel. A popular design, this successful equipment was being made in a similar way in Baghdad when the Mongols captured the city in 1258 A.D.

Different automatic machines throughout history, have been used so as to carry out certain jobs. A popular desing used throughout the 17th and 18th centuries in Europe, was the automata. This particular machine was an example of "open-loop" control, featuring dancing figures that will repeat the same task again and again.

Feedback or also known as "closed-loop" automatic control tools comprise the temperature regulator seen on a furnace. This was actually developed in the year 1620 and attributed to Drebbel. One more example is the centrifugal fly ball governor developed during the year 1788 by James Watt and utilized for regulating steam engine speed.

The Maxwell electromagnetic field equations, discovered by J.C. Maxwell wrote a paper in the year 1868 "On Governors," which was able to describing the exhibited by the fly ball governor. To describe the control system, he utilized differential equations. This paper exhibited the usefulness and importance of mathematical models and methods in relation to understanding complicated phenomena. It likewise signaled the start of mathematical control and systems theory. Previous elements of control theory had appeared before by not as dramatically and as convincingly as in Maxwell's analysis.

New developments in mathematical techniques and new control theories made it possible to more precisely control more dynamic systems as opposed to the first model fly ball governor. These updated methods consist of different developments in optimal control during the 1950s and 1960s, followed by progress in robust, stochastic, adaptive and optimal control methods in the 1970s and the 1980s.

New technology and applications of control methodology has helped make cleaner engines, with more efficient and cleaner processes helped make communication satellites and even traveling in space possible.

At first, control engineering was performed as a part of mechanical engineering. In addition, control theory was first studied as part of electrical engineering because electrical circuits can often be simply explained with control theory techniques. At present, control engineering has emerged as a unique practice.

The very first control relationships had a current output that was represented with a voltage control input. In view of the fact that the right technology to implement electrical control systems was unavailable at that moment, designers left with the alternative of slow responding mechanical systems and less efficient systems. The governor is a really effective mechanical controller that is still usually utilized by some hydro factories. Ultimately, process control systems became accessible prior to modern power electronics. These process controls systems were normally utilized in industrial applications and were devised by mechanical engineers using pneumatic and hydraulic control devices, a lot of which are still being used at present.