Forklift Control Valves

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

All through history, various automatic tools have been used so as to simply entertain or to accomplish specific tasks. A common European style during the seventeenth and eighteenth centuries was the automata. This particular tool was an example of "open-loop" control, featuring dancing figures which will repeat the same job repeatedly.

Feedback or likewise known as "closed-loop" automatic control tools comprise the temperature regulator found on a furnace. This was developed in 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 explaining the exhibited by the fly ball governor. In order to describe the control system, he made use of differential equations. This paper demonstrated the usefulness and importance of mathematical models and methods in relation to understanding complicated phenomena. It also 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.

In the following 100 years control theory made huge strides. New developments in mathematical methods made it possible to more precisely control considerably more dynamic systems than the first fly ball governor. These updated methods include different developments in optimal control during the 1950s and 1960s, followed by progress in robust, stochastic, adaptive and optimal control techniques during the 1970s and the 1980s.

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

In the beginning, control engineering was performed as a part of mechanical engineering. As well, control theory was first studied as part of electrical engineering because electrical circuits can often be simply described with control theory techniques. Nowadays, control engineering has emerged as a unique practice.

The first control partnerships had a current output that was represented with a voltage control input. Since the proper technology to implement electrical control systems was unavailable at that moment, designers left with the choice of slow responding mechanical systems and less efficient systems. The governor is a really effective mechanical controller that is still usually used by various hydro factories. In the long run, process control systems became obtainable before modern power electronics. These process controls systems were normally utilized in industrial applications and were devised by mechanical engineers using hydraulic and pneumatic control devices, many of which are still being utilized nowadays.