

## Control Valves for Forklift

Forklift Control Valve - The earliest automatic control systems were being used over two thousand years ago. In Alexandria Egypt, the ancient Ktesibios water clock built in the 3rd century is thought to be the first feedback control machine on record. This particular clock kept time by way of regulating the water level inside a vessel and the water flow from the vessel. A common style, this successful device was being made in a similar fashion in Baghdad when the Mongols captured the city in 1258 A.D.

A variety of automatic machines throughout history, have been used so as to carry out particular tasks. A common desing used through the seventeenth and eighteenth centuries in Europe, was the automata. This particular tool was an example of "open-loop" control, comprising dancing figures which would repeat the same job over and over.

Closed loop or also called feedback controlled tools include the temperature regulator common on furnaces. This was developed in the year 1620 and accredited to Drebbel. Another example is the centrifugal fly ball governor developed during 1788 by James Watt and used for regulating steam engine speed.

J.C. Maxwell, who discovered the Maxwell electromagnetic field equations, wrote a paper in the year 1868 "On Governors," which can describe the instabilities demonstrated by the fly ball governor. He utilized differential equations so as to describe the control system. This paper exhibited the usefulness and importance of mathematical methods and models in relation to understanding complicated phenomena. It even signaled the beginning of mathematical control and systems theory. Previous elements of control theory had appeared earlier by not as convincingly and as dramatically as in Maxwell's analysis.

New control theories and new developments in mathematical techniques made it possible to more accurately control more dynamic systems compared to the original model fly ball governor. These updated techniques comprise different developments in optimal control during the 1950s and 1960s, followed by development in stochastic, robust, optimal and adaptive control methods during the 1970s and the 1980s.

New technology and applications of control methodology has helped make 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. Also, control theory was firstly studied as part of electrical engineering since electrical circuits can often be simply explained with control theory methods. Currently, control engineering has emerged as a unique practice.

The very first control partnerships had a current output that was represented with a voltage control input. In view of the fact that the correct technology to be able to implement electrical control systems was unavailable at that time, designers left with the option of slow responding mechanical systems and less efficient systems. The governor is a really efficient mechanical controller which is still normally utilized by several hydro plants. In the long run, process control systems became available previous to modern power electronics. These process controls systems were usually used in industrial applications and were devised by mechanical engineers using pneumatic and hydraulic control devices, a lot of which are still being used these days.