

## 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 third century B.C. is considered to be the first feedback control device on record. This particular clock kept time by 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 way in Baghdad when the Mongols captured the city in 1258 A.D.

A variety of automatic devices all through history, have been utilized in order to complete particular tasks. A common desing used throughout the seventeenth and eighteenth centuries in Europe, was the automata. This device was an example of "open-loop" control, featuring dancing figures that will repeat the same job repeatedly.

Closed loop or otherwise called feedback controlled equipments comprise the temperature regulator common on furnaces. This was 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 the speed of steam engines.

J.C. Maxwell, who discovered the Maxwell electromagnetic field equations, wrote a paper in the year 1868 "On Governors," that could describe the instabilities exhibited by the fly ball governor. He used differential equations in order to explain the control system. This paper demonstrated the importance and helpfulness of mathematical models and methods in relation to comprehending 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.

Within the next one hundred years control theory made huge strides. New developments in mathematical techniques made it possible to more accurately control considerably more dynamic systems than the first fly ball governor. These updated methods comprise different developments in optimal control in the 1950s and 1960s, followed by advancement in stochastic, robust, optimal and adaptive control techniques in the 1970s and the 1980s.

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

Initially, control engineering was practiced as just a part of mechanical engineering. Control theories were firstly studied with electrical engineering as electrical circuits could simply be explained with control theory methods. At present, control engineering has emerged as a unique practice.

The first control partnerships had a current output which was represented with a voltage control input. Since the proper technology to implement electrical control systems was unavailable then, designers left with the option of slow responding mechanical systems and less efficient systems. The governor is a very efficient mechanical controller which is still usually utilized by some hydro plants. Ultimately, process control systems became available prior to modern power electronics. These process controls systems were usually utilized in industrial applications and were devised by mechanical engineers making use of hydraulic and pneumatic control equipments, lots of which are still being utilized at present.