Control Valve for Forklift

Control Valve for Forklift - The first mechanized control systems were being used over two thousand years ago. In Alexandria Egypt, the ancient Ktesibios water clock built in the third century is believed to be the very first feedback control equipment on record. This clock kept time by means of regulating the water level within a vessel and the water flow from the vessel. A common style, this successful machine was being made in a similar way in Baghdad when the Mongols captured the city in 1258 A.D.

Different automatic machines through history, have been used so as to accomplish specific tasks. A popular style utilized during the seventeenth and eighteenth centuries in Europe, was the automata. This particular piece of equipment was an example of "open-loop" control, comprising dancing figures which will repeat the same job repeatedly.

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

The Maxwell electromagnetic field equations, discovered by J.C. Maxwell wrote a paper in the year 1868 "On Governors," that was able to explaining the exhibited by the fly ball governor. To be able to explain the control system, he utilized differential equations. This paper exhibited the importance and helpfulness of mathematical methods and models in relation to comprehending complex phenomena. It also signaled the start of systems theory and mathematical control. Previous elements of control theory had appeared earlier by not as convincingly and as dramatically as in Maxwell's study.

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

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

Initially, control engineering was performed as a part of mechanical engineering. Additionally, control theory was firstly studied as part of electrical engineering in view of the fact that electrical circuits can often be simply explained with control theory methods. Today, control engineering has emerged as a unique practice.

The first controls had current outputs represented with a voltage control input. So as to implement electrical control systems, the right technology was unavailable then, the designers were left with less efficient systems and the choice of slow responding mechanical systems. The governor is a really efficient mechanical controller that is still normally used by various hydro factories. Eventually, process control systems became accessible before modern power electronics. These process controls systems were usually used in industrial applications and were devised by mechanical engineers utilizing pneumatic and hydraulic control devices, a lot of which are still being utilized nowadays.