



149 MAIN ROAD, POMONA,
KEMPTON PARK, 1619

P O BOX 10045, ASTON MANOR,
1630, REP. OF SOUTH AFRICA

PHONE : (2711) 395 6991

FAX : (2786) 509 1886

CELL : 082 820 6067

e-mail : djacobs@autovalve.co.za

Visit us at : www.autovalve.co.za

AIR FAIL SAFE RESERVOIRS

Air fail safe reservoirs are used as a safer and more cost effective alternative to spring fail safe actuators.

Basic principle of operation

When the main air supply from the plant falls below a certain set pressure level (usually about 3 bar) a pneumatic switching valve will switch to a separate air accumulator that will operate the valve to either the fully closed or fully open position, depending on the application.

Motivation

There have been instances in the past where maintenance staff have been either severely injured and even killed by retained springs inside actuators. Not only does the air fail safe reservoir eliminate the need for springs, but it also reduces the cost quite dramatically. The reasoning behind this is due to the fact that the actuators change to standard double acting and usually come down in size and cost. Also, particularly on larger valves, the spring return actuators can be extremely bulky and heavy, requiring piping supports and a lot of space to accommodate the springs.

Example

Here is an image of a typical air fail safe reservoir. The air fail safe reservoir comes complete with all the fittings, piping, safety relief valve, drain valve, pressure gauge, solenoid valve, non return valve and pneumatic switching valve. A vertical version is also available.

