

Bladder Accumulator Major Applications

Emergency Stand By Power: By having fully charged bladder accumulators in the circuit, should an electrical power failure occur, the accumulators will supply enough flow and pressure to complete a cycle, close a valve, move an actuator, etc.

Energy Conservation: Bladder accumulators assist pump flow output and with intermittent duty cycles and combined with variable volume pumps reduces heat, thus reducing energy costs.

Absorption of Hydraulic Line Shock: Bladder accumulators, when placed in strategic locations reduce line shock or “water hammer”. Additionally by reducing line shock, pumps, valves, hose and fittings are not subjected to pressure spikes reducing component life.

Pressure Holding: Bladder accumulators are used extensively to hold pressure in a circuit, especially where actuators are used. They make up for any leakage and maintain system pressure when all valving is closed.

Compensation for Fluid Leakage: Bladder accumulators will “make up” lost fluid from internal leakage of spool valves, cartridge valves and hydraulic cylinders. This is especially helpful when pumps are off cycle.

Compensation of Thermal Expansion/Contraction: Bladder accumulators are extremely effective in absorbing fluid due to heat expanding the volume of the fluid. Especially in systems where “hard” plumbing is installed. Also effective when fluids cool to make up for diminishing volume.

Pressurized Gas Bottles: Vessels are excellent for storage of all types of gases up to 6000 psi. An assortment of connections is available to accommodate the most demanding plumbing requirements.

Dispenser for Pressurized Lubricants: An excellent application for precise dispersion of fluids for lubrication. Controlled flow is pulsation free.



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Transfer Barrier for Fluid Separation: Used in applications where two fluids are to be pressurized but cannot be mixed together. For example; water would be used on the inside and oil on the outside of the bladder. Transfer barrier accumulators can be used to cycle different pressurized fluids in and out of chambers, etc.

Prevention of Pump Cavitation: Bladder accumulators can be installed on the inlet side of certain pumps to prevent cavitation. They provide fluid immediately should the head pressure be lost on pump start -up.

Shortening of Response Time: Bladder accumulators, because of their instantaneous response time, will provide fluid to fast acting valves so that there is reduced dwell time for actuator response. Accumulators are very effective in proportional and servo valve circuits.

Noise Attenuation: Bladder accumulators are extremely effective in reducing the noise of hydraulic systems caused by piston pumps, relief valves and the complexities of some hydraulic circuits. When strategically placed, will reduce noise up to 95%.

Auxiliary Power Source: Bladder accumulators can be used to supplement pump flow for intermittent high demands in many applications. By the use of accumulators, pump size and horse power are dramatically reduced.