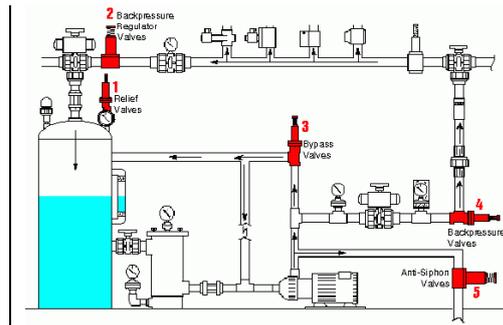


## Main reasons to use a Relief Valve:

Most fluid systems are designed to operate within a preset pressure range. Without controlling or limiting these forces, the fluid system components (and expensive equipment) could be damaged.

Relief valves avoid this hazard. They are essential components for the majority of fluid distribution systems. They are the safeguards which limit maximum pressure in a system by diverting excess oil when pressures get too high.



It is always necessary to use a relief valve with fixed-displacement hydraulic pumps. Pressure-compensated pump circuits also may use a relief valve for certain applications.

Think of a relief valve in a fluid system as a fuse or circuit breaker in an electric circuit. An electric circuit never blows a fuse unless it overloads. When an electric circuit overloads, it is inoperable until reset. Usually the person responsible for resetting the fuse looks for the reason it blew and fixes the problem before restarting the machine.

In a hydraulic power system, relief valve's contribution is extremely important because it limits the amount of power a system can generate. The relief valve thus helps to ensure that intended system pressure will not be exceeded. This pressure limitation helps avoid damage to other hydraulic components and the machinery or injury to workers.

In high-pressure gas systems, it is recommended that the outlet of the relief valve is in the open air. In systems where the outlet is connected to piping, the opening of a relief valve will give a pressure build up in the piping system downstream of the relief valve.

Take into account that a relief valve is not a safety valve, and then if necessary, an overpressure protection must be installed.

Our new model S3-15 – spring loaded relief valve adapts to most cases.

The pressure relief valve S3 model works with direct action principle. When the force resulting from the upstream pressure  $p_1$  exceeds the spring force adjusted at the set point springs, the valve opens proportionally to the change in pressure.

The spring force is adjustable at the set point nut (item 23).

