



EMERGENCY SHUTDOWN VALVES



A shutdown valve (emergency shutdown valve, ESV, ESD, or ESDV) is an actuated valve designed to prevent the flow of hazardous fluid upon the detection of a dangerous event. This provides protection against possible harm to people, equipment or the environment. Shutdown valves form a part of a security instrumented system. Shutdown valves are primarily related to the oil & gas and chemical industries although other industries can also require this sort of protection system.



A safety shutoff valve should be fail-safe, that's close upon failure of any element of the input system (such as temperature controllers, steam pressure controllers), atmospheric pressure, fuel pressure, current from a flame detector, or current from other safety devices like low tide cutoff, and high cutoff. A blowdown valve (BDV) is another sort of shutdown valve designed to depressurize a pressure vessel by directing vapour to a flare, vent or blowdown stack in an emergency. BDVs fail-safe to the open position upon failure of the system.

