



Description

The Emergency Shut Down (ESD) System provides automatic monitoring and automatic preventive action if abnormal condition or an undesirable event is detected by a safety device, or manual preventive action is taken by personnel who observe an unsafe condition.

The system is pneumatically operated and designed to control any single-action fail-safe hydraulically activated Surface Safety Valve (SSV) installed on the flow line. It allows manual remote closure of this valve in case the well needs to be shut off in an emergency. The closure of the SSV can also be initiated automatically with pressure switches installed on the flow line, Air pressure loss from a manual pull button station or pressure switch generates the hydraulic pressure loss in the SSV that shuts-in the well or the flow line. This system also allows reopening of the flow line SSV after closure.

The basic scope of supply includes a Control Panel, a set of manual pull button stations and an optional set of pressure pilot switches with their accessories.

Features and Benefits

- ✓ Air driven hydraulic pump with two outlets.
- ✓ Two stage back-up hydraulic pump, manually operated.
- ✓ Hydraulic oil tank.
- ✓ Well closure can be initiated from ESD panel or remote pull-button stations located at different places.
- ✓ It can trigger an additional stand-alone hydraulic valve mounted anywhere in the flow stream.
- ✓ In contrast to manual valve closure, the automated ESD system provides a safer and quicker way to close the flow line valve.
- ✓ It can incorporate an optional Hi-Lo pressure pilot switch system that will automatically initiate SSV closure when the line pressure either rises above a high-level threshold (line plugged) or falls below a low-level threshold (flow line leak or rupture).