

Subsurface Safety Valve (SSSV)

A Subsurface Safety Valve (SSSV) is a downhole, fail-safe valve installed within the production tubing of an oil or gas well. It is designed to automatically shut off hydrocarbon flow in the event of abnormal conditions such as surface equipment failure, wellhead damage, or uncontrolled production.

TYPES

tubing Retrievable Subsurface Safety Valve (TRSSSV)

Tubing Retrievable Safety Valves are self-equalizing, flapper-type safety valves designed to shut in a well at a point below the surface.

The safety valve is a surface-controlled subsurface safety valve (SCSSV) and is normally closed. It is held open by hydraulic control pressure and remains open as long as control-line pressure is maintained. When this pressure is exhausted or lost, the valve automatically closes to provide fail-safe well control.

Hydraulic control pressure is transmitted from a remote surface location through a control line to operate the valve. These valves are value-engineered to deliver long-lasting, safe, and reliable performance in demanding well conditions.

Applications

WRSSVs are ideal for a wide range of well conditions, including:

- Offshore and subsea wells
- Deepwater and high-value assets
- High-pressure and high-temperature (HPHT) wells
- Gas wells and condensate wells
- Wells requiring frequent intervention or maintenance
- Artificial lift systems, including gas lift operations

Key Features

- **Wireline Retrievable Design**
Enables installation and removal without pulling the tubing.
- **Fail-Safe Closure System**
Automatically shuts in the well upon loss of hydraulic control pressure.
- **Surface-Controlled Operation**
Operated via a hydraulic control line from the surface.
- **Flapper Valve Mechanism**
Provides fast, reliable sealing against well pressure.
- **Landing Nipple Compatibility**
Designed to lock securely into standard API nipple profiles.
- **Full Bore Configuration (Optional)**
Allows smooth passage of wireline and intervention tools.
- **High-Integrity Materials**
resistant alloys for harsh and sour environments.

Benefits

- **Reduced Intervention Costs**
Eliminates the need for pulling tubing during maintenance or replacement.
- **Minimized Downtime**
Faster retrieval and reinstallation improve operational efficiency.



- **Enhanced Safety**
Immediate shutoff in emergency situations protects personnel and assets.
- **Operational Flexibility**
Ideal for wells requiring frequent servicing or changing conditions.
- **Extended Equipment Life**
Easy maintenance helps maximize valve lifespan.
- **Regulatory Compliance**
Meets industry safety standards for well control systems.

General Specs

- Size: 2-3/8" ~ 7"
- Temperature: 20~400deg.F
- Working Pressure: 5~20kpsi
- Certified with API 14A