

Slim Pump Safety Valve



NO CONTROL LINE OR NIPPLE REQUIRED

SIMPLE AND FLEXIBLE DEPLOYMENT

BI-DIRECTIONAL SEALING

Description

DTI's unique Slim Pump Safety Valve (SPSV) is incorporated into cable deployed ESP or jet pump systems, providing an API qualified valve with minimal additional system complexity. It is set at the pump depth and activated by pump switch on and off. No control lines, surface control or cable sealing operations are required.

The SP Safety Valve is an API 14A qualified retrofittable safety valve intended for deployment with a range of artificial lift methods. The valve requires no existing or additional control lines or nipple profiles to work as it uses ESP or jet pump pressure to operate.

The patented design facilitates bi-directional sealing and unloading at full working pressure. It is surface testable and operates as a fluid loss valve (FLV), and can be used as a deep set valve.

Deployment and Operation

- The SPSV can be run on cable, wireline or coil, independently, as part of the ESP assembly, or as part of the packer assembly.
- Once deployed, the SPSV is failsafe shut, and is unaffected by well pressure.
- Operation of the pump causes the SPSV to open. Once the valve has opened, pump output will not be affected by the valve.
- Switching off the pump will cause the valve to shut by means of a biasing spring.
- Valve does not need to be equalised to be functioned open.

Features & Benefits

- Patented design allows bi-directional sealing at full working pressure. Well pressure or surface test pressure boosts valve shut.
- FLV operation prevents backspin of ESP.
- Metal to metal valve seat and poppet design for reliability.
- Subsurface controlled design requiring no hydraulic or electrical power to operate.
- Low operating pressure, does not restrict ESP or pump operation or capability.



Applications

Cable Deployed ESP's

The SPSV has been specifically design to be run with CDESP's where the cable renders the existing safety valve inoperable. The valve can be deployed standalone with a packer – or with the pump BHA.

Jet Pumps

The SPSV has also been deployed as the first of its kind – jet pump safety valve. The valve is typically run in inverse jet pump deployment as part of a straddle assembly.

Part Number	Running OD	Flow Rating	Flow Area	Pressure Rating	Temp. Rating
Slim Pump Safety Valves are 5,000 psi API 14A V3 rated					
SP263	2.625"	2,000 bbl/day	0.78" ²	5,000	150 C
SP319	3.190"	5,000 bbl/day	1.59" ²	5,000	150 C

We offer optional equipment, alternative sizes, pressure ratings, materials and thread connections. **Please contact us for more information.**