

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 SPSV 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.
- Valve does not need to be equalised to be functioned open.

Features & Benefits

- Fast and efficient installation – can be retrofitted through tubing in-line with a cable-deployed ESP, reducing runs and complexity.
- Can be fitted above an existing failed ESP to avoid remediation/ workover.
- Patented valve design actuated by pressure differentials to fail-safe close when the ESP is off and open while pumping.
- Subsurface pressure controlled design eliminates pressurised chambers, control lines and power supply, improving simplicity, speed of actuation, ease of deployment and reliability.
- SPSV operates independently below the ESP removing reliance on existing SSSV components.
- Bi-directional design allows pressure testing. Well pressure or surface test pressure boosts the valve shut.
- FLV operation prevents backspin of ESP.
- Metal to metal seat and poppet design for improved reliability.
- Flexible configurations and multi-purpose applications.



Applications

Cable Deployed ESP's

The SPSV has been specifically designed 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 valve has also been deployed as a jet pump safety valve - the first of its kind. 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.**