DepthStar® Tubing-Retrievable Safety Valve

TECHNOLOGY BRIEF
What is it?

- The DepthStar® tubing-retrievable safety valve (TRSV) is a subsurface safety valve that is run below the wellhead with the production tubing to provide reservoir integrity in an emergency shut down situation.

- Unlike conventional safety valves, the DepthStar TRSV operates with consistently low control system pressure regardless of wellbore pressure or valve setting depth.
How it will benefit you

- Due to its inherent low operating pressure characteristics, the DepthStar® TRSV can allow the operator to eliminate the high pressure circuit from the hydraulic control system and operate off the low pressure circuit in deepwater subsea wellhead applications.

- Elimination of the topsides and subsea umbilical high pressure circuit represents substantial CAPEX.
Why it will help

- The DepthStar® TRSV delivers the capabilities of a subsurface safety valve through the use of a simple yet robust solution. Based on Halliburton’s traditional SP™ TRSV platform, it delivers the same fail safe functionality to help protect the people, environment and infrastructure of any asset while also reducing the control system pressure requirements.
Unique Features

- The DepthStar® TRSV uses a unique magnetic coupler that isolates the operating piston from wellbore effects, eliminating any well pressure or well fluids from the piston and potential for communication to the control system.

- A balance chamber is also employed to completely balance the hydrostatic forces of the control fluid acting on the operating piston.

- For ultimate reliability, there are no moving seals in the wellbore and only 100% metal-to-metal sealing is used in isolating the reservoir from the surface when shut in.
Where it Will Work

- DepthStar® TRSV is used in well applications of:
  - Extended setting depth requirements
  - Low control system operating pressure (subsea)
  - Concerns of wellbore fluids (gas) communicating to the control system
  - Ultimate reliability in operating with reduced operating pressures and no moving seals in wellbore
Challenges Addressed

- DepthStar® TRSV delivers:
  - Completion design flexibility with nearly unrestrained valve placement
  - Ultimate in reliability
  - Reduced pressure requirements and cost of overall operating system
  - Safety
When it’s Helpful

- Deepwater subsea applications
  - Delivers a low control system operating pressure requirement to work within subsea umbilical limitations

- Critical high value assets
Who to Contact, Where to get more information

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DepthStar TRSV