HALLIBURTON

COMPLETION SOLUTIONS | SUBSURFACE SAFETY VALVES

NeoStar® tubing retrievable safety valve

FEATURES

- High performance, non-elastomer, dynamic rod-piston seals
- MTM static seal at upper and lower rod-piston positions
- MTM body joints
- Flow tube fluted guide
- Flow tube cleanout ports
- Wiper ring on upper flow tube
- Internal flow tube exercise profile
- Flow tube shock absorber
- Concentric thrust bearing
- Resilient seal flapper/seat design
- Through-flapper equalization feature
- Quad-plane flapper hinge system
- Unique patented flapper closure mechanism
- Deep-set options available
- Chemical injection porting option
- API 14A V1-R validated

Overview

The Halliburton NeoStar® tubing retrievable safety valve (TRSV) is a premium, single-rod-piston, non-elastomer flapper valve for hostile environments and extended-life applications where ultimate reliability is required. The NeoStar TRSV builds on the legacy of the Halliburton SP™ TRSV platform by incorporating enhanced performance features that enable life of well reliability in subsea completions or hostile well environments.

The field-proven high-performance non-elastomer rod-piston seal system has been installed in more than 12,000 Halliburton safety valves to date. It has been tested at 450°F and 25,000 psi (with gas) as zero-bubble throughout all static and dynamic scenarios. The rod-piston seal system achieves a full metal-to-metal (MTM) seal at its uppermost and lowermost positions to seal well pressure from the control system.

The NeoStar TRSV flapper/seat design features an embedded non-elastomer resilient seal for improved low-pressure sealing performance and maintains full MTM flapper/seat sealing capability for high pressure. The field-proven contoured flapper design improves OD/ID relationships, which allows for a wider range of applications and improved line bypass capabilities. A unique patented flapper closure mechanism enhances debris tolerance.

The NeoStar TRSV quad-plane flapper hinge mechanism increases hinge system strength and improves closure mechanism reliability under harsh (high-rate) flapper closure scenarios.

The NeoStar TRSV sets the standard for premium, single control line, rod-piston TRSV's.



NeoStar® TRSV

Benefits

- Unsurpassed reliability of hydraulic actuator; dynamic and static seals independently verified gas-tight
- Control line isolated from well fluids by MTM seal with valve in closed position
- Hydraulic system isolated from well pressure by MTM seal with valve in open position
- MTM thread sealing on body connections with Halliburton HST thread technology
- Fluted flow tube guide provides maximum debris protection and allows fluid to enter and exit during valve operation
- Area above flow tube free of solids buildup
- Critical components isolated from well debris with valve in open position
- Flow tube can be manipulated by slickline
- Protected from high-flow rate slam closure
- No wear from helical spring torsional effects
- Improved low-pressure sealing, full MTM high-pressure sealing
- Higher-strength flapper hinge system to withstand harsh/high-rate flapper closure scenarios
- Enhanced debris tolerance on closure mechanism
- Setting depths to 9,000 ft (2743 m)
- API 14A 13th edition validated

NeoStar® TRSV specifications

TUBING SIZE (IN.)	MAXIMUM OD (IN.)	PRESSURE RATING (PSI)	API VALIDATION
4 1/2	7.35	5,000 7,500 10,000	V1-R
5 1/2	7.69 - 8.09	5,000 7,500 10,000 15,000	
7	8.90 - 9.07	7,500 10,000	

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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