TEST WITH VETO™ SUBSEA SAFETY SYSTEM

Our premiere 3-inch 15k Veto™ Subsea Safety System is designed with one goal in mind: to help make sure everyone goes home safely at the end of the day.

Because it leverages specialized, singularly focused technology, the Veto system gives you the well control you have to have during exploration testing and cleanup operations—even in the harshest environments. Nothing more. Nothing less.

THE VETO SYSTEM DIFFERENCE

As part of Halliburton's family of subsea safety systems, the Veto premiere 3-inch 15k subsea safety system is designed to specifically provide well isolation and control during exploration and appraisal drillstem testing and well cleanup operations.

The Veto system is an integral part of a full well-testing package. It can give the required BOP, wellhead, DST and surface equipment interfaces for landing out in the appropriate position, and provides well control as required.

In short, by incorporating the latest advances in design and technology, the Veto system can give you the comprehensive well control that's required in today's highly demanding and regulated deepwater environments.

VETO BENEFITS

Some of the latest technologies engineered into the Veto system include:

- Standard single design rated to 15,000 psi (103 MPa) working pressure
- The Veto lubricator valve allows for pressure testing against ball valve from above to full working pressure with applied control line pressure
- The Veto retainer valve is designed to fail-safe close in the event of a severing of the shear sub, if normal operations fail
- The Veto subsea safety tree passive latch orientation system provides positive latching, removing the need to rotate the landing string to achieve engagement, thus helping to eliminate potential issues with landing weights and string torsion
- Dual sealing elements installed in critical areas of well isolation help increase reliability
- All connections are locked from rotation with the Halliburton lock mechanism, which allows each connection to be fully shouldered out, thus increasing overall strength without the need to back off connections to get alignment
- High tensile capacity helps enable safe deployment of heavy DST strings
VETO SYSTEM CONFIGURATION
The Veto system has a modular design for subsea exploration testing and cleanup, which includes:
- Direct hydraulic control system
- Lubricator valve
- Retainer valve
- Shear sub
- Subsea safety tree
- Slick joint
- Adjuster sub and fluted hanger assembly
- Crossovers

ADDITIONAL CONFIGURATION OPTIONS
- Dash™ emergency response module
- Pneumatic or electrohydraulic ESD surface control systems
- Integration with DynaLink™ telemetry system
- Riser sealing mandrel
- Quick union
- Annular slick joints
- Latch retrieval tool
- BOP cans
- Chemical injection systems

VETO SUBSEA SAFETY TREE
The Veto subsea safety tree is a hydraulically operated, dual ‘fail-safe closed’ valve system designed as a primary well-control barrier combined with a passively orienting latch mechanism.

The Veto subsea safety tree is a critical part of any landing string, flowing back hydrocarbons to a semisubmersible or dynamically positioned drilling vessel. Deployed within the drilling blowout preventer stack, The Veto safety tree is designed to provide dual-barrier well isolation along with a means of disconnecting the landing string and leaving the well with a dual safety barrier until required to relatch and recommence with required operations—a critical safety requirement in the offshore environment.

RETAINER VALVE
The Veto retainer valve is a hydraulically operated ball valve system designed to contain pressurized hydrocarbons within the landing string after disconnecting from the primary string using the Veto subsea safety tree.

To help increase safety, a full-bore vent sleeve is incorporated within the retainer valve which rapidly vents the pressurized volume between the closed subsea safety tree ball valves and the closed retainer valve ball prior to disconnection. The Veto retainer valve is run above the Veto subsea safety tree within the drilling blowout preventer stack, and forms an essential part of the tool kit during an emergency disconnect.

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LUBRICATOR VALVE

The Veto lubricator valve is a hydraulically operated fail 'as is' ball valve designed to assist in well operations where well pressure isolation is required. It’s also designed to accommodate pressure testing from above to help ensure full pressure integrity of the surface assembly before reopening to the well.

These features allow the valve to be used as a well-intervention valve or as a lubricator valve, providing an operator the ability to isolate a well and introduce an intervention string from above, such as slickline or coiled tubing.

QUICK UNION

The Veto quick union helps provide a safe and fast method of making up the flowhead and landing joint to the main landing string without rotation of the flowhead assembly, minimizing risk of damaging the premium connection. The Veto quick union is made up of two halves that mesh together when mated with a passive castellated profile. When mated, this provides the ability for the connection to transmit torque. A special handling half can be provided to allow the operator to place the lower half closer to the rig floor by moving the elevators to a pup joint above the handling half. This allows easier and safer make up when stabbing the flowhead and landing joint.

ADJUSTER SUB AND FLUTED HANGER

The Veto adjuster sub and fluted hanger assembly provides the landing string with the ability to positively land out within the wellhead’s wear bushing, and also provides the adjustment necessary to help ensure that the subsea safety tree is positioned below the designated shear ram but above the designated pipe ram.

RISER SEALING MANDREL

The Veto riser sealing mandrel is designed to provide a solid, smooth surface for the diverter elements to engage. The interlocking, segmented assembly provides a sealable OD while protecting the subsea control umbilicals from abrasion or crushing from the diverter elements, slips, or the master bushing. The riser sealing mandrel allows gaseous hydrocarbons to be diverted away from the rig floor without risking damage to the subsea control umbilicals.

DASH™ EMERGENCY RESPONSE MODULE

Halliburton’s unique Dash™ emergency response module is designed in conjunction with the Veto system, and is a key safety feature that can help provide accelerated well shut-in and landing string disconnect. The Dash ERM may be added into the landing string when a vessel positioning emergency is considered possible, or in any situation where fast un latch may be desired.

These conditions are most common when conducting well-testing activities from dynamically positioned drilling vessels in water depths between 2,000 and 10,000 feet (610 and 3,048 meters).

Because Dash ERM is completely passive during normal operations, an operator can maintain full hydraulic control of the subsea safety system at all times. In short, as the industry’s first rapid subsea disconnect system without complex downhole electronics, it helps eliminate this potential failure mode.

To learn more about the Veto System, talk to your Halliburton representative today or visit us online at halliburton.com/veto. You’ll be glad you did.