Schlumberger

SenTREE 3

Subsea test tree

APPLICATIONS

- Well tests
- Well cleanup operations

BENEFITS

- Configuration flexibility to meet specific requirements without custom systems for each operation
- Integration with any subsea system and BOP stack
- Safety and reliability improvements through standardization of modular components
- Reliable performance from proven technology, extensive testing, and 35-plus years of subsea experience
- Support by Schlumberger personnel from program design to project completion

FEATURES

- Reduced length and modular design
- High-pressure, high-temperature tested and qualified to full pressure and temperature range
- Ability to unlatch at full tension with an angle of up to 6°
- Backup mechanical unlatch
- Latch fishing profile and dedicated fishing tool
- Chemical injection below or at valve level

The SenTREE 3* subsea test tree (SSTT) system is a singular subsea safety solution for well test and cleanup operations from any floating rig.

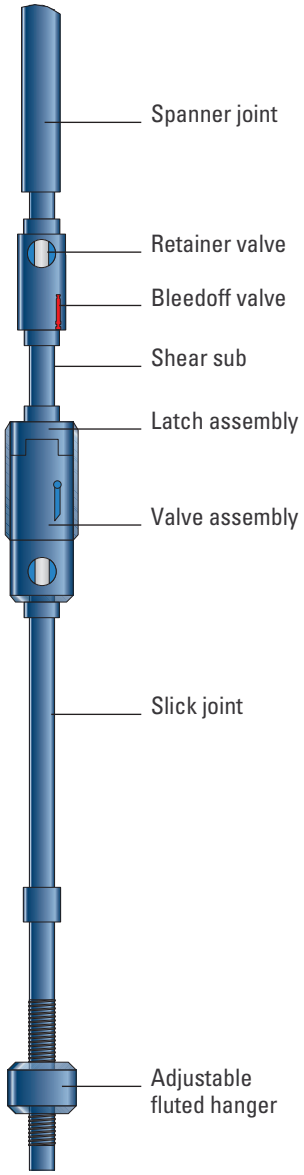
This field-proven modular system, composed of a dual fail-safe ball valve–flapper valve assembly, a latch connector assembly, and a retainer valve, can be configured to any BOP stack.

The SenTREE 3 SSTT provides a 3.0-in [76.2-mm] wellbore access, dual-barrier well control, and a reliable, fast-acting means to shut in a well and disconnect in the event of an emergency.

Two independently controlled barriers—a ball valve and a flapper valve—govern wellbore fluid flow at the subsea BOP. Sequential valve closure ensures that the flapper valve closes only after the ball valve is closed. The pump-through ability of the valve assembly permits well control if the hydraulic control pressure is lost.

If required, the ball valve can be used to cut a variety of media, including slickline, wireline, and coiled tubing up to 1¼-in OD. An optional module can be added for increased cutting capability, if required. The retainer valve provides environmental protection by holding hydrocarbons in the landing string after a disconnect.

Operating system options for the SenTREE 3 SSTT support operations in water depths ranging from shallow to ultradeep, enabling SSTT system disconnection in as little as 15 seconds. Control systems communicate via direct hydraulics or electrohydraulics, depending on the application and operating environment.



SenTREE 3 subsea test tree.

SenTREE 3

Specifications	
Nominal OD, in [mm]	13 [330]
Nominal ID, in [mm]	3 [76]
Max. pressure, psi [MPa]	
Working	15,000 [103]
Test	22,500 [155]
Tensile rating, lbf [kN]	
At 0 psi	520,000 [2,313]
At 15,000 psi	255,000 [1,134]
Max. operating temperature, degF [degC]	350 [177]
Service	ISO 15156-1, 2001
	ISO 15156-2, 2002: Part 2
	ISO 15156-3, 2003: Part 3
Certifications	DNV[†]-OS-E101, NMD[‡] No. 856, PSA[§], API 6A, 19th Edition, PSL 3

[†] Det Norske Veritas
[‡] Norwegian Maritime Directorate
[§] Petroleum Safety Authority Norway

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