

# SenTREE 7

## Completion subsea test tree

### APPLICATIONS

- Subsea completion installation
- Drillstem testing and evaluation
- Reservoir cleanup
- Well intervention
- Well abandonment
- Well stimulation

### BENEFITS

- Provides reliable, repeatable well control in a wide range of water depths
- Prevents fluid spills during controlled and emergency disconnects

### FEATURES

- Modular components for simple BOP configuration
- Full 7.375-in [187-mm] large-bore well access
- Self-aligning latch mechanism
- Configurable emergency shutdown system
- Two independent well-control barriers (ball- and flapper-valve combination)
- Secondary valve closure and disconnection feature for use in the event of umbilical failure
- Multiple hydraulic and electrical through-ports for tubing hanger running tool and downhole functions
- Slickline, wireline, and coiled tubing cutting capability

The SenTREE 7\* completion subsea test tree (SSTT) is the primary subsea well control solution for completion, flow testing, intervention, and other subsea well operations performed from a floating vessel.

This field-proven modular system consists of a ball valve module, integral flapper valve and reentry profile, hydraulic latch module, bleedoff valve module, and retainer valve, which can be configured to suit the BOP stack and other subsea interfaces.

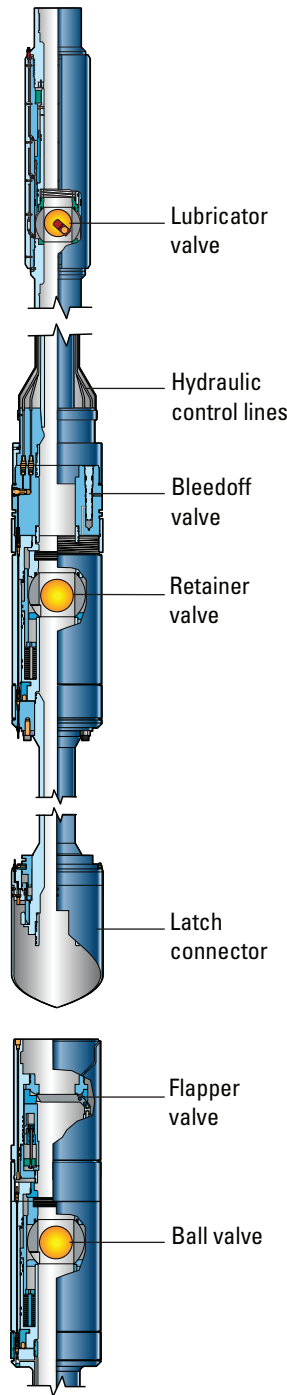
The SenTREE 7 SSTT provides large-bore (7.375-in [187-mm]) well access, dual-barrier well control, and a reliable means to disconnect the completion landing string in the event of an emergency.

Two independently controlled barriers—a ball valve and a flapper valve—govern wellbore fluid flow at the subsea BOP. These valves are fail closed to secure the wellbore if hydraulic control pressure is lost. If required, the ball valve assembly can be used to cut a variety of media, including slickline, wireline, and coiled tubing. The ball valve can cut 2.0-in-OD coiled tubing (0.156-in wall thickness, 95,000-psi yield) in an emergency. 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 disconnect.

Operating system options for the SenTREE 7 SSTT support operations performed from anchored or dynamically positioned vessels in water depths ranging from shallow to ultradeep.

Multiple hydraulic and electrical ports allow customization of the SenTREE 7 SSTT for

- control of tubing hanger running tool
- subsurface safety valve and completion equipment devices
- downhole chemical injection
- line integrity monitoring during running or retrieving operations.



SenTREE 7 subsea test tree.

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**Specifications**

Nominal OD, in [mm]	18.56 [471]
Nominal ID, in [mm]	7.375 [187]
Max. pressure, psi [MPa]	
Working	10,000 [69]
Test	15,000 [103]
Tensile rating, lbf [kN]	
At 0 psi	1,000,000 [4,450]
At 10,000 psi	400,000 [1,780]
Min. handling temperature, degF [degC]	-20 [-28]
Min. operating temperature, degF [degC]	38 [3]
Max. operating temperature, degF [degC]	325 [165]
Service	ISO 15156-1, Part 1
	ISO 15156-2, Part 2
	ISO 15156-3, Part 3
System certifications	DNV <sup>†</sup> -OS-E101
	API 6A

<sup>†</sup> Det Norske Veritas

[www.slb.com/SenTREE](http://www.slb.com/SenTREE)