

# Single-Ball Safety Valve

Serves as additional safety barrier with high closing force

**APPLICATIONS**

- Downhole testing
- Operations requiring an additional safety barrier

**BENEFITS**

- Reliably serves as an additional downhole shut-in device for increased safety

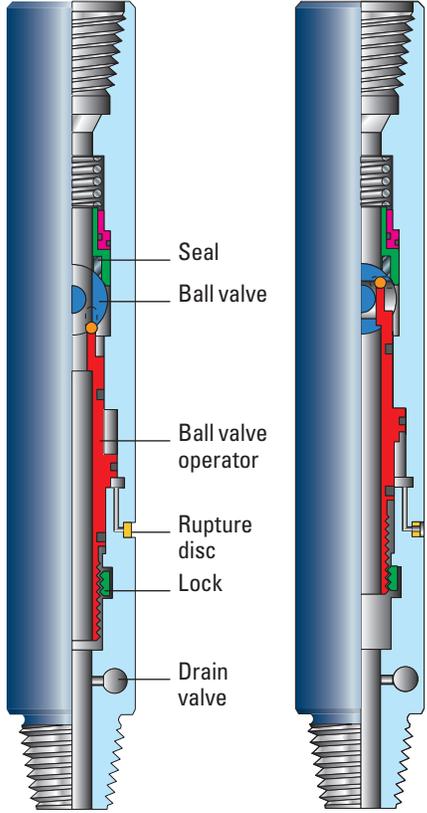
**FEATURES**

- Has a high closing force
- Cuts 7/32-in wireline cable
- Locks in open and closed positions

The single-ball safety valve (SBSV) is a full-opening downhole safety valve. It is run in the open position and closes permanently in response to annulus overpressure. The operator mandrel is balanced to internal pressure and locked in the open position to prevent premature closure.

Upon rupturing the disc, hydrostatic pressure is applied to the operator mandrel, thus closing the valve.

The large differential pressure (hydrostatic to atmospheric) and the 3/4-in<sup>2</sup> [21-cm<sup>2</sup>] operator area yield more than enough force to cut 7/32-in wireline cable, even in shallow wells. The ball valve operator locks in the closed position and prevents the tool from reopening until it is retrieved at the surface. The lock can be reset without disassembling the tool, which allows functional testing before running in the hole.



Single-ball safety valve with ball valve open (left) and ball valve closed (right).

**Specifications**

Model	SBSV-FFB	SBSV-FEA/FEB	SBSV-GAA/GAB
Max. OD, in [mm]	5 [127]	5 [127]	3.125 [79]
Tool ID, in [mm]	2.25 [57]	2.25 [57]	1.125 [29]
Pressure ratings			
Differential across housing, psi [MPa]	17,500 [121]	15,000 [103]	15,000 [103]
Differential across ball valve, psi [MPa]	15,000 [103]	15,000 [103]	15,000 [103]
Max. annular, psi [MPa]	25,000 [172]	25,000 [172]	20,000 [138]
Max. tubing, psi [MPa]	29,000 [200]	29,000 [200]	29,000 [200]
Temperature rating, degF [degC]	425 [218]	425 [218]	425 [218]
Length, ft [m]	5.83 [1.78]	5.83 [1.78]	6.04 [1.84]
Weight, lbf [kg]	270 [122]	270 [122]	130 [59]
Service (NACE MR0175)	H <sub>2</sub> S, acid	H <sub>2</sub> S, acid	H <sub>2</sub> S, acid
Tensile strength min. yield, lbf [kN]	360,000 [1,600]	360,000 [1,600]	160,000 [712]
Connection	3/2 PH-6	3/2 IF or PH-6	2 3/8 Reg or PH-6

\*Mark of Schlumberger  
Other company, product, and service names are the properties of their respective owners.  
Copyright © 2014 Schlumberger. All rights reserved. 14-TS-0029