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 3⅛-in² [21-cm²] 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.