



“BDB6” SCSSV

The “**BDB6**” series **Surface Control Subsurface Safety Valve** is a versatile wireline retrievable subsurface safety valve with a straight through bore and internal equalizing feature.

All of the BDB6 safety valves feature the field-proven flapper closure system. This time tested flapper mechanism features a large single hinge designed for strength, and a hinge pin designed from a high strength alloy. Utilizing a concentric piston design this product combines reliability with performance in sweet to moderately corrosive environments.

The “**BDB6**” series **Lock Mandrel** is a top no-go locking device designed to be landed and locked in a BDB6 Landing Nipple and BDB6 series hydraulic safety valve landing nipples.

The design of this lock series features an internal fishing neck that allows a large bore through the lock. When set in position, an internal sleeve, the expander tube, is held in the locked position by a collet and shear pins that prevent unlocking at high flow rates. The BDB6 lock mandrel is also designed to use the BDZ6 tattletale type running tool. These tools give the slickline operator a positive indication that the assembly is installed in the nipple and is in the locked position. Optional high-temperature packing for temperatures above 300 °F (149 °C) is available for the BDB6 Lock Mandrel.

APPLICATION

- Sweet to moderate corrosive applications from 30°F (-1 °C) to 325°F (163 °C)
- Fluid & Gas environment
- Production and injection application

BENEFITS

- Provide versatile and reliable operations.
- Design is cost effective and easy to run.
- Allows fewer potential leak paths.
- Applies to a wide range of wells.

FEATURES

- SCSSV rated for differential pressure up to 10,000 psi dependant on sizes.
- Internal equalization and adjustable closing pressures.
- Compact design
- Minimum numbers of seals
- Optimal geometry and clearance between sliding components
- Engineered for setting depths to 1,000 feet



**BDB6
SCSSV**



Black Diamond WELL SERVICES

| Part Number | | SV281B6 | SV381B6 | SV456B6 | SV593B6 |
|---------------------------------------|---|-----------------|-----------------|-----------------|-----------------|
| Size | Inch | 3.500 x 2.813 | 4.500 x 3.812 | 5.500 x 4.562 | 7.000 x 5.937 |
| | mm | 88.9 x 71.45 | 114.3 x 96.85 | 139.7 x 115.875 | 177.8 x 150.799 |
| Maximum Lock No-Go OD | Inch | 2.866 | 3.843 | 4.610 | 5.982 |
| | mm | 72.796 | 94.612 | 117.094 | 151.943 |
| Maximum SCSSV OD | Inch | 2.801 | 2.803 | 4.551 | 5.937 |
| | mm | 71.145 | 71.196 | 115.595 | 150.799 |
| Valve Packing OD | Inch | 2.813 | 3.812 | 4.562 | 5.937 |
| | mm | 71.4 | 96.8 | 115.9 | 65.1 |
| Valve Minimum ID | Inch | 1.562 * | 2.125 * | 2.562 * | 3.610 * |
| | mm | 39.75 * | 54.0 * | 65.1 * | 91.7 * |
| Working Pressure | psi | 5,000 to 10,000 | 5,000 to 10,000 | 5,000 to 10,000 | 5,000 to 10,000 |
| Rated Working Temperature | °F | 30 to 325 | 30 to 325 | 30 to 325 | 30 to 325 |
| | °C | -1 to 163 | -1 to 163 | -1 to 163 | -1 to 163 |
| Fail Safe Setting Depth | | 1000ft | 1000ft | 1000ft | 1000ft |
| Operating Pressure (fully open) | psi | 600 | 600 | 600 | 600 |
| Operating Pressure (fully closed) | psi | 1300 | 1300 | 1300 | 1300 |
| Flapper Soft Seat | Proprietary Viton seal material to provide a reliable low-pressure seal | | | | |
| Standard Metallic Materials | | | | | |
| Lock and most Safety Valve components | 9% minimum chrome 80,000 psi (552 MPa) minimum Yield | | | | |
| Flapper and Seat, Flapper Pin | INCOLOY 925 | | | | |
| Choke | INCOLOY 925 | | | | |
| Power Spring, flapper hinge spring | MP 35N | | | | |

NOTE: * Minimum ID may vary depending on the required working pressure of the valve. The ID size would be reduced for higher working pressure applications.