

Description

Superior Completion Services' FlowSafe™ Tubing-Retrievable (TR) Safety Valve is a flapper-type, equalizing or non-equalizing, surface-controlled subsurface safety valve (SCSSV) installed in the production string. The patent-pending valve is designed to provide subsurface isolation to minimize loss of production, protect human life, and reduce the potential for environmental discharge or damage to production equipment resulting from an uncontrolled surface or subsurface event.

The FlowSafe™ SCSSV is hydraulically controlled from the surface through a control line connected to the well control/emergency shutdown system. The FlowSafe™ TR Safety Valve is designed to facilitate easy installation of secondary FlowSafe™ Wireline-Retrievable (WR) Safety Valves to provide continuous fail-safe operation.

Applications

- » Offshore environments and in onshore wells located in environmentally sensitive areas
- » Any area in which the integrity of the wellhead can be compromised

Features and Benefits

- » Hydraulically controlled
- » Certified per API 14A specifications
- » Maximized flow-through ID design
- » Self-equalized through flapper option
- » Nonelastomeric seals
- » Metal-to-metal body joints
- » Secondary lockout/communication
- » Inverted dual ferrule control line connection
- » Optimized design helps eliminate sand fouling
- » Compact design and minimal number of parts increases reliability
- » Minimized number of potential leak paths
- » Premium metallurgies available for varied environments



Technical Data

FlowSafe™ TR Safety Valves												
Tubing Size*		Model	Maximum OD		Polished Bores				Working Pressure		Tensile Strength**	
in.	mm		in.	mm	in.	mm	in.	mm	psi	MPa	lb	kg
FlowSafe™ TR 5,000-psi Safety Valves												
2 3/8	60.3	BT(E)-5	3.625	92.08	1.875	47.6			5,000	34,474	167,191	75,837
2 7/8	70.3	BT(E)-5	4.610	117.1	2.313	58.7	2.188	55.6			186,180	84,450
3 1/2	88.9	BT(E)-5	5.175	131.4	2.813	71.4	2.750	69.9			302,760	137,330
4 1/2	114.3	BT(E)-5	6.908	175.4	3.813	96.9	3.688	93.7			425,740	193,112
		BTSP(E)-5	6.550	166.4	3.813	96.9	3.688	93.7			380,007	172,368
5 1/2	139.7	BTSP(E)-5	7.686	195.2	4.563	115.9					602,970	273,502
7	177.8	BTSP(E)-5	9.203	233.8	5.963	151.0			886,905	402,293		
FlowSafe™ TR 7,500-psi Safety Valves												
4 1/2	114.3	BTSP(E)-7.5	6.915	175.6	3.813	96.9	3.688	93.7	7,500	51,710	535,980	243,116
5 1/2	139.7	BTSP(E)-7.5	8.107	205.9	4.563	115.9					780,264	353,922
7	177.8	BTSP(E)-7.5	9.537	242.2	5.963	151.0					1,353,420	613,901
FlowSafe™ TR 10,000-psi Safety Valves												
2 3/8	60.3	BT(E)-10	3.625	92.1	1.875	47.6			10,000	68,948	198,485	90,031
2 7/8	70.3	BT(E)-10	5.130	130.3	2.313	58.7	2.188	55.6			283,132	128,427
3 1/2	88.9	BT(E)-10	5.540	140.7	2.813	71.4	2.750	69.9			374,733	169,976
4 1/2	114.3	BTSP(E)-10	7.350	186.7	3.813	96.9	3.688	93.7			468,509	212,512
5 1/2	139.7	BTSP(E)-10	8.592	218.2	4.563	115.9					780,264	353,922
7	177.8	BTSP(E)-10	9.982	253.5	5.963	151.0					1,455,058	660,003

* The data provided above is not inclusive of all pressure ratings and ODs available in the tubing sizes listed. For additional information, contact your Superior Completion Services representative.

**The tensile ratings listed are specific to the metallurgy for the valves listed and are exclusive of end connections. Tensile calculations are performed at ambient temperatures. Additional information is available upon request.

References

- » FlowSafe™ SCSSV brochure
- » FlowSafe™ WR Safety Valve data sheet