



The Tubing Drain provides a single use, pressure actuated system for providing a reliable and economical method of opening up communication between the tubing and annulus. It is designed primarily for use on rod pumped wells to provide a reliable method of draining the tubing in cases where the pump and/or valve cannot be retrieved with the rod string by pressuring up the tubing against the pump. The drain can also serve as an emergency method of killing the formation. The Tubing Drain is activated by differential pressure in favor of the tubing. Removing or adding shear screws can adjust the trip pressure. Once activated, the Tubing Drain cannot be closed.

Note: Differential pressures below are based on actual test results. No less than two shear screws spaced at 180 degrees should be used. Screws should be spaced evenly around the circumference. Shear value may possibly vary by 10%.

Note: The 2-3/8 and 2-7/8 EUE size tubing drains use the 000-151 shear screw. The 3-1/2 uses the 000-008 shear screw

Tubing Drain						
Tubing Size			Maximum O.D.		Max. Number of Screws	
in	mm	in	mm			
2-3/8	60.3	3.250	92.5	6		
2-7/8	73.0	3.625	92.1	6		
3-1/2	88.9	4.50	114.3	5		
Differential Trip Pressure vs. Number of Shear Screws						
No. of Shear Screws	2-3/8 EUE		2-7/8 EUE		3-1/2 EUE	
	psi	kPa	psi	kPa	psi	kPa
2	2,100	14,500	2,500	17,200	1,800	12,400
3	3,000	20,700	3,100	21,400	2,700	18,600
4	3,950	27,200	4,200	29,000	3,600	24,800
5	4,900	33,800	5,000	34,500	4,250	29,300
6	5,700	39,300	5,800	40,000	—	—