

## MODEL "FD" SLIDING / CIRCULATING SLEEVE

## DESCRIPTION

The FD Sliding Sleeve is a communication device with a ported inner sleeve that can be opened or closed using "B" shifting tool by standard slickline or coiled tubing methods. Equalizing holes in the inner sleeve provide pressure equalization between the tubing and casing annulus as the sleeve is opened. The SS is made up to and forms part of the tubing string. The FD SS is a shift-down-to-open tool. The FD SS is used to establish a means of communication between the tubing string and the casing annulus for singletubing or multiple-tubing string completions. The FD SS may be used for directing flow from the casing to the tubing in alternate or selective completions. Other applications include killing a well, spot acidizing and fracturing, or equalizing pressure between an isolated formation and the tubing string.

## **FEATURES**

- This prevents damage to the upper packing unit during shifting by controlling the rush of fluid or gas, and lessens the likelihood of tool string damage by providing for slow equalization of high differentials
- Mill slots replace drill holes as flow ports on both the housing and the insert to allow more flow area, reduce erosion and allow higher torque and tensile strength through the sleeve.
- Locating the threaded connection inside the primary seal stack eliminates the need for O-ring thread seals and reduces the number of potential leak paths.

Tubing Size (inches)	Seal Bore (inches)	Size (inches)	OD (inches)	Working Pressure (psi)
1.9	1.44	1.43	2.38	9,000
	1.50	1.50		
2-1/16	1.56	1.56	2.50	
	1.63	1.62		
2-3/8	1.78	1.78	2.91	
	1.81	1.81		
	1.88	1.87		
2-7/8	2.25	2.25	3.41	
	2.31	2.31		
3.1/2	2.75	2.75	4.50	7,500
	2.81	2.81		
4.1/2	3.69	3.68	5.50	
	3.81	3.81		

## **PRODUCT SPECIFICATION**

