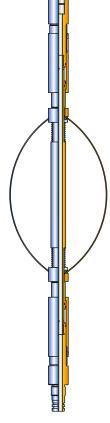


## **HYDRAULIC DISCONNECT**

The Hydraulic Disconnect allows the toolstring to detach at a predetermined point via the deployment of a suitable drop/trip ball through the coiled tubing. The drop ball locates on a piston sleeve creating sufficient back pressure to shear the pins and disconnect the tool. All piston sleeves and drop balls are returned to surface leaving a standard 'GS' internal fish neck for retrieval purposes.

HYDRAULIC DISCONNECT								
Max.	Min.	Tensile	Fish Neck	Make-up	Drop Ball	Internal		
O.D.	I.D.	Strength	(internal)	Length	Release	Ball		
(in)	(in)	(Standard		(in)	(in)	Clearance		
		Service)				(in)		
1.687	0.438	40,000 LBS	2" 'GS'	18	5/8	7/16		
1.750	0.438	45,000 LBS	2" 'GS'	18	5/8	7/16		
2.125	0.438	55,000 LBS	2" 'GS'	18	5/8	7/16		
2.250	0.750	65,000 LBS	2" 'GS'	18	13/16	3/4		
2.375	0.750	70,000 LBS	2-1/2" 'GS'	19	13/16	3/4		
2.875	0.750	120,000 LBS	3" 'GS'	21	13/16	3/4		
3.125	1.062	150,000 LBS	3" 'GS'	21	1.1/8	1		



## FLOW ACTIVATED BOW SPRING CENTRALIZER

The Flow Activated Bow Spring Centralizer is designed to allow the toolstring or parts of the toolstring to be centralized in the tubing/casing for various operations.

The Flow Activated Bow Spring Centralizer is designed so that its bow springs are normally retracted. The bow springs only expand when a pressure differential is achieved across the tool.

HYDRAULIC
<b>DISCONNECT</b>

FLOW ACTIVATED BOW SPRING CENTRALIZER							
Tubing/ Casing	O.D.	I.D.	Length				
Size (in)	Size (in)	Size (in)	Size (in)				
3-5/8, 8	1.688	0.563	36.000				
3-1/4, 8-1/2	2.125	1.000	36.000				
5, 11	2.563	1.375	42.625				
5-5/8, 11-1/2	3.125	1.375	44.500				

FLOW ACTIVATED BOW SPRING CENTRALIZER