

DROP BALL FLAPPER SUB

APPLICATION

- Reverse circulation applications
- Any Well operations where a double barrier is required

FEATURES

- Flappers held open
- Fully retained shear screws
- Drop ball activated
- Fluid flow down thru' tool when flapper activated
- Double barrier to well bore fluids when activated
- No specialist assembly tools required
- Fully adjustable activation pressure
- Easily redressed

ADDITIONAL INFORMATION

- Common sizes are shown, other sizes available on request.
- Tools are manufactured from mild steel as standard. Other materials are available on request.
- Tools are supplied with a blank disc as standard. Additional Rupture discs are available to suit a range of pressures.

The WellEnTech Drop Ball Flapper Sub is a tool which contains two flapper check valves. These check valves are held open until required. Ideally suited for reverse circulation operations where check valves are not required during circulation but are required when tripping out of hole so that the retrieved tubing string incorporates a double barrier against well fluids. When activated the flappers permit flow down through the tubing but prevents flow back up through the tubing.

TECHNICAL SPECIFICATION

OD (Inches)	Length (Inches)	Connection	Tensile Strength (lbs)	Service	Part No.
1.688	22.00	1"AMMT	41,200	H2S	113-1688-A001
			56,800	Std.	113-1688-A002
1.750	22.00	1-1/4"AMMT	42,800	H2S	113-1750- A001
			59,900	Std.	113-1750- A002
2.125	26.00	1-1/2"AMMT	54,000	H2S	113-2125- A001
			74,200	Std.	113-2125- A002
2.375	29.00	1-1/2"AMMT	62,600	H2S	113-2375- A001
			86,000	Std.	113-2375- A002
2.875	35.00	2-3/8" PAC	158,900	H2S	113-2875- A001
			218,500	Std.	113-2875- A002

OPERATION

The WellEnTech Drop Ball Flapper Sub is configured at surface to the required shear value. The tool is attached to the Bottom Hole Assembly and remains redundant in the tubing string until required. When the reverse circulation operation is complete. A drop ball is pumped down the tubing string until it lands off on the ball seat in the stinger. Pressure is then applied, which shears the shear screws and drives the stinger down which activates the Flapper Check Valves. From this point on, no flow is permitted back up the tubing string enabling safe retrieval of the tool string to surface.

