

# PUMP-OUT SUB

## APPLICATION

- Velocity Strings
- Injection operations
- Well Kill or Stimulation applications

## FEATURES

- Compact design
- Dual barrier design
- Multi-function operation
- Maximised through bore
- Connection to suit tool joint or coil connector

## ADDITIONAL INFORMATION

- Bespoke designs available to suit job specific applications.
- Tools are manufactured from mild steel as standard. Other materials are available on request.

## OPERATION

Prior to running in hole, the WellEnTech Pump-Out Sub is dressed with the required amount of shear screws. The Sub can then be fitted to the tubing and run in hole to the required depth. A predetermined pressure is then applied to the tubing string, resulting in the Pump Out Plug shearing and dropping into the catcher or well bore, permitting well fluid to circulate up through the tubing in the case of a velocity application.

The WellEnTech Pump-Out Sub is a device designed to be placed at the end of a tubing string to provide a means of isolating the tubing bore from well fluids until the Pump-Out Sub is activated. The design is particularly suited to velocity strings where the production conduit is coiled tubing. The activation pressure is fully adjustable and the tool is designed so that only the application of tubing pressure will activate the tool. Alternatively a ball seat can be fitted to facilitate tubing fill when running in hole. The Pump-Out Sub can be attached directly to jointed pipe or to coiled tubing via a suitable connector. It can also be supplied with or without a catcher depending on operational requirements. A range of catcher types and styles are available. The illustrations below shows a Pump-out Plug Version complete with Catcher.

## TECHNICAL SPECIFICATION

| OD (Inches) | Length (Inches) | Connection       | Min Flow Dia (Inches) | Pump-Out Sub Type | Service | Part No.      |
|-------------|-----------------|------------------|-----------------------|-------------------|---------|---------------|
| 1.500       | 12.00           | 1.281" 10 SA Box | 1.00                  | Drop Ball         | H2S     | 226-1500-A001 |
|             |                 |                  |                       |                   | Std     | 226-1500-A002 |
| 1.688       | 12.50           | 1.375" 10 SA Box | 1.25                  | Pump-Out Plug     | H2S     | 226-1688-A001 |
|             |                 |                  |                       |                   | Std     | 226-1688-A002 |
| 2.125       | 19.13           | 1.813" 10 SA Box | 1.40                  | Drop Ball         | H2S     | 226-2125-A001 |
|             |                 |                  |                       |                   | Std     | 226-2125-A002 |
| 2.25        | 19.13           | 1-1/2" AMMT Box  | 1.00                  | Drop Ball         | H2S     | 226-2250-A001 |
|             |                 |                  |                       |                   | Std     | 226-2250-A002 |
| 2.375       | 18.25           | 1-1/2" AMMT Box  | 1.00                  | Pump-Out Plug     | H2S     | 226-2375-A001 |
|             |                 |                  |                       |                   | Std     | 226-2375-A002 |
| 2.875       | 22.25           | 2-3/8" PAC Box   | 1.375                 | Pump-Out Plug     | H2S     | 226-2875-A001 |
|             |                 |                  |                       |                   | Std     | 226-2875-A002 |
| 3.125       | 24.00           | 2-3/8" PAC Box   | 1.375                 | Drop Ball         | H2S     | 226-3125-A001 |
|             |                 |                  |                       |                   | Std     | 226-3125-A002 |

