

Large Bore Dissolving Pump-out Plug (LBD-POP)

The **Large Bore Dissolving Pump-out Plug** is used to form a temporary barrier in the tubing string to perform a variety of downhole operations and is perfect for Disposal Well Completion applications. The Large Bore Dissolvable Pump-Out Plug restricts fluid and pressure from below until expended with tubing pressure once the intended operation is complete. The Fully dissolvable plug is expended from the housing via applied pressure where it dissolves in the wellbore fluids, conveniently eliminating potentially troublesome debris in your wellbore. **Also available in Ball Drop Configuration.**

APPLICATION

- Temporary dissolving barrier in the tubing string

BENEFITS

- Low cost
- Wide choice of shear-out pressures
- Provides a tubing plug without well intervention

FEATURES

- Adjustable shear value
- Full bore after actuation
- Available in standard and premium threads and materials
- Plug coated to protect it from premature dissolution

DESCRIPTION AND OPERATION

The **Large Bore Dissolving Pump-out Plug** sub comes with a dissolvable pump-out plug which prevents the tubing from filling with fluid in addition to providing a pressure barrier as the equipment runs in-hole. The shear settings are easily adjusted in the field. Once the equipment's required setting pressure is applied and held for the time required for the specific application, the tubing pressure is then increased to shear the screws retaining the plug. Once expended, the plug simply falls to the bottom of the well and dissolves in the well fluid, leaving the pump-out plug housing with a fully open tubing ID.

The Large Bore Dissolving Pump-out Plug sub accommodates an adjustable shear value.



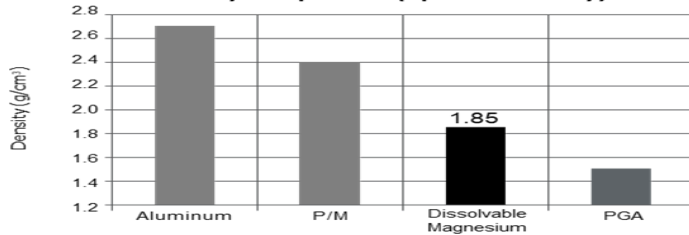
Tubing	Pump-out Plugs			
OD (in. [mm])	Sub Max. OD (in. [mm])	OD of Plug (in. [mm])	ID of Tool After Shear (in. [mm])	Setting Pressure Per Screw (PSI/Screw+/15%)
3.500 [88.9]	4.500 [114.3]	3.400 [31.75]	3.460 [87.884]	375
4.500 [114.3]	5.563 [141.30]	3.940 [31.75]	4.000 [101.60]	451

Magnesium Alloy Dissolution

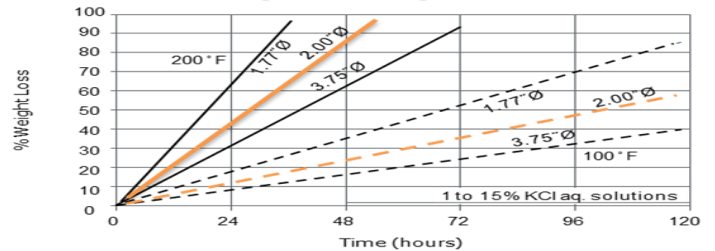
The magnesium alloy has a corrosion rate of 1100 MCD (milligrams/sq cm/day) in 3% KCl solutions at 200°F. This high strength magnesium alloy has good ductility. The magnesium alloy needs at least 10,000 ppm chloride ion to corrode actively. To protect the magnesium alloy plug from beginning the dissolution process or corrosion during installation, a specialized coating is applied to the plug.

Magnesium Alloy

Materials density comparison (Specific Gravity)



Dissolvable Magnesium weight loss



Corrosion Rate (MCD) @ 100, 150, and 200°F

