Life-of-the-Well Float Equipment
Designed for non-cemented casing applications that require a float valve with an extended life period to provide safe and reliable zonal isolation.

As the oil and gas industry continues to focus on economical completion methods that can sustain the life of the well, it is becoming more important to find alternatives to conventional float equipment applications.

A cement sheath is the conventional means to provide primary zonal isolation in the annulus with a good initial bonding along with a certain degree of strength providing the conventional measure of success. However, the complexity of wells today increases the wellbore architecture's susceptibility to unavoidable stress events such as internal pressure from testing or depletion, temperature variations and completion or stimulation operations. If the cement sheath is adversely affected by cumulative stresses, zonal isolation can be compromised and possibly impede the long-term production capabilities of the well.

Delivering zonal isolation for the life of the well has never been easy; every well has complex challenges and today the challenges are greater than ever before. Halliburton continually invests in science to drive increased reliability through innovation. The resulting technological advancements start with an understanding of the problems and issues that can lead to a loss of zonal isolation. One example of advancements in achieving a reliable hydraulic seal is Halliburton's Swell Technology™ systems.

Swell Technology systems have proven to provide a reliable mechanical barrier to complement the cement sheath for resilient zonal isolation.

Additionally, Swell Technology systems are gaining in popularity for providing an annular barrier in non-cemented wellbore architecture designs. The reactive component of the tool can swell into the annular void to provide a hydraulically-sealed barrier at strategic points in the well. For applications of Swell Technology systems as the primary annular barrier, Halliburton has designed a float valve assembly, Life-of-the-Well float equipment, specifically for use in non-cemented applications to overcome the limitations of conventional floating equipment.

Unlike standard cementing float shoes and collars designed to maintain pressure only until the cement sheath has set, Life-of-the-Well float collars and float shoes are designed to maintain pressure integrity between the formation and the casing for an extended period of time. Life-of-the-well floating equipment is designed with metallic valves and seats to withstand the formation pressures and temperatures expected in non-cemented applications.

By incorporating Swell Technology systems with Life-of-the-Well Float Equipment in non-cemented applications, the float valve assemblies and latch down plugs provide essential extended-pressure capabilities important to maintaining the productive life of the well.

Life-of-the-Well Float Equipment Features
• Based on the field proven Super Seal II® valve design with over 500,000 units manufactured to date
• Available as a complete system containing
  • Matching foam wiper latch down plug
  • Landing collar
  • Float collar
  • Float shoe
• 10,000 psi working pressure at 400°F
• 6-BPM flow rating with weighted fluids
• Compatible with most well fluids
• Further optional valve enhancements for H₂S compatibility if required
- Float shoe and float collar have extended lengths with double valve technology
- Nitrile rubber coated poppet valves and machined steel non-cemented valve seats for enhanced sealing capabilities
- Compatible with latch-down plug assemblies with 10,000-psi landing pressures
- Available in the following tubular sizes:
  - 2-7/8-in. and 3-1/2-in. tubing (with 2-1/4-in. poppet valve design)
  - 4-1/2-in. through 7-in. casing (with 2-3/4-in. poppet valve design)
- Swell Technology systems are sold and custom designed for each well separately

**Benefits**

- An alternative to conventional cemented well completions
- Helps allow a non-damaging wellbore architecture with lower ECDs (equivalent circulating densities) exerted on the formation by not having to pump and displace cements
- Standard installation and running procedures based on experience from Halliburton’s field-proven Super Seal II® float equipment designs
- Swell Technology Systems provide self-healing and intervention-free technology with and without cementing operations.

For more information on Life-of-the-Well™ Float Equipment, please call your local Halliburton representative or email us at cementing@halliburton.com.