

Plug Locator System

Eliminates errors in cement-displacement volumes by producing a recognizable indication when the cementing top plug passes through the locator collar

Applications

- Long casing or liner strings using Weatherford conventional or subsurface-release plug systems
- Wells with compressible displacement fluids
- Critical casing strings

Features and Benefits

- The system eliminates most errors in cement-displacement volumes, such as fluid compression, casing inside diameter (ID) variances, and incorrect pump efficiencies, which prevents costly corrective measures.
- The system prevents a wet shoe and excessive cement drillout.
- The locator collar and plug can be drilled out using polycrystalline-diamond-composite (PDC) bits, which saves valuable rig time.

Tool Description

The Weatherford plug locator system produces a recognizable indication when a cementing top plug passes through a locator collar at a predetermined distance above the float or landing collar in the casing string. Observed at the surface, the indication enables verification of cement displacement to eliminate cementing errors.

A surface pressure increase between 300 and 900 psi (2.068 and 6.205 MPa)* indicates when the top plug passes through the locator collar. The system achieves accurate displacement by pumping the calculated volume between the locator and landing collars until the top plug bumps against the landing collar.

The system meets the temperature and pressure ratings of Weatherford plugs equipped with polyurethane fins and Duromer™ cores.



The subsurface-release plugs (above) pass through the locator collar (below) and produce an indication that is observable at the surface.

* Indicator pressure varies by pipe size.

Plug Locator System

Specifications

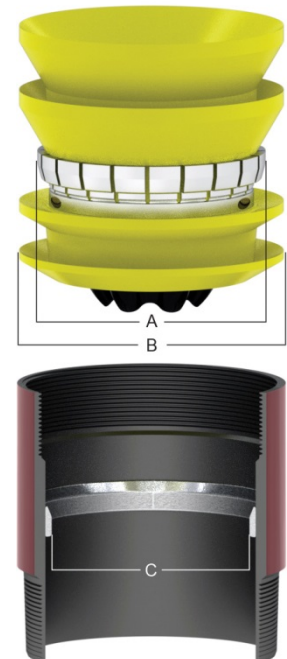
| Nominal Size | Indicator Pressure | Part | Dimensions | | | Minimum Pump-Through ID |
|--------------------------|--|---------|--------------------------|-------------------------|--------------------------|--------------------------|
| | | | A | B | C | |
| 7 in. (177.8 mm) | 300 to 900 psi (2,068 to 6.205 MPa) | 1152936 | 5.74 in. (145.8 mm) | 6.69 in. (169.9 mm) | 5.63 in. (143.0 mm) | 5.90 in. (149.9 mm) |
| 9-5/8 in. (244.5 mm) | 300 to 900 psi (2,068 to 6.205 MPa) | 917210 | 7.99 in. (202.9 mm) | 9.25 in. (235.0 mm) | 7.81 in. (198.4 mm) | 8.15 in. (207.0 mm) |
| 11-3/4 in. (298.5 mm) | 300 to 900 psi (2,068 to 6.205 MPa) | 2148601 | 10.12 in. (257.0 mm) | 11.26 in. (286.0 mm) | 9.64 in. (244.9 mm) | 10.27 in. (260.9 mm) |
| 13-3/8 in. (339.7 mm) | 300 to 900 psi (2,068 to 6.205 MPa) | 584598 | 11.791 in. (299.5 mm) | 13.11 in. (333.0 mm) | 11.417 in. (290.0 mm) | 11.819 in. (300.2 mm) |

* Weatherford recommends that the locator collar placement be a minimum of 1.5 times the estimated compressibility of the displacement fluid above the landing collar.

** Indicator pressure may vary based on well conditions.

Options

All of the sizes listed in the specifications table are available with the Weatherford WiperLok[®] nonrotating profile for superior drillability when used with the WiperLok float shoes and collars.



The image shows the surface-release plug (above) and a 13 3/8- to 14-in. locator collar (below).

