

Plug-and-Abandon (P&A) Kit One-Trip Openhole Cement Plug

Weatherford's plug-and-abandon (P&A) kit consists of field-proven hydraulic and mechanical disconnects that are made up to a conventional Weatherford annulus casing packer (ACP^{TM}) to enable an openhole cement plug to be set in a single trip. The conventional ACP tool, which is normally run on a casing or a liner, is crossed over to run on a drillpipe or work string for placement in the well.

When the assembly is run to the proper position in the well, a latch-down dart is pumped from the surface with cement behind it. When the dart lands below the disconnect and the *ACP* tool, surface pressure is applied to inflate the packer with the cement. After inflating the *ACP* tool, additional surface pressure is then applied to hydraulically disconnect the packer. The hydraulic disconnect is backed up by a mechanical-rotation disconnect for emergency release. After the *ACP* tool is inflated and disconnected, cement can be placed directly on top of the packer, or the excess inflation cement in the drillpipe or work string can be reverse-circulated out of the well. The end result is a single-trip plug set for horizontal or deviated wells.

Applications

- Can be used in any circumstance where a section of a hole requires abandoning and plugging of cement
- Can be applied in wells requiring proper placement of an ACP tool to shut off water, oil, or gas
- · Provides a kickoff point after plugging back a directional hole drilled out of zone

Features, Advantages and Benefits

- The kit is compatible with all standard ACP assemblies with seal elements 10 ft (3 m) and longer, maximizing operational efficiency with minimized equipment inventory.
- Hydraulic-disconnect shear screws are field accessible, simplifying overall job setup.
- Float-shoe, latch-down, or combined float-shoe and latch-down darts prevent backflow after the disconnect, ensuring liner integrity.
- One-trip system balances the cement plugs when set in high-angle or horizontal open hole, significantly reducing rig time.

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 The standard kit includes all required equipment, therefore no special ACP inventory is required.





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Specifications

Packer Size (in./mm)	Top Connection Box (in.)	Overall Length						
		Kit Only	Complete Assembly (ft/m)		Minimum ID	Maximum OD Disconnect	Maximum Pull	Pressure Required to Disconnect
		(ft/m)	10-ft (3-m)	20-ft (6-m)	(in./mm)	(in./mm)	(lb/ <i>kg</i>)	(psi/MPa)
2-3/8 60.3	2-3/8 (EUE)	4.0 1.2	21.3 6.5	31.8 9.7	1.000 25.4	3.375 <i>85</i> .9	104,340 47,328	500 or 1,000 3.4 or 6.9
2-7/8 73.0					1.185 30.0	4.000 101.6		
3-1/2 88.9	2-7/8 (EUE)	17.3 5.3	23.5 7.2	33.8 10.3	1.185 30.0	4.625 117.6	144,960 65,753	500 or 1,000 3.4 or 6.9
4-1/2 114.3	2-7/8 (EUE)	17.3 5.3	23.8 7.3	33.8 10.3	1.185 30.0	4.625 117.6	144,960 65,753	500 or 1,000 3.4 or 6.9
5-1/2 139.7								
7 177.8								
9-5/8 244.5								

Contact product liner management for availability.