

AlphaST™ Single-Trip Openhole Cement and Sidetrack System

Setting a reliable, cost-effective whipstock for a successful sidetrack

Applications

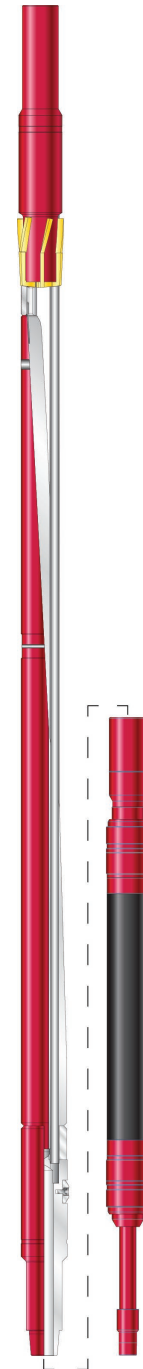
- Initiating efficient and reliable lateral departures in openhole wellbores
- Kicking off in hard, highly compressive formations where standard drilling methods are ineffective
- Increasing reservoir exposure through extended-reach drilling

Features and Benefits

- The AlphaST single-trip openhole sidetrack system can set, cement, and drill off in the same run.
- The system's IPP® injection production packer provides a full 360° of contact against the formation to securely anchor the whipstock system.
- The IPP packer has a high-strength elastomer element and a slim diameter—smaller than the concave or milling bottomhole assembly (BHA)—for drifting through borehole restrictions. An optional high-temperature elastomer can be used to enhance IPP performance in extreme environments.
- A copper flow tube within the whipstock concave facilitates pumping cement below the whipstock.
- Two mills on the drilloff BHA facilitate a quick departure from the original wellbore.
- The whipstock concave uses a single 3° angle for a smoother transition into the sidetrack without steps or ledges, which enables operators to run drilling BHAs that use short-tooth or PDC-style bits immediately after initial whipstock installation.

Tool Description

The Weatherford AlphaST single-trip openhole sidetrack system increases operator flexibility, eliminates multiple trips, and avoids costly cementing operations. This system consists of an IPP injection production packer anchor, a low-angle whipstock, and a twin-mill drilloff BHA. The IPP anchor enables the operator to position the lateral departure in the openhole wellbore without need of a false bottom or cement barrier. The single-angle 3° whipstock creates a smooth transition to eliminate BHA geometry issues on subsequent trips. A lead mill and flex mill initiate the kickoff. This reliable, field-proven openhole whipstock, anchor, and milling system enables operators to access the pay zone in the shortest possible route.

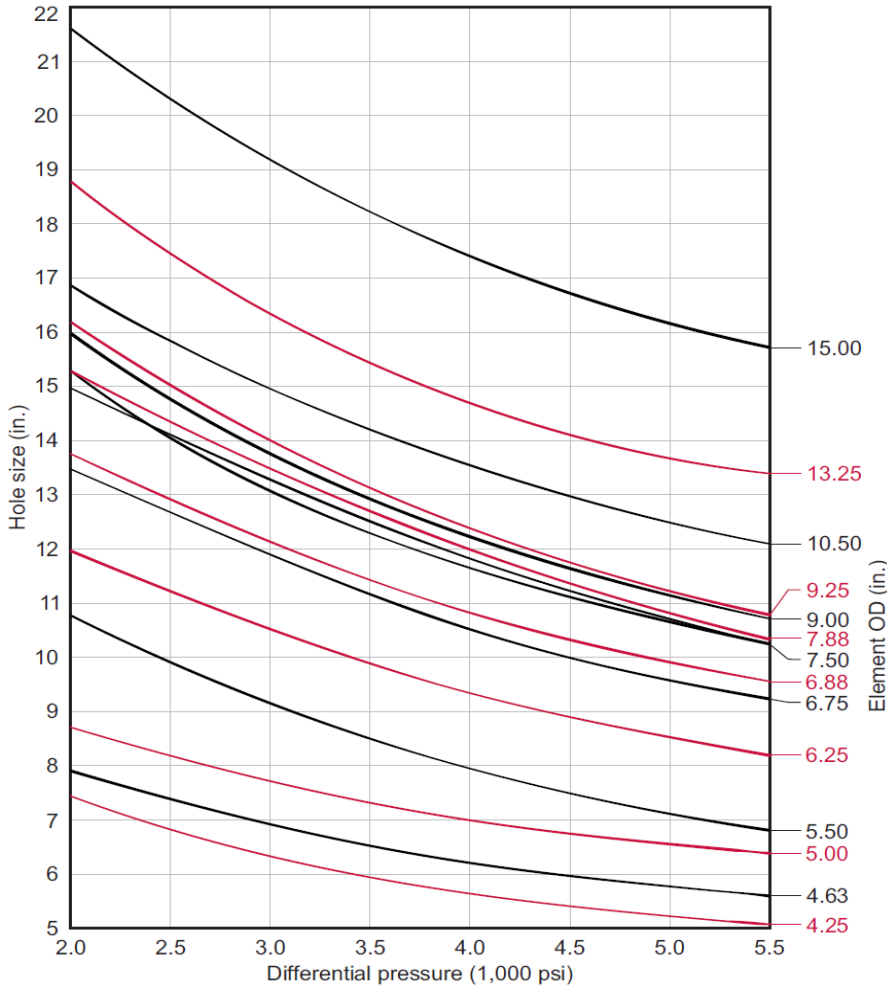


The AlphaST single-trip openhole sidetrack system can help operators avoid the costs of setting a cement plug, waiting on cement, and timed drilling.



AlphaST™ Single-Trip Openhole Sidetrack System

IPP Element Performance Chart



Specifications

Whipstock outside diameter	Concave face angle	Concave pin connection	Drilling tool outside diameter	Drilling tool box connection	Shear stud shear strength	IPP cable element packer H4	
						Outside diameter	Temperature rating
8 in. (203.2 mm)	3°	4-1/2 XH	8.50 in. (215.90 mm)	4-1/2 in. IF	63,000 lb (28,636 kg)	7.5 in. (190.5 mm)	300°F (149°C)
			8.75 in. (222.25 mm)		40,000 lb (18,181 kg)		

