

AMC BOS™

A proactive solution for fluid loss and borehole instability.



Down the borehole, you can't always predict when or how things will go wrong. AMC's patent pending* Borehole Optimisation System™ (AMC BOS™) anticipates fluid loss, lost circulation and unstable zones, even in the most difficult conditions – making operations smoother and more predictable.

The AMC BOS™ comprises the AMC BOS UNIT™ an in-hole lubricating and casing while drilling tool, and AMC BOS FIX™ a rapid fill grout. The AMC BOS™ is a proactive solution combating fluid losses and borehole instability, by delivering a measured amount of AMC BOS FIX™ at regular intervals to the bottom of the drill string and up the annulus. The fluid reacts instantly with borehole fluids, permeating and sealing fractures, providing a thin but robust lubricative membrane to the borehole wall.

Unlike reactively using traditional methods, the AMC BOS™ is a preventative measure which can significantly improve diamond drilling productivity, at rig safety, reduce environmental impact and lower overall operational costs.

*For more information visit indexlimited.com/patents

Proactive against fluid losses and borehole instability

Regular injections of AMC BOS FIX™ to the bottom of the drill string and up the annulus continually seals natural fractures and fissures, to stabilise the borehole, reduce down hole losses and occurrence of lost circulation.

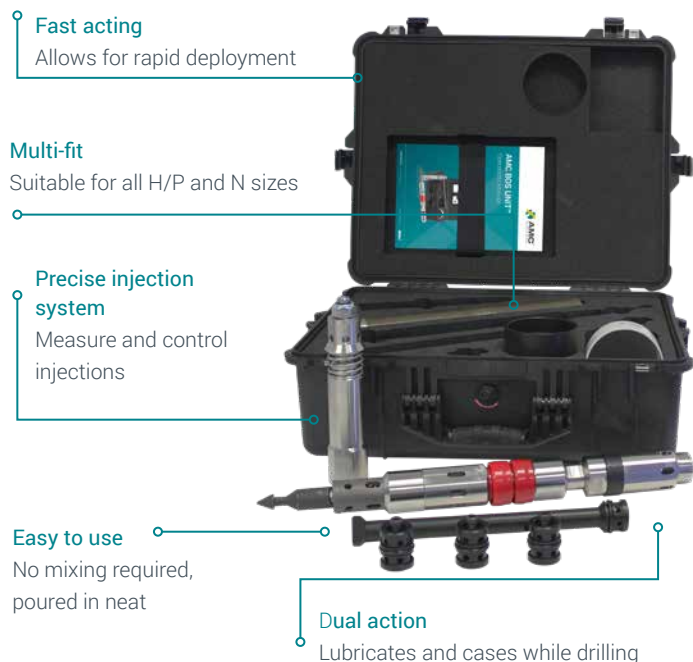
Traditionally, LCMs are the first measure used to aid fluid losses. Depending on circumstances, LCM effectiveness may vary, potentially compromising the borehole annulus, causing stuck pipe, and resulting in unwanted rod tripping.

In cases of instability, casing may need to be applied, which requires unwanted rod trips. The AMC BOS™ creates a continuous and flexible casing to assist with loose, unconsolidated, fractured, caving, sloughing, swelling, high friction or washout zones.

“In all my time drilling at this site, I have never witnessed a product do what the AMC BOS™ had done to improve drilling and lost circulation conditions.” Eric Castleberry - Drill Supervisor at Resolution

Key Benefits

- Reduces rig down time from rod trips through unstable or fluid loss zones
- Stabilises the borehole and maximises fluid returns, reduces the need for cementing/grouting, casing and/or lost circulation materials
- Saves up to 48 hours lost time cementing/grouting, and associated costs and risks
- Reduces drilling fluid cost
- Reduces water consumption, management and associated costs
- Reduces torque, rod chatter and vibration, and associated rod trips and costs
- Reduces wear and tear, extends life of drill components
- Reduces manual handling, slip and trips hazards and chemical handling
- Reduces environmental impact to local water supply and risk of contamination.



Drilling blindly may be a choice for drillers, but without treatment, reaming through unstable zones will increase borehole torque, rod trips, increase fluid consumption, risk prematurely worn out bits and reamers, collapse, contamination, stuck drill pipe, risk of injury and reduce ROP.

Cementing/grouting can take up to 48 hours, can be very costly, and introduces increased rod tripping with only a limited success rate of 50%. Consequences of cementing/grouting can far outweigh the process itself, including safety risk, rig downtime and increased costs such as vacuum trucks and consumables. With a proactive approach, the AMC BOS™ is a less risky alternative to variable or ineffective methods for fluid loss or borehole instability.

About AMC BOS FIX™

AMC BOS FIX™ can be injected into high pressure, high temperature, wet or dry environments. The fluid only activates when coming into contact with moisture, ensuring it is placed exactly where it is required and does not contaminate the core sample or the interior of the core barrel (if used correctly).

The unit takes less than 5 minutes to set up or refill, which can be done at any time during the drill shift, without interruption.

TECHNICAL SPECIFICATIONS

ITEM	DESCRIPTION
Dimensions	63cm x 50cm x 23cm (25" x 20" x 9")
Weight	N: 17kg (38lb) H/P: 25kg (55lb)
Core size compatibility	N, N2, N3, H, H3, P, P3
Core barrel compatibility	Wire-line core barrels of any length, triple tube or standard configurations including pump-in for horizontal to vertical downholes *
Volume capacity per injection (H, P)	8L / 2.11gal
Volume capacity per injection (N)	5L / 1.32gal
Coating volume (H size borehole)	30m / 100ft
Coating volume (P size borehole)	20m / 65ft
Coating volume (N size borehole)	30m / 100ft

* Not currently available for pump-up core barrels

Further Information

For more information please go to our website amcmud.com or contact your nearest AMC office.

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