

Combination inline filter and magnet

Proactively protects BHA during drilling, minimizing downtime

Applications

- BHA protection from contaminants in fluid system
- Plugged bit nozzles
- All well types
- High-temperature applications
- Mud pumps: Ensure filtered drilling fluid for BHA performance

Benefits

- Proactively protects BHA equipment susceptible to damage from fluid-borne debris, even at high flow rates
- Strips ferrous fines from fluid flow
- Enables a pathway for single-trip wireline access in emergency situations
- Offers uncompromised source retrieval
- Provides overpressure relief in excessive debris conditions
- Retains debris until filter is brought to surface
- Minimizes system pressure loss
- Rigsite serviceable

Features

- Single-piece, high-strength collar with no internal connections
- Contingency central bypass available on demand or when tool is full
- High-strength magnet recovery using optimized magnet placement
- Large debris capacity
- Erosion-resistant filter design
- Large flow-through area
- Computational fluid analysis optimized design
- Ferrous metal recovery
- Debris diffuser



The Mudgard Pro combination inline filter and magnet ensures clean fluid flow, reduces downhole tool failure, and improves operational efficiency.

How it improves performance

The Mudgard Pro™ combination inline filter and magnet is a dual-action device engineered to remove debris and magnetic contaminants from drilling fluids. This innovative design helps ensure optimal performance of the drilling BHA while safeguarding critical components. By combining filtration and magnetic separation to one unit, it provides an efficient solution that helps prevent blockages, minimizes equipment wear, and reduces the risk of costly repairs. The Mudgard Pro combination inline filter and magnet features a dedicated bypass system designed to manage high debris volumes encountered during drilling operations, as well as provides critical throughbore access for contingency applications.

How it works

By integrating an inline filter and magnet, this innovative tool effectively captures both large and small particles to prevent contaminants from entering vital equipment components such as turbines, motors, impeller, modulator, pulsar system, and nozzles. It features powerful magnet arrays that attract and remove ferrous materials, which are common by-products of drilling processes, extending the lifespan of the equipment by minimizing wear and tear from contaminants.

The Mudgard Pro directs flow into the containment chamber. As fluid passes into the dual screen filter chamber, it must first flow across the inner ribbed section, which aids to break down debris through fluid path change and diffusion. Once the fluid travels down the dual screen filter, ferrous debris is exacted, retained on the internal magnets, and non-ferrous debris is forced to the bottom of the chamber while the fluid filters through the dual screen filter assembly.

What it replaces

The Mudgard Pro filter and magnet replaces legacy filters that offer no throughbore access or magnet recovery ability. Designed for simple inline installation, it can be easily integrated into an existing downhole BHA without compromise.