

Tornar® Sub Sea BOP Cleaner

Clean and solids-free BOP and riser



The Tornar® Sub Sea BOP Cleaner removes wellbore debris from blow out preventer and marine riser cavities safely, rapidly and reliably. Tornar® flow ports create a high-velocity fluid vortex, which combines with powerful proprietary magnets to extract debris – whilst maintaining full well control.

Debris management is a serious oilfield challenge and is responsible for many of the operational difficulties and costs of maintaining BOPs.

Drilling debris and mud solids can accumulate within BOP cavities causing them to malfunction; and milling operations generate an abundance of metallic junk and other particles that can seriously hinder the correct operation of the BOP. Even small objects can jeopardize well control, with potentially hazardous consequences to people, the environment and surface assets.

Cleaning debris from BOP cavities is especially challenging. Traditional cleaning methods may force debris further in to the BOP workings, and it is critical that cleaning operations are performed safely and efficiently. Archer's Tornar® BOP Cleaner combines Tornar® flow ports with powerful proprietary magnets to ensure the maximum extraction of harmful debris from BOP cavities and the well.

The Tornar® BOP Cleaner can be configured to suit operational requirements to maximize debris retrieval.

Benefits

- Rapid and effective single-trip BOP and riser cleaning
- Reduced BOP maintenance and non-productive time
- Higher success rate and efficiency of BOP performance testing
- Allows short tripping with wellbore clean-up string
- Cleans even deep cavities

Features

- Tornar® technology creates powerful vortex suction effect
- 3-stage circulation ports enable full well control
- Tornar® Extreme magnets ensure maximum metallic debris extraction
- Easily configured to suit BOP and riser requirements
- Premium drill pipe connection
- One piece mandrels
- Non-rotating stabilizer and magnet.
- Built-in junk basket; spring-loaded self-adjusting dual brush
- Optional fishing magnet can be fitted to bottom of string

Applications

- Clearing debris from BOP's and marine risers

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Specifications

Cleaner string size, inch [mm]	17.45 [443.2]
BOP size, inch [mm]	18.75 [476.3]
Recomended pump rate	6,500
Min. recommended pump rate, lpm	3,500
Material (main body)	AISI 4145M
Max working temp, degC [degF]	150 [302]
Max. OD, inch [mm]	17.45 [443.2]
Drift ID, inch [mm]	2.637 [67]
Tool joint OD, inch [mm]	7.252 [184.2]
Connections	5 1/2" FH b/p or VX-57 b/p

BOP magnet

Max. OD, inch [mm]	17.45 [443.2]
Drift ID, inch [mm]	3.5 [88.9]
Tool joint OD, inch [mm]	7.252 [184.2]
Magnet rods	8pcs @ 360°
Connections	5 1/2" FH b/p or VX-57 b/p

Riser magnet

Max. stabilizer OD, inch [mm]	17.45 [443.2]
Brush OD, inch [mm]	18.75 to 20 [476.3 to 508]
Brush segment	8 rows, dual brush strips
Bristle type	Straigh flat wire
Magnet rods	8 pcs @ 360°
Junk bucket OD, inch [mm]	16 [406.4]



Riser Brush Magnet



BOP Magnet



3-Stage Tornar® BOP Cleaner



Well Filter



Tornar® Wash Magnet