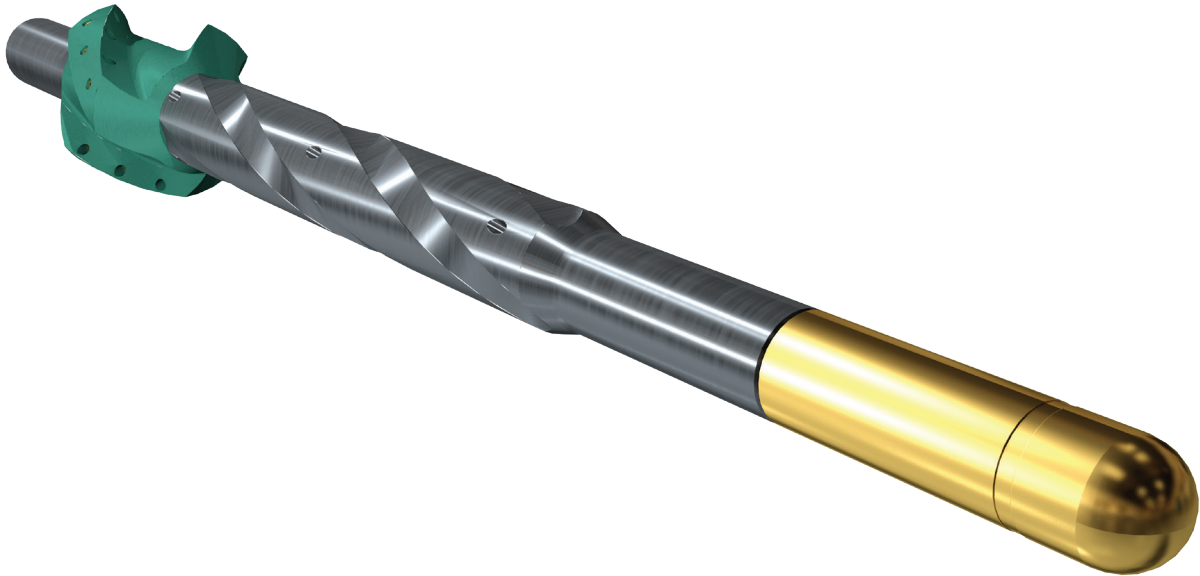


Hydraflow™ Advanced Wellbore Cleaning System



The Hydraflow™ Advanced Wellbore Cleaning System (HAWCS)

combines jetting action with flow-rate boost effect to maximize riser cleaning efficiency

FEATURES

- 16" OD Jetting Sleeve with offset Jetting Nozzles are arranged to jet the riser wall and also to penetrate into the BOP cavities to jet and clean
- 9 x upward angled Jetting Nozzles arranged on the body help to reintroduce jetted debris into the flow path and be carried upwards to surface
- Optional integral pup joint for fast handling
- Optional Lower Bull Nose or Pin Down connection to suit various applications

Wellbore Clean-up Technology

BENEFITS

Cost Savings

- Maximizing riser cleaning efficiency to reduce operating time has a huge impact on operating costs on expensive semi-submersibles
- No field maintenance required

Integrity

- Available with high torque connections reducing the need for reduced strength crossovers
- Single piece mandrel with no internal connections for increased strength

Reducing Non-Productive Time

- Reduces premature failure of completion equipment by debris which can interfere or damage valves, electronics and other hardware

APPLICATIONS

- Deep water pre-completion wellbore clean-ups from semi-submersible drilling units
- Riser cleaning during displacement to sea water before disconnection or moving from location

OPERATIONAL

- The Hydraflow™ Advanced Wellbore Cleaning System (HAWCS) is typically run in conjunction with the Riser Cleaning Tool and XTractR™ BOP Junk Catcher or as a standalone tool.
- While jetting in the hole, the 16" OD Jetting Sleeve washes the riser wall. The staggered jetting nozzles allows full coverage without the need to rotate.
- Best practice recommends to function the rams and annular to help dislodge debris before jetting the BOP stack at 35 BPM while rotating slowly, making 3 passes.
- It is also recommended to reduce jetting to a flow rate not lower than 20 BPM while passing the annular.
- The upward angled Jetting Nozzles assist in carrying debris to surface through inducement of turbulent flow.
- HAWCS can also be run with a wear bushing retrieval tool below