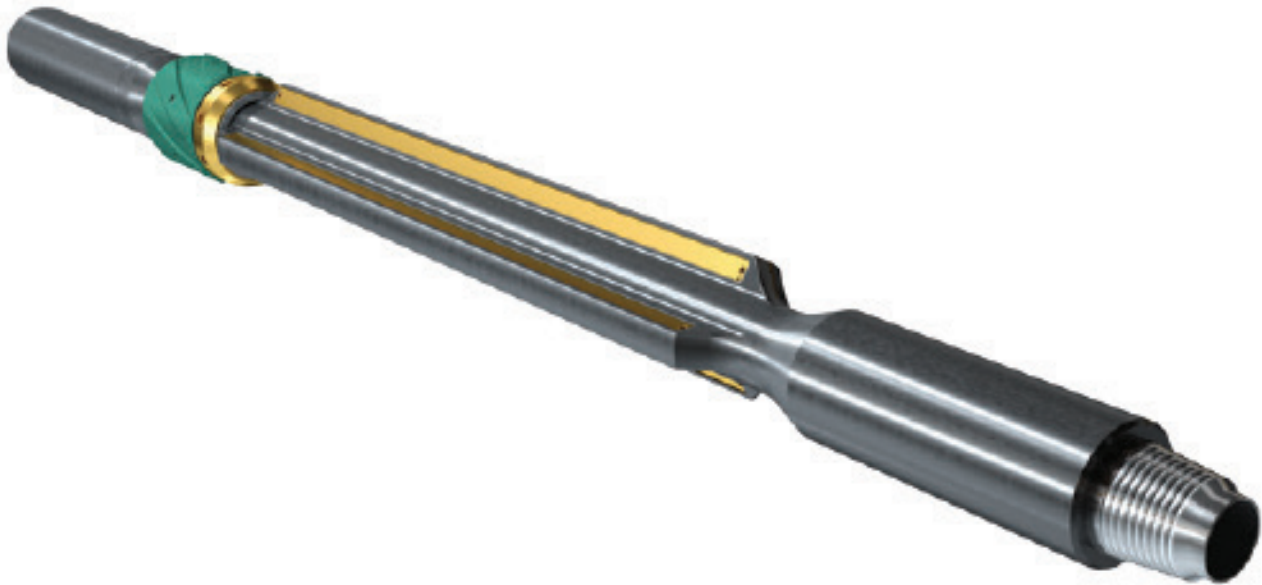


MAGStar4™ HD Casing Magnet



The **MAGStar4™ HD Casing Magnet** is a robust, high strength, super capacity casing magnet with a free-rotating centralizer. It can be run individually or modularly as part of the ArmRdillo™ Wellbore Clean-Up System. The MAGStar4™ HD Casing Magnet can be adapted to suit any casing size and drill pipe combination.

FEATURES

- 3 longitudinal ribs housing rows of high strength and temperature resistant Rare Earth magnets
- Excellent bypass area and carrying capability
- Debris is securely retained for retrieval at surface
- Single piece mandrel for superior strength in heavy duty and high torque applications
- Optional non-rotating Centralizer minimizes casing and tool wear while improving magnet efficiency
- Magnets are securely retained in integral slots with redundant back-up for maximum security
- Easy cleaned at surface for re-running in the hole
- No external bolts, clamps or fasteners that can come loose down hole

BENEFITS

Cost saving

- HD magnet arrangement requires less tools and less runs to clean the wellbore during heavy milling operations

Increases Well Productivity

- A properly executed wellbore clean-up removes ferrous debris which can block screens or interfere with sensitive completions

Integrity

- High strength mandrel with no internal connections for strength and reliability
- Available with any proprietary high strength connections eliminating the need for crossovers which reduce string integrity

Reducing Non-Productive Time

- A robust wellbore clean-up is proven to reduce non-productive time during the completion of the well
- Reduces premature failure of completion equipment by debris which can interfere with valves, electronics and other hardware
- Heavy duty milling operations, fishing and workovers

APPLICATIONS

- While tripping or circulating, the MAGStar4™ HD Casing Magnet attracts ferrous debris from the wellbore and captures it for removal at surface
- Heavy duty milling operations, fishing and workovers can be performed with the MAGStar4™ HD Casing Magnet in the string
- The MAGStar4™ HD Casing Magnet can be deployed immediately below the wellhead when jetting BOP's to capture any dislodged ferrous debris
- During displacement the drill string can be rotated and reciprocated to improve hole cleaning without fear of damage or wear of the casing, drill pipe or MAGStar4™ HD Casing Magnet