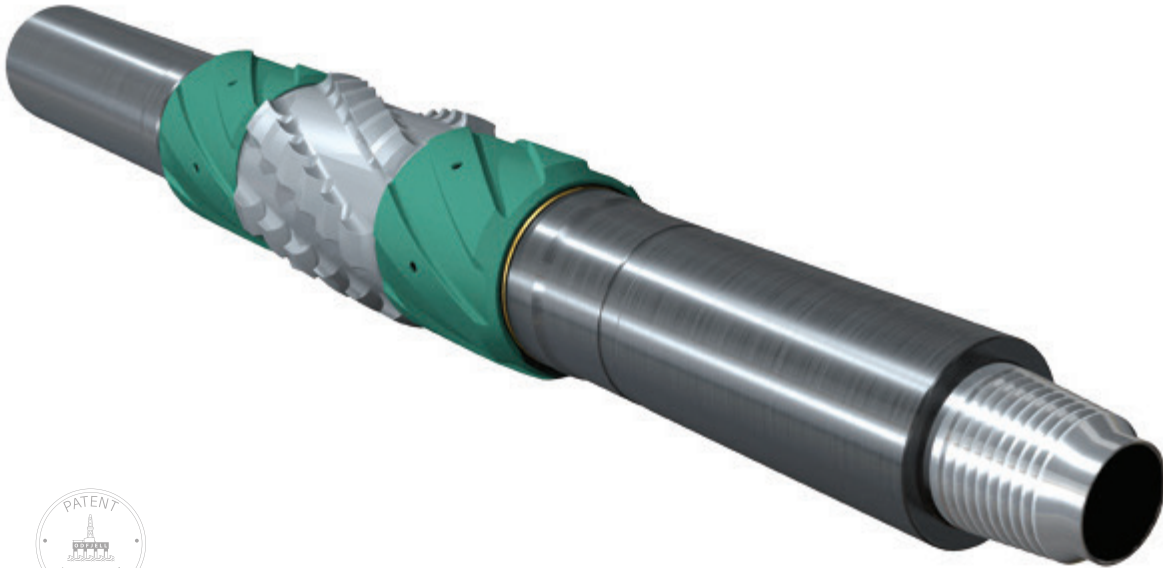


# RazRdillo™ Casing Scraper



The **RazRdillo™ Casing Scraper** is a robust, 360° contact, free-rotating wellbore clean-up tool and can be run individually or modularly as part of the ArmRdillo™ Wellbore Clean-Up System. The RazRdillo™ Casing Scraper can be adapted to suit any casing size and drill pipe combination.

## FEATURES

- Strong, self-sprung, single piece Scraper Broach machined from a single billet of steel with multiple rows of overlapping teeth
- Scraper Broach flexes to perfectly fit the casing ID, while stiff enough to provide strong scraping force which ensures true 360° coverage where sprung pad scrapers cannot
- Two fluted Centralizer Rings provide centralization, bypass and protects the Scraper Broach
- Free rotating tool design with Internal Bearing Rings to prevent drill pipe, tool or casing wear
- Can be quickly assembled redressed on location with simple hand tools
- No external bolts, clamps or fasteners that can come loose down hole
- Robust assembly method with multiple back-ups

## BENEFITS

### Cost saving

- The ArmRdillo™ Wellbore Clean-Up System has incremental cost savings on logistics, deck space, inspection and maintenance and can also be serviced at the rig-site with basic hand tools

### Increases Well Productivity

- A properly executed wellbore clean-up reduces fine debris which can block screens and pore throats reducing well productivity

### 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

## APPLICATIONS

- Pre-completion wellbore clean-up operations to remove hardened cement sheath, scale, mud solids, cuttings and other detritus from the casing wall
- Typically run as a compliment to the ScourRdillo™ Casing Scraper for superior hole cleaning
- Drilling casing cement plugs in a single trip
- Extended reach wells where high strength drill pipe connections are required
- Remote locations where logistics are constrained and tool maintenance can be performed at the rig site
- Short tripping where multiple tools need to be run on the same string

## OPERATIONAL

- While running in hole, the teeth of the RazRdillo™ Scraper Broach scrapes the casing wall removing cement sheath and other debris
- Cement plugs can be drilled inside the casing as required
- The RazRdillo™ is reciprocated across critical depths to remove hardened cement sheath and other debris
- During displacement the drill string can be rotated and reciprocated to improve hole cleaning without

The **RazRdillo™** is not currently available for rental and operation in all countries. Please contact Odjfell Well Services to enquire about rental and operation of this tool in a specific country to ensure that your request can be accommodated