

# MRS™ STAR

## OVERVIEW

The MRS™ STAR, **Stabilized Accentuated Reamer**, is a drilling solution designed to improve drilling efficiency and risks commonly associated with drilling operations. The MRS™ STAR reducing dependency on multiple wiper trips, backreaming and dedicated reaming activity. The MRS™ STAR is an unique tool. It comes complete with a 2.2 stage 7/8 lobe motor power section with mud-cooled sealed bearings that deliver over 6,000 ft.-lbs of torque through carefully designed and chamfered stabilizer blade profile with gradual leading edges for both downward and upward reaming. The MRS™ STAR is fluid activated by circulating fluid down the drill string. Additional torque can be transferred to the tool by rotating the drill string.

The MRS™ STAR is based on the MRS™ concept and designed purely for drilling enhancement and for drilling applications only. It is specifically focuses on rigs with suffi-

cient hydraulic power but where torque limitations on either surface equipment, string components or both, limit string rotation. Rotation is essential to combat hole problems such as tight spots, swelling shales or wellbore collapse, where traditionally, the solution would have required backreaming. The MRS™ STAR includes a complete power section with rotor and stator (and the rotor could be lined with elastomer or may also come as rubberless). The rotor and stator are attached to the string in such a way as to cause the rotational force created to be applied only to the stator causing it to



- ◆ Reduces frictional losses (torsion and axial) when drilling due to independent rotation of stabilized reamer
- ◆ Reduces / eliminates the need for reaming (down / up)
- ◆ Improves formation evaluation by reducing hole rugosity
- ◆ Reduces / eliminates stuck pipe occurrence

rotate.

The MRS™ STAR is available for hole sizes from 14¾" and smaller. It can be used as an integral component of the drill string when drilling with motors, rotary steerable systems and rotary drilling applications. Multiple MRS™ STAR components can be run in the same drill string.

## FEATURES & BENEFITS

- ◆ Fluid activated
- ◆ Localized torque for independent reaming operation
- ◆ Drilling optimization
  - ◆ Improves hole cleaning by stirring up cuttings and reaming protruding formations into the fluid mid-stream
  - ◆ Agitation function ensures better weight transfer to bit

- ◆ Delivers fluid activated direct reaming action at the tool thus aiding drilling crews with geologically induced problems
- ◆ Reduces stick-slip and drill-string vibrations
- ◆ Features a bore through the centre allowing for telemetry signal transfer
- ◆ Multiple MRS™ STAR systems can be run in the same drill string
- ◆ Available only with our rubberless technology currently use in the MRS™ tubular deployment solution



# Geopro