

Shuriken Reamer

The BHA-driven solution to a smooth, stable wellbore

To learn more about how the Shuriken Reamer can reduce your NPT and overall well costs, contact your nearest BesteBit representative.



BESTEBIT LLC
www.bestdiamondbit.com



Shuriken Reamer

Reduces drilling NPT and gives you a clean path to completion

Drilling highly reactive, unconsolidated, inter-bedded and similarly troublesome zones, especially with tortuous extended reach well paths, all-too-often induces non-productive time (NPT) to deal with stuck pipe and other wellbore instability issues. Project costs are further aggravated when post-drilling reaming runs are required to minimize tortuosity and condition the wellbore for the completion and production hardware.

With the uniquely engineered Shuriken Reamer, BesteBit gives you a durable and ultra-efficient tool that minimizes NPT and costs, while delivering a smooth and unobstructed wellbore to the completion team, generally without the need for any post-drilling remediation.

Featuring a proprietary forced balanced bi-directional cutting structure, the self-stabilizing reamer transfers more weight on bit than possible with any conventional BHA, which in tandem with optimized hydraulics, allows you to consistently drill ahead in the tightest well paths and at higher ROP. With its capacity to construct a clean, in-gauge wellbore while drilling, the Shuriken reamer mitigates the persistent risks of stuck pipe when rotating out of otherwise tight and highly restrictive holes. Above all, you are left with a stable and higher quality wellbore and one fully prepped for the unhindered running of casing, liners and completion tools. What's more, the Shuriken Reamer is available in non-magnetic and steel alloy materials, thus eliminating any concerns of interference with MWD/LWD tool responses.

Benefits:

- Minimal NPT while drilling and tripping
- Faster drilling rates with lower torque and drag than conventional tools
- Enhanced wellbore stability
- Reduced costs
- Elimination of dedicated reaming trips
- Unimpaired MWD/LWD logs
- Increased durability for longer runs
- Effective reaming without the need for conventional and often obstructive stabilizers
- A smooth and ready-for-completion wellbore

Clearly unlike any competitive tool the market has to offer, the truly innovative Shuriken Reamer offers a host of novel and patent-pending features in blade design, cutting elements and cutting structure design.

A key differentiator of the Shuriken Reamer is in its innovative dual action cutting structure; with an active cutting structure on the O.D. of the tool which is combined with a passive bi-directional cutting structure on the tapered sections of the tool blades. The uniquely shaped tungsten carbide inserts on the O.D. of the tool, along with their strategic positioning and placement within the blades, provide a better cutting and scraping action with less torque, less drag, more uniform wear and less insert breakage than comparable designs. The PDC cutters on the tapered blade sections of the tool are placed to provide a uniform cutting action, with varying back and side rakes to balance both the load and wear on the cutting structure.

The groundbreaking blade geometry provides complete PDC cutter exposure to the drilling fluid with much greater cleaning and cooling of the cutters when they are engaged. The unique blade geometry also improves fluid flow-by with a less restrictive flute design and reduced pressure drop across the tool. Obviously, better fluid flow translates into clean cutters, with reduced risk of bit balling and enhanced hole cleaning. The small taper angle at the ends of the blades, regardless of the tool size, greatly reduces the chances of hanging or ledging the tool. Unlike competitive tools on the market, the blades are fully spiraled on the OD of the tool providing full gauge coverage where it counts.

The Shuriken Reamer is available in nearly all targeted hole diameters and effective in any formation and hole condition.



Forced balanced PDC cutters provide uniform cutter wear and greater durability. Beste engineers adjusted the side and back rakes of individual PDC cutters to evenly distribute the work load and wear of individual cutters, regardless of their position on the blades. The results are significantly greater drilling efficiency and longer cutter life.

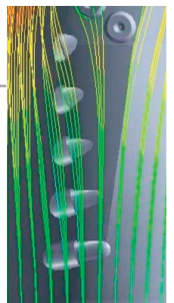


New dual-cutting carbide inserts increase the tool's OD scraping ability while lowering the BHA torque and drag. The new patented pending insert shape encourages greater drilling efficiency and is a more robust cutter that's less prone to breakage.



Full 360 degree coverage at OD provides optimum hole contact while ensuring maximum fluid bypass area.

Unique blade geometry provides optimal cutter exposure to drilling fluid for improved cutter cooling and cleaning and extended cutter life. Specially shaped blade flute entrances increase the fluid flow and reduce the chances for tool balling.



Tapered blade configuration provides active and passive cutting action. Carbide inserts, strategically placed along the blade, provide a smooth, low torque cutting and scraping action against the wall of the hole. PDC cutters remain passive until unstable hole conditions demand they become active and engage the formation to provide a smooth, in-gauge wellbore.

