

# Get faster, cleaner, better sidetracks every time

## X-treme WindowMaster whipstock system

The X-treme™ Windowmaster™ whipstock system provides quicker, more efficient sidetracks, and is capable of milling a window in a single trip.

### FASTER

The X-treme Windowmaster system lets you sidetrack three times faster and reduce rig time by as much as 50 percent over conventional methods, all while eliminating a dedicated clean-out run.

### Dramatically reduce NPT

Set at any depth, hydraulically or annularly, without additional tools – eliminating the need to trip out and use a back-up system

### Dramatically reduce drilling time

- Set the whipstock in stubborn casings, at greater depths, with the ability to push and pull
- Work through restrictions and trip in hole with virtually unlimited tripping speed, with no need for a prior clean-out operation
- Make deeper exit points and shorter laterals by passing through restrictions such as casing ovality or deformation

### Eliminate risky red zone exposure during assembly

Improve handling and operation – and save up to three hours per job – with a design that requires only a standard drill-pipe connection to mate the lead mill and connector

### CLEANER

The X-treme Windowmaster system mills a perfect window with extended rat holes every time – so there's no requirement for additional trips to ream or polish the casing exit window.

### Mill a cleaner window with:

- A hybrid drill bit that's specifically engineered for milling in any rock type or casing grade
- The proprietary Baker Hughes advanced milling technology combined with the proprietary Baker Hughes PathMaker™ polycrystalline diamond cutters

### BETTER

The X-treme Windowmaster system collects downhole data with the Baker Hughes xSight™ analytics service for casing exits to help you with pre-job planning and post-job analysis.

### Real-time downhole data lets you:

- Optimize milling parameters to get through tight spots in the wellbore
- Monitor and confirm the load so that you know when the milling BHA has broken free from the whipstock ramp

### APPLICATION

Sidetrack operations

### BENEFITS

- Provides limitless tripping operations
- Removes limitations with unlimited reorientation and resetting of whipstock
- Eliminates extra clean out runs
- Improves rig floor handling and operations with elimination of shear bolt
- Integrates annular activation with mechanical activation as backup
- Increases efficiency with dual purpose mill and drill

### HOW THE X-TREME WINDOWMASTER SYSTEM WORKS

A proprietary connector replaces the traditional bolt, eliminating the operational limitations like reduced or low tripping speed, soft motion starts and stops, problems with rotation, and weight limitations typically put in place to avoid failure points and breakage.

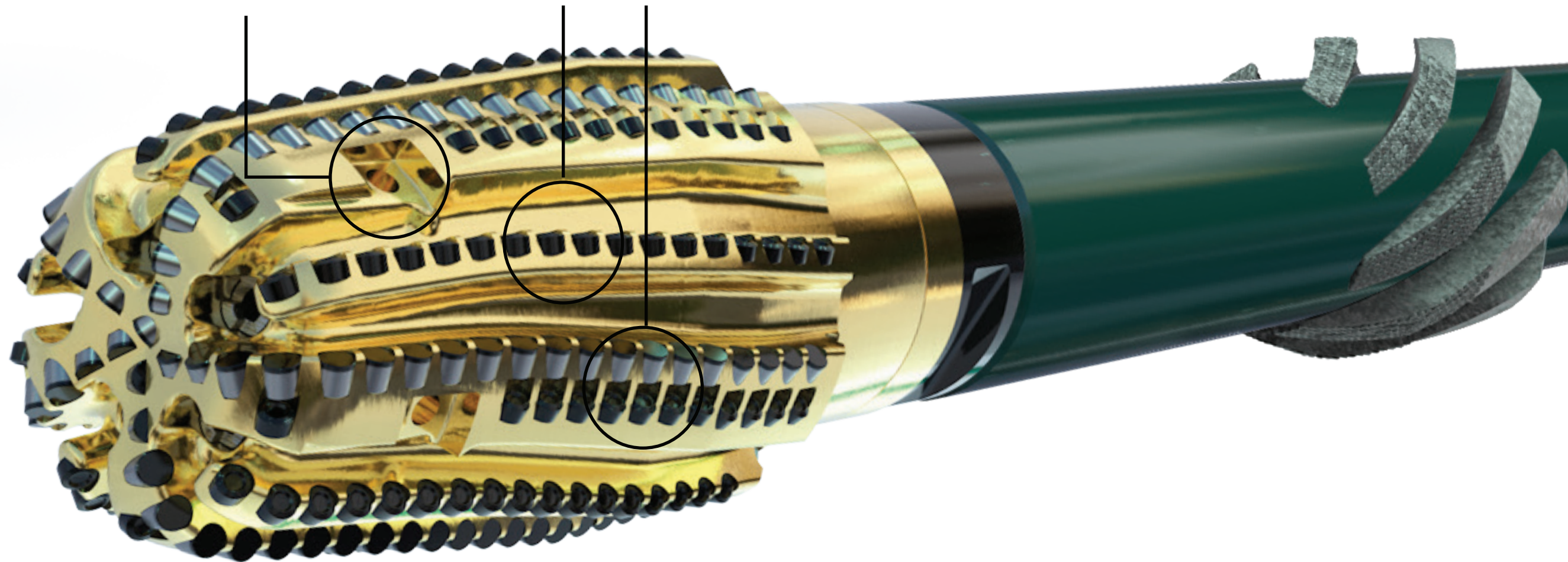
This system offers a very robust design with few moving parts, and includes built-in redundant mechanical activation. The anchor can be set in any direction and,

if needed, can be un-set and re-oriented/re-set after initial activation. A sacrificial scraper can also be installed to scrape the setting area. Once at depth, the well is closed in and pressure is applied on the annulus to activate the anchor. The anchor is then fully set by use of weight, and rotation is applied to shear the milling assembly free from the connector. The milling assembly has also undergone significant design changes to ensure effective and optimized milling performance.

### HYBRID BIT TECHNOLOGY ENGINEERED FOR MILLING IN ANY ROCK TYPE OR CASING GRADE

High load connector optimizes geometry for improved window quality

Single steel body mill with PathMaker polycrystalline diamond cutters and tungsten carbide inserts



# X-treme™ WindowMaster™

Whipstock system