

Conquer the most challenging drilling applications – consistently and economically

Kymera Mach 6 hybrid drill bit

Challenging drilling applications need unique drill bit solutions. Since their introduction in 2011, Kymera hybrid drill bits have met this need using a dual-cutting mechanism that combines the crushing action of a roller cone with the shearing action of a PDC. Kymera bits drill the toughest rock, minimize vibrations, improve directional control and reduce cost-per-foot in complex applications.

The Kymera[™] Mach 6 hybrid drill bit is the next-generation hybrid drill bit technology for the world's most challenging applications. It is designed to improve performance over conventional bit types and legacy hybrid bits. Kymera Mach 6 includes technologies that:

- Improve durability and increase drilling efficiency
- Are built for tougher drilling
- Optimize for any application

The end result: less drilling time, more consistent performance, and lower total well costs.

IMPROVE DURABILITY AND INCREASE DRILLING EFFICIENCY

Kymera Mach 6 uses new bit design strategies combined with new cutting materials that improve durability and increase drilling efficiency.

- Robust cutter layout improves shoulder durability and provides better core-out resistance to extend run length and improve dull conditions
- New PDC cutters that demonstrate increased abrasion resistance and thermal stability with greater resistance to impact damage
- A new carbide grade with improved wear resistance to improve performance in abrasive applications
- Cone Guard bit body design provides a reliable cone retention mechanism to reduce nonproductive time (NPT) risk associated with lost cones

BUILT FOR TOUGHER DRILLING

Kymera Mach 6 is built for tougher drilling with enhancements to shoulder and leg integrity that increase reliability, improve consistency, and reduce NPT risk.

- Reinforced shoulder uses a detailed design process to ensure integrity of the ShadowCut[™] cutter pockets
- Leg integrity is enhanced with design and manufacturing updates that reduce stress by up to 30% compared to legacy Kymera bits

APPLICATIONS

- Tough formations, such as hard or interbedded rock
- Complex directional profiles on bent motor or rotary steerable assemblies
- Applications needing to minimize drilling vibrations
- Sections where conventional bit types show inconsistent or low drilling performance

BENEFITS

- Improves drilling performance in the most challenging applications
- Extends run lengths, increases drilling efficiency, and improves dull conditions
- Optimizes the hybrid bit design specifically for the application
- Delivers better consistency and reduced NPT risk
- Reduces total well costs with fewer bits per interval

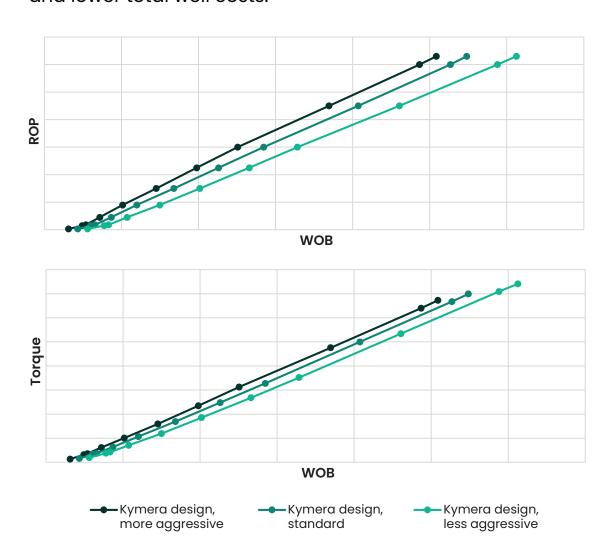
OPTIMIZE FOR ANY APPLICATION

The proprietary 3D Tetrahedron™ bit drilling simulation software from Baker Hughes is the first step to optimizing the design of every Kymera Mach 6 bit. Tetrahedron creates a digital twin of the bit and the drilling environment. This allows designers and application engineers to analyze, predict and optimize the dual-cutting mechanism of Kymera bits. Kymeras can be optimized for:

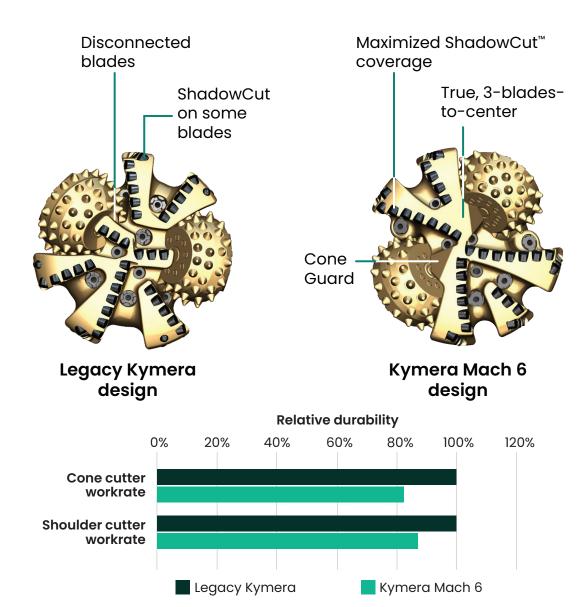
- Faster ROP
- Better vibration control
- Improved steerability
- Greater durability

Using 3D Tetrahedron bit drilling simulation software results in more informed design decisions, shorter development cycles, and a final bit design that reduces cost-per-foot.

Contact your local Baker Hughes representative to learn how Kymera Mach 6 hybrid drill bits can help you conquer challenging applications in less drilling time while delivering more consistent performance and lower total well costs.

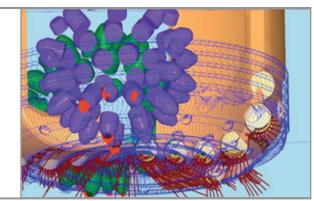


Tetrahedron can model the full bit response (WOB, torque, and ROP) of a Kymera bit to assist with selecting the optimal bit before running it in the field.

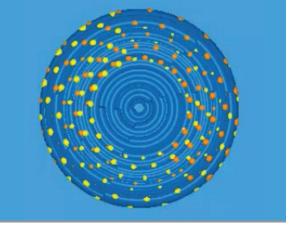


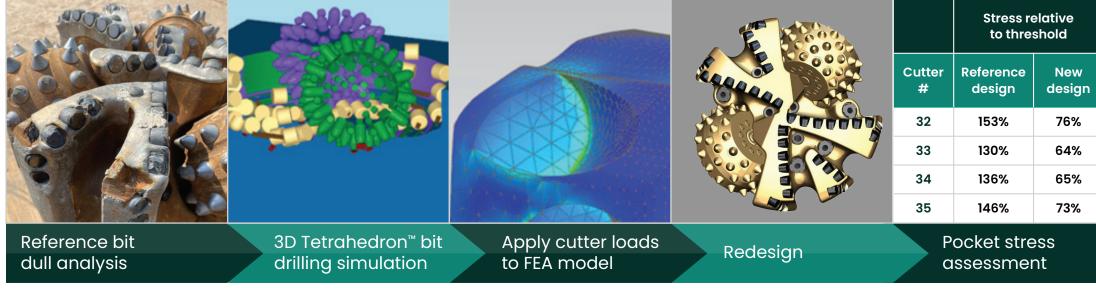
The Kymera Mach 6 bit's new robust cutter layout incorporates maximized ShadowCut™ cutter coverage and a true 3-blade-to-center design for improved shoulder durability and better core-out resistance.

3D Tetrahedron™ bit drilling simulation software models the Kymera dual cutting mechanism together in one model, enabling more informed bit selection and better design optimization.

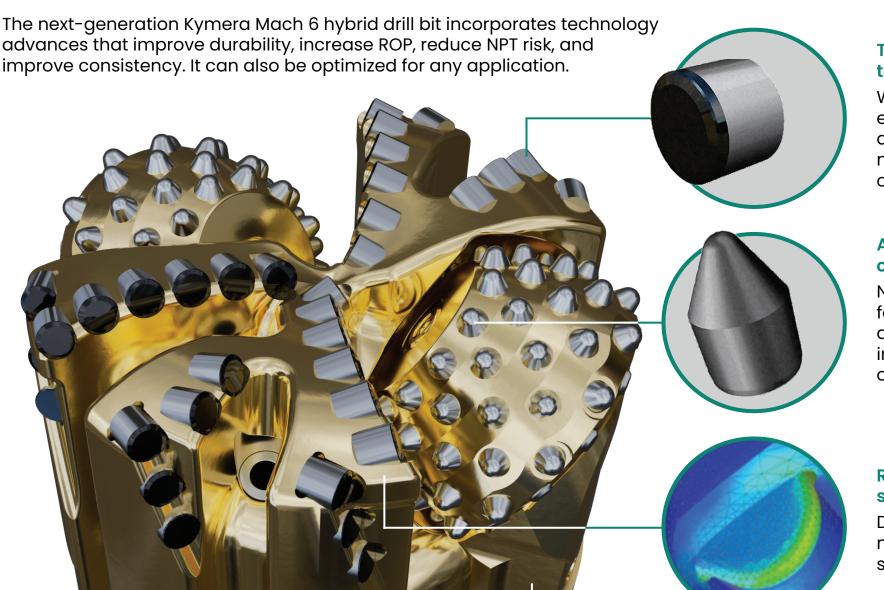


Tetrahedron modeling helps optimize hybrid bit designs by providing a variety of outputs, including visualizations of the bit's bottomhole pattern.





The reinforced shoulder design uses a detailed process to ensure ShadowCut cutter pocket integrity.



Total upgrade to cutter portfolio

Widen performance envelopes in every application with next-gen PDC cutter families

Advanced carbide grades

New carbide grade for abrasive applications, adding to portfolio of industry-leading advanced carbide grades

Reinforced shoulder design

Design and engineering method enhances shoulder integrity

Enhanced leg integrity

A finite element analysis (FEA) model of the new Kymera leg design demonstrates a 30% reduction in stress.



bakerhughes.com