

# StingBlade

## Conical diamond element bit

### APPLICATIONS

Challenging drilling applications, including hard, interbedded, conglomerate, and chert- and pyrite-inclusive formations

### BENEFITS

- Significantly improved footage and ROP
- Higher build rates with better toolface control
- Enhanced bit stability for BHA shock and vibration mitigation
- Larger cuttings for improved surface formation evaluation at the rig site

### FEATURES

Design that includes unique 3D-geometry Stinger\* conical diamond elements, which

- Deliver high point loading onto the formation, fracturing hard-to-drill rock more efficiently
- Feature a diamond layer that is twice as thick as that of a conventional PDC cutter, enhancing impact strength and improving overall bit durability

StingBlade\* conical diamond element bits improve footage and ROP while maintaining greater toolface control and minimizing shock in challenging drilling applications that can cause impact damage to conventional bits. StingBlade bits average a 55% increase in footage with a 30% increase in ROP compared with offset runs.

### Improved footage and ROP

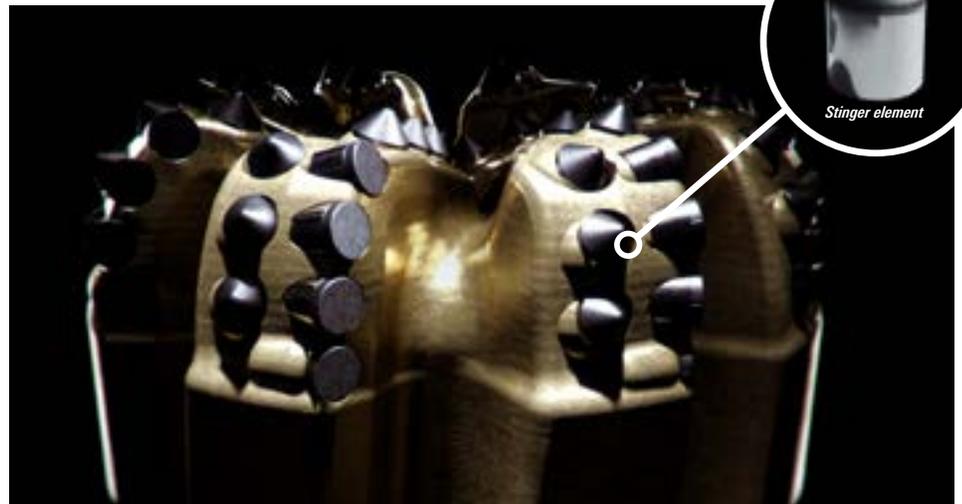
The Stinger conical diamond element's 3D geometry is optimized using finite-element analysis to model the precise point at which the element's tip contacts the formation. This ultrahigh-concentrated force, coupled with the element's thicker diamond table and state-of-the-art polycrystalline diamond blend, enables fracturing high-compressive-strength rock more efficiently for extended runs and faster ROP.

### Enhanced build rates and toolface control

Stinger elements drill with less overall torque compared with PDC cutters, reducing reactive torque fluctuations in formations with various compressive strengths or with sudden changes in operating parameters such as WOB. This enables StingBlade bits to yield higher build rates, to stay on target better, and to achieve directional drilling objectives in less time.

### Mitigation of shock and vibration

Because Stinger elements have a more balanced cutting response, StingBlade bits consistently drill with less shock and vibration. This increased drilling efficiency enables longer runs at higher ROP while prolonging the operating life of the bit and other BHA components.



The StingBlade bit design includes unique-geometry Stinger elements across the bit face. The elements apply a higher concentrated point load on the formation compared with PDC cutters for a given WOB.

### Specifications

StingBlade Bit	Formation Type	Cutting Element Size	Classification
	High impact	14 mm	3D cutting element