

ION+ 5DX PDC Cutter Technology



Delivering greater durability and unparalleled performance in hard rock and interbedded drilling

ReedHycalog's ION+ 5DX™ polycrystalline diamond compact (PDC) cutter incorporates an optimized multi-faceted geometry, improving mechanical toughness by 60% when compared to conventional cutters and resulting in remarkably effective performance when drilling challenging interbedded lithologies. For more efficient and effective rock failure, the working ridge of the 5DX cutter is designed to withstand sudden impacts while imparting higher compressive loads into the formation.

The ION+ 5DX cutter combined with our dominant ION+™ cutter technology provides greater durability, increasing interval lengths and eliminating unnecessary and costly bit trips. Our drill bit design engineers strategically position 5DX cutters in a patent pending cutter layout that has proven in lab testing to deliver faster, overall ROP while resisting impact damage in hard to drill applications, translating to record-setting performances.

We continue to rapidly innovate cutter technology and translate rock failure knowledge into time and cost savings for our customers. ReedHycalog™ bits provide consistent performance in applications around the world because we design application specific solutions. The ION+ 5DX shaped cutter technology is one of the newest examples of the ReedHycalog philosophy.

ION+ 5DX features:

- Shape technology can be applied across:
 - Standard and ultra-thick diamond table cutters
 - Various cutter grades
- Mechanically enhanced impact strength:
 - Higher impact strength compared to conventional round cutters of equivalent grade
 - Can withstand shock loads while drilling interbedded and nodular lithologies
 - Protects bit cutting structure integrity to allow longer drilled intervals
- ION+ Cutter Technology:
 - High thermal stability
 - High abrasive resistance
 - Improve tangential strength - reduces flexing and crack initiation

For more information on ION+ 5DX cutters, contact your local NOV representative or visit [nov.com/5DX](https://www.nov.com/5DX).