

# AxeBlock 14250, X616

## Torque-reducing ridged diamond element cutter block

### APPLICATIONS

- Vertical, high-curve, and lateral sections
- Flexible BHA configuration
- Medium to hard formations with unconfined compressive strengths (UCS) greater than 5,000 psi [35 MPa]

### ADVANTAGES

- Increases ROP
- Reduces overall torque while reducing reactive torque fluctuation
- Improves toolface control in high-curve applications

### FEATURES

- Axe\* ridged diamond elements combine shearing and crushing actions to cut rock more effectively
- Ridge-shaped elements reduce cutting force requirements for less overall torque
- Thicker diamond table improves frontal impact durability
- Compatibility with Rhino\* integrated borehole enlargement systems to improve operational flexibility
- Diamond semiround top (SRT) inserts placed behind the Axe elements improve block stability and reduce damage to the cutting structure by restricting lateral movement and axial impact

The series 14250 AxeBlock\* torque-reducing ridged diamond element cutter block improves rock cutting efficiency through a combination of shearing and crushing actions. This provides higher instantaneous ROP with the same drilling parameters applied, compared with using conventional PDC cutter geometry on ordinary cutter blocks.

### Enhanced stability for overall torque reduction

In medium to hard formations with UCS greater than 5,000 psi [35 MPa], conventional cutter blocks lack the necessary stabilization qualities to reduce torque while improving performance during hole-enlargement-while-drilling (HEWD) operations. The reduced cutting force required by Axe elements translates to less overall torque, reduced reactive torque fluctuation, and better toolface control in aggressive-curve applications. This advantage enables better build rates and higher overall ROP, maximizing production zone exposure and minimizing drilling time.



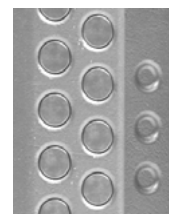
*The AxeBlock cutter block shown is for an operational range of 15½ to 18¼ in.*



*Axe elements are the primary cutters.*



*SRT diamond inserts behind the Axe elements improve stability.*



*Thermally stable inserts maximize gauge retention.*

### Specifications

Total cutters	83
Reaming cutters	62 Axe elements, 16 mm
Backreaming cutters	21 PDCs, 16 mm
Blocks	3
Rows	6 (2 per block)
Opening range	15½ in–18¼ in

Note: Operating parameters are typical ranges. Contact your Schlumberger representative for individual well recommendations.

### Cutter block nomenclature

## X 6 1 6

