Geometrix™ 4D Shaped Cutters

The Geometrix 4D Shaped Cutters line of PDC cutters offer unique geometries to traditional cylinder cutter to help instigate more efficient drilling. The various shapes in this offering are customized to different application to better solve for things like chip flow, friction, and thermal degradation. This is one more way that Design at the Customer Interface (DatCI) is helping to bring custom solutions to specific applications around the World in an effort to reduce drilling costs.

Chisel™ Plowed Scribe Cutter

The Chisel Plowed Scribe Cutter utilizes a three dimensional pointed geometry to efficiently pre-fracture rock while also reducing friction from the chips flowing over the surface of the cutter. The reduced friction from chip flow allows more efficient drilling and less heat buildup at the cutter tip thus drilling faster with less wear and thermal degradation of the diamond.

Chopper™ Plowed Cylinder Cutter

The Chopper Plowed Chip Breaking Cutter utilizes a ridged diamond table surface to reduce friction from the chips flowing over the surface of the cutter. The reduced friction from chip flow allows more efficient drilling and less heat buildup at the cutter tip thus drilling faster with less wear and thermal degradation of the diamond.

Dagger™ Multi-Plowed Cutter

The Dagger Multi-Plowed Cutter utilizes several ridges on the cutter face to create a fluid boundary layer between the cutter and ribbon/chip reducing friction for more efficient chip evacuation. The ridges also increase the surface area of the cutter to help with thermal dissipation. The changed surface pattern allows for more efficient drilling and less heat buildup at the cutter tip thus drilling faster with less wear and thermal degradation of the diamond.

Machete™ Full Cylinder Scribe Cutter

The Machete Full Cylinder Scribe Cutter is a reconfiguration of the traditional Scribe cutter which helps to pre-fracture rock through point loading. The new geometry allows for thermal stability through the manufacturing process to retain a sharper point throughout the drilling process. The change offers less heat buildup at the cutter tip thus drilling faster with less wear and thermal degradation of the diamond.