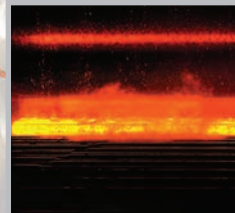


Rock solid – a component journey

DRILL BITS

Erosion in drill bits presents a serious challenge in mining when productivity is crucial. Rotary blasthole drills operate in variable ground formations. Bodycote's carburising treatment increases the wear resistance of the drill bit parts, thus extending product life and operating efficiencies.

The drill bit components begin life as casehardening steel forgings.



The bit legs and rollers are machined to achieve the design required for best performance through difficult terrain.



The parts undergo painting operation to prevent hardening the sections which require better ductility.



Carburising increases the surface hardness, or wear resistance, in the drill bit. Oil quench immediately follows.



A 3D printed insert is applied as masking to ensure that only the unpainted areas will be treated in the carburising process.



Before returning the parts, Bodycote inspects and performs quality checks for hardness.

BODYCOTE COMPONENT JOURNEYS

This is just one example of how Bodycote brings together the huge wealth of knowledge and expertise from across the Group to provide the vital engineering services our customers need.

For more component journeys visit www.bodycote.com

Denotes the parts of the component journey undertaken by Bodycote
Background and end application images courtesy of Sandvik AB



End application - rotary blasthole drilling rigs.