Hard Carbide Coatings Protect Rotor for Future Repair

Microcracks inherent in chrome plating weaken the mechanical properties of the plating, which leads to corrosion and degradation of base metal by drilling muds, especially those with high chloride content. Praxair’s tungsten carbide coating is free of microcracks and provides hard, dense protection to the rotor allowing for future refurbishment with minimal base metal repair.

Improved Porosity Control

Praxair’s tungsten carbide coating contains less than 1% porosity and is sealed to effectively close up any inherent porosity. Chrome plating typically contains porosity and microcracks, which opens up the possibility for corrosion.

Complete Rotor Restoration Service

We take rotors from worn to field-ready with a thorough restoration process: (1) inspection for pitting, galling, and/or wear; (2) strip off hard chrome plating or tungsten carbide coating; (3) weld and blend repairs (if needed); (4) apply tungsten carbide coating; (5) finish polish.

Geographically Positioned

Praxair offers full restoration services around the world.

Proven Results

Praxair Surface Technologies’ patented technology has been used in the production of new mud motor rotors and refurbishing worn rotors for more than 20 years. In fact, our tungsten carbide rotor coating was the first introduced to the market (via an OEM joint venture) as a longer-life alternative to chrome plating. Praxair’s tungsten carbide rotor coating can extend rotor life from 5 to 8 times longer than chrome plating.