

## Variocut G 460 Advanced Synthetic Grinding oil with inhibitors for Carbide Grinding

### Situation

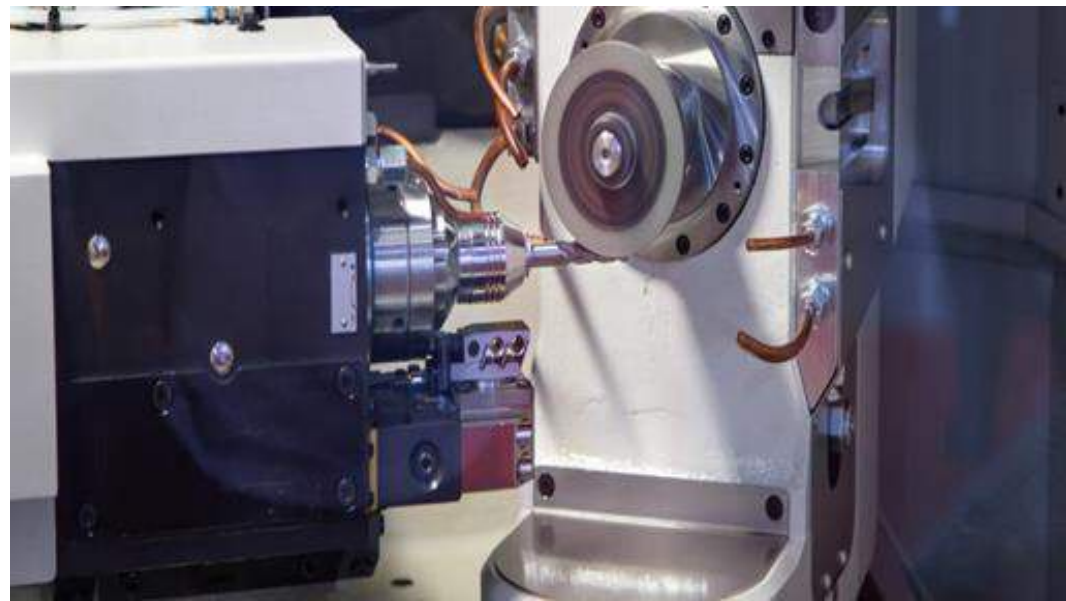
A major Midwest carbide tool manufacturer was having production issues with a mineral oil based (group II) grinding fluid. When they challenged the oil with heavy grinding, the process would generate dense smoke and oil mist. To avoid these issues, they had to reduce the grind depth by 36% which increased production time significantly

### Solution

Recognizing the critical need to meet production demands and prevent smoke in the shop, Castrol conducted a comprehensive evaluation of the operations. The proposed solution was Castrol Variocut G 460, an advanced synthetic grinding oil with inhibitors tailored for carbide grinding. This oil was designed specifically for heavy duty grinding operations that mineral oils are unable to handle and prevents cobalt leaching from carbide. This long-life fluid can extend sump life by 2X or more, while the low volatility reduces mist and overall fluid usage.

### Outcome

Achieved high production goals. Eliminated smoke and reduced mist. High flash point improves safety. Following an extended trial period, no smoke was generated while utilizing the original aggressive grind depth. Additionally, reduced mist and improved operator acceptance were reported. In summary, the use of Castrol Variocut G 460 delivered an estimated cost avoidance of over \$250,000 for another machine and allowed the carbide tool manufacturer to maximize production.



### Savings

- Over \$250,000 in cost savings
- Increased grind depth by 36%
- Eliminated smoke