

# TOOL STEEL APPLICATIONS IN THE MINING INDUSTRY

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The mining industry is one of the most demanding industrial sectors when it comes to component wear and abrasion damage. Traditionally, many of the parts produced for this industry are based on standard grades of high-strength steel, but what if there was another way?

The use of high-performance tool steels from voestalpine in the mining sector has been shown to be successful in a wide range of applications, from drilling clamps to mud pump valves. Tool steels have many of the characteristics desirable in the mining industry, including wear resistance, toughness, ductility, resistance to chipping, and high hardness. The increase in performance / tool life over traditional high-strength grades indicates that tool steels can be an extremely cost-effective solution.

voestalpine High Performance Metals Australia offer a wide range of tool steels from our Böhler and Uddeholm brands. Each offers unique chemistry and material properties to ensure performance in the most demanding environments.

The excellent combination of toughness and wear resistance offered by tool steels makes them an ideal replacement for traditional quenched and tempered or high strength steels in a variety of applications such as drill clamps, spreaders, mud pump valves, gears, breakout clamps, retaining bolts, pistons, hydraulic torque tools, and winch jaws.

## Recommended Grades & Properties

### Böhler Grades:

Böhler S390 Abrasion / Impact Toughness  
Böhler K110 Abrasion  
Böhler K700 Impact Toughness  
Böhler W360 Abrasion / Impact Toughness  
Böhler W302 Abrasion / Impact Toughness  
Böhler K340 Abrasion / Impact Toughness  
Böhler V820 Nitriding  
Böhler M238 Impact Toughness  
Böhler K245 Abrasion

### Uddeholm Grades:

Uddeholm Calmax	Abrasion
Uddeholm Orvar Supreme	Impact Toughness
Uddeholm Vanadis 8	Abrasion



The tool steel grades featured here are just a small selection of the high performance grades offered. If you need technical advice for a specific component or application that you would like to improve, please contact us and one of our technical experts will be happy to assist you.



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