



## MINING & ROCK HANDLING

# voestalpine MINING & ROCK HANDLING WEAR COMPONENTS

### WHEN PERFORMANCE MATTERS

The mining industry is one of the most demanding industry sectors when it comes to component wear and abrasive damage. Premature failure of wear components can result in significant asset downtime and negative impacts to productivity.

voestalpine high performance tool steels are ideal for mining components prone to extreme abrasive wear. Due to their exceptional hardness, toughness, and wear resistance, our steels can endure harshest mining conditions, extending the lifespan of tools and equipment. Their advanced alloy compositions and heat treatments make them suitable for a range of applications, with needing to upgrade to costly tungsten carbide alternatives.

The excellent combination of toughness and wear resistance offered by tool steels makes them an ideal replacement for traditional quench and tempered materials in a range of applications where abrasion and erosion are major issues.

### CHARACTERISTICS:

- » Excellent resistance to both abrasive and adhesive wear
- » High hardness (up to 68 HRC)
- » High strength & excellent ductility
- » High degree of purity and cleanliness thanks to the production remelting processes
- » High work-hardening potential
- » Sustainable production (up to 97% recycled content)

**STRONG. SAFE. SUSTAINABLE.**

## VOESTALPINE PREMIUM MATERIAL GRADES

| BÖHLER          | Uddeholm / ASSAB       | Villares  | W.N.R (EN/SEL) | MAX. (HRC/HB/HV) |
|-----------------|------------------------|-----------|----------------|------------------|
| M200            | -                      | -         | 1.2312         | 330 HB           |
| M238 / M238 HH  | 718 HH / Impax Supreme | -         | 1.2738         | 330 / 400 HB     |
| -               | Nimax                  | -         | PATENT         | 400 HB           |
| K100            | -                      | -         | 1.2080         | 61               |
| K107            | XW-5 / Sverker 3       | -         | 1.2436         | 61               |
| K110            | XW-42 / Sverker 21     | VD2       | 1.2379         | 62               |
| K305            | Rigor                  | -         | 1.2363         | 61               |
| K340 ISODUR     | 88 / Sleipner          | VF800ATIM | PATENT         | 63               |
| K455            | -                      | -         | 1.2550         | 58               |
| K490 MICROCLEAN | Vanadis 4E supperClean | -         | PATENT         | 64               |
| K600            | -                      | -         | 1.2767         | 55               |
| K700            | -                      | -         | 1.3401         | 600 HV           |
| K888 MATRIX     | Calmax                 | -         | PATENT         | 64               |
| W302 ISOBLOC    | 8407S / Orvar Supreme  | VH13IM    | 1.2344         | 54               |
| W360 ISOBLOC    | Unimax                 | -         | PATENT         | 57               |
| S390 MICROCLEAN | Vanadis 30 SuperClean  | -         | PATENT         | 68               |
| S600            | -                      | VWM2      | 1.3343         | 66               |
| S690 MICROCLEAN |                        |           | 1.3351         | 66               |
| -               | Caldie                 | -         | PATENT         | 60               |
| K390 MICROCLEAN | Vanadis 8 SuperClean   | -         | PATENT         | 64               |

## PERFORMANCE IS IN OUR DNA

voestalpine High Performance Metals is the global market leader in the production of tool steels and one of the world's leading suppliers of high-speed steels, valve steels, special steels, powder metallurgy steels, and nickel-based alloys. We also manufacture die-forged components and large castings from nickel-based alloys and high, medium and low alloy steels.

Customers rely on our key brands of Bohler, Uddeholm and Villares, to set the highest standards of innovation, quality and service across a wide range of industries including automotive, aerospace, consumer electronics and oil & gas. We are fully integrated from steel production through to local customer sales, ensuring we keep our customers One Step Ahead.

## EXPLORE WHAT IS POSSIBLE.



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ONE STEP AHEAD.