



## MINING & ROCK HANDLING

# voestalpine MINING & ROCK HANDLING WEAR APPLICATIONS

### 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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**voestalpine**

ONE STEP AHEAD.