



DIE CASTING

voestalpine AM WATER JACKETS designed for pure performance

Over the years, our tailored additively manufactured (AM) water jackets have proven their outstanding performance worldwide in the automotive industry.

YOUR ADDED VALUE

Our additively manufactured water jackets are exchangeable tool inserts used for the casting of aluminum engine blocks. This important component is very thin and tends to have variants in thickness of the curved walls from top to bottom. Due to this, a prime solution is required, which we offer in a combination of a specially designed conformal cooling solution and outstanding **premium materials by BÖHLER/ Uddeholm**, including state of the art voestalpine heat treatment and eifeler PVD coating.

Our ready to use water jackets offer high temperature wear resistance, excellent ductility, good temper back resistance and significant soldering reduction. Through conformal cooling, we are able to reduce cycle time, down-time and maintenance efforts, which increases the OEE for our customers. This directly results in an increased productivity for the foundry.

Main Properties

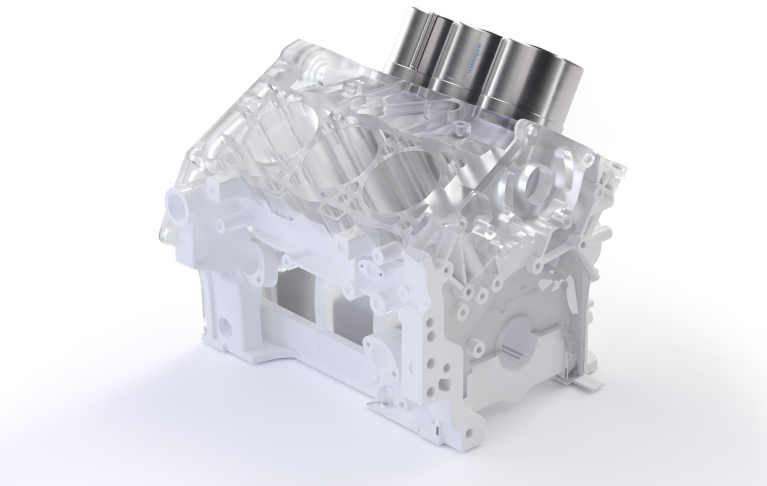
Outstanding hot wear resistance

Premium temper back resistance

High ductility (safety against cracks)

High soldering resistance

High thermal conductivity



OUR MATERIALS

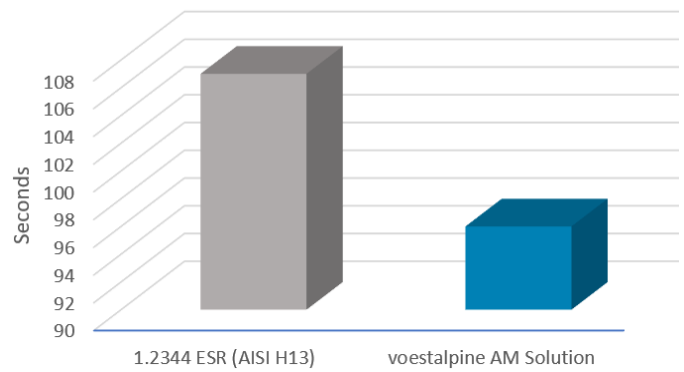
C	Si	Mn	Cr	Mo	V
0.50	0.20	0.25	4.50	3.00	0.60

C	Si	Mn	Ni	Mo	Co	Ti
≤0.03	≤0.10	≤0.15	18.00	4.90	9.30	1.10

INDUSTRIAL PERFORMANCE COMPARISON

- » Lifetime improvements
- » Reduced maintenance effort
- » Stable, high quality final casted parts

Cycle Time Improvement



voestalpine High Performance Metals GmbH

Donau-City-Straße 7
1220 Vienna, Austria

T. +43/50304 10 - 0

office.edelstahl@voestalpine.com

www.voestalpine.com

September_2022_EN

voestalpine

ONE STEP AHEAD.