

Engineered Products



DIE CASTING

voestalpine CHILL BLOCKS designed for pure performance

Improved venting performance and reliable ejection of the casting lead to more constant product quality, scrap-rate reduction and trouble-free production.

YOUR ADDED VALUE

voestalpine Chill Blocks are made from **premium materials by BÖHLER/Uddeholm** and developed to combine the highest venting performance with maximum process reliability.

The patented wave design enables a gap size of up to 1.3 mm and therefore a significantly larger cross section for die evacuation compared to standard systems. As a result, venting-related defects such as gas porosity or short shots can be more reliably prevented. Furthermore, ejection forces are strongly reduced. This leads to an easy peel off and less bonding in the venting area.

Through these design and performance advantages, a more reliable filling process, less fluctuation in casting quality and less maintenance effort can be achieved.

INDUSTRIAL PERFORMANCE COMPARISON

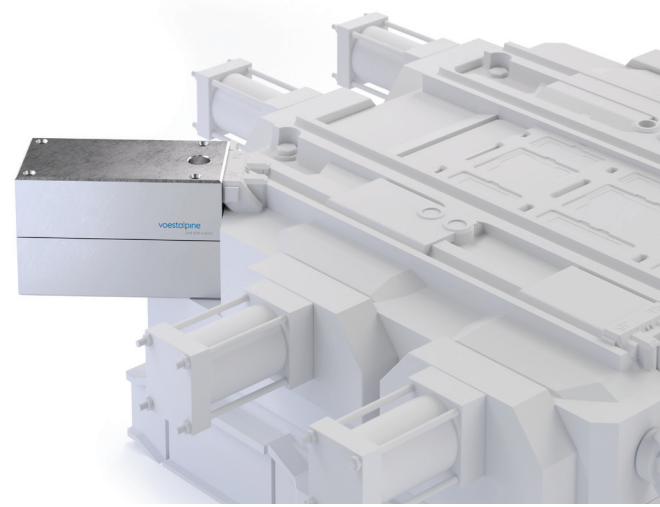
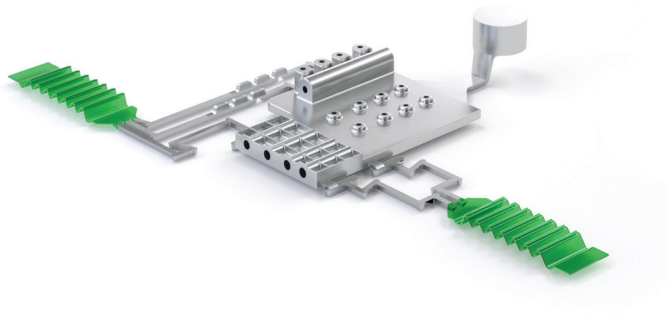
- » **Patented wave design**
- » **Reduced maintenance and cleaning effort**
- » **Attractive costs compared to Cu-W blocks**
- » **Best venting properties (venting gap up to 1.3mm)**
- » **Extremely long lifetime due to outstanding high-temperature wear resistance**

Main Properties

Compact design in tool steel

Suitable for harsh foundry conditions

Proven in various installation situations



OUR MATERIALS

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

C	Si	Mn	Cr	Mo	V
0.38	0.30	0.50	5.00	2.30	0.60

PROVEN CUSTOMER SUCCESS

Material definitions:

Process: HPDC cold chamber

Alloy: AISi9Cu3

Initial temperature: 670°C

Permanent mold: X38CrMoV 5-1 (H13)

Initial temperature: 200°C

Casting Process:

Die opening time: 10sec after filling

End of cycle: 12sec after filling

Ejection:

Delay: 0,5sec

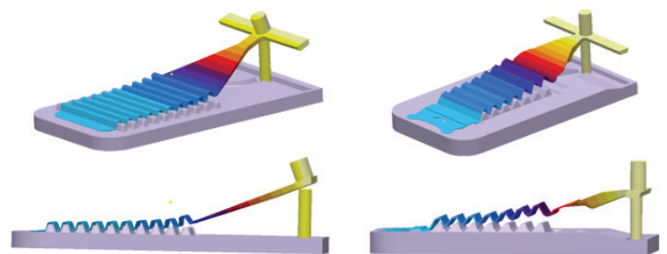
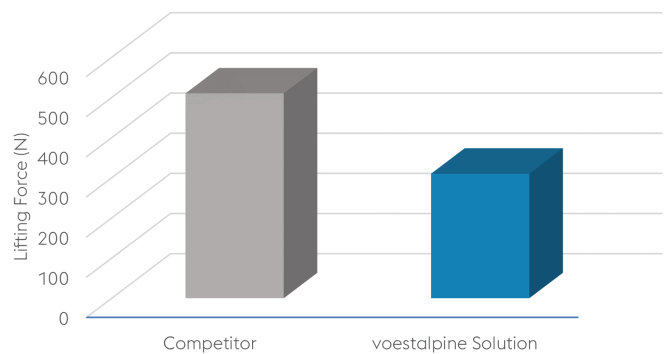
Duration: 1sec

Stroke: 50mm

Lifting force: conv. 533,3N

voestalpine solution: 350,62N

Ejection Improvement



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October_2024_EN

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ONE STEP AHEAD.