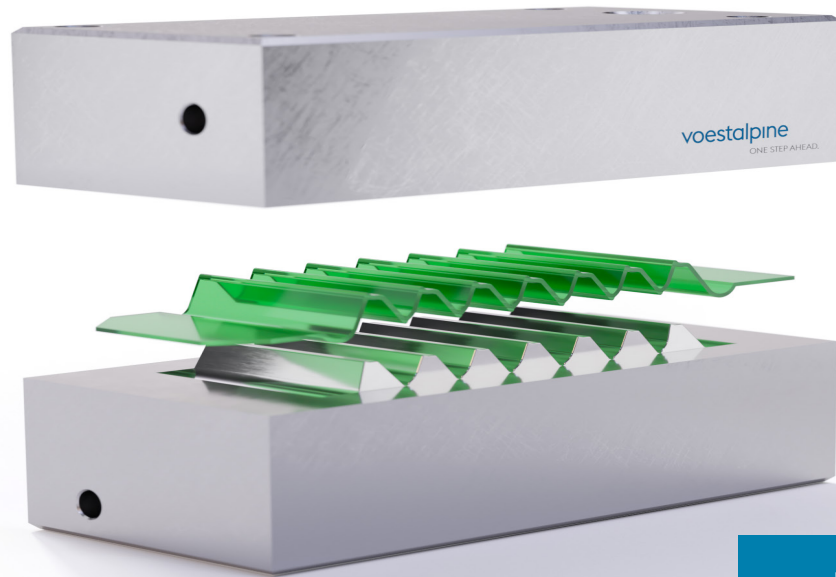


# Engineered Products



DIE CASTING

## voestalpine CHILL BLOCKS designed for pure performance

Improved venting performance and reliable removing of parts lead to constant high product quality, scrap reduction and trouble-free production.

### YOUR ADDED VALUE

With voestalpine forced venting Chill Blocks, we combine **premium materials by BÖHLER/Uddeholm** with a tailor-made solution for the application requirement.

The patented voestalpine wave design, using a large gap size (up to 1.3mm), enables a consistently high venting performance. So venting related defects like air porosity, cold runs or short shots can be prevented reliably.

During the opening process, the special wave geometry leads to an easy peel off of the venting system in the area of the forced venting and thus to low removal forces combined with high process reliability.

No break offs or sticking pieces from the venting system means reliable filling processes, constant product quality and less maintenance.

### CUSTOMER BENEFITS

- » **Reduced maintenance effort**
- » **Attractive costs compared to Cu-W blocks**
- » **Best venting properties (venting gap up to 1.3mm)**
- » **High process stability by special wave design**
- » **Extremely long lifetime due to premium high temperature wear resistance**

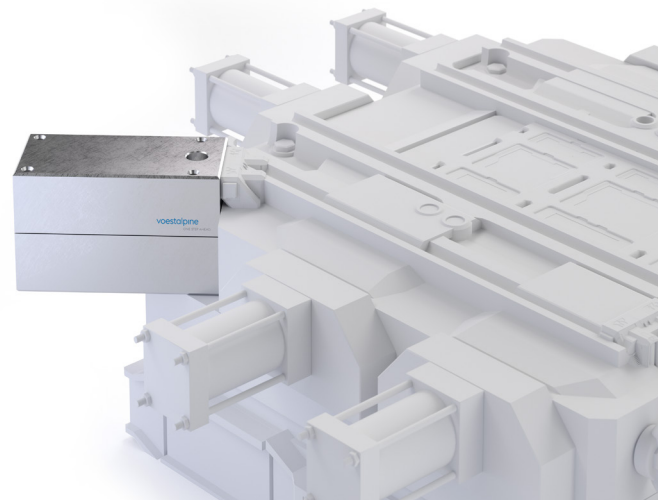
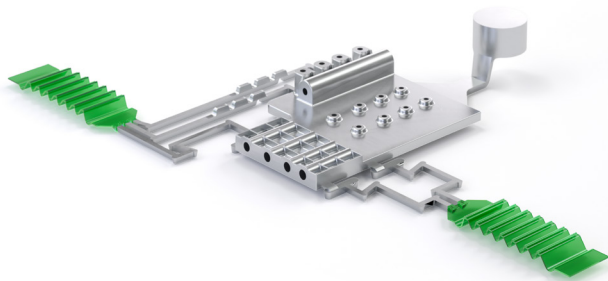
#### Main Properties

Compact design in tool steel

Suitable for harsh foundry conditions

Proven in various installation situations

With or without conventional cooling system



## 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

### voestalpine High Performance Metals GmbH

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1220 Vienna, Austria

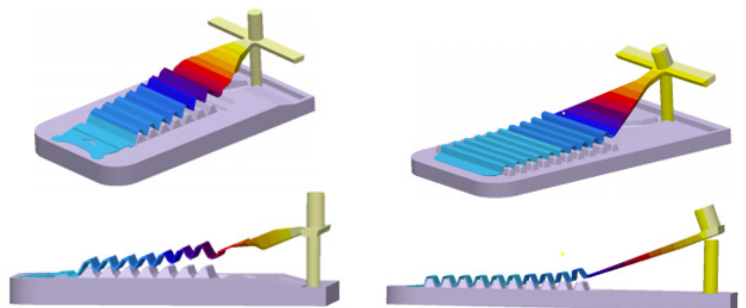
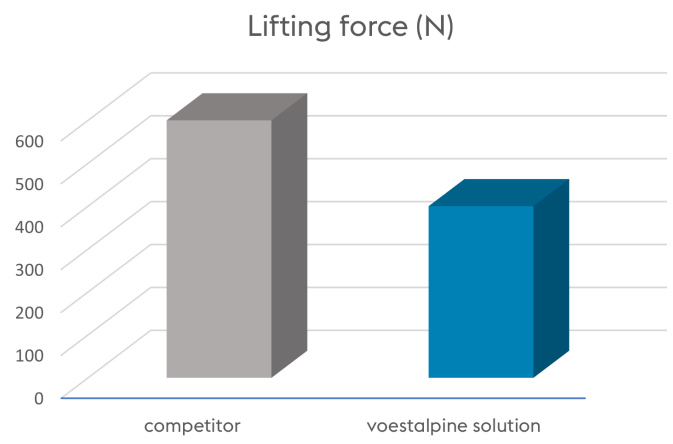
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## INDUSTRIAL PERFORMANCE COMPARISON



voestalpine

ONE STEP AHEAD.