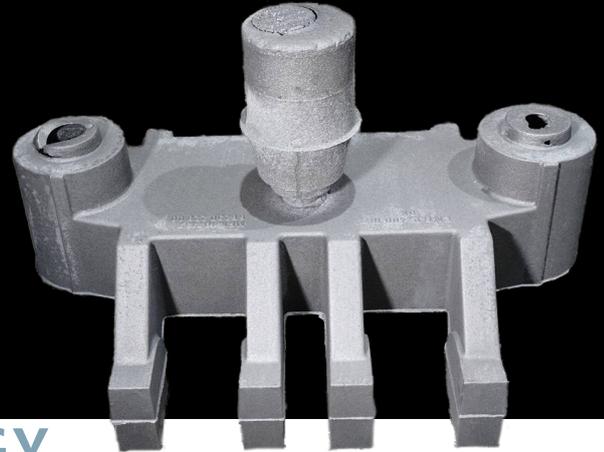


## The power of advanced 3D-printed filters and SCK Direct Pour System



## INNOVATION & TECHNOLOGY

### THE CHALLENGE

Due to rising energy and labour costs, foundries are more than ever challenged to optimise workflows, processes and application technology for the production of castings. In the given application, it was intended to reduce energy costs by lowering the returns and personnel costs to be decreased by reducing the fettling area.

### FOUNDRY:

Metallwerk Franz Kleinken GmbH is a foundry with more than 100 years of experience for castings up to 30 tons weight. Kleinken is contact partner, specialist and problem solver for all challenges in the production and processing of individual castings and small series made of cast iron and non-ferrous metal castings.



**KLEINKEN**

**VESUVIUS**

### PARAMETER

<b>Alloy:</b>	EN GJS 400-18
<b>Casting weight:</b>	800 kg
<b>Pouring temp.:</b>	1350 °C
<b>Pouring weight:</b>	Conventional gating system: 959 kg Yield: 83.4 % SCK Direct Pour: 865 kg
<b>Pouring time:</b>	Yield: 92.5 % Conventional gating system: 50 s SCK Direct Pour: 40 s
<b>Moulding Process:</b>	Hand moulding / Furane

### FOSECO PRODUCTS

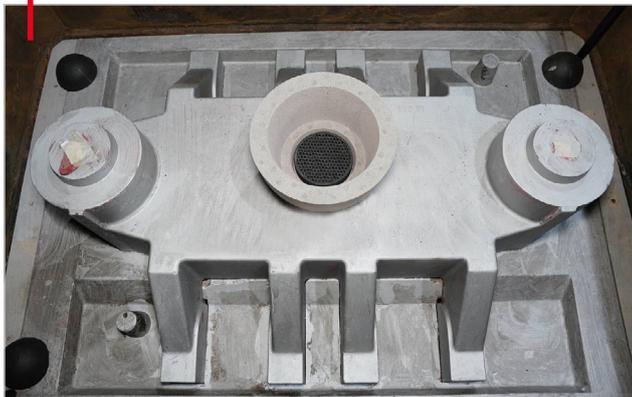
- FEEDEX\* SCK Direct Pour System Modulus 6,8 cm (1x C6 SCK U 70 F, 2x SCK M 100 F)
- STELEX\* Optiflow3D Filter Ø125x30
- TENO\* Tec 7804 A

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## OUR SOLUTION

The use of the advanced FEEDEX SCK direct pour system and a small printed STELEX Optiflow3D filter generates many advantages for the foundryman. Due to the elimination of the gating system, minimal contact area and a high, uniform specific filter capacity of 7.1 kg/cm<sup>2</sup>, the part can be manufactured very efficiently.

Cross head for die casting machine

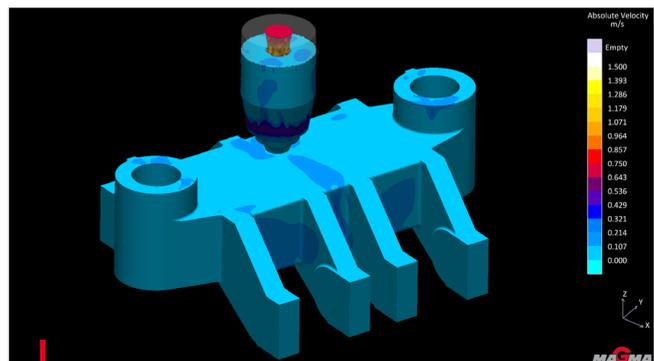
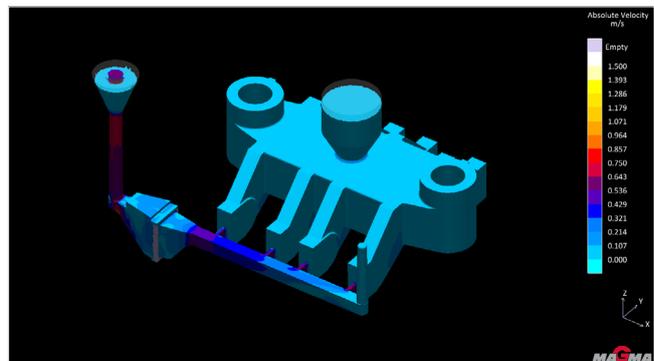


## KEY BENEFITS

- Modular Sleeve System
- Small Feeder Neck
- Elimination of gating system
- Defined reproducible filter structure

## THE OUTCOME

By using the SCK direct pour system in combination with STELEX Optiflow3D filter, the casting was sound and a very good surface finished quality was achieved. The returns were reduced by 10 %, resulting in 94 kg less metal. The fettling area was reduced by 116 cm<sup>2</sup> or 75 % (!). This not only resulted in cost advantages for the foundry, it also relieved the environment through lower CO<sub>2</sub> emissions.



Velocity of conventional gating system and direct pour application

> LET'S LEARN MORE



THINK BEYOND. SHAPE THE FUTURE.



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