

INNOVATIVE KALPUR DIRECT POURING APPLICATION ON AN AUTOMATIC HIGH PRESSURE GREEN SAND MOULDING LINE

PARAMETERS:

| | |
|----------------------|--|
| Alloy: | GJS 500 -7 |
| Casting Weight: | 260 kg |
| Pouring temperature: | 1390 °C |
| Pouring weight: | 283 kg |
| Pouring time: | 25 s |
| Moulding process: | Automatic high pressure green sand moulding line |

SUPPORT LEFT

FOUNDRY:

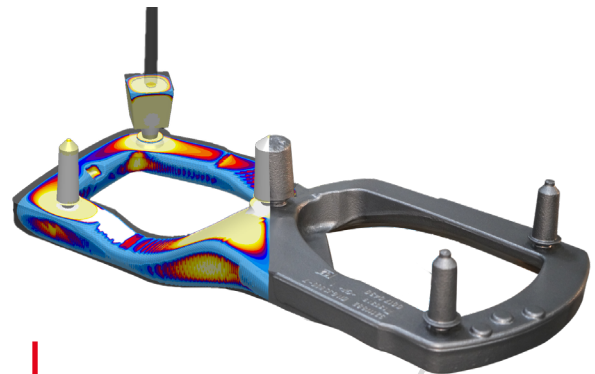
GF Casting Solutions Leipzig GmbH looks back on a long and successful tradition in terms of producing state of the art castings. This foundry is producing finished castings in the range from 100 kg up to 1000 kg. First experiences with the KALPUR direct pour systems were very positive. The application of this novel KALPUR technology will now be extended to other suitable castings.

FOSECO PRODUCTS

- KALPUR* Filter sleeve
- FEEDEX* HD1 TAE 1126/MD/0162MH/L10 Sleeve
- SEDEX* Filter
- FEEDEX HD1 VS 191/37MH Sleeve
- FEEDEX HD1 VS 415/37MH Sleeve
- FEEDEX HD1 VS 1650A/0162MH Sleeve

KEY BENEFITS

- Good surface finish
- Improved yield
- Reduction in fettling costs
- Square shape of the riser stub facilitates handling of the casting spray, reducing accidental damage
- Solved problem of limited space for gating system



Fraction Liquid Solidification



Tandem roller – articulated



THE CHALLENGE

As the finished casting is painted and highly visible, there is a strict requirement in terms of casting surface finish. With limited space on the pattern for a traditional filtered gating system, a KALPUR unit is perfectly suited. However, until now, there has not been a suitable product available for use in ram up applications on high pressure green sand moulding lines.



OUR SOLUTION

This new KALPUR Direct pouring system design is made of several elements. The components include a high strength FEEDEX sleeve unit to withstand the high moulding pressures during ram up and a SEDEX foam filter to ensure a perfect filtration of the melt. This KALPUR unit further includes patented Kompressor core which makes possible the removal of the riser stub by knock off and the easy cleaning of the casting. Due to the positive experiences the regular application of that sleeve is running at GF Casting Solutions Leipzig GmbH from Oktober 2018 with suitable castings.



THE OUTCOME

The application of the KALPUR Direct pouring unit provided many advantages; filtration of the melt, smooth, uniform filling of the casting and a directional solidification from the exothermic feeder. Fettling of the ingates was completely eliminated. The Kompressor cores facilitated the easy removal of the risers stubs. Damage to the casting during handling operations was significantly reduced. As a consequence, there was an overall improvement in yield and a significantly reduced scrap rate.

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