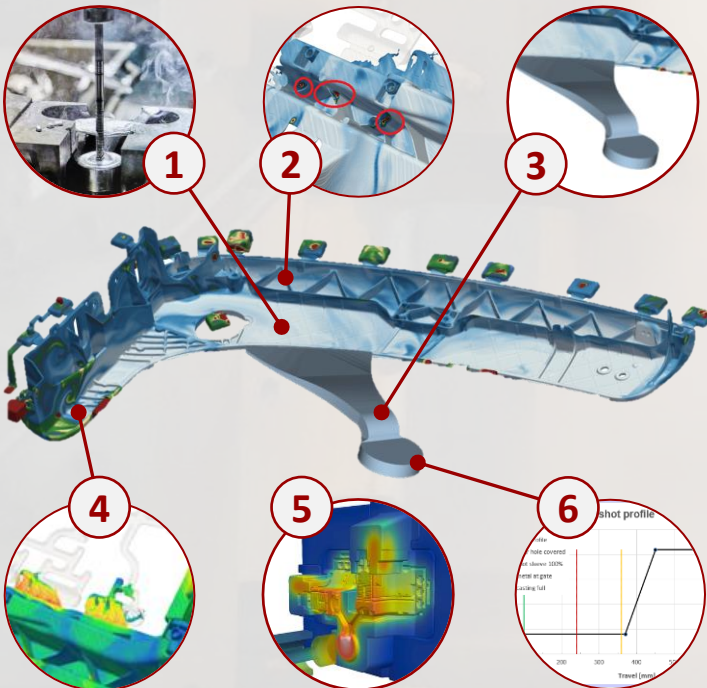


Casting process engineering in six development steps as a prerequisite for profitable light metal Rheocasting production

Process development

We develop the entire casting process for you, considering your existing production resources, including support for initial sampling at the casting cell and any necessary recursion loops.



How we develop a light metal Rheocasting process:

- | | |
|--|--|
| <p>1 Checking specifications</p> <p>Detailed evaluation of component specifications, requirements for mechanical characteristics and residual porosities as well as specification of alloy composition and heat treatment</p> | <p>4 Development of an efficient mold venting system suitable for Rheocasting</p> <p>Optimal design of the mold venting considering the specifics of a Rheocasting process: pressure venting or vacuum-assisted venting / derivation of the vent block sizes</p> |
| <p>2 Adaptation of component geometry to Rheocasting process and casting alloy</p> <p>Adaptation of the component to the Rheocasting process (as far as possible on the component side) considering the selected casting alloy</p> | <p>5 Development of a cycle time-optimized mold temperature control</p> <p>Simulation and evaluation of the heat input into the casting mold / Calculation of the heating and cooling system / Derivation of the measures for the Rheocasting mold</p> |
| <p>3 Development of a sprue system optimized for the Rheocasting process</p> <p>Flow and solidification optimized Rheocasting design / material and cycle time optimized considering the casting system including melt preparation</p> | <p>6 Development and virtual testing of Rheocasting parameters</p> <p>Casting process calculations and simulation-based optimization of the casting curve (shot curve) including casting chamber and venting simulation and solid content after Rheocasting melt preparation</p> |

Get the best out of process planning and production with us as your **sparring partner**!
Choose our subscription model for any consulting tasks!

Why sparring?

Sparring enables two differently characterized teams to find a better (more economical) solution to complex tasks. The teams compete, work together or challenge each other.

Why subscription model?

Plan a non-binding annual budget with us for your company and take advantage of the benefits.



1 Sparring partner for your casting process planning

Casting process planning is very complex and decisive for the achievable productivity of series production. Sparring is a very effective method for getting the most out of the planning. We challenge your team and find the best solutions together.

2 Sparring partner for your production

In day-to-day business, it is a challenge to keep complex processes at the highest level. We challenge your production by, for example, analyzing your casting systems and casting processes on a monthly basis regarding cycle time, scrap rate and availability.

3 Sparring partner for your factory and facility planning

Factory and facility planning is very complex, and the result determines economic success.

We challenge your planning by analyzing it and contributing our ideas and solutions. Together with your team, we will find the most economical solution.



subscription

Use our subscription model for uncomplicated and effective collaboration

Agree an annual budget and get started without additional inquiries, offers and orders. We invoice our work monthly. The benefits include reduced bureaucracy, fast response times, casting process advice by phone or web meeting and reduced prices. Feel free to contact us!

We develop casting processes and plan production facilities for castings made of light metal casting alloys. We also use this specialist knowledge in projects relating to delivery capability, restructuring and training.

Profile

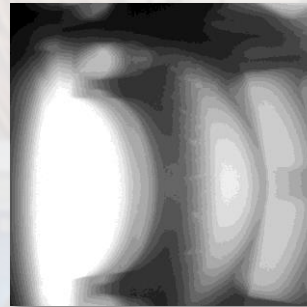
- Engineering since 1999
- Light metal casting knowhow
- 15 employees + network of experts
- Casting technologists, simulation and production engineers
- Industries:
 - Automotive (focus)
 - Foundry (focus)
 - Mechanical engineering
 - Aerospace
- Seminars with over 800 participants from over 60 companies

Areas of activities



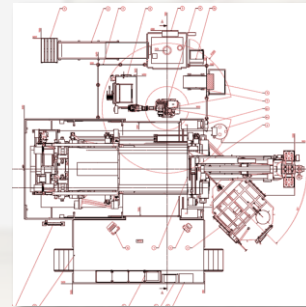
Process Engineering

- Feasibility check
- Component geometry suitable for casting
- Casting process planning
- Potential analysis
- Casting defect Trouble-Shooting
- Simulation (Flow3D-Cast)



Quality Engineering

- Supplier support (Taskforce)
- Engineering support for production
- Quality planning
- Project management
- Process audits



Industrial Engineering

- Project planning of industrialization
- Factory and plant project planning
- Production optimization
- Relocation



Technical Consulting

- Restructuring
- Productivity increase
- Potential analysis
- Taskforce
- Operational Due Diligence



Campus

- Seminars on all aspects of light metal casting processes
- Sand casting
 - Chill casting
 - Low-pressure chill casting
 - High pressure die casting
 - Rheocasting