

## **Press Release**

Modelling in MAGMA<sup>5</sup> Rel. 5.3, higher productivity, less casting defects

# **EXACTCAST** technology even more efficient

Hilden, November 26, 2015 – ASK Chemicals has significantly improved its EXACTCAST riser technology within the last few years. Recent developments such as EXACTCAST OPTIMA mini-risers provide important benefits to foundries. With the integration of riser data into the new MAGMA<sup>5</sup> version, foundrymen have access to comprehensive validated data of the EXACTCAST riser when designing the riser or gating system.

Both risers and mini-risers are characterized by specific thermo-physical properties. They are either exothermic or isolating and have different feeding volumes and specific melting properties. Precise knowledge of this information is crucial when modelling the appropriate system. With the latest MAGMA<sup>5</sup> Release 5.3, foundrymen have access to this information and can apply the EXACTCAST mini-riser even more efficiently (Fig.1). The use of simulation increases the efficiency of processes, as it crucially reveals where there is optimization potential – not merely with the casting development process specifically, by reducing "trial and error", but also with existing processes generally.

### Higher productivity of the molding line

EXACTCAST OPTIMA risers represent a further solution successfully rolled out by ASK Chemicals to increase efficiency in foundries. These mini-risers are fitted with a loose metal part in the bottom section (nozzle) and a rigid pin designed to achieve an exactly defined breaking point and, additionally, reduce fettling costs (Fig 2).

A further benefit is the virtually frictionless sleeve and the integrated riser cap of the EXACTCAST OPTIMA, which prevent crumbling particles from falling into the mold during the compaction process. Riser applications with rigid pins usually destroy the riser during compaction, and crumbling particles from the riser can fall into the mold, which needs to be purged with air afterwards. This can also happen when using spring pins under high compaction pressures. EXACTCAST OPTIMA risers, by contrast, are fitted with a cover of non-friable material preventing mold contamination and related casting defects and thereby raising cycle times of the molding systems.

ASK Chemicals riser solutions are characterized by their efficiency and high-quality feeding performance. They support casting defect prevention and, with the MAGMA<sup>5</sup> release, can now also be consulted for modelling the feeding or gating system. They are a powerful and effective combination offering interesting potential for foundries.

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## Images for the press release

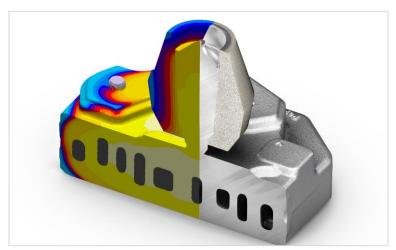
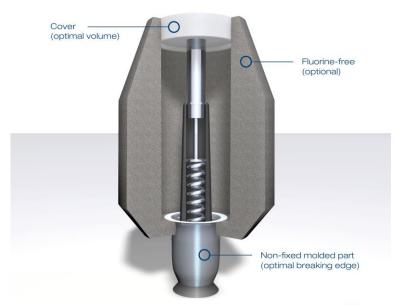


Fig. 1: Data for EXACTCAST risers and mini-risers are now available in MAGMA<sup>5</sup> Rel. 5.3



**Fig. 2:** EXACTCAST OPTIMA is fitted with a loose molded part and a related pin to provide the optimum breaking edge and reduce fettling costs.



### **About ASK Chemicals**

ASK Chemicals is one of the world's largest suppliers of foundry chemicals and additives. The comprehensive product and service portfolio extends from binders, coatings, feeders, filters and release agents to metallurgical products including inoculants, Mg-treatment and inoculation wires and master alloys for iron casting. Core manufacturing and development of prototypes as well as a broad range of simulation services complete the portfolio.

ASK Chemicals is represented in 25 countries with 30 sites, 20 of which operate their own production, and employs approx. 1,400 people worldwide. With research and development in Europe, America and Asia, ASK Chemicals sees itself as the driving force behind industry-specific innovations and is committed to offering customers a consistently high level of quality. Flexibility, quickness, quality and sustainability as well as cost-effective products and services are of key importance.

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