



Press release

The future of casting with innovative solutions

ASK Chemicals offers sustainable solutions for Chinese foundries

March 11, 2016 – Under the motto “The future of casting” ASK Chemicals will be showcasing its sustainable solutions for long-term foundry success at Metal + Metallurgy China 2016. The company will display its portfolio with a clear focus on its INOTEC technology as well as its water-based coatings solutions. ASK Chemicals’ feedings system solutions will round off the company’s presentation at this year’s Metal + Metallurgy China trade show.

Visitors can expect to meet a competent team of foundry experts from both China and overseas as well as a competent presentation of innovative foundry solutions in hall E1 at booth K16.

INOTEC: the inorganic binder solution

ASK Chemicals will be highlighting especially its innovative INOTEC inorganic binder technology, which has already proven its suitability for series production. The patented INOTEC technology not only allows emissions to be eliminated but also has a positive effect on the material properties of the casting. In addition, INOTEC offers process-related advantages over conventional processes. Particularly notable among these are the significant increases to productivity in the casting process and a drastic reduction in the consumption of resources for maintenance and servicing work (Fig. 1). INOTEC technology has been honored with the BMW Innovation Award for Sustainability in 2014.

MIRATEC water-based technology for serial casting production

MIRATEC water-based coatings are high-performance coatings especially recommended for automotive applications. They provide minimum handling times, which is key to realizing minimum cycle times and increasing productivity. MIRATEC coatings provide an even coating layer, especially with complex core packages or challenging core geometries. Thanks to their engineered formulation and tailored characteristics (e.g. gas permeability), MIRATEC water-based coatings reduce casting defects and provide an excellent surface finish.

Increased yield and productivity with EXACTCAST mini-riser technology

Frequently, fiber sleeves are used in steel casting applications. These conventional sleeves contain, in addition to the fibers, rice husks that may lead to casting defects. Moreover, these slurry sleeves do not utilize their full volume for counteracting shrinkage defects, so that the effective yield is only 30%. The remaining 70% of the volume is used to maintain the heat in the 30% of the molten metal needed for feeding.

This is exactly where the cold-box bonded EXACTCAST KMV mini-risers come in, offering a fiber-free solution for steel casting. The volume at the riser can be reduced without sacrifice to the feeding performance. The exothermic compound replaces the non-feeding material and maintains the metal in its molten state. The KMV mini-risers therefore present an efficient and reliable alternative to conventional slurry sleeves (Fig. 2).



EXACTCAST OPTIMA risers, available as water-glass or cold box version, noticeably 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 3).

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 the cycle times of the molding systems.

Expert sessions

ASK Chemicals will be hosting expert sessions on INOTEC, water-based technology, and mini-riser solutions:

- “Latest developments in mini-riser technology for steel castings” by Huang Hai, Business Line Manager Feeding Systems
- “The future of casting with water-based coating technology” by Ayin Liu, Business Line Manager Coatings, Additives & Auxiliaries
- “INOTEC – more than just environmentally friendly” by Eric You, Business Line Manager Binders

The presentations will take place every day at 10:30 am and at 2 pm at the ASK Chemicals’ booth in hall E1, booth number K16.



Images for the press release

	Cold Box	INOTEC™	
Solidification time in minutes	6	5.5	
Casts without cleaning/availability of permanent molds	15	257	
Cleaning time required within 24 hours in minutes	320	20	
Cast part output in units/hour	7.8	10.8	39%↑

Fig. 1: INOTEC considerably increases productivity of the casting process

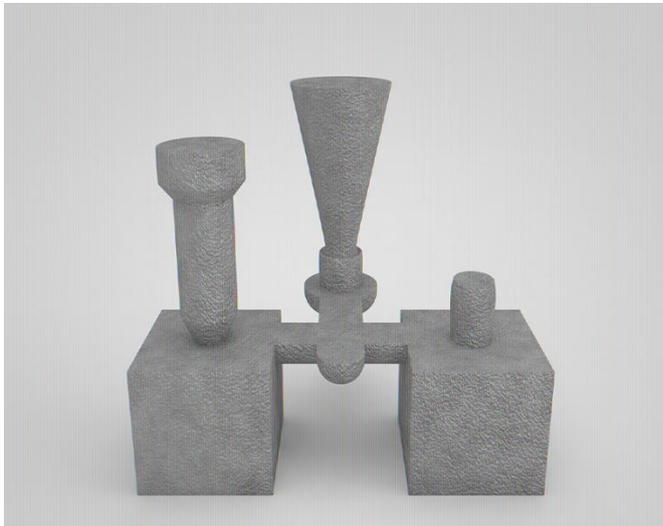


Fig. 2: With its reduced feeding volume and its exothermic formulation, EXACTCAST mini-risers offer interesting savings potential in steel casting applications and yield improvements

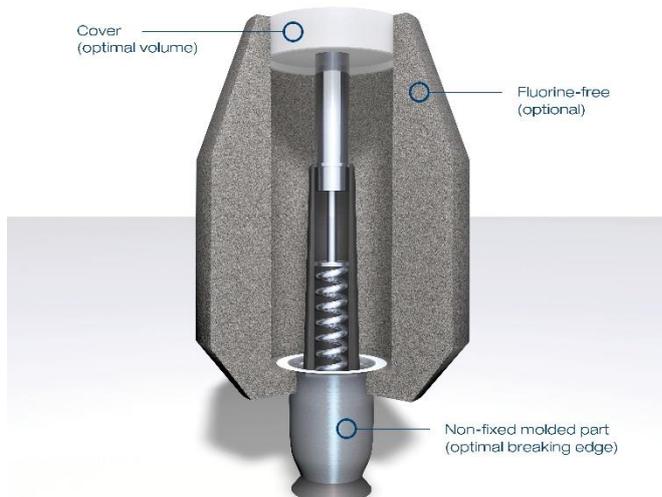


Fig. 3: EXACTCAST OPTIMA is fitted with a loose molded part and a related pin to provide the optimum breaking edge and reduce fettling costs



About ASK Chemicals

ASK Chemicals (Zhenjiang) New Materials Technology Co. Ltd is part of the ASK Chemicals Group, one of the world's largest suppliers of foundry chemicals and consumables. The comprehensive product and service portfolio extends from binders, coatings, mini-risers, 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 offer of simulation services complete the range of supply.

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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