



MAGNASET™ ECO-FRIENDLY DRIVEN FURAN

# Case Study



## Controlling workplace emissions at Bosch Rexroth

Improving workplace environment while maintaining high productivity using MAGNASET™.

### >> Background

**In a brief interview with the editorial team, Holger Hartig, production manager at Bosch Rexroth AG, describes the company's reasons for switching to the furan resin MAGNASET™ and the benefits that have resulted.**

Bosch Rexroth is a partner in the global mechanical and plant engineering industry and is characterized by its outstanding technological achievements. At its headquarters in Lohr am Main, the company operates its own foundry within the Moulding and Casting Technologies product group. This serves both the entire Bosch Rexroth Group and customers outside the group of companies. The buyers of cast products can be found in many areas of mechanical and plant engineering: For example, the plant manufactures hydraulic components, parts for the ball-bearing industry, and parts for the ship-building industry.

Social and ecological issues have always played an important role for Bosch Rexroth. As a result, the company places great importance on energy-efficiency and environmentally friendly production that protects both staff and the environment. It was for this reason that Bosch Rexroth switched to the non-toxic furan resin MAGNASET™ in 2013.

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## >> Question #1

**How did you reach the decision to switch to the binder MAGNASET™, Mr Hartig?**

**Hartig:**

There can be no doubt that we opted for the product for environmental, health and safety reasons. At Bosch Rexroth these very aspects – environmental protection and occupational safety – are paramount, making the decision to change over to these binders was more or less an obvious one. MAGNASET™ is – with its free furfuryl alcohol content of less than 25 percent – the most environmentally friendly furan resin on the market.

## >> Question #2

**The ecological and social aspects are one thing, but what about the technical properties? Were you able to observe any differences here from the previous system?**

**Hartig:**

Though we had to validate the product, we were unable to determine any great difference from the previous system. MAGNASET™ is just as efficient as the furan resin we used before – maybe even slightly more reactive.

MAGNASET™ binders cover the broad range of different types of casting. MAGNASET™ HP 101 is particularly suited to ductile iron and cast steel due to its low nitrogen content and its good thermal stability. MAGNASET™ HP 301, by contrast, is an all-rounder, suitable for use with both small and medium-sized casting molds. To cure MAGNASET™ resins, standard catalysts such as the hardeners GS II and Rapid 03 (PTS-containing acids) can be used.

## >> Question #3

**The change of product was doubtlessly tracked by ASK Chemicals. How important to you is a collaborative partnership with your suppliers?**

**Hartig:**

It is obviously important to us to have sufficient process support. This involves, on the one hand, concerns such as punctual delivery and a good level of supplier flexibility. On the other hand, we attach great importance to sustainable cooperation on a partnership basis. If we are testing and introducing a new binder, or refractory coating, we want to be adequately guided and assisted by the supplier – and not be left alone to deal with the roll-out.

We have been a customer of ASK Chemicals for quite some time now, and I have to say that we have always felt ourselves in good hands with them as the partner on our side. The regular dialog regarding new technologies and the joint development of solutions to concrete issues plays a very significant role for us and is actively practiced and encouraged in our collaboration with suppliers.



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