

Hardheim, Germany / September 2021

### **Atik Metal and a renowned vehicle manufacturer both invest in quality and the environment**

Saving resources and energy with a molding sand preparation system from EIRICH

**The foundry industry has been hit hard by the COVID-19 crisis, with the economic impact of the pandemic being keenly felt here. In order to meet the challenges of the future and to remain successful in the marketplace, foundries need to develop sustainable, long-term solutions. Renowned companies like Atik Metal have recognized this and are investing in the innovative molding sand preparation technology from Maschinenfabrik Gustav Eirich. The EIRICH mixing system delivers high-quality molding materials – and protects the environment and resources in the process.**

**Hardheim, September 2021:** Foundry technology is highly advanced. In recent decades it has formed the basis of countless further developments, particularly in the field of automotive construction. Cast components are integral to almost all industries. For casting with lost molds, metal foundries often use the important raw material sand as the molding material, together with clay as a binder. This molding sand needs to be specially prepared for the casting process, where it is subjected to high temperatures. Maschinenfabrik Gustav Eirich is the technology leader for cost-effective and eco-friendly sand preparation and offers a sustainable solution to the industry: a molding sand preparation system that reduces the number of rejected castings, saves energy, and reduces emissions. For foundries that want to achieve optimum molding material quality with a highly cost-effective solution, the environmentally friendly EVACTHERM® process from EIRICH for cooling of the old sand and preparation of the molding sand under vacuum has been the leading technology for many years in conjunction with the quality system QualiMaster. Here, a single machine – the EIRICH intensive mixer – combines the process steps of mixing, cooling, and bentonite activation all into a single unit. The advantage: During the preparation process under vacuum, the temperature of the sand can be controlled independently of the surroundings. Thanks to the closed processing cycle, unlike with conventional evaporation cooling systems no fines are carried away. This saves resources, as

Hardheim, Germany / September 2021

valuable raw materials remain in the cycle. At the same time, this technology reduces emissions and saves costs associated with removal and landfilling.

Quality assurance for the molding material is a central aspect of the EIRICH solution. The heart of this system is the inline tester QualiMaster AT1. This unit is compatible with the 'Internet of Things' and takes samples from every mixture, which it uses to determine control variables such as compactability and shear strength. If the values for the molding material deviate from the requirements, the system initiates an optimization process. The stable, closed-loop process control guarantees continuously high quality of the molding material and ultimately ensures that fewer cast parts are rejected. In addition, QualiMaster AT1 also offers the option of measuring important process values like gas permeability and springback.

With the rising demand for high-quality cast parts, Turkish foundry Atik Metal is currently investing in the construction of a new plant. For this major investment, the company has chosen EIRICH to supply a molding sand preparation system that protects both the environment and resources: "Our vision is to remain competitive and sustainable. With this investment we have chosen to go with our long-term partner, machine manufacturer Maschinenfabrik Gustav Eirich. By combining our company's generations of foundry expertise with the technological advantages offered by this company, we will continue to be able to meet the high quality demands of our customers all around the world in the future," says Can Atik, owner and Technical Manager.

Cast parts will continue to be needed in many areas in the future. In the field of vehicle construction, changes are taking place in terms of how components are being designed. As part of the mobility transformation, average component size is set to go down, while component complexity is going to go up. This means that molding sand preparation needs to be more flexible than ever before. For this reason, as well as Atik Metal a renowned commercial vehicle manufacturer is also constructing its new foundry with future-proof technology from EIRICH. The machine manufacturer will be supplying a turnkey solution including not only the intensive mixers, but also the entire system periphery for molding sand preparation. Here, the control technology combines digital solutions such as web-based visualization, condition monitoring,

Hardheim, Germany / September 2021

and remote maintenance with decades of experience in process control. From project management to in-house manufacturing of the machinery and assembly, installation, and commissioning of the final system – in this major project, EIRICH will be constructing one of the biggest and most state-of-the-art plants in the company's history. By opting for the EIRICH solution, the commercial vehicle manufacturer is building on sustainability and quality for its production facilities.

For more information please visit: [www.eirich.de/de/branchen/giessereiformsand/](http://www.eirich.de/de/branchen/giessereiformsand/).

### **About Maschinenfabrik Gustav Eirich GmbH & Co KG**

*From its headquarters in Hardheim in Baden-Württemberg in Germany, the EIRICH GROUP is a family-run group of companies specializing in the supply of specialist machinery. As a globally leading manufacturer of machinery and systems for the preparation of raw materials, EIRICH has been developing, planning, and manufacturing advanced technology for mixing, granulating, dispersing, kneading, reacting, temperature control, and fine grinding. The portfolio is rounded off with solutions for process engineering and automation. With revenue of over EUR 80 million, EIRICH is one of the hidden champions in the world of mixing and preparation technology. The company is now in its fifth generation of family ownership and employs around 1,300 people at 15 sites in twelve countries.*

For more information please visit [www.eirich.de](http://www.eirich.de).