



Sustainable
high-tech plant.

Pierburg, Germany.

As Rolf Linsen took on his new job at the automotive supplier Pierburg on August 1st, 2014, a very special challenge awaited him. His task: prepare the relocation of the foundry from Nettetal to Neuss and start up the new foundry. "For me, it was the chance of a lifetime," says the 39-year-old engineer and Head of Foundry and Mechanical Processing. His colleague Lutz Plasmeier, who is responsible for the plant technology as Senior Manager Industrial Engineering Casting & Machining, said, "This is something you do only once in your life." Plasmeier had the task of planning the new foundry from the ground up and above all, he was in charge of ensuring that customers were supplied with components without interruption and that the new factory was commissioned as planned.

In the worldwide network of the KSPG Group's Pierburg production division, the Lower Rhine factory played a key role. The site with 700 employees and a processing capacity of up to 30 tons of aluminum per day in eight die casting cells is in its final expansion stage, not the largest. But with 125,000 solenoid valves leaving the factory every day, it holds a key competence for this important mechatronic component.

Pierburg: A close partner.

Since its beginnings more than 100 years ago, the company Pierburg has ranked among the drivers of innovation in the automotive industry. Founded in 1909 in Berlin as a steel trading company, Pierburg began producing carburetors in 1928 and soon became virtually the sole supplier in this product area for all German automobile companies and many international car manufacturers and engine manufacturers. In 1986, the company was acquired by the Rheinmetall Group and in 1998 it merged with Kolbenschmidt to form today's KSPG AG.

Bühler and Pierburg, respectively KSPG, are linked by a long-standing and trusting partnership. Since 1982 the KSPG Group has ordered 68 cold-chamber die casting machines. High-performance casting cells, competent and comprehensive technical support, and a strong local customer service team have convinced KSPG to invest in Bühler technology, over and over again.

Absolute reliability.

For decades, the automotive supplier has placed great confidence in Bühler: Even in the old factory in Nettetal machines of all dimensions exclusively from the Swiss supplier were operated. "Focusing on a single supplier has proven successful," says Plasmeier. "Technologically the die casting process with regulated shots from Bühler is unmatched," says the engineering specialist, "Aside from Bühler, no other company is able to achieve this level of reproducibility." The company's numerous service and training offerings are an important advantage. And Plasmeier continued: "We can absolutely rely on Bühler in any situation."

For such a mammoth project, this reliability is crucial. Two locations had to be operated simultaneously for four months with a team staffed for only one site. Redesigned casting cells were made and the products for customers were sampled. To bridge this period, Linsen drove production to the extreme in the weeks prior, in order to establish sufficient stocks to be able to supply customers.

The challenge: getting the most from old cells, some of which were 25 years old, in three-shift operation. "Machine availability was a particularly critical factor," recalled Linsen.

Then, in June 2015 alarm bells rang: Shortly before the final whistle, a die casting machine of the SC series manufactured in 1992 stopped operating due to issues with the proportional valves. It is the heart of the machine and controls the injection of aluminum in real time. If this valve fails, production goes into standstill. Due to its age, only a few people are familiar with the inner workings of the control system. One of them is Helmut Heiken, Service Engineer at Bühler. The specialist arrived immediately at the scene and actually got the machine up and running again. This example, says Linsen, is representative of the cooperation between Pierburg and Bühler. To successfully accomplish the relocation and new construction, several Bühler colleagues spent over half a year on site. "The close cooperation and execution of this task has turned Bühler and Pierburg employees into colleagues."

Expectations were exceeded.

Thanks to this connection, the project succeeded. In December 2014, moving into the new factory began. Meanwhile, six Bühler die casting machines were casting around 16,000 parts each day in three shifts – with a productivity that exceeds expectations of the new, ultra-modern foundry. The units are in operation about 75% of the time. Modern plant technology with state-of-the-art controls and a maximum degree of automation culminate to maximize efficiency.

In the final expansion, which will be reached in spring 2016, there will be eight machines of types Carat, Evolution, SC with a closing force of 660–1,050 tons. Pierburg has ordered four new machines from Bühler and four machines were overhauled, retrofitted and brought up-to-date in the Bühler European revision factory in Brescia, Italy.



Rolf Linsen, Lutz Plasmeier: they favor Bühler.

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