



Vacuum made
reliable.

**DGS Druckguss Systeme AG,
St.Gallen, Switzerland.**

Waste and downtime.

DGS Druckguss Systeme AG is specialized in the development and manufacture of complex lightweight components for the automotive industry. Its products include aluminum structural components which must meet very high standards. In order to achieve the needed quality, casting must be done using vacuum. The vacuum removes the gases and steam which occur through evaporating oils, waxes, melted aluminum and lubricants. Until now, however, the available vacuum systems have been unreliable and have caused waste and downtime. Mostly, problems have resulted from the information exchange between the vacuum peripheral equipment and the die casting machine and from the interaction between the vacuum unit and the cast movement.

“The SmartVac system meets our high demands. It works very reliably which decisively improved the availability of the plant. High quality is guaranteed as well. The waste rate has been reduced by 2.5% thanks to the higher availability and reduction of downtime. Plus, changing dies can be done very quickly which means a gain in flexibility for us.”

Steffen Pech, Casting Manager, DGS Druckguss Systeme AG

Fully integrated vacuum system.

Bühler's development team decided to search for a solution to the challenge of vacuuming. The result: SmartVac, a vacuum system which is fully integrated into the die casting machine. Until now, the vacuum device had to be placed directly next to the peripheral equipment and connected through hoses and cables. With the new, integrated solution, the leads are enclosed and much shorter. Control mechanisms and workflows are already installed in the machine, and the controller is built-in so that possible problems can be promptly detected and signaled thus preventing downtimes. Thanks to proactive maintenance, production stops are eliminated.

“Works perfectly”.

DGS Switzerland works exclusively with Bühler die casting plants. One of the Carat 200 die casting cells was equipped with the new SmartVac system. Jan Müller, who is responsible for process optimization at DGS, is enthusiastic about the new system from Bühler. “The system worked perfectly from the outset. I can control the process now through a central operating panel. Modifications of the vacuum system as well as the process are possible on a single screen.” Vacuuming performance and filter condition are permanently monitored and controlled. All settings and production information are saved and displayed on the user screen and, in the event of a change in production, can be reset easily. Jan Müller: “We can save, analyze and combine data however we want. They are also automatically assigned to the corresponding shot, which allows complete traceability.”

About DGS Druckguss Systeme AG.

DGS Druckguss Systeme AG is a medium-sized company in the die casting industry which is specialized in processing aluminum and magnesium. About 900 employees in its three factories in Switzerland, Czech Republic and China process about 14,000 tons of metal into high-quality die casting components annually.

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