

KS Aluminum-Technologie GmbH

DRY ICE PRODUCTION CASE STUDY

Installation of a Cold Jet P325 Pelletizer for onsite dry ice production in the foundry industry

COMPANY

KS Aluminum-Technologie GmbH

APPLICATION

Dry Ice Production

COLD JET SYSTEM

P325 Pelletizer

BENEFITS

User friendly, reliable and efficient dry ice production.



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THE SITUATION

KSPG AG is the parent company of Rheinmetall's Automotive sector. As a global first-tier supplier to the automotive industry, KSPG commands foremost positions in the product and component segments air supply, emission control and pumps as well as in the development, manufacturing and aftermarket supply of pistons, engine blocks, and plain bearings. The products are developed in cooperation with leading automotive manufacturers.

According to its strategic focus, the company is divided into divisions: Hardparts (including KS Aluminium-Technologie GmbH), Mechatronics and Motor Service.

The engineering and casting of innovative aluminum cylinder crankcases has evolved into a widely demanded core capability of KS Aluminium-Technologie GmbH (KS) in its role as direct development partner in the auto industry.

The company is among the leading producers of such cylinder blocks and a market leader in the premium segment for these products. From its plant in Neckarsulm, KS supplies many leading German and international carmakers with aluminum engine blocks for use in gasoline and diesel engines. Among the series-production casting techniques employed are low-pressure permanent mold casting, pressure die-casting, and squeeze casting.

KS currently has about 800 employees. Werner Fiedler originally comes from the production section so he knows the needs and concerns on the workfloor and gladly takes control over the pelletizer.

They started another production area in 1995 for dry ice cleaning because it is a gentle cleaning method. Sand-blasting was too abrasive and difficult to handle. Due to the cleaning application, it was clear for KS that they also want to produce dry ice themselves, as it was difficult to

purchase dry ice at the time and they wanted to have fresh dry ice on hand to make cleaning more effective.

THE PROBLEM

In the beginning, KS used a pelletizer from a Cold Jet competitor that was an outdated technology and the cost of CO₂ consumption was too high. An additional problem was the cost of repair as the pelletizer was very susceptible to interference.

The machine could no longer be operated reliably and KS often had to order dry ice from outside the company.

THE SOLUTION

As KS always wants to be on the cutting edge of technology, they decided to buy a new Cold Jet pelletizer.

"If there is a weak link in the production process, the whole production suffers," said Werner Fiedler.

The company already had experience with Cold Jet through the dry ice cleaning equipment and they know Cold Jet as a competent company that offers excellent service and support. The service team is regularly on site and kept them always well informed about the latest developments. Therefore, it was obvious to contact Cold Jet about the purchase of a new pelletizer.

"After a very convincing onsite presentation from the European General Manager to our production department, we decided to go for the Cold Jet P325 with a production capacity of 136 kg / hour," said Fiedler. "The pelletizer is the only one on the market that can produce high-density premium dry ice and is still very compact. Less scrap ice, a longer shelf life and a higher density means higher cost savings for KS."

THE RESULTS

The entire project was implemented within three months. The most important factor in the purchase decision was the efficiency of the P325.

KS had complete confidence in Cold Jet and their service. Another important point was the ease of use.

"We work in different shifts," said Fiedler. "That means that the pelletizer will be operated by several employees. The old pelletizer was not user-friendly and an error by the operator or possible damage was inevitable. We no longer have this problem with the new pelletizer. This is a very important point in practice."

KS expects the new pelletizer to reduce maintenance time, increase product lifetime and to improve both product and ice quality. They also hope to reduce ice consumption during cleaning by using high-quality dry ice. Fiedler especially liked the function of the automatic timer and the start and stop function with automatic shutdown of the pelletizer. Every step has been coordinated with all participating companies.

"From the initial inquiry to the installation, we are very satisfied," said Fiedler. "The employees of Cold Jet were very friendly, reliable and supported us throughout implementation. We look forward to future collaboration with them and the potential for future pelletizer purchases."

