

Compressors for a Sustainable Future: Burckhardt Compression's Response to Hydrogen Production

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An environmental solutions company that was committed to implementing circular economy principles in managing waste to preserve finite natural resources, faced a challenge in maintaining its hydrogen production process due to low natural gas supply. To overcome this issue, Burckhardt Compression supplied a quick, cost-effective solution involving expansion technology, enabling the gas supply to be restored to the required level. This ensured that the hydrogen production process could continue smoothly while meeting sustainability goals.

As part of its commitment to sustainable waste management practices, an environmental solutions company produces hydrogen through steam methane reforming, which is used in various applications such as fuel cell vehicles, power generation, and industrial processes, contributing to the reduction of greenhouse gas emissions.

Originally, the company received natural gas at a supply pressure of 16 bar (232 psi). However, it was later advised that the pressure would be gradually reduced to 8 bar (116 psi) and then to 4 bar (58 psi). To maintain hydrogen production, a solution was needed to maintain the natural gas supply at the original pressure of 16 bar. The customer's on-site engineering team had the task of sourcing two compressors quickly, and on a limited budget, which could handle the gradual

change in process gas pressure and ensure that the hydrogen production process remained unaffected.

After evaluating their options, the engineering team identified an ideal solution available from Burckhardt Compression, the leading company for compression solutions across a wide range of applications.

Burckhardt Compression supplied and installed two second-hand Laby® 2K90-2E gas compressors, which had never been used before, allowing for a faster delivery time of only five months, much shorter than that offered by other companies.

The two Laby® compressors were delivered from stock in Switzerland as bare shaft compressors. Site installation and commissioning were carried out by experts from Burckhardt Compression Brazil with support from the engineering team in Switzerland.

Burckhardt Compression delivered a fit-for-purpose, future-proof turnkey solution with a long operational life, maintaining the gas at its original pressure, ensuring sustainable long-term customer investment. The project was also delivered on budget, which allowed it to achieve its goals without incurring more costs.

When the project was completed, a spokesperson for the company concluded: "Burckhardt Compression exceeded expectations throughout the entire project, from quotation to commissioning, operation, and final delivery of the compressors. Our partnership and commitment were critical to the success of the project, ensuring that we met all project expectations, including budget, deadline, safety, operational availability, and equipment quality. This project is an excellent example of our ability to deliver exceptional results and will serve as a model for future projects."

Image captions:



Image 1: Laby® bare shaft compressors at Burckhardt Compression Brazil.



Image 2: Compressor skid during assembly.

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About Burckhardt Compression

Burckhardt Compression is the worldwide market leader for reciprocating compressor systems and the only manufacturer and service provider that covers a full range of reciprocating compressor technologies and services. Its customized compressor systems are used in the gas gathering and processing, gas transport and storage, refinery, chemical, petrochemical as well as in the industrial gas and hydrogen mobility and energy sectors. Burckhardt Compression's leading technology, broad portfolio of compressor components and the full range of services help customers around the world to find the optimized solution for their reciprocating compressor systems. Since 1844, its highly skilled workforce has crafted superior solutions and set the benchmark in the gas compression industry.

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For further information please visit www.burckhardtcompression.com

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