Media information

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Stadtwerke Stuttgart commissions Maximator Hydrogen for Green Hydrogen Hub Stuttgart

High-performance compression for trailer filling and pipeline feeding

Stuttgart/Nordhausen, April 29, 2025. Stadtwerke Stuttgart GmbH celebrated the ground-breaking ceremony for its Green Hydrogen Hub yesterday and Maximator is supplying its H2 compressor system, an important cornerstone of a macroeconomic H2 system that is being built at the port in Stuttgart. With a total output of nine megawatts, green hydrogen will be produced there for local use in industry and mobility via trailer delivery as well as for feeding into a pipeline for the economic region. A powerful and reliable compression concept is required for these power applications, which comes from the refueling station and compressor manufacturer Maximator Hydrogen from Thuringia. Two parallel-operated MAX Compression System 2.0 with a hydraulic drive power of 250 kilowatts make a compressor output of the full nine megawatts of production capacity possible. This performance enhances the overall concept of the Green Hydrogen Hub as an economical overall H2 system for regional industry and mobility and makes a significant contribution to achieving the climate targets.

The Green Hydrogen Hub project combines the production, transportation and use of green hydrogen in the Stuttgart region. Green hydrogen is produced with the help of three independent electrolysers with a total output of nine megawatts, enabling it to be supplied to companies in the Stuttgart region and creating an economically viable hydrogen system with a focus on the mobility and industrial sectors. The green hydrogen will be transported by pipeline and trailers in the Stuttgart area. In addition, a pipeline is being built from Stuttgart to Esslingen to connect producers and users.

Peter Drausnigg, Technical Managing Director of Stadtwerke Stuttgart GmbH and René Himmelstein, CSO of Maximator Hydrogen GmbH at the ground-breaking ceremony for the Green Hydrogen Hub in Stuttgart

In order to distribute or infeed the hydrogen, it must be brought to the appropriate pressures. Components from Maximator Hydrogen GmbH are used for this purpose. Maximator Hydrogen offers powerful and reliable compression systems that are important for relevant and competitive use in industry. The MAX Compression System 2.0 with the patented Automatic Seal Exchange within a few minutes ensures high availability and reliability without production downtime. Two MAX Compression System 2.0 compressors, each with 250 kilowatts of hydraulic drive power, supply two trailer filling stations, a trailer delivery station and the H2 GeNeSiS pipeline with hydrogen. A redundant design of the system, completed by options for intermediate storage of the compressed hydrogen, was the top priority in order to guarantee a high level of reliability.

With the nine megawatt electrolysis plant from FEST GmbH (a sister company of Maximator Hydrogen in the Schmidt Kranz Group) and the compressor system from Maximator Hydrogen, the concept for the first expansion stage with a production capacity of around 720 tons of green hydrogen per year is now in place. An expansion by 3 megawatts to 12 megawatts and further expansion stages are already being planned. Thanks to the modularity of Maximator Hydrogen's components, expansion to meet future and growing requirements has already been planned and can be flexibly adapted to usage requirements. Rene Himmelstein, CSO of Maximator Hydrogen, expresses his gratitude for the order and the trust: "We are particularly pleased that our technology is being integrated into a well thought-out overall system that will really advance the region's performance and competitiveness and set it up for the future." In projects such as these, it is particularly important that the parties involved are well coordinated in order to guarantee the performance requirements for the overall system and thus also the acceptance of hydrogen from the producer to the consumer.

The plant is scheduled to open at the end of 2026.

The project is supported by funding from the European Union, the state of Baden-Württemberg and the Verband Region Stuttgart.

For more information, see
https://www.stadtwerke-stuttgart.de/wasserstoff

https://www.maximator-hydrogen.de/

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