

Press Release for the Hanover Fair

Hanover, 17 April 2023

Maximator Hydrogen Presents New Solutions for Building Large Hydrogen Infrastructure Projects

**Further developed compressor MAX Compression 2.0 and new
MAX Dispenser 1.5 represent flexibility and high ease-of-use**

Hanover, April 17, 2023. Customization and ease-of-use are the focus of Maximator Hydrogen's innovative solutions presented at the Hanover Fair. While the new MAX Dispenser 1.5 combines a seamless user experience with proven MAXIMATOR technology, a digital user interface, plus the highest level of functional safety, the further development of the MAX Compression 2.0 drive units enable three times the delivery capacity in the same installation space. With both solutions, the company sets new standards in flexibility and usability, while setting the strategic course for a nationwide expansion and progress in H2 mobility. Both components will be launched in early 2024.

Additionally, this year, Maximator Hydrogen GmbH presents innovative new developments at the Hanover Fair, which form the technical basis for the construction and expansion of larger H2 infrastructure projects. With the new MAX Dispenser 1.5 dispenser, the company introduces a solution to primarily improve the refueling experience and user safety. "With our new dispenser, we once again demonstrate our solution-oriented innovative strength, which combines current user requirements with a high level of safety, efficiency and reliability," explains Mathias Kurras, Managing Director of Maximator Hydrogen GmbH.

Higher usability thanks to smart design with multimedia display

In the MAX Dispenser 1.5, intuitive user experience meets proven technology. The heart of the dispenser is the large multimedia display designed for clarity and with

touch function, microphone and loudspeaker, via which the user receives detailed information on the refueling process. Refueling instructions, information about the status of the refueling and the integrated NFC reader for payment at the pump make the refueling process immensely easier. In addition, the current filling status can be seen on the display. In addition to precise instructions, the smart dispenser also offers a direct connection to the service hotline, which is available to users at any time if they have any questions.

Thanks to their smart design, the MAX Dispenser 1.5 individual dispensers can be used and combined with a high degree of flexibility, for example in the space-saving back-to-back arrangement. Design, size and safety requirements always remain the same: from 700-bar passenger vehicles to 350-bar heavy-duty and commercial vehicles, or to 350-bar passenger vehicles and industrial trucks and in future even 700-bar heavy-duty vehicles.

Smart features for maximum security and efficiency

The MAX Dispenser 1.5 also sets new standards when it comes to safety. The design of the new dispenser has been optimized in such a way that the hose tear-off coupling can increase its full effect in the event of an unintentional driving away. In addition, the footprint of the user interaction was moved from the roadside and onto the tank island. In addition, the MAX Dispenser 1.5 has important SIL (Safety Integrity Level) functions that protect against excess pressure, an impermissible temperature, an excessive mass flow, or a gas leak. Thanks to the built-in tilt detection, the dispenser is placed in a safe state in dangerous situations, e.g. a collision by a vehicle. The inflow is stopped, the relief valve is opened, and the dispenser is de-energized.

An integrated analysis solution with a service connection ensures the efficient operation and safety of the hydrogen filling stations. The various data streams from the monitoring of the filling station converge in the Automation Cloud at Maximator Hydrogen. The data is collected in an information pool and made available to customers in a way that is easy to understand. Via a web interface, all customers have access to a personalized dashboard with a real-time analysis of the functions and performance of all petrol stations in their own portfolio. All information, such as refueling, hydrogen deliveries or warnings, is clearly presented here with graphics and

statistics. Error messages and other event data are also transmitted directly from the cloud to the Maximator Hydrogen Helpdesk, which can react immediately, if necessary, start analyzes and initiate troubleshooting. In this way, possible faults are rectified easily and without loss of time by the ad hoc online or on-site service.

In addition to the direct service, the new development also scores in production and maintenance processes with significant optimizations. On the one hand, efficient work steps were used in production to increase the scalability of the dispenser and so of the entire system. On the other hand, when developing the design, attention was paid to easy access to the interior, which guarantees fast and high-quality maintenance work.

Needs-based compressor output of up to 250 kilowatts

Last year, Maximator Hydrogen presented the MAX Compression 2.0 compressor unit, a particularly cost-effective and efficient solution for compressing hydrogen for filling stations, storage facilities and pipelines. At this year's Hanover Fair, the company now presents the more powerful brother of its latest generation of compressors. "The MAX Compression 2.0 can be individually adapted to the needs of the petrol station operator and can grow with the operator's needs," explains Mathias Kurras. "With the expansion to a hydraulic drive power of 250 kilowatts, the performance of the hydrogen filling station can be quadrupled. With this technology, heavy-duty on- and off-road hydrogen refueling as well as ship and train filling stations can be efficiently implemented."

By strengthening the units, MAX Compression 2.0 can now be operated with a hydraulic output of 250 kilowatts. The new 250-kilowatt variant of MAX Compression 2.0 delivers around four times the delivery capacity in the same installation space – a first on the market. Due to the higher compressor output, a filling station also requires less storage for the same number of fillings. This means that more vehicles can be refueled at the same filling station in the same amount of time. With the patented ASX function (Automatic Seal Exchange), which carries out the necessary seal change in the fueling system automatically and within a few minutes, downtimes are also avoided and operating and maintenance costs are significantly reduced. "The development of our MAX Compression 2.0 is constantly ongoing," explains Mathias

Kurras. "We not only want to continuously improve our solutions, but also continue to advance hydrogen in mobility through technical progress – always with the goal in mind of making this unique technology usable on a large scale."

For more information, see <https://www.maximator-hydrogen.de/> or



Contact Maximator Hydrogen GmbH

Mathias Kurras, CEO Maximator Hydrogen GmbH

Maximator Hydrogen GmbH

Petriblick 2

99734 Nordhausen, Germany

presse@maximator-hydrogen.de / www.maximator-hydrogen.de

Press contact

Kaltwasser Kommunikation

Corinna Schrätz

Laufertormauer 22

90403 Nürnberg

Telephone: 0911 530 63 – 109

Email: maximator@kaltwasser.de

About Maximator Hydrogen

The **Maximator Hydrogen GmbH** from Nordhausen is a leading supplier and developer of comprehensive system solutions for the entire value chain of hydrogen technologies. With over 170 employees, the company combines unique expertise with the know-how of approximately 700 H₂-relevant patents. As a fast and efficient partner for the planning, construction and operation of hydrogen infrastructures for road, rail and marine transport, Maximator Hydrogen, a company of the Schmidt Kranz Group, offers highly reliable and modern hydrogen refueling stations from a single source. With its high performance, flexibility and speed, Maximator Hydrogen is a central partner for specifically tailored hydrogen solutions for large international companies and corporations.