

# PRESS RELEASE

PILLER with product innovation at ACHEMA 2022: The VapoMaxX ensures energy savings and reduction of CO<sub>2</sub> emissions in the process industry.

With the VapoMaxX specially developed for steam regeneration and mechanical vapor compression processes, PILLER is elevating the use of waste heat energy in the process industry to a new level. In industrial heat pump processes, the VapoMaxX contributes to a significant increase in energy efficiency, a reduction in the costs of primary energy, and significant CO<sub>2</sub> savings. The new product on display for the first time at ACHEMA 2022 also impresses with its flexible installation options and a design optimized for short maintenance and service times.

[Moringen, Germany 08/11/2022] This year's ACHEMA comes at exactly the right time for Piller Blowers & Compressors GmbH from Moringen, Germany. "We will introduce a new product to the market. The VapoMaxX is a compressor that we have developed specifically for steam regeneration and mechanical vapor compression processes," says Dr. Steffen Kuberczyk, who heads global sales at PILLER. "The VapoMaxX combines the advantages of our high-performance blowers with the advanced performance of compressor technology for the first time."

With the VapoMaxX, the energy from the previously unused waste heat released at the end of a production process is used to ultimately provide steam with a higher pressure and a significantly higher temperature for processes. "On the way to a resource-efficient production, we are contributing to a substantial increase in energy efficiency, decreasing primary energy costs and significant CO<sub>2</sub> savings in industrial heat pump applications in the process industry," explains PILLER Managing Director Christoph Böhnisch. With an eight-stage VapoMaxX system, for example, PILLER increases the temperature from 80 to 211 degrees Celsius and the pressure from 0.47 bar to 19.6 bar in a recent project. A mass flow of around 42 tons of steam per hour is handled. In this case, the savings in primary energy are eight million Euros per year and the CO<sub>2</sub> reduction is 10,650 tons per year. The VapoMaxX is designed for applications with a maximum mass flow of 57,000 kg/h, up to 20 bar pressure and temperatures up to 215 degrees Celsius.

#### Optimized design for flexible installation options as well as short maintenance and service times

PILLER has transformed the completely new combination of the advantages of high-performance blowers and the advanced performance of compressor technology into a design that allows very flexible installation and arrangement options for single- and multi-stage VapoMaxX systems. Systems with one or more VapoMaxX can be installed in existing racks, even at higher heights. "The VapomaxX is therefore particularly well suited for brownfield projects, the retrofitting of existing plants. But we also release valuable space on the ground when building new plants," Dr. Steffen Kuberczyk points out. In this way, PILLER can serve individual customer requirements with regards to temperature and pressure rises and adapt the system design to the conditions at the customer's production plant.



In addition to the described performance data and the associated cost reductions for primary energy as well as the reduction of CO<sub>2</sub> emissions, the VapoMaxX brings another decisive advantage: It is optimized for very short maintenance and service times. On the one hand, all components are easily accessible, on the other hand, PILLER has designed the entire drive train in such a way that it can be retracted on a skid. "Maintenance and any repairs that may occur are done fast, since after pulling out the entire drive train, access to the impeller is free in a shortest time possible," says Dr. Steffen Kuberczyk. "The disassembly of piping and subsequent leak tests after reconnection are not necessary." Therefore, neither additional cranes nor large teams are required for maintenance and service. Ultimately, this ensures short downtimes in production.

### Project presentation in the PRAXISforum of ACHEMA 2022

PILLER will not only introduce the VapoMaxX as a product innovation at ACHEMA 2022, but will also present a customer project in a session at the accompanying congress in the PRAXISforum and show how the VapoMaxX is integrated into a cumene production process. The presentation will take place on 24 August from 15:05 to 15:25 in Hall 4 in Room Europe 1+2.

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## **About Piller Blowers & Compressors**

Piller Blowers & Compressors GmbH, based in Moringen, develops, designs, and manufactures customerspecific high-performance blowers and compressors for the process industry. The roots of the family business go back to 1909.

With completely individual designs or suitably configured machines from the modular product portfolio, PILLER delivers efficient and economical solutions to customers from many industries, including the food industry, pulp and paper production, the chemical industry, the petrochemical industry, the pharmaceutical industry, or industrial wastewater treatment. PILLER supports customers with innovative technology for heat recovery on the way to a resource-efficient production. The high-performance blowers and compressors for mechanical vapor recompression (MVR) and steam regeneration processes significantly increase energy efficiency, reduce the spendings for primary energy, and lead to CO<sub>2</sub> savings in the processes. In ongoing installations, up to 75 percent reduced energy consumption, over 60 percent reduced CO<sub>2</sub> emissions and up to 90 percent energy cost savings have been proven in industrial heat pump processes. In addition, PILLER offers blowers for the CCR platforming process, process gas blowers, and hot-gas circulators for industrial furnaces. Comprehensive services – expert advice, commissioning, maintenance, and servicing – round off the offer.

With more than 100 years of experience and continuous investment in research and development, PILLER is working to push the boundaries of the already high efficiencies, power availability, and long running times of its machines to permanently maintain and constantly expand its global technological leadership in high-performance blowers and compressors.



With 425 employees and branches in the USA, Singapore, and China as well as joint ventures in Korea, India, and Brazil, PILLER is now internationally positioned and exports 85 percent of its products. Group sales in 2021 amounted to EUR 77.2 million.

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