

SM rotary screw compressors

Compact and powerful

Equipped with the advanced Sigma Control 2 compressor controller as standard and featuring flow-optimised Sigma Profile airends, SM series rotary screw compressors not only fulfil user's expectations with regards to compressed air availability and efficiency, but they also deliver high flow rates with minimal energy consumption.

SM series rotary screw compressors are the ideal choice for efficient compressed air generation in the 0.95 m³ to 1.61 m³/min flow range at 8 bar and are available with various drive powers from 5.5 to 9 kW. Amongst other design aspects, they achieve their exceptional performance through a high efficiency compressor airend featuring a flow-optimised inlet valve and through the minimisation of internal pressure losses.

Further energy savings are achieved by the use of Super Premium Efficiency IE4 motors (7.5 and 9 kW), which are currently the most efficient electric motors available. Moreover, Kaeser is the only compressor provider on the market to equip its machines with these motors. Additional advantages include the internal Sigma Control 2 compressor controller, a compact footprint and, needless to say, super-quiet operation. All of these benefits help save energy costs and increase availability. In Germany, investment in these compressors is even eligible for incentives offered by the Federal Office for Economic Affairs and Export Control.

Efficient control with compressed air consumption in mind

The Sigma Control 2 internal controller plays a key role in ensuring energy efficient compressor operation and performance. It not only enables efficient control based on respective compressed air consumption and reliable operation monitoring, but also allows connection to higher-level control systems such as the Sigma Network via the standard Ethernet interface. A large display and an integrated RFID reader in the control panel simplify communication with the system at the place of use and ensure secure log-on to the controller. The RFID reader also makes it possible to standardise service, to significantly increase service quality and to provide professional-grade security via SD card.

Since infinite speed control is advantageous in certain instances, a version with built-in frequency converter (Sigma Frequency Control) is also available with 7.5 kW drive power.

Modular, quiet and maintenance-friendly

The modular package concept of SM series compressors also offers significant advantages: in addition to the standard version with a footprint of just 0.5 m², three

models - the SM 10, SM 13 and SM 16 - are available as so-called "T versions" which feature an add-on, thermally shielded refrigeration dryer. The space-saving, compact design also makes these compressors perfect for use even in confined spaces. When closed, the enclosure with its soundproof lining keeps operating noise to an absolute minimum and therefore helps maintain a pleasant and quiet working environment.

The coolers are positioned on the outside of the unit and are easily accessible for quick and cost-effective service. The cooler and motor are cooled with fresh air, which consequently results in low motor temperatures and long service life, as well as low compressed air discharge temperature. The cooling system uses a patented, highly efficient twin-flow fan with separate cooling air streams for the motor and compressor. This achieves optimum cooling performance, low compressed air discharge temperatures, reduced noise emission and, last but not least, overall efficient air compression.

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3.580 keystrokes – Free for publication, copy appreciated

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SM series rotary screw compressors are powerful, quiet, efficient and exceptionally service-friendly. In addition to the standard models, versions featuring an add-on refrigeration dryer, speed control and compressed air receiver ("Aircenter") are also optionally available.