

Rotary Screw Compressors With Fluid Cooling

With Belt Drive

SM SERIES

Flow rate 0.39 to 1.64 m³/min, Pressure 5.5 to 15 bar



Long-term savings

Discerning compressed air users expect maximum availability and efficiency even from smaller compressors. It will come as no surprise therefore that KAESER's SM series rotary screw compressors go far beyond meeting these key expectations. Not only do they deliver more compressed air for less energy, but they also combine ease of use and maintenance friendliness with exceptional versatility and environmentally responsible design.

SMart with SIGMA 06

The latest generation SM series rotary screw compressors feature the new SIGMA 06 airend with further-refined SIGMA PROFILE rotors for even greater intake volume and efficiency. The result? Up to 13 percent reduced energy requirement and up to 10 percent higher flow rate.

Energy-saving performance

The efficiency of a machine depends on the total costs incurred throughout the equipment's entire service life. With compressors, energy costs account for the lion's share of total expenditure. KAESER therefore designed its SM series compressors with optimum energy efficiency in mind. Refinements to the energy-saving SIGMA PROFILE airend rotors and the use of Super Premium Efficiency IE4 motors (Premium Efficiency IE3 motor in the SM 10) have significantly contributed to the increased performance of these versatile compressors. The combination of the SIGMA CONTROL 2 internal controller, low airend speeds, minimised internal pressure losses and KAESER's unique cooling system has helped to push the boundaries of efficiency even further.

Optimised design

The new SM models all share logical and user-friendly design throughout. For example, the left-hand side panel can be removed in a few simple steps and allows excellent visibility of the system's intelligently laid out components – moreover, all maintenance points are easily accessible. When closed, the sound-absorbing compressor enclosure keeps operational sound levels to a minimum thereby ensuring a pleasantly quiet work environment. In addition, the enclosure features four inlet openings for separate airflow cooling of the compressor, the motor, the control cabinet and the compressor intake air. Last, but not least, SM series compressors are impressively compact, which makes them the perfect choice for applications where space is at a premium.

Modular system concept

SM series compressors are available as standard versions, as so-called "T" models (equipped with an integrated, thermally shielded refrigeration dryer) and as "AIRCENTER" models that additionally include an under-slung air receiver. KAESER's intelligent modular design therefore offers incredible flexibility. Moreover, the SM 13 model is also available with an integrated frequency converter for infinitely-adjustable flow rate control.

Complete unit

1. Ready-to-run.
2. Fully automatic.
3. Super silenced.
4. Vibration-damped.
5. All panels powder-coated.
6. For ambient temperatures up to +45 °C.

Rotary screw airend

1. Single stage with cooling fluid injection for optimal rotor cooling.
2. Genuine KAESER screw compressor airend with the SIGMA Profile.

Electric motor

1. Premium Efficiency IE3.
2. Premium quality German-made motor.
3. IP 54.

Rotary screw airend

1. SIGMA Profile rotors require approximately 10 to 20 percent less energy than conventional rotors of the same air delivery capacity.
2. IP 54.

Efficient cooling

1. Dual flow fan and separate air flow channels for cooling of the motor, the fluid/compressed air cooler and the control cabinet.
2. Fluid and air flow: 'Honeycomb' air intake filter, pneumatic inlet and venting valves, cooling fluid separator tank with triple separation system.
3. Pressure relief valve.
4. Minimum pressure check valve.
5. Thermostatic valve and fluid filter in coolant circuit.
6. Fluid / compressed air combination cooler.

Refrigeration dryer (with T version)

1. With electronically-controlled condensate drain.
2. Refrigerant compressor with energy-saving, cycling shut-down feature.
3. Linked to operational status of the compressor when inactive.
4. Alternatively, continuous operation can be selected on site.
5. Contains fluorinated greenhouse gas R-134a.

Electrical components

1. Control cabinet to IP 54.
2. Control cabinet ventilation.
3. Automatic star-delta starter.
4. Overload relays.
5. Control transformer.