Rotary Screw Compressors
SXC »Compact« Series

With the world-renowned SIGMA PROFILE®

Free air delivery 0.26 to 0.80 m³/min, Pressure 8 – 11 – 15 bar
SXC Series

The compact integrated air system
SXC – integrated compressed air packages with minimal space requirement: The turnkey SXC rotary screw compressor range from Kaeser Kompressoren combines exceptional efficiency and cost-effective performance with super-quiet compressed air production, treatment and storage. Under the SXC’s double-skinned rotomoulded polyethylene enclosure hides a complete compressed air supply system. The perfect choice for workshops and smaller production facilities, these advanced compressor systems combine exceptional efficiency, ease of maintenance, durability and perfectly matched components to ensure years of dependable, efficient performance.

Efficiency as standard
Every SXC compact compressed air package features a rotary screw compressor airend equipped with high-efficiency SIGMA profile rotors to ensure more air and more savings.

Versatile and compact
With available drive powers from 2.2 to 5.5 kW, you’ll always find the right model to meet your specific needs. Belying their impressive performance, the four SXC models measure only 61.5 cm wide and have a compact footprint of only 0.62 square metres.

Optimum performance
Featuring energy-saving start-stop control, the “Sigma Control basic” compressor control system ensures that SXC all-in-one packages operate at the peak of their performance.

Clean and quiet
With a maximum sound level of 69 dB(A), SXC integrated packages are exceptionally quiet. Equipped with an integrated refrigeration dryer, they deliver dry, clean compressed air at all times. The electronically-controlled condensate drain reliably removes condensate from the air receiver and refrigeration dryer without energy loss.

Energy cost savings through system optimisation

- Compressed air system investment
- Maintenance costs
- Energy costs
- Potential energy cost savings

The all-in-one compact compressed air package
Energy saving Sigma Profile

Each Kaeser rotary screw airend uses Sigma Profile rotors, specially developed by Kaeser, that consume approximately 10-20% less energy than conventional rotors with the same air delivery capacity. This makes a significant contribution to impressive overall efficiency.

The Sigma Control basic

With its efficient start-stop control, the “Sigma Control basic” ensures optimised compressed air system performance at all times and constantly monitors the entire SXC package.

Maintenance friendly

All maintenance and service points are easily accessible once the SXC's removable enclosure is effortlessly lifted away. The electronic condensate drain can be inspected via a grille. Needless to say, the SXC is designed for maximum ease of maintenance.

Efficient cooling

Kaeser compressors are renowned for their innovative cooling systems and SXC packages are no exception. Three fans are installed to ensure optimum cooling. A dedicated fan with independent drive motor provides dependable fluid cooling.
**Equipment**

**Complete unit**

Ready for operation, fully automatic, super-silenced, vibration damped, double-walled roto-moulded polyethylene enclosure.

**Sound insulation**

Soundproof enclosure, anti-vibration mounts, double vibration damped.

**Airend**

Genuine KAESER single-stage rotary screw airend with SIGMA PROFILE rotors and cooling-fluid injection for optimised rotor cooling.

**Electric motor**

German made high efficiency (IE2) electric motor to IP 54 and insulation class F for additional reserve.

**V-belt drive**

Maintenance-free elasticised V-belt. No adjustment necessary.

**Fluid and air flow**

Honeycombed dry-air filter, check valve at inlet, pneumatic vent valve, cooling fluid reservoir with dedicated separator cartridge, pressure release valve, minimum pressure/ check valve, microfiltration in cooling fluid system.

**Cooling**

Air cooled; aluminium cooler for cooling fluid with separate fan motor, second fan on drive motor shaft. Automatic warm-up control (active only with very low load).

**Air receiver**

Internally coated, electronically controlled condensate drain.

**SIGMA CONTROL BASIC**

Measured data displayed: network pressure, shut-off pressure, airend discharge temperature. Status data displayed: system status, error alert, maintenance due. Also displayed: hours counter for service, on-load and compressor run time, adjustable service interval, pressure and temperature unit selection (bar/ psi/ MPa, °C/ °F). Adjustable nominal system pressure. Emergency-off switch, floating contact for motor running. Electronic pressure transducer.

**Electrical components**

Control cabinet to IP 54, automatic star-delta starter (from 3 kW); motor-overload protection; control transformer.

**Refrigeration dryer**

Equipped with stainless steel plate heat exchangers, integrated condensate separator, electronically controlled condensate drain, insulated refrigerant loop.

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**Technical Specifications**

<table>
<thead>
<tr>
<th>Model</th>
<th>Working pressure bar</th>
<th>FAD *) Complete package at working pressure m³/min</th>
<th>Max. operating pressure bar</th>
<th>Rated motor power kW</th>
<th>Refrigeration dryer power kW</th>
<th>Refrigerant °C</th>
<th>Pressure dew point °C</th>
<th>Dryer differential pressure bar</th>
<th>Air receiver 3 215</th>
<th>Dimensions W x D x H mm</th>
<th>Sound pressure level **) dB(A)</th>
<th>Weight kg</th>
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<tbody>
<tr>
<td>SXC 3</td>
<td>7.5</td>
<td>0.34</td>
<td>0.25</td>
<td>8</td>
<td>11</td>
<td>2.2</td>
<td>0.25</td>
<td>R 134 a</td>
<td>215</td>
<td>620 x 990 x 1480</td>
<td>68</td>
<td>285</td>
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<tr>
<td>SXC 4</td>
<td>7.5</td>
<td>0.45</td>
<td>0.36</td>
<td>8</td>
<td>11</td>
<td>3.0</td>
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<tr>
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<td>7.5</td>
<td>0.60</td>
<td>0.48</td>
<td>8</td>
<td>11</td>
<td>4.0</td>
<td>0.30</td>
<td>R 134 a</td>
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<td>SXC 8</td>
<td>7.5</td>
<td>0.80</td>
<td>0.67</td>
<td>8</td>
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<td>5.5</td>
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*) FAD complete system as per ISO 1217 : 2009, Annex C: absolute inlet pressure 1 bar (a), cooling and air inlet temperature 20 °C

**) Sound pressure level as per ISO 2151 and the basic standard ISO 9614-2, operation at maximum operating pressure; tolerance: ± 3 dB(A)

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**Component layout for SXC systems**

1. Air filter
2. Airend
3. Drive motor
4. Auto. belt tensioning system
5. Fluid separator tank
6. Cooler
7. Air receiver
8. ECO-Drain condensate drain
9. Refrigeration dryer
10. Compressed air outlet
11. Control valve

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**Views**

- Front view
- View from left
- 3-D view

- Rear view
- View from right

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**Equipment**

**Complete unit**

**Sound insulation**

**Airend**

**Electric motor**

**V-belt drive**

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**Fluid and air flow**

**Cooling**

**Air receiver**

**SIGMA CONTROL BASIC**

**Electrical components**

**Refrigeration dryer**

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Choose the required grade of treatment according to your field of application:

Air treatment using a refrigeration dryer (pressure dew point + 6°C)

Examples: Selection of treatment classes to ISO 8573-1 (2010)

- Solid particles/dust
  - Class
    - max. particle count per m³ of a particle size with d in μm
    - 0.1 ≤ d ≤ 0.5
      - 0 ≤ 20,000 ≤ 400
    - 0.5 ≤ d ≤ 1.0
      - 400 ≤ 6,000 ≤ 100
    - 1.0 ≤ d ≤ 5.0
      - Not defined
    - < 90,000
      - Not defined
    - 90,000 ≤ 10,000
      - Not defined
    - > 10,000
      - Not defined

- Water
  - Class
    - Pressure dew point, in °C
      - 20°C
    - –70°C
    - –40°C
    - –20°C
    - +3°C
    - +7°C
    - +10°C

- Oil
  - Class
    - Total oil concentration (fluid, aerosol + gaseous) [mg/m³]
      - 0.01
      - 0.1
      - 1.0
      - 5.0
      - > 5.0

Explanation

- AQUAMAT
- DHS
- ED
- ECODRAIN
- FE / FF
- Microfilter

Compressed air quality classes to ISO 8573-1 (2010)

Solid particles/dust

<table>
<thead>
<tr>
<th>Class</th>
<th>max. particle count (μm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>≤ 20,000</td>
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<tr>
<td>1</td>
<td>≤ 400</td>
</tr>
<tr>
<td>2</td>
<td>≤ 6,000</td>
</tr>
<tr>
<td>3</td>
<td>Not defined</td>
</tr>
<tr>
<td>4</td>
<td>≤ 10,000</td>
</tr>
<tr>
<td>5</td>
<td>Not defined</td>
</tr>
<tr>
<td>6</td>
<td>≤ 100,000</td>
</tr>
</tbody>
</table>

Water

<table>
<thead>
<tr>
<th>Class</th>
<th>Pressure dew point, in °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>≤ –70°C</td>
</tr>
<tr>
<td>1</td>
<td>≤ –40°C</td>
</tr>
<tr>
<td>2</td>
<td>≤ –20°C</td>
</tr>
<tr>
<td>3</td>
<td>≤ +3°C</td>
</tr>
<tr>
<td>4</td>
<td>≤ +7°C</td>
</tr>
<tr>
<td>5</td>
<td>≤ +10°C</td>
</tr>
</tbody>
</table>

Oil

<table>
<thead>
<tr>
<th>Class</th>
<th>Total oil concentration (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>≤ 0.01</td>
</tr>
<tr>
<td>1</td>
<td>≤ 0.1</td>
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<tr>
<td>2</td>
<td>≤ 1.0</td>
</tr>
<tr>
<td>3</td>
<td>≤ 5.0</td>
</tr>
<tr>
<td>4</td>
<td>&gt; 5.0</td>
</tr>
</tbody>
</table>

* In reference conditions 20°C, 1 bar, 0% humidity.