MOBILAIR® M 135/M 170/M 171

Portable Compressors
With the world-renowned SIGMA PROFILE
Flow rate 10.5 to 17.0 m³/min (370 – 600 cfm)

www.kaeser.com
MOBILAIR® M 135/M 170/M 171

The perfect energy-saving combination: Deutz engine and KAESER rotary screw compressor

The powerful combination of an economical Deutz engine and a highly efficient KAESER airend with SIGMA PROFILE rotors delivers outstanding performance and considerably reduced fuel consumption. This means that MOBILAIR M 135/M 170/M 171 compressors can operate continuously throughout an entire work shift without need of refuelling.

Furthermore, users benefit not only from two world-class quality products, but they can also rely on the comprehensive KAESER KOMPRESSOREN and Deutz global service networks to ensure maximum machine availability.

The M 171 is certified in accordance with both EU Directive 2016/1628, Stage V and US emissions standard EPA Tier 4 final, ensuring clean-air operation wherever it is used – not just in Low Emission Zones. Moreover, with a diesel particulate filter and SCR catalytic converter for NOx-reduction fitted as standard, this model also meets the stringent requirements of the Swiss Clean Air Act.

Exceptional versatility

MOBILAIR M 135/M 170/M 171 units are in a class of their own when it comes to versatility, as they can be specifically tailored to meet the needs of the application in question.

Options include various compressed air treatment components, as well as the choice of a fully galvanised chassis with overrun brake and either fixed or height-adjustable tow bar, or a stationary configuration mounted on skids / machine feet.

Ambient temperature

Standard units are rated for ambient temperatures between -10 and +50°C. A low-temperature version is also available.

Simple to operate

Electronically controlled engine start and the ability to switch over manually from idle to full load operation ensure a reliable, gentle start when operating the unit in cold ambient conditions.

The intuitive operation of the SIGMA CONTROL MOBIL controller means that only three buttons are required to operate the compressor. Features also include automatic monitoring and shutdown, as well as a metal cover flap to protect the control panel.

Excellent accessibility

The user-friendly design of the M 135/M 170/M 171 not only ensures simple operation and outstanding manoeuvrability. Large enclosure doors also provide excellent component accessibility for unrivalled ease of servicing. Stationary units are equipped as standard with maintenance connections for draining the engine oil and compressor fluid.

$pV$ control on M 135 and M 171 / 14 bar versions

Thanks to $pV$ control, maximum pressure ($p$) – adjustable in steps of 0.1 bar between 5.0 and 14.5 bar – directly influences the maximum possible flow rate ($v$), thereby providing even greater flexibility in terms of both pressure and flow rate.
Compact and efficient powerhouses
Perfect performance – even under extreme conditions

Simple and convenient pressure adjustment
System pressure can be adjusted precisely in increments of 0.1 bar via the simple arrow keys on the SIGMA CONTROL MOBIL display. This not only enhances flexibility, but – in combination with the electronic inlet valve control – also achieves significant energy savings, particularly when operating in the partial load range.

Oil temperature control
The automatically controlled thermostatic valve shortens the warm-up period and ensures that the optimum operating temperature is reached quickly and reliably. This protects the compressor’s fluid circuit from excessive condensate accumulation, which in turn significantly extends the service life of the cooling fluid and separator cartridge, as well as the long-term durability of the machine.

Separate air filters for engine and compressor
An optimised design and separate air filters considerably enhance reliability and service life. The filters can be changed on-site quickly and easily, as and when required.

Large capacity, transparent fuel tank
When full, the tank carries sufficient fuel for an entire work shift without the need for refuelling. The fuel level can be checked at a glance via the analogue gauge and an automatic shutdown feature is activated when the fuel level becomes too low. For added convenience, the SIGMA CONTROL MOBIL controller issues a fuel level warning.
Available equipment

Closed floor pan

The closed floor pan immediately catches any liquids, thereby preventing ground contamination in environmentally sensitive zones. All drainage holes are sealed with screw plugs.

Pressure variants

Depending on the intended application, models are available in various pressure versions ranging from 8.6 to 14 bar. Pressure can easily be adjusted in increments of 0.1 bar, from 5 bar to 0.5 bar above nominal pressure, using the SIGMA CONTROL MOBIL’s arrow keys. The pressure adjustment feature can also be electronically disabled to prevent tampering.

Suitable for refinery use

The M 135 and M 170 are available with a certified spark arrester for refinery applications. In the case of the M 171, the standard exhaust gas treatment system is certified as a spark arrester. The optional engine shut-off valve automatically switches the machine off upon intake of combustible gases.

Compressed air treatment

With the optional aftercooler, the compressed air is cooled to 7°C above ambient temperature. The condensate is removed via a centrifugal separator and is subsequently evaporated by the hot exhaust air from the engine. A filter combination can be fitted for applications requiring technically oil-free compressed air and a plate-type heat exchanger can be installed for the purposes of compressed air reheating.

Machines with the optional compressed air aftercooler and reheating combination allow users easily to adjust the compressed air discharge temperature to meet the specific needs of the application.

Industrie 4.0 @ Mobilair

The MOBILAIR Fleet Management online tool provides operators with a range of data, including working pressure, fuel level and service alerts, as well as information on the machine’s physical location and load status. The system optimises service processes by sending notifications regarding fault causes, for example, and upcoming scheduled maintenance requirements.

Compressed air treatment variants

<table>
<thead>
<tr>
<th>System A</th>
<th>Aftercooler</th>
<th>Centrifugal separator</th>
<th>Cool, condensate-free compressed air (100 % saturated), for compressed air tools and temporary replacement of stationary compressors</th>
</tr>
</thead>
<tbody>
<tr>
<td>System F</td>
<td>Aftercooler</td>
<td>Centrifugal separator</td>
<td>Filter</td>
</tr>
<tr>
<td>System B</td>
<td>Aftercooler</td>
<td>Centrifugal separator</td>
<td>Reheating</td>
</tr>
<tr>
<td>System G</td>
<td>Aftercooler</td>
<td>Centrifugal separator</td>
<td>Filter</td>
</tr>
<tr>
<td>Fresh air</td>
<td>Activated carbon filter</td>
<td>Does not provide protection against carbon monoxide (CO) or other noxious gases</td>
<td>Odour-free fresh air connected via a separate quick-release coupling (Only in combination with F or G systems)</td>
</tr>
</tbody>
</table>

6
# Technical specifications

## Dimensions

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><img src="image1" alt="Height-adjustable tow bar" /></td>
<td><img src="image2" alt="Fixed tow bar" /></td>
<td><img src="image3" alt="Skids" /></td>
<td><img src="image4" alt="Stationary" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Compressor</th>
<th>Diesel engine (water-cooled)</th>
<th>Complete system</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Flow rate</td>
<td>Make</td>
<td>Type</td>
</tr>
<tr>
<td>m³/min</td>
<td>cfm</td>
<td>bar</td>
<td>PSI</td>
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<td>-------</td>
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</tr>
<tr>
<td>M135</td>
<td>13.0 - 10.5</td>
<td>480 - 370</td>
<td>10 - 14</td>
</tr>
<tr>
<td>M170</td>
<td>17.0</td>
<td>600</td>
<td>8.6</td>
</tr>
<tr>
<td>M171</td>
<td>17.0</td>
<td>600</td>
<td>8.6</td>
</tr>
</tbody>
</table>

1. Weight specifications for standard machine without compressed air treatment
2. Guaranteed sound power level as per Directive 2000/14/EC
3. Measured surface sound pressure level as per ISO3744 (r=10m)
The world is our home

As one of the world’s largest compressed air system providers and compressor manufacturers, KAESER KOMPRESSOREN is represented throughout the world by a comprehensive network of branches, subsidiary companies and authorised partners in over 100 countries.

With innovative products and services, KAESER KOMPRESSOREN’s experienced consultants and engineers help customers to enhance their competitive edge by working in close partnership to develop progressive system concepts that continuously push the boundaries of performance and compressed air efficiency.

Moreover, the decades of knowledge and expertise from this industry-leading system provider are made available to each and every customer via the KAESER group’s global computer network.

These advantages, coupled with KAESER’s worldwide service organisation, ensure that every product operates at the peak of its performance at all times and provides maximum availability.