KAESER COMPRESSORS®

MOBILAIR® M 27/M 30/M 31

Portable Compressors

With the world-renowned SIGMA PROFILE

Flow rate 1.6 to 3.15 m³/min (57 to 110 cfm)

www.kaeser.com

MOBILAIR® M 27/M 30/M 31

Compact, service-friendly and powerful, MOBILAIR portable compressors not only impress with their high delivery volumes – they are also available with a wide variety of equipment options, making these efficient machines genuine all-rounders. The M 27 and M 30 are available with Emissions Stage V for Europe and Tier 4 Final for North America, whilst the M 31 is designed specifically for the export market.

Applying the pressure

As with all KAESER rotary screw compressors, the heart of the M 27 / M 30 and M 31 series is a premium-quality airend equipped with rotors featuring the world-renowned SIGMA PROFILE, which guarantees more compressed air for less energy. The standard working pressure for M 27 and M 31 models is 7 bar. Versions with 10, 12 and 14 bar are also optionally available, for which maximum pressure can be infinitely adjusted down to 6 bar via a manual control wheel.

Compact powerhouse

The M 27 and M 31 provide more than just a dependable supply of compressed air. When equipped with the optional 6.5 kVA generator, they are transformed into true portable powerhouses, capable of providing compressed air and/or electricity as required.

Compressed air quality

An aftercooler with condensate separator is available for applications requiring cool, dry compressed air. When specified without compressed air treatment, all three models feature Kaeser's Anti-Frost Control as standard. Together with the optional tool lubricator, this feature reliably prevents compressed air tools from freezing up, even at low outside temperatures.

Useful extras

A wide range of carefully considered options makes these portable compressors even more versatile; for example: a hose reel with 20 m of lightweight hose, a toolbox for convenient storage of work tools and a closed floor pan. For refinery applications, a version featuring a spark arrestor and engine shut-off valve is available. A check valve can be specified for sandblasting applications.

Technically oil-free compressed air

A filter combination is available for applications requiring technically oil-free compressed air, such as line flushing or concrete restoration.

(Please refer to the "Compressed air treatment systems" table on page 10)

Compact and versatile

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M 30
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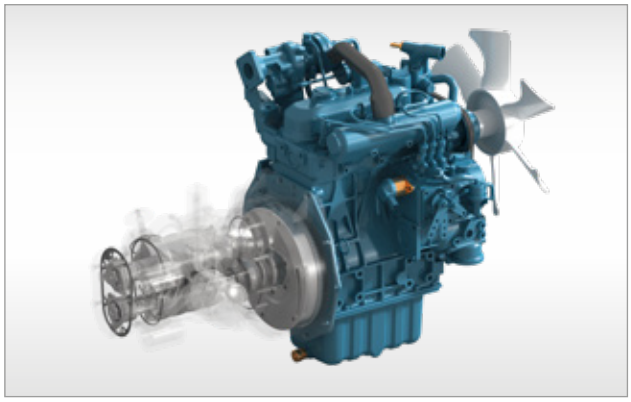
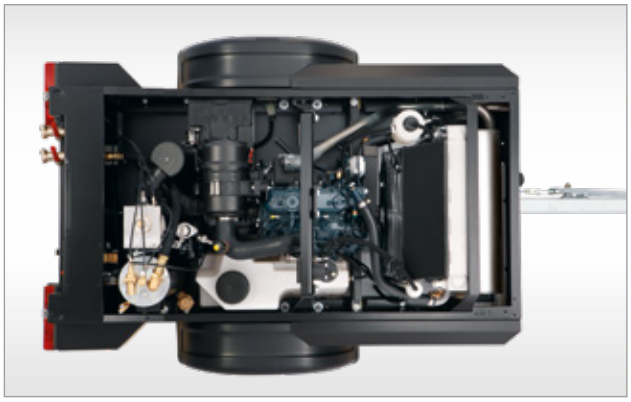
Efficient and durable



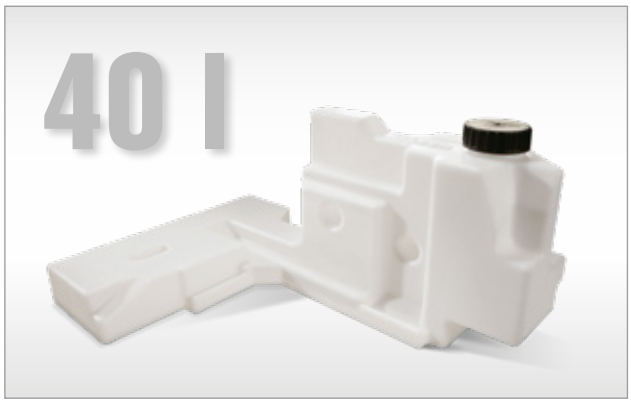
Powerful, energy-saving team

The KAESER rotary screw airend with its energy-saving SIGMA PROFILE rotors is driven via integrated gearing by a durable, water-cooled, three-cylinder diesel engine from Kubota. An electric fuel pump ensures simple venting of the fuel lines.



Service-friendly

The wide-opening enclosure provides excellent access to all maintenance-relevant components, making service work a breeze and thereby ensuring maximum compressed air availability.



Impressive endurance

The transparent PE fuel tank fits perfectly into the available space and holds sufficient diesel for long work shifts without the need for refuelling. A cleaning port located in the floor pan ensures trouble-free operation of the machine.

Cool, dry compressed air

The compressed air aftercooler cools the compressed air down to 7 °C above ambient. Because the aftercooler is installed at an angle, any accumulating condensate is reliably drained away. This environmentally friendly design prevents problems caused by freezing in winter, whilst the condensate is evaporated using the hot exhaust gases from the engine.

A wide range of equipment options for maximum versatility

Bodywork variants

Stationary versions are always equipped with a metal enclosure, whilst portable versions are available either with a soundproof, galvanised and powder-coated steel enclosure, or a double-walled sound enclosure constructed from rotomoulded polyethylene.

Generator option

The brushless, maintenance-free, 6.5 kVA synchronous generator (IP54) can be switched over from continuous operation to energy-saving automatic start, depending on current power requirements. This option transforms the M 27 / M 31 into a flexible, portable powerhouse for your construction site.

Easy to operate

The low position of the operating panel on versions equipped with a metal enclosure makes these units perfect for installation on a flat-bed truck. Operation is made simple thanks to the single start switch and easy-to-understand icons.

Safety first

On versions of the M 27 and M 31 equipped with a PE enclosure, the generator control panel is safely embedded into the polyethylene moulding that protects the rear corners of the unit. Additional safety features include sockets with IP 44 protection, a lockable main switch and protective separation with insulation monitoring.

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Available equipment

Oil temperature control as standard

Automatic thermostatic valve for a short warm-up phase, plus swift achievement and reliable maintenance of optimal operating temperature; no excessive condensate accumulation in compressor oil circuit; long-lasting separator cartridge; units without air treatment or with System B additionally feature Anti-Frost Control.

Simple operation

Start switch with preheating function; operation via intuitive icons; fully automatic monitoring; automatic shutdown upon detection of a fault; operating hours, working pressure and airend discharge temperature display; main switch housed inside lockable enclosure.

Durable AL-KO chassis

Fully galvanised chassis; with or without overrun brake; with or without height-adjustable tow bar.

Ambient temperature

Designed as standard for operation in temperatures ranging from -10°C to +45°C; low-temperature version with engine coolant preheating available for extreme cold starts.

Separate air filter

Separate, optimally dimensioned air filters for compressor and motor guarantee enhanced reliability and service life; filters can quickly be cleaned or replaced on site.

Alternative colours

For PE enclosures, the following special colours are readily available:

Blue – Equivalent to RAL 5017
Green – Equivalent to RAL 6024
Red – Equivalent to RAL 3020
Orange – Equivalent to RAL 2009
White – Equivalent to RAL 9010

Other enclosure colours and custom paintwork for metal components are available upon request.

Compressed air treatment variants

System A - Cool - Condensate-free	Compressed air aftercooler → Centrifugal separator	Cool, condensate-free compressed air (100% saturated), **for compressed air tools and temporary replacement of stationary compressors**
System F - Cool - Condensate-free - Filtered	Compressed air aftercooler → Centrifugal separator → Filter	Cool, condensate-free compressed air (100% saturated), **free from contaminants and technically oil-free as per applicable regulations (ZTV-ING)**
System B - Warmed - Dried	Anti-Frost Control → Compressed air aftercooler → Centrifugal separator → Reheating	Dried compressed air, reheated to a min. of 20°C, **for working at sub-zero temperatures and with longer compressed air lines**
System G - Warmed - Dried - Filtered	Anti-Frost Control → Compressed air aftercooler → Centrifugal separator → Filter → Reheating	Dried compressed air, reheated to a min. of 20°C, **free from contaminants and technically oil-free as per applicable regulations (ZTV-ING)**

Technical specifications

Model	Compressor				3-cylinder diesel engine (water-cooled)				Complete system				
	Flow rate		Working pressure		Make	Model	Rated engine power	Speed at full load	Fuel tank capacity	Operating weight	Sound power level	Sound pressure level	Com-pressed air outlet
	m³/min	cfm	bar	PSI			kW	rpm	l	kg [1]	dB(A) [2]	dB(A) [3]	
M 27	2.6 2.1 1.9 1.6	92 74 67 57	7 10 12 14	100 145 175 200	Kubota	D1105	17.9	2850	40	575	≤ 98	68	2 x G¾
M 30	2.9	100	7	100	Kubota	D1105	17.9	2875	40	580	≤ 98	68	2 x G¾
M 31	3.15 2.6 2.3 1.9	110 92 81 67	7 10 12 14	100 145 175 200	Kubota	D1105T	24.1	2900	40	580	Export		2 x G¾
With 6.5 kVA generator													
M 27	1.9	67	7	100	Kubota	D1105	17.9	2850	40	625	≤ 98	68	2 x G¾
M 31	2.0 [4] 3.0	71 [4] 105	7	100	Kubota	D1105T	24.1	2900	40	630	Export		2 x G¾

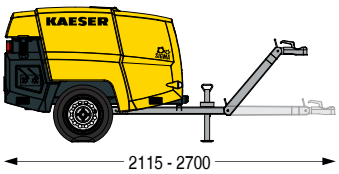
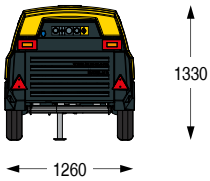
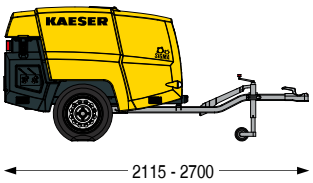
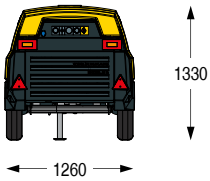
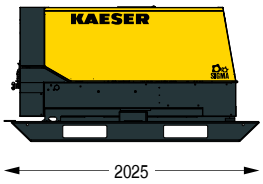
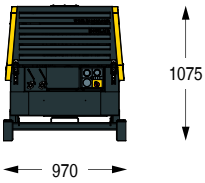
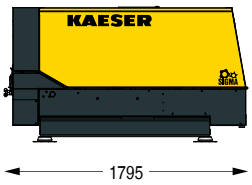
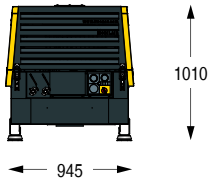
1) Specified weight applies to standard unit with PE enclosure, unbraked chassis and height-adjustable tow bar, without compressed air treatment

2) Guaranteed sound pressure level L_{WA} as per EU Directive 2000/14/EC

3) Surface sound pressure level L_{pA} measured as per ISO 3744 (r = 10m)

4) At full current draw

Dimensions

Version: Height-adjustable tow bar		
Version: Fixed tow bar		
Version: Skid-mounted		
Version: Stationary		

The world is our home

As one of the world's largest manufacturers of compressors, blowers and compressed air systems, KAESER KOMPRESSOREN is represented throughout the world by a comprehensive network of wholly owned subsidiaries and authorised distribution partners in over 140 countries.

By offering innovative, efficient and reliable products and services, KAESER KOMPRESSOREN's experienced consultants and engineers work in close partnership with customers to enhance their competitive edge and to develop progressive system concepts that continuously push the boundaries of performance and technology. Moreover, decades of knowledge and expertise from this industry-leading systems provider are made available to each and every customer via the KAESER group's advanced global IT network.

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

ISO 9001:2015
ISO 14001:2015
ISO 45001:2018
ISO 50001:2018
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