



PRODUCT INFORMATION

English

SERIES  
**MAXIMA 30 - 160 kW**

ROTARY VANE COMPRESSORS

MAXIMA  
MAXIMA R  
MAXIMA W



# SERIES MAXIMA

## About us



Ing. **Enea Mattei SpA** is an Italian company that has been producing air compressors since 1919. Over the years, the company has continually evolved and is today one of the world's foremost companies in the compressed air sector and the leader in the production of rotary vane compressors.

Behind the success of Mattei are the choices the company has made in terms of design, production and marketing, driven by the results of its continual and in-depth research and development programmes.

During these years of continual change, Mattei has been able to adapt to the requirements of the market and through the results of its research has created products that are always innovative and technologically advanced.



## Certified quality

Quality as an integral part of all company functions and constant improvement of all production processes so as to always guarantee the maximum level of reliability and satisfaction.

This, in brief, is the value and the meaning of **Mattei's** operational philosophy. A way of approaching the market and customers that makes **Mattei** an absolute point of reference in the compressed air sector.

Since 1994, **Mattei** has been operating with a Quality System certified by the DNV Institute under UNI EN ISO 9001 regulations.



## Compressors MAXIMA series

One of the primary aims of competing in the global economy is to minimise production costs. Industry leaders expect maximum value and profitable returns when investing in new machinery that will improve their manufacturing process and lower their costs. As compressed air production tends to be the single largest consumer of electricity in a given manufacturing plant, saving energy and reducing maintenance costs offers real opportunities to improve profitability and thus, enhance the competitive advantage for the company. Designed to save energy and protect the environment, the MAXIMA rotary vane air compressor range has been engineered by Mattei to meet the requirements of manufacturers that use large, constant volumes of compressed air for long periods of time. Maxima is best suited for high air demand applications where the production of compressed air has a virtually constant base load throughout the day. The name of this compressor was selected to evoke the essence of the incredible performance of this machine.

### SOFT - START

Motor soft starter allows a reduction of the load and torque in the power train and electrical current surge of the motor during start-up. This reduces the mechanical stress on the motor and shaft, as well as the electrodynamic stresses on the attached power cables and electrical distribution network, extending the lifespan of the system.

### Efficiency

All MAXIMA's compressors have a 1:1 ratio between the electric motor speed and that of the airend. This means greater energy efficiency and higher performances. The low rotational speed of the compressor unit found only in vane technology, the high volumetric efficiency and the complete absence of roller or thrust bearings, result in energy savings of over 15% compared to other rotary compressors.

### Simple and economic maintenance\*

Maintenance operations only include changing the oil at predetermined intervals, cleaning or replacing the air filter and cleaning the radiator. The separator filters are substituted every 10,000 working hours, with significant savings. The absence of roller bearings helps to reduce significantly the cost for maintenance.

Maxima lives up to its name by delivering maximum performance from every kW of input energy. Mattei's ethos of continuous investment in research and development of its rotary vane technology has led to the excellent specific energy efficiency of the Maxima range. Large hinged doors and easily removable panels allow complete and easy accessibility for all maintenance and intervention operations. The compressor requires no special foundations and its base has suitable lifting points for ease of installation.



### Energy saving

The MAXIMA range is equipped with high efficiency electric motors. The electric motor is directly coupled to the airend, allowing great advantages in overall efficiency of the compressed air unit, meaning less kW per acfm.

### Direct coupling

The electric motor and the compressor are coupled directly by means of flexible coupling and turn at only 1200 rpm. Direct coupling determines a remarkable "energy saving" because there are no energy losses caused by gears or V belts.

### Energy recovery

Mattei offers for its compressors a heat recovery system that allows water to be heated for industrial process or sanitary use. The "Heat Recovery" kit is totally integrated into the oil cooling circuit, making the unit independent from the oil temperature control and protected from any possible malfunctions, such as water flow reduction and overheating.

### Blades designed for over 100,000 hours life

An oil film on the stator's inside surface prevents the moving parts from wearing out by avoiding a direct contact with the blades.



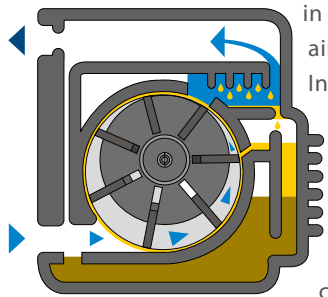
# SERIES MAXIMA

## Operating principle



**Maximum efficiency of the air compression process, excellent reliability and low running costs; are just some of the key benefits that rotary vane technology can offer.** The vane compressor is a volumetric rotary compressor that consists of a stator cylinder in which a rotor is mounted off-centre but parallel to its sides.

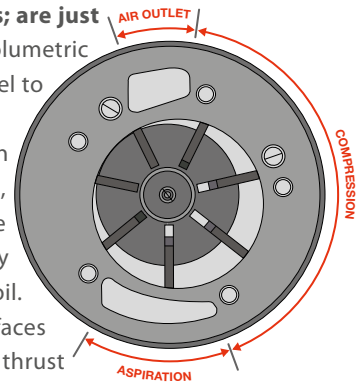
The rotor has slots in which the vanes are free to slide: centrifugal force keeps them in contact with the sides of the stator during rotation. The rotary vane compressor, thanks to its **simple construction**, offers remarkable advantages, first among them being **greater volume yield** because the vanes are



in constant contact with the inner wall of the stator and form a perfectly airtight seal with no leaks along the wall thanks to a continuous film of oil.

In this type of compressor no axial thrust is generated so the side surfaces of the rotor are not subject to wear and thus no rotating bearings or thrust bearings are needed. The vanes, too, because of the special way they are made have practically **unlimited life**. Behind the success of Mattei compressors there is thus **extreme reliability, long life, quiet operation and simplicity of maintenance**.

Design is important too: compactness and clean lines, together with harmonious shapes, give Mattei compressors an image of robustness and ease of use.



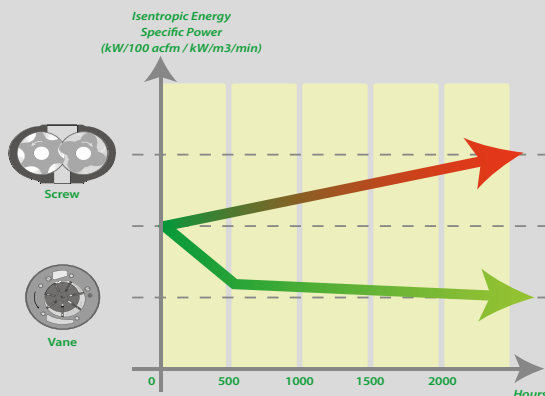
## Get your "VANE GAIN"

Only Mattei's rotary vane technology is proven to be even more energy efficient the longer it runs. We call it VANE GAIN. Third party testing confirms that our lifetime-rated cast-iron blades begin to season from the moment you turn it on.

What does that mean to you? Simple. Our VANE lets you GAIN lower energy costs over time - an exclusive benefit found ONLY in Mattei's proprietary rotary vane technology.

### "Simply Different"

#### VANE GAIN = LOWER ENERGY COSTS



## MAESTRO<sup>XS</sup>

### To have everything under control

The Maxima series is equipped with the exclusive state-of-the-art computerised controller, Maestrosx.

This system automatically controls, monitors and programmes the operation of the compressor, and can be connected to a PC for remote control. If connected to other compressed air packages equipped with Maestrosx, the unit can become master of a compressed air plant, thus saving on the installation of an additional controller. Maestro<sup>XS</sup> can be interfaced via web or cellular technology to provide remote service monitoring.



## Get MyCare 6&10

### Extended Warranty Coverage

Standard warranty is one (1) year, bumper-to-bumper covering parts and labor against defects in materials and workmanship. In addition, your RVD 7 - 11 i direct-drive air compressor is eligible for our MyCare 6 & 10 extended warranty program at NO additional cost to you.



#### What you gain with MyCare 6 & 10

The MyCare 6 program doubles the bumper-to-bumper protection to two (2) years and, covers the major compents: Motor, Coolers, Controller, Oil Separator Tank, Inverter and Rotor Stator Unit (RSU or Airend), for a total of six (6) years. The MyCare 10 component is offered for our direct-drive industrial compressors and covers the Rotor Stator Unit (RSU or Airend) for an additional three (3) years, years seven (7) through ten (10).

#### How you get MyCare 6 & 10

To choose your **MyCare 6 & 10** extended warranty plan, simply check the MyCare 6 & 10 box during the start-up and commissioning process for your new Mattei air compressor as performed by a local Authorized Mattei Distributor.

#### MyCare 6&10: Tailored to your needs

The program is built around your specific environment and anticipated hours of operation.

Authorized Mattei Distributors, are factory trained to ensure you get fast courteous service. They know what to look for to ensure you place your compressor in the best possible environment to ensure years of great service from your Mattei. The Technicians that inspect, start-up and commission your Mattei, are experienced in recommending the proper service program based on your specific environment. They want to get the job done quickly and correctly and will only recommend service intervals that they know will keep you happy and up and running between scheduled visits.

#### Your goal is our goal

Our mutual goal is to ensure that your investment is properly maintained. This allows us to guarantee you will get the longest service life out of it while enjoying the lowest operating costs for years to come.

Mattei, simply wants you to benefit from the peace-of-mind in knowing that Mattei and your local Distributor have your best interests at heart right from the start.








#### Genuine Original Parts & Lubricants

Mattei compressors are engineered for many years of service. Our lubricants are engineered and custom blended to ensure that those lifetime-rated blades ride on a thin film of lubricant to prevent any wear and tear to the compressor. Authorized Mattei Service Centers employ qualified service engineers that carry specific tooling and stock Genuine Mattei Parts and Lubricants made to very high design standards that conform to exact technical specifications. Only through the use of Genuine Mattei Parts and Lubricants can you be guaranteed the protection you deserve and the highest levels of performance, reliability, safety and the lower energy costs of the future that were originally engineered into your Mattei air compressor.



# SERIES MAXIMA

460V/60 Hz/3

	 Model	 Max. working pressure		 F.A.D.		 Sound pressure level db(A)	 Power		 Dimensions LxWxH						 Weight	
		bar	psig	m <sup>3</sup> /min	scfm		kW	hp	mm	ins	mm	ins	mm	ins	kg	lbs
MAXIMA	MAXIMA 30	8	115	6,87	243	67	30	40	1830	72	960	38	1670	66	920	2024
	MAXIMA 110	8	115	24	847	< 72	110	150	2350	93	1485	59	1980	78	2840	6248
	MAXIMA 160	8	115	34	1201	< 75	160	200	2670	105	1780	70	2235	88	4150	9130
	MAXIMA 30 R	8	115	6,87	243	67	30	40	1830	72	960	38	1670	66	940	2068
	MAXIMA 110 R	8	115	24	847	< 72	110	150	2350	93	1485	59	1980	78	2920	6424
	MAXIMA 160 R	8	115	34	1201	< 75	160	200	2670	105	1780	70	2235	88	4350	9570
	MAXIMA 30 W	8	115	6,87	243	67	30	40	1830	72	960	38	1670	66	940	2068
	MAXIMA 110 W	8	115	24	847	< 72	110	150	2350	93	1485	59	1980	78	2920	6424
	MAXIMA 160 W	8	115	34	1201	< 75	160	200	2670	105	1780	70	2235	88	4150	9130

Energy recovery system version (R)

Water-cooled version (W)

F.A.D. in accordance with ISO 1217, annex "C"

Sound pressure level according to ISO 2151, tolerance:  $\pm 3$  dB(A)

Working pressure: 109 psig





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**UNI EN ISO 9001:2015**

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