



RVX 55-90i

VARIABLE-SPEED ROTARY VANE
AIR COMPRESSORS

Breaking Boundaries in Terms of Energy-Efficiency



RVX 55-90i

EXTREMELY ENERGY EFFICIENT

Savings in energy-consumption, reduction in negative environmental impact, improvements in our safety and fighting the battle against global-warming. All this is **MATTEI**.

The latest generation of Mattei industrial compressors offer unrivalled **energy-savings** and **high performance** in terms of **eco-sustainability**. Mattei's integrated approach responds to the challenges of the future, whilst bringing realistic savings and efficiencies to all industrial sectors.

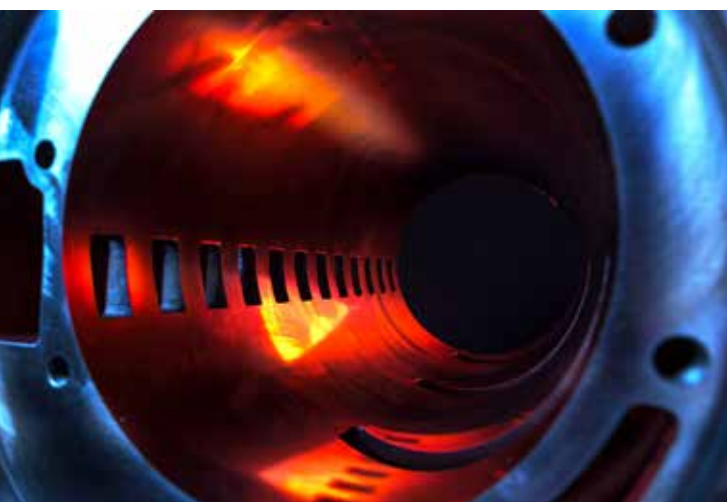
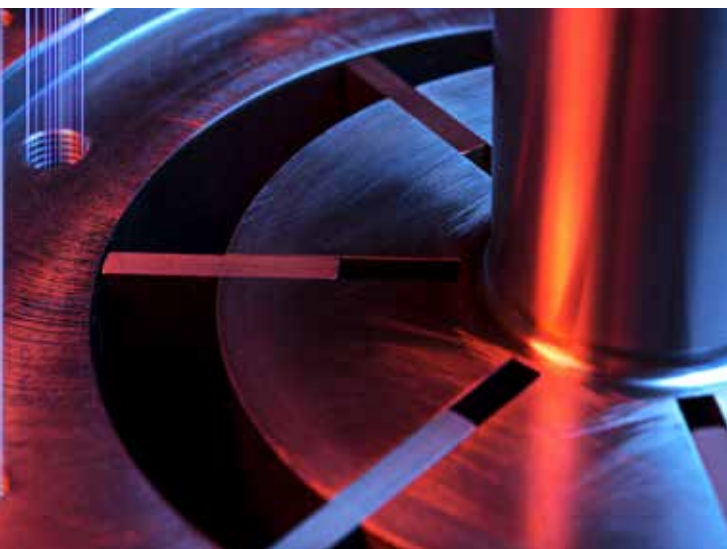


THINK GREEN

MATTEI
VALUE
PROPOSITION



- ▶ Efficiencies in the **rotary-vane air-end**, compared to different technologies, ensure outstanding, long-term energy-efficient performance.
- ▶ **Direct coupling 1:1** has always been at the center of Mattei's construction-philosophy, guaranteeing maximum efficiency, unlike traditional belt drive alternatives.



100% XTREME

The entire **RVXi** product range benefits from a **new high efficiency air-end**.

Rotary-vane compressors are inherently more efficient than any other air compression system due to their construction technology. No leaks, no periodical replacement of thrust-bearings and no air-end replacement are just some of the advantages a vane-compressor provides.

RVXi compressors have an **innovative oil injection system** and the air-end geometries are such that maximum operating efficiencies can be achieved.


INDUSTRY 4.0 & PAY-BACK


A key-element within Industry 4.0 is the obligation for a sustainability approach when dealing with the exploitation of resources: Mattei designs, produces and distributes products with a **SMART ENERGY** mindset allocating the right amount of energy, when needed and where needed.


Thanks to Mattei products it is possible to achieve optimum energy savings with a return on investment of less than two years.


UNIVERSAL AND WITHOUT RESTRICTIONS


Thanks to **Maestro XC**, compressors in the RVXi range can interface with any other machines on the market, avoiding the need for expensive expansion-modules or periodic upgrades. All Mattei compressors equipped with Maestro XC controllers can be connected to the cloud via the units **remote monitoring and control Cloud portal**. With the aid of a simple web connection from any standard browser on any standard PC, the compressor can be interrogated should inconsistencies in operation occur. This feature avoids the need for any physical presence at the compressor for initial diagnostic purposes.

 **Motors with IE3 and IE4 efficiency classification and certified performance.**

 Optimization of machine-flow-dynamics were carried out to maximize thermal and energy efficiency.

 Use of **inverter-systems**, able to adapt the operation of the compressor to meet the real operating requirements of the plant. Energy-efficiency means, "energy not consumed."

 The special **thermostatic valve, electronically controlled by Maestro XC**, dynamically regulates the temperature of the lubricant circulating inside the machine, maintaining the operational parameters at maximum efficiency. A cool machine is a machine that consumes less energy.

 The latest generation **Maestro XC** controller, with touch-screen monitor. Thanks to this device it is possible to manage and monitor all compressor operating parameters, even in remote-mode, thus **conforming with the latest IoT, Industry 4.0 directives**.

RVX 55-90i

Package SUPER-PREMIUM

The RVX 55-90i range is equipped with **IE3 or IE4 classified, energy-efficiency motors.**

In combination with compressors governed by an inverter, energy-savings in excess of 30% can be attained and as such, when fitted with an IE4 motor they achieve an efficiency class for the package similar to IE5.

Built without the use of magnets, the motors exhibit low environmental impact whilst incorporating robust construction features - suitable for working at high temperatures and without the risk of demagnetization.

MAESTRO XC Controller

Maestro XC is a fully integrated compressor control device, meeting the requirements of IoT Industry 4.0. Thanks to the remote-control feature via the **Mattei Cloud internet portal**, the operator can interact with the installation in an easy, and direct way. Access to the portal and control panel is via customized password or via a convenient autorun hardware key.

Electronic Thermostatic-Control

Integrated into the oil circuit and directly regulated by the **Maestro XC** controller, the **new electronic thermostatic-valve** ensures optimum machine operation in any operating condition.

Maestro XC monitors both the in-coming air temperature and the compressed air temperature, thus preventing the risk of condensation even in areas with high humidity.



Direct Drive 1:1: Real Savings

1:1 Direct coupling of the motor to the compressor via a flexible coupling ensures perfect alignment, no absorption of power, low-noise operation and no maintenance. The coupling-type used allows rapid replacement of the flexible elastomer element.

Easy-Service Intake Valve

The special **intake valve**, installed on all Mattei compressors, minimizes any leaks at the intake and enables simple and rapid maintenance.

Low Operating Temperature

The new range of Mattei compressors are supplied with an **energy-saving fan**, equipped with inverter speed control. The fan automatically regulates the cooling air flow, increasing or reducing it according to the operating temperature of the compressor. This system, in combination with the new electronic thermostatic valve, is regulated directly by the on-board controller and ensures that an optimum level of operational efficiency is maintained within the entire machine.

Flanged Connections

The compressor is equipped with flanged connections for rapid and safe maintenance.



MAESTRO XC CONTROLLER

ONE CONTROLLER SERVES ALL

Maestro XC is a **fully-integrated 10" touch-screen** compressor control device. No necessity for expansion-boards or upgrades. The controller is equipped with the latest **“full-feature”** software.

No risks, no worries.

FLEXIBILITY AND INTEGRATION

Data-exchange is immediate. The controller can be **directly integrated** into the LAN of existing MaestroXB and MaestroXS devices.

Furthermore, with compatible hardware interfaces the unit can be networked to any commercially available control device on the market.



CONNECTIVITY

The machine is connected via an Ethernet port providing access to the **Mattei Cloud internet portal**. Should a standard internet connection be unavailable, a ready-to-use Mattei 3G modem is available. The system is also equipped with a Modbus TCP protocol port to aid local network connection.

WEB-BASED MATTEI CLOUD

Thanks to remote control of the installation via the **Mattei Cloud** internet portal, Maestro XC meets all IoT, 4.0 requirements. The system interacts with the remote operator, automatically providing status information on the compressor being monitored. Access to all operating parameters for analysis purposes, efficiency monitoring and maintenance status is readily available. The system is protected by a personalised password for each user and can be interrogated by standard web browsers.

IMMEDIATE VERIFICATION

The screen has a high-resolution color graphic display with a high level of sensitivity, reacting to the user's touch. The display is easy to use and clearly laid out, allowing monitored parameters from the *Home* menu to be grouped by function and location. Possible system-anomalies are immediately highlighted, displaying the area of the compressor emitting the irregularity. Alarm or shut-down parameters are clearly communicated to eliminate any doubt or confusion.

The user is provided with **total overview of the machine** and at a touch can access further levels to obtain greater individual analysis detail.

SAFETY AT YOUR FINGERTIPS

Access security can be performed via a USB-key, without the need to enter a password. This USB-key serves as an additional hardware key to access the various sub-menus, whilst also allowing the user to download data from the terminal quickly and efficiently.

IoT INDUSTRY 4.0: THINK GREEN

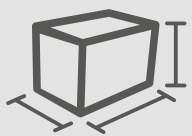
Thanks to the remote-control feature, constant real-time monitoring of the compressor and management of on-board devices such as inverters, fans and electronic thermostatic valves, controlled by Maestro XC becomes a reality for all **new-generation Mattei machines. A direction clearly targeted to the support of a greener future.**

Improvements in the overall efficiency of the compressor, combined with better preventive maintenance help reduce wasted energy and global warming.

TECHNICAL DATA

RVX 55 - 75 - 90i *

Working Pressure	
bar	7÷10/13
psig	100÷150/185
F.A.D.	
m ³ /min	4.94÷16.55**
cfm	171÷584**
Sound Pressure Level	
db(A)	68***
Motor	
kW	55-75-90
hp	75-100-125



Length	
mm	2420
inch	95
Width	
mm	1245
inch	49
Height	
mm	1890
inch	74
Max. weight	
kg	2160
lbs	4770

*Available versions with energy recovery system (R), entirely water-cooled (W) and with integrated refrigerant dryer (Plus).

According to ISO 1217 - Annex C (fixed speed) & Annex E (variable speed) - *Sound pressure level according to ISO 2151, tolerance ± 3dB(A), @ 1500 rpm Performances after 500h running in. For 0 hours performances contact Mattei.



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