



English

SERIES  
**AIR CENTRE 15 - 30 kW**

ROTARY VANE COMPRESSORS



AC  
AC R  
AC PLUS  
AC R PLUS

# SERIES AIR CENTRE



## 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.



# Rotary vane compressors

## Series AIR CENTRE

The 1000 series of Mattei rotary vane compressors, with rated power levels ranging from 15 to 30 kW, is the perfect solution for the compressed air requirements of small and medium industries. Available in the silenced AC and AC PLUS versions, they feature automatic control of air flow at constant pressure and an aftercooler. Together with compact design and ease of installation, the series offers reliable service and constant long-term performance.

### Blades designed for over 100,000 hours live\*

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

### Energy saving

The range is equipped with high efficiency electric motors.

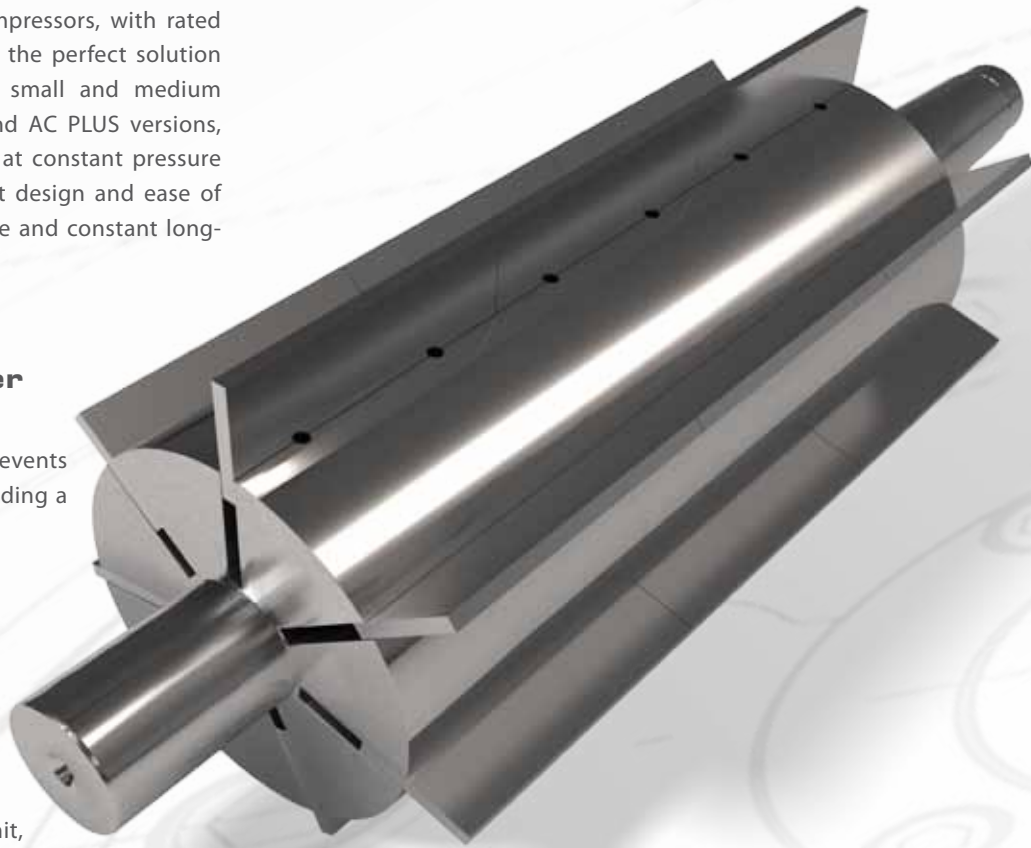
The electric motor is directly coupled to the airend, allowing great advantages in overall efficiency of the compressed air unit, meaning less kW per m<sup>3</sup>/min.

### 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.

### Direct coupling

The electric motor and the compressor are coupled directly by means of flexible coupling and turn at only 1500 rpm. Direct coupling determines a remarkable "energy saving" because there are no energy losses caused by gears or V belts.



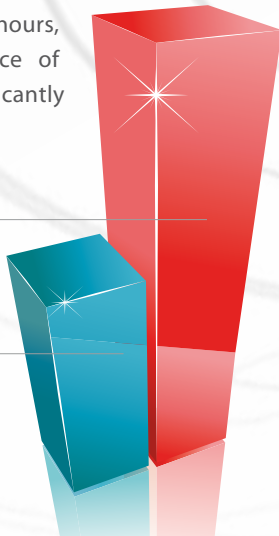
OTHER COMPRESSORS

MAINTENANCE

MATTEI'S COMPRESSORS

MAINTENANCE

\*with Mattei Rotoroil





## Operational mode

### Modulation operating mode at constant pressure

Thanks to a modulating proportional intake valve that supplies air at constant pressure, these compressors can even work without a receiver. With this regulation air delivery is automatically adapted to the system demand.

### Combined ON/OFF load and modulation regulation

This regulation allows Mattei compressors to modulate within a set pressure range (for example,  $\pm 0.3$  bar). Should the air demand decrease, this regulation also allows the compressor to run off load and stop, with evident energy savings.

### Energy saving automatic on load / off load

This regulation maintains the line pressure within a range of minimum and maximum pressure set by the pressure switch and the compressor may stop and restart according to air demand.

When the line pressure reaches the minimum value the compressor will run on load delivering 100% of its capacity. When the pressure reaches the maximum value the compressor will run off load with the immediate closure of the intake valve, which sets off the rapid decompression phase, allowing a significant reduction of the absorbed power consumption. Should the pressure continue to remain high, the compressor will stop.



## PLUS VERSION

### Dryer with ecological gas

The plus version includes the integrated installation of a direct expansion refrigeration dryer, which is air cooled and filled with environmentally friendly gas. The combination of a Mattei rotary vane air compressor with an integrated dryer and where applicable mounted on an air receiver is the ideal solution for a complete and compact system.

- ▶ Efficient refrigerating power partialization
- ▶ Constant dewpoint
- ▶ MAESTRO<sup>XS</sup> control
- ▶ High efficiency



## MAESTRO<sup>XS</sup>

### To have everything under control

With a view to energy saving, the communication inside a compressor room plays a decisive role. It is absolutely essential to manage, control and immediately intervene in the operation of the system in order to prevent waste and unnecessary energy consumption.

For this reason, all of Mattei's Air Centre compressors are fitted as standard with a microprocessor command and control device.

Maestro<sup>XS</sup> is programmable controller, which regulate the compressor's operation and adapt this to the specific requirements of the air distribution system.

They have different programming levels and special options of controlling and analysing the operation and faults. Advanced programming and analysis levels are protected by digital codes to avoid unintentional tampering.

Maestro<sup>XS</sup> have an integrated memory module that stores the operational settings and data in case of a power failure.



# Technical data

## 50 Hz

Model	Tension V/f	Air receiver l	Power kW hp		Flow						Sound pressure level dB(A)	Dimensions						Weight kg lbs	
					8 bar 115 psig L		10 bar 150 psig H		13 bar 175 psig HH			Length		Width		Height			
					m <sup>3</sup> /min	cfm	m <sup>3</sup> /min	cfm	m <sup>3</sup> /min	cfm		mm	inch	mm	inch	mm	inch		
AC 15	400/3	-	15	20	2,7	95,3	2,2	77,7	1,87	66	67	1500	59,1	800	31,5	1200	47,3	460	1012
AC 18	400/3	-	18,5	25	3,28	115,8	2,64	93,2	2,26	79,8	67	1500	59,1	800	31,5	1200	47,3	460	1012
AC 22	400/3	-	22	30	3,75	132,4	3,2	113	2,57	90,7	67	1500	59,1	800	31,5	1200	47,3	465	1023
AC 30s	400/3	-	30	40	-	-	4,19	148	3,55	125,4	68	1500	59,1	800	31,5	1200	47,3	515	1133
AC 15 PLUS	400/3	-	15	20	2,7	95,3	2,2	77,7	1,87	66	67	1500	59,1	800	31,5	1200	47,3	500	1100
AC 18 PLUS	400/3	-	18,5	25	3,28	115,8	2,64	93,2	2,26	79,8	67	1500	59,1	800	31,5	1200	47,3	500	1100
AC 22 PLUS	400/3	-	22	30	3,75	132,4	3,2	113	2,57	90,7	67	1500	59,1	800	31,5	1200	47,3	505	1111
AC 30s PLUS	400/3	-	30	40	-	-	4,19	148	3,55	125,4	68	1500	59,1	800	31,5	1200	47,3	555	1221
AC 15 R	400/3	-	15	20	2,7	95,3	2,2	77,7	1,87	66	67	1500	59,1	800	31,5	1200	47,3	470	1034
AC 18 R	400/3	-	18,5	25	3,28	115,8	2,64	93,2	2,26	79,8	67	1500	59,1	800	31,5	1200	47,3	470	1034
AC 22 R	400/3	-	22	30	3,75	132,4	3,2	113	2,57	90,7	67	1500	59,1	800	31,5	1200	47,3	475	1045
AC 30s R	400/3	-	30	40	-	-	4,19	148	3,55	125,4	68	1500	59,1	800	31,5	1200	47,3	525	1155
AC 15 R PLUS	400/3	-	15	20	2,7	95,3	2,2	77,7	1,87	66	67	1500	59,1	800	31,5	1200	47,3	510	1122
AC 18 R PLUS	400/3	-	18,5	25	3,28	115,8	2,64	93,2	2,26	79,8	67	1500	59,1	800	31,5	1200	47,3	510	1122
AC 22 R PLUS	400/3	-	22	30	3,75	132,4	3,2	113	2,57	90,7	67	1500	59,1	800	31,5	1200	47,3	515	1133
AC 30s R PLUS	400/3	-	30	40	-	-	4,19	148	3,55	125,4	68	1500	59,1	800	31,5	1200	47,3	565	1243

## 60 Hz

Model	Tension V/f	Air receiver l	Power kW hp		Flow						Sound pressure level dB(A)	Dimensions						Weight kg lbs	
					8 bar 115 psig LX		10 bar 150 psig HX		13 bar 175 psig HHX			Length		Width		Height			
					m <sup>3</sup> /min	cfm	m <sup>3</sup> /min	cfm	m <sup>3</sup> /min	cfm		mm	inch	mm	inch	mm	inch		
AC 15	460/3	-	15	20	3,01	106,3	2,65	93,6	2,4	84,7	69	1500	59,1	800	31,5	1200	47,3	460	1012
AC 18	460/3	-	18,5	25	3,67	129,6	3,18	112,3	2,58	91,1	69	1500	59,1	800	31,5	1200	47,3	460	1012
AC 22	460/3	-	22	30	3,95	139,5	3,6	127,1	3,1	109,5	69	1500	59,1	800	31,5	1200	47,3	465	1023
AC 15 PLUS	460/3	-	15	20	3,01	106,3	2,65	93,6	2,4	84,7	69	1500	59,1	800	31,5	1200	47,3	500	1100
AC 18 PLUS	460/3	-	18,5	25	3,67	129,6	3,18	112,3	2,58	91,1	69	1500	59,1	800	31,5	1200	47,3	500	1100
AC 22 PLUS	460/3	-	22	30	3,95	139,5	3,6	127,1	3,1	109,5	69	1500	59,1	800	31,5	1200	47,3	505	1111
AC 15 R	460/3	-	15	20	3,01	106,3	2,65	93,6	2,4	84,7	69	1500	59,1	800	31,5	1200	47,3	470	1034
AC 18 R	460/3	-	18,5	25	3,67	129,6	3,18	112,3	2,58	91,1	69	1500	59,1	800	31,5	1200	47,3	470	1034
AC 22 R	460/3	-	22	30	3,95	139,5	3,6	127,1	3,1	109,5	69	1500	59,1	800	31,5	1200	47,3	475	1045
AC 15 R PLUS	460/3	-	15	20	3,01	106,3	2,65	93,6	2,4	84,7	69	1500	59,1	800	31,5	1200	47,3	510	1122
AC 18 R PLUS	460/3	-	18,5	25	3,67	129,6	3,18	112,3	2,58	91,1	69	1500	59,1	800	31,5	1200	47,3	510	1122
AC 22 R PLUS	460/3	-	22	30	3,95	139,5	3,6	127,1	3,1	109,5	69	1500	59,1	800	31,5	1200	47,3	515	1133

F.A.D. in accordance with ISO 1217, annex "C" | Sound pressure level according to ISO 2151, tolerance ± 3dB(A) | Working pressure: 7,5 bar for version 8 bar - 9,5 bar for version 10 bar - 12,5 bar for version 13 bar



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**UNI EN ISO 9001:2008**

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