

SERIES  
**AIR CENTRE 7,5 - 15 kW**

ROTARY VANE COMPRESSORS

AC  
ACS  
AC PLUS  
ACS 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

Mattei's Air Centre series compressors are complete and efficient machines that are ideal for any type of industrial application.

#### Direct coupling

Mattei has always produced compressors in which the electric motor, which turns at a speed of only 1,500 rpm, is directly coupled to the compression unit by means of a flexible joint. This direct, in-line coupling results in considerable energy saving as there are no losses due to the presence of pulley wheels and drive belts.



#### Automatic flow rate control

As well as the classic "ON/OFF OPERATION" mode, all of the models, from the AC 4 to the AC 15s, are fitted with the special modulating proportional intake valve which allows air supply at a constant pressure and even offers the possibility of working without an air storage tank.



#### A high efficiency oil separation

The separation of the lubrication oil from the compressed air takes place in multiple stages. A first separation occurs in the oil chamber as the air passes through a labyrinth path, then it continues at the separator inlet (before the filter) where the air flow slows down passing through a series of directional variations, and finally through the coalescing filter. Due to this superior separation system the oil carry over is extremely low, leading to improved separator life, greater protection for the application and reduced operating costs.

#### Compressor and dryer: all - in - one

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.

#### Durable and quiet

AIR CENTRE compressors are epoxy powder coated and corrosion and scratch resistant. In addition they are lined internally with a thick layer of high-quality soundproof material and equipped with a high efficiency cabinet pre-filter. This filtering device prevents the radiator and main air filter from premature clogging caused by impurities in the intake air, thus providing additional cost savings.



## 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>.

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. It has 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> has an integrated memory module that stores the operational settings and data in case of a power failure.











### MAESTRO<sup>XS</sup>: features and functions

- Ergonomic control panel with quick access keys to main menus.
- Menus access keys, start, stop and reset led keys.
- Semi-graphic LCD display with illuminated text.
- 24 Vdc digital inputs.
- Digital dry contacts output up to 230 Vac and up to 24 Vdc.
- Interfaces:
  - RS485 for intercommunication with other MAESTRO devices.
  - RS485 (optional) to communicate with the supervising PC and network.
- Analogue data display (line pressure, chamber pressure, oil temperature, outgoing air temperature) and general data (alarms, operating messages, machine state, maximum and minimum pressure, last start and stop times).
- Hour counter to display the enabled, working and load times and maintenance notices.
- Events database to store alarms and blocks, with alarm intervention indication, alarm intervention time, machine state.
- Multi-language user interface.
- Weekly and hourly programmable start and stop times.
- Immediate reading of the compressor operating data on the display.
- Basic and advanced parameters programming for an optimal operation of the compressor.
- Storage of up to 20 malfunctioning events.
- Storage of the last 20 programme modifications.
- Control of the integrated dryer.
- Machine start and stop remote control.
- The feedback (as standard), through dry contacts, of the following machine states: enabled compressor, working compressor, loaded compressor, blocked compressor.











# Technical data

## 50 Hz

| <br>Model | <br>Tension | <br>Air receiver | <br>Power |    |  |      |                         |      |                          |      | <br>Sound pressure level |  |      |       |      |        |      | <br>Weight |     |
|---|--|---|--|----|---|------|-------------------------|------|--------------------------|------|---|---|------|-------|------|--------|------|---|-----|
|   |  |   |  |    | 8 bar<br>115 psig<br>L  |      | 10 bar<br>150 psig<br>H |      | 13 bar<br>175 psig<br>HH |      |   | Length  |      | Width |      | Height |      |   |     |
|   | V/f  | I   | kW   | hp | m³/min  | cfm  | m³/min                  | cfm  | m³/min                   | cfm  | dB(A)   | mm  | inch | mm    | inch | mm     | inch | kg  | lbs |
| AC 7  | 400/3  | -   | 7,5  | 10 | 1,38  | 48,7 | 1,15                    | 40,6 | 0,96                     | 33,9 | 65  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 220   | 484 |
| AC 11   | 400/3  | -   | 11   | 15 | 1,97  | 69,6 | 1,7                     | 60   | 1,35                     | 47,7 | 65  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 240   | 528 |
| AC 15s  | 400/3  | -   | 15   | 20 | -   | -    | 1,95                    | 68,9 | 1,83                     | 64,6 | 65  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 260   | 572 |
| AC 7 PLUS   | 400/3  | -   | 7,5  | 10 | 1,38  | 48,7 | 1,15                    | 40,6 | 0,96                     | 33,9 | 65  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 245   | 539 |
| AC 11 PLUS  | 400/3  | -   | 11   | 15 | 1,97  | 69,6 | 1,7                     | 60   | 1,35                     | 47,7 | 65  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 265   | 583 |
| AC 15s PLUS   | 400/3  | -   | 15   | 20 | -   | -    | 1,95                    | 68,9 | 1,83                     | 64,6 | 65  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 285   | 627 |
| ACS 7   | 400/3  | 270   | 7,5  | 10 | 1,38  | 48,7 | 1,15                    | 40,6 | 0,96                     | 33,9 | 65  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 310   | 682 |
| ACS 11  | 400/3  | 270   | 11   | 15 | 1,97  | 69,6 | 1,7                     | 60   | 1,35                     | 47,7 | 65  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 330   | 726 |
| ACS 15s   | 400/3  | 270   | 15   | 20 | -   | -    | 1,95                    | 68,9 | 1,83                     | 64,6 | 65  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 350   | 770 |
| ACS 7 PLUS  | 400/3  | 270   | 7,5  | 10 | 1,38  | 48,7 | 1,15                    | 40,6 | 0,96                     | 33,9 | 65  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 335   | 737 |
| ACS 11 PLUS   | 400/3  | 270   | 11   | 15 | 1,97  | 69,6 | 1,7                     | 60   | 1,35                     | 47,7 | 65  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 355   | 781 |
| ACS 15s PLUS  | 400/3  | 270   | 15   | 20 | -   | -    | 1,95                    | 68,9 | 1,83                     | 64,6 | 65  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 375   | 825 |

## 60 Hz

|  |  |  |  |    |  |      |                         |      |                          |      |  |  |      |       |      |        |      |  |     |
|--|---|---|---|----|---|------|-------------------------|------|--------------------------|------|---|---|------|-------|------|--------|------|---|-----|
|  |   |   |   |    | 8 bar<br>115 psig<br>L  |      | 10 bar<br>150 psig<br>H |      | 13 bar<br>175 psig<br>HH |      |   | Length  |      | Width |      | Height |      |   |     |
| Model  | Tension   | Air receiver  | Power   |    |   |      |                         |      |                          |      | Sound pressure level  |   |      |       |      |        |      | Weight  |     |
|  | V/f   | I   | kW  | hp | m³/min  | cfm  | m³/min                  | cfm  | m³/min                   | cfm  | dB(A)   | mm  | inch | mm    | inch | mm     | inch | kg  | lbs |
| AC 7   | 460/3   | -   | 7,5   | 10 | 1,39  | 49,1 | 1,2                     | 42,4 | 1,18                     | 41,7 | 67  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 220   | 484 |
| AC 11  | 460/3   | -   | 11  | 15 | 2,11  | 74,5 | 1,87                    | 66   | 1,65                     | 58,3 | 67  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 240   | 528 |
| AC 7 PLUS  | 460/3   | -   | 7,5   | 10 | 1,39  | 49,1 | 1,2                     | 42,4 | 1,18                     | 41,7 | 67  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 245   | 539 |
| AC 11 PLUS   | 460/3   | -   | 11  | 15 | 2,11  | 74,5 | 1,87                    | 66   | 1,65                     | 58,3 | 67  | 1250  | 49,3 | 610   | 24   | 1040   | 41   | 265   | 583 |
| ACS 7  | 460/3   | 270   | 7,5   | 10 | 1,39  | 49,1 | 1,2                     | 42,4 | 1,18                     | 41,7 | 67  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 310   | 682 |
| ACS 11   | 460/3   | 270   | 11  | 15 | 2,11  | 74,5 | 1,87                    | 66   | 1,65                     | 58,3 | 67  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 330   | 726 |
| ACS 7 PLUS   | 460/3   | 270   | 7,5   | 10 | 1,39  | 49,1 | 1,2                     | 42,4 | 1,18                     | 41,7 | 67  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 335   | 737 |
| ACS 11 PLUS  | 460/3   | 270   | 11  | 15 | 2,11  | 74,5 | 1,87                    | 66   | 1,65                     | 58,3 | 67  | 1480  | 58,3 | 750   | 29,6 | 1550   | 61   | 355   | 781 |

F.A.D. in accordance with ISO 1217, annex "C" | Sound pressure level according to ISO 2151, tolerance  $\pm 3$  dB(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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