



500

AC Series



The best solution for all your needs

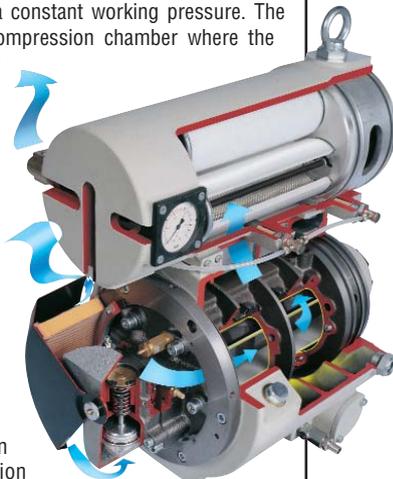


AC 7 - 11 - 15

AC 4 and 5

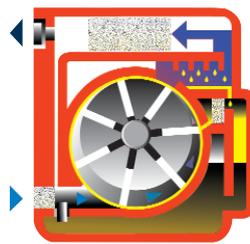
OPERATION PRINCIPLE

The air is sucked through a filter and passes through a modulating proportional valve which regulates air delivery according to air requirement. This valve allows to maintain a constant working pressure. The air goes into the compression chamber where the stator, rotor and blades create a series of vanes (or volumes). The rotor rotates eccentrically to the stator and is characterised by vertical slots in which the blades are placed and are pushed against the stator's wall by centrifugal force. Lubrication and cooling are guaranteed by an efficient injection system which allows perfect hold and a lower lubricant consumption. A thin film of oil on the stator's wall avoids direct contact of the metal parts giving no wear.

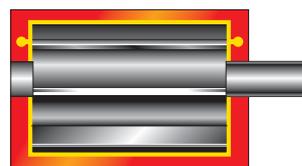


AIR/OIL SEPARATION

The three-stage system for separating the oil from the air assures the oil residue level in the compressed air remains lower than 3 mg/m³. This system offers low oil consumption and a longer lifetime of the coalescence air/oil separation filters.



NO MAINTENANCE (THERE ARE NO BEARINGS)



Unlike other compressors, the absence of axial thrust in the Mattei vane compressors eliminates the need for rotating bearings. This allows Mattei compressors to enjoy very long and inexpensive maintenance intervals.



ACS Plus with integrated dryer and receiver

DRYER WITH ECOLOGICAL GAS

- Efficient refrigerating power partialization
- Constant dewpoint
- MicroC control
- High efficiency

REGULATION SYSTEMS

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.

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.

Mattei's rotary vane compressors of the AC 500 series, with installed powers from 4 to 15 kW, are the perfect solution for the compressed air requirements of small and medium industries.

Available in four different versions, they are equipped with automatic control of air flow at constant pressure and aftercooler.

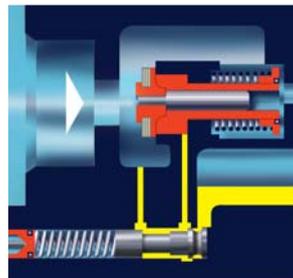
ACS and ACS Plus versions, equipped with separator and condensate drain kit, are fitted on 270 litres air receivers. PLUS versions include an integrated refrigerant dryer with ecological gas R134a and are supplied ready-to-use.

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.



COMBINED ON/OFF LOAD AND MODULATION REGULATION

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



AIR/FLOW AND COOLING

The airflow produced by the axial fan, keyed to the secondary shaft of the main motor, cools the air and oil in the aluminium radiators.



MICROPROCESSOR CONTROL AND PROTECTION SYSTEM

Maestro^{XS} and MicroC are programmable systems which control the compressor operation and adapt this to the specific requirements of the air distribution system. They have different programming levels and special options for controlling and analysing the operation and faults. Advanced

programming and analysis levels are protected by digital codes to avoid unintentional tampering. Maestro^{XS} and MicroC have an integrated memory module that stores the operational settings and data in case of an electricity cut out.

TECHNICAL FEATURES

50 Hz L = 8 bar H = 10 bar HH = 13 bar - 60 Hz LX = 8 bar HX = 10 bar

Model	Rated motor power kW	Free air delivery* m ³ /min					Sound pressure level ** dB(A)	
		L	H	HH	LX	HX	L / H / HH	LX / HX
AC 4	4	0,7	0,53	0,49	0,73	0,63	65	67
AC 5	5,5	0,89	0,76	0,57	1,02	0,82	65	67
AC 7	7,5	1,38	1,15	0,96	1,39	1,2	65	67
AC 11	11	1,97	1,7	1,35	2,11	1,87	65	67
AC 15s	15	-	1,95	1,83	-	2,36	65	67

Working pressure: 7,5 bar for 8 bar version - 9,5 bar for 10 bar version - 12,5 bar for 13 bar version

(*) Free air delivery as per ISO 1217: 1996 annex "C"

(**) Sound pressure level as per ISO 2151, value measured at 1 m distance, tolerance ± 3 db(A).

AC	Standard version
ACS	On 270 litre receiver standard version
AC PLUS	Version with integrated dryer
ACS PLUS	On 270 litre receiver version with integrated dryer

OPTIONAL

SEPARATOR AND CONDENSATE DRAIN KIT (only for AC versions)

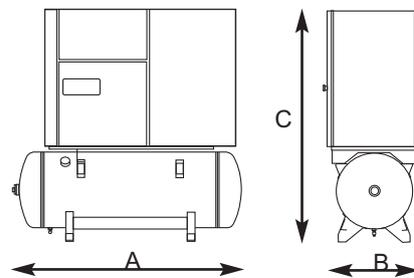
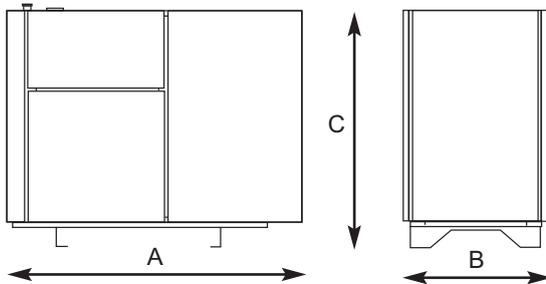
PLUS VERSION

DRYER	refrigerant
Dew point	3 °C
Refrigerant gas	R134a

DIMENSIONS (mm) - WEIGHTS (kg)

AC / AC plus	A (mm)	B (mm)	C (mm)	Weight (kg)
4	1010	600	830	140 / 160
5	1010	600	830	140 / 160
7	1250	690	1040	210 / 240
11	1250	690	1040	230 / 260
15s	1250	690	1040	250 / 280

ACS / ACS plus	A (mm)	B (mm)	C (mm)	Weight (kg)
4	1530	630	1350	190 / 210
5	1530	630	1350	190 / 210
7	1530	750	1540	300 / 340
11	1530	750	1540	320 / 350
15s	1530	750	1540	340 / 370



Ing. Enea Mattei SpA reserves the right to change the data contained in this catalogue at any moment and without notice.

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