



500/1000

English

SERIES  
**CLASSIC 4 - 22 kW**

ROTARY VANE COMPRESSORS



ERC  
ERCS



# SERIES CLASSIC

## 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.





## COMPACT - VERSATILE - SILENT - RUNNING

Ideal for industrial use and 24 hour a day operation

Mattei's new range of small industrial compressors is designed to satisfy compressed air demand in those applications where the operating characteristics and reliability needs are higher than those available from other compressors on the market.

### 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.



### ERC Compressor

Mattei's rotary vane compressors of the 500-1000 series, with installed powers from 4 to 22 kW, are the ideal solution for small/medium industry compressed air needs. Available in ERC version, they come complete with automatic flow rate control at constant pressure, and aftercooler. The machines have an extremely compact design, are easy to install and offer a reliable operation and constant performance through time.

### Automatic flow rate control

As well as the classic "ON/OFF OPERATION" mode, all of the models, 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.

### Durable and quiet

The 500 Classic compressors are robust, resistant to corrosion and are particularly compact and ideal for installation in small spaces. The vane technology ensures safe and quiet operation even without a noise reducing outer canopy.

### Energy Consumption

Thanks to the meticulous design, the compressor has one of the lowest energy consumption per cubic metre of delivered air rates. The regulation system, allowing to choose between continuous or automatic with off-load operation, is standard on each machine and allows to adapt operation to the needs of the customer.





## Operating principle

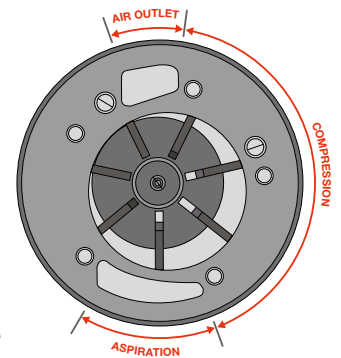
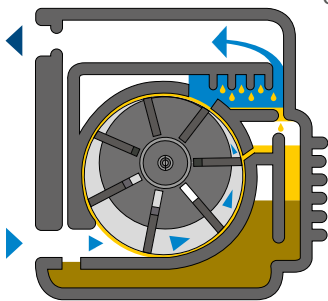
Maximum efficiency of the air compression process, excellent reliability and low running costs; are just some of the key benefits that rotary vane technology can offer.

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.



## Features

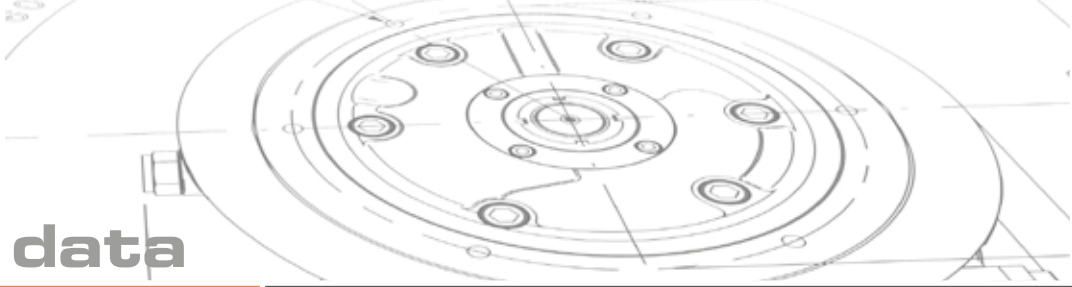
- ▶ DIRECT COUPLING THROUGH FLEXIBLE JOINT
- ▶ OIL RADIATOR AND COOLING FAN
- ▶ AIR DELIVERY AUTOMATIC CONTROL WITH CONSTANT PRESSURE
- ▶ THERMO DYNAMICALLY BALANCED INLET AIR FLOW TO ENSURE MAXIMUM EFFICIENCY OF THE COMPRESSOR
- ▶ THERMOSTATIC VALVE ENSURES OPTIMUM OPERATING TEMPERATURE AND ENERGY EFFICIENCY

## Standard equipment

- ▶ SOFT-START
- ▶ SAFETY THERMOSTAT FOR HIGH OIL TEMPERATURE
- ▶ ON BOARD MANOMETER
- ▶ VISUAL OIL LEVEL INDICATOR
- ▶ FIRST FILLING WITH "ROTOROIL F2" OIL
- ▶ HIGH EFFICIENCY INTAKE FILTER
- ▶ AFTERCOOLER



# Technical data



## 50 Hz

	Model	Flow						Sound pressure level dB(A)	Power		Tension V/f	Air receiver l	Dimensions						Weight	
		8 bar 115 psig L		10 bar 150 psig H		13 bar 175 psig HH			kW	hp			Longueur		Width		Height		kg	lbs
		m³/min	cfm	m³/min	cfm	m³/min	cfm						mm	inch	mm	inch	mm	inch		
500	ERC 4	0,7	24,7	0,53	18,7	0,49	17,3	71	4	5	400/3	-	1140	44,9	600	23,6	700	27,6	130	286
	ERC 5	0,89	31,4	0,76	26,8	0,57	20,1	71	5,5	7,5	400/3	-	1140	44,9	600	23,6	700	27,6	130	286
	ERC 7	1,38	48,7	1,15	40,6	0,96	33,9	75	7,5	10	400/3	-	1460	57,5	660	26,0	740	29,1	240	528
	ERC 11	1,97	69,6	1,7	60	1,35	47,7	75	11	15	400/3	-	1460	57,5	660	26,0	740	29,1	265	583
	ERCS 4	0,7	24,7	0,53	18,7	0,49	17,3	71	4	5	400/3	270	1480	58,3	670	26,4	1240	48,9	200/220*440/484*	
	ERCS 5	0,89	31,4	0,76	26,8	0,57	20,1	71	5,5	7,5	400/3	270	1480	58,3	670	26,4	1240	48,9	200/220*40/484*	
	ERCS 7	1,38	48,7	1,15	40,6	0,96	33,9	75	7,5	10	400/3	270	1530	60,3	730	28,8	1270	50,04	310/330*682/726*	
	ERCS 11	1,97	69,6	1,7	60	1,35	47,7	75	11	15	400/3	270	1530	60,3	730	28,8	1270	50,04	335/355*737/781*	
1000	ERC 15	2,7	95,3	2,2	77,7	1,87	66	79	15	20	400/3	-	1660	65,4	690	22,9	910	38,2	350	770
	ERC 18	3,28	115,8	2,64	93,2	2,26	79,8	79	18,5	25	400/3	-	1660	65,4	690	22,9	910	38,2	390	858
	ERC 22	3,75	132,4	3,2	113	2,57	90,7	79	22	30	400/3	-	1660	65,4	690	22,9	910	38,2	390	858
	ERC 15 R	2,7	95,3	2,2	77,7	1,87	66	79	15	20	400/3	-	1660	65,4	730	28,8	910	38,2	365	803
	ERC 18 R	3,28	115,8	2,64	93,2	2,26	79,8	79	18,5	25	400/3	-	1660	65,4	730	28,8	910	38,2	405	891
	ERC 22 R	3,75	132,4	3,2	113	2,57	90,7	79	22	30	400/3	-	1660	65,4	730	28,8	910	38,2	405	891

## 60 Hz

	Model	Flow						Sound pressure level dB(A)	Power		Tension V/f	Air receiver l	Dimensions						Weight	
		8 bar 115 psig LX		10 bar 150 psig HX		13 bar 175 psig HHX			kW	hp			Longueur		Width		Height		kg	lbs
		m³/min	cfm	m³/min	cfm	m³/min	cfm						mm	inch	mm	inch	mm	inch		
500	ERC 4	0,73	25,8	0,63	22,2	0,43	15,2	73	4	5	460/3	-	1140	44,9	600	23,6	700	27,6	130	286
	ERC 5	1,02	36	0,82	29	0,69	24,4	73	5,5	7,5	460/3	-	1140	44,9	600	23,6	700	27,6	130	286
	ERC 7	1,39	49,1	1,2	42,4	1,18	41,7	77	7,5	10	460/3	-	1460	57,5	660	26,0	740	29,1	240	528
	ERC 11	2,11	74,5	1,87	66	1,65	58,3	77	11	15	460/3	-	1460	57,5	660	26,0	740	29,1	265	583
	ERCS 4	0,73	25,8	0,63	22,2	0,43	15,2	73	4	5	460/3	270	1480	58,3	670	26,4	1240	48,9	200/220*440/484*	
	ERCS 5	1,02	36	0,82	29	0,69	24,4	73	5,5	7,5	460/3	270	1480	58,3	670	26,4	1240	48,9	200/220*40/484*	
	ERCS 7	1,39	49,1	1,2	42,4	1,18	41,7	77	7,5	10	460/3	270	1530	60,3	730	28,8	1270	50,04	310/330*682/726*	
	ERCS 11	2,11	74,5	1,87	66	1,65	58,3	77	11	15	460/3	270	1530	60,3	730	28,8	1270	50,04	335/355*737/781*	
1000	ERC 15	3,01	106,3	2,65	93,6	2,4	84,7	81	15	20	460/3	-	1660	65,4	690	22,9	910	38,2	350	770
	ERC 18	3,67	129,6	3,18	112,3	2,58	91,1	81	18,5	25	460/3	-	1660	65,4	690	22,9	910	38,2	390	858
	ERC 22	3,95	139,5	3,6	127,1	3,1	109,5	81	22	30	460/3	-	1660	65,4	690	22,9	910	38,2	390	858
	ERC 15 R	3,01	106,3	2,65	93,6	2,4	84,7	81	15	20	460/3	-	1660	65,4	730	28,8	910	38,2	365	803
	ERC 18 R	3,67	129,6	3,18	112,3	2,58	91,1	81	18,5	25	460/3	-	1660	65,4	730	28,8	910	38,2	405	891
	ERC 22 R	3,95	139,5	3,6	127,1	3,1	109,5	81	22	30	460/3	-	1660	65,4	730	28,8	910	38,2	405	891

(\*) HH Version

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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REV.0