



# BLADE

BRINGING YOU THE FUTURE TODAY

**BLADE**

1 | 2 | 3 | 4 | 5 | 7 | 11



## Mattei: over 90 years of research and reliability

Ing. Enea Mattei SpA is an Italian company that has been manufacturing air compressors since 1919. Since then the company has continually evolved and is now 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. Mattei's vision and interpretation of industry's changing needs, has consistently created innovative and technologically advanced products.

- ▶ **UNLIMITED BLADE LIFE**
- ▶ **NO THRUST BEARINGS**
- ▶ **BUSHINGS NOT SUBJECT TO WEAR**

## BLADE: the ideal solution for your business

The BLADE compressor range, with operating pressures from 8 to 13 bar, is the ideal solution for the needs of small and medium sized companies as well as artisan businesses.

The rotary vane technology ensures high quality compressed air, an extremely compact airoend and low noise levels. All combined with undisputed product reliability for any application.

With BLADE, maintenance costs will be significantly less than those of our competitors' traditional compressors. This is due to the reduced maintenance requirements and the competitive price of original spare parts.

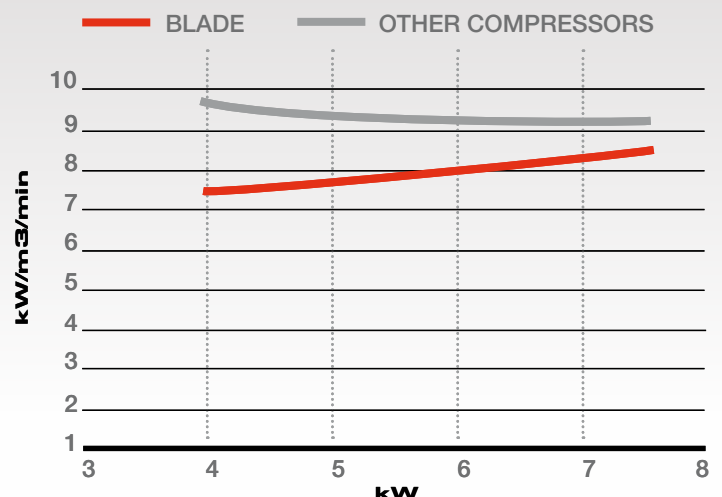
## Rotary Vane Technology. Choose the Best - Choose Mattei

Maximum efficiency of the air compression process, excellent reliability and low maintenance costs are just some of the key benefits that Mattei rotary vane technology offers. The vane compressor is a positive displacement rotary compressor consisting of a stator cylinder in which a rotor is eccentrically mounted. The rotor has slots in which the specially profiled blades are free to slide, riding on a thin film of oil which provides lubrication and a perfect seal between the blades and the stator wall during rotation.



## Unrivalled efficiency

Rotary vane technology allows MATTEI BLADE compressors to be 20% more efficient compared to our competitors' compressors.

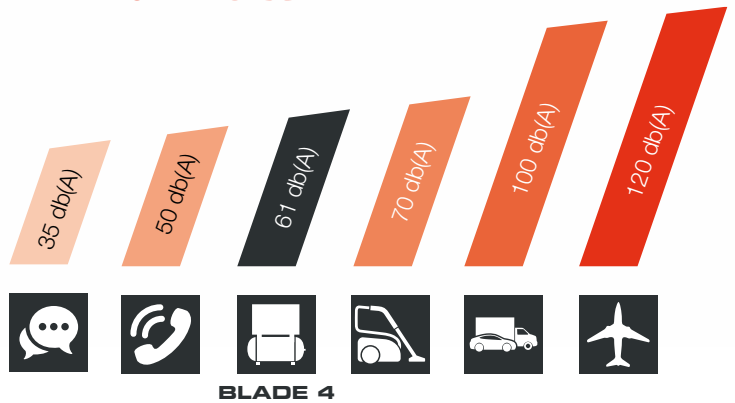




## Quietly Efficient and Robust

When compared to other compressors the BLADE's very low rotational speed, a distinctive feature of a Mattei compressor, means more air, greater reliability, reduced energy consumption and quiet operation.

## Maximum efficiency, minimum noise



- ▶ ROTARY VANE TECHNOLOGY
- ▶ MAXIMUM RELIABILITY
- ▶ EFFICIENT
- ▶ LOW MAINTENANCE COSTS
- ▶ QUIET
- ▶ COMPACT
- ▶ OPERATING PRESSURES FROM 8 TO 13 BAR



### A USER-FRIENDLY CONTROLLER

MAESTRO XB is a programmable controller which regulates the operation of the compressor to suit the specific requirements of the air distribution system. It has different programming levels and special options for controlling and analysing the operation and faults.



### THE BLADES: A REAL ADVANTAGE

Mattei's precision engineered cast iron blades, guaranteed for 100,000 hours, ensure optimum performance and efficiency throughout the life of the compressor.



### RELIABILITY AND LONGEVITY

Mattei air ends rotate slower than other types of compressors and their blades slide frictionless on a thin film of oil which ensures complete reliability. Mattei machines also have fewer moving parts than other compressors and as the rotor runs on bushes, it has a virtually unlimited lifespan.

# BLADE Series

## BLADE 1 | 2 | 3

With their technologically innovative design, **BLADE 1 ÷ 3** series compressors are a guarantee of quality, efficiency and reliability. Models are available with power from 1.5 to 3 kW, on bases or on 90 and 200 litre receivers. All BLADE series compressors have a pressure switch for Start-Stop operation.

### SAFETY AND PROTECTION

BLADE series compressors fully conform to all safety and protection regulations.

All compressors have:

- an auxiliary low tension electrical circuit for complete safety;
- a thermostat that automatically switches off the motor if the air-oil mixture inside the compressor overheats;
- a safety pressure exhaust valve that automatically discharges surplus compressed air into the atmosphere if pressure gets too high;
- Thermal protection that automatically stops the motor if too much current is absorbed.



BLADE



BLADE S 90 Litres



BLADE S 200 Litres

## Innovations and Advantages

### ADJUSTMENT

The BLADE 1.5 - 3 kW compressor series to achieve maximum energy saving is operated in the "Automatic" mode. During operation the compressor delivers air within a preset maximum/minimum pressure range. When reaching the maximum pressure the intake valve closes and the compressor stops. When the line pressure decreases and reaches the minimum set value the compressor starts again and delivers air instantly.

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





The BLADE model requires a receiver to be connected, of a minimum 90 litres for the BLADE 1 and BLADE 2 models and a minimum of 200 litres for the BLADE 3 model.

Model	Tension Volt/H/Ph	Rotational speed r.p.m.	Receiver L	Motor		Air delivery			Air intake volume of an equivalent piston compressor		Maximum pressure		Noise level dB(A)	Dimensions LxWxH (mm)	Weight kg
				kW	hp	l/min	m <sup>3</sup> /h	cfm	l/min	cfm	bar	psig			
<b>230/1</b>															
<b>BLADE 1</b>	230/50/1	1500	-	1,5	2	160	9,6	5,65	250	8,83	10	150	64	720x360x480	41
<b>BLADE S 1 90I</b>	230/50/1	1500	90	1,5	2	160	9,6	5,65	250	8,83	10	150	64	1000x450x950	74
<b>BLADE S 1 200I</b>	230/50/1	1500	200	1,5	2	160	9,6	5,65	250	8,83	10	150	64	1050x600x1160	113
<b>BLADE 2</b>	230/50/1	1500	-	2,2	3	240	14,4	8,48	360	12,71	10	150	64	720x360x480	43
<b>BLADE S 2 90I</b>	230/50/1	1500	90	2,2	3	240	14,4	8,48	360	12,71	10	150	64	1000x450x950	76
<b>BLADE S 2 200I</b>	230/50/1	1500	200	2,2	3	240	14,4	8,48	360	12,71	10	150	64	1050x600x1160	115
<b>400/3</b>															
<b>BLADE 1</b>	400/50/3	1500	-	1,5	2	160	9,6	5,65	250	8,83	10	150	64	720x360x480	40
<b>BLADE S 1 90I</b>	400/50/3	1500	90	1,5	2	160	9,6	5,65	250	8,83	10	150	64	1000x450x950	73
<b>BLADE S 1 200I</b>	400/50/3	1500	200	1,5	2	160	9,6	5,65	250	8,83	10	150	64	1050x600x1160	112
<b>BLADE 2</b>	400/50/3	1500	-	2,2	3	240	14,4	8,48	360	12,71	10	150	64	720x360x480	42
<b>BLADE S 2 90I</b>	400/50/3	1500	90	2,2	3	240	14,4	8,48	360	12,71	10	150	64	1000x450x950	75
<b>BLADE S 2 200I</b>	400/50/3	1500	200	2,2	3	240	14,4	8,48	360	12,71	10	150	64	1050x600x1160	114
<b>BLADE 3</b>	400/50/3	3000	-	3	4	320	19,2	11,3	450	15,89	10	150	70	720x360x480	43
<b>BLADE S 3 200I</b>	400/50/3	3000	200	3	4	320	19,2	11,3	450	15,89	10	150	70	1050x600x1160	115



## BLADE 4 | 5 | 7 | 11

The design and operation of **BLADE 4 ÷ 11** compressors ensures the correct operating temperature is quickly and effectively reached. This is important in order to extend the operating life by preventing condensation from forming in the system.

Mattei's design of the BLADE compressor makes preventive maintenance operations simple and quick. Motor to compressor transmission is achieved through dual high efficiency "V" belts, the tension of which is ensured by a sliding belt tensioner. This feature reduces belt wear to a minimum, extending its operating life and simplifying maintenance. Compressor maintenance is further assisted by specific service kits specifically designed to speed up the process.



**COMPLETE WITH  
RECEIVER IT TAKES  
UP ONLY**



**1,00  
SQUARE  
METER**



### ENERGY SAVING

When there is no air demand for short periods of time, the on/off load valve allows the compressor to significantly reduce its internal pressure thereby reducing energy consumption to a minimum, without having to stop the compressor. The number of stops and subsequent starts is therefore reduced, which helps increase the life span of the compressor and its electric motor.



### EFFICIENT COOLING

Two aluminium radiators efficiently cool both the oil and compressed air. Cooling is an important factor during the compressed air production process, as it helps to increase system efficiency and reliability.



### HIGH EFFICIENCY OIL SEPARATION

Mattei's very efficient and integrated multi stage oil/air separation system means exceptionally low lubricant consumption and a residual oil carryover of just 3 mg/m<sup>3</sup>. The large filter element and the quality of the materials used guarantee a long working lifespan.



## BLADE SE

Packaged version with receiver and dryer

Extremely compact, simple and inexpensive to install.  
Ideal for clean and dry compressed air.



### 50 - 60 Hz - 400 / 460 V

Model	8 bar 115 psig L		10 bar 150 psig H		13 bar 175 psig HH		Noise level dB(A)	Motor		Receiver l	Dimensions LxWxH (mm)	Weight kg
	m <sup>3</sup> /min	cfm	m <sup>3</sup> /min	cfm	m <sup>3</sup> /min	cfm		kW	hp			
BLADE 4	0,63	22	0,6	21	-	-	61	4	5,5	-	950x730x800	180
BLADE 5	0,902	32	0,825	29	0,733	26	62	5,5	7,5	-	950x730x800	185
BLADE 7	1,085	38	1,025	36	0,9	32	64	7,5	10	-	950x730x800	195
BLADE 11	1,7	60	1,52	54	1,42	50	67	11	15	-	950x730x800	260
BLADE S 4	0,63	22	0,6	21	-	-	61	4	5,5	270	1530x730x1340	250
BLADE S 5	0,902	32	0,825	29	0,733	26	62	5,5	7,5	270	1530x730x1340	260
BLADE S 7	1,085	38	1,025	36	0,9	32	64	7,5	10	270	1530x730x1340	265
BLADE S 11	1,7	60	1,52	54	1,42	50	67	11	15	270	1480x730x1340	330
BLADE SE 4	0,63	22	0,6	21	-	-	61	4	5,5	270	1530x730x1340	280
BLADE SE 5	0,902	32	0,825	29	0,733	26	62	5,5	7,5	270	1530x730x1340	285
BLADE SE 7	1,085	38	1,025	36	0,9	32	64	7,5	10	270	1530x730x1340	295
BLADE SE 11	1,7	60	1,52	54	1,42	50	67	11	15	270	1480x730x1340	360

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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