



# BLADE

BRINGING YOU THE FUTURE TODAY



**BLADE 4 | 5 | 7**



## 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.

## 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.



## BLADE

- ▶ ROTARY VANE TECHNOLOGY
- ▶ MAXIMUM RELIABILITY
- ▶ EFFICIENT
- ▶ LOW MAINTENANCE COSTS
- ▶ QUIET
- ▶ COMPACT
- ▶ OPERATING PRESSURES FROM 115 TO 175 psi



## BLADE: the ideal solution for your business

The BLADE compressor range, with operating pressures from 115 to 175 psi, is the ideal solution for the needs of small and medium sized companies as well as artisan businesses.

In the world of small rotary compressors Speed Kills both energy efficiency and compressor life. No rotary screw compressor even comes close to the low 1,050 to 2,332 rpm range and energy efficiency of the BLADE Series.

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



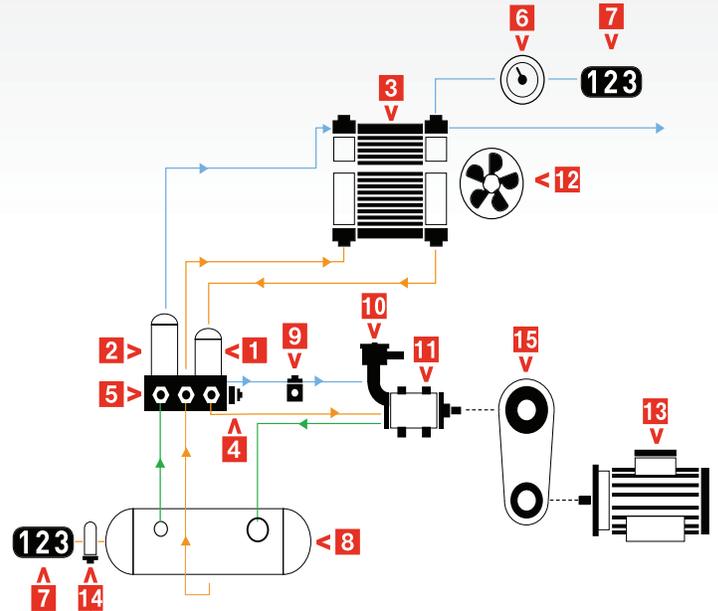
**COMPACT  
DESIGN FOR  
MAXIMUM  
PERFORMANCE**



## Operating principle

— COMPRESSED AIR  
— OIL  
— AIR/OIL

- |                      |                              |
|----------------------|------------------------------|
| 1 oil filter         | 9 on/off load solenoid valve |
| 2 air/oil separator  | 10 air intake filter         |
| 3 air/oil cooler     | 11 aircend                   |
| 4 thermostatic valve | 12 cooling fan               |
| 5 safety valve       | 13 electric motor            |
| 6 pressure probe     | 14 temperature probe         |
| 7 controller         | 15 transmission              |
| 8 oil receiver       |                              |



### 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.

### 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.

### THE BLADES: A REAL ADVANTAGE

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



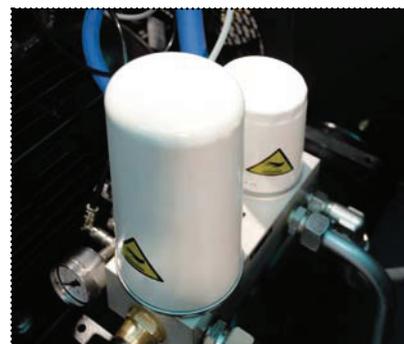
## Peace of mind maintenance

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.

## Mattei Original Spare Parts

Mattei Original Spare Parts and Mattei Rotoroil lubricants are made to very high design standards and conform to exact technical specifications. Only Mattei original spare parts allow you to be sure of maintaining, over time, the same levels of performance, reliability and safety of your Mattei product.

- ▶ Mattei Original Spare Parts are crucial to ensure the efficiency of your compressed air equipment
- ▶ Parts are always available in stock
- ▶ They are quality tested and conform to manufacturer's specifications
- ▶ Parts are designed for Mattei's recommended maintenance intervals



## 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.

## RELIABILITY AND LONGEVITY

Mattei airends 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.

## 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 ppm. The large filter element and the quality of the materials used guarantee a long working lifespan.

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## 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.



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

### BLADE SERIES

Model	Air Flow			Sound pressure level	Power	Energy	Air receiver	Dimensions			Weight
	115 psig LX	150 psig HX	175 psig HHX					Length	Width	Height	
	cfm	cfm	cfm	dB(A)	hp	voltage	gal.	inch	inch	inch	lbs
BLADE 4s	20.4	17.5	14.8	61	5	230/ 1ph/60Hz	-	37	28.4	31.1	454
BLADE 5s	31.8	29.0	23.0	62	7.5		-	37	28.4	31.1	493
BLADE 4	20.4	17.5	14.8	61	5	208,230/ 460,575/ 3ph/60Hz	-	37	28.4	31.1	451
BLADE 5	31.8	29.0	25.0	62	7.5		-	37	28.4	31.1	462
BLADE 7	39.0	36.0	33.0	64	10		-	37	28.4	31.1	473

F.A.D. in accordance with ISO 1217, annex "C" | Sound pressure level according to ISO 2151, tolerance  $\pm 3$ dB(A) | Working pressure: 108 psig for version 115 psig - 143 psig for version 150 psig - 168 psig for version 175 psig  
BLADE units can be mounted on 90 gallon air receiver tank. Dimension adds: 17" L, 4" W, 26" H. Weight: add 300 lbs.

# BLADE

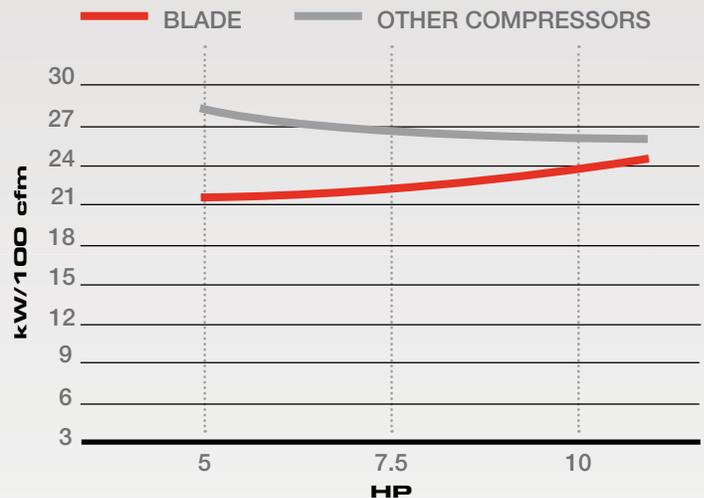
The design and operation of BLADE compressors ensures the correct operating temperature is quickly and effectively reached. This is important in order to extend the operating life by preventing condensation from forming in the system.

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.



## Unrivalled efficiency

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



## Maximum efficiency, minimum noise

