

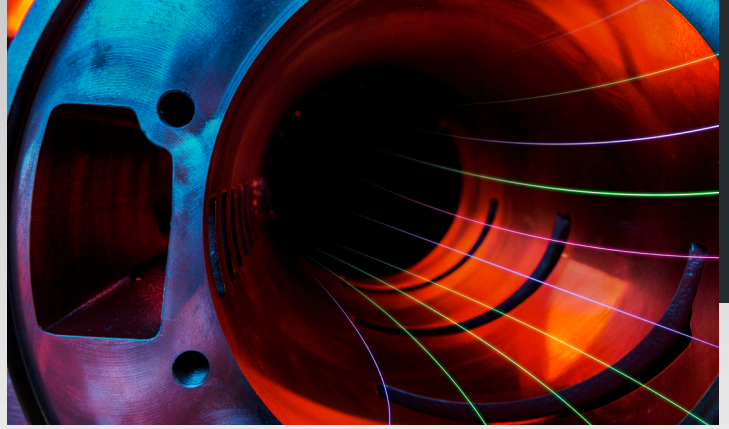
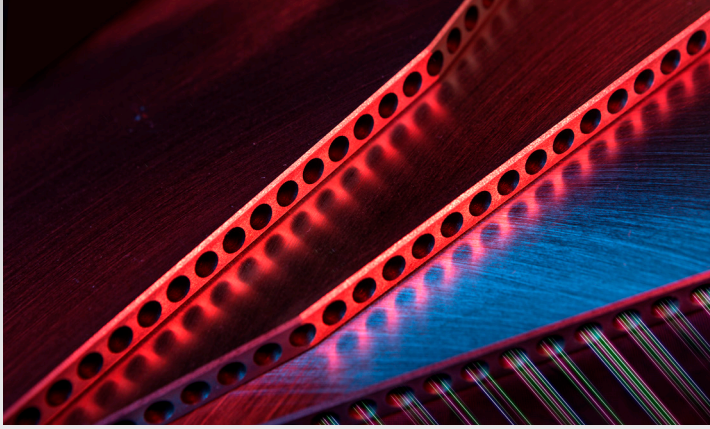


# BLADE

BRINGING YOU THE FUTURE TODAY



BLADE i    15 | 18 | 22  
with Inverter



## 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

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 *i*

- ▶ **ROTARY VANE TECHNOLOGY**
- ▶ **MAXIMUM RELIABILITY**
- ▶ **ENERGY-EFFICIENT**
- ▶ **LOW MAINTENANCE COSTS**
- ▶ **QUIET**
- ▶ **COMPACT**
- ▶ **OPERATING PRESSURES FROM 100 TO 145 PSI**



Mattei's rotary vane air compressors are the result of continuous innovation and advanced design capabilities.

The low rotational speed of the compressor unit found only in vane technology, the high volumetric efficiency and the complete absence of roller or thrust bearings, result in energy savings of **over 15%** compared to other rotary 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.

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

## BLADE i

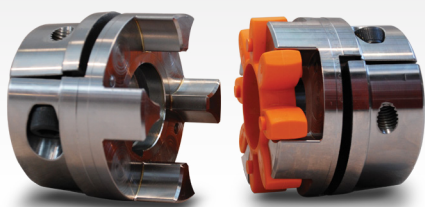
The BLADE i compressor range, with operating pressures from 100 to 145 psi, is the ideal solution for the needs of small and medium sized companies as well as artisan businesses.

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

Available in the silenced **BLADE i** and, **BLADE i R** (with heat recovery kit) versions, they feature automatic control of air flow at constant pressure and an aftercooler.







## Direct coupling

The 1:1 coupling between the motor and compressor is direct with elastic coupling. This ensures perfect alignment, no power consumption, quiet operation and no maintenance. The new special coupling joint allows a quick and easy replacement of the elastic element.



## A user-friendly controller

Maestro<sup>XB</sup> 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.

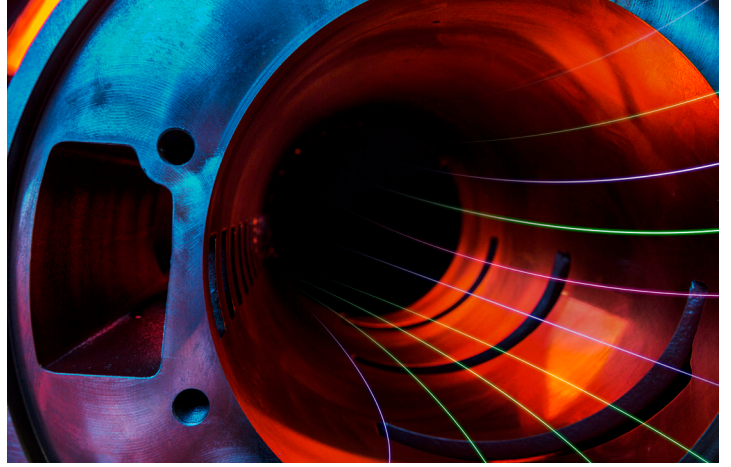
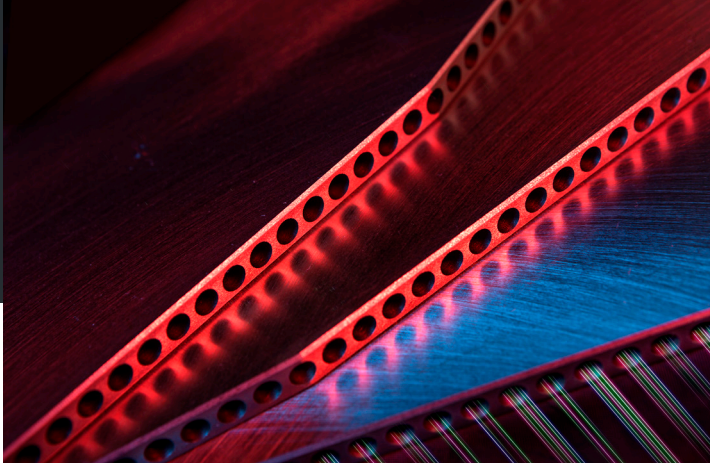


## A high efficiency oil separation

The separation of the oil from air is carried out in several stages and allows an exceptionally low oil carryover. After the compression cycle the air-oil mixture reaches the separator tank, most of the lubricant is collected here due to the change in air speed and the cyclonic action as it enters the tank. The air with the remaining oil residue is then filtered in the coalescing separator.

The complete system ensures that the residual oil content is less than 1 ppm of air, the over-sized separator element and the quality of the materials used guarantee longer working hours.

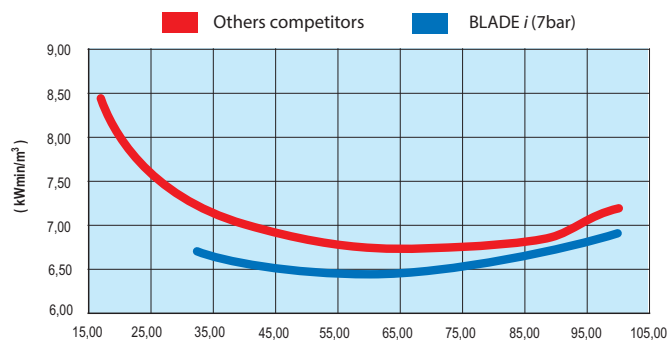




## OPERATIONAL MODE

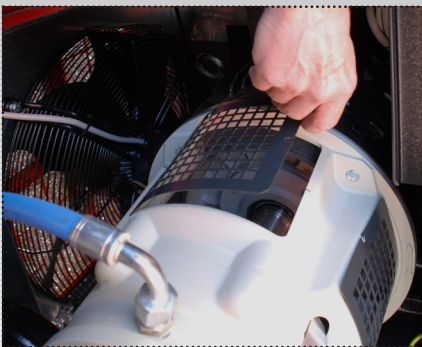
### Mattei Inverter regulation system

The **BLADE i** version, fitted with an **INVERTER**, is currently the most flexible product in the MATTEI range of industrial compressors.



### OPERATION

The **Mattei Inverter system** always assures the highest energy savings. When the compressed air demand is between 100% and 40%, the compressor rotational speed reaches the highest efficiency, with an energy consumption much lower than traditional inverter systems.



### REPLACING THE ELASTIC ELEMENT

BLADE i 15 ÷ 22 has been designed in a way that makes it possible to replace the elastic element without having to dismantle the rotor-stator unit.



### ENERGY RECOVERY

Mattei offers for its compressors a heat recovery system that allows water to be heated for industrial process or sanitary use. The "Heat recovery" kit is totally integrated into the oil cooling circuit, making the unit independent from the oil temperature control and protected from any possible malfunctions, such as water flow reduction and overheating.



### OPTIONAL HEATER KIT

Designed to protect the compressor in installations subject to low ambient conditions down to +14°F. This option features an adjustable range thermostat that automatically turns on and off as required to keep the internal temperatures of the machine above freezing. The heat transmission inside the canopy is via natural air convection and radiation of the metal masses. Both physical phenomena determine a heat distribution from the bottom up, ensuring that all devices in the oil circuit (pipes, oil filter, oil cooler and expansion valve) are properly heated.



## Service



**Mattei** is present with its sales and service network in more than 40 countries in Europe, America, Africa, the Middle East, Asia and Oceania.

When you purchase a Mattei compressor you enjoy highly qualified **after sales service** all over the world that can respond very quickly to any request for help. Technicians and engineers are at your complete disposal for advice, plant analysis, operational safety evaluation and to identify possible savings.







## Mattei Original Spare Parts

**Mattei Original Spare Parts and Mattei 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





 Model	 7 ÷ 10 bar		 Sound pressure level	 Power								 Weight	
						Length		Width		Height			
	m³/min	cfm		db(A)	kW	hp	mm	inch	mm	inch	mm	inch	kg
400 - 460 / 50 - 60 / 3													
BLADE 15 i	1.68 ÷ 2.65	59 ÷ 94	66	15	20	1440	56.7	770	30.3	1330	52.4	575	1265
BLADE 18 i	2.01 ÷ 3.18	71 ÷ 112	66	18.5	25	1440	56.7	770	30.3	1330	52.4	590	1298
BLADE 22 i	2.27 ÷ 3.59	80 ÷ 127	66	22	30	1440	56.7	770	30.3	1330	52.4	600	1320

F.A.D. in accordance with ISO 1217 annex "E" | Sound pressure level at 1500 rpm

Available in 460v/3ph/60hz



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UNI EN ISO 9001:2008

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