



Single-stage rotary screw compressors
with direct-drive transmission
and variable speed with
Permanent Magnet motor

NOBEL-E PM

90-160 kW



NEW
2026 RANGE

FNA COMPRESSORS

Over 75 years of compressed air.

FNA COMPRESSORS is a Multinational company with over 75 years of experience in the compressed air sector, founded from the merger of three long-established Italian compressor companies, which has developed an industrial synergy capable of competing on the world market without fear of comparison. Thanks to the consolidated experience and leadership of a family that has been operating exclusively in the compressed air sector for two generations, FNA COMPRESSORS is one of the leading manufacturers of air compressors for industrial, professional and consumer use.

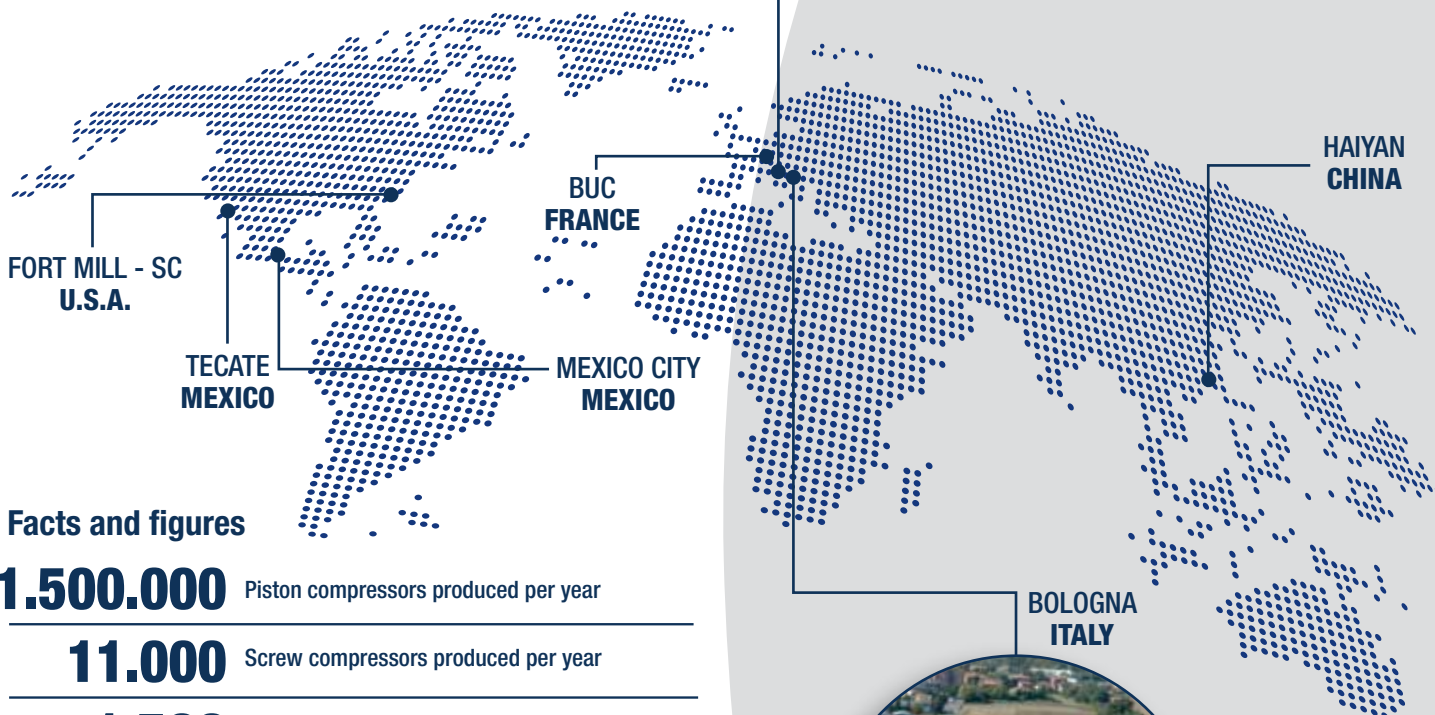
Power System, an integral part of the FNA COMPRESSORS family, is the industrial trademark, an undisputed leader in the design, development, production and distribution of high-tech solutions for compressing air with the greatest possible energy savings, serving every sector, from large industry to small business.

Power System's screw compressors, in the 2.2 to 315 kW power range, are manufactured entirely in Italy in the province of Bologna, an area renowned for its excellence in precision engineering, where the most modern design, construction, assembly and testing technologies are applied to ensure customers reliable compressors with first-class performance.



TURIN
ITALY

Production sites around the world



Facts and figures

1.500.000 Piston compressors produced per year

11.000 Screw compressors produced per year

1.500 Global service centres

1.300 Employees

300 Million € turnover

120 Countries we export to

7 Manufacturing plants



BOLOGNA
ITALY

HAIYAN
CHINA



NOT JUST AIR.

The Power System brand

Manufacturers of air-ends for over 30 years.

Power System is the leading Italian company, that has been able to combine craftsmanship passion with the most modern industrial technologies, integrating highly specialised labour with last-generation automatic machinery.

The Made in Italy trademark is the expression of typical Italian quality and creativity, recognised and appreciated around the world, and which is now one of the distinguishing elements of our industrial production.

What makes Power System screw compressors unique is the guarantee of a product that is made entirely in Italy: from design to packaging, each stage of production is carefully overseen by our engineers and aimed at developing a machine that exceeds the most demanding requirements in terms of reliability, energy saving, performance, quiet and safe operation.

Power System air-ends, the true heart of our compressors, feature rotors with an optimised profile and outstanding performance. Their production process is completely integrated thanks to robotic machine tools and sophisticated control instrumentation that guarantees the highest level of quality.

Each single rotor is machined in four very specific stages to achieve high precision and repeatability.

Before reaching the customer, every individual compressor is fully tested before completing final checks that ensure total compliance with over fifty stringent technical requirements.

Since 1996, the company's Quality System has been certified according to UNI EN ISO 9001:2015.



NOBEL-E PM 90-160 kW

SINGLE-STAGE VARIABLE SPEED WITH PERMANENT MAGNET MOTOR

Compact, silent, efficient and ready to use.

Power System's new NOBEL-E PM single stage Series screw compressors provide a high-performance solution for the most demanding applications. Designed to fulfill compressed air requirements in terms of reliability, energy efficiency, quiet operation, reduced maintenance costs, and simple installation and use, the NOBEL-E PM single stage range is today extended up to 160 kW in order to satisfy the customers' requirements for performance and efficiency at excellent quality/price rate. Each compressor is built according to the highest standards, using high quality components, to guarantee a long operating life and complete reliability.

The motor shaft is coaxial to the rotor of the air-end: this configuration means less wear on components, therefore less need for maintenance and quieter operation.

Solid construction with no compromises: high efficiency motors, latest generation inverters, single stage low speed air-ends with direct drive, separated ventilation with single or double radial fan are just a limited list of the high end features of the new single stage NOBEL-E PM series.

With three frame sizes hosting 4 motor power, the new NOBEL-E PM single stage Series, offer the perfect match of reliability, efficiency, compactness, low noise and great flexibility in operation. Smart design for easy access to all regular maintenance parts, complete the picture of the perfect companion for heavy duty operation in any environmental conditions.



NOBEL-E 160 PM
160 kW

The NOBEL-E PM single stage family up to 160 kW.

Size	Power (kW)	Model	Variable speed with Permanent Magnet Motor	Air-end	Electronic controller	Thermostatic valve	Motor efficiency
1	90	NOBEL-E 90 PM	•	FS500	LOGIN	•	IE5
2	110	NOBEL-E 110 PM	•	FS600	LOGIN	•	IE5
	132	NOBEL-E 132 PM	•	FS650	LOGIN	•	IE5
3	160	NOBEL-E 160 PM	•	FS800	LOGIN	•	IE5

NOBEL-E PM 90-160 kW

P/N	Power		Air outflow rate (min.-max)			Max. pressure		Air-end	Sound level	Ø	Net weight	Net dimensions	Gross weight	Gross dimensions
	kW	HP	l/min	m³/min	cfm	bar	psi							

VARIABLE SPEED with PERMANENT MAGNET MOTOR - LOGIN controller

90 kW

NOBEL-E 90-08 PM	V60OG97PWSA87	90	125	6010-14490	6.01-14.49	212-510	8	116	FS500	76	DN65	2000	2700x1800x1705	2000	2700x1800x1705
NOBEL-E 90-10 PM	V60OH97PWSA87	90	125	5310-13400	5.31-13.40	187-472	10	145	FS500	76	DN65	2000	2700x1800x1705	2000	2700x1800x1705

110 kW

NOBEL-E 110-08 PM	V60OI97PWSA87	110	150	6500-17760	6.50-17.76	229-625	8	116	FS600	75	DN80	2500	3000x1850x2090	2500	3000x1850x2090
NOBEL-E 110-10 PM	V60OJ97PWSA87	110	150	6360-15620	6.36-15.62	224-550	10	145	FS600	75	DN80	2500	3000x1850x2090	2500	3000x1850x2090

132 kW

NOBEL-E 132-08 PM	V60OK97PWSA87	132	180	6500-20930	6.50-20.93	229-737	8	116	FS650	75	DN80	2750	3000x1850x2090	2750	3000x1850x2090
NOBEL-E 132-10 PM	V60OL97PWSA87	132	180	6360-17580	6.36-17.58	224-619	10	145	FS650	75	DN80	2750	3000x1850x2090	2750	3000x1850x2090

160 kW

NOBEL-E 160-08 PM	V60OM97PWSA87	160	220	9800-25000	9.80-25	345-880	8	116	FS800	74	DN100	3600	3480x1880x2120	3600	3480x1880x2120
NOBEL-E 160-10 PM	V60ON97PWSA87	160	220	9600-22000	9.60-22	338-775	10	145	FS800	74	DN100	3600	3480x1880x2120	3600	3480x1880x2120

Reference conditions: air intake temperature 20°C (68°F) – atmospheric pressure 1 bar (14.5 psi).

The data and results were measured in accordance with ISO 1217.

The sound level was measured in accordance with ISO 2151, with a tolerance of ±3 dB(A).



NOBEL-E 110 - 132 PM
110 - 132 kW

NOBEL-E 90 PM
90 kW

NOBEL-E PM 90-160 kW

SINGLE-STAGE VARIABLE SPEED WITH PERMANENT MAGNET MOTOR



Maximum efficiency and energy saving

Significant energy savings are achieved thanks to the "IE5 Ultra Premium Efficiency" motors installed in the NOBEL-E PM models. Efficient single stage air-ends ensure greater compressed air flow rates with reduced energy consumption.

Direct-drive transmission technology.

The oil circuit is controlled by the thermostatic valve, guaranteeing ideal and constant temperature.

Application of the latest generation inverters combined to the high energy efficiency Permanent Magnet motors.



LOGIN controller

All NOBEL-E PM models are equipped with the LOGIN electronic controller with touch-screen display.

In addition to full control of all compressor functions, it also stores the data on a specific memory card, for compressor data restore.



Simplified maintenance

All machine parts subject to periodic maintenance are placed in a visible and easily accessible position. Maintenance costs are reduced thanks to the use of selected, top quality materials.



Compact design

The NOBEL-E PM series has been designed to offer maximum performance and highest reliability, in a compact space saving format.



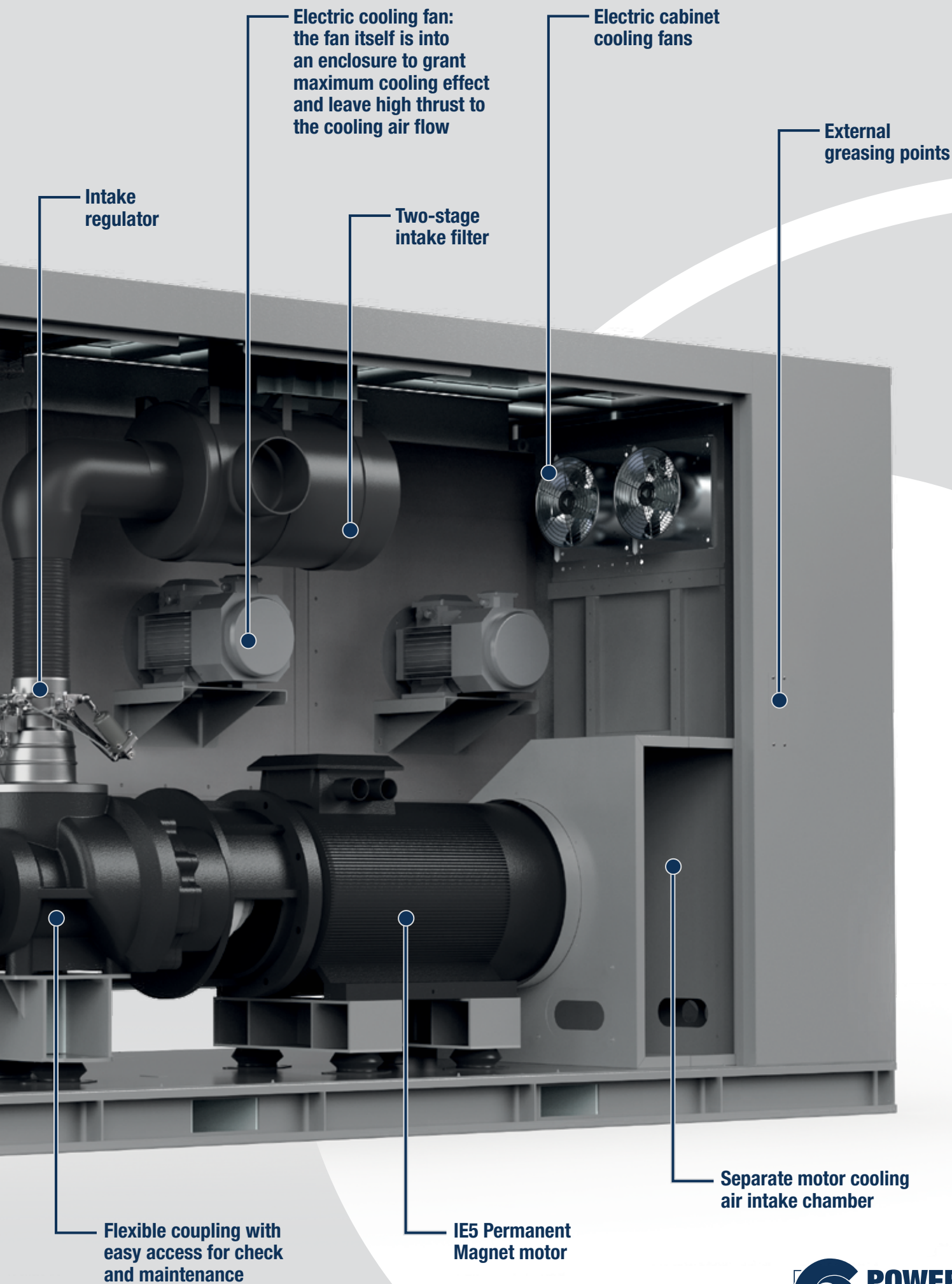
Remote monitoring and preventive maintenance

LOGIN controller features RS485 ports for communication with remote systems via Modbus protocol. Furthermore, the "ISC" system (Internal Sequencing of Compressors) allows up to 8 different compressors (fixed and/or variable speed) to be sequenced using master-slave functionality.

Lifting screw
for easy tank
cover removal



Single-stage
air-end



NOBEL-E PM 90-160 kW

SINGLE-STAGE VARIABLE SPEED

WITH PERMANENT MAGNET MOTOR

Oversized aftercooler
granting low delivery
temperatures

Connectors designed
to allow pipe offsets,
absorbing vibrations and
handling thermal stress

Oil cooler drain

Oil coolers with high
heat exchange capacity



Connectors designed to allow pipe offsets, absorbing vibrations and handling thermal stress

Cabinet cooling fan

Connectors designed to allow pipe offsets, absorbing vibrations and handling thermal stress

Thermostatic valve

Oil filters: easily accessible

Oil level indicator

NOBEL-E PM with variable speed and Permanent Magnet synchronous IE5 motor

Why choose an air compressor with Permanent Magnet motor?

The energy costs linked to an air compressors operation during its life cycle represent more than 80% of the total life cycle costs.

For Power System the improved energy efficiency of its products is a key objective.

This objective is achieved with the use of Permanent Magnet motors in IE5

"Super Premium Efficiency" category, along with the employment of our own, latest generation compressor air-ends.

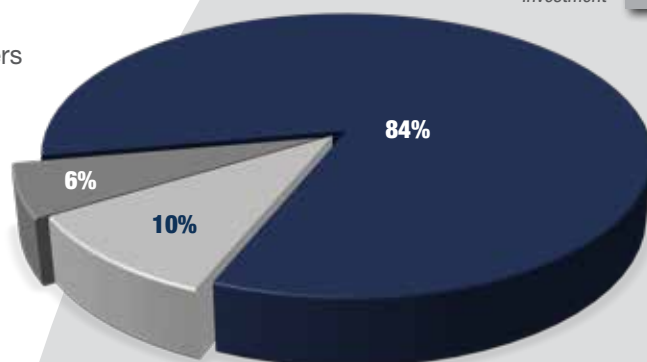
The application of these cutting- edge technologies, provides all users an air compressor with superior energy saving characteristics.

The compressors from this new range offer great flexibility in the delivery of compressed air. This makes possible to greatly reduce unloaded operation, saving significant amounts of energy and minimising component wear, whilst adding greater reliability and longer service life.

Energy consumption

Maintenance

Investment



The graph represents the total life cycle costs breakdown of a 90 kW fixed speed compressor, over 5 years of use, considering 4000 working hours per year and an energy cost of about 0.17 €/kWh.

Why choose a NOBEL-E PM?

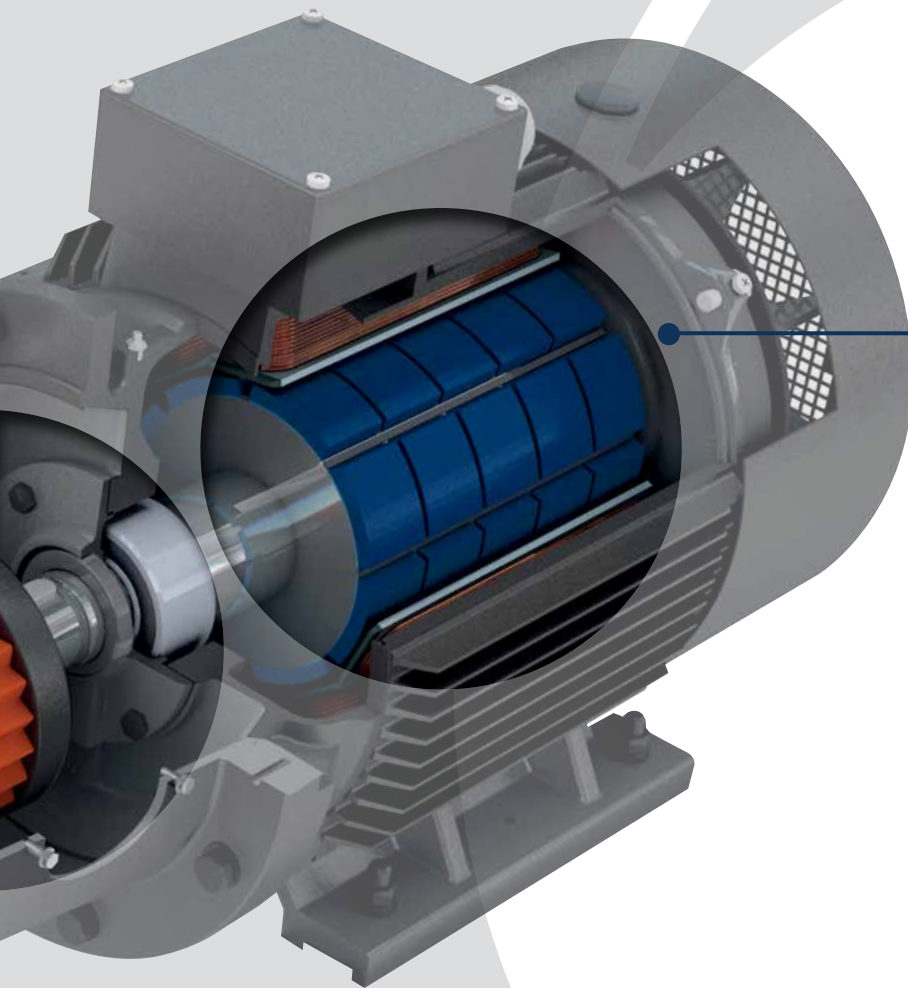
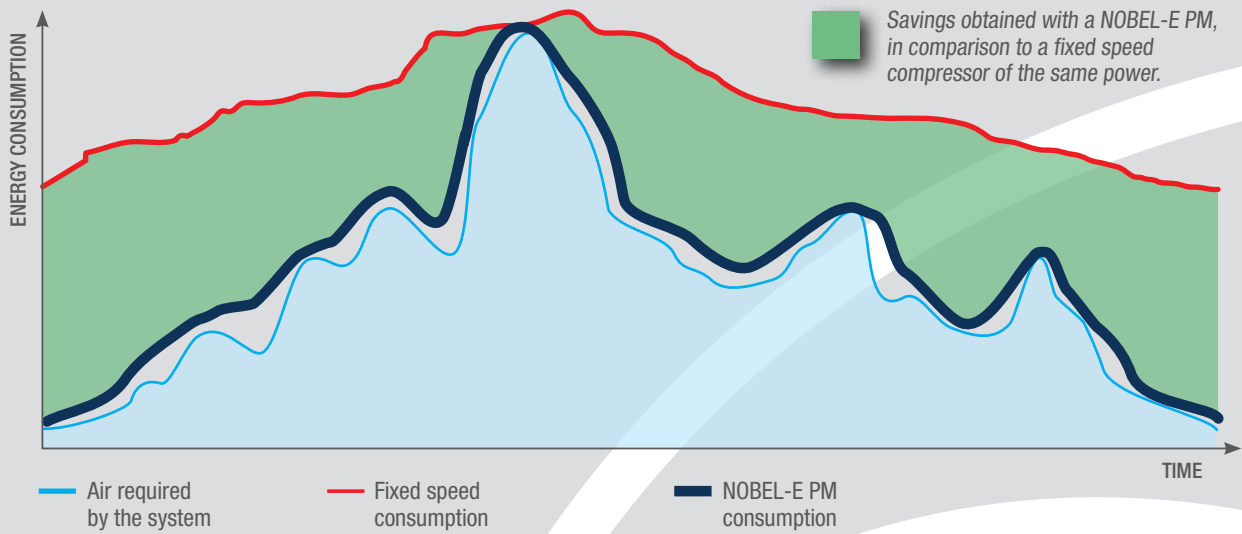
- Permanent Magnet motor with IE5 efficiency.
- Latest generation air-ends.
- Direct transmission.
- Efficient intake regulator.
- High performing inverter.
- Intuitive touchscreen controller.
- Low noise levels.
- High quality components.
- Minimum maintenance.

For the variable speed models with PM motors, we exclusively use direct transmission with flexible coupling.



Improved efficiency in all applications of compressed air.

The advanced and extremely compact Permanent Magnet motors, guarantee the highest performance along with a much wider speed/load range when compared to traditional inverter-controlled asynchronous motors. They offer the greatest possible advantages in terms of energy savings. This applies especially when used at partial capacity and load, which is a characteristic seen frequently in modern applications throughout all industrial sectors.



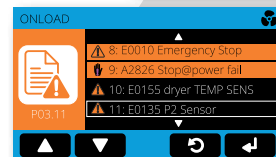
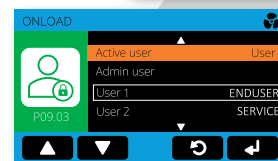
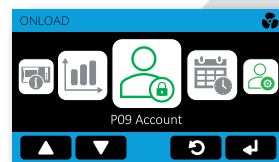
The advantages offered by the NOBEL-E PM range are considerable:

- The compressed air generated is aligned to the system requirements and is achieved by regulating the speed of the electric motor.
- Excellent and precise pressure control thanks to the permanent magnet synchronous motor.
- Accurate and optimised cooling of the compressor is obtained through the use of efficient, powerful and quiet radial fans.
- Proven, highly reliable design.
- Attention to details, to maximise quiet operation and reliability.



Efficiency that is always under control

Installed on all NOBEL-E PM models from 90 to 160 kW, the **LOGIN** controller introduces new software functions to enhance diagnostic controls, thereby guaranteeing excellent performance in all conditions, facilitating remote control and multi-compressor management.



Intelligent control

All of NOBEL-E PM's functions are entirely managed by the LOGIN electronic controller, which constantly monitors the compressor status ensuring efficient and reliable operation of the machine in all conditions with customised functions to suit any application.

Always connected

During an irregular event within the machine, LOGIN reports the presence of such and incident by creating an alert for the user, allowing prompt operator intervention. The integrated connectivity with remote monitoring SMS 2.0 device (optional), makes possible to get complete information on the compressor status remotely.

Compressor rotation management

Thanks to the 'ISC' system (Internal Sequencing of Compressors), up to 8 different compressors (fixed and/or variable speed) can be connected simultaneously, with 'master-slave' logic.

The LOGIN controller features an RS485 port with an integrated Modbus protocol for communication with external devices.



Exclusive design

Italian design, functionality, simple to use and with the latest generation technology all come together with the innovative Login controller. The touch-screen display and the icon-based menu make it extremely intuitive and easy to use.



Memory card slot

LOGIN features a memory card slot which can be used to store compressor data and configurations and to transfer them to another control unit.



Multilingual management

It is possible to select the local language or any one of 20 pre-installed languages.



Remote control

Allows a complete remote monitoring of the compressor.



Multicolour display

All of the operational parameters are displayed on the large 4.3" colour screen which also displays graphs in real time (pressure, power, energy/time).



Designed for Industry 4.0



NOT JUST AIR.

All of the data that you need



SMS 2.0 (Service Management System) is the innovative device (optional) to remotely access and perform preventive maintenance checks on any of the screw compressors fitted with a LOGIN controller.

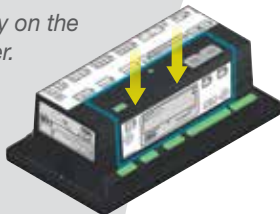
Preventive and targeted maintenance

Through a LAN connection with Ethernet cable, SMS 2.0 allows e-mails to be sent automatically should an irregular event occur (up to 5 settable e-mail addresses).

At the same time, it is possible to monitor the correct operation of the compressor and to check the scheduling for future maintenance interventions.

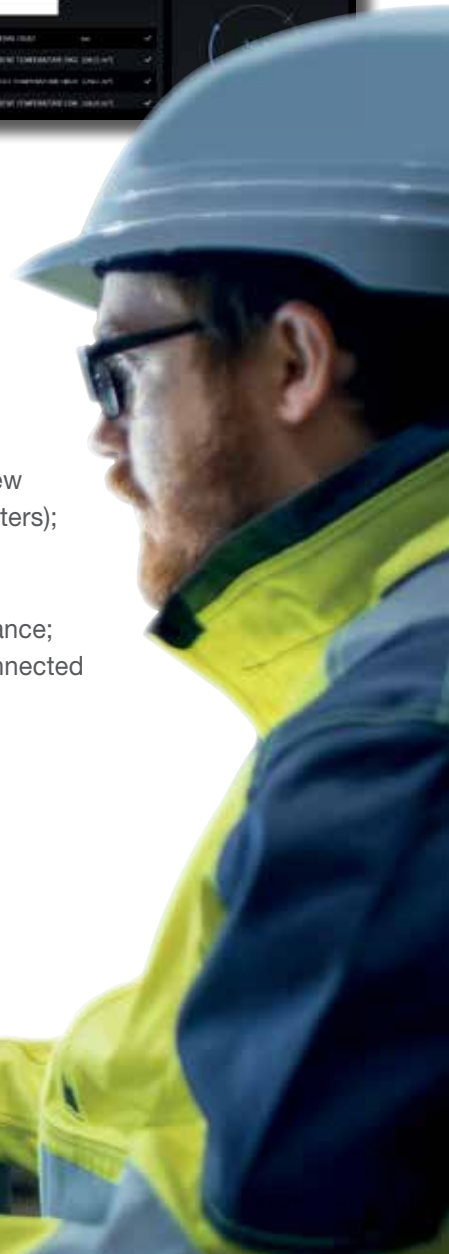
SMS 2.0 is installed directly on the rear of the LOGIN controller.

CODE C005560002SGL



Compressor remote control:

- online compressor status control (view of temperature and pressure parameters);
- on/off control;
- view of events and alarms;
- view of remaining hours for maintenance;
- graphic view of analogue signals connected to the controller, in real time;
- no additional software is needed.



Extend the life and efficiency of your screw compressor.

In addition to offering the highest quality and technologically advanced products, Power System focuses its attention on customer care and full technical and product support, identifying our customers' needs and the most suitable solutions. Our skilled and professional team grants assistance over the phone/email, technical on-site consultancy, personalised quotations, maintenance programmes, training programmes, etc.

The importance of original spare parts...

FSN is the brand of the original spare parts and after sales activities for all Power System compressors. FSN guarantees that the components are original and that they were carefully selected, checked and tested by skilled technicians. Using FSN certified original spare parts reduces management costs and guarantees the efficiency, reliability and longevity of the compressor. Our "Hot-Line" service guarantees the shipment of urgent spare parts within 24 hours from the order.

LONG LIFE KIT for the scheduled maintenance of screw compressors

To make maintenance planning simple and in accordance with the recommendations, Power System has developed its "LONG LIFE SERVICE KITS", specifically created for all Power System screw compressor models.

Using Long Life Kits ensures an extended service life, increased safety whilst ensuring maximum compressor performance.

Investment guaranteed up to 5 years! with the TRUST warranty extension

Power System believes so strongly in the quality and reliability of its compressors as to guarantee them up to 60 months!

By choosing TRUST it is possible to extend the standard warranty period by 3 or 5 years, through a complete preventive maintenance program.

There are many benefits: the customer can thereby avail of the qualified assistance of authorised technicians in complete safety, reducing the uncertainty of maintenance costs and foreseeing any downtime.

Also, the use of original spare parts guaranteed by the FSN trademark will ensure that the compressor operates with maximum efficiency and for a longer service life.

The "Trust" warranty can be easily extended online through EasyConnect portal on the website powersystemcompressors.com.



... and specific lubricants

RotarECOFLUID 46 cSt mineral oil

C600000023	1 x 5-litre can (4.385 kg)
C600000021	1 x 20-litre can (17.36 kg)
C600000022	1 x 200-litre drum (174 kg)

Formulated with high quality selected mineral oil, this lubricant offers optimal control of oxidation and residue deposits as well as an excellent level of thermal stability and oxidation to ensure the longevity of equipment and continued high performance.

RotEnergyPlus 46 cSt synthetic oil

C600000024A	1 x 5-litre can (4.37 kg)
C600000007A	1 x 19-litre can (16 kg)
C600000012A	1 x 208-litre drum (181 kg)

Ensures quick water separation with reduced friction and energy consumption, provides long maintenance intervals and ensures excellent lubrication of the bearings while offering an excellent protection throughout.

RotEnergyFood 46 cSt synthetic oil

C600000025A	1 x 5-litre can (4.20 kg)
C600000016A	1 x 19-litre can (18.5 kg)
C600000017A	1 x 208-litre drum (175 kg)

A high quality lubricant for rotary compressors, suitable for use in the food industry, where specific quality standards are required.

Our FSN mineral or synthetic based lubricants are specifically designed for use on our screw compressors. They are available in cans or drums in various sizes.

We recommend replacing the oil according to the interval reported in the hand-book / maintenance manual of the compressor or once a year if sooner.
We recommend using our original RotarECOFLUID mineral oils, or RotEnergyPlus and RotEnergyFood synthetic oils (OILS ARE NOT INCLUDED IN LONG LIFE KITS).



You can download the Long Life Kit catalogues from the powersystemcompressors.com website and see the exploded diagrams and spare parts list online. They are continuously updated for each compressor model.

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