



PRESS RELEASE FPS01

How to cut the energy consumption of compressed air systems

FPS Air Compressors can provide a number of tips and initiatives to reduce the energy consumed by compressed air systems. In particular, the company offers the new [NOBEL PM series of oil-injected rotary screw compressors](#), which feature IE4 permanent magnet motors, variable speed drives and an extended airflow range for the highest level of energy efficiency and quiet operation. This industry-leading performance helps to counter the current trend of spiralling energy costs, which look likely to remain high for the foreseeable future. Compared with the operating costs of a standard compressor. As an example, a user operating a 37 kW Nobel DVPM air compressor can enjoy savings of up to £25,000 a year or more.

Compressed air usage represents a significant proportion of electricity costs at manufacturing plants, food production facilities, machine shops, packaging plants, garages, body shops and woodyards - essentially any facility using compressed air. A big part of the solution is to get savvy about specifying the optimal technology, notably the compressor. The energy costs linked to an air compressor's operation during its service life represent more than 80% of total lifecycle costs.

There are three principal compressor metrics to consider: specific energy; greater FAD (free air delivery) performance; and a wider operating range to suit varying demand.

The specific energy value reveals how much power (kW) is used to generate a specific volume of compressed air (1m³). Users unfortunately often overlook this highly accurate measure of an air compressor's energy efficiency. However, NOBEL PM series models from Power System deliver a 3-8% better specific energy performance in comparison with competitor alternatives.

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Regarding the second metric, the maximum available capacity is important because a compressor with better FAD performance is able to cope with peaks in demand that would otherwise require an additional or even larger, higher energy consuming compressor. NOBEL PM models provide extremely high maximum capacity figures compared with competitors. For example, the 22kW NOBEL 24 DVPM has an FAD performance delivering over 4500 l/min, which is almost 10% better than industry peers.

The third metric considers the operating range of a variable-speed compressor. This factor is important in satisfying the fluctuating demands of production and in preventing the air compressor from entering an 'idle' state, which is extremely wasteful in energy. To avoid this situation, NOBEL DVPM models operate with a wide range of between 15% and 100% of available capacity.

There are many reasons for the high-efficiency performance levels of NOBEL DVPM air compressors, not least the introduction of permanent magnet motors and high-performance inverters. These technologies help compressed air users to take advantage of IE4 'Super Premium' class efficiency, the highest available according to IEC 60034-30-1. Further innovations include an efficient intake regulator and a minimum-pressure valve that minimises pressure loss to reduce energy consumption.

Notably, the volume of compressed air generated by the cutting-edge NOBEL PM series aligns exactly to system requirements, achieved by regulating the speed of the electric motor. In other words, the system provides a continuously adjusted air output to match actual usage, meaning that users only expend power, for the volume of air required.

Such impressive performance offers incredibly fast ROI (return on investment), with NOBEL PM series compressors typically paying for themselves in circa 12-18 months, sometimes less, when replacing an equivalent fixed-speed compressor.

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The high efficiency levels combine with a direct transmission system featuring a flexible coupling that minimises component wear and reduces noise, and optimised controls in the form of the new and intuitive LOGIN multicolour touchscreen controller. Featuring an internal memory card for data recovery, LOGIN is ideal for remote control and multi-compressor management for up to eight compressor and as part of IoT digitalisation/connectivity projects.

These advanced technologies, alongside the use of latest-generation air-end units, has facilitated the creation of the most innovative and reliable compressor available. The result: maximum energy savings and a subsequent reduction in CO2 emissions. The extremely compact, Italian manufactured NOBEL PM series compressors are not only an ecological choice, but they also offer among the lowest noise values in their category - as low as 58 dB(A).

A full NOBEL PM range is available from 18.5 to 90 kW, with the 24, 39 and 45 DVPM models typically offering the best performance in their market segment. An optional refrigerated dryer is available with integrated inlet/outlet filters to deliver clean, dry compressed air. A five-year warranty is available subject to terms and conditions.

For further information please visit <https://www.fps-compressors.co.uk/energy-saving-air-compressors>

Further information is available from:

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(approximately 830 words
including photographic annotations)

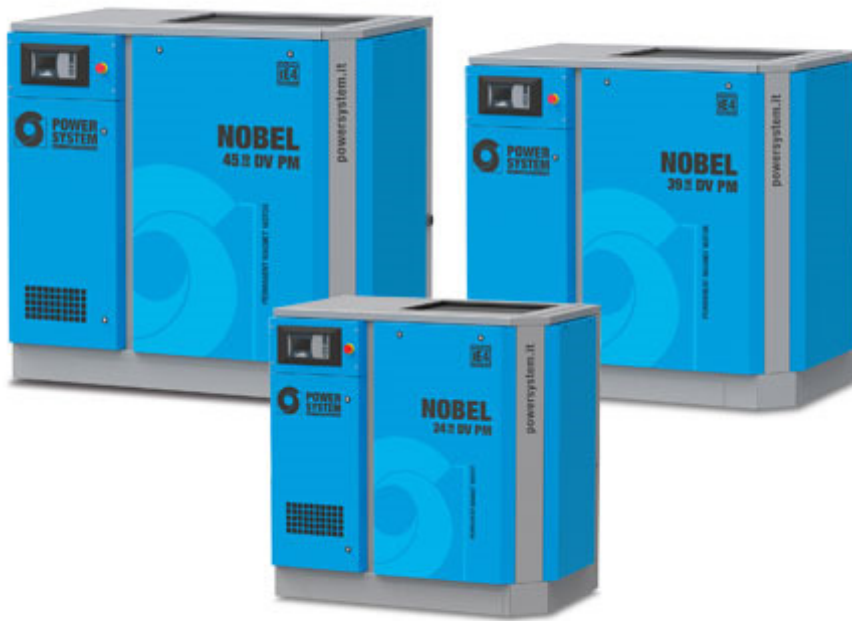
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General Information

Supplier: FPS Air Compressors Ltd

Downloads: The press release text (MS Word and PDF format) and images are available for download at:
www.enterprise-marketing.co.uk/fps/fps01.html

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The 24, 39 and 45 NOBEL PM models from FPS Air Compressors Ltd. The NOBEL range offers the highest level of energy efficiency and quiet operation.

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Internal view of a NOBEL PM rotary screw compressor, the high efficiency of this range can result in an incredibly fast return on investment.

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The LOGIN multicolour touchscreen controller features an internal memory card for data recovery, ideal for remote control and multi-compressor management as part of IoT digitalisation/connectivity projects. investment.

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