

SCR AIR LIMITED [®]



*The latest in energy efficient
air compressor technology*



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Rotary Screw Air Compressors

Variable Speed Drive

PM2 Series
Permanent Magnet Technology

Affordable high efficiency compressed air is here!

Simplicity, efficiency and affordability

Introducing SCR's latest range of permanent magnet screw compressors.

The PM2 range is the perfect choice for small to medium air users who have a variable air demand or who would like an energy efficient machine that can match their demand as air usage increases. The SCR PM2 range now makes variable speed energy saving technology affordable to even the smallest user, where previously it was only a viable option for large air users.

Affordable energy savings

The unique design of the PM2 machine bridges the gap between air users that have outgrown a piston compressor but can't justify the cost of a new variable speed screw compressor. The oil cooled IE4 'Super Premium Efficiency' motor is the most energy efficient motor available. Couple this to a variable speed drive and you have the most cost effective energy efficient machine on the market.

Unique benefits of the SCR PM2 range:

- ✓ Low noise operation - 68dB
- ✓ Maximum energy saving potential
- ✓ Oil cooled IP65 motor
- ✓ Bearing free motor design
- ✓ 1:1 direct drive
- ✓ Wide operating speed
- ✓ Pure soft start
- ✓ Simple to service and maintain
- ✓ Optional wheels for easy installation and positioning
- ✓ On board scheduling for automatic start and stop times
- ✓ Automatic restart on power failure
- ✓ Low component count
- ✓ Solid seamless steel pipework
- ✓ Unique 130L air receiver with segregated oil tank



SCR Air partnership

SCR Air are the UK approved distributor for the complete range of SCR Comp products, supplying oil free screw air compressors including scroll compressors and larger permanent magnet machines up to 150kW. By using components from world leading manufacturers such as Siemens, Donaldson, GHH Rand and SKF reliability comes as a standard.

With our own factory trained UK engineers together with a growing network of distributors you can be sure that local support is only a phone call away.

Save up to 60% on your compressed power costs

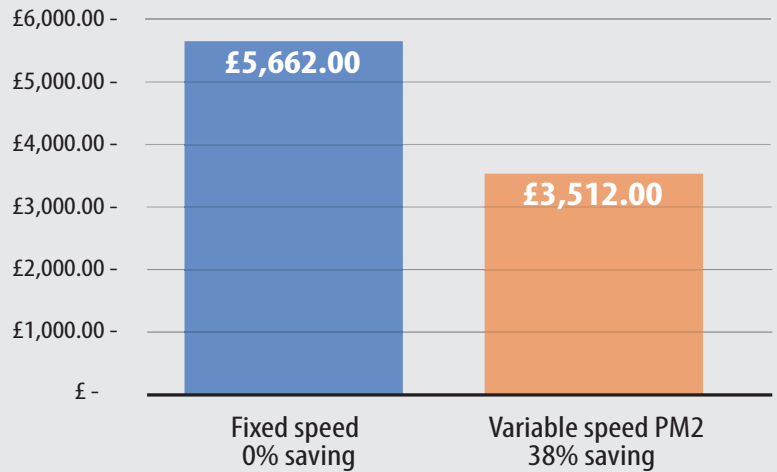
Compressed air is regarded in the industry as one of the most expensive commodities to produce but it is often the last thing to be considered when looking to save energy. 87% of the total Input power is lost to heat generation so its crucial to select the right compressor for the application.

Typically, the majority of air compressors are oversized to cope with the occasional peak demand but when demand is low a fixed speed machine can't reduce the amount of air it generates and will 'unload' venting air that has just been produced to atmosphere.

With a variable speed compressor the machine will vary the speed and air output to match the demand. As power is linear to speed, if the compressor only has to run 50% speed to match the demand, then the energy consumption would also be 50%. Typical savings are 30% but could be as much as 60%!



Annual 11kW compressor energy costs



The above chart compares an 11kW fixed speed machine running for 6000 hrs per year at 50% load against a variable speed PM2 machine. This would give an annual saving of £2150 per year at 0.12p per kWh.

VSD-Permanent magnet efficiency

The PM2 inverter not only controls the speed of the AC Permanent Magnet Motor to match the demand, it also provides a pure soft start reducing startup current peaks and mechanical wear and tear. Unlike fixed speed compressors SCR's PM2 series aren't limited to the number of starts per hour allowing the machine to stop and start more frequently than a fixed speed machine.

Permanent Magnet Drive Features

PM2 features and benefits

High efficiency airend

- Large oversized rotors increases efficiency by 5%
- Low rotational speed leads to reduced wear
- Triple lip shaft seals ensure leak free operation

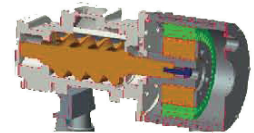


Permanent magnet motor

- IE4 PM motor offering a 93.5% level of efficiency
- IP65 sealed motor prevents dust ingress
- Oil cooled motor ensures the adequate cooling even in the harshest of enviroments
- Bearing free design means no bearing maintenance

Direct coupled motor & airend

- 1:1 Direct Drive means no belts to maintain
- No gearbox or transmission losses
- Reduced noise over belt driven machines



Easy access for maintenance

The simple design means that all internal components are easily accessible

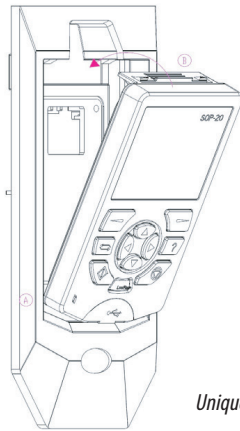
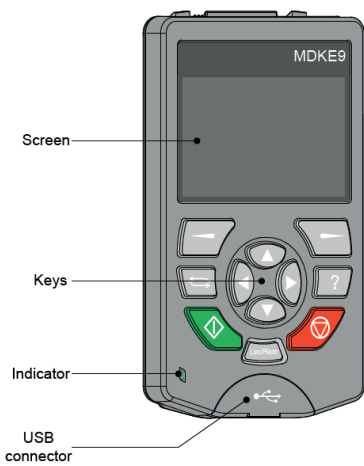
- Solid seamless steel pipework eliminates the risk of perished hoses
- Low component count increases reliability and service costs
- No drive belt maintenance

Low noise operation

- The PM motor and VSD leads to a low noise operation
- Ideal for installing in the work place
- Direct Drive reduces transmission noise levels



User friendly controller



Unique removable ethernet cable connected controller.

Controller can be easily relocated to outside the machinery room.

- Full text user friendly controller
- Plain text simplifies menu navigation
- Dedicated compressor software imbedded into the VSD simplifies commissioning, settings and maintenance timers
- Ability to schedule start and stop times reduces energy through reduced running hours

Inovance Inverter (VSD)

Class leading variable speed drive technology from Inovance enables a wide operating speed range. Dynamic pressure control gives additional energy savings along with stable pressure control typically within 0.1 bar.



Unique patented air receiver and oil tank



- A unique labyrinth structure enables a small section of the receiver to be used as an oil tank, reducing manufacturing costs
- This design also reduces the machine size, weight and footprint

A compressor for all applications

Due to the PM2 being variable speed it is an ideal compressor for a variety of applications. It's ideal for workshops and small to medium manufacturing plants where all noise, space and energy reduction are crucial when selecting a new air compressor.



Small, compact and flexible. The unique design means that the compressor can be installed where other machines can't.

- ✓ Flip top design offers easy access to consumable parts from the front
- ✓ No need for rear machine access
- ✓ Can be located close to a back and side wall
- ✓ No rear ventilation airflow required
- ✓ Optional wheels for easy positioning

Low noise operation

The control of noise at work regulations 2005 state that a noise level of 85dB requires employees to wear mandatory hearing protection. SCR's PM2 fall way below the required hearing protection level meaning the machine can be installed in the workplace.

Sound Levels

67dB (A)
68dB (A)
69dB (A)



High ambient running

Like all SCR machines, the PM2 has an oversized cooler and fan, making it the ideal choice in high ambient temperatures even up to 45 °C.



Technical Specifications

Model	Pressure		Motor		Flow		BSP	Dimensions	
	Bar	Psig	kW	hp	m ³ /min	cfm	Air Outlet	LWH (mm)	Weight (kg)
SCR10PM2	8	116	7.5	10	1.1-0.41	39-14	1/2"	1197 x 500 x 1125	280
	10	145			0.95-0.48	33-17			
SCR15PM2	8	116	11	15	1.7-0.69	60-24	3/4"	1197 x 605 x 1220	320
	10	145			1.5-0.75	53-26			
SCR20PM2	8	116	15	20	2.3-0.92	81-32	3/4"	1197 x 605 x 1220	340
	10	145			2.0-1.0	70-35			

Specifications subject to change without notice

Compressed air treatment

Whenever air is compressed the moisture content in the air can find its way into your compressed air network. Unless the air is treated, this can lead to 'wet air' and in many processes compressed air needs to be both clean and dry to avoid issues with equipment and poor quality finishes.

We can help you achieve your required ISO8573-1 air quality standard.

Our range includes:

- ✓ Refrigerated dryers to 4°C dew point
- ✓ Desiccant dryers to -40°C dew point
- ✓ Oil water separators
- ✓ Activated carbon filters
- ✓ Galvanised and vertical air receivers
- ✓ Zero loss condensate drains



Routine maintenance

SCR Air carry a comprehensive range of both critical and consumable spares to ensure that our compressors run smoothly and efficiently. The unique design of the PM2 compressor ensures that servicing is both quick and simple to carry out, reducing costs and down time.



Routine servicing is as simple as 1, 2 3:

- 1) Daily inspection:** Drain condensate from air receiver and check oil level
- 2) Minor service every 2000hrs:** Replace oil filter and air filter
- 3) Major service every 4000hrs:** Replace oil filter, air filter, separator and oil

Warranty

The PM2 machines are supplied with a standard 1 year warranty with an option to extend up to 5 years. If you would like more information on the standard or extended warranty, please contact SCR Air.



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