

SCR AIR LIMITED



*The very latest in energy
efficiency air compressors.*



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Rotary Screw Air Compressors

Variable Speed Drive

18.5kw to 110kw EPM Series

High output - Permanent Magnet technology

Simplicity, efficiency, affordability

Introducing SCR's very latest high output variable speed compressor

Can you afford not to use an Ultra energy efficient EPM screw compressor?

SCR's new EPM range of screw compressors finally makes the very latest energy saving technology affordable to customers who previously could not justify the cost of competitors 'Premium' compressors. Using variable speed, Permanent Magnet Motor technology and an oversized slow running airend, the EPM typically allows users to drop one whole motor size but still match the flow rate of the larger machine!

The ultimate in energy saving

Moving from a fixed speed compressor to a variable speed compressor can potentially save you 30-60% energy savings. But the EPM Machine can potentially save customers even more!

Unique benefits of the SCR EPM range:

✓ Oversized airend

SCR's new oversized airend can allow users to drop a whole compressor size giving additional saving of up to 22%!

✓ Permanent magnet motor

IE4 Permanent magnet motors offer the highest motor efficiency, up to 96%

✓ Variable speed cooling fan

A variable speed cooling fan not only reduces noise but also saves additional energy, reduces mechanical wear and accurately controls machine temperature

✓ Low rotational speed

The oversized airend runs much slower than our competitors machines which minimises both mechanical wear and noise

✓ Return on investment

With increased energy savings and low purchase price, the energy saving payback can be as little as 1-2 years



Compress your costs by up to 60%

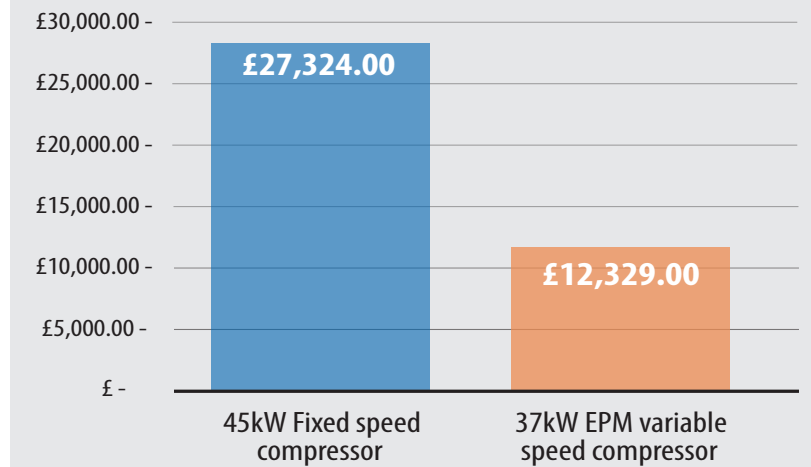
Compressed air is regarded in the industry as one of the most expensive commodities to produce but it is often the last thing to be considered when looking to save energy.

87% of total Input power is lost to heat generation so it is crucial to select the right compressor for the application. Typically the majority of air compressors are oversized to cope with occasional peak demand, but when this 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 at 50% speed to match the demand then the energy consumption would also be reduced by 50%.

Typical savings are 30% but could be as much as 60% or more thanks to the oversized EPM airend.

Annual 45kW compressor energy costs

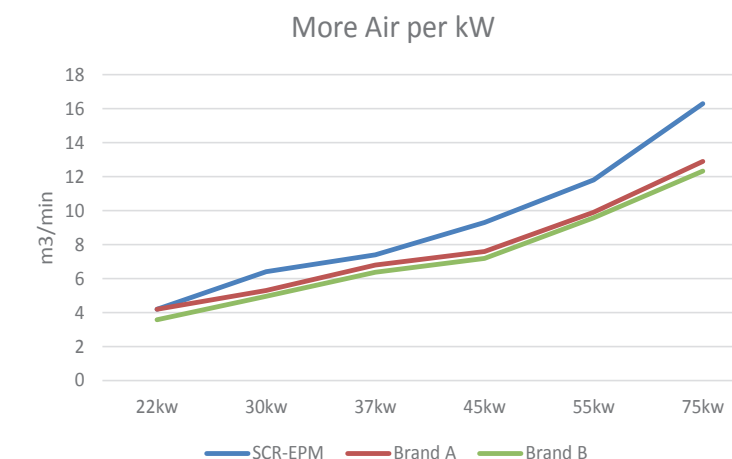


The above graph compares a 45kW fixed speed compressor running 6000 hrs per year with 2000 hrs per year off load running. SCR's 37kW 50EPM compressor produces the same flow as a 45kW compressor but for 18% less power.

VSD-Permanent magnet efficiency

The EPM Variable Speed Drive 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 EPM series aren't limited to the number of starts per hour allowing the machine to start and stop more frequently than a fixed speed machine.

10-15% more air per kilowatt



SCR's innovative high efficiency airend has been oversized to ensure that air delivery is 10-15% higher than our competitors machines. The increased air delivery can allow users to select a lower powered EPM machine or use the additional flow to prevent assist compressors running at peak demand.

For example, SCR's 37kW EPM machine has a flow rate of 7.2m3/min at 8 bar compared to a standard 45kW machine which delivers the same flow.

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

Premium EPM range features and benefits

Premium efficiency screw compressors

Oversized high efficiency airend



- On average 40-50% lower max RPM than our competitors
- Increased efficiency by 5-10%
- Large oversized rotors for low rotational speed
- Asymmetric rotor profile for increased sealing between rotors
- Triple lip shaft seals
- Dual back to back taper rolling bearings
- Oil seal leak recovery system

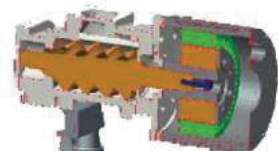
Highest possible motor efficiency

- 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 environments
- Bearing free design means no bearing maintenance

Unique oil cooled IP65 motor

The oil used to lubricate the airend is also used to cool the IP65 sealed motor up to 45kW. The oil exits the cooler directly into a dedicated cavity between the inner and outer shell of the motor.

Cooling the motor with oil is far more efficient than a traditional air cooled motor. A simple Morse connection between the motor and airend makes removing the air-end from the motor quick and easy.



Energy saving features:

- ✓ Oversized low RPM, high efficiency airend
- ✓ Highest PM motor efficiency, even out performing IE3 efficiency levels
- ✓ Superior Inovance Vector VSD control technology for main & fan motor
- ✓ Innovative touch screen controller

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, potentially allowing a site reduction.

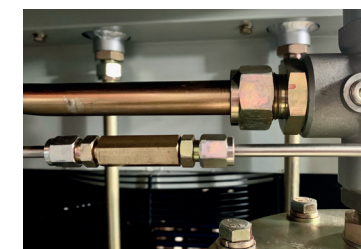
Even a modest 0.5 bar reduction will result in 3% energy saving. A variable speed cooling fan further enhances energy savings along with significant noise reduction.

User friendly touchscreen controller

- Full 7" Colour touch touchscreen
- On board scheduled start stop facility
- Home screen status display includes pressure, temperature, kW and speed
- Built in master slave operation for multiple compressor control
- Remote start stop function
- Auto Restart option
- Customer programmable relays
- Time stamped warning and fault history
- Supports MODBUS RTU protocol



Solid seamless steel pipework



- Low resistance leak proof design
- No rubber hoses to perish and fail
- Solid compression joints with flourine O-rings lead to leak free operation



Low noise operation



SCR's EPM range are whisper quiet thanks to enhanced sound insulation, direct drive, a slow running airend and variable speed cooling fan.

Sound levels fall way below the required hearing protection limit of 85dB meaning the machine can be installed safely in the work place.

High ambient running



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

Warranty



For complete piece of mind the SCR EPM range of screw compressors come complete with 3 year parts and labour warranty. 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.

Our product range includes:

- ✓ Refrigerated Air Dryers
- ✓ Coalescing Filtration (removes solids and oil vapours to as low as 0.01 micron)
- ✓ Activated Carbon Filters (removes oil odours from the air)
- ✓ Oil Water Separators
- ✓ Vertical Air Receivers



Technical Specifications

Model	Pressure		Motor		8 Bar Flow		Air Outlet	Dimensions		Noise Level
	bar	Psig	kW	hp	m ³ /min	CFM		Millimeters (mm)	Weight (kg)	
Base Mount Units										
SCR20EPM	8	116	15	20	0.8-2.9	28-102	1" BSP	1200 x 800 x 1100	460	66
SCR25EPM	8	116	18.5	25	1.1-3.5	39-123	1" BSP	1200 x 800 x 1100	480	66
SCR30EPM	8	116	22	30	1.4-4.0	49-141	1" BSP	1200 x 800 x 1100	560	68
SCR40EPM	8	116	30	40	1.8-6.1	63-215	1.5" BSP	1300 x 1000 x 1370	830	68
SCR50EPM	8	116	37	50	2.2-7.2	77-254	1.5" BSP	1300 x 1000 x 1370	850	69
SCR60EPM	8	116	45	60	2.9-9.3	102-328	1.5" BSP	1300 x 1030 x 1370	890	70
SCR75EPM	8	116	55	75	3.5-11.0	123-388	2" BSP	2300 x 1350 x 1500	1300	76
SCR90EPM	8	116	63	90	3.9-12.5	138-441	2" BSP	2300 x 1350 x 1500	1800	76
SCR100EPM	8	116	75	100	4.8-16.0	169-565	DN65	2900 x 1620 x 1692	2800	75
SCR125EPM	8	116	90	125	5.9-19.6	208-692	DN65	2900 x 1620 x 1692	2800	77
SCR150EPM	8	116	110	150	7.2-23.0	254-812	DN65	3000 x 1750 x 1692	3250	77

Specifications are subject to change
 Units available in 10 bar
 Effective volume flow m³/min measured in accordance with (ISO 1217/Annex C)
 Mean noise level measured at a distance of 1 m. Tolerance +- 3dB(A)

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