



INNOVATIVE ENERGY SAVING SCREW COMPRESSOR

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Permanent Magnetic VSD Screw Air Compressor

Innovative | Efficient | Reliable | Smart



SHANGHAI SCREW COMPRESSOR CO., LTD.

COMPANY PROFILE

SHANGHAI SCREW COMPRESSOR CO.,LTD is a high tech Japanese joint venture with independent intellectual property, founded in 2000. SCR together with Anest Iwata focus on air compressor research and development, covering all aspects from manufacturing through to sales, service and technical support. SCR supply a complete range of products such as high efficiency permanent magnet variable speed air compressors, oil free screw compressors, oil free scroll compressors, bearing free and magnetic centrifugal blowers. The global sales and service network provide our customers with high-quality, energy efficient and environmentally friendly compressed air solutions. SCR's statement of "power starts dreams" signifies the close relationship with their global partners, and suppliers. SCR is committed to building an industrial world with continuous improvement for both its customers, the environment and its employees.


100000

Square meter production facility


83

 countries
exported to

20

years of R&D


140000

 production volume
From 2000

86

 National
Patents

10

 Industry
Standards

35

 Professional
certifications

50000

global customers


500

global sales and service agents


8%

annual sales re-invested into R&D


35

Sino-Japanese R&D team member

EPM/EPM2 SERIES



Motor power

15-160kw



Discharge airflow

0.7-33.5m³/min



Pressure

0.7 / 0.8 / 1.0 MPa



Ultimate Energy Efficient Inverter Model

The SCR EPM and EPM2 range pushes the boundaries of compressed air efficiency once again with its latest generation of EPM2 series screw air compressors. Our SCR EPM2 has class leading low energy consumption, leading to reduced running costs.

Like all SCR compressors they are both intuitive and maintenance friendly with exceptional versatility and an environmentally responsible design.

Energy saving variable speed control
Wide speed range
Super premium efficiency PM motor (IE4 equivalent)
Oversized Innovative Cooling system
Morse connection design for motor and Airend
Suitable for use up to 52°C ambient

EPM2 Series

EVEN MORE EFFICIENT



01

Permanent Magnet (PM) motor

- Exceed IE4 standards
- Lubricant-cooled motor
- VSD: variable speed drive
- IP65 protection

02

New compressor airend

- New improved rotor profile
- R&D in Japan
- Designed to give many years of reliable operation

03

Inlet filter

- Nano scale Heavy duty
- Filtration accuracy up to 99.9%
- Dust particles below 0.3 micron
- Pressure drop indicator
- 2,000 hours service intervals
- Make the main rotor bearing free from attrition
- Extend the service life of the lubricating oil and oil filter

04

Cooling fan

- VSD control
- Compact
- Low noise level
- High capacity for optimized cooling
- Low power consumption

05

Classic cooler design

- Separate oil/air cooler
- Easy access for maintenance
- Paint anti-corrosion coating on surface
- 30% oversized cooler design

06

Innovative flux vector inverter

- CE/UL/CUL/ROHS certification
- Wide voltage design (380V ~ 480V)
- Meets C3 and C3 EMC requirements
- Built-in DC reactor
- Independent cooling air duct design
- Robust enclosure to trouble-free operation even in the harshest of conditions.

07

SCR 9000 Touch controller

- 7.0 inch full color touch LCD screen
- Real-time operation/ maintenance/ alarm information
- Full graphical Flow diagram
- Operation record/ chart display
- Multiple languages
- Weekly and daily scheduling, service history and planning
- On board RS485 interface

08

Inlet valve

- Optimizes the inlet flow of the air end
- No blow down losses
- Full aluminum maintenance free design
- High vacuum degree: 700mmHg
- Large suction area
- Low load energy consumption in unloaded operation
- Fast check: prevent unloading and shutdown oil injection
- Fluoro rubber for improved valve seal

09

Oil filter

- High efficiency oil filter removes reliably removed contaminants from the oil
- Oil particles can be controlled at 0.1 micron
- Ensures a smooth and well-lubricated oil system

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Gas tank & Built-in separation system

- Oversized air and oil tank improves the cyclone effect maximising the separation process
- The high efficiency oil separator ensures that the oil carry over is less than 3ppm.
- System pressure loss: less than 0.02mpa
- The rotating oil tank lid makes maintenance convenient and straight forward reducing maintenance down time

11

Electrical control cabinet

- Siemens core electrical components are used to further enhance reliability.

12

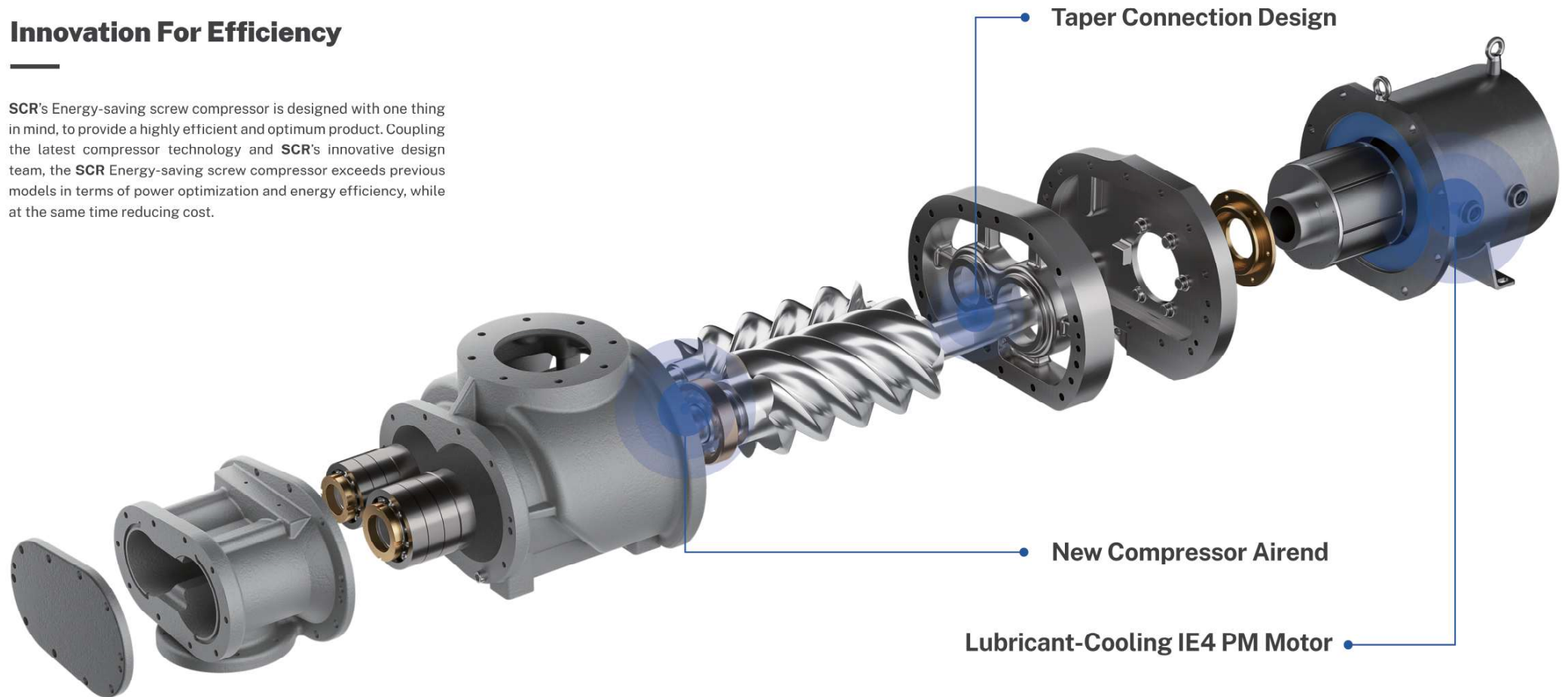
All-steel internal pipe system

- All steel internal pipe work and compression joints are used to prevent leakage and premature ageing often seen with flexible pipes
- Less pipe friction loss

INNOVATIVE SCREW COMPRESSOR TECHNOLOGIES

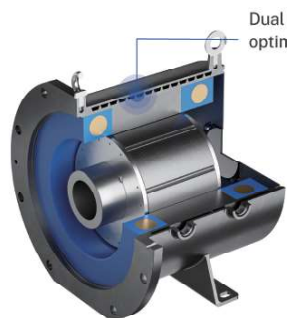
Innovation For Efficiency

SCR's Energy-saving screw compressor is designed with one thing in mind, to provide a highly efficient and optimum product. Coupling the latest compressor technology and SCR's innovative design team, the SCR Energy-saving screw compressor exceeds previous models in terms of power optimization and energy efficiency, while at the same time reducing cost.



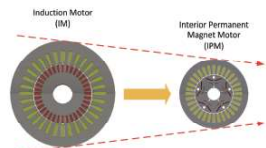
HIGH PERFORMANCE

Super Premium Efficiency EPM Motor (IE4 equivalent)

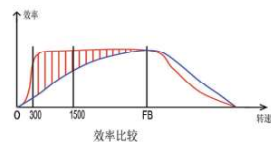


Dual layer design for optimum lubricant cooling

- Exceed IE4 standards
- Lubricant-cooled motor
- VSD: variable speed drive
- Optimal cooling for all speeds and ambient conditions
- Bearing free motor requires zero maintenance
- Fully enclosed IP65 protection
- UH series Permanent magnets resist to 180 °C
- F grade insulation and B grade temperature rise assessment
- High temperature design prevents demagnetization



Example: 75KW 380V | Volume 37% Weight 26%



Special Taper Connection



- Motor rotor is directly mounted on the shaft
- No gears or belts, no shaft seal, no coupling
- Zero transmission loss
- Easy for installation and dismantlemen
- No need to make alignment adjustment
- Better protection for inner parts of PM motor
- Reduce maintenance cost

State-of-the-art Screw Airends

- New improved rotor profile
- R&D in Japan
- Isothermal compression
- Multi point atomization injection technology
- Reduced pressure losses
- Optimized in and outlet portals
- designed for 20 years* of reliable operation
- Flow-optimized for impressive performance
- All-new, state-of-the-art airend improves efficiency as much as 16%



Innovative Motor Liquid Cooling Technology

- Independent closed loop cooling
- Special coolant
- Independent cooling fan

Motor and motor liquid cooling system



EPM Limited(20-60HP)



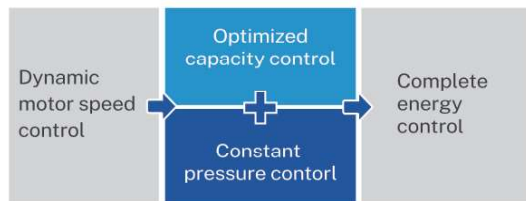
EPM2 from 55kW to 160kW

ENERGY SAVING TECHNOLOGY

✦ Double Inverter design

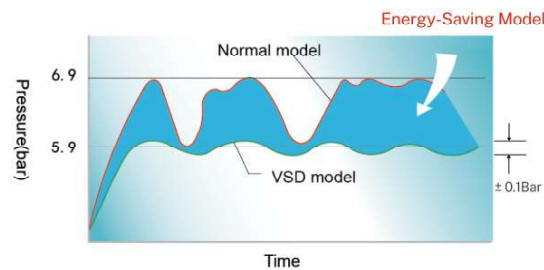
◦ Inverter Control

SCR EPM compressors have a wide operating speed range leading to stable constant pressure control further reducing power consumption. SCR's exclusive inverter and Energy Saving Logic control can get optimized energy savings, regardless of the load condition. They can react to pressure changes quickly maintaining pressure fluctuation to ± 0.01 MPa.



Constant Pressure Output:

Significant energy-savings can be achieved by constant pressure control avoiding pressure fluctuations controlled to within ± 0.01 MPa.



Stable constant temperature

Constant temperature setting of 81°C ensures the best lubrication performance avoiding high temperature trips

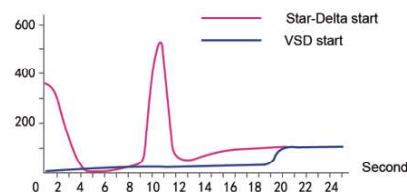


ENERGY SAVING TECHNOLOGY

Pure soft-start system as standard

Soft Start System Reduces The Electric Current During Start Up

SCR EPM/EPM2 Series adopts a soft start system for its start-up. The Inovance VSD maintains full load current on start up to 1.5 times FLC. Traditional motor starters such as direct on line starters and star delta starters burden the power supply due to the high peak start up current which can typically be 8-10 times FLC. With variable speed soft start system, the starting current never exceeds the rated value.



Magnetic Panel Filters

- reduce the ingress of foreign matter preventing the cooler from blocking
- extend the service life of the compressor

Air Cooling System

- The electrical enclosure design has an external cool air path ensuring that all electrical components operate at their optimum temperature
- The heat inside of the electrical enclosure is removed by cooling fans, ensuring good cooling air flow for the inverter.
- The air inlet is located at the rear of the machine to help reduce noise levels leading to an enhanced ergonomic design



Low Noise

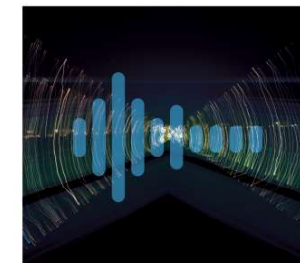
Large rotor low speed effectively reduces air end vibration and noise.

VSD air compressor starts and runs steadily without frequent loading and unloading of normal screw compressor.

Double VSD control (main motor and fan motor double VSD) can reduce the noise of air end and cooling fan.

Acoustic sound deadening and new cooling system decreases overall noise level.

Low noise operation means conversations can take place right beside the running compressor.



State-Of-The-Art Touch Controller

Improved user friendly design

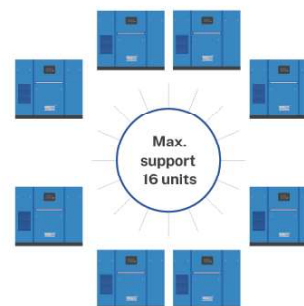
- 7.0 inch full color touch LCD screen
- Real-time Operation/ Maintenance/ Alarm information
- Graphical flow diagram
- Operation record/ Chart display
- Multiple languages
- Weekly timer/Service history and planning
- On board RS485 interface

Increased Reliability

- Energy saving logic
- Overload/ Over current/ phase loss/ unbalance protection
- Pre-alarm system to avoid sudden failure
- Remote monitoring capability
- programmable start stop schedules
- Multiple compressor sequencing capability

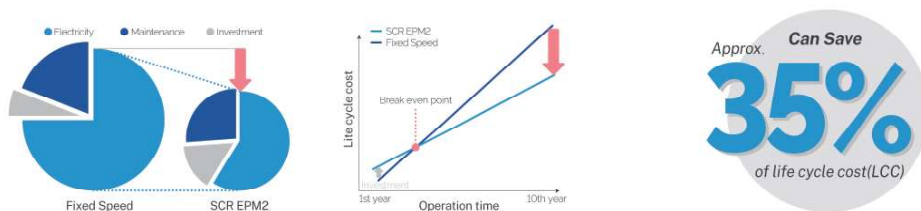
Compressor Group Control

- Up to 16 compressors can be automatically operated without a group control panel.



DOWN-TO-EARTH INVESTMENT FOR THE FUTURE

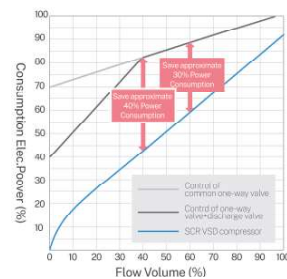
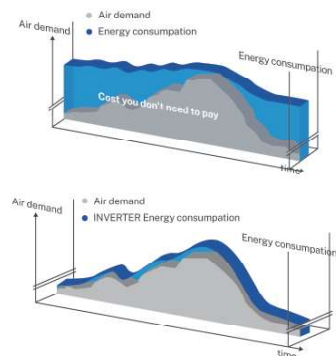
What's important is not initial cost but life cycle cost. Variable speed compressors may look more expensive than fixed speed models, but many customers choose them because they know importance of life cycle cost & return on investment when it comes to choosing the right compressor.



- Comparison model: SCR100EPM2-8 (Latest Variable Speed Model) SCR100D-8 (Previous fixed speed model Load/Unload)
- Conditions: Yearly running hour: 6,000 hours, Total running year: 10 years, Load ratio: 40%, Investment and maintenance cost is as per SCR conditions.
- The potential energy savings of a variable speed compressor can vary depending on actual demand cycle.

ONLY PAY FOR THE AIR YOU USE

SCR's EPM series of compressors adjust compressor's rotating speed depending on the demand, which can change from moment to moment. Thus, it can provide exact volume and pressure what customer needs and achieve maximum energy saving potential.



Maximizing energy-saving under any load operation through wide-range inverter control, wide-range control, and e-STOP function.

New air solution program with advanced IoT technology

SCR'S CLOUD SERVICE OPTION

Anytime, Anywhere

Customers can monitor the live running conditions of SCR compressors anytime, anywhere and can be accessed through a Cloud service in real time. Moreover, alarm notifications will help prevent any unplanned down time.



Practical Use Of Cloud Service

Easy Maintenance

Maintenance will become easier thanks to remote monitoring system

Stable-Operation

Preventive maintenance according to alarm notifications increases reliability
Live of energy usage data

Energy Saving

Monitoring the compressors actual conditions will help to improve energy use

Trouble Shooting

Remote monitoring prevents any unexpected maintenance issues reduces unplanned downtime

- Live of energy usage data
- Graphical Visualization of running conditions
- Records and saves running condition records
- Alarm notifications

Flexible Machining Centres

Rotors and casings for SCR airends are produced in state-of-the-art, climate-controlled machining centres. Japanese quality management ensures unrivalled product quality.

Meticulous Assembly

All airends and compressor packages are assembled to the highest standards by SCR's qualified specialists in accordance with Japanese Quality Management System.

Precision Detection

To achieve maximum precision, components for SCR rotary screw compressors are machined in climate-controlled rooms using the very latest tool machinery. Dedicated and highly qualified personnel draw on years of engineering experience to ensure unrivalled product quality and consistency. Production tolerances are continuously monitored using precision 3-D measuring equipment that detects variations with micron accuracy.

Performance Testing

Each air compressor must undergo an operational inspection before leaving the factory to verify the performance of the compressor.

Precision Milling And Grinding

The NEW PROFILE rotors are machined on CNC profile grinders to micron accuracy.

TECHNICAL SPECIFICATION

Model	KW	HP	Capacity (m³/min)	Pressure (BAR)	Dimension (mm)	Weight (KG)	Size
SCR20EPM-7	15	20	0.75-3.0	7	1200*800*1100	480	R1
SCR20EPM-8			0.73-2.9	8			
SCR20EPM-10			0.58-2.3	10			
SCR25EPM-7	18.5	25	1.3-3.7	7	1200*800*1100	480	R1
SCR25EPM-8			1.1-3.5	8			
SCR25EPM-10			1.0-2.9	10			
SCR30EPM-7	22	30	1.5-4.1	7	1200*800*1100	560	R1
SCR30EPM-8			1.4-4.0	8			
SCR30EPM-10			1.1-3.5	10			
SCR40EPM-7	30	40	2.1-6.2	7	1300*950*1370	830	R1 1/2
SCR40EPM-8			1.8-6.1	8			
SCR40EPM-10			1.5-5.2	10			
SCR50EPM-7	37	50	2.3-7.3	7	1300*950*1370	850	R1 1/2
SCR50EPM-8			2.2-7.2	8			
SCR50EPM-10			2.0-6.3	10			
SCR60EPM-7	45	60	3.0-9.4	7	1300*1030*1520	890	R1 1/2
SCR60EPM-8			2.9-9.3	8			
SCR60EPM-10			2.6-8.0	10			
SCR75EPM2-7	55	75	3.6-12	7	1800*1200*1650	1450	RC2
SCR75EPM2-8			3.3-11	8			
SCR75EPM2-10			3.0-10	10			
SCR90EPM2-7	63	90	3.8-12.7	7	1800*1200*1650	1490	RC2
SCR90EPM2-8			3.7-12.5	8			
SCR90EPM2-10			3.0-10	10			
SCR100EPM2-7	75	100	3.8-16.3	7	2280*1500*1950	2010	DN65
SCR100EPM2-8			3.6-16	8			
SCR100EPM2-10			2.9-13.7	10			
SCR125EPM2-7	90	125	5-20	7	2280*1500*1950	2050	DN65
SCR125EPM2-8			4.2-19	8			
SCR125EPM2-10			3.3-16.5	10			
SCR150EPM2-7	110	150	7.4-24.5	7	2280*1750*1690	2900	DN80
SCR150EPM2-8			7.2-24	8			
SCR150EPM2-10			6.3-21	10			
SCR180EPM2-7	132	180	9-30	7	2700*1650*2150	3050	DN80
SCR180EPM2-8			8.6-28.5	8			
SCR180EPM2-10			6.9-23	10			
SCR220EPM2-7	160	220	10-33.5	7	2700*1650*2150	3150	DN80
SCR220EPM2-8			9.6-32	8			
SCR220EPM2-10			8.1-27	10			

Note:

- The capacity is measured as GB3853 standard.(equivalent to ISO1217 Annex C)
- Standard voltage is 380V/50HZ/3P, other voltage is available.
- The recommended best capacity range is 60%-100%.
- Alpine/high altitude, high temperature, high humidity, high dust loads or other adverse working conditions will require specialized custom designs. These are available on special request.
- We reserve the right to make changes and improvements to the design and appearance. Specifications may change without prior notice.

Standard warranty 2 years
Extended warranty for 5 years



CE Certificate



EMC Certificate



UL Certificate



ISO Certificate

FOOTPRINT ALL OVER THE WORLD



OUR CUSTOMERS
