

Ictive with Newest Technology





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AUTHORISED CHANNEL PARTNER



Rotary Screw Air Compressor - EPM Series Variable Speed Drive

18.5kW - 160kW / 25 - 220 HP **High Efficiency Permanent Magnet Drive**





Proud to be part of samvardhana motherson

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A joint venture between Anest Iwata Japan and Motherson India, established in the year 2000 for manufacturing air compressors, vacuum pumps, and coating equipment, along with a full variety of coatings automation and robotics system Integration with brilliant after-sales services. The company's long list of satisfied customers from many industrial sectors proves products and service quality. Company constantly develop its innovations to exceed high Japanese standards unmatched by other manufacturers.







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EPM Series

Anest Iwata Motherson

Anest Iwata Motherson (AIM) is a joint venture between Anest Iwata Corporation, Japan, and Motherson Group, India. Anest Iwata Corporation is one of the global leaders in Air Compressors and Vacuum Pumps with more than 9 decades of inspiring history of technological excellence.

Anest lwata Motherson is committed to delighting its customers by ensuring the supply of the best quality products, supported with effective after-sales services at optimum value. The company has two state-of-the-art manufacturing facilities and a wide network of sales and service centers spread across India.

Our Global Presence





Motor Power

Motor Power



Ultimate Energy Efficient Inverter Model

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

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

Energy saving variable speed control

Super premium efficiency PM motor

Morse connection design for motor and airend





Pressure

Discharge Airflow

Pressure



EPM/EPM2 Series Even More Efficient



Cooling fan

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

Inlet valve

- · Optimizes the inlet flow of the airend
- · 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

Permanent Magnet (PM) Motor

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

New Compressor Airend

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

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 interval
- Extended service life of the lubricating oil and oil filter

Classic cooler design

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

Oil Filter

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

EPM2 Series Even More Efficient

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

Innovative flux vector inverter

- CE/UL/CULROHS 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

Electrical control cabinet

• Siemens core electrical components are used to further enhance reliability





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Gas tank & built-in separation system

- Oversized air and oil tank improves the cyclone effect maximizing 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 down time

All-steel internal pipe system

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

HIGH PERFORMANCE

Super Premium Efficiency EPM Motor (IE4) equivalent





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



- 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 magnet resist to180°C
- . F grade insulation and B grade temperature rise assessment
- High temperature design prevents demagnetization



Special Taper Connection



- · Motor rotor is directly mounted on the shaft
- · No gear or belts, no shaft seal, no coupling
- · Zero transmission loss
- Easy for installation and dismantling
- · No need to make alignment or 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 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



EPM Limited



Motor and motor liquid cooling system



EPM 2

INNOVATIVE SCREW COMPRESSOR TECHNOLOGIES

innovation for Efficiency

Anest Iwata'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 Anest Iwata's innovative design team, the Anest Iwata Energy-saving screw compressor exceeds previous models in terms of power optimization and energy efficiency, while at the same time reducing cost.

New Compressor Airend

Lubricated-Cooling IE4 PM Motor -

ENERGY SAVING



ENERGY SAVING TECHNOLOGY

Double Inverter Design

Inverter Control

AIM EPM compressors have a wide operating speed range leading to stable constant pressure control further reducing power consumption. AIM'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.





Energy-Saving Model Normal model 69 Pressure (bar) 5.9 VSD model

Time

± 0.1Bar

Stable constant temperature

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

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On Board RS485 communication

γļ¢ Intelligent PID flow regulation mode

Closed loop dynamic control and high precision control

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Constant Pressure Output:

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



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Accurate torque control

ENERGY SAVING



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Constant pressure control avoids over generating site air pressure





Fast acceleration and deceleration characteristics



Fast response speed for system pressure

ENERGY SAVING

TECHNOLOGY

Pure Soft-Start system as standard

Soft Start System Reduces The Electric Current **During start up**

Anest Iwata Motherson EPM/EPM2 Series adopts a soft start system for its start-up. The Inovance VSD main- tains 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 start- ing 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 optimimum 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 erganomic design

Low Noise

Large rotor low speed effectively reduces airend vibration and noise.

VSD air compressor starts and runs steadily without frequent loading and unloading of normal screw com- pressor. Double VSD control (main motor and fan motor double VSD) can reduce the noise of airend 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: AIM100EPM2-8 (Latest Variable Speed Model) AIM100D-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 Anest Iwata conditions
- The Potential energy savings of a variable speed compressor can vary depending on actual demand cycle.

ONLY PAY FOR THE AIR YOU USE

AIM 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 and e-STOP function.

Technical Specifications

Madal	Power		Capacity		Pressure	Dimensions	Weight	Noise level	Outlet
riodei	kW	HP	m3/min	CFM	Bar	mm	Kg	at 1m	Size
AIM 25 EPM-7	18.5	25	1.3 - 3.7	46 - 131	7	1200 x 800 x 1100	480	68 ± 3dB	R 1
AIM 25 EPM-8			1.1 - 3.5	39 - 124	8				
AIM 25 EPM-10			1.0 - 2.9	35 - 102	10				
AIM 30 EPM-7	22	30	1.5 - 4.1	53 - 145	7	1200 x 800 x 1100	560	66 ± 3dB	R 1
AIM 30 EPM-8			1.4 - 4.0	49 - 141	8				
AIM 30 EPM-10			1.1 - 3.5	39 - 124	10				
AIM 40 EPM-7	30	40	2.1 - 6.2	74 - 219	7	1300 x 950 x 1370	830	68 ± 3dB	R1 1/2
AIM 40 EPM-8			1.8 - 6.1	64 - 215	8				
AIM 40 EPM-10			1.5 - 5.2	53 - 184	10				
AIM 50 EPM-7	37	50	2.3 - 7.3	81 - 258	7	1300 x 950 x 1370	850	69 ± 3dB	R1 1/2
AIM 50 EPM-8			2.2 - 7.2	78 - 254	8				
AIM 50 EPM-10			2.0 - 6.3	71 - 222	10				
AIM 60 EPM-7	45	60	3.0 - 9.4	106 - 332	7	1300 x 1030 x 1520	890	70 ± 3dB	R1 1/2
AIM 60 EPM-8			2.9 - 9.3	102 - 328	8				
AIM 60 EPM-10			2.6 - 8.0	92 - 283	10				
AIM 75 EPM 2- 7	55	75	3.6 - 12.0	127 - 424	7	1800 x 1200 x 1650	1450	76 ± 3dB	RC 2
AIM 75 EPM 2 - 8			3.3 - 11.0	117 - 388	8				
AIM 75 EPM 2 - 10			3.0 - 10.0	106 - 353	10				
AIM 90 EPM 2 - 7	63	90	3.8 - 12.7	134 - 448	7	1800 x 1200 x 1650	1490	76 ± 3dB	RC 2
AIM 90 EPM 2 - 8			3.7 - 12.5	131 - 441	8				
AIM 90 EPM 2 - 10			3.3 - 11.0	117 - 388	10				
AIM 100 EPM 2 - 7	75	100	3.8 - 16.3	134 - 576	7	2280 x 1500 x 1950	2010	78 ± 3dB	DN65
AIM 100 EPM 2 - 8			3.6 - 16.0	127 - 565	8				
AIM 100 EPM 2 - 10			2.9 - 13.7	102 - 484	10				
AIM 125 EPM 2 - 7	90	125	5.0 - 20.0	177 - 706	7	2280 x 1500 x 1950	2050	78 ± 3dB	DN65
AIM 125 EPM 2 - 8			4.2 - 19.0	148 - 671	8				
AIM 125 EPM 2 - 10			3.3 - 16.5	117 - 583	10				
AIM 150 EPM 2 - 7	110	150	7.4 - 24.5	261 - 866	7	2800 x 1750 x 1690	2900	78 ± 3dB	DN80
AIM 150 EPM 2 - 8			7.2 - 24.0	254 - 848	8				
AIM 150 EPM 2 - 10			6.3 - 21.0	222 - 742	10				
AIM 180 EPM 2 - 7	132	180	8.3 - 30.0	293 - 1060	7	2700 x 1650 x 2150	3050	79 ± 3dB	DN80
AIM 180 EPM 2 - 8			8.0 - 28.5	282 - 1007	8				
AIM 180 EPM 2 - 10			6.5 - 23.0	229 - 812	10				
AIM 220 EPM 2 - 7	160	220	9.3 - 33.5	328 - 1183	7	2700 x 1650 x 2150	3150	79 ± 3dB	DN80
AIM 220 EPM 2 - 8			9.0 - 32.0	318 - 1130	8				
AIM 220 EPM 2 - 10			7.5 - 27.0	265 - 954	10				

Note :

- Standard Voltage is 400V/50Hz
- Free Air Delivery (m /min / cfm) is measured as per ISO 1217: 2009 Annex C
- Mean noise level measured at a distance of 1 m according to ISO 2151: 2004 using ISO 9614/2 (sound intensity method); tolerance 3 dB(A).
- All performance parameters are as per JIS (Japanese Industrial Standards)
- Vertical Air Tanks are available from 500 to 5000 liters
- Standalone Refrigerated Air Dryers, Heatless Air Dryers, Oil Removal Filters, and Auto Drain Valves are also available
- Specifications may change without prior notice

FLEXIBLE MACHINING **CENTRES**

ROTORS AND CASINGS FOR AIRENDS ARE PRODUCED IN STATE-OF-THE-ART,CLIMATE-CONTROLLED MACHINING CENTRES. JAPANESE QUALITY MANAGEMENT ENSURES UNRIVALLED PRODUCT QUALITY.

PERFORMANCE **TESTING**

EACH AIR COMPRESSOR MUST UNDERGO AN OPERATIONAL INSPECTION BEFORE LEAVING THE FACTORY TO VERIFY THE PERFORMANCE OF THE COMPRESSOR.

METICULOUS ASSEMBLY

ALL AIRENDS AND COMPRESSOR PACKAGES ARE ASSEMBLED TO THE HIGHEST STANDARDS BY ANEST IWATA QUALIFIED SPECIALISTS IN ACCOR-DANCE WITH JAPANESE QUALITY MANAGE- MENT SYSTEM.

PRECISION MILLING AND GRINDING

THE NEW PROFILE ROTORS ARE MACHINED ON CNC PROFILE GRINDERS TO MICRON ACCURACY.

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Engineering **Capabilities &** Customised Solutions.

We at Anest Iwata Motherson (AIM) are committed to delighting our customers. Our state-of-the-art Air Energy Core Technology Centre located in Yokohama, Japan works relentlessly on innovations and technologies that add value to our products and make us ready to serve our customer's future needs. It is our customer's trust in us that we have developed many "World's First" products.

Always Ahead with Anest Iwata!

Innovation driven World's 1st products Oil Free Reciprocating Oil Free Scroll

Compressor



Compressed Air Solutions in all Technologies

PRECISION DETECTION

TO ACHIEVE MAXIMUM PRECISION, COMPONENTS FOR ANEST IWATA MOTHERSON 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.

