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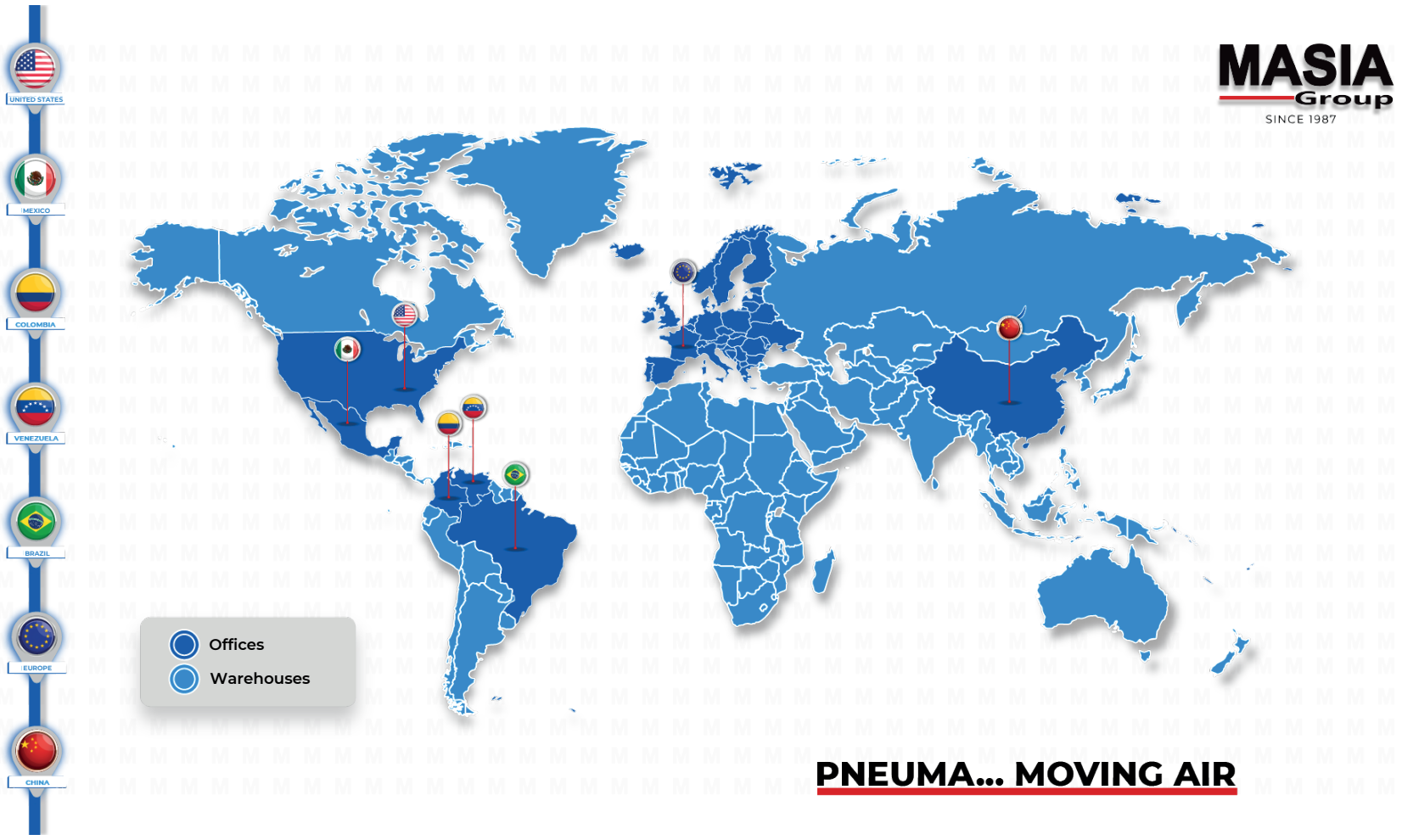
ALL IN ONE

MNA SERIES

HIGH-EFFICIENCY ROTARY SCREW AIR COMPRESSOR

7.5 KW	15 KW	20 KW
10 HP	20 HP	30 HP

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MASIA Group
SINCE 1987

PNEUMA... MOVING AIR

100,000 m² Factory

83 countries Served

+50,000 Global clients

+500 Employees

Our History

Our journey began in 1987 with the founding of a pioneering company in Venezuela's automation and control sector. From the outset, its leadership drove the development of this industry in the country, maintaining an ongoing commitment to research and staying aligned with the needs of the local market. This innovative vision led us into the field of compressed air treatment, offering specialized technical services, spare parts and consumables of the highest quality.

In 2007, Masia was founded in the United States, headquartered in Florida. During its early years, the company focused on representing leading brands in the compressed air and automation sectors, providing solutions to the Latin American market. In 2014, Masia began operations in Venezuela, focusing its services on compressed air generation and treatment. Backed by a team with 40 years of experience, we reaffirm our commitment to excellence and innovation in every one of our solutions.

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Today, this innovative vision has established Masia as an international benchmark in the industry. With a global presence through subsidiaries in Mexico, Colombia, Brazil, Venezuela and Europe, and backed by a strong distributor network, Masia stands as a strategic partner in optimizing the production processes of medium and large companies worldwide.

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1

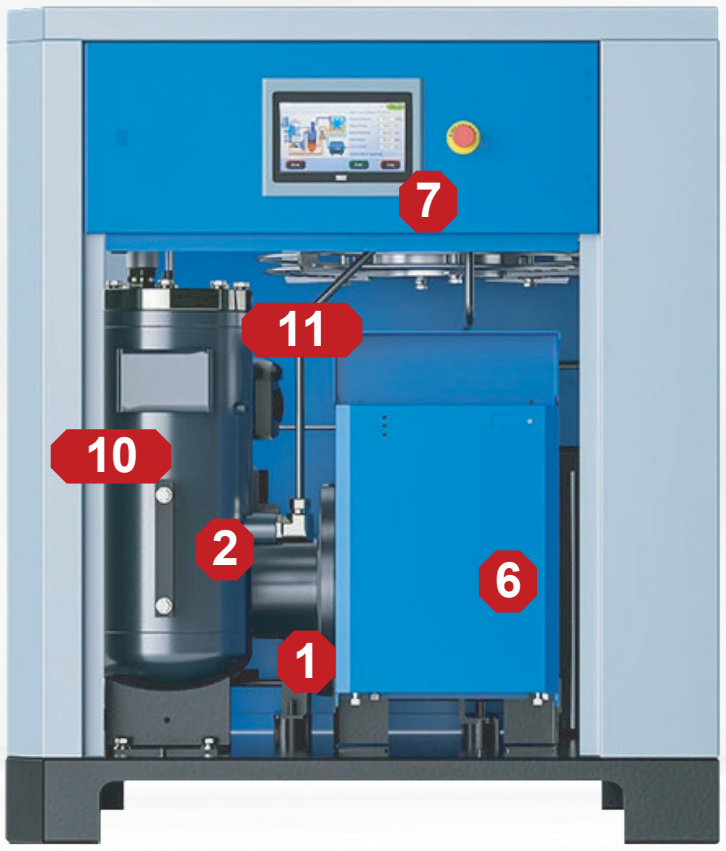
Permanent Magnet Motor
- → IE4 efficiency standard
- → Oil-cooled motor
- → VSD: variable speed
- → IP65 protection

2

New Airend
- → Improved rotor profiles
- → R&D in Japan
- → Designed for many years of operation

3

Intake Filter
- → Nano-scale heavy-duty filtration
- → 99.9% filtration efficiency
- → Dust particles > 0.3 micron
- → Differential pressure indicator
- → 2,000-hour service interval
- → Prevents bearing wear
- → Extends lubricant and oil filter life



7

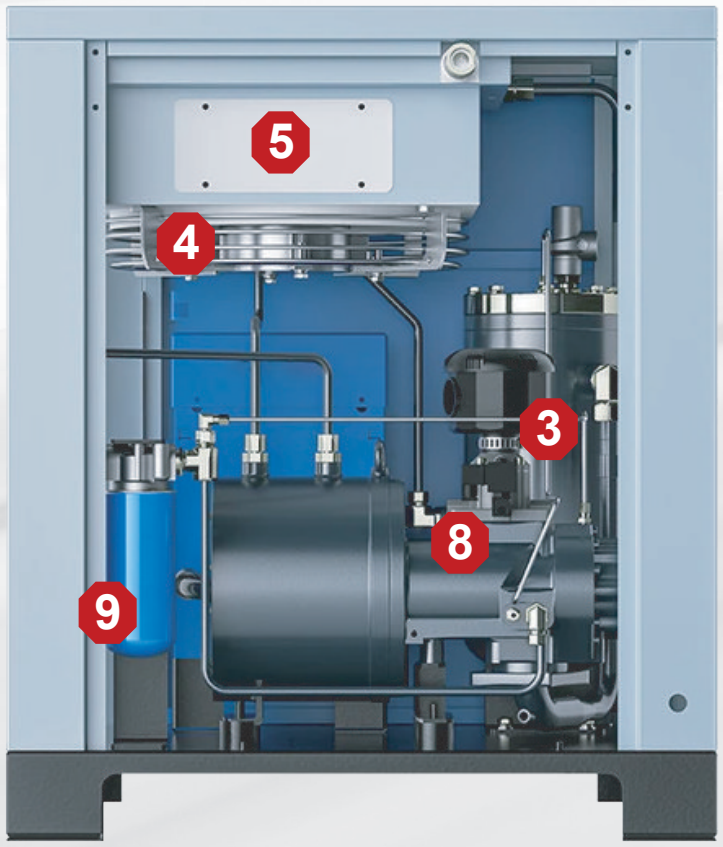
IT 7000 Touchscreen PLC
- → Wide-voltage design
- → Built-in DC reactor
- → Independent cooling air duct design
- → Rugged enclosure for trouble-free operation

8

Intake Valve
- → Optimizes inlet flow to the airend
- → Aluminum design
- → High vacuum level: 700 mmHg
- → Low energy consumption
- → Quick check: prevents unloading and oil injection shutoff

9

Oil Filter
- → Removes contaminants from the oil
- → Oil particles can be controlled down to 0.1 microns
- → Ensures a free-flowing, well-lubricated oil system



4

VSD Fan
- → VSD control
- → Compact
- → Low noise level
- → High cooling capacity
- → Low power consumption

5

Radiator
- → Easy maintenance access
- → Anti-corrosion painted surface

6

Innovative Flux Vector Inverter
- → Wide-voltage design
- → Built-in DC reactor
- → Independent cooling air duct design

10

Built-in Air Tank and Separation System
- → Enhanced cyclonic effect
- → Ensures oil carryover below 3 ppm
- → System pressure drop below 0.02 MPa

11

Steel Internal Piping System
- → Prevents leaks and premature aging
- → Lower pipe friction loss

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Reliable High-Quality Dryer



The high-efficiency heat exchanger design, with an inlet/outlet temperature difference of 41°F (5°C), keeps cooling capacity demand low and achieves a high energy efficiency ratio, preventing contamination and delivering high-quality compressed air.

Efficient heat transfer and the use of eco-friendly R134a refrigerant make it especially suitable for high-temperature, high-humidity environments.

The high-efficiency (99.9%) air-water separation structure is combined with a highly reliable automatic drain device to ensure that condensate is drained from the compressed air system promptly and efficiently.

The ultra-quiet refrigeration compressor offers high reliability and a long service life.

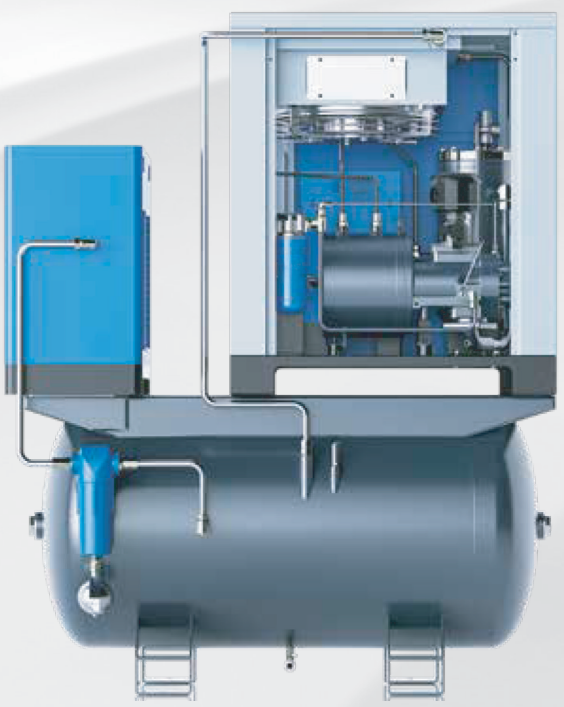
The air condenser uses an anti-corrosion nano-coating to improve heat transfer performance.

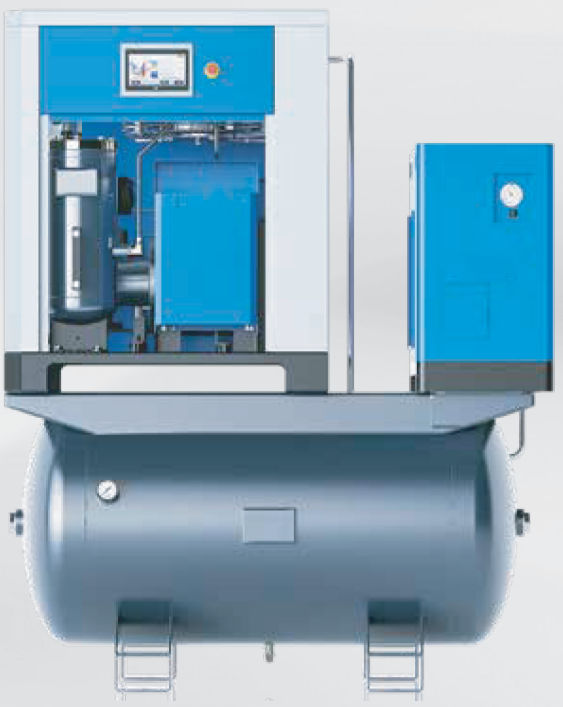
High-Efficiency Filter



Large-Capacity Air Tank

Using a large-capacity air tank reduces pulsation in the discharge airflow, stabilizes air line pressure, reduces how often the compressor starts, protects the unit and creates an air reserve at the same time.

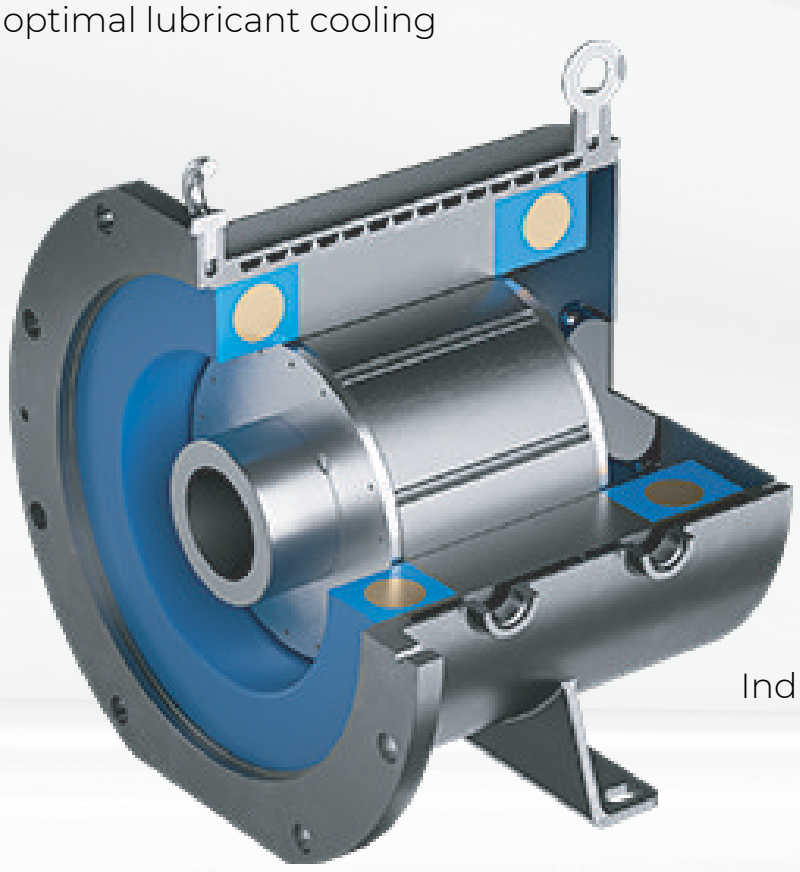




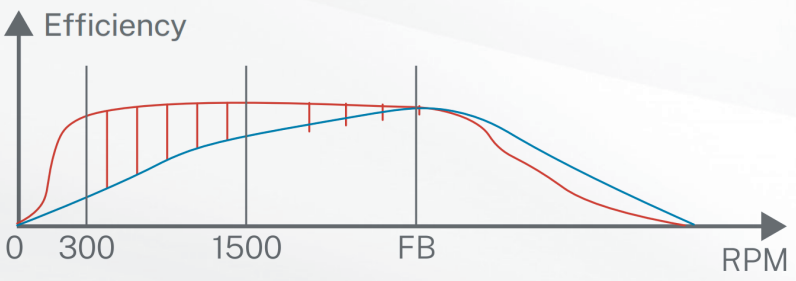
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APM Super Premium Motor (IE4 equivalent)

Double-layer design for
optimal lubricant cooling



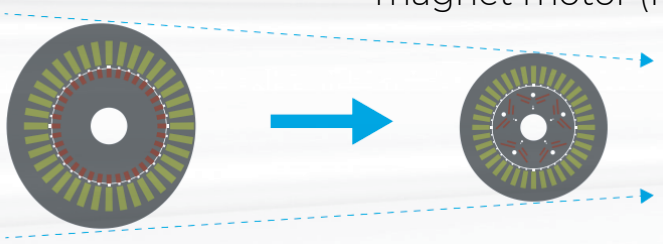
93.3% ~ 94.5%
1.2% increase



Efficiency comparison

Induction motor (IM)

Interior permanent
magnet motor (IPM)



Example: 75KW 440V | Volume 37% | Weight 26%

Oil-cooled motor	Meets the IE4 efficiency standard
VSD: variable speed drive	Bearingless motor requires no maintenance
UH-grade permanent magnets withstand up to 356°F (180 °C)	Fully enclosed, IP65 protection
Optimal cooling at all speeds and ambient conditions	Class F insulation with Class B temperature rise rating

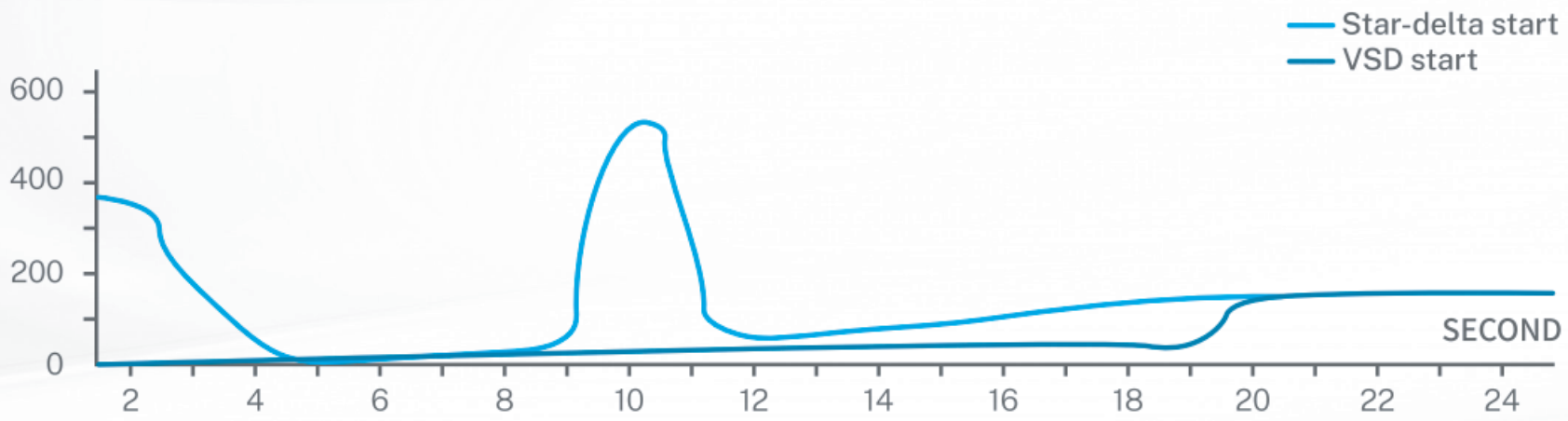
High-temperature design prevents demagnetization

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Standard Pure Soft-Start System

The Masia Compressors MNA series features a soft-start system for startup. Thanks to the Inovance VSD, full-load current is held at up to 1.5 times the FLC, unlike traditional motor starters, such as direct-on-line and star-delta starters, which load the power supply with a high peak starting current that can reach 8 to 10 times the FLC. With our variable-speed soft-start system, starting current never exceeds the rated value.



Key Features

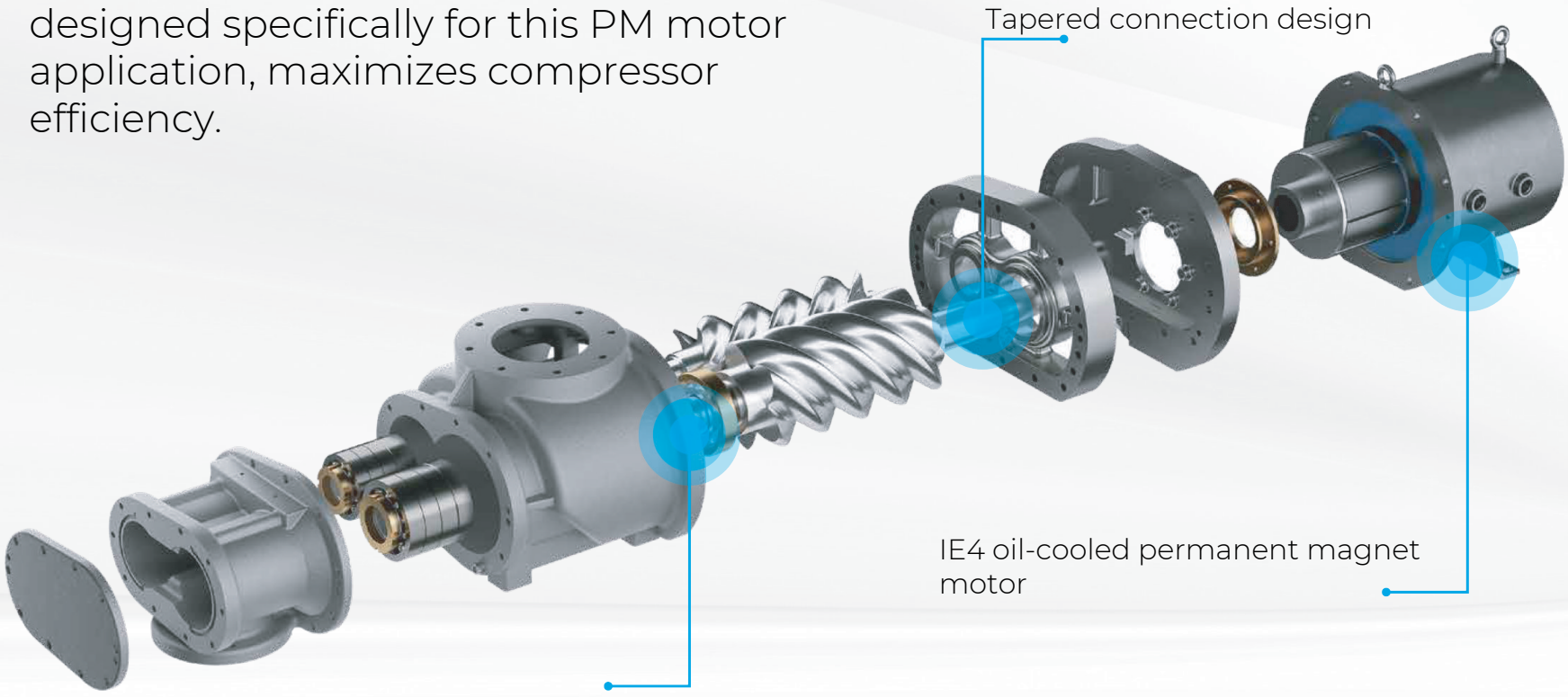
- Built-in RS485 communication
- Intelligent PID flow regulation mode
- Precise torque control
- Fast response to system pressure
- Rapid acceleration and deceleration
- Dynamic closed-loop, high-precision control
- Constant pressure control prevents excessive air pressure buildup on site



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Innovation for Efficiency

The high-efficiency airend profile, designed specifically for this PM motor application, maximizes compressor efficiency.



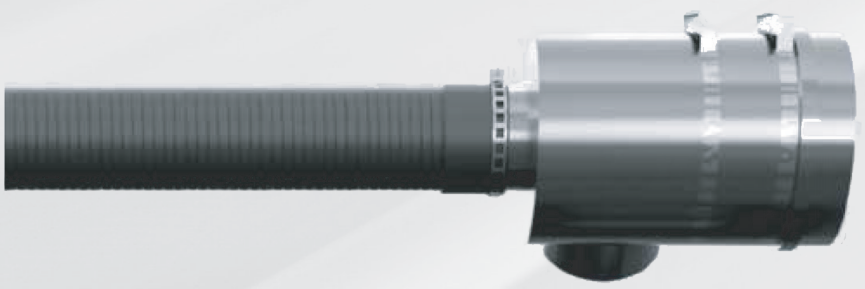
MNA Heavy-Duty Air Filter

The heavy-duty air filter has been meticulously engineered for environments with medium to heavy dust loads. Built on the basis of a conventional air filter, it incorporates a centrifugal separation structure.

This feature pre-separates the air entering the filter element, removing larger dust particles. This effectively extends the service life and maintenance interval of the filter element.

In addition, the filter paper structure has been improved to increase its dust-holding capacity. A special design between the pleat layers prevents damage at the joints. This allows dust and impurities to be filtered effectively in harsh operating environments with high concentrations of dust and impurities.

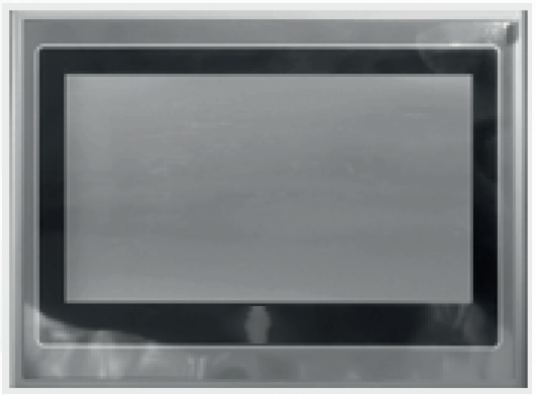
This approach helps extend the service life of the air filter element and protects both the main equipment and the oil and gas piping system.





Innovation for Efficiency

The oversized cooler ensures optimal compressor operation even at temperatures up to 115°F (46°C), without any issues.



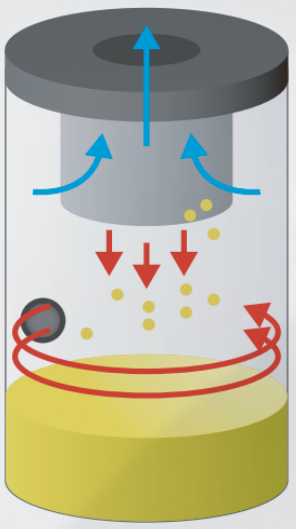
Custom PLC for Permanent Magnet Motor Screw Air Compressors

A custom controller designed specifically for permanent magnet motors, adapting more precisely to the compressor's demands.

Cyclonic Oil Tank Design Ensures High Separation Efficiency

The first stage consists of mechanical centrifugal separation, followed by a highly efficient oil separator in the second stage. The oil separator has a service life of 8,000 hours, and oil content is below 3 ppm.

The flow guide plate changes the direction of flow, while cross-collision causes tiny oil droplets to coalesce into larger particles for easier separation. This process reduces the load on the oil-air separator element, contributing to greater durability. A reserve margin of more than 30% is maintained for the oil separator, and efficiency increases by approximately 1 to 2%. Notably, the separator features a vertical tangential structure.





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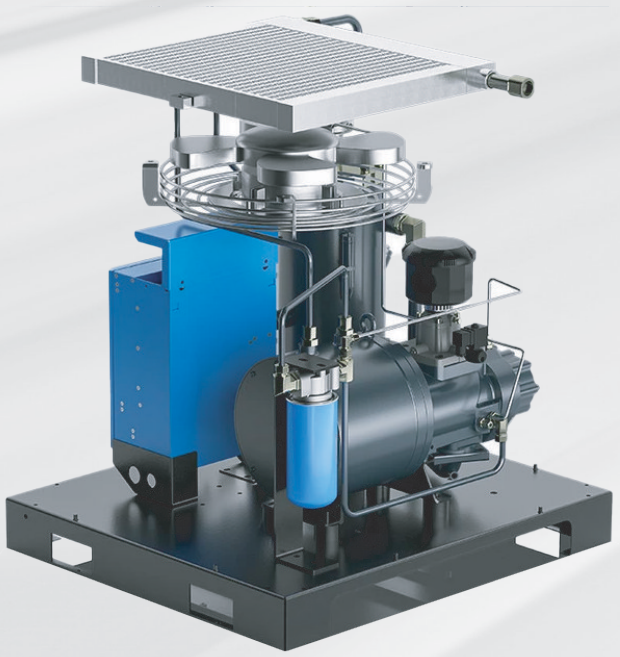
Specifications Table

Model	KW	HP	Flow (CFM)	Pressure (PSI/BAR)		Dimensions (m/in)	Weight (kg/lbs)	Connection
MNA - 7LG	7.5	10	15-41	100-145	7-10	1.48 x 0.77 x 1.72 58.27" x 30.31" x 67.72"	350 772	1/2" NPT
MNA - 11LG	11	15	19–61	100-217	7-15	1.48 x 0.80 x 1.88 58.27" x 31.50" x 74"	380 838	3/4" NPT
MNA - 15LG	15	20	32-84	100-236	7-16	1.48 x 0.80 x 1.88 58.27" x 31.50" x 74"	410 923	3/4" NPT
MNA - 22LG	22	30	32-122	100-236	7-16	1.85 x 0.92 x 1.98 72.83" × 36.22" × 77.95	650 1433	1" NPT









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Component Origin

Item	Brand	Origin	
Airend	MASIA Compressors	Japan	
Electric motor	MASIA Compressors	Japan	
Bearing	SKF	Sweden	
Air intake valve	MASIA Compressors	Japan	
Pressure sensor	SIEMENS	Germany	
Electric control system	SIEMENS	Germany	
PLC		Japan	
Air filter	MASIA Compressors	Japan	
Oil filter	MASIA Compressors	Japan	
Oil separator	MASIA Compressors	Japan	
Inverter	Inovance	Germany	
Solenoid valve	ODE	Italy	

Key Clients

Your One-Stop Supplier

Synthetic Lubricants



Masia Compressors oils, synthetic and super premium grade, are designed to deliver exceptional compressor performance. Made in the United States of America, they last up to 8,000 operating hours and offer significant benefits such as greater compressor operating efficiency, extended equipment life and lower maintenance costs. These advanced lubricants contribute to smoother operation, less wear and optimal system performance, ensuring high-quality compressed air across a wide range of industrial applications.

Consumables



Masia Compressors consumables, such as air filters, oils and compressor separators, are manufactured in the United States to the highest quality standards. Delivering reliable, long-lasting performance, these consumables keep your equipment in optimal condition, ensuring smooth operation and efficient production for optimal system performance.



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