



▶▶▶ RMF 110-160
RMF 132-180 IVR

Gearbox driven
Oil-injected screw compressors
Fixed and variable speed

Robust, reliable, efficient.
Maximum benefits in
compressed air.





RMF • Gearbox Driven RMF IVR • Gearbox driven • Variable speed

To help you achieve the highest productivity, Mark has developed a strong range of solutions and services. With the RMF ranges, you will get superior reliability and performance levels while keeping ease of installation and operation. The machine combines all the key features and built-in intelligence to help you reach optimal productivity each and every day.

Based on a solid technical experience and application knowledge, Mark is the right partner to accompany the industries in their daily challenges and contributes to their success.

User benefits

Time-proven reliability

- Meticulous components selection and advanced technology
- Strict qualification and testing procedure
- Rigid pipes and elastic coupling: durability and leak free
- Smart Airlogic® controller for a flexible monitoring
- Long lifetime filtration system

High performance

- Airend with two asymmetrical profile rotors mounted on superior-quality bearings
- High performance electric motor (IE3)
- Gear driven for highest efficiency and reliability over time
- Energy efficient ventilation with speed regulated turbines
- Aluminium type cooler blocks with a large surface for maximum cooling efficiency

Easy to install and operate

- Low noise level for compatibility with most operating environments
- All-in-one included package and no special foundation needed
- All connection accessible from the same side for easy installation
- Easy ducting from the roof

Service friendly design

- Wide doors that open 180°, easily removable panels
- Easy access to all working parts and consumables
- Completely free sides
- No special tools required
- Clear service schedule available from the Airlogic®



Mark RMF ranges offer a flexible choice of compressors, from 110 till 160kW, in different pressure and cooling variants, all gearbox driven, fix or variable speed. All compressors are designed to reach the same target: guarantee the highest uptime, and ensure you long and easy operation with the lowest operating costs.

Fix speed control – Load/unload regulation

A load/unload compressor delivers a constant air capacity. The net pressure is controlled by an inlet valve operating the compressor in a load/unload cycle. In case the set pressure is reached, the compressor turns into unload mode (by closing the inlet valve). When the pressure value drops below a specific level, the compressor starts up the same routine.

Variable speed control – Frequency inverter regulation (IVR)

A frequency driven compressor has a working pattern with lower peaks and a smoother air profile. This is achieved by controlling the air delivery and producing only the amount of air required for the customer's application at a specific moment. The net pressure is maintained by use of a frequency inverter. As a result, the compressor consumes only the energy needed which is very cost efficient. Additional benefits:

- ✓ Certified electromagnetic compatibility
- ✓ Higher process stability
- ✓ Reduced compressed air leaks
- ✓ Ramped motor start up
- ✓ No current peaks, no tax penalties from power suppliers
- ✓ Less stress on coupling elements and improved mechanical reliability

GEARBOX DRIVEN - Fixed & Variable speed



Standard equipment

| STANDARD | GEARBOX DRIVEN | |
|---|----------------|----------------|
| | Fixed speed | Variable speed |
| Intake filter | standard | standard |
| Capacity control device | standard | standard |
| Screw compressor with asymmetrical profile rotors | standard | standard |
| Gear driven transmission with elastic coupling | standard | standard |
| IP55 electrical motor, class F insulation | standard | standard |
| Optimized Air/Oil separator | standard | standard |
| Oil filters | standard | standard |
| Aluminum type Air/Oil coolers | standard | standard |
| Speed regulated radial fans | standard | standard |
| Oil pressure regulating valve | standard | standard |
| Control panel | standard | standard |
| Electronic controller | standard | standard |
| Insulated sound cover | standard | standard |
| Anti-vibration dampers | standard | standard |
| Standard high efficiency panels | standard | standard |
| Integrated frequency drive (for IVR machine only) | x | standard |

Large scope of available options

Special conditions require special care for your compressor.

A carefully designed choice of optional features protect your machine or process when it is required:

| OPTION | GEARBOX DRIVEN | |
|--|----------------|----------------|
| | Fixed speed | Variable speed |
| High efficiency external intake filter | ✓ | ✓ |
| Dust filtration panels | ✓ | (standard) |
| Water separator | ✓ | ✓ |
| Automatic drain* | ✓ | ✓ |
| Modulating control | ✓ | ✓ |
| Phase sequence relay | ✓ | ✓ |
| Wooden case | ✓ | ✓ |
| 4000 hours oil | ✓ | ✓ |
| 8000 hours oil | ✓ | ✓ |
| Food grade oil | ✓ | ✓ |
| Energy recovery | ✓ | ✓ |

* In combination with water separator drain



“ The RMF gearbox driven ranges come with a wide range of options, so all customer needs can be met. ”

“ Maintenance is a one man job now. Costs me less. ”

“ Advanced design Powerful & efficient Very rigid and robust construction ”

“ Thanks to the synergy in design within the ranges, the service is facilitated, availability of parts is increased and lead times of machines are reduced. ”

Great reliability and flexible package

RMF 110-160

The RMF 110-160 is the ideal solution for all industries requiring high reliability and low operating costs.

Easy installation, excellent accessibility and simple design are the results of decades of experience in designing and constructing compressors.

The gearbox driven transmission makes the compressors more reliable, more efficient, more compact and less noisy. Flexible coupling transmits torque and absorbs any torque stress that may occur during start-up and shutdown and also contributes to:

- Reduces energy costs
- Increases reliability
- Lower vibrations
- Extends component life



Components



- 1 controller
- 2 base frame
- 3 compressed air outlet

- 4 compression element
- 5 gear driven transmission
- 6 motor
- 7 air admission valve

- 8 air/oil coolers
- 9 air filter
- 10 cooling fans



Powerful compressed air system to match your compressed air demands

RMF 132-180 IVR

The RMF IVR is a robust solution offering multiple benefits in a compact package. Nothing has been left to chance: all features have been thought, designed and qualified, all components have been carefully selected.

To bring down the operating costs, all the RMF IVR machines are fitted with speed regulated EC (Electronic Commutation) turbines. The speed is automatically regulated to the cooling requirements of the machine which brings many benefits:

- Lower noise level
- Increased energy savings, as the turbine is speed regulated to the cooling requirement
- Increased reliability by ensuring a constant temperature and reduced maintenance

The RMF IVR screw compressor, coupled to a system that electronically adjusts the motor's rotation speed, only consumes the energy needed to produce the compressed air required by the system. This saves over 30% compared to a fix speed machine at equal power.



Components



- 1 filtration panel
- 2 controller
- 3 frequency inverters
- 4 oil separator vessel

- 5 base frame
- 6 air/oil coolers
- 7 oil filters
- 8 unloader valve
- 9 air filter

- 10 air end
- 11 gear driven transmission
- 12 motor
- 13 cooling fans

Energy audit

A frequency driven compressor potentially offers a very energy efficient compressed air installation, with a return on investment of typically 1-2 years. To help you decide to go with a frequency driven compressor or not, Mark has created the Energy Cutter, a tool which calculates in an easy way and visually presents the yearly savings that can be obtained from investing in a frequency driven compressor for any specific industry. Besides the Energy Cutter tool, Mark offers energy audits, specialized advice to make sure you make the right decision when buying your compressor.



GEARBOX DRIVEN - Fixed & Variable speed



Technical data

| FIX SPEED | Max. Working Pressure | Reference Working Pressure | Free Air Delivery @ reference conditions* | | | Motor Power | | Noise Level** | Cooling Air Volume | Compressed Air output diameter | Weight |
|-----------|-----------------------|----------------------------|---|-----|------|-------------|-----|---------------|--------------------|--------------------------------|--------|
| | | | m ³ /h | l/s | cfm | kW | hp | | | | |
| Model | BAR | BAR | m ³ /h | l/s | cfm | kW | hp | dB(A) | m ³ /h | " | kg |
| RMF 110 | 7,5 | 7 | 1192 | 331 | 702 | 110 | 150 | 75 | 19500 | 3" | 2931 |
| | 8 | 7,5 | 1143 | 317 | 673 | 110 | 150 | 75 | 19500 | | |
| | 10 | 9,5 | 1028 | 285 | 605 | 110 | 150 | 75 | 19500 | | |
| | 13 | 12,5 | 866 | 240 | 510 | 110 | 150 | 75 | 19500 | | |
| RMF 132 | 7,5 | 7 | 1415 | 393 | 833 | 132 | 180 | 75 | 19500 | 3" | 3020 |
| | 8 | 7,5 | 1358 | 377 | 799 | 132 | 180 | 75 | 19500 | | |
| | 10 | 9,5 | 1231 | 341 | 725 | 132 | 180 | 75 | 19500 | | |
| | 13 | 12,5 | 1011 | 280 | 595 | 132 | 180 | 75 | 19500 | | |
| RMF 160 | 7,5 | 7 | 1717 | 477 | 1011 | 160 | 220 | 73 | 26000 | 3" | 2830 |
| | 8 | 7,5 | 1641 | 456 | 966 | 160 | 220 | 73 | 26000 | | |
| | 10 | 9,5 | 1490 | 414 | 877 | 160 | 220 | 73 | 26000 | | |
| | 13 | 12,5 | 1231 | 342 | 725 | 160 | 220 | 73 | 26000 | | |

| VARIABLE SPEED | Working pressure | Min Free Air Delivery (7 bar) | | | Max Free Air Delivery* | | | | | | | | | | | | Motor Power | | Noise Level** | Cooling Air Volume | Compressed Air output diameter | Weight |
|----------------|------------------|-------------------------------|-----|-----|------------------------|-----|------|-------------------|-----|-----|-------------------|------|------|-------------------|------|------|-------------|-----|---------------|--------------------|--------------------------------|--------|
| | | m ³ /h | l/s | cfm | 7 | | | 9,5 | | | 10 | | | 12,5 | | | kW | hp | | | | |
| Model | BAR | m ³ /h | l/s | cfm | m ³ /h | l/s | cfm | m ³ /h | l/s | cfm | m ³ /h | l/s | cfm | m ³ /h | l/s | cfm | kW | hp | dB(A) | m ³ /h | " | kg |
| RMF 132 IVR | 4-10 | 310 | 86 | 183 | 1486 | 412 | 872 | 1360 | 377 | 798 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 132 | 180 | 75 | 19440 | 3" | 2509 |
| | 4-13 | 375 | 104 | 221 | 1291 | 358 | 758 | 1234 | 342 | 724 | 1230 | 341 | 722 | 1183 | 328 | 694 | 132 | 180 | 75 | 19440 | | |
| RMF 180 IVR | 4-10 | 276 | 77 | 162 | 1820 | 506 | 1071 | 1615 | 449 | 950 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 160 | 220 | 73 | 26000 | 3" | 3550 |
| | 4-13 | 283 | 79 | 167 | 1361 | 378 | 801 | 1349 | 375 | 792 | 1341 | 373 | 789 | 1315 | 365 | 774 | 160 | 220 | 73 | 26000 | | |

* Unit performance measured according to ISO 1217, Annex C, latest edition

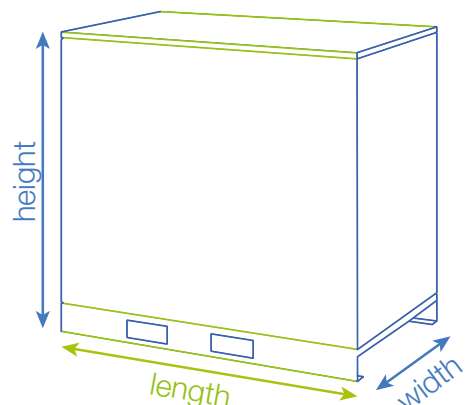
** Noise level measured according to ISO 2151

All technical data for Aircooled machines.

For technical data of Watercooled machines or 60Hz compressors, please contact your local salesforce.

Dimensions

| FIX SPEED | DIMENSIONS | | | VARIABLE SPEED | DIMENSIONS | | |
|-------------|------------|----------|-----------|----------------|------------|----------|-----------|
| Model | length mm | width mm | height mm | Model | length mm | width mm | height mm |
| RMF 110-132 | 2860 | 1500 | 1940 | RMF 132 IVR | 2860 | 1500 | 1940 |
| RMF 160 | 2842 | 1610 | 1992 | RMF 180 IVR | 2942 | 1610 | 1992 |



SMART TECHNICAL ADVANTAGES

INTELLIGENT BUILT-IN SYSTEM

- User friendly interface for easy monitoring. 27 languages available.
- Protect your compressed air system
- Large scope of integrated functionalities : timers, dual pressure band
- Clear service schedule and fault report (10 last cases)



EXCELLENT ACCESSIBILITY, SAFE MAINTENANCE

- Coolers vertically mounted for easy maintenance
- Efficient 3-stage air/oil separation (centrifugal/gravitational/coalescent) for residual oil content < 3 ppm
- Special mountings facilitate assembly and dismantling



DESIGNED FOR HIGHEST RELIABILITY

- Variable speed turbine fans with low-noise, high-capacity, silent operation
- Air flow spreads over surfaces of all internal working parts, cooling them and protecting them against hot spots
- Aluminum air-oil cooler has large surface area for heat transfer and effectively cools air and oil
- Pre-filtration panel provide maximum protection of internal working parts by filtering all incoming air





Oil injected Screw compressors,
Gearbox driven
Ranges:

- RMF 110-160
and RMF 132-180 IVR

MARK

- A high quality product offering you **technology you can trust**.
- Our products are **easy to use** and guarantee high **reliability**.
- Distributors are always nearby ensuring **availability** of both products and support.
- Choosing our high performance products entails a **partnership** that will boost your business.
- Safeguarding long-term productivity through optimal **serviceability** and use of original parts.



Care. Trust. Efficiency.

Care.

Care is what service is all about: professional service by knowledgeable people, using high-quality original parts.

Trust.

Trust is earned by delivering on our promises of reliable, uninterrupted performance and long equipment lifetime.

Efficiency.

Equipment efficiency is ensured by regular maintenance. Efficiency of the service organization is how Original Parts and Service make the difference.



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Contact your local sales representative now!

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