

>>>> RME 110 RME 110 IVR

>>>> 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.



MARK



# 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 (IE2)
- Gear driven for highest efficiency and reliability over time
- Energy efficient ventilation with speed regulated turbines (except RME)
- 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®

# RME • RMF • Gearbox Driven RME • 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 RME/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.



Mark RME/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

STANDADD		GEARBOX DRIVEN				
STANDARD		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 (except RME)		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)		×	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:

	GEARBO)	K DRIVEN
OPTION	Fixed speed	Variable speed
High efficiency external intake filter	V	✓
Dust filtration panels	<b>V</b>	(standard)
Water separator	<b>V</b>	✓
Automatic drain*	<b>V</b>	<b>V</b>
Modulating control	<b>V</b>	<b>V</b>
Phase sequence relay	<b>V</b>	<b>V</b>
Wooden case	V	<b>V</b>
4000 hours oil	<b>V</b>	<b>V</b>
8000 hours oil	<b>V</b>	<b>✓</b>
Food grade oil	<b>V</b>	<b>V</b>
Energy recovery	✓	<b>V</b>

<sup>\*</sup> In combination with water separator drain



gearbox driven ranges
come with a wide range of
options, so all customer
needs can be met. 7,5

Advanced design Powerful & efficient Very rigid and robust construction

Maintenance is a one man job now.

Costs me less

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



The RME 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

The RME IVR offers all benefits to help you lower down your energy cost to a minimum: a highly efficient frequency converter with low harmonic distortion is built into the machine in a well-ventilated housing.



#### >>> Components

filtration panel

air/oil coolers

electrical cubicle

2 controller



- 5 oil separator vessel
  - 6 base frame
  - oil filters
  - unloader valve
  - air filter



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



## Powerful compressed air system to match your compressed air demands

# RMF 110-160 RMF 132-180 IVR

The RMF 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 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





- filtration panel
- controller
- frequency inverters
- oil separator vessel

- base frame
- air/oil coolers
- oil filters
- unloader valve
- 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*			reference conditions* Motor Power		· Power	Noise Level**	Cooling Air Volume	Compressed Air output diameter	Weight		
Model	3	<b>3</b>	<b>=</b>			<b>▽</b>				þ	•	<b>=</b>		
Wodei	BAR	BAR	m <sup>3</sup> /h	l/s	cfm	kW	hp	dB(A)	m <sup>3</sup> /h	"	kg			
	7,5	7	1175	326	692	110	150	75	15000		1810			
DME 440	8	7,5	1139	316	670	110	150	75	15000	2"	1810			
RME 110	10	9,5	1025	285	603	110	150	75	15000	2"	1810			
	13	12,5	880	244	518	110	150	75	15000		1790			
	7,5	7	1192	331	702	110	150	75	19500					
RMF 110	8	7,5	1143	317	673	110	150	75	19500	3"	2931			
HIVIF I IU	10	9,5	1028	285	605	110	150	75	19500	3	2931			
	13	12,5	866	240	510	110	150	75	19500					
	7,5	7	1415	393	833	132	180	75	19500					
RMF 132	8	7,5	1358	377	799	132	180	75	19500	3"	3020			
RIVIF 132	10	9,5	1231	341	725	132	180	75	19500	3	3020			
	13	12,5	1011	280	595	132	180	75	19500					
	7,5	7	1717	477	1011	160	220	73	26000					
RMF 160	8	7,5	1641	456	966	160	220	73	26000	3"	2830			
HIVIF 100	10	9,5	1490	414	877	160	220	73	26000	J	2000			
	13	12,5	1231	342	725	160	220	73	26000					

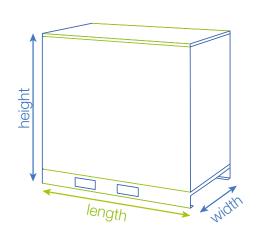
VARIABLE SPEED		D	ı Free Jeliver (7 bar														Compressed Air output diameter	Weight				
Model			<b>\F</b>			7			9,5			10			12,5			P		<b>-</b>		
Wodel	BAR	m <sup>3</sup> /h	l/s	cfm	m <sup>3</sup> /h	l/s	cfm	m <sup>3</sup> /h	l/s	cfm	m <sup>3</sup> /h	l/s	cfm	m <sup>3</sup> /h	l/s	cfm	kW I	ηp	dB(A)	m <sup>3</sup> /h	"	kg
DME 440 IVD	4-10	202	56	119	1144	318	673	1019	283	600	n.a	n.a	n.a	n.a.	n.a.	n.a.	110 1	50	75	15000	3"	1860
RME 110 IVR	4-13	142	39	84	902	251	531	897	249	528	895	249	527	883	245	520	110 1	50	75	15000	S	1000
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 1	80	75	19440	3"	2509
RIVIF 132 IVK	4-13	375	104	221	1291	358	758	1234	342	724	1230	341	722	1183	328	694	132 1	80	75	19440	3	2509
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 2	20	73	26000	3"	3550
DIVIT 100 IVK	4-13	283	79	167	1361	378	801	1349	375	792	1341	373	789	1315	365	774	160 2	20	73	26000	J	3000

\* 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, please contact your local salesforce.

### >>> Dimensions

FIX SPEED	DIMENSIONS								
Model	length mm	width mm	height mm						
RME 110	2160	1100	1600						
RMF 110-132	2860	1500	1940						
RMF 160	2842	1610	1992						

VARIABLE SPEED	DIMENSIONS								
Model	length mm	width mm	height mm						
RME 110 IVR	2160	1100	1600						
RMF 132 IVR	2860	1500	1940						
RMF 180 IVR	2942	1610	1992						



# >>> SMART TECHNICAL ADVANTAGES

#### **INTELLIGENT BUILT-IN SYSTEM**

- 27 languages available.

   Protect your compressed air system
   Large scope of integrated functionalities:
- Clear service schedule and fault report





#### **EXCELLENT ACCESSIBILITY,** SAFE MAINTENANCE

- Coolers vertically mounted for easy maintenance
   Efficient 3-stage air/oil separation(centrifugal/



#### **DESIGNED FOR HIGHEST RELIABILITY**

- Variable speed turbine fans (except RME) with low-noise, high-capacity, silent operation
  Air flow spreads over surfaces of all internal





Oil injected Screw compressors, Gearbox driven Ranges:

- RME 110 and RME 110 IVR
- RMF 110-160 and RMF 132-180 IVR



- A higher final product quality and a strong technology you can trust
- Choosing for our high performance compressor offers you a strong partnership
- Our products are simple, easy to use and stand for a high reliability
- Service and aftermarket are guaranteed
- Original Parts and Services
- Dealers are always nearby and have strong availability



# Increase your profit and improve the image of your company



Contact your local Mark representative now!



