

»»» RMD 45 – 75  
IVR PM

Direct driven

Oil-injected screw  
Compressors  
Variable speed

Advanced reliability in  
compressed air.



**MARK**



## User benefits

### Minimal energy costs

- More compressed air for less energy thanks to newest generation of screw elements
- Significant energy savings through IE4 Super Premium Efficiency motor
- Minimal losses thanks to integrated direct drive transmission
- Instant savings brought by Imperium variable speed technology vs. traditional fixed speed compressors

### Userfriendly operation & maintenance

- In-house designed large 4.3" graphical controller with touchscreen
- Integrated connectivity helps you optimize and save energy
- All consumables are at easy reach for fast service and minimal downtime of your compressor
- The coolers are mounted on gliding rails and can easily be dragged out and cleaned, making service a one-person job
- Low noise radial fan as standard

### Reliable productivity & operational efficiency

- Patented and in-house designed interior permanent magnet (IPM) motor with innovative oil-cooling technology for optimal cooling at all speeds and conditions
- In-house designed Imperium inverter, tailor-made for screw compressor applications.
- Maintenance-free components enable higher uptime and increased productivity

### Simple installation

- Compact and all in one system
- Innovative design
- Easy and full protected transport
- Placement with forklift (2 lifting points) or transpallet (1 lifting point)
- No special foundation needed

### A peace of mind investment

- Quality filtration with long lifetime protects internal components and increases lifetime
- Packaged in a proven canopy design with already thousands of installations around the globe.

## »»» RMD IVR PM

- Variable speed • Direct driven
- Interior Permanent Magnet Motor

Compressed air drives your processes and with it, the operational efficiency and performance of your company. With this principle in mind, Mark has designed the RMD IVR PM, a range of variable speed, oil-injected screw compressors with iPM motor technology to offer your business a compressed air solution that adds value and saves you money at the same time.



### »»» Why energy efficiency?

Energy costs represent about 70% of the total operating cost of your compressor over a 5-year period. That is why efficiently reducing the energy consumption of your compressed air installation should be a major focus.

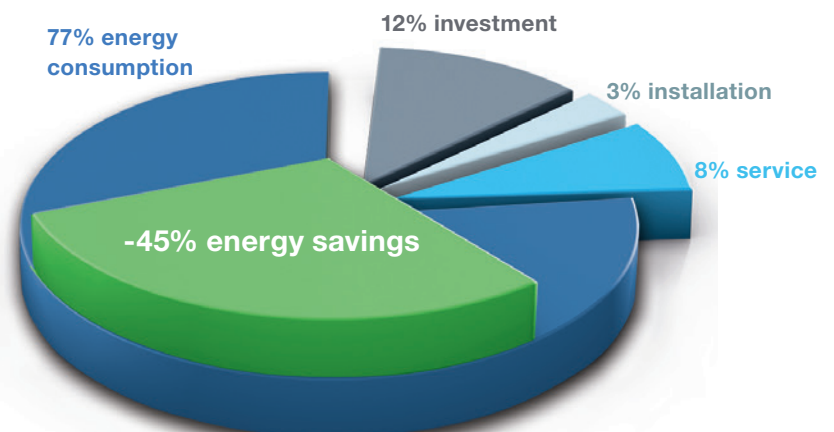
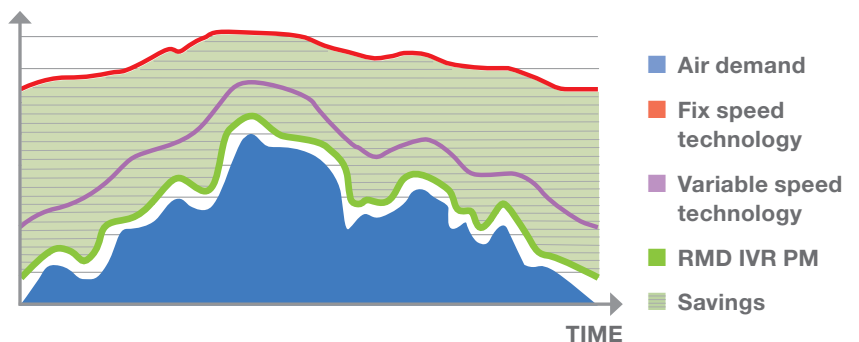
### »»» Why Variable Speed?

As a majority of customers have a variable demand for compressed air, a variable speed compressor is superior vs. a fixed speed compressor in terms of energy savings by perfectly matching air supply to air demand and avoiding unload losses.

### »»» Why RMD IVR PM?

The RMD IVR PM range combines our Imperium variable speed technology with our new and highly efficient drive train with iPM motor technology and evolved the energy efficiency of variable speed compressors to a new level, resulting in energy savings of up to 45%.

ENERGY COST



## SMART TECHNICAL ADVANTAGES



### RELIABLE PERFORMANCE

- New generation in-house designed screw elements, delivering more compressed air for less energy.
- In-house designed iPM motor with IE4 Super Premium Efficiency. Oil-cooled for optimal cooling at all speeds.
- Integrated direct drive transmission for minimal losses.



### EASY & FULL CONTROL AT YOUR FINGERTIPS

#### ES 4000<sup>T</sup> TOUCH CONTROLLER

- In-house designed graphical controller with a large 4,3" full-color touchscreen.
- Easy to read and user-friendly to operate.
- Integrated connectivity enables remote monitoring possibilities and helps to further.
- Monitoring key parameters to ensure safe operation.



### SIMPLE MAINTENANCE

- Separate air and oil cooler which reduces the thermal tension extending the lifetime of the coolers.
- Easy gliding ridges making maintenance a one man job.



### ROBUST, COMPACT AND USER-FRIENDLY FREQUENCY INVERTER

- In-house designed Imperium inverter.
- IP5X protection rating for harshest conditions.
- Plug-and-play solution, controlled by ES4000<sup>T</sup> controller.
- Installed in separate cubicle for easy maintenance and optimized cooling.



## »» Innovative drive train technology

### Improved energy efficiency saves you money

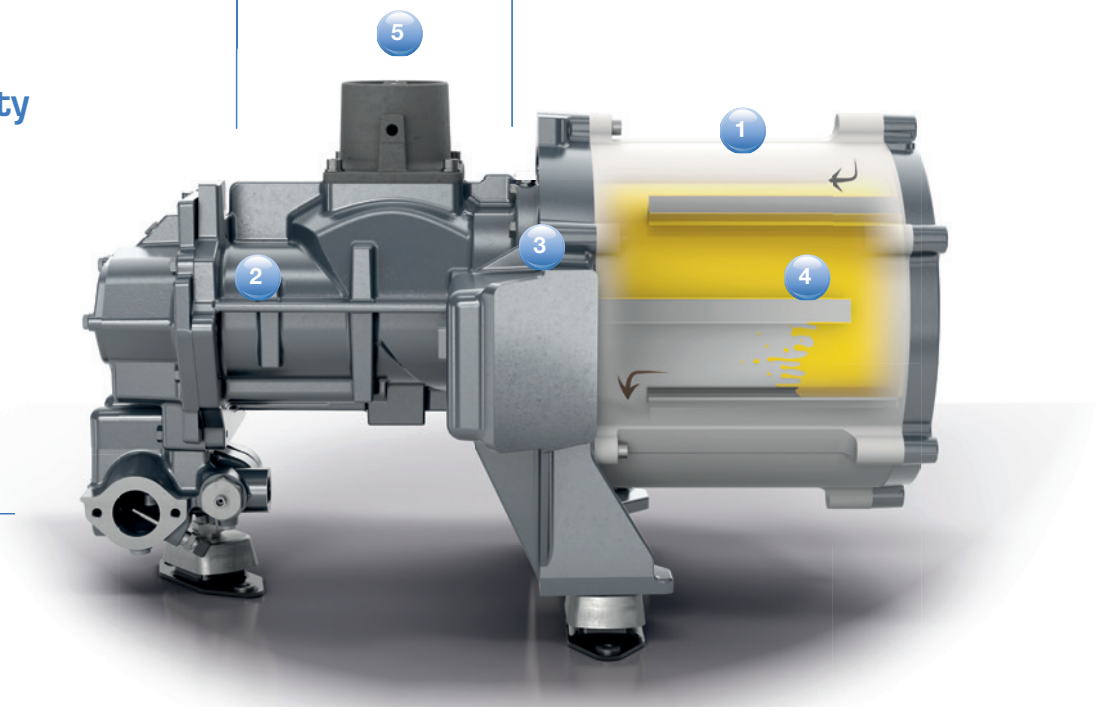
- In-house designed iPM motor (1) with IE4 Super Premium Efficiency.
- New generation in-house designed screw elements (2), with improved efficiency.
- Integrated direct drive transmission (3) for minimal losses.
- Smart inlet valve (5) optimizes the inlet flow and improves efficiency.

### Maintenance-free design minimizes downtime and improves your productivity

- No (re)grease(ing) of the motor (1) bearing needed.
- Coupling-free direct drive design (3), no maintenance needed.
- Smart inlet valve (5), no maintenance needed.

### Increased reliability extends lifetime

- iPM motor (1) rated IP66, premium protection against dust and water ingress.
- Globally renowned screw elements (2), proven in thousands of installations.
- Optimal cooling at all speeds and conditions thanks to oil-cooling principle (4) of the iPM motor (1).



## »» Scope XT

How do you get the most out of your compressor in the most cost-effective way? The simple answer is: **SCOPE XT**, the service plan that makes your life easy, keeps your compressor running energy-efficiently and avoids breakdowns. If you have just purchased a new machine, **SCOPE XT** provides an extending warranty up to 5 years. You do not have to worry about unexpected repair costs: it is all part of the plan!



#### Save energy

Original parts are replaced on time, ensuring optimal efficiency and reducing energy costs. for the whole period between service visits.



#### Control budget

SCOPE XT offers full transparency, as the costs are fixed for the duration of the agreement.



#### One order

Instead of ordering and paying for every individual spare part and service, one order is all you need.



#### Flexibility on top

You can decide how long you want the agreement to run and you can cancel with a notice of termination.

*"SCOPE customers have on average 2 weeks of extra operation per year due to increased machine availability!"*

## Optional and standard features

| OPTION                                | RMD IVR PM |
|---------------------------------------|------------|
| Water separator                       | ✓          |
| Automatic drain for water separator*  | ✓          |
| Standard filtration panel             | Standard   |
| High efficiency pre-filtration panel  | ✓          |
| Noise reduction baffle (super silent) | ✓          |
| Oil heater                            | ✓          |
| 8000 hours oil                        | ✓          |
| Foodgrade oil                         | ✓          |
| Integrated energy recovery system (1) | ✓          |
| Wooden box packaging                  | ✓          |
| Tropical thermostatic valves          | ✓          |
| Automatic restart after power failure | Standard   |
| ES4000 <sup>+</sup> controller (2)    | Standard   |



## Combine your RMD IVR PM with downstream equipment

### Line Filters

- Purify the compressed air by eliminating oil/dust contaminants resulting in higher final product quality and an increase of your overall productivity.

### Air Receiver

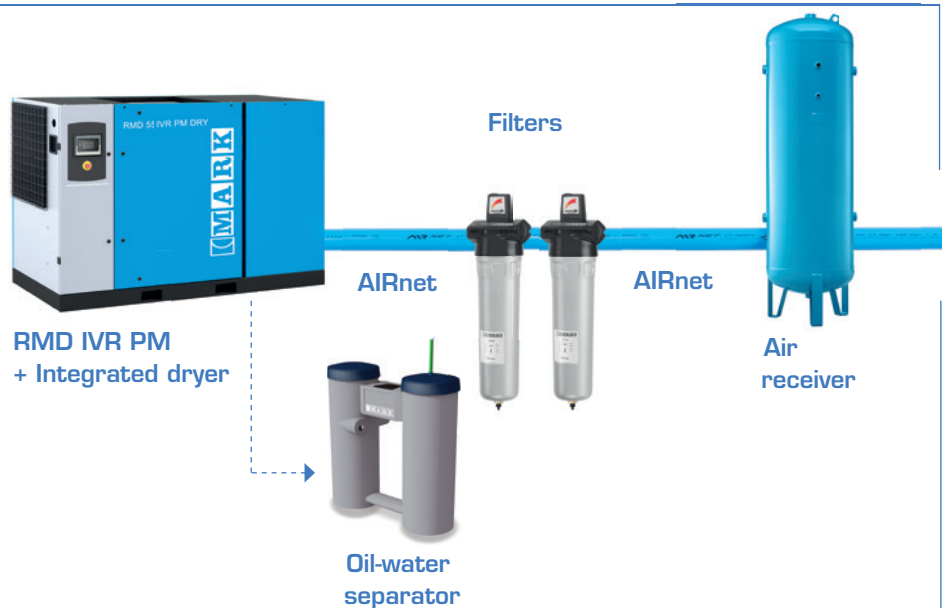
- Buffer storage for compressed air. Helps with condensate separation, pressure stabilization and more efficient operation of the compressor.

### Oil-Water Separator

- Captures the oil in compressor condensate so it can be disposed of in a safe and environment-friendly way.

### AIRnet

- Fast to install, reliable piping system, designed for compressed air applications offers lowest total cost of ownership.



## ICONS

Connectivity is the future. The RMD 45-75 IVR PM comes fully prepared and enables you to benefit from all the advantages of ICONS:

- Remote monitoring that helps you optimize your compressed air system and save energy.
- On-time maintenance which optimizes costs and ensures a longer machine life.
- Potential problems are recognized before they can pose a threat to the continuity of your production



# TAKE YOUR PERFORMANCE AND ENERGY EFFICIENCY TO NEW HEIGHTS

Continuous investment in product development has resulted in our most innovative and energy efficient compressor to date. A brand new and groundbreaking drive train coupled with our Imperium inverter has pushed energy efficiency to the next level, bringing energy savings of up to 45%. Designed with the customer in mind, the RMD 45-75 IVR PM range brings:

## Increased performance with lower energy costs

- New generation screw elements, delivering more compressed air for less energy.
- IE4 Super Premium Efficiency motor, resulting in significant energy savings.
- Integrated direct drive transmission for minimal losses.
- Imperium variable speed technology, bringing instant savings vs. traditional fixed speed compressors.

## In-house designed innovations

- In-house designed interior permanent magnet (iPM) motor with innovative oil-cooling technology for optimal cooling at all conditions.
- In-house designed Imperium inverter, tailor-made for screw compressor applications.
- In-house designed graphical controller with touchscreen for user-friendly operation.

## Improving your productivity

- Maintenance-free components enable higher uptime and increased productivity.
- Consumables with long lifetime ensure optimal reliability and low total cost of ownership.
- Packaged in a proven canopy design with already thousands of installations around the globe.

## Components



- 1 Filtration panel
- 2 Emergency stop
- 3 Controller
- 4 Air filter
- 5 Oil filter
- 6 Air cooler

- 7 Oil cooler
- 8 Cubicle
- 9 Inverter
- 10 Oil-seperator vessel
- 11 Radial fan
- 12 Screw element

- 13 Inlet valve
- 14 Direct drive transmission
- 15 iPM motor
- 16 Integrated dryer

## How much can I save with the RMD IVR PM range?

Contact us for an energy audit. We will measure the air demand and energy consumption of your existing installation and generate a detailed report at the end. Based on your specific situation we can simulate and show how much your energy costs would reduce with a RMD IVR PM. If you would decide to invest in a RMD IVR PM, you can expect a typical payback of 1-2 years.



## Technical data

|                      | Max.<br>Working<br>Pressure                                                       | Min<br>Free Air Delivery<br>(7 bar)                                               |     |     | Max<br>Free Air Delivery * |     |     |                   |     |     |                   |     |     |
|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----|-----|----------------------------|-----|-----|-------------------|-----|-----|-------------------|-----|-----|
|                      |  |  |     |     | 7                          |     |     | 9,5               |     |     | 12,5              |     |     |
|                      | 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 |
| <b>RMD 45 IVR PM</b> | 4-13                                                                              | 108                                                                               | 30  | 64  | 547                        | 152 | 322 | 486               | 135 | 286 | 407               | 113 | 239 |
| <b>RMD 55 IVR PM</b> | 4-13                                                                              | 104                                                                               | 29  | 61  | 662                        | 184 | 390 | 587               | 163 | 345 | 493               | 137 | 290 |
| <b>RMD 75 IVR PM</b> | 4-13                                                                              | 101                                                                               | 28  | 59  | 792                        | 220 | 466 | 698               | 194 | 411 | 590               | 164 | 347 |

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

\*\* Noise level measured according to ISO 2151 with optional baffle

All technical data for Aircooled machines without integrated dryer. For technical data of Watercooled machines or machines with integrated dryer, please contact your local salesforce.

|                      | Motor<br>Power                                                                      |     | Noise<br>Level<br>**                                                                | Cooling<br>Air<br>Volume                                                            | Compressed Air<br>output diameter | Weight                                                                                |      |
|----------------------|-------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------|------|
|                      |  |     |  |  | "                                 |  |      |
|                      | kW                                                                                  | hp  | dB(A)                                                                               | m <sup>3</sup> /h                                                                   |                                   | kg                                                                                    |      |
| <b>RMD 45 IVR PM</b> | 45                                                                                  | 60  | 69                                                                                  | 6660                                                                                | 1"1/2                             | 860                                                                                   | 1060 |
| <b>RMD 55 IVR PM</b> | 55                                                                                  | 75  | 71                                                                                  | 11160                                                                               | 2"                                | 880                                                                                   | 1150 |
| <b>RMD 75 IVR PM</b> | 75                                                                                  | 100 | 71                                                                                  | 11160                                                                               | 2"                                | 900                                                                                   | 1170 |

## Dimensions

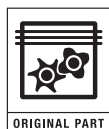
|                           | Length std<br>mm | Length with<br>dryer mm | Width mm | Height mm |
|---------------------------|------------------|-------------------------|----------|-----------|
| <b>RMD 45 - 75 IVR PM</b> | 1761             | 2611                    | 1060     | 1630      |



Oil-injected  
screw compressors,  
direct driven,  
variable speed  
Range RMD IVR PM



- 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 Mark representative now!

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