# MF RK SERIES ROTARY RAKES

Range of High Performance Rakes



BORN TO FARM

MASSEY FERGUSON

## A COMPLETE UPDATED RANGE OF RAKES **TO MEET ALL YOUR DIFFERENT DIFFERENT NEEDS.**

EXCELLENT RAKING QUALITY, EASY HANDLING AND A DURABLE DESIGN.

### **CONTENTS**

- 04 SINGLE-ROTOR RAKE
- 06 MF THREE-POINT ATTACHMENT EQUIPMENT
- 08 MF RK TWIN ROTOR OR FOUR ROTOR RAKES
- 10 MF RK TWO AND FOUR ROTOR RAKES QUALITY FEATURES
- 12 MF RK TWIN ROTOR CENTRE DELIVERY RAKES WITH TRANSPORT CHASSIS
- 14 MF RK TWIN ROTOR SIDE DELIVERY RAKE
- 16 MF FOUR-ROTOR CENTRAL DELIVERY RAKE WITH TRANSPORT CHASSIS
- 18 SPECIFICATIONS

ake with transport chassis

MF RK Two-rotor central d



### SINGLE-ROTOR RAKE

WHY A MASSEY FERGUSON SINGLE-ROTOR RAKE?

MF RK SINGLE ROTOR RAKES ARE EASY TO USE, DELIVER EXCELLENT RAKING AND PERFECT SWATH PRESENTATION FROM A STRAIGHTFORWARD AND DEPENDABLE DESIGN

#### **RAKE HEAD**

Massey Ferguson's fully enclosed rake head protects its important components from dirt and dust, guaranteeing a long working life. The optimal design of the cam track, which is made of spheroidal graphite cast iron, ensures smooth running and quick, precise tine lifting. This modern, drive unit's robust, proven design and the precision-built, aluminium alloy tine arm housing further enhance reliability.

#### TANGENTIALLY ARRANGED TINE ARMS

Tangentially mounted tine arms deliver optimum raking quality and ideal swath forming. This arrangement also permits significantly higher working speeds – a huge benefit when working against the weather.

### SPECIAL BOLT-ON CONNECTION FOR THE RAKE HEAD

The rake head's sturdy construction, which uses bolts, ensures the arms are precisely and correctly seated, which enhances reliability. It also allows the tine arms to be individually replaced, without need for further dismantling.



5

#### SWATH DEPOSIT TO THE RIGHT

All MF RK single rotor rakes place the swath to the right-hand side, providing a perfect view of the swath as well as being on the same side as the tractor's controls. Right-hand side delivery makes ergonomic sense.



MF THREE-POINT LINKAGE EQUIPMENT

WORK SMARTER WITH A SINGLE-ROTOR RAKE



New modern design LED lighting concept including a warning panel provides extra safety and longer lifetime.

#### POWER TRAIN 🕨

All power trains in the Massey Ferguson rakes are equipped with overload protection.

This prevents expensive repairs and reduces downtime during the busy forage harvesting season.

#### TINE MOUNTING

Tines are individually bolted to the arms from below – not pushed over the tube. This means the sides of the arms facing the crop are completely smooth, ensuring there is nothing to catch the forage. Without being restricted by the tube, tines are free to move and are easy to replace, without the need to remove any others

#### TINE SUPPORTS

All MF RK rake tine supports are made from a single piece of sturdy tube. The tine arm mounting points are precisely machined to ensure a perfect fit. This makes it easy to insert the arms and reduces wear on this critical component. At the same time, it makes it easier to fit replacements, which cuts downtime.



Tine arm leading edge profile is completely smooth



Perfectly fitting connection point to the tine arms



Large rakes now play a key role in improving forage harvesting efficiency. A failure can bring the whole team to a halt, which could result in huge disruption with high cost implications. This means it's vital not to compromise when investing in a new rake. Massey Ferguson has combined its years of experience with the latest technical knowledge to design and develop an outstanding range of high-performance, large-scale rakes.

#### PRACTICAL MF RK RAKE FEATURES DELIVER:

- Straightforward operation
- Dependable performance
- Outstanding raking quality
- Perfect swath presentation.

### MF TWO-ROTOR OR FOUR-ROTOR RAKES

#### MF RK TWIN ROTOR RAKE – SIDE SWATH AND CENTRAL SWATH DELIVERY

If you prefer simplicity and a single center swath with variable working width, MF RK center rakes are the best choice. If you need the flexibility of producing one or two swathes and want to put two or four swathes together in one large swath, the MF SD rakes can do it all.

#### MF TWO-ROTOR RAKE WITH CENTRAL SWATH DEPOSIT

MF Two-rotor rake with variable working width and swath width for high performance and flexibility.



As well as incorporating well-proven features like SteerGuard or Jet-Fffect, the new 2-rotor centerrakes offer new features as ISOBUS, Flex-High, SectionControl and a steering alarm. These new features help achieving higher capacity by simplified operation.



RAKE HEADS

Maintenance-free rotor heads, requiring no lubrication drive all rotors on the 6 new models of the MF center delivery rake series.



#### MF FOUR-ROTOR RAKE

The MF 4-rotor rakes allow working widths from 10.6 m to 14 m. There is a choice of manual or comfortable ISOBUS operation, depending on the tractor used. All models have compact transport dimensions to go on the road without any effort.



### STEERGUARD® FOR A POSITIVE AND DIRECT STEERING MOVEMENT

MF RK rakes are equipped with a patented steering system, which operates within the frame and provides precise and reliable steering in all conditions. Unlike external steering rods, the MF RK shaft is protected from damage and uses just two pivot points. This ensures accurate steering and safety is guaranteed, even after years of use.

Steering movements are transferred from the shaft to the wheels via steering stub axles. These are equipped with adjustable track rods with precision engineered conical ends that enhance reliability.

The key benefit this exclusive system provides is the direct and positive transmission of steering movements, which ensures it is very responsive and the rake always follows exactly in the tractor track. Moreover, it also guarantees smooth running even at high speeds, providing safe and fast travel from field to field at speeds of up to 40 km/h.\*



Adjustable track rod head



Track rods as already used in commercial vehicles



PERFECT GROUND ADAPTATION IN EVERY SITUATION

The patented, rotor suspension on MF RK rakes ensures perfect ground following, even in the most difficult of working conditions. This uses cardan joints, like gimbals, which enable the rotor to move freely in all directions and closely follow the ground contours. This helps the tines to recover forage lying in ruts or hollows, which reduces losses and sward damage.

MF RK rakes cut losses and swath contamination, which delivers high quality forage.



#### JET EFFECT

Thanks to the rotor's clever suspension and weight distribution, it first lifts at the front and then at the back. When lowering, the rotor's rear wheels first make contact with the ground before being followed by the front wheels.

This novel approach prevents the tines from penetrating the ground, which means there's no damage to the sward and no forage contamination – for top quality forage.

### MF RK TWIN ROTOR CENTRE DELIVERY RAKES WITH TRANSPORT CHASSIS

### MF RK 662 TRC, MF RK 762 TRC, MF RK 862 TRC, MF 922 TRC and MF RK 1002 TRC

#### THE ALL-ROUNDERS IN THE MF RK TWIN ROTOR CENTRE RAKE RANGE

Automatic pre-set working width, tidy raking, precisely presented swaths with quick and safe travel from field to field are delivered by the MF RK 662, MF RK 762, MF RK 862, RK and MF RK 922 and MF RK 1002 twin rotor centre delivery rakes. With optional six-wheel contact-sensing chassis and patented rotor suspension, they deliver excellent raking performance with minimum losses. The best start for making your high quality forage.

#### **CONVENIENCE OF OPERATION, PURE AND SIMPLE**

Working width is adjusted hydraulically or manually (MF RK 622). Combined with the externally adjustable control cam, this creates the optimum swath for following operations. Working -and swath- width can be adjusted steplessly. On the RK 662 TRC a manual lever convenienty provides four pre-selected steps.

Patented technology provides the lowest transport height, regardless of the pre-selected working width. Automatic height limitation in the headland position also means there is no need to disengage the PTO during turns.

#### MF RK 862 TRC PRO, MF RK 922 TRC PRO and MF RK 1002 TRC PRO

- Specialist for extreme working conditions
- Optimum ground-following
- Hydraulic working height adjustment
- Isobus operation ready
- LS hydraulic
- Individual rotor lift
- MyMemory.

### THE SPECIALIST RAKES FOR STRAW AND EXTREME WORKING CONDITIONS

The new rotor chassis on the MF RK 862 PRO, MF 922 TRC PRO and MF RK 1002 PRO has been equipped with six wheels and with a tandem axle with 18-inch tyres for optimum performance. The twin leading wheels have also been redesigned to be larger and flexible in order to guarantee smooth running even under difficult conditions in a stubble field. The clearance between tines and the leading wheel has also been reduced in order to guarantee a top-quality swath, creating perfect conditions for the baler.

For clean raking at any working speed, FlexHigh is available for automatic height control depending on forward speed. LED lights, ISOBUS set, ISOBUS Joystick and Section Control are available for PRO models as well.



### MF RK TWIN ROTOR SIDE DELIVERY RAKE

MF RK 702 TR-SDX, MF RK 662 SD-TRC, MF RK 672 SD-TRC, MF RK 772 SD-TRC, MF RK 842 SD-TRC and MF RK 842 SD-TRC PRO



#### FLEXIBILITY AND CONVENIENCE IN ALL CONDITIONS

Massey Ferguson side delivery rakes provide the perfect flexible solution in all terrains. With these rakes it is possible to deposit two narrow swaths, one large swath or a double swath by making a return pass. The switchover and working width can be adjusted easily and within seconds. Large overlaps between rotors ensure a tidy forage transfer and swath formation even under difficult working conditions.

The versatile drawbar mounted MF RK 702 TR-SDX model has a transport width of less than 3 m, without the need to remove any tine arms, for fast field-to-field movements. On the transport chassis models the lowest folded height is always ensured irrespective of the set working width.

- Large working widths
- Delivery of 1 or 2 swaths
- Perfect ground following with cardanic rotor suspension and jet effect
- Sequential rotor lift control.



### MF FOUR-ROTOR CENTRAL DELIVERY RAKE WITH TRANSPORT CHASSIS

#### MF RK 1254 TRC Gen2, MF RK 1254 TRC PRO Gen2 and MF RK 1404 TRC PRO

- For large farms and contractors
- Simple yet robust construction
- Low centre of gravity
- ► Low cost of ownership.

#### THE MASSEY FERGUSON FLAGSHIP

With four rotors and working widths of 12.5 metres and 14 metres, these rakes provide an optimum swath and, as a result, maximum capacity utilisation.

These models were specially developed for large-scale farms, contractors and inter-farm use. The simple yet extremely robust construction of the Massey Ferguson four-rotor rakes make them easy to operate, which increases their flexibility when used on more than one farm.

#### **ISOBUS CONTROL**

The MF RK 1254 TRC PRO Gen2 and MF RK 1404 TRC PRO feature full ISOBUS control of all rake functions including working height, width, overlap and lifting sequence for the ultimate in control and convenience.

The MF RK 1404 TRC-PRO gen2 can feature the Section Control option. This precision farming solution allows simple and accurate implement management in a range of applications. The fully automatic Section Control raises the rotor arms to avoid overlapping and lowers them again ready for work.







#### **HEADLAND CONTROL SYSTEM**

All Massey Ferguson four-rotor rakes are equipped with an automatic hydraulic sequential control system which can be adapted to your requirements. This system controls the delayed raising and lowering of the rear pair of rotors and enables you to deposit perfectly formed swaths at the headlands. Automatic height limitation in the headland position also means there is no need disengage the PTO during turns.

#### SAFE ON THE ROAD AND ON THE HILLSIDE

The MF RK 1254 TRC Gen2, MF RK 1254 TRC PRO Gen2 and MF RK 1404 TRC PRO are designed for a transport speed of up to 40 km/h\*, which ensures quick journeys from field to field. For a transport height of less than 4 m with mounted tine arms, the hydraulic chassis control can be operated from the cab, allowing convenient and safe handling between fields. The lifting/ lowering of the rotors only starts when the axle cylinder is in its final position, which avoids any possible damage due to incorrect operation.

In addition, to ensure maximum safety when travelling, the rakes have a high performance air brake system, which also contributes to safe operation when working on steep slopes. The rake design also provides a low centre of gravity, ensuring excellent stability and safety during road transport and in the field. 17

# **SPECIFICATIONS**

### Single-rotor 3-point linkage Floating Headstock

· ·						
Model	MF RK 341 DN	MF RK 361 DN	MF RK 381 DN	MF RK 391 DN	MF RK 421 DN	MF RK 451 DN
Mounting category	Cat. I and II					
Working width approx. m	3.40	3.60	3.80	3.85	4.20	4.50
Swath width approx. m	0.60 - 1.30	0.60 - 1.50	0.60 - 1.50	0.70 - 1.55	0.70 - 1.55	0.75 - 1.60
Transport width approx. m	1.42	1.55	1.55	1.68	1.83	1.99
Transport length approx. m	2	2.21	2.31	2.34	2.58	2.68
Tine arms per rotor	8	10	10	10	12	12
Double tines per arm	3	3	4	4	4	4
Tyres of rotor chassis	2 x 15/6.00-6	2 x 16/6.50 - 8	4 x 16/6.50 - 8			
Power demand approx. kW/hp	17/23	20/27	20/27	20/27	30/41	30/41
PTO rpm	540	540	540	540	540	540
PTO shaft	Overload safety clutch (radial pin clutch)					
LED lighting		0				
Weight approx. kg	360	420	440	520	580	620

# Single-rotor 3-point Linkage Alpine

Model
Mounting category
Working width approx. m
Swath width approx. m
Transport width approx. m
Transport length approx. m
Tine arms per rotor
Double tines per arm
Tyres of rotor chassis
Power demand approx. kW/hp
PTO rpm
PTO shaft
Weight approx. kg

MF RK 361 DSR
Cat. I and II
3.60
0.60 - 1.50
1.70
2.13
10
3
2 x 15/6.00-6
25/34
540
Overload safety clutch (radial pin clutch)
370

### Single Rotor Tractor Linkage Drawbar/Hitch

Model	MF RK 451 TR
Mounting category	Drawbar
Working width approx. m	4.50
Swath width approx. m	0.75 - 1.60
Transport width approx. m	2.10
Transport length approx. m	4.10
Tine arms per rotor	12
Double tines per arm	4
Tyres of rotor chassis	4 x 16/6.50-8
Power demand approx. kW/hp	30/41
PTO rpm	540
Weight approx. kg	600

### Two Rotor Side Swath Delivery

Model	MF RK 702 TR-SDX (not on a transport chassis)	MF RK 662 SD-TRC	MF RK 672 SD-TRC	MF RK 772 SD-TRC	MF RK 842 SD-TRC	MF RK 842 SD-TRC-PRO
Mounting Category	Drawbar	Cat. I and II	Cat. I and II	Cat. I and II	Cat. II	Cat. II
Working width approx. m	6.30 - 7.00	5.75 - 6.65	5.80 - 6.70	6.60 - 7.70	7.80 - 8.40	7.80 - 8.40
Swath width approx. m	0.60 - 1.90	0.60 - 1.90	0.60 - 1.90	0.60 - 1.90	0.60 - 1.90	0.60 - 1.90
Transport width approx. m	2.30	2.65	2.65	3.00	2.80	2.96
Transport height app. m (*with dismounted tine arms)	-	3.00*	3.00*	3.65*	3.60*	3.60*
Transport length approx. m	8.45	6.63	6.63	7.43	8.5	8.54
Tine arms per rotor	12 / 12	10 / 12	12 / 12	12 / 12	13	13
Double tines per arm	4	4	4	4/5	4/5	4/5
Tyres of rotor chassis	4 x 18/8.50-8 / 5 x 18/8.80-8	3 x 16/6.50-8	3 x 16/6.50-8	4 x 16/6.50-8	6 x 16/6.50-8	6 x 16/6.50–8
Tyres of transport chassis	-	10.0/75-15.3	10.0/75-15.3	10.0/75-15.3	300/80-15.3	380/55–17
Power demand approx. kW/hp	33/45	19/26	19/26	30/41	44/60	44/60
Min hydraulic spool requirement	1 x SAV, 1 x DAV	1 x SAV	1 x SAV	1 x SAV	1 x DAV with float	1 x DAV with float
PTO rpm	540	540	540	540	540	540
Overrunning clutch in the auxiliary drive	•	•	٠	٠	•	•
Warning panels	•	•	•	•	•	•
Electrical lighting	•	•	•	•	•	•
Weight approx. kg	1,380	1,550	1,580	2,100	2,400	2,450

### Two Rotor Centre Swath Delivery

Model	MF RK 662 TRC	MF RK 762 TRC GEN2	MF RK 862 TRC GEN2	MF RK 862 TRC PRO GEN2	MF RK 922 TRC Gen2	MF RK 922 TRC PRO Gen2	MF RK 1002 TRC PRO GEN2
Mounting Category	Cat. I and II	Cat. I and II	Cat. I and II	Cat. I and II	Cat. II	Cat. II	Cat. II
Working width approx. m	5.80 - 6.60	6.90 - 7.60	7.60 - 8.60	7.60 - 8.60	8.00 - 9.20	8.00 - 9.20	8.80 - 10.00
Swath width approx. m	1.20 - 1.80	1.10 - 1.80	1.20 - 2.20	1.20 - 2.20	1.20 - 2.20	1.20 - 2.20	1.40 - 2.60
Transport width approx. m	2.75	2.99	2.99	2.99	2.99	2.99	2.99
Transport height with all arms mounted Transport height with 3 arms dismounted	3.70 / 3.18	3.99 / 3.49	3.99 / 3.79	3.99 / 3.79	3.99 / 3.79	3.99 / 3.79	- / < 3.99
Transport length approx. m	4.66	5.76	5.76	5.76	6.30	6.30	6.30
Tine arms per rotor	2 x 10	2 x 12	2 x 13	2 x 13	14/14	14/14	2 x 15
Double tines per arm	4	4	4	4	4	4	4
Tyres of rotor chassis	3 x 16/6.50 - 8	4 x 16/6.50 - 8	4 x 16/6.50 - 8	6 x 18/8.50 - 8	4 x 18/8.50-8	6 x 18/8.50-8	6 x 18/8.50 - 8
Tyres of transport chassis	10.0/75 - 15.3	260/70-15.3	260/70-15.3	260/70-15.3	300/80-15.3	300/80-15.3	300/80-15.3
Power demand approx. kW/hp	19/26	37/50	44/60	44/60	44 / 60	44 / 60	59/80
Necessary hydraulic outlets	1 x SAV	1 x SAV ; 1 x DAV	1 x SAV ; 1 x DAV	LS	1x SAV/1x DAV	LS	LS
PTO rpm	540	540	540	540	540	540	540
Overrunning clutch in the auxiliary drive	٠	•	•	•	•	•	•
Warning panels	•	•	•	•	•	•	•
Electrical lighting	•	•	•	•	•	•	•
Weight approx. kg	1,350	2,060	2,200	2,200	2,600	2,650	2,900
ISOBUS control	-	-	-	0	-	0	0
Section control	-	-	-	0	-	0	О

### Four Rotor

Model	MF RK 1254 TRC Gen2	MF RK 1254 TRC PRO Gen2	MF RK 1404 TRC PRO
Mounting Category	Cat. II	Cat. II	Cat. II
Working width approx. m	10.60 - 12.50	10.60 - 12.50	11.50 - 14.00
Swath width approx. m	1.20 - 2.20	1.20 - 2.20	1.30 - 2.60
Transport width approx. m	3.00	3.00	2.99
Transport height app. m (*with dismounted tine arms)	3.94-3.99	3.94-3.99	3.99
Transport length approx. m	8.82	8.82	10.00
Tine arms per rotor	4 x 12	4 x 12	4 x 13
Double tines per arm	4	4	4/5
Tyres of rotor chassis: front/rear	4 x 16/6.50 - 8 / 4 x 16/6.50-8	4 x 16/6.50 - 8 / 6 x 16/6.50 - 8	4 x 16/6.50 - 8 / 6 x 16/6.50 - 8
Tyres of transport chassis	500/50 - 17	500/50 - 17	550/45 - 22.5
Power demand approx. kW/hp	59/80	59/80	96/130
Necessary hydraulic outlets	2 x DAV + 1 x SAV	1 x Load sensing	1 x Load sensing
Rotor Height Adjustment	Mechanical	Hydraulic	Hydraulic
Brakes	Air brakes	Air brakes	Air brakes
PTO rpm	540	540	540
Overrunning clutch in the auxiliary drive	•	•	•
Warning panels	•	•	٠
Electrical lighting	•	•	•
Weight approx. kg	4,400	4,750	6,000
ISOBUS control	-	•	•
Section control	-	-	О

Every effort has been made to ensure that the information contained in this publication is as accurate and current as possible. However, inaccuracies, errors or omissions may occur and details of the specifications may be changed at any time without notice. Therefore, all specifications should be confirmed with your Massey Ferguson Dealer or Distributor prior to any purchase.

Illustrations show some of the special equipment. Some machines available in selected countries only. The images provided do not necessarily correspond to the most recent version of standard equipment.

# RANGE OF HIGH PERFORMANCE RAKES





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BORN TO FARM

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