



MASSEY FERGUSON

## Product Marketing Bulletin

RB 4160P Protec

**Date:** March 20, 2020  
**Bulletin:** MF20-16 PMB  
**Subject:** MF RB 4160P Protec Wrapper Combo Baler Introduction



### RB 4160P Protec Combo Baler

Massey Ferguson is proud to announce the next model of balers to compliment an already stellar line up from the RB series and Hesston series. The new RB 4160P Protec will immediately be an industry leader in making high quality baleage.



**Subject:** RB Series Combo Baler Introduction

**The RB 4160P Protec has the proven RB series 4160V at the heart of this machine. This means that all of these following key features of the 4160V will come standard, producing the best wrapped bales from the Protec.**

**HYDROFLEX FLOOR**

**XTRACUT ROTOR**

**VARIONET MESH  
SYSTEM**

**E-LINK PRO**

**CAMLESS PICKUP**

**POWERSPLIT  
DRIVELINE**

**HYDRAULICALLY  
PROTECTED KNIVES**

**3 SECOND TAILGATE**





*Subject:* RB Series Combo Baler Introduction

- ❖ Starting at the front of the baler the RB series utilizes a strong, reinforced drawbar with great maneuverability. The drawbar is designed to provide excellent view of the pickup feeding.
- ❖ Having a good view of the pickup aids the operator in avoiding plugs and mistakes.
- ❖ The long tongue on the RB series allows for tight turning and plenty of room for easy connections to the tractor.







*Subject:* RB Series Combo Baler Introduction

❖ The 4160P Protec show cases brand new shielding to provide a stylish look and important safety features.

No dust accumulation thanks to smooth door surface.  
***No dust shower.***



Protection of spare film rolls from rain and sun.





*Subject:* RB Series Combo Baler Introduction

# WRAPPER

The carefully engineered design of the wrapping unit represents a unique feature of the combination baler.

- ❖ **Compact 'non-work position'**
  - ❖ Less parking space needed
  - ❖ Easy maneuverability
- ❖ **Good ground clearance**
  - ❖ No damage from 'touch-downs'
- ❖ **Outstanding versatility**
  - ❖ Compatible with a wide range of materials





*Subject:* RB Series Combo Baler Introduction

# WRAPPER

The Protec baler comes standard with one camera to view the wrapping ring during operation. This allows the operator a clear view of:

- ❖ Bale Transfer
- ❖ Unloading
- ❖ Driving in reverse







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## BALE TRANSFER



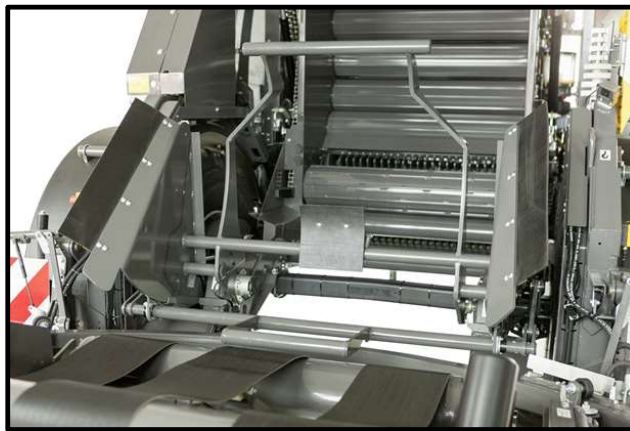
A key feature that will set the Protec apart from the competition is the reliable bale transfer system. This short and efficient bale transfer from the bale chamber to the wrapping ring prevents bales from 'jumping off' even in slopes. The transfer wastes no time, as the entire transfer process is only **9 seconds**.





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## BALE TRANSFER



The Protec bale transfer system is a completely automated process where the transfer arm is perfectly synchronized. Film wrapping starts even before the tailgate is closed. The Protec is quick and efficient, putting on 6 layers of wrap in **30 seconds**. This is a wrapping speed of **35 rpm**.





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# BALE TRANSFER

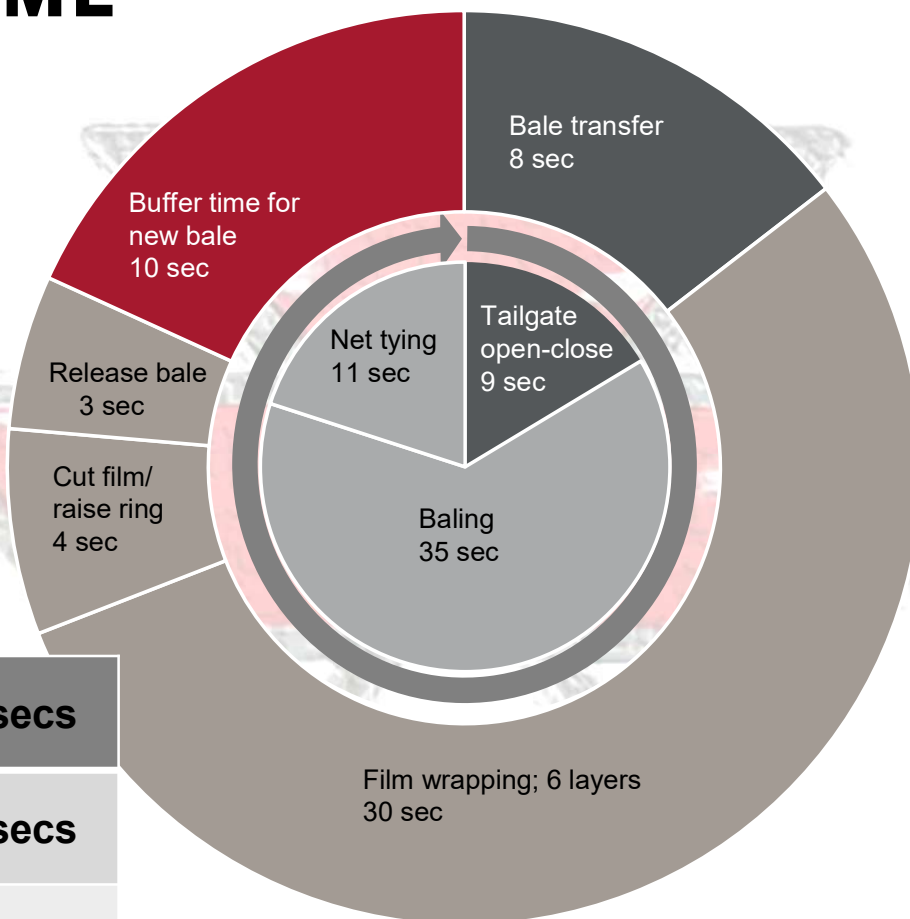


**Slope safety mode protects the bale during transfer on slopes and steep hillsides. The ring remains briefly in the semi-high position to catch fast bales while baling up hill. The bales are guided from the actively moving side plates right to the wrapping table while the wrapping table is moved into a steeper 'receiving-position.'**



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# CYCLE TIME



Whole Circle	55 secs
Baling Process	46 secs
Wrapping Process	32 secs



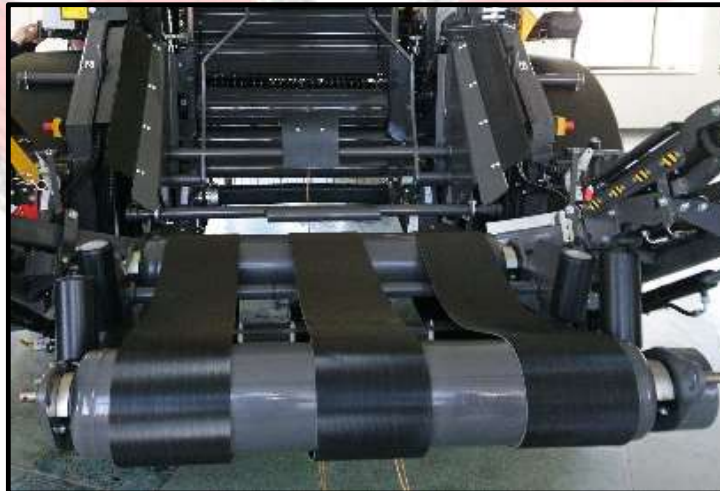
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# **WRAPPING TABLE**



**Two rollers and three belts carry and roll the bale.**

- **Hydraulically driven**
  - **Automatic adaptively adjusting speed of bale rotation according to the bale diameter and overlap.**
- **Welded table frame → Robust Linkages**
  - **Reliable**
  - **Low maintenance**
  - **Endless grip belts for perfect rotation**
  - **Turning edge-limiting cones**

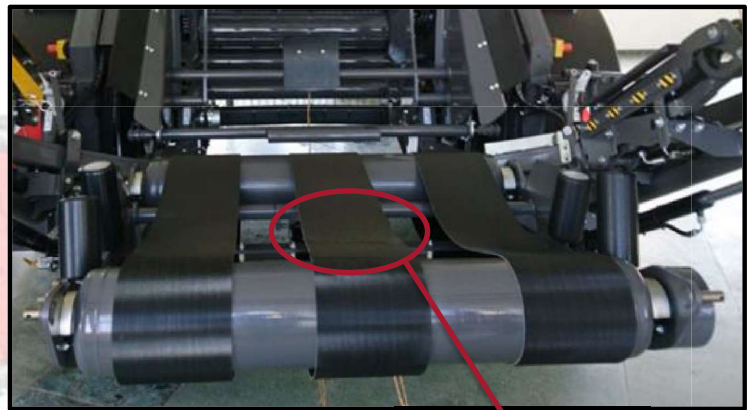






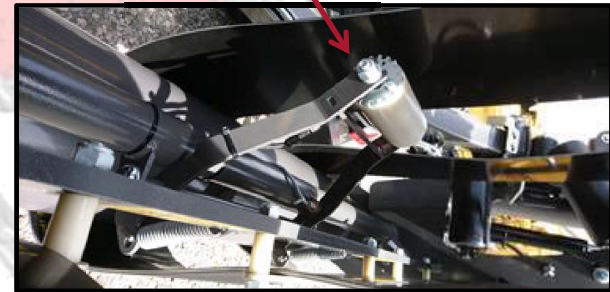
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# WRAPPING TABLE



**The sensor arm controls the arrival of the bale and measures the speed of the bale rotation with a small sprocket.**

- Perfect overlap as the speed of the belts are continuously controlled, able to detect slippage.
  - Consistent overlap on each bale
  - Perfect close-up to exclude oxygen
    - ***Ideal for fermentation***
- Contributes largely to a well organized monitoring and control process.





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## WRAPPING RING

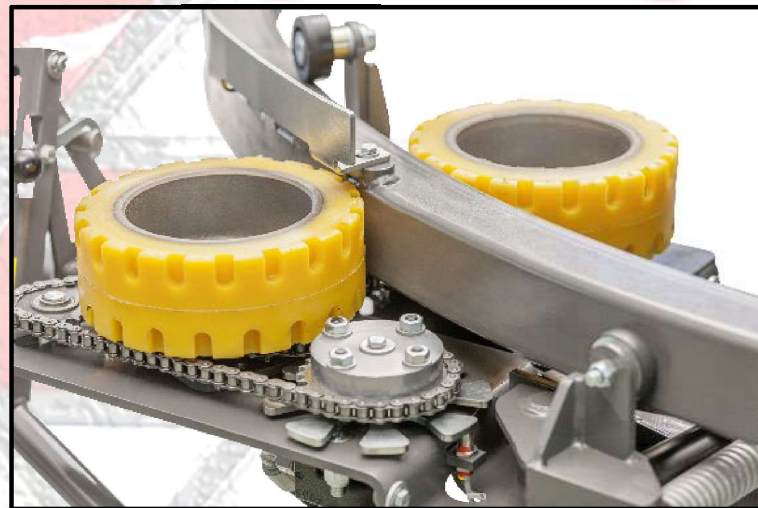
Quiet &  
Smooth

Reliable  
Parts

Durable  
& Solid

Low  
Slippage

- Wrapping ring runs between two hydraulically driven rubber rollers
  - 11 rubber wheels guide the ring
  - High speed (40rpm) can be reached
  - Special spring loaded brakes slow down the ring smoothly
    - Disengaged by small hydraulic cylinders during the wrapping process
- ✓ ***Required for accurate and fast wrapping***





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## WRAPPING RING

- **Parallel arms with only one double acting ram without hydraulic accumulators**
- **The clamps fix any type of film, this is due to perfect timing and correct lifting range**
  - ✓ **High operational safety**
  - ✓ **No stand time due to film not dissolving from the wrapped bale**
  - ✓ **Inserting film for the first bale steerable via rear control box**

Quiet &  
Smooth

Durable  
& Solid

Reliable  
Parts

Low  
Slippage







**Subject:** RB Series Combo Baler Introduction

- **Automatic film break sensing**
- **Detects if film breaks or if a roll has run out**
- **Bale rotation slows down and the number of ring rotations is increased**
  - ✓ ***Always completely wrapped bales even if you have a film breakage or run out of film***



... if the tensioning bar is out of function due to a film break, it folds to the outside of the ring.

With that the film break sensor is activated.





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## WRAPPING RING

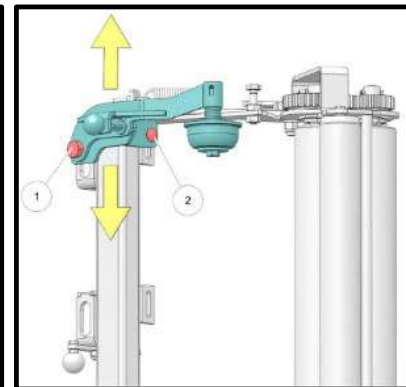
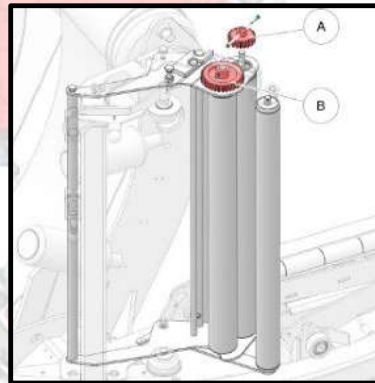
Quiet &  
Smooth

Reliable  
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Slippage

- **Three different pre-stretching options:**
  - **55%**
  - **70%**
  - **90%**
- **Pre-stretching can be optimally adapted to the film**
- **Quick adjustment by changing two gears per side**
- **Easy adjustment of the film roll holder to the size of the film rolls due to two long holes to adjust the upper cone**
  - **Fast change between 500mm and 750mm film rolls**



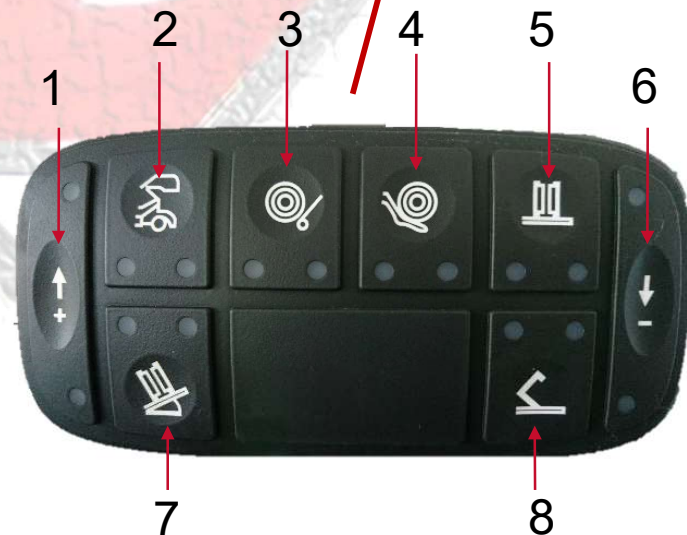


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- **Rear Control Unit**
  - **Second control unit makes it possible to control the tailgate, bale transfer, and wrapping unit at the rear of the machine**



Buttons	Result
1 + 2	Open tailgate
1 + 3	Tilt bale transfer towards wrapping table
1 + 4	Tilt wrapping table to transport position
1 + 5	Rotate wrapping ring
1 + 7	Lift wrapping ring to transport position
1 + 8	Open film collector
6 + 2	Close tailgate
6 + 3	Tilt bale transfer towards tailgate
6 + 4	Tilt wrapping table to unload position
6 + 5	Rotate wrapping ring
6 + 7	Lower wrapping ring to wrapping position
6 + 8	Close film collector
1 + 4 + 6	Wrapping table moves to wrapping position and stops
1 + 5 + 6	Wrapping ring rotates to home position and stops







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## WRAPPING RING

Quiet &  
Smooth

Durable  
& Solid

Reliable  
Parts

Low  
Slippage



One click operation  
for transport position

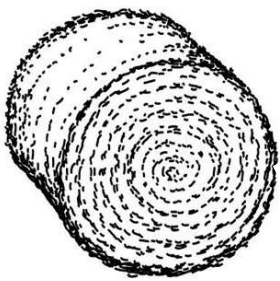


### Ring height adjustment

- The wrapper is automatically centered to the bale
  - ✓ **Optimal overlap and less film waste**
- Possibility to adjust the position of the ring benefits:
  - ✓ **Safety aspect for slope mode**
  - ✓ **Bale is always wrapped centrally**
  - ✓ **Compact for road transport**
  - ✓ **Easy changing of film**
  - ✓ **Robust framework can cope with the heaviest silage bales**



*Subject:* RB Series Combo Baler Introduction



## BALE DISCHARGE

Perfectly wrapped bales need to be dropped gently to avoid damage to the film

- Low ground clearance for discharge
- Low rolling speed to avoid film damage
  - ✓ No damage to bale wrap due to rough unloading
  - ✓ No air entering the material unintentionally
  - ✓ Shape stability – No “egg effect”
  - ✓ Automatic or manual unloading
- Works well with bale tipper option!



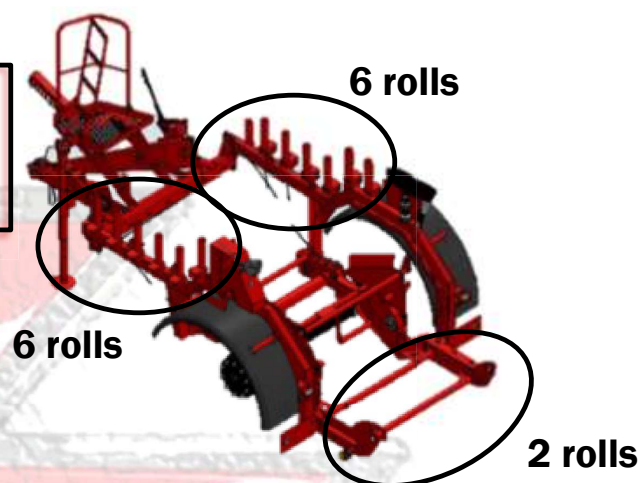




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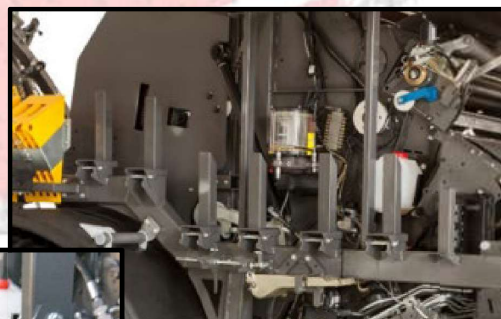
# FILM HANDLING

**14 roll  
carrying  
capability**



## **12 spare film rolls and 2 in stretch units**

- Separately foldable holder tubes
- Partially lasered hole in the holder tubes
  - ✓ Choose whether the holder tubes lock in unfolded position or not
- 40 bales with **6** layers from 2 film rolls
  - ✓ **280** bales with fully equipped machine
- 32 bales with **8** layers from 2 film rolls
  - ✓ **224** bales with fully equipped machine





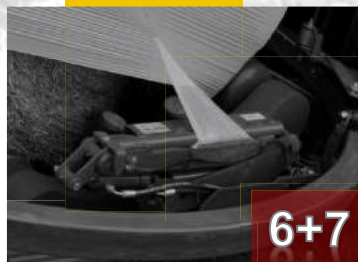
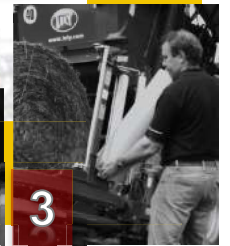


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# FILM EXCHANGE

## Quick and easy changing of film rolls

1. Open film clamps using rear control box
2. Take spare roll from foldable holder
3. Place film roll on the bottom cone
4. Clamp the roll using the spring loaded lever on top of the stretch unit
5. Insert the film in the outlined track
6. Fix the film at the film clamps
7. Close the clamps using the rear control box
8. *Continue baling!*



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# **SPECIFICATIONS**

<b>MF</b>	<b>RB 4160P Protec</b>
<b>Chamber</b>	Variable
<b>Transport height</b>	124 in / 3.15m
<b>Transport width</b>	114 in / 2.90m
<b>Transport length</b>	232 in / 5.90m
<b>Pickup width</b>	89 in / 2.25m
<b>Tine to tine width</b>	73 in / 1.86m
<b>Chamber dimensions</b>	35 in / 0.90m – 63 in / 1.60m x 48 in / 1.23m
<b>Power requirement</b>	140 hp / 103 kW
<b>Control Unit</b>	E-link Pro / ISO
<b>Cutting unit</b>	XtraCUT 17 knives
<b>Approx. weight</b>	14,440 lbs / 6,550kg