

# McHale

INTEGRATED  
BALER WRAPPER  
RANGE



[WWW.MCHALE.NET](http://WWW.MCHALE.NET)

The Professional Choice

# MCHALE INTEGRATED BALER WRAPPER RANGE

The strains on farming in recent times has placed a huge emphasis on reducing costs and increasing output. McHale develop specialised and reliable machinery to overcome these challenges.

The McHale name has become synonymous with the production of robust and reliable machines, making McHale the number one choice for professional users.

## CONTENTS

Introduction .....	2 - 3
<b>FUSION 4 RANGE</b> .....	<b>4 - 9</b>
Profi-Flo Pick-Up .....	10 - 13
Split Drive Gearbox / Rotor .....	14 - 15
Chopper Unit .....	16 - 17
Drop Floor .....	18 - 19
Bale Chamber .....	20 - 21
Oiling & Greasing .....	20 - 23
High Performance Binding .....	24 - 25
Patents: Transfer / Wrapping System ..	28 - 29
ISOBUS / ISO-PLAY 7 & 12 .....	<b>30 - 33</b>
<b>FUSION 4</b> .....	<b>34 - 35</b>
<b>FUSION 4 PRO</b> .....	<b>36 - 37</b>
<b>FUSION 4 PLUS</b> .....	<b>38 - 39</b>
Film Binding Technology .....	40 - 41
Optional Extras .....	42 - 43
<b>TECHNICAL TABLE</b> .....	<b>45</b>





**McHale**

FUSION  
**4**

FUSION **4**

# MCHALE FUSION 4 - THE MOST ADVANCED INTEGRATED BALER WRAPPER RANGE.

*The new McHale Fusion 4 range has been developed with a focus on operator comfort and machine performance, while still ensuring the renowned simplicity and reliability is maintained.*

Our specialist team of engineers have maximised machine intake and output, increased bale density and reduced maintenance intervals to ensure the Fusion 4 range of

machines surpasses all your baling and wrapping expectations. These levels of comfort, when paired with proven features such as the patented bale transfer system and the vertical

wrapping ring, enable the McHale Fusion 4 range of machines to offer durability, reliability and high-output to the end user.

## 3 MODELS TO MEET YOUR REQUIREMENTS

**FUSION 4**

**FUSION 4**  
**PRO**

**FUSION 4**  
**PLUS**

McHale also have a variable chamber integrated baler wrapper called the **McHale Fusion Vario**, to learn more about this product please contact your dealer or visit [www.mchale.net](http://www.mchale.net)



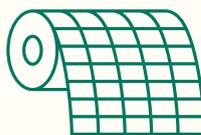
## WITH MCHALE EXPERT PLUS CONSOLE

THE MCHALE FUSION 4 is a robust, fully automatic, integrated baler wrapper, recognised worldwide for its unique patented bale transfer, vertical wrapping ring and high output.

The machine is equipped with a 25-knife chopping unit, automatic progressive greasing system and a servo operated load sensing control valve, which when combined with the Expert Plus control console, makes the baling and wrapping process fully automatic. The machine is fitted with 560/60 R22.5 tyres as standard.

## Binding Material:

Net



## Control Console:

Expert Plus



### The Fusion 4

*The following standard features apply to all machines in the Fusion 4 range:*

### Standard Features

- 2.1 m **Profi-Flo** Pick-Up
- High Capacity Rotor
- 25 Knife Chopper Unit
- Drop Floor Unblocking
- Fully Automatic Operation
- Patented Bale Transfer
- Patented Vertical Wrapping Ring
- Automatic Grease and Oil System

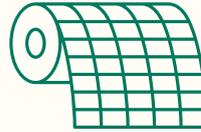
# ISOBUS COMPATIBLE

**THE MCHALE FUSION 4 PRO** is a fully automatic integrated baler wrapper which is controlled using ISOBUS. The McHale Fusion 4 Pro provides new levels of operator comfort with it's easy-to-use control system, in-cab net & density adjustment, camera, and faster wrapping speeds along with a host of other new features.

The McHale Fusion 4 Pro uses net to bind the bale in the chamber and features the McHale patented bale transfer and vertical wrapping ring, which are noted for their reliability, speed and positive bale transfer in hilly conditions.

## Binding Material:

Net



## Control Console:

**Standard:**  
Plug into  
Tractor Terminal



## Optional Control Consoles

- 1 McHale ISO-PLAY 7
- 2 McHale ISO-PLAY 12



### The Fusion 4 Pro

*comes with all the standard features shown on the Fusion 4 (left) but also includes:*

### Standard Features

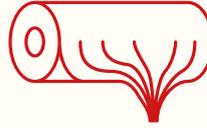
- ISOBUS
- In-cab Net Adjustment
- In-cab Density Adjustment
- Machine Pause Functionality
- Camera ( To monitor bale transfer & wrapper )
- Auto Knife Drop
- Pre & Post Wrap Bale Rotation

**THE MCHALE FUSION 4 PLUS** is a fully automatic integrated baler wrapper which can apply film or net wrap to the barrel of the bale, delivering optimum bale shape and bale density. The Fusion 4 Plus can provide high quality fodder through the use of the film binding system, resulting in better silage quality and easier feed out.

The machine is equipped with a patented bale transfer system and a vertical wrapping ring. These two McHale patents deliver maximum output whilst keeping the machine short and compact at 5.8 metres

### Binding Material:

Film



Net



### Control Console:

**Standard:**  
 Plug into  
 Tractor Terminal



### Optional Control Consoles

- 1 McHale ISO-Play 7
- 2 McHale ISO-Play 12



### Integrated Baler Wrapper Advantages

- Two Jobs, One Machine
- Reduced Labour
- Lower Costs per bale
- Time Saving
- Reduced Crop Contamination

### Patented Bale Transfer



### The Fusion 4 Plus

*comes with all the standard features shown on the Fusion 4 & Fusion 4 Pro (left) but also includes:*

### Standard Features

- Film on Film Binding
- In-cab Film Adjustment
- 2<sup>nd</sup> Camera to Monitor Film Binding

### Advantages of Film on Film

- Acts as a Wrapping Layer
- Results in Better Shaped Bales
- Delivers Higher Quality Silage
- Makes Recycling Easier

# FUSION 4 RANGE INTEGRATED BALER WRAPPERS

*The McHale Fusion range has been designed and developed with the farmer and contractor in mind. This approach achieves greater operator comfort and flexibility while maximising output through the use of its two unique patents.*

**THE PATENTED BALE TRANSFER & THE PATENTED VERTICAL WRAPPING RING** deliver increased levels of reliability and higher output.



## BENEFITS OF INTEGRATED BALER WRAPPERS

### **REDUCED LABOUR AND TRACTOR COSTS**

An integrated baler wrapper requires only one operator to carry out the task of baling and wrapping. This leads to a reduction in the cost of labour and allows one tractor to do two jobs, reducing associated costs like insurance and wages.

### **TWO JOBS, ONE MACHINE**

The Fusion 4 range can provide the operator with the flexibility to produce bales without the need to return to the yard to change machines for baling or wrapping over the course of a day.

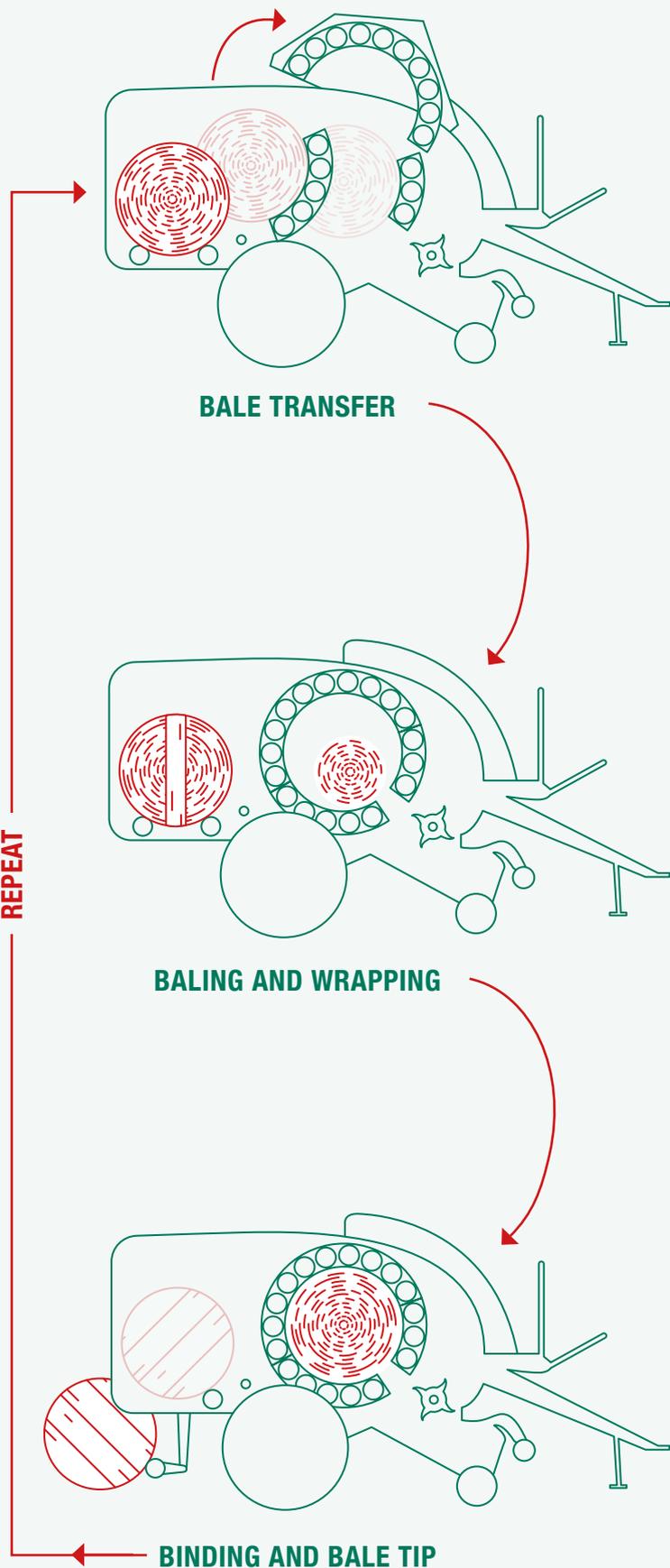
### **BALE ONLY PROGRAMME**

When baling hay or straw with the Fusion 4 range, the operator has the ability to place bales in pairs for easy time saving collection.

### **REDUCED CROP CONTAMINATION**

Silage quality and bale shape is improved because the bale is immediately wrapped when ejected from the bale chamber. The risk of crop contamination is significantly reduced as the bale does not touch the ground.

# MCHALE PATENTED BALE TRANSFER



# ADVANTAGES OF THE PATENTED SYSTEMS

## **1** *Simple transfer & reduced handling*

As the bottom half of the bale chamber doubles as a transfer mechanism, it eliminates the need for a moving table or lift arm between the baler and the wrapper. This results in reduced handling, higher levels of reliability, faster transfer time and a compact design with a total machine length of just 5.8 metres, delivering better manoeuvrability.

## **2** *Positive bale transfer on steep ground*

The bale is transferred directly onto the wrapper by five drive rollers in the lower section of the bale chamber. This McHale patented bale transfer system makes the McHale Fusion very reliable in all terrains, especially in undulating and hilly ground.

## **3** *Reliable bale transfer on hillsides*

When working with other combined baler wrappers on hillsides, there may be issues with the bale cross traveling as it is being transferred from the baler to the wrapper. With the McHale Fusions, these problems are eliminated as the bale is supported in position by the sidewalls of the bale chamber during the transfer. This results in a reliable transfer even on tougher ground conditions.

## **4** *A fast smooth transfer*

The transfer of the high density bale occurs over the axle of the baler, reducing the stress on the tractor and the machine. Due to the simplicity of the unique McHale bale transfer, there are a reduced number of moving parts and electronic monitoring systems, leading to a more reliable machine.

## **5** *High output*

The transfer occurs in one pass, as the chamber is opening and closing to release the bale. This means the machine takes a similar amount of time to transfer the bale as a traditional baler would take to eject a bale from the chamber.

## **6** *High speed*

The bale transfer does not slow down the machine output. The bale chamber splits horizontally (like a clam shell) and the lower section of the bale chamber doubles as a transfer mechanism to transfer the bound bale into the vertical wrapping ring.

# PROFI-FLO PICK-UP



*McHale have created their highest output pick-up for the Fusion 4 range. The new Profi-Flo pick-up has been designed to increase crop intake through more efficient crop flow and has been engineered to ensure end users are operating with a high-performance pick-up that is designed to suit various working conditions.*



*The new tapered feed channel encourages the crop to flow from the pick-up and then move towards the rotor and into the bale chamber, maximising throughput.*

*To reduce maintenance, all Profi-Flo pick-ups are fitted with a heavier driveline which reduces chain load and increases chain life.*



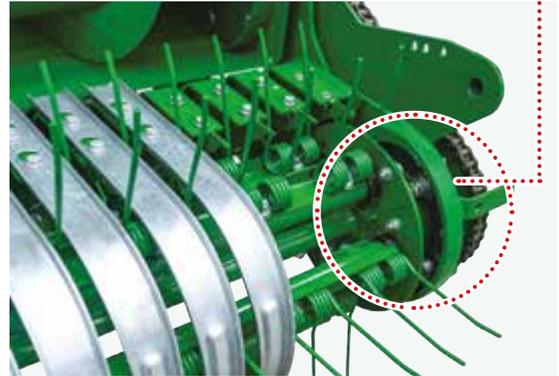
# PICK-UP CHOICE

McHale offer **2 PICK-UP OPTIONS** depending on crop and working conditions. Your dealer can advise on the best options for your area.

## **1** Profit-Flo Cam Pick-Up

As standard, a **cam operated 2.1 m high-intake galvanised** pick-up ensures excellent ground cleaning in all types of crop. The cam pick-up runs on a cam track that is fitted with **double raced cam bearings** to stand up to the most testing of conditions. All cam pick-ups across the McHale Fusion 4 range are fitted with 5 tine bars for excellent ground cleaning, while new side bands ensure a continuous delivery of crop to the bale chamber.

A **side inspection port** allows the operator to quickly check and change the cam bearings if needed.

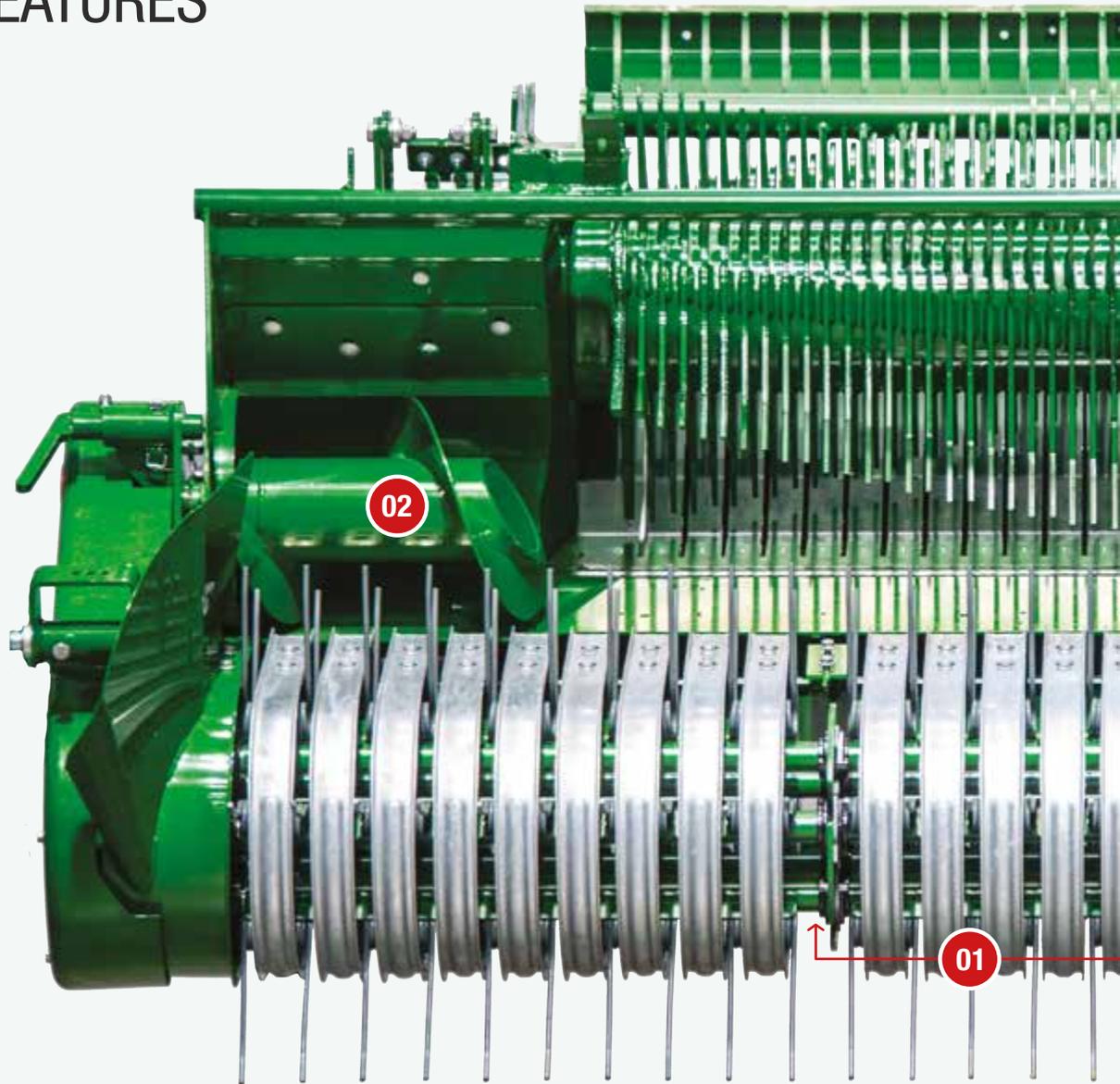


## **2** Profit-Flo Camless Pick-Up

A 2.1 m camless pick-up is available as an option on all machines in the Fusion 4 range. The camless pick-up has six tine bars to provide excellent ground cleaning and fast delivery of crop to the bale chamber. The camless pickup has been designed to increase output and reduce levels of maintenance.



# PROFI-FLO PICK-UP FEATURES



All McHale Profi-Flo pick-ups come with a number of **STANDARD FEATURES THAT INCLUDE:**

## **01** *Heavy-Duty Pick-Up*

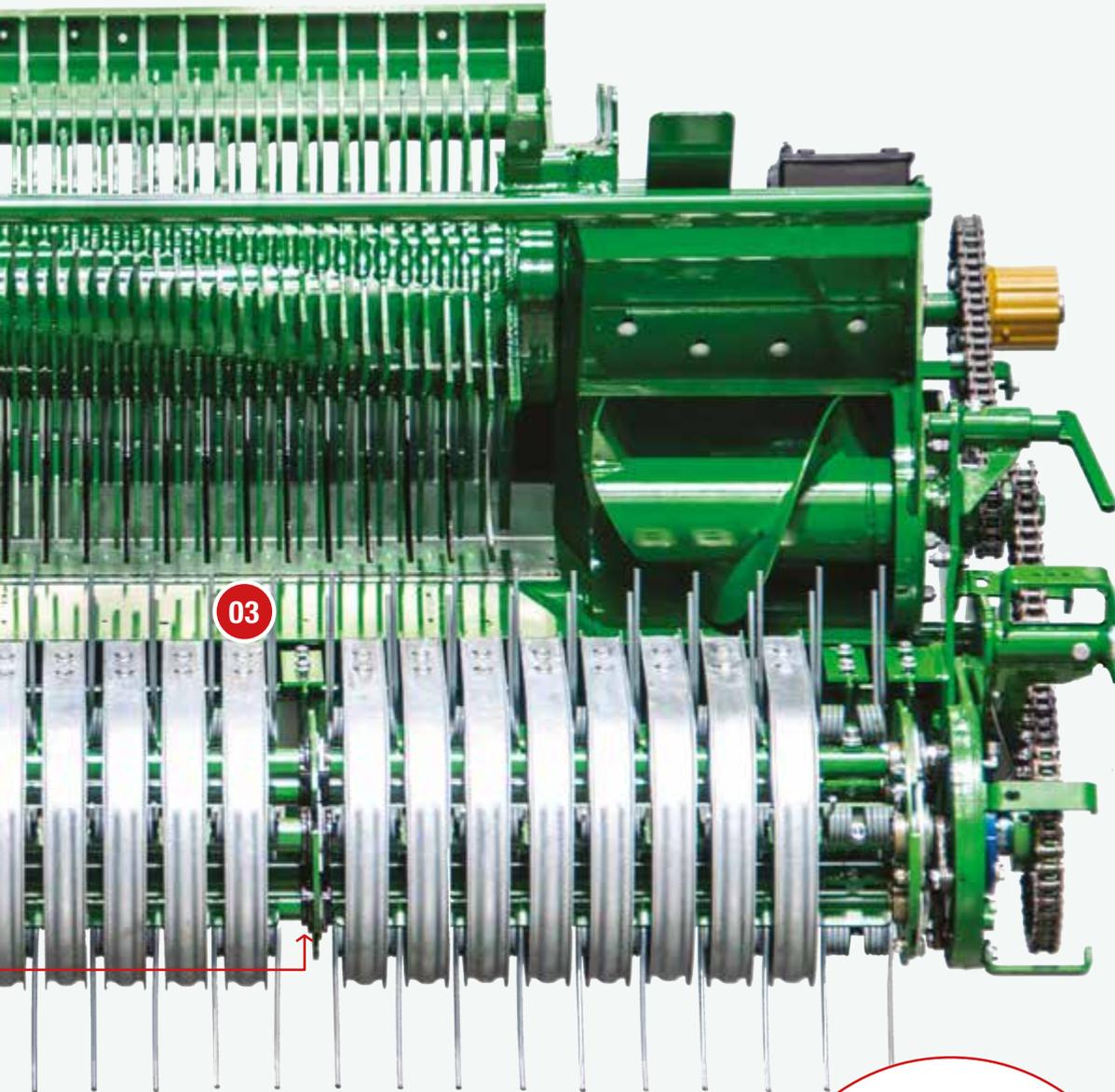
All McHale cam pick-ups have heavy-duty formed tine supports to ensure long service life, while all camless pick-ups are fitted with a fully welded tine bars. All Profi-Flo camless pick-ups are fitted with two extra columns of tines.

## **02** *Efficient Crop Flow Delivery*

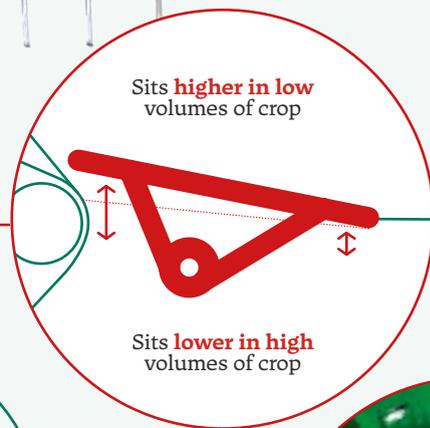
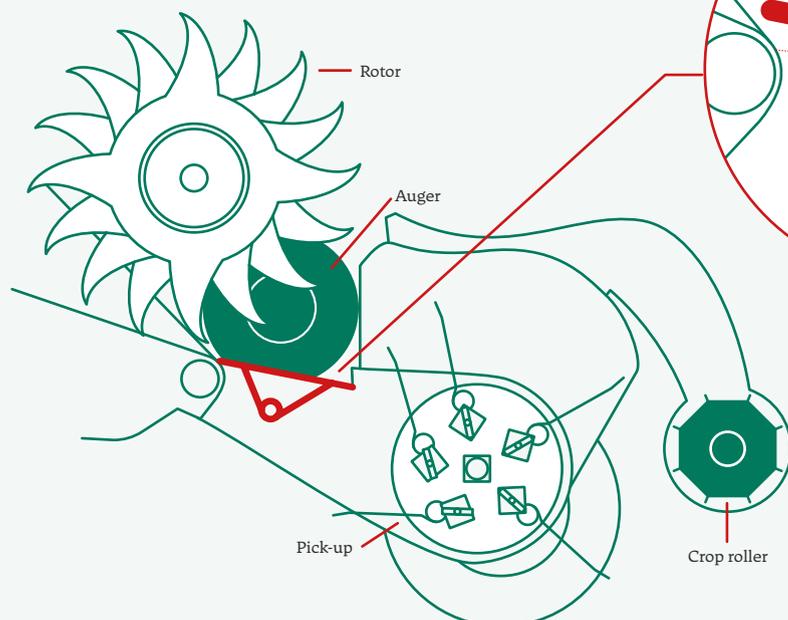
On the Profi-Flo pick-up, the tine bands and feed augers are positioned close to the rotor to improve crop flow from the outside of the wide pick-up. Tapering the augers with 45° ends and removing the steel hydraulic pipes above the pick-up has resulted in a massive reduction in the potential for blockages to occur due to lumps, which ensures a consistent and even crop flow for producing high density bales.

## **03** *Adaptive Intake*

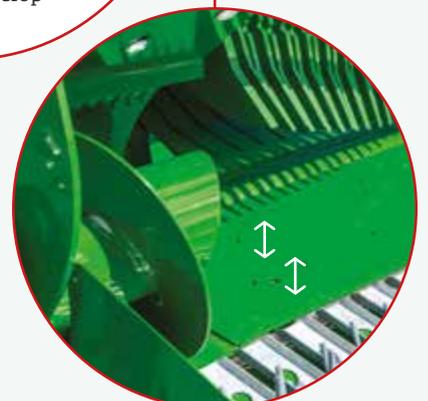
Over the course of a baling season, machines have to work with different volumes of crop. The McHale patented adaptive intake allows the intake area to automatically adjust for light and heavy crops to facilitate a smooth crop flow into the chamber. The adaptive intake plate sits higher in low volumes of crop and can adjust to a lower position for higher volumes of crop. This avoids peak loads and results in higher daily throughput regardless of working conditions.



**Adaptive Intake**

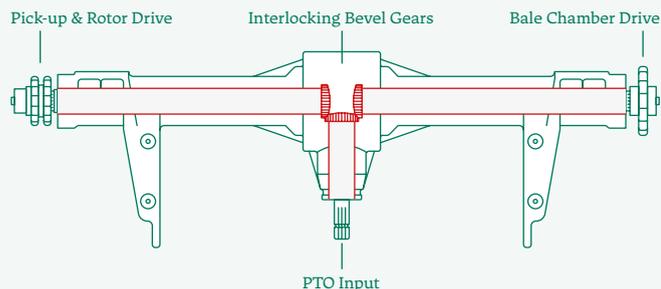


**Adaptive Intake**  
**03**



# SPLIT DRIVE GEARBOX

**A SPLIT DRIVE GEARBOX is fitted to all machines in the McHale integrated baler wrapper range.**



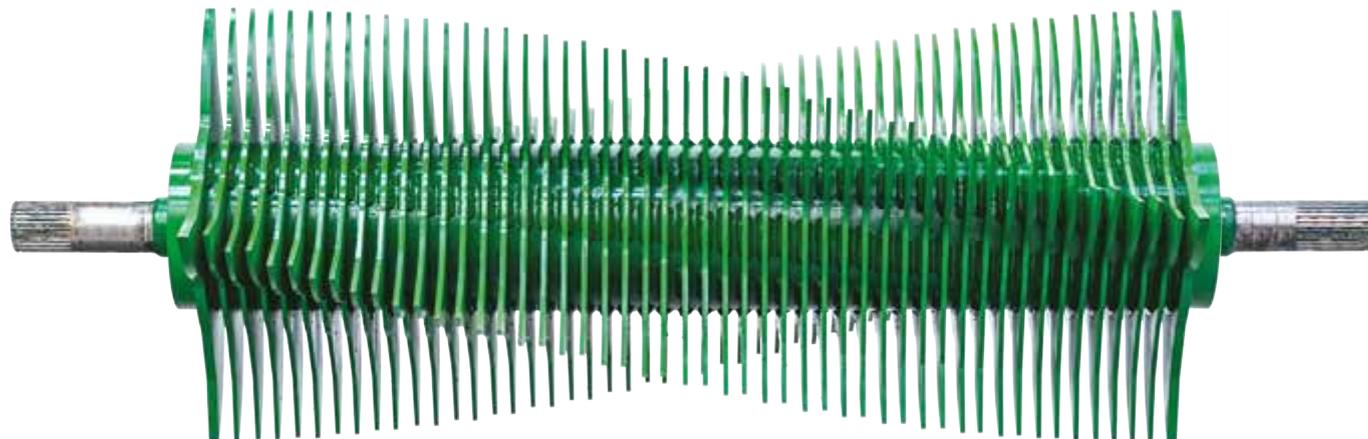
All machines in the McHale Fusion range come fitted with a 540 rpm split drive gearbox as standard. The gearbox design ensures that power is evenly distributed to both sides of the machine. The rollers in the bale chamber are driven from the left-hand side of the machine and the pick-up and chopper unit are driven from the right-hand side of the machine. This system ensures direct short transfer paths, leading to optimal power distribution to provide more torque and aid in the reduction of blockages.

McHale machines work in different conditions around the world. In order to optimise machine performance, a 1000 rpm gearbox is available as an option on all machines in the McHale integrated baler wrapper range. The 1000 rpm gearbox provides the following advantages:

- The 1000 rpm gearbox results in an increase in PTO speed with a substantially reduced torque. This reduces the sharp loads on the drive line, providing the clutch setting with 10% more capacity.
- The option to select a lower PTO speed (if available) on the tractor for easier restarts in the unlikelihood of blocking.
- For lower tractor engine speeds and best fuel efficiency, the 1000 RPM gearbox can be run at an optimal speed range of 900-1000 RPM.

*We recommend you speak with your local dealer or distributor regarding which gearbox is best suited to your requirements, based on your working conditions.*

## ROTOR - 25 KNIFE



*The star shaped feed rotor ensures a **HIGH-CAPACITY FLOW** of crop into the bale chamber.*

The flights on the rotor are laid out in a spiral formation to achieve consistent crop flow. As crop enters the rotor, rotating flights feed the crop to the bale chamber. The flights on the rotor ensure high output, while the star layout reduces the load peaks as the machines work in heavy swaths.



The feed rotor or chopping unit boasts a **heavy-duty rotor and comb**. The flights are **welded on both sides** for superior strength and on the drive side, the rotor is fitted with a **double row bearing** with a long service life.





## BENEFITS OF CHOPPING SILAGE

*The advantages of baled silage are known around the world.  
By chopping the crop the McHale Fusion range delivers the following benefits:*

### REDUCED COSTS

When crop is chopped it becomes easier to compress which results in more material being compressed in the bale. This leads to a reduction in transport and net or film costs.

### BETTER FERMENTATION

Chopping the forage allows for optimum fermentation as the sugars in the crop will be readily available from the dry crop. This results in the production of superior quality fodder that can be easily digested.

### EASIER FEED OUT

Chopped forage is easier to distribute from diet feeders and straw blowers as short material can be processed and distributed far quicker than longer material.



# CHOPPER UNITS

To ensure consistent and even chop quality, a robust and powerful 25 knife chopper unit has been developed for the McHale integrated bale wrapper range.

## 25 Knife Chopper Unit

A 25 knife chopper unit comes as standard on the **McHale Fusion 4 range**. A single bank of 25 knives provides a chop length of **approximately 46mm**. Chop length can be adjusted by removing knives.



### Knives

The knives in the chopping unit are made from hardened tool steel, which ensures long life and maximum productivity by reducing the downtime associated with knife sharpening. The serrated knife edge creates multiple points of contact with the crop to ensure a consistent chop quality is achieved.

### Consistent Results

To ensure that the Fusion range always delivers a good chop quality, two monitoring systems have been put in place on the machines. Firstly, knife working pressure is monitored and displayed on the control console. Secondly, a sensor monitors the distance between the top of the knife and the spine on the rotor.

### Chop Quality

The knives are hydraulically engaged and extend into the spine of the rotor to ensure a consistent chop. A knife sensor monitors knife pressure and alerts the operator through the control console if chop quality has reduced. A primary hydraulic knife protection system protects the knives should they encounter a foreign object. A secondary protection system is in place on each individual knife.

### Knife Cleaning

To ensure effective operation and a consistent chop length is achieved, the operator can set a knife cleaning cycle to run at desired intervals. This prevents the knives getting jammed when not used for prolonged periods.

# SELECTABLE KNIFE SYSTEM

## BENEFITS OF SELECTABLE KNIVES

### ADJUSTABLE CHOP LENGTH

With selectable knives, the operator can vary the chop length by engaging or disengaging either knife bank. If fine chopping is required, the operator can choose to engage both knife banks. Should a longer chop length be required, the operator can disengage one bank of knives from the comfort and safety of the tractor cab.

### REDUCED SHARPENING INTERVALS

When using both knife banks separately, if the first bank of knives become blunt, the operator can lower the first knife bank and raise the second bank. This reduces the downtime and allows the operator to continue working. By having consistently sharp knives, fuel consumption is reduced and the machine always delivers optimum chop.

### OPERATOR COMFORT & SAFETY

A new sharp set of knives can be engaged, without the operator having to physically replace knives, ensuring a well chopped crop and continued high output. Should different chop lengths be required the operator can make the adjustments by engaging or disengaging the knife bank without having to leave the tractor cab.

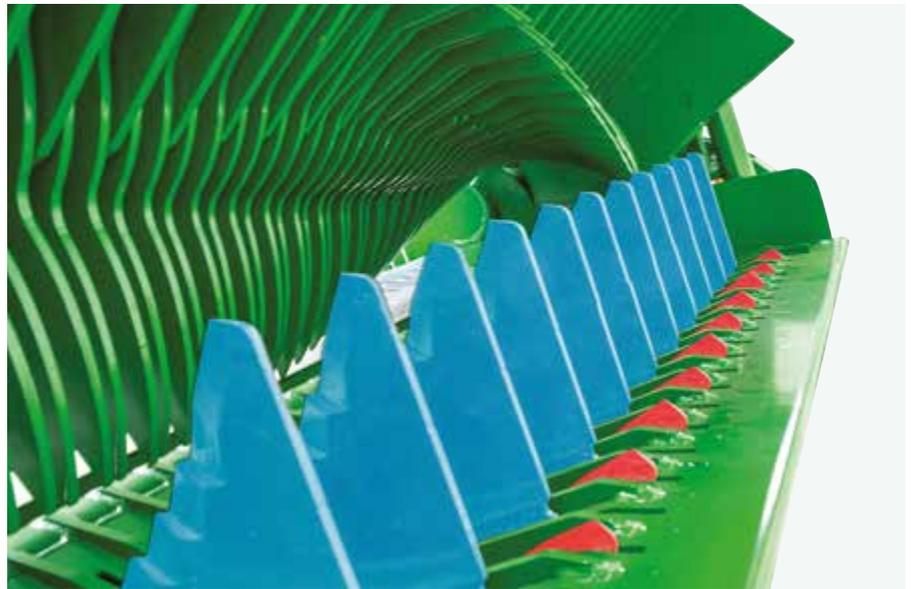
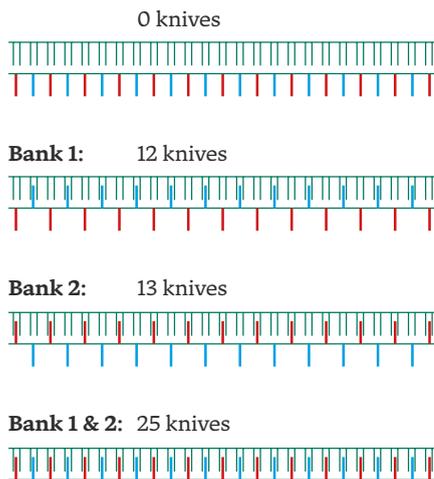
With selectable knives there are two knife banks in the chopping unit that can be activated and deactivated separately.

Various knife configurations of **0, 12, 13 or 25** can be selected depending on requirements.

In these charts, **red** and **blue** lines indicate **individual knives**:

### Knife Bank Configurations

0, 12, 13, 25

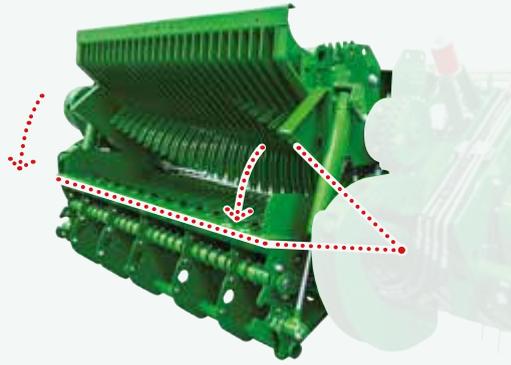


# DROP FLOOR UNBLOCKING -

# 3 SIMPLE STEPS TO

## 1 Drop the Floor

Should a blockage occur, the sound of the slip clutch alerts the operator, who then can hydraulically lower the floor from the tractor cab.



## 2 Re-engage the PTO

This widens the feed channel and on re-engaging the PTO, the blockage can be fed through.

As baling conditions are not always ideal, uneven swaths can occur which can lead to blockages. All machines in the McHale Fusion 4 range are fitted with the McHale **DROP FLOOR UNBLOCKING SYSTEM**, a feature which operators have come to love for its simplicity of use and effective unblocking cycle.

## DROP FLOOR FEATURES

### Automatic Drop Floor Reset

Automatic drop floor reset comes as standard on the McHale Fusion 4 Pro & Fusion 4 Plus. If a blockage occurs, the operator can press one button on the control console which lowers the floor.

After the PTO is re-engaged and the blockage is fed through, the drop floor will automatically rise and the knives will reset to their original position.

### Auto Unblock

When connected to an ISOBUS tractor, the drop floor will automatically lower when the software detects a blockage.

Once the operator restarts the PTO and the blockage clears, the drop floor will automatically rise to its original position.

### Automatic Knife Drop Feature

This feature can be enabled on Fusion 4 Pro or Fusion 4 Plus machines from the control console in the cab. This allows the operator to chop the grass until the bale is almost complete, at which point the machine will automatically drop out the knives.

Depending on the feeding method, this improves fodder distribution, keeping the bale neater when the net or film is removed.

### Density "0" Setting

When baling hay or straw, operators have the ability to select a Density "0" setting on the control box. This allows much lighter bales to be made.

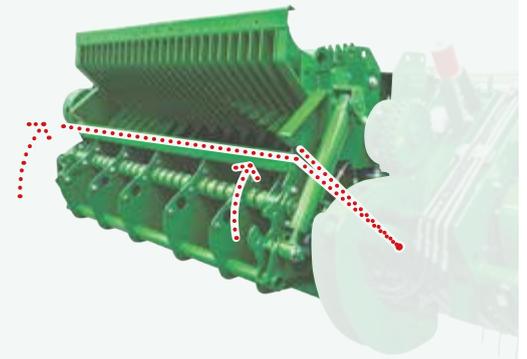


# REMOVING A BLOCKAGE



## 3 *Reset the Floor*

The floor can then be reset to its original position and baling can resume.

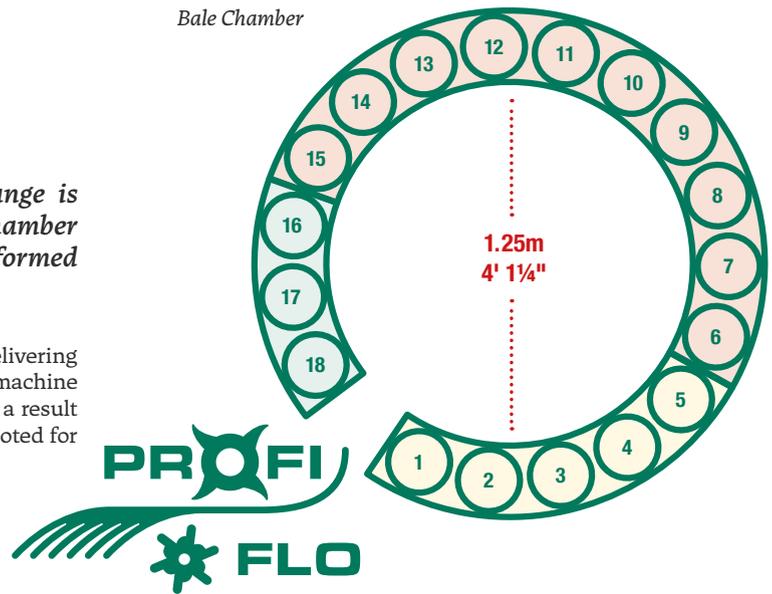


# 18 ROLLER BALE CHAMBER

The bale chamber on the McHale Fusion 4 range is comprised of an 18 roller bale chamber. The bale chamber diameter is 1.23m x 1.25m (4' 1/2" x 4' 1/4") and is formed from heavy duty rollers.

The 18 rollers are formed from high-grade tubular steel delivering maximum traction, improved bale rotation, enhanced machine performance and produces well-shaped, uniform bales. As a result of having an 18 roller bale chamber, the Fusion 4 range is noted for superior performance in dry crops such as hay and straw.

Bale Chamber



## Chamber Bearings

Single sprocket rollers on the chamber drive side are equipped with 50 mm shafts and bearings. Rollers under the most load are fitted with double row bearings. All rollers fitted with double sprockets are equipped with 55 mm shafts and double row 55 mm bearings. The non drive side of the bale chamber is also fitted with heavy duty 50 mm bearings.



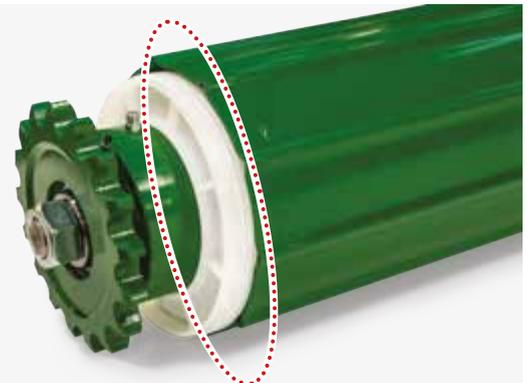
## Heavy Duty Chains

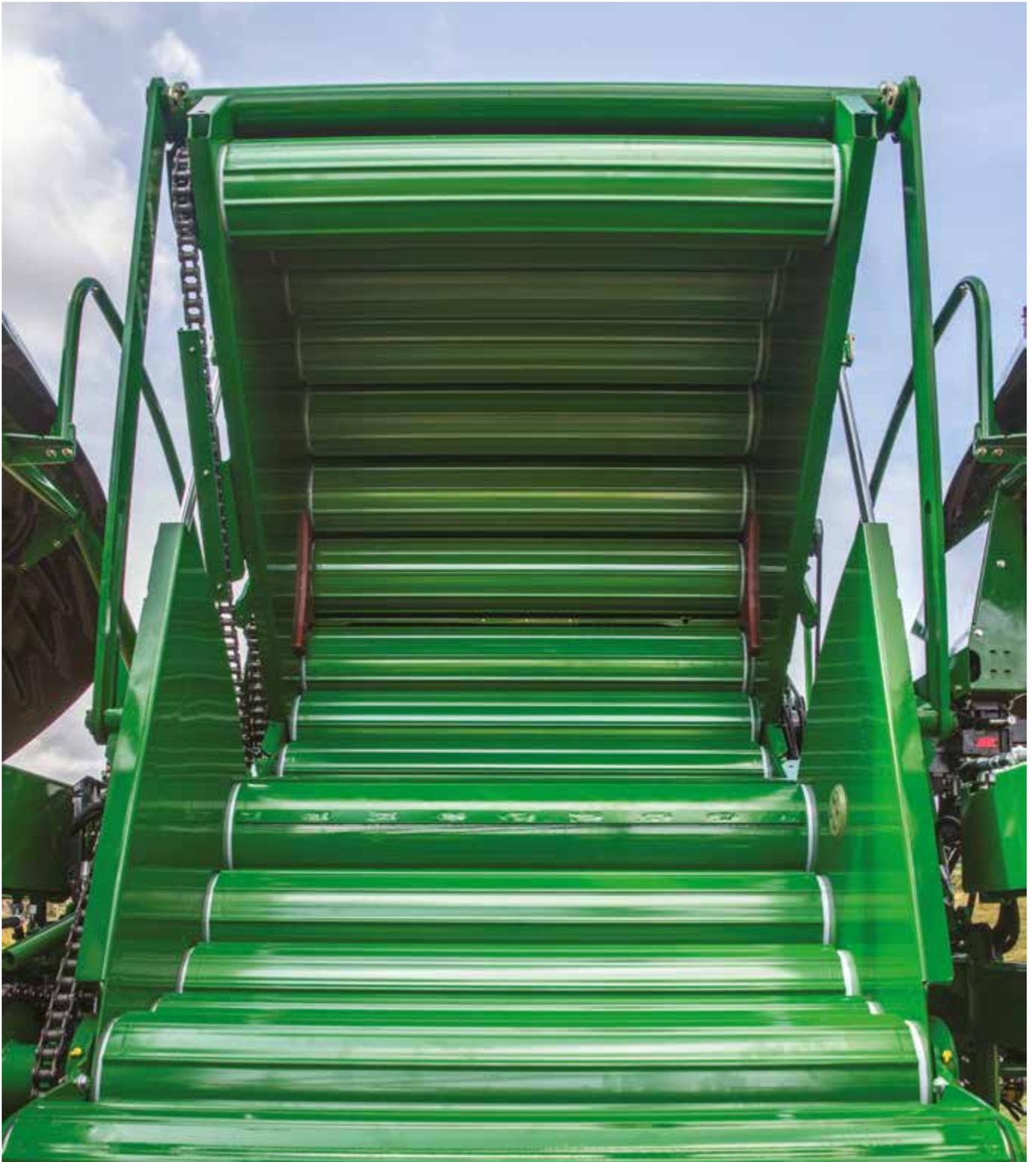
High quality heavy-duty chains ensure reliable operation all around the machine. The main drive chain coming off the gearbox is a high tensile, heavy duty 100H endless chain for maximum strength. All other chains on the drive side of the bale chamber are inch and a quarter (20B). The rotor chain is inch duplex (16 B2) and all pick-up chains are three quarter inch (ASA 60H). New chain tensioners are fitted on all machines in the Fusion 4 range to allow for a spring to be tensioned by simply tightening a bolt at the end which replaces the need to manually release the spring and reattach.



## Roller Design & Sealing

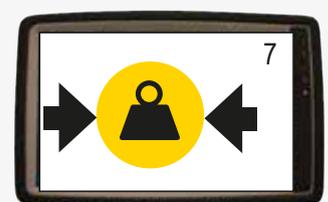
Bale chamber rollers are fitted with 50 mm bearings on the drive and non-drive side. Rollers fitted with double sprockets are equipped with 55 mm shafts and double row bearings. All roller ends are fitted with high performance self-cleaning seals that have a unique reverse-thread sealing system. This prevents crop from getting into the bearings; as the roller moves in one direction, the thread on the seal moves in the opposite direction, ensuring that any crop that tries to find its way into the bearing is automatically threaded out. The seals prevent the grease around the bearings from becoming contaminated by crop, resulting in increased reliability.





## Bale Density Adjustment

1. Bale density pressure has increased across all machines in the Fusion 4 range. On the McHale Fusion 4, the chamber pre-charge pressure can be easily adjusted by twisting the density control valve on the side of machine.
2. On the McHale Fusion 4 Pro and Fusion 4 Plus, the bale density can be adjusted from the tractor cab using the virtual density pressure gauge displayed on the control console.



# GREASING & OILING

The McHale Fusion 4 range of machines are fitted with individual grease and oil pumps. The grease pump is connected to the downward movement of the bale tip, while the oil pump is connected to the upward movement of the bale tip. This ensures that grease and oil is applied evenly and continuously as the machine operates.



# GREASING



## Automatic Greasing

The McHale Fusion 4 integrated baler wrapper range is fitted with a new automatic twin pump lubrication system which has a separate pump for grease and oil. This allows the oiling rate to be adjusted independently by the operator without affecting the greasing rate.

This pressurised system delivers a measured amount of grease around the machine after every bale cycle. Automatic greasing saves time as it reduces the amount of manual greasing to be done by the operator. It also ensures all bearings are greased under high pressure

This system ensures that the grease cartridge usage is spread out evenly over the 300-bale interval. A lube alarm sounds after 300 bales to inform the operator to refill the grease cartridge.



The following components are greased:

**1** Bale Chamber  
Drive Side

**2** Bale Chamber  
Non-Drive Side

**3** Rotor Bearings  
Drive Side

**4** Rotor Bearings  
Non-Drive Side

**5** Pick-Up  
Drive Gears

## Pressurised Oiling System

The McHale Fusion 4 integrated baler wrapper range is fitted with a pressurised oiling system. Depending on working conditions the operator can adjust the oil flow to the following chains which are serviced by the system:



**1** Chamber Drive  
Side Chains

**2** Rotor  
Drive Chain

**3** Pick-Up  
Drive Chains

**4** Pick-Up  
Cam Track

# HIGH PERFORMANCE BINDING



Two high performance binding systems have been **DESIGNED AND DEVELOPED** to ensure optimum performance. The McHale Fusion 4 & Fusion 4 Pro are equipped with a pivot stretch net system while all Fusion 4 Plus machines are fitted with a infinite stretch hydraulic binding system. These binding units are extremely reliable and feature:



## Endless Adjustment

Endless adjustment of tension to ensure **optimum material usage** and bale shape



## Up to 1300 mm

Capacity to take rolls of net wrap up to **1300 mm** in width and **4500 m** in length



## 180-Degree Wrap

180-degree wrap around on the rubber feed roller, **eliminating any net or film slippage** while feeding

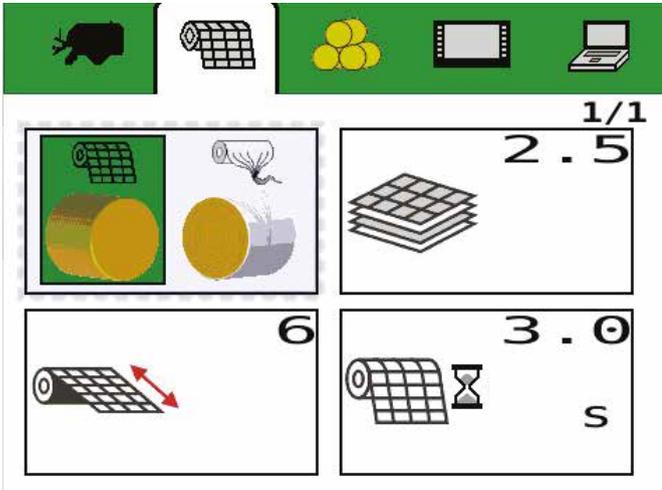
## Binding Material Stretch Application

The simple yet effective binding systems can either apply net or film to the barrel of the bale depending on the model. These systems ensure efficient net or film usage and that a tight layer of net or film is evenly applied to the bale. The net or film tension can be adjusted depending on the operator's requirements.

To obtain the desired stretch, a large net/film brake has been fitted, which provides 25% more stretch to be easily achieved. This is especially effective when operating in cold weather with film that requires a higher stretch percentage.

## Net / Film Binding Control

New to the McHale Fusion 4 Plus is the ability to manually control the NRF bobbins when operating in manual mode. This feature aids the operator when binding a bale manually and has increased the feed reliability of the net/film.



## Net Layer

The number of layers of binding material being used can be easily adjusted as the machine passes through different crop conditions. On the Fusion 4, by simply moving the net adjustment handle down, more net will be applied. Moving the handle up will result in less net being applied.

On the Fusion 4 Pro and Fusion 4 Plus, net adjustment can be controlled from the control console in the tractor cab. At the touch of a button, the operator can easily adjust the number of layers of net and the net stretch.



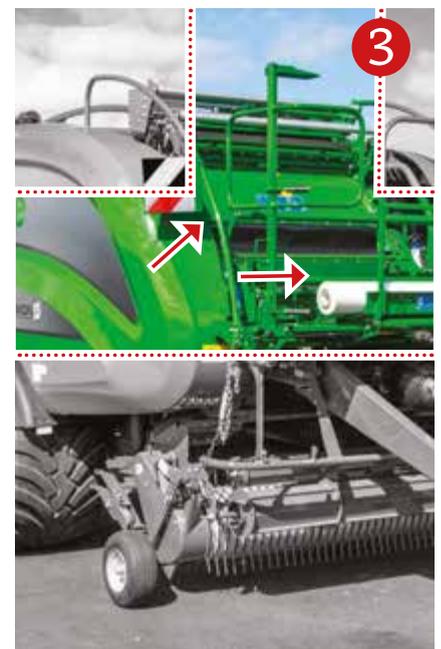
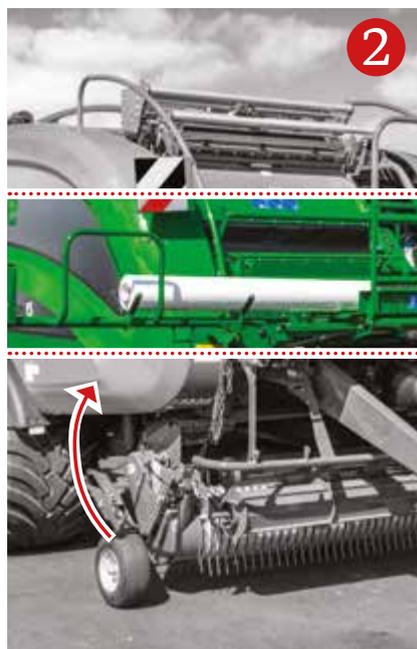
## Hydraulic Net/Film Knife Reset (Optional)

After the bale is bound in the chamber, the net/film is cut before the bale is then transferred to the wrapper. Occasionally, an operator may wish to re-net/re-bind a bale, which results in the operator having to physically reset the knife on the machine. A hydraulic net/film knife rest is available as an optional extra on all Fusion 4 Plus machines. This allows the operator to reset the knife using the control console in the tractor cab.

## Net and Film Loading and Storage (Optional)

A net or film loading device can be fitted as an optional extra to all machines in the McHale Fusion range. This device aids the operator when loading net or film onto the platform. The operator simply folds the cradle downwards and places the roll onto the

cradle. It can then be pivoted up in line with the platform using gas struts. Smooth rollers ensure the net or film can be easily slid from the cradle to the platform without causing any damage.





FUSION 4

McHale

FUSION 4 PLUS

# McHale

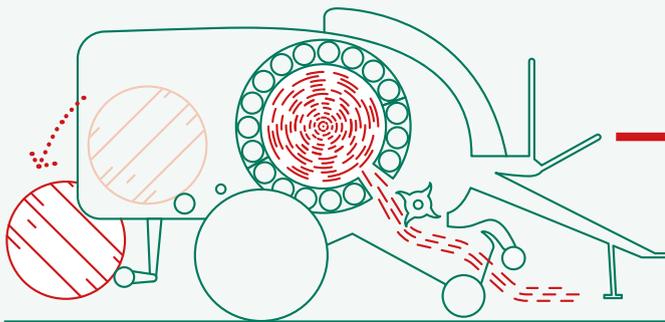


# PATENTED HIGH SPEED TRANSFER SYSTEM

The McHale Fusion 4 range is fitted with a **SERVO OPERATED LOAD SENSING CONTROL VALVE** which makes the baling and wrapping process fully automatic.

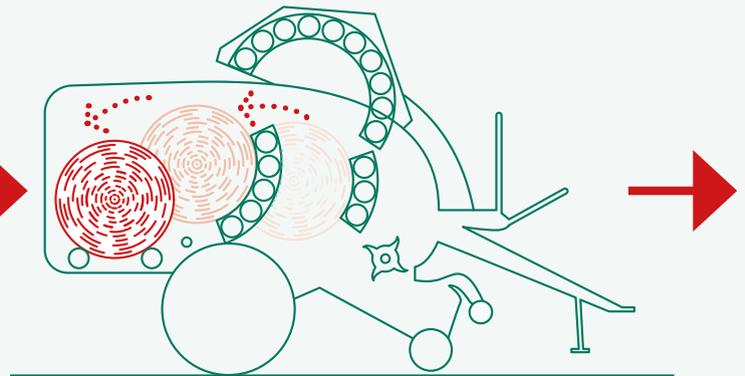
## 1 Bale Binding In Chamber & Wrapped Bale Being Tipped

When the bale on the back is wrapped, the machine will hold the wrapped bale and automatically tip it while the next bale in the chamber is being bound with net or film. At this point, the bale on the wrapper can be set to automatically tip if preferred.



## 2 McHale Patented Bale Transfer

Once the bale is formed, net or film is automatically applied and the chamber then splits like a clamshell. The lower section of the bale chamber then transfers the bale into the high speed vertical wrapping ring.



# WRAPPING SYSTEM

In normal working conditions, the ever efficient wrapping process is **ALWAYS COMPLETED AHEAD OF THE BALER**, meaning that the wrapping platform is always ready and waiting to receive the next bale.

## 01 Two 750 mm Dispensers

The vertical wrapping ring on the Fusion range is fitted with two 750 mm dispensers. Using both dispensers, all machines in the Fusion 4 range take approximately 18 seconds to apply 4 layers of film and approximately 24 seconds to apply 6 layers of film. This means that the wrapping platform is always waiting for the next bale.



## 02 Easy Film Loading

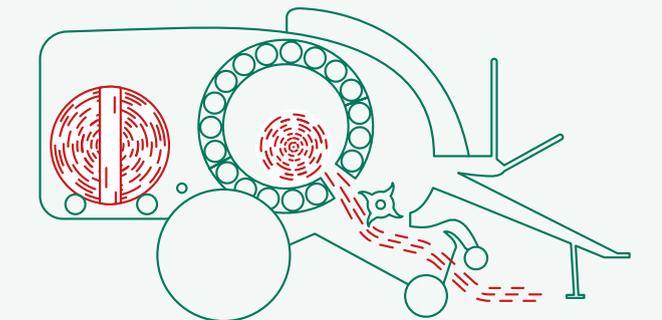
Film can be loaded from the left-hand side of the machine. After loading film on the first dispenser, the operator can push the index button and the dispensers will then rotate around and automatically stop at the loading position for the second dispenser. This allows the operator to easily load the second roll of film.

McHale have added internal panel lighting to aid the film loading process during night-time operations on all Fusion 4 Pro and Fusion 4 Plus machines.



## 3 *Baling while wrapping*

Once the chamber is closed, the operator can continue working and the fully automatic machine will start the wrapping process. In difficult ground conditions, bales can be tipped at the operator's convenience by pressing the tip button.



### 03 *Film Break Sensors*

The dispensers are fitted with film break sensors, which notify the operator through the control console in the tractor cab if one or both dispensers run out of film. If one dispenser runs out of film, the machine will continue working by automatically slowing bale rotation, increasing the number of rotations of the wrapping ring to ensure that the bale is wrapped correctly. These sensors are fitted with removable batteries which can be easily replaced.



### 04 *Reliable Cut and Holds*

On the last rotation of the wrapping cycle, the cut and hold rails extend out and the wrapping film is gently supported. Once supported, the cut and hold gathers the wrapping film to one point where it is cut and held. By gathering the plastic to one point, this system makes the Fusion 4's performance even more reliable by reducing friction to eliminate plastic tearing, particularly in hot or wet conditions. The cut & holds now feature a hydraulic tap to lock the cut and hold in the open position for the ease and safety of maintenance.



### 05 *External Control Keypad*

The McHale Fusion 4 Pro and 4 Plus come fitted as standard with an external control keypad. This keypad allows the operator to control the following functions:

- **Indexing of the wrapper**
- **Wrapper Start / Pause**
- **Rear Wrapping Roller Up / Down**
- **Rear Work Light**
- **Internal Panel Lighting**
- **Cut & Hold Release**

There is also 2 spare buttons which are customisable on the control console.

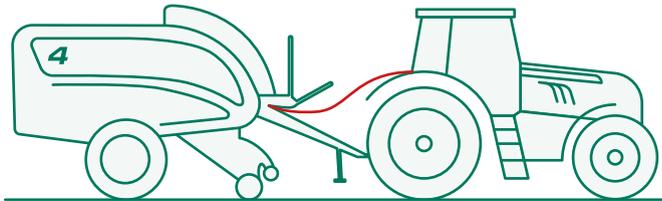
# MCHALE - ISOBUS CHOICES



## 1

### ISOBUS Integration

All McHale Fusion 4 Pro and Fusion 4 Plus machines are ISOBUS compatible as standard. McHale ISOBUS machines can be plugged into any ISOBUS tractor connection and operated via the tractor's own terminal in the cab. The machine is connected via the tractor's ISOBUS connector, which eliminates large cables being routed through the back window of the tractor cab. Alternatively, with an ISOBUS tractor, the operator can use a separate ISOBUS terminal.

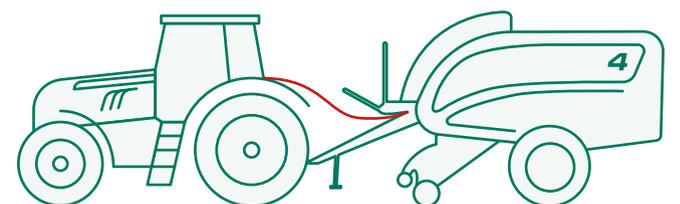


## 2

### McHale ISO-Play Control Console Options

If the customer wishes to operate an ISOBUS controlled machine with a tractor that is not ISOBUS compatible, they can do so through the optional McHale ISO-PLAY console. McHale offer two ISO-PLAY monitor options.

Customers can purchase a McHale ISO-PLAY 7 or ISO-PLAY 12 control console, which can be used to operate the functions of other ISOBUS machines. Should the customer already own an ISOBUS control console from another machine this then can be used to control the functionality of the McHale Fusion 4 Pro or Fusion 4 Plus.



### Fully Automatic

The ISOBUS control consoles, when combined with the load sensing valve on the McHale Fusion 4 Pro and the McHale Fusion 4 Plus, is capable of making baling and wrapping fully automatic.

### Bale Density & Binding Adjustment

The ISOBUS control consoles allow for the bale density to be adjusted from the comfort of the tractor cab. From the control console, the operator can adjust the number of layers of net or film being applied to the bale. On the McHale Fusion 4 Plus, the operator can also adjust the stretch being applied to the film in the bale chamber from the control console in the tractor cab.

### Auto Knife Drop

This feature allows for the operator to chop the forage until the bale is almost complete, at which point the machine will automatically lower the knives. Depending on the feeding method, this can improve fodder distribution and machine intake.

## Smart Switching Cameras

All control consoles are fitted with camera functionality as standard on the McHale Fusion 4 Pro and the Fusion 4 Plus. In manual mode, the operator can switch to camera mode to view the wrapper and rear of the machine. In automatic mode on all ISO-PLAY consoles, the camera image will appear at intelligent times on the screen during the baling cycle rather than on a time-based system, on existing machines.

The smart switching cameras can also be fully customised by the operator to suit their preferred view for when the bale is being transferred or being tipped.

If an additional camera is required on the McHale Fusion 4 Pro, the control console's second camera input may be used. This second input is used for displaying the film binding process on the McHale Fusion 4 Plus machines.



## Next VT Functionality

All McHale ISOBUS machines feature a Next VT Function. This function allows the operator to easily move the ISOBUS controls from one terminal to another – eg. tractor terminal to the ISO-PLAY control console.

### Side Tip

Bale tip control buttons are fitted to the external keypad to allow for the side tip to be conveniently raised and lowered when changing from work to transport positions, or when attaching a side-tip to the machine. A side tip sensor alerts the operator via the control console if baling has started with the side tip in the travel position.

### Undulating Ground

For operators working in difficult ground conditions, the bale tip speed can also be adjusted from the tractor cab.

### Additive Applicator

An output for controlling a crop additive applicator is featured on the ISOBUS software. Once the operator has the PTO running this will engage an aftermarket crop additive applicator. During the application of the net or NRF and the transfer of the bale,

the applicator will automatically switch off in order to avoid the wastage of additive. An optional headland management kit is also available to detect when the pickup is raised at headlands and switches off the applicator to eliminate wastage.

The operator can also select:

The knives in the chopper unit on or off

The machine to tip or hold the wrapped bale

A 'bale only' programme for hay or straw

A lube alarm

Various bale transfer options depending on ground conditions

## Aux-N Functionality

McHale control consoles also benefit from full ISOBUS AUX-N compatibility. Commonly used machine functions can be assigned to an auxiliary key on the terminal, assigned to the tractor ISOBUS joystick, or assigned to an aftermarket ISOBUS joystick.

### Pre & Post Roll

The McHale Fusion 4 Pro and Fusion 4 Plus feature a pre & post roll function which allows the bale to be rolled before and after the bale is wrapped. This ensures the net/NRF and plastic is bound tightly to the bale, depending on which material is used to bind the bale.

### Easy Pausing

Binding, bale transfer, wrapping and tipping stages of the automatic cycle can be easily and intuitively paused by the operator should the need arise. An ISOBUS Shortcut Button (ISB) allows the operator to quickly put the machine into manual mode and stop all automatic functions.

# OPERATOR COMFORT



The McHale Fusion 4 Pro and Fusion 4 Plus machines are equipped with a host of control functions to make the running of the machine as simple and enjoyable as possible for the operator. These include:

## 3D Manual Mode

When operating the machine in manual mode, a 3D image of the machine is displayed which allows the operator to select the relevant functions to control. In each function there is an information button that, when pressed, will show the current state of the function, for example:



## Virtual Density Gauge

A Virtual Density Gauge is displayed on the screen of the connected ISOBUS terminal. This allows the operator to view the density of the bale being produced on screen rather than on the machine body.

During the baling process, a bale fill indicator shows the driver how the bale is forming in the chamber. When the desired density is achieved on the graph, a "Stop" warning is signalled to the driver to notify them that crop should stop being fed into the chamber.

## Self-Diagnostics

All McHale Fusion 4 Pro and Fusion 4 Plus machines can perform diagnostics, which will automatically detect if any pressure or ultrasonic sensors are disconnected/faulty. If any error is found, a warning will be displayed on the control console.

## QR Codes

A QR code is displayed alongside error messages on the control console of Fusion 4 Pro and Plus machines.

Scanning this code with the camera of your smart phone will link to an online document with more details on the error.

## Tank Line Release Valve

To aid the operator when attaching the machine to the tractor, all machines in the McHale Fusion 4 range are fitted with a tank line release valve which is located underneath the hose tray on the front of the machines. By simply pressing the button, any pressure that is in the hydraulic system on the machine is released so that connecting to the tractor is easier for the operator.

## Extra Work Lighting

New panel lighting has been added to the McHale Fusion 4 Pro and Fusion 4 Plus to aid the operators when changing rolls of film in the dark. These lights are neatly fitted underneath the side panels of the machines and can be switched on/off from the control console or the rear keypad on the machine.

## Customer Data System

The McHale control consoles are primarily for monitoring and adjusting machine settings but also contain additional features that the professional farmer and contractor will find invaluable in their day-to-day activities.

All McHale control consoles possess a built-in database for storing customer profiles and job details which can be displayed on the tractor terminal, ISO-Play 7 or ISO-Play 12 screen.

Information such as customer name, job total, average bale weight and average bale moisture content (if fitted on the machine) can be easily viewed, providing full visibility to the operator of all the jobs completed.

Job totals can be stored on the machine and can be viewed through the ISOBUS terminals. The software also features a reset total reminder to prompt the operator to reset the customer total when changing between fields



### *Bale Weighing System*

If fitted with the optional bale weighing system, the control console displays a bale weight icon on its main screen providing the calculated bale weight. The bale weights are accumulated and an average bale weight for the current customer is shown in the individual customer's profile.



### *Bale Moisture Recording*

When fitted with the optional bale moisture recording system, a moisture icon will be shown on the main screen. When the bale is almost full, the moisture values are recorded up until netting begins. Once netting begins, an average moisture value is calculated and displayed. This value is accumulated to create an average moisture content for the job.



# FUSION 4 INTEGRATED BALER WRAPPER



**Machine Features:**

2.1 m Profi-Flo Pick-Up	25 Knife Heavy Duty Feed Rotor	Drop Floor Unblocking System	18 Roller Bale Chamber
50 & 55 mm Bale Chamber Bearings*	1¼" Chain on the Bale Chamber	Automatic Progressive Greasing System	4 Bar Pivot Stretch Netter
Automatic Oiling System	Expert Plus Control Console <i>(Large Graphic Display)</i>	Vertical Wrapping Ring <i>with Film Break Sensors</i>	560/60-22.5 Tyres

\* 55 mm bearings fitted to rollers with long shafts and double sprockets

# STANDARD SPECIFICATION



The **McHALE FUSION 4** is a fully automatic, integrated baler wrapper recognised worldwide for its unique patented bale transfer, vertical wrapping ring and high output. The machine is equipped with a 25 knife-chopping unit.

## STANDARD FEATURES



### PATENTED BALE TRANSFER

When the netting process is complete the bale chamber splits horizontally. As the top section of the bale chamber moves up, the lower section of the bale chamber simultaneously moves up and out, transferring the bale onto the wrapping platform.



### VERTICAL WRAPPING RING

The vertical wrapping ring is fitted with two 750 mm dispensers, which take approximately 18 seconds to apply 4 layers of film and approximately 24 seconds to apply 6 layers of film. This means that the wrapping platform is always waiting for the next bale.



### WRAPPING

Once the bale chamber is closed, wrapping will automatically start and baling can resume, delivering maximum output.

## EXPERT PLUS CONTROL BOX

The Fusion 4 is equipped with an Expert Plus control console, which features a large graphic display; this allows the operator to monitor the baling process graphically from the control console. **It also features:**

Automatic and Manual Operation	Various Bale Transfer Options	Film Layer Adjustment	Net Position Display
Knife Control (Up / Down)	Knife Position Display	Auto Bale Tip	Net Application Indicator
Chamber Position Display	Drop Floor Control (Up / Down)	Various Bale Tip Options	Lube Count
Bale Only Programme	Lube Alarm	Pre-Net Bale Formation Alert	Various Bale Counts



## OPTIONAL EXTRAS

## 3 Popular Selections - more options available - see page 42

### 1. Selectable Knives



### 2. Side Tip



### 3. Tyre Options



# FUSION 4 PRO INTEGRATED BALER WRAPPER



## Machine Features:

2.1 m Profi-Flo Pick-Up	25 Knife Heavy Duty Feed Rotor	Automatic Drop Floor Unblocking System	18 Roller Bale Chamber
50 & 55 mm Bale Chamber Bearings*	1¼" Chain on the Bale Chamber	Automatic Progressive Greasing System	4 Bar Pivot Stretch Netter
Automatic Oiling System <i>with Lube Interval Adjustment &amp; Alarm</i>	ISOBUS Compatibility	Vertical Wrapping Ring <i>with Film Break Sensors</i>	560/60-22.5 Tyres

\* 55 mm bearings fitted to rollers with long shafts and double sprockets

# STANDARD SPECIFICATION

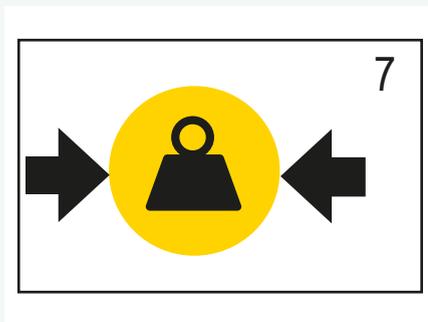


The **McHALE FUSION 4 PRO** is a fully automatic machine that uses net to bind the bale in the chamber and possesses a host of new features to maximise operator comfort. ISOBUS software provides the operator with in-cab net and density adjustment, camera options and a wide variety of useful data features.

## STANDARD FEATURES

### IN-CAB ADJUSTMENT

The ISOBUS control console allows for bale density to be adjusted from the comfort of the tractor cab. Depending on the crop and conditions, the operator can also adjust the number of layers of net on the control console.



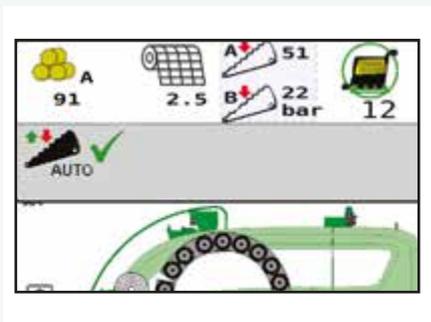
### DROP FLOOR UNBLOCKING

The drop floor unblocking system is fitted with an automatic unblocking function as standard. When connected to an ISOBUS tractor, the Auto Unblock feature lowers the floor when a blockage is detected. Once the operator restarts the PTO and clears the blockage, the drop floor will raise to its original position.



### AUTO KNIFE DROP

In order to facilitate various feeding methods, McHale have developed a system allowing the outside of the bale not to be chopped. This allows the operator to chop the forage until the bale is almost complete, at which point the machine will automatically lower the knives. This improves machine intake and aids fodder distribution for the farmer.



## CONTROL CONSOLES

The McHale Fusion 4 Pro is fitted with ISOBUS as standard. For customers without an ISOBUS tractor, an optional ISO-PLAY 7 or ISO-PLAY 12 terminal can be used. Through the ISOBUS tractor's terminal or McHale's ISO-PLAY consoles, the operator is provided with clear indicators of machine performance and allows for increased levels of monitoring, through the graphic display.

For more information on the control consoles see [pages 30-33](#)

### Camera Display as Standard

The McHale Fusion 4 Pro comes fitted with a camera as standard to monitor the transfer and wrapping operation at the rear of the machine. When using an ISO-PLAY terminal, this camera automatically displays on the control console in the tractor cab when the bale is being transferred to the wrapping table, at the beginning of the wrapping cycle and when the bale is about to be tipped.

## OPTIONAL EXTRAS

## 3 Popular Selections - more options available - see [page 42](#)

### 1. Net/ NRF Loading Device



### 2. 1000 rpm Gearbox



### 3. Camless Pick-Up





# FUSION 4 PLUS

## INTEGRATED BALER WRAPPER

### WITH FILM ON FILM TECHNOLOGY



#### Machine Features:

2.1 m Profi-Flo Pick-Up	25 Knife Heavy Duty Feed Rotor	Drop Floor Unblocking System	18 Roller Bale Chamber
50 & 55 mm Bale Chamber Bearings*	1¼" Chain on the Bale Chamber	Automatic Progressive Greasing System	Film or Net Binding
Automatic Oiling System	ISOBUS Compatibility	Vertical Wrapping Ring <i>with Film Break Sensors</i>	560/60-22.5 Tyres

\* 55 mm bearings fitted to rollers with long shafts and double sprockets

# STANDARD SPECIFICATION



The **MCHALE FUSION 4 PLUS** is a fully automatic integrated baler wrapper, which can apply film to the barrel of the bale instead of twine or net wrap. The machine is equipped with a 25 knife-chopping unit and uses ISOBUS software.

## STANDARD FEATURES

### FILM BINDING

The concept of putting film on the barrel of the bale is known as "Film binding technology." The plastic, which is applied to the barrel of the bale forms an **additional layer of wrap** across the largest surface of the bale, whilst also binding the bale together.

The film which is applied to the barrel of the bale can be stretched to approximately 20%, a higher ratio than what can be achieved with net wrap. This additional layer of film on the barrel of the bale provides **higher quality silage** as the film can be stretched more than net. This in turn, expels more air, resulting in better silage quality.

By using film to bind the bale together, **recycling is made easier** as the farmer is only left with one form of waste to recycle and can avoid the unpleasant and time consuming job of separating net from the plastic.

### PATENTED BALE TRANSFER

When the bale is bound in the bale chamber, the bale chamber splits horizontally. As the top section of the bale chamber moves up, the lower section of the bale chamber simultaneously moves up and out, transferring the bale onto the wrapping platform.



## CONTROL CONSOLES

The McHale Fusion 4 Plus is fitted with ISOBUS as standard. For customers without an ISOBUS tractor, an optional ISO-PLAY 7 or ISO-PLAY 12 terminal can be used. Through the ISOBUS tractor's terminal or McHale's ISO-PLAY consoles, the operator is provided with clear indicators of machine performance and allows for increased levels of monitoring, through the graphic display.

For more information on the control consoles see **pages 30-33**

1: McHale ISO-PLAY 7



2: McHale ISO-PLAY 12



## OPTIONAL EXTRAS

## 3 Popular Selections - more options available - see page 42

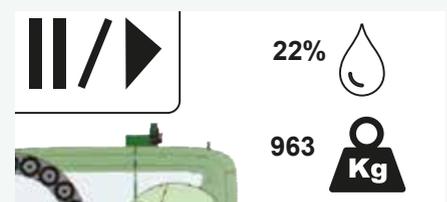
### 1. Double Crop Roller



### 2. Additional Net Box



### 3. Bale Weight & Moisture Monitor



# FILM BINDING TECHNOLOGY



Film binding technology refers to the application of film to the barrel of the bale in the bale chamber. **THE FILM BINDS THE BALE TOGETHER** which eliminates the need for string or net wrap. It also forms a wrapping layer and gives better film or plastic coverage on the largest surface of the bale.



## Patented Film Binding

In the development of McHale's film on film technology, we realised that changes in temperature and sun light could affect the chamber wrapping film; as the day got hotter or cooler the film was either being over-stretched or under-stretched, and this in turn would cause reliability problems and result in inefficient film use.

As a result, McHale developed a patented application system which adjusts the braking force on the roll of plastic in-line with working conditions. This allows for a continuously variable stretch, which can automatically adjust to changes in the day, without the operator having to adjust any settings.

The McHale patented film application system ensures consistent film stretch, reliable film application and delivers optimum bale shape and bale density. Should an operator wish to use net wrap for hay or straw, this can be done with a simple changeover.



## ADVANTAGES OF FILM BINDING

1.

### CHAMBER FILM ACTS AS A WRAPPING LAYER

The plastic which is added to the barrel of the bale to keep the bale together also forms part of the wrapping process. This adds value by placing more plastic on the largest surface of the bale.

2.

### CHAMBER FILM RESULTS IN BETTER SHAPED BALES

When plastic is applied to the barrel of the bale it can be stretched to approximately 20%. The stretch ratio is higher than what can be achieved with net wrap or twine and as a result, the material is kept tighter, which ultimately results in better bale shape.

3.

### CHAMBER FILM DELIVERS HIGHER QUALITY SILAGE

As the plastic is being stretched during application to the barrel of the bale, it expels more air than net wrap does and as a consequence, results in better silage quality.

4.

### CHAMBER FILM MAKES RECYCLING EASIER

As plastic is used to both bind the bale in the bale chamber and to wrap the bale, on feed out, the farmer will be left with one form of waste. This reduces the time needed to feed the bale and avoids the unpleasant and time consuming job of separating the twine or net wrap from the plastic before the plastic is recycled.



# FUSION 4 RANGE OPTIONAL EXTRAS

McHale machines work in different conditions around the world. To optimise machine performance, we offer a number of options in the McHale Fusion 4 range. We recommend you speak with your local dealer/distributor as regards the best features or options to meet your requirements.

Options	Camless Pick-Up with Profi-Flo	Crop Roller	Selectable Knives 0, 12, 13, 25	1000 rpm Gearbox
Fusion 4	Optional	Optional	Optional	Optional
Fusion 4 Pro	Optional	Optional	Optional	Optional
Fusion 4 Plus	Optional	Optional	Optional	Optional



## 1. Camless Pick-Up with Profi-Flo

The 2.1 m Profi-Flo camless pick-up runs smoothly, particularly in short crop, and requires less maintenance due to a reduced number of rotating parts. All camless pick-ups in the McHale Fusion 4 range are fitted with six tine bars and a double crop roller to provide excellent ground cleaning and fast delivery of crop to the rotor.

## 2. Crop Roller

A small diameter, high throughput crop roller is available as an optional extra. This crop roller helps to level out uneven swaths and has the ability to increase baler throughput. A double crop roller is also available should it be required.



## 3. Selectable Knives

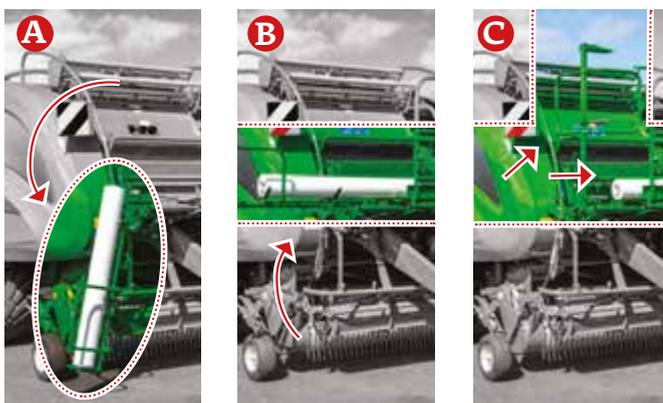
A selectable knife system consists of two knife banks which allow for various knife configurations to be chosen depending on the knife bank specification. If a machine is equipped with 25 knives, then a bank of 12 and a bank of 13 knives are available to be chosen from. If chopping is not required, then the operator can select for no knives to be engaged. On all machines in the McHale Fusion 4 range, knife selection can be controlled from the tractor cab.

## 4. 1000 rpm Gearbox

McHale machines work in different conditions around the world so in order to optimise machine performance, a 1000 rpm gearbox is available as an optional upgrade on all machines in the McHale integrated baler range.

## 5. Net / NRF Loading Device

McHale introduced this very popular option to make net or NRF loading much more user friendly. This device aids the operator when loading net or film onto the platform. The operator simply folds the cradle downwards and gently lifts the roll onto the cradle. It is then ready to be pivoted up in line with the platform. Smooth rollers ensure the net or NRF can be easily slid from the cradle to the platform without causing any damage before being placed in the binding unit or spare roll holder.



Net / NRF Loading Device	Side Tip	Bale Weighing & Moisture System	ISO-PLAY 7 or 12 Terminals	Tyre Options
Optional	Optional	Moisture Only	Not Available	650 / 50 / 22.5 680 / 50 / 22.5 710 / 45 / 22.5
Optional	Optional	Optional	Optional	650 / 50 / 22.5 680 / 50 / 22.5 710 / 45 / 22.5
Optional	Optional	Optional	Optional	650 / 50 / 22.5 680 / 50 / 22.5 710 / 45 / 22.5

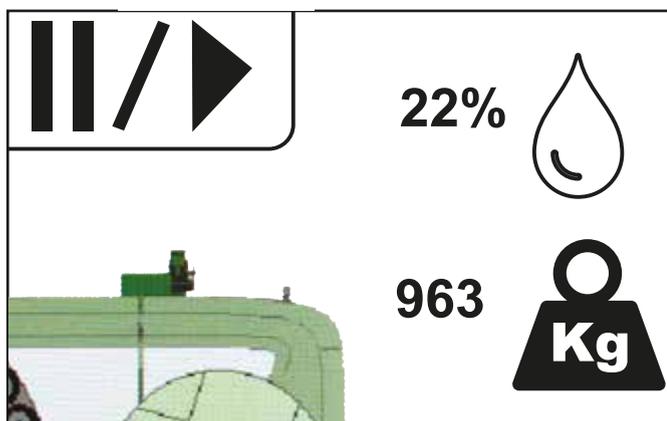


## 6. Side Tip

A side tip can be fitted to any machine in the Fusion 4 range to allow for bales to be placed on their ends as they are being tipped. The side tip allows the machine to turn the bale through 90 degrees to leave the bale sitting upright on its end where there is normally more plastic. This is beneficial when working in stalky crops where the customer does not want the bale to get damaged

## 7. Bale Weighing & Moisture Systems

If the machine is fitted with the optional bale weighing and moisture systems, these readings will be displayed on the control console. The bale weighing and moisture systems record the weight and moisture content of each bale and their average bale weight and moisture content reading for the job is displayed in the customer profile section on the control console.



## 8. ISO-PLAY 7 or ISO-PLAY 12

If the customer wishes to operate an ISOBUS controlled machine with a tractor that is not ISOBUS compatible, they can do so through the McHale ISO-PLAY 7 console, equipped with its 7" screen or the larger, 12" screen on the McHale ISO-PLAY 12 console which is also available as an optional extra. An additional tractor wiring loom is required to do this.

## 9. Tyre Options

McHale offer a number of tyre upgrades depending on customer preferences and ground conditions. Please see below for the tyre options available to suit your machine of choice:

**Option 1**  
650/50/22.5

**Option 2**  
680/50/22.5

**Option 3**  
710/45/22.5



McHale ISO-PLAY 12



FUSION 4

McHale

FUSION 4 PLUS

# FUSION 4 RANGE TECHNICAL TABLE

	<b>FUSION4</b>	<b>FUSION4 PRO</b>	<b>FUSION4 PLUS</b>
<b>DIMENSIONS &amp; WEIGHT</b>			
Length	5.8 m (19')	5.8 m (19')	5.8 m (19')
Width	2.76 / 2.94 m* (9' - 9'8")*	2.76 / 2.94 m* (9' - 9'8")*	2.76 / 2.94 m* (9' - 9'8")*
Height	3.02 m (9'10")	3.02 m (9'10")	3.02 m (9'10")
Weight	5800 kgs (12,787 lbs)	5850 kgs (12,897 lbs)	5950 kgs (13,117 lbs)
<b>PICK-UP</b>			
Working Width	2100 mm (6'11")	2100 mm (6'11")	2100 mm (6'11")
Tine Bars	5 - (Camless Option with 6)	5 - (Camless Option with 6)	5 - (Camless Option with 6)
Tine Spacing	70 mm (2 ¾")	70 mm (2 ¾")	70 mm (2 ¾")
Pick Up Lift	Hydraulic	Hydraulic	Hydraulic
Pick Up Guide Wheels (pneumatic)	Standard - with Fold Back	Standard - with Fold Back	Standard - with Fold Back
<b>CHOPPER UNIT</b>			
Maximum Number of Knives	25	25	25
Theoretical Chop Length	46 mm (1 ¾")	46 mm (1 ¾")	46 mm (1 ¾")
Unblocking System	Drop Floor	Automatic Drop Floor	Automatic Drop Floor
Knife Control	Electronic from Tractor Cab	Electronic from Tractor Cab	Electronic from Tractor Cab
Knife Protection	Hydraulic	Hydraulic	Hydraulic
Auto Knife Drop	Not available	Standard	Standard
<b>BALE CHAMBER</b>			
Number of Rollers	18	18	18
Width (m)	1.23 m (4')	1.23 m (4')	1.23 m (4')
Diameter (m)	1.25 m (4'1")	1.25 m (4'1")	1.25 m (4'1")
Greasing	Progressive (Standard)	Progressive (Standard)	Progressive (Standard)
Bearings	55 mm**	55 mm**	55 mm**
<b>BALE CHAMBER WRAP</b>			
Type	Net	Net	NRF or Net
Layer Adjustment	Manual on Baler	In-cab	In-cab
Net or NRF Roll Capacity	1+1 Storage	1+1 Storage	1+1 Storage
Binding System	Pivot Stretch Netter (4 bar)	Pivot Stretch Netter (4 bar)	Infinite Stretch
Control	Manual or Automatic	Manual or Automatic	Manual or Automatic
<b>WRAPPING</b>			
System	Vertical Wrapping Ring	Vertical Wrapping Ring	Vertical Wrapping Ring
Film Storage	10 Rolls & 2 on the Wrapper	10 Rolls & 2 on the Wrapper	10 Rolls & 2 on the Wrapper
Film Layers	2+2+2 System	2+2+2 System	2+2+2 System
Dispensers	70% x 750 mm	70% x 750 mm	70% x 750 mm
Film Stretch	70% standard (55% optional)	70% standard (55% optional)	70% standard (55% optional)
Pre & Post Roll	N/A	Standard	Standard
Bale Tip Adjustment	N/A	Standard	Standard
<b>DRIVES</b>			
Pick-Up Protection	Slip Clutch	Slip Clutch	Slip Clutch
Main Drive Protection	Cam Clutch	Cam Clutch	Cam Clutch
Gearbox	Split Drive	Split Drive	Split Drive
Chain Lubrication	Automatic (Standard)	Automatic (Standard)	Automatic (Standard)
<b>CONTROL</b>			
Density Adjustment	On Baler Valve	In-cab	In-cab
Operation	Fully Automatic Electronic	Fully Automatic Electronic	Fully Automatic Electronic
Control System	Expert Plus	ISOBUS (Optional ISO-PLAY)	ISOBUS (Optional ISO-PLAY)
Inbuilt Cameras	Not available	1 x Inbuilt Camera	2 x Inbuilt Camera
<b>OTHER</b>			
Axle	8 stud	8 stud	8 stud
Tyre Sizes	560/60R 22.5 (standard)	560/60R 22.5 (standard)	560/60R 22.5 (standard)
Electronics	12 Volt DC, 7 amp approx.	12 Volt DC, 7 amp approx.	12 Volt DC, 7 amp approx.
Road Lights	Standard	Standard	Standard
<b>TRACTOR</b>			
Minimum Hydraulic Flow	45 litres / min at 180 bar	45 litres / min at 180 bar	45 litres / min at 180 bar
Hydraulic System	Open, Closed or Load Sensing	Open, Closed or Load Sensing	Open, Closed or Load Sensing
Minimum Power Requirements	85kW (115hp)	85kW (115hp)	85kW (115hp)

\* Width depends on tyre selection

\*\* Bearings are 55 mm double raced on the main load points

Additional specification above a Fusion 4

Unique features on a Fusion 4 Plus



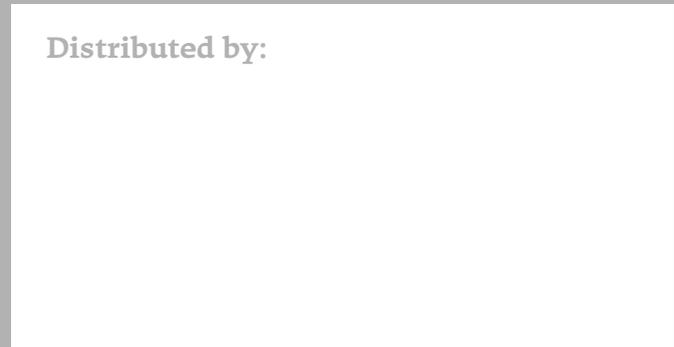
# M-Hale

Ballinrobe,  
Co. Mayo,  
Ireland

T. 353 (0) 94 95 20300  
F. 353 (0) 94 95 20356  
E. [sales@mchale.net](mailto:sales@mchale.net)

## WWW.MCHALE.NET

Distributed by:



**DISCLAIMER:** This literature is designed for worldwide circulation. Due to a continuing policy of product improvement, we reserve the right to alter specifications and constructions without notice. As machines are exported to many different countries, general information, pictures and descriptions are provided; these should be taken as approximate and may include optional equipment that is not part of the standard specification. Please consult your local dealer or distributor for further information.