McHale V6 / Fusion VARIO

VARIABLE CHAMBER BALER RANGE

WWW.MCHALE.NET

The Professional Choice

MCHALE VARIABLE CHAMBER BALER RANGE

Over the last decade the McHale range of balers have been operating in over 6 continents in some of the world's most difficult conditions. McHale balers have developed a reputation for providing **HIGH OUTPUT, EXCELLENT RELIABILITY, OPERATOR COMFORT AND TOP RESALE VALUE.**

CONTENTS


McHale
www.mchale.net
V660

THREE MODELS
A RANGE TO MEET YOUR NEEDS

The Variable Chamber Round Baler Range has been designed with the demands of today's **FARMER AND CONTRACTOR IN MIND.** *This common sense approach to design ensures that their operation is* **KEPT SIMPLE AND USER FRIENDLY.**

All the balers in the Variable Chamber Baler Range make bales from **0.6m—1.68m** (2'—5'6"). The McHale **Variable Chamber Baler Range** consists of 3 models;

V640 – Non-Chopper Baler

V660 – Chopper Baler

Fusion Vario – Integrated Baler Wrapper

Offering innovative ideas to allow you to work smarter, whilst achieving more output, the McHale name has become synonymous with the production of robust and reliable machines, making McHale the number one choice for professional users.

McHale make a high output baler to suit everyone's needs. Whether it is a non-chopper V640 baler, a 15 knife chopper V660 baler or a Fusion Vario Integrated Baler Wrapper, there is a host of options to choose from to suit your individual needs.

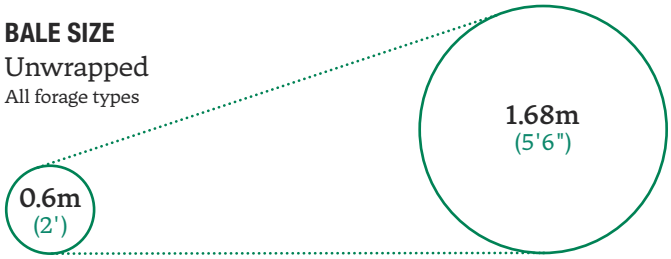
Unfold this page for a summary of the models in Variable Chamber Baler Range.

range
Unfold to view the range
Unfold to view the range

V640

THE MCHALE V640 is a non-chopper Variable Chamber Baler that is equipped with a high intake feed rotor to ensure even and efficient crop flow to the bale chamber. The McHale V640 is driven by a primary drive system for optimum bale formation. Central grease blocks are fitted on the machine for greasing whilst oiling is controlled through the continuous oiling system. Net and bale density can be adjusted from the cab through the Expert Plus control box. The machine is fitted with 460/65-20 tyres as standard.

BALE SIZE
Unwrapped
All forage types



01 2.1m PICK-UP
High-Intake Pick-Up with galvanised bands

02 FEED ROTOR
High Intake Feed Rotor

03 CHOPPER UNIT
Non-Chopper

04 DRIVE SYSTEM
Primary Drive

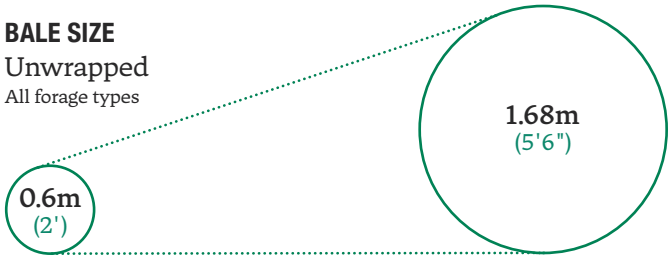
05 CONTROL SYSTEM
Expert Plus

06 Greasing
Centralised Greasing Blocks

V660

THE MCHALE V660 is a semi-automatic Variable Chamber Baler which is fitted with a 15 knife chopper unit and heavy-duty rotor. It is equipped with a double drive system which allows the machine to operate in the toughest of conditions. The double drive system aids belt rotation and bale formation. The machine comes with centralised grease blocks as standard. Automatic greasing is available as an option on all V660 machines. Net and bale density can be adjusted from the cab through the Expert Plus control box. The machine is fitted with 500/50-22.5 tyres as standard.

BALE SIZE
Unwrapped
All forage types



01 2.1m PICK-UP
High-Intake Pick-Up
with galvanised bands

02 FEED ROTOR
15 Knife
Heavy-Duty Rotor

03 CHOPPER UNIT
15 Knife
Chopper Unit

04 DRIVE SYSTEM
Double Drive

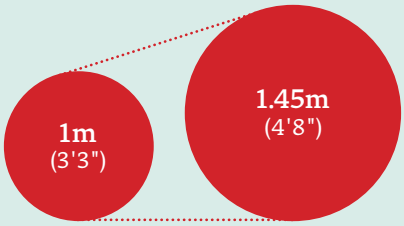
05 CONTROL SYSTEM
Expert Plus

06 GREASING
Centralised
Greasing Blocks

Standard on **V660 & Vario**

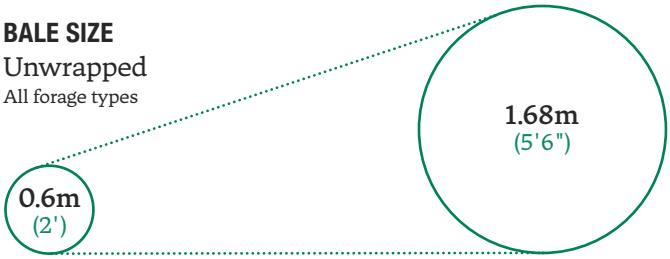
FUSION VARIO

Wrapped
Haylage/Silage



THE MCHALE FUSION VARIO is an integrated baler wrapper, which provides a number of benefits as the task of baling and wrapping can be carried out using one machine. There is also a labour saving, as one operator and one machine can complete baling and wrapping duties. Featuring two unique patents; a Patented Bale Transfer System and a Patented Vertical Wrapping Ring. Controlled by an i Touch control console, the operator has the ability to make various sizes bales across different types of crops.

BALE SIZE
Unwrapped
All forage types



Integrated Wrapping Ring

The Integrated Wrapping Ring features;

- **A High Speed Wrapping System**
- **Film Break Sensors**
- **Patented Bale Alignment**
- **Two 750mm Dispensers**

01 **2.1m PICK-UP** High-Intake Pick-Up with galvanised bands	02 **FEED ROTOR** 15 Knife Heavy-Duty Rotor	03 **CHOPPER UNIT** 15 Knife Chopper Unit
04 **DRIVE SYSTEM** Double Drive	05 **CONTROL SYSTEM** i Touch	06 **GREASING** Automatic Greasing System

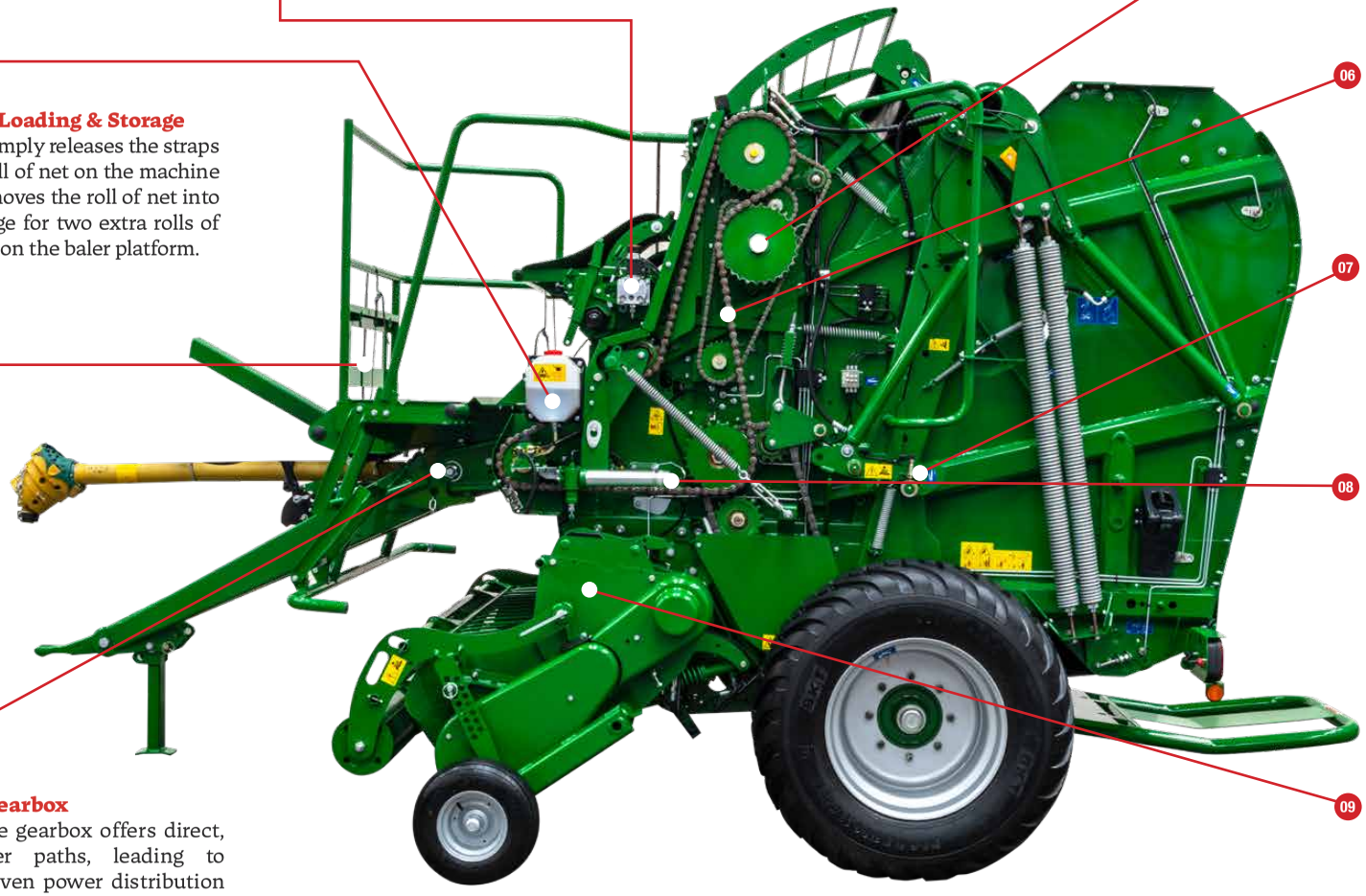
Standard on **V660 & Vario**

Standard on **Vario only**

THE INNER WORKINGS

DRIVE SIDE

The **MACHINE GUARDING** *on the Variable Chamber Baler Range has been designed using a durable twin skin composite. Once the guarding of the machine is opened up, it gives the* **OPERATOR EASY ACCESS TO THE MACHINE COMPONENTS.**



01 **Continuous Oiling System**
Once the PTO is engaged, all chains receive oil continuously to ensure the highest standards of reliability.

02 **Two Roll Net Loading & Storage**
The operator simply releases the straps on the spare roll of net on the machine platform and moves the roll of net into position. Storage for two extra rolls of net is provided on the baler platform.

03 **Split Drive Gearbox**
The split drive gearbox offers direct, short transfer paths, leading to optimal and even power distribution to both the bale chamber and pick-up / chopper units.

04 **High Performance Stretch Net System**
A simple yet effective netting system allows the roll of net to rotate as it is being applied to ensure even net application.

05 **Bale Chamber Double Drive**
On the McHale V660 & Fusion Vario, the double drive aids belt & material rotation in more difficult conditions.

06 **Heavy-Duty Chains**
Heavy-duty drive chains ensure long life with minimum down time.

07 **Mechanical Tailgate Locking**
The bale chamber is kept securely closed with mechanical locks that open only to release the bale. Resulting in maximum baling density.

08 **Greasing**
All drive and non-drive side chamber bearings and rotor bearings are being greased as the machine is working through the greasing cycle. As standard on all V640 and V660 machines, there is a number of centralised greasing blocks. On the Fusion Vario, Automatic Greasing comes as standard.
Automatic Greasing is an available option on the V660.

09 **15 Knife Chopper Unit**
The 15 Knife Chopper Unit is the standard chopper unit in the McHale V660 and Fusion Vario machines. A bank of 15 knives provide a chop length of approximately 65mm.

THE INNER WORKINGS

NON-DRIVE SIDE

10 Cleaning Augers
A cleaning auger is fitted to the double drive which prevents crop build up. When the machine works in wet and sugary crops, the cleaning auger keeps the double drive clean.

11 Heavy-Duty Springs
4 heavy-duty springs pressurise the crop at the start of the baling process. The tension placed on the belt(s) by these large springs allows for the perfect start to the bale as the operator can start at full speed. The spring tension on the belts ensures easy bale formation and a well formed core.

12 Simple Belt Tracking Adjustment
Belts can be simply adjusted at the rear of the machine to ensure for optimum bale formation.

13 Heavy-Duty 8 Stud Axle
The heavy-duty axle design gives greater ground clearance and the 8 stud axle configuration ensures the axle stands up to the most testing ground conditions.

14 Bale Shape Indicators
The bale shape indicators ensure that when the machine works in a light swath, the best bale shape is achieved by alerting the driver via the control box, which side of the chamber needs to be filled.

15 Central Greasing for Ram Ends & Door Hinges
A central greasing block allows the operator to easily supply grease to the door rams and hinges.

16 Drop Floor & Knife Position Sensors
Two sensors ensure that the machine always delivers a good chop quality. A drop floor sensor indicates to the operator if the floor is open via the control box while the knife position sensor monitors the distance between the top of the knife and the spine on the rotor.

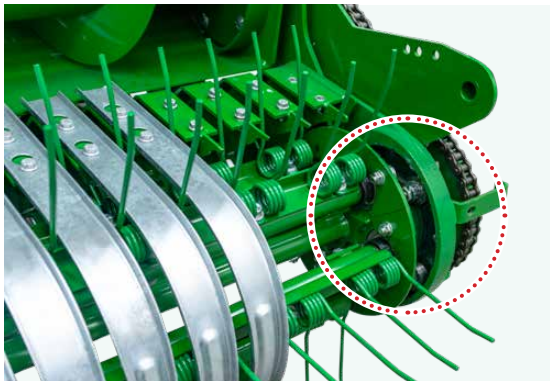
17 2.1 Metre Pick-Up
As standard, a 2.1m high intake galvanised pick-up ensures excellent ground cleaning in all types of crop.
A camless pick-up is also available as an option.

18 Drop Floor Unblocking
The McHale Variable Chamber Baler range is fitted with a drop floor unblocking system, which means blockages can be fed through in three simple steps.

PICK-UP

Over the last decade, McHale have developed various types of pick-ups. After extensive testing, McHale decided it would offer customers the **CHOICE OF 2 PICK-UP OPTIONS** *depending on their conditions;*

1 *Cam Pick-Up*



As standard, a cam operated **2.1m 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 pick-ups across the McHale Variable Chamber Baler Range are fitted with 5 tine bars for excellent delivery of crop to the bale chamber. The 2.1 metre galvanised pick-up will lift even the shortest of crop.

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

2 *Camless Pick-Up*

A 2.1m camless pick-up is available as an option on all machines in the Variable Chamber Baler Range. Six tine bars are fitted to all McHale camless pick-ups to provide excellent ground cleaning and fast delivery of crop to the chamber. The new camless pick-up has been designed for increased output, with that in mind the cam-track free pick-up is more reliable, consists of less moving parts and is maintenance free.

For more information please see the range of options available on ***page 25.***

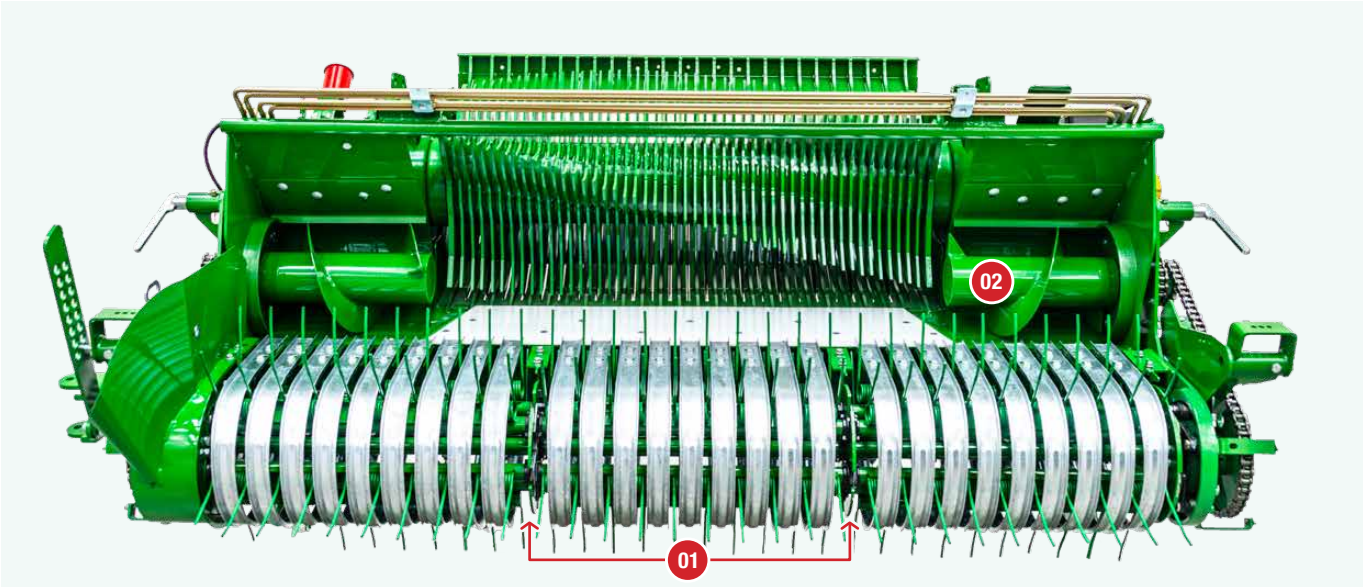
All McHale pick-ups come with a number of
STANDARD FEATURES THAT INCLUDE:

01 *Heavy-Duty Pick-Up*

All McHale pick-ups feature heavy-duty tine bar supports to ensure long service life. A vital part of the pick-up is the tine, McHale have developed a pick-up tine designed to lift even the shortest of crop.

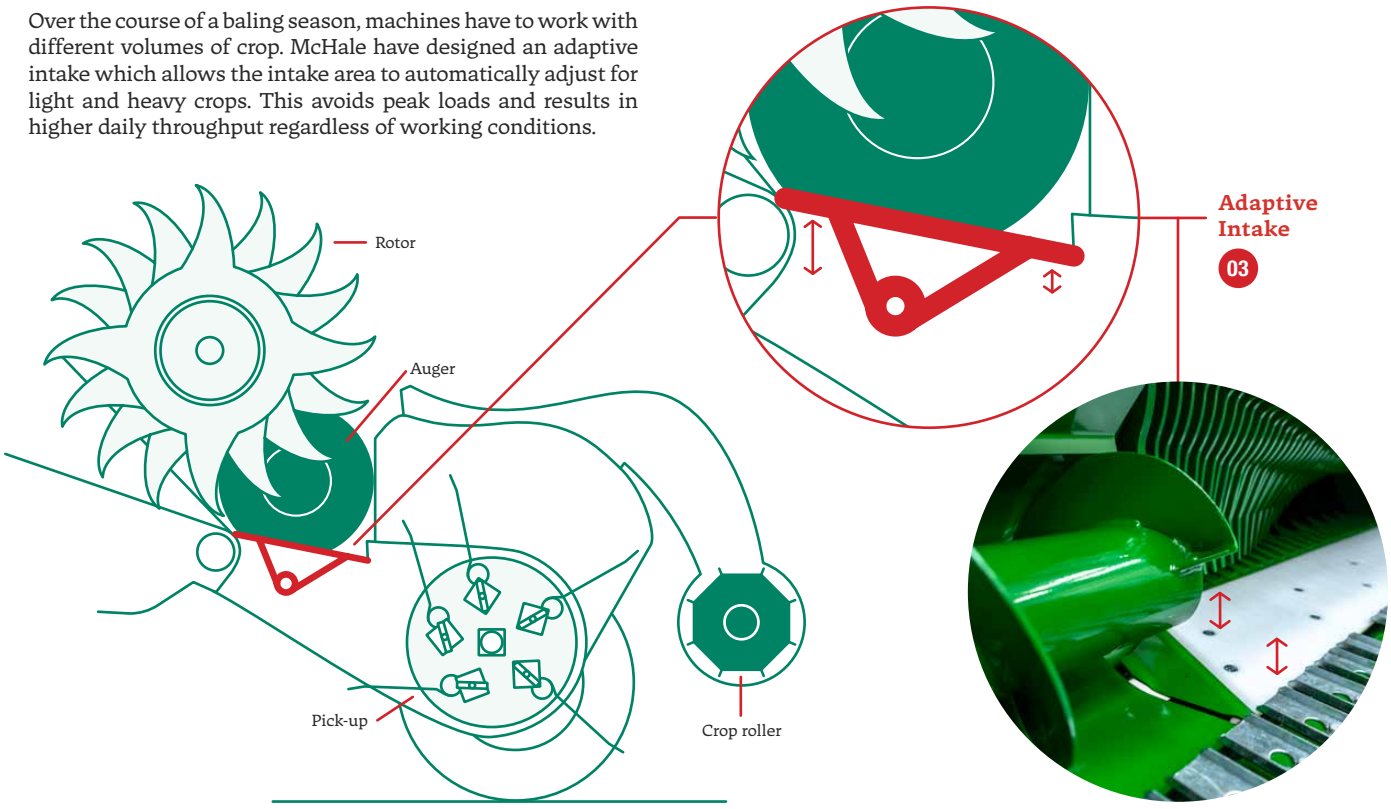
02 *Efficient Crop Flow Delivery*

The specially designed McHale pick-up is positioned close to the rotor to improve delivery of the crop through the rotor to the bale chamber. Large diameter lateral feed augers help direct crop to the bale chamber ensuring a consistent and even crop flow for producing high density bales.



03 *Adaptive Intake*

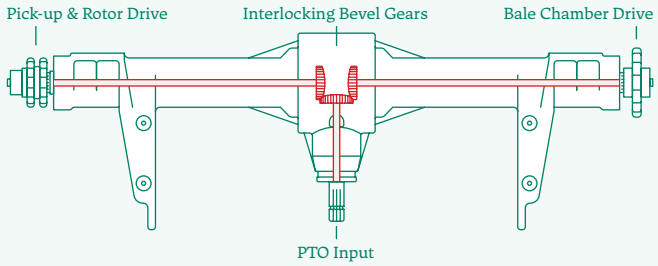
Over the course of a baling season, machines have to work with different volumes of crop. McHale have designed an adaptive intake which allows the intake area to automatically adjust for light and heavy crops. This avoids peak loads and results in higher daily throughput regardless of working conditions.



SPLIT DRIVE GEARBOX

A SPLIT DRIVE GEARBOX *is fitted to all machines in the McHale Variable Chamber Baler Range.*

The gearbox design ensures that power is evenly distributed to both sides of the baler. The belt(s) in the bale chamber are driven from the left hand side of the machine, and the pickup 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.



ROTOR

The star shaped feed rotors ensure a **HIGH-CAPACITY FLOW** *of grass into the bale chamber.*

The flights on the rotors 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. **McHale have designed three rotors for the Variable Chamber Baler Range:**

1 *Non-Chopper Twin Finger Rotor*

2 *15 Knife Chopper Rotor*

3 *25 Knife Chopper Rotor*

BENEFITS OF CHOPPING SILAGE

Across the world, the benefits of baled silage can be seen. By also chopping the crop in baled silage, it delivers the following benefits;

BETTER QUALITY

The quality of the crop is enhanced by chopping as chopped crop is easier to compress to form heavy, dense bales that are much tighter due to the air being expelled from the bale. This also leads to a reduction in transport and net costs.

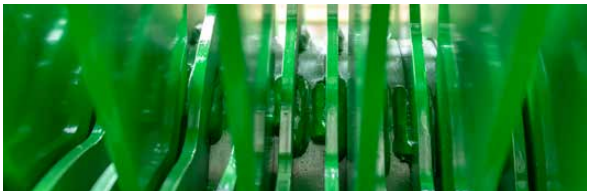
BETTER FERMENTATION

Chopping allows for the crop to ferment better as the sugars in the crop will be readily available from the dry grass. This will result in the production of superior quality fodder that will be easily digestible for your animals.

EASIER FEED OUT

Chopped forage is easier to distribute from diet feeders and straw blowers. Short material can be processed and distributed from diet feeders and straw blowers much faster than longer material.

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.



Rotor Type	Machine	Rotor Formation	Flight Thickness	Number of Knives	Selectable Knives
Non Chopper	**Standard:** V640	Spiral	**Inner:** 8mm **Outer:** 12mm	0	Not Available
15 Knife Chopper	**Standard:** V660 & Fusion Vario	Spiral	**Inner:** 8mm **Outer:** 12mm	15	Optional
25 Knife Chopper	**Optional:** V660 & Fusion Vario	Spiral	**Inner:** 6mm **Outer:** 12mm	25	Optional

V660 & FUSION VARIO
CHOPPER UNITS

To ensure a consistent and even chop quality, **TWO CHOPPING OPTIONS** *have been developed for the McHale V660 and Fusion Vario Variable Chamber Machines.*

1 *15 Knife Chopper Unit*

The 15 Knife Chopper Unit is the standard chopper unit on the **McHale V660 and Fusion Vario machines.** A bank of 15 knives provides a chop length of **approximately 65mm.**

2 *25 Knife Chopper Unit*

The 25 Knife Chopper Unit is available as an option on the McHale V660 and Fusion Vario Variable Chamber machines. A bank of 25 knives provides a chop length of **approximately 46mm.**

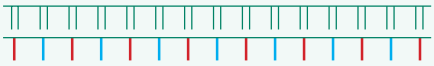
For more information please see the range of options available on ***page 25.***

Selectable Knife System

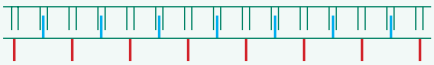
All McHale V660 and Fusion Vario machines have the option to be fitted with a **selectable knife system.** Various knife configurations can be chosen depending on the knife bank specification as **shown in these charts** with **red** and **blue** lines **indicating individual knives;**

15 Knife Bank Options - *0, 7, 8, 15*

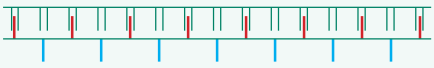
No Banks: 0 knives



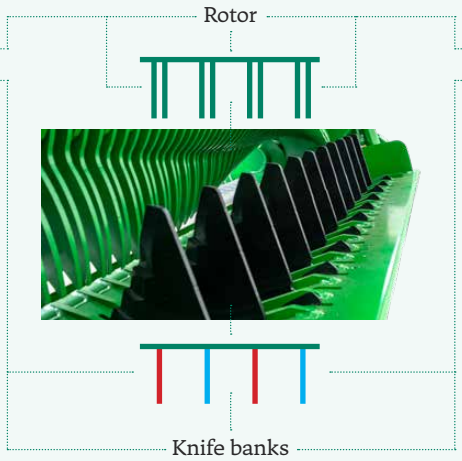
Bank 1: 7 knives



Bank 2: 8 knives



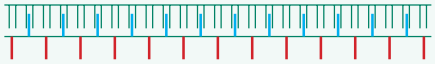
Bank 1 & 2: 15 knives



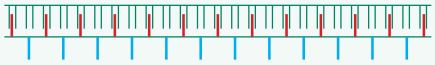
25 Knife Bank Options - *0, 12, 13, 25*

No Banks: 0 knives

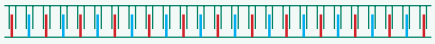
Bank 1: 12 knives



Bank 2: 13 knives



Bank 1 & 2: 25 knives



For more information please see the range of options available on ***page 25.***

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.

Chop Quality

The knives in the chopping unit can be engaged and disengaged from the tractor cab. When engaged, the knives extend into the spine of the rotor, which ensures a consistent chop quality. A primary hydraulic knife protection system protects the knife bank(s) should it encounter a foreign object. A secondary protection system is in place on each individual knife.

Consistent Results

To ensure that the machine always delivers a good chop quality, two monitoring systems have been put in place on the V660 and Fusion Vario. Firstly, knife working pressure is monitored and displayed on the control box. Secondly, a sensor monitors the distance between the top of the knife and the spine on the rotor.

BENEFITS OF SELECTABLE KNIVES

ADJUSTABLE CHOP LENGTH

With selectable knives, the operator can vary their chop length by engaging or disengaging either knife bank. If fine chopping is required, the opperator can choose to engage both knife banks. A reduction in chop length can also be quickly and easily achieved without the operator having to remove knives.

CONSISTENTLY SHARP KNIVES

When the operator is using only one half of the knife bank, the second half of the knife bank can be easily engaged to provide consistently sharp knives. By having consistently sharp knives, fuel consumption is reduced as the machine does not struggle to chop the crop.

OPERATOR COMFORT

Without the operator having to physically replace knives, a new sharp set of knives can be engaged, ensuring a well chopped crop and continued high output. Should different chop lengths be required the operator can make the adjustments without having to alter the knives.

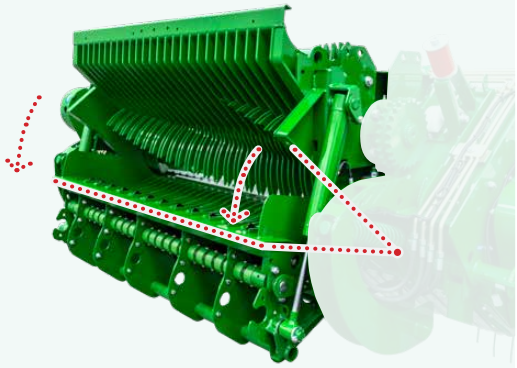
DROP FLOOR UNBLOCKING
THREE SIMPLE STEPS

For over a decade, all machines in the Variable Chamber Baler Range are fitted with the McHale **DROP FLOOR UNBLOCKING SYSTEM,** *a feature which operators have come to love for it's simplicity of use and effective unblocking cycle.*

As baling conditions are not always ideal, uneven swaths can occur which can lead to blockages. The McHale Variable Chamber Baler Range is fitted with a drop floor unblocking system, which means blockages can be fed through in **three simple steps.**

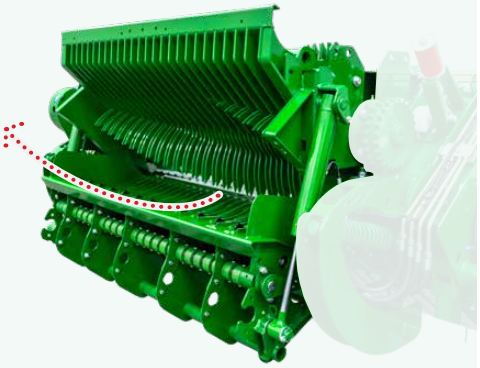
1 *Drop the Floor*

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



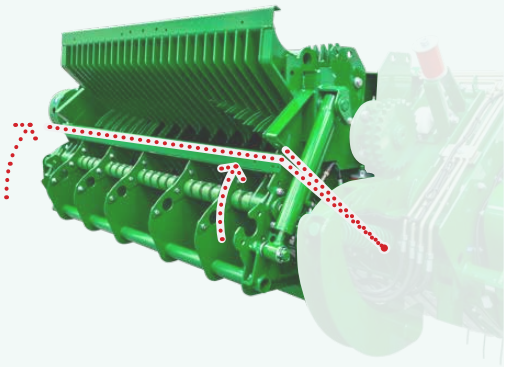
2 *Re-engage the PTO*

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



3 Reset the Floor

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



Features of the Drop Floor

When operating the drop floor cycle on the Variable Chamber Baler Range, the knives and the drop floor drop together during the unblocking process, giving even more clearance to allow the blockage to be fed through.

On the Variable Chamber machines, the drop floor is now equipped with a drop floor sensor to ensure the chop quality is consistent by indicating to the operator via the control box if the drop floor is open and the knives are down.

Drop Floor Sensor

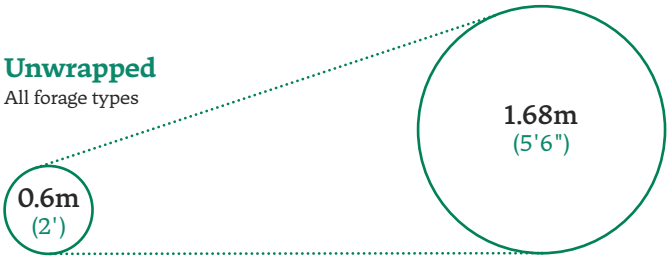
BALE CHAMBER
& BALE SIZES

The bale chamber on the McHale Variable Chamber Baler Range is comprised of **HEAVY-DUTY ENDLESS BELT(S).** *The belts are extremely hard wearing and are reinforced with synthetic material, which ensures that the belt(s) can* **ABSORB AND APPLY HIGH PRESSURE** *to the material in the bale chamber.*

V640 & V660

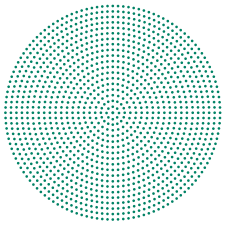
The **V640 & V660** balers can make a bale from **0.6m** (2') **to 1.68m** (5'6").

Unwrapped
All forage types



Size increments

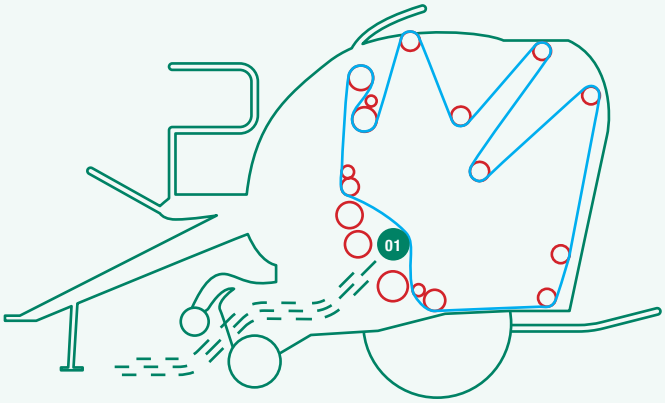
The bale size on **all three machines** can be adjusted up from the minimum setting in **increments of 10mm** (2/5")

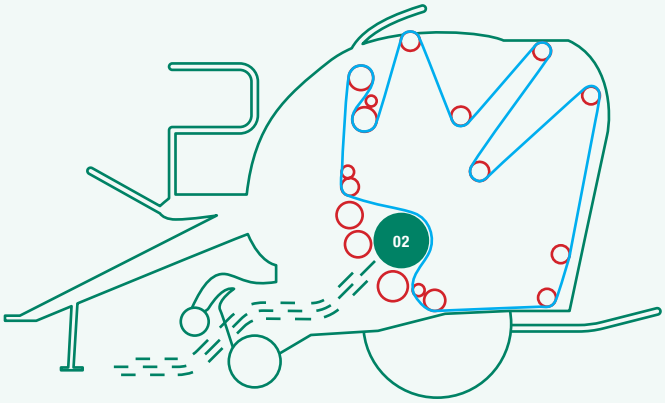


BALE CHAMBER BALE FORMATION

01 McHale have developed a bale chamber that can quickly form the bale from the start. The operator can commence baling at full speed as the **Progressive Density System** can quickly adjust to ensure that pressure is exerted on the crop right from the core of the bale, regardless of bale size.

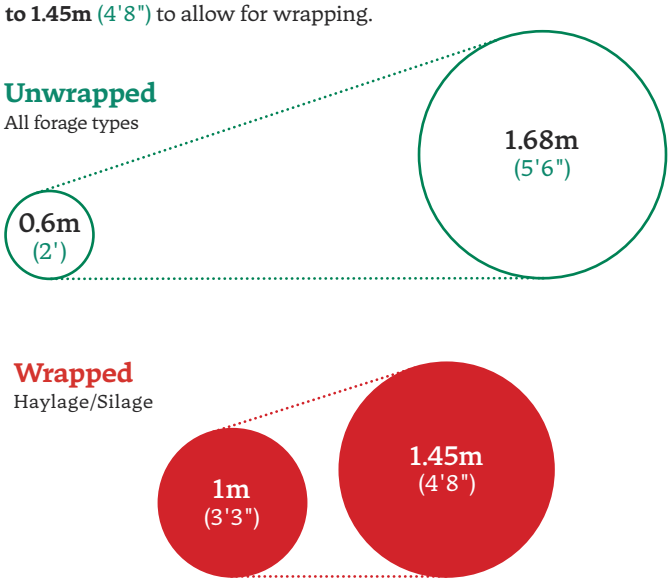
02 This is done by **four heavy-duty springs** that pressurise the crop at the start of the baling process. The tension placed on the crop by these large springs allows for the perfect start to the bale. The spring tension on the belts ensures easy bale formation and a properly formed core.



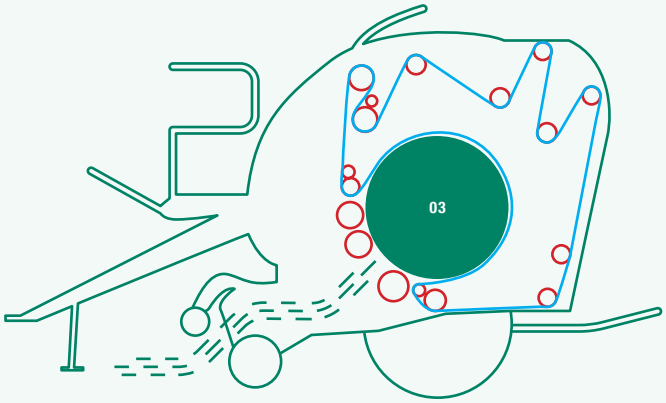


Fusion Vario

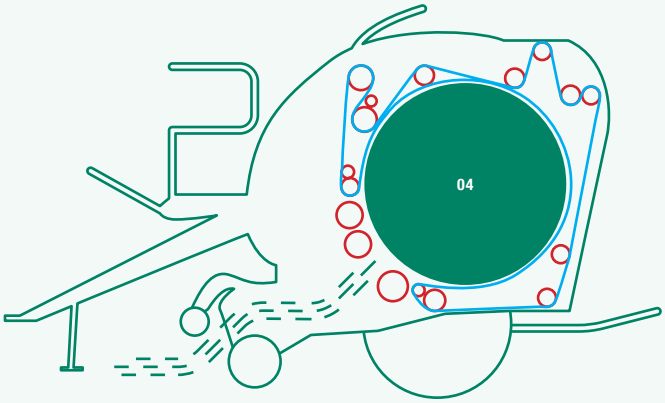
The **McHale Fusion Vario** also has the ability to make bales of **hay and straw** from **0.6m** (2') **to 1.68m** (5'6") but in **haylage or silage,** produces bales from **1m** (3'3") **to 1.45m** (4'8") to allow for wrapping.



03 As the bale is forming inside the chamber, the hydraulics take over the tensioning of the belt(s) from the four large springs. Two hydraulic rams control the tension on the chamber belt(s) as the bale forms inside the chamber.



04 Just like the core of the bale, the outer layers are compressed at the same consistent pressure using both springs and hydraulics until the set bale density and size is reached.



BALE CHAMBER
DOUBLE DRIVE

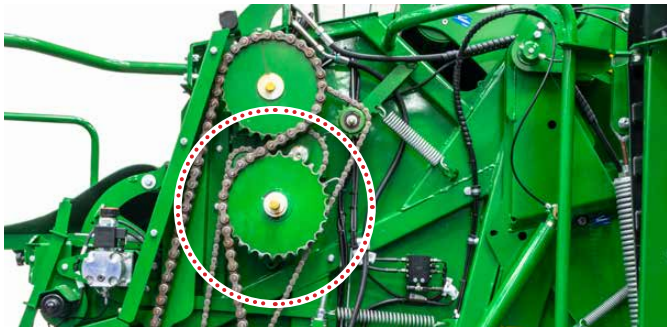
A heavy-duty drive system powers belt and bale rotation on all machines in the Variable Chamber Baler Range. A primary drive system powers the belt(s) on all McHale V640 machines. On all McHale V660 and Fusion Vario machines, a* DOUBLE DRIVE SYSTEM *is fitted to ensure belt rotation and bale formation.

Double Drive

In more difficult conditions, such as wet heavy grass, if the primary drive slips slightly, the double drive will engage in order to aid belt and material rotation in the chamber. This double drive helps bale formation as a constant pressure is kept on the chamber belts which results in the production of a solid and uniform bale even when dealing with a wet and heavy crop.

A cleaning auger is fitted to the double drive system in order to prevent crop build up and allow the double drive to aid bale rotation when working in wet or sugary crops.

Double Drive



Bale Shape Indicators

All machines in the McHale Variable Chamber Baler Range are fitted with Ultra Sonic Bale Shape Indicators, which indicate to the operator via the control console, which side of the chamber needs to be filled.

Mechanical Tailgate Locking System

The tailgates on all McHale Variable Chamber Balers are fitted with a pair of mechanical locks, which keep the bale chamber securely closed. These locks remain activated until, the Progressive Density System reaches the preset bale size and density and the required amount of net has been applied. This eliminates the need for the chamber door to rely on hydraulic pressure when making high density bales.

Mechanical Tailgate Locks

BALE CHAMBER - BELT OPTIONS

Three Endless Belts

All **V6 Variable Chamber Balers** are equipped with **3 heavy-duty endless belts** as standard. These strong belts exert a high pressure on the bale in order to form a dense bale in the chamber. These belts are manufactured to the highest of standards using layers of synthetic and rubber material to form a durable endless belt with no joins.

Single Belt

All McHale **Fusion Vario** machines are equipped with a **single, full-width endless belt** as standard. This full width belt **reduces crop loss,** particularly in Alfalfa and provides better belt traction for the operator compared to multiple endless belts.

A single full width endless belt is also available as an **optional extra** on the **V640 & V660** Variable Chamber Balers.

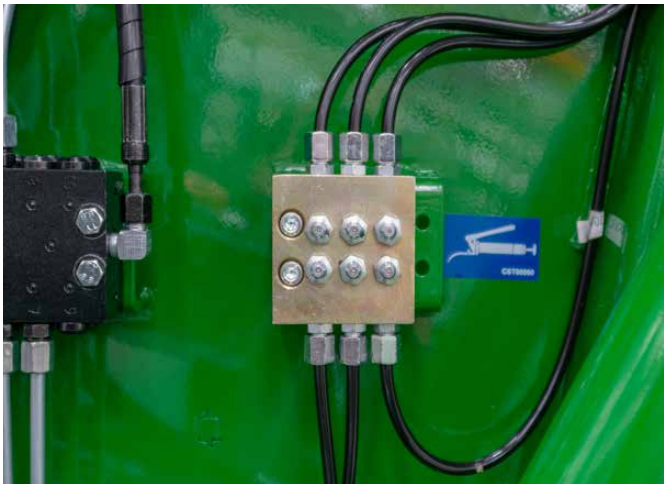
*For more information please see the range of options available on **page 25.***

OILING
& GREASING

Continuous Oiling System

The McHale Variable Chamber Baler Range of balers are all fitted with a continuous oiling system. Once the PTO is engaged, the continuous oiling system **constantly lubricates the chains** to ensure a long lifetime. The Continuous Oiling System on the machine is driven off the gearbox and delivers oil to **the following chains**:

1 **Chamber Drive** Side Chains	2 **Rotor** Drive Chain	3 **Pick-Up** Drive Chains	4 **Pick-Up** Cam Track	5 **Pick-Up** Drive Gears



Greasing

All machines come fitted with a number of manual greasing points which are easily accessible throughout the baler either individually or through a centralised greasing block.

The following bearings highlighted below are greased:

Automatic Greasing

Automatic Greasing is standard on all McHale Fusion Vario machines but is available as an option on all McHale V660 machines. A pressurised system delivers a measured amount of grease around the baler every time a bale is ejected from the bale chamber. Automatic greasing saves time as it reduces the amount of manual greasing to be done by the operator. A lube alarm sounds after 300 bales to inform the operator to refill the grease cartridge.

*For more information please see the range of options available on **page 25**.*

1 **Bale Chamber** Drive Side	2 **Bale Chamber** Non-Drive Side	3 **Rotor Bearings** Drive Side	4 **Rotor Bearings** Non-Drive Side

Machine	V640	V660	Fusion Vario
Centralised Greasing Blocks	Standard	Standard	Standard
Automatic Greasing	Not Available	Optional	Standard

HIGH PERFORMANCE
NETTER

A high performance netter has been **DESIGNED AND DEVELOPED** *for the McHale Variable Chamber Baler Range. This netter is very reliable and features:*

Endless Adjustment

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

Up to 1300mm

Capacity to take rolls of net wrap up to **1300mm** in width and **4500m in length**
(when using the optional 1300mm netter)

180-Degree Wrap

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

Net Stretch Application

A simple yet very effective netting system compromising of a moving roller allows the roll of net to rotate as it is being applied to ensure even net application. Net is stretched around the bale using a hydraulic brake.

The brake places a resistance on the speed at which the roll of net can rotate, the greater the resistance the more stretch that is applied to the net. The operator can adjust net tension without having to leave the comfort and safety of the tractor cab.

Net Layer

The operator can select bale diameter and the number of layers of net to be applied from the control box. The machine will automatically adjust the net application for different bale diameters.

Net Loading & Storage

The operator simply releases the straps on the spare roll of net on the machine platform and moves the roll of net into position. To aid the loading process for the operator, the roll of net can be placed in the net roll loading cradle whilst being threaded through the netter. Once in position, the operator moves the net roll tension bar to hold the roll of net in place. Storage for two extra rolls of net is provided on the baler platform.

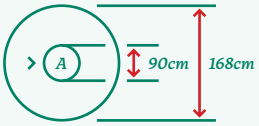
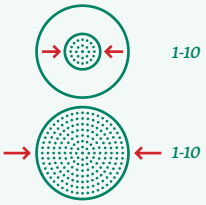
Bale Kicker Sensor

McHale V6 balers are fitted with a bale discharge sensor, which notifies the driver when the bale has left the bale chamber and has passed over the bale kicker. The heavy-duty bale kicker ensures a clean separation between the machine and the netted high-density bale.


V6
McHale
AUTO
22:20
OK
8888
284
140
108
AUTO
MAN
MENU
EXPERT PLUS 3

EXPERT PLUS
CONTROL CONSOLE

The McHale V640 and V660 is fitted with an Expert Plus Control Console, which has a **LARGE GRAPHIC DISPLAY.** *From the control console in the tractor cab the operator can adjust the following;*

Core Size & Bale Size	
Core Density & Bale Density	
Revolutions of Net Being Applied	

The McHale Expert Plus Control Console also features:	
Knife Display	Door Position Display
Pre-Net Bale Formation Alert	Net Usage (Metres)
Bale Size Setting	Bale Size Display
Drop Floor Display	Lube Count
Lube Alarm	Net Layers
Bale Density	Bale Shape Indicator

Easily Adjusted Bale Settings

The Expert Plus console, also gives the operator the choice of selecting a soft or hard bale core, depending on the customers feed out requirements. The control console can also store ten bale count totals so the operator can record ten different counts that may be associated with different fields or different customers.

Bale Size

The bale diameter can be adjusted on the control box from 0.6m—1.68m (2'—5'6"). The preset diameter setting is displayed on the bottom information block on the main screen and a live diameter reading is displayed as the bale is being formed. There is also a vertical bar graph which shows progress as the bale is being made.

Bale density

Bale density and size can be adjusted by the operator on the control box in the tractor cab.

Bale Profiles

A bale profile setting retains the operators personal setting choice from core diameter, bale diameter, core density, bale density, net layers and net stretch for use in different crops. There are 5 bale profile settings to choose from. Each profile will retain its own individual settings so that the machine can easily be changed to work in different crops without needing to change a lot of settings.

Bale Shape Indicators

The Variable Chamber Baler Range is fitted with bale shape indicators, which indicate to the driver via the control box, which side of the chamber needs to be filled. The bale shape indicators ensure that when the machine works in a light swath that the best bale shape is achieved.

The bale shape indicator arrows are also accompanied by a series of beeps so the operator does not need to watch the screen. A low tone is emitted when the operator needs to steer left and a higher tone for when the operator needs to steer right.

VARIABLE BALER RANGE
OPTIONS

Options	Camless Pick-Up	Chopper Unit		Selectable Knives	
		15	25	0, 7, 8, 15	0, 12, 13, 25
V640	Optional	Not Available	Not Available	Not Available	Not Available
V660	Optional	Standard	Optional	Optional	Optional
Fusion Vario	Optional	Standard	Optional	Not Available	Optional

McHale machines work in different conditions around the world. To optimise machine performance,* WE OFFER A NUMBER OF OPTIONS *in the McHale Variable Chamber Range. We recommend you speak with your local dealer/distributor as regards the best configuration to meet your requirements.

Camless Pick-Up

The 2.1m 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 Variable Chamber Baler 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.

Rotor / Chopper Unit

The 25 Knife Rotor and Chopper Unit is available as an option on the McHale V660 and Fusion Vario Variable Chamber machines and delivers a chop length of approximately 46mm.

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. Where a machine is equipped with a 15 knife chopping unit, then a bank of 7 and a bank of 8 knives are available to be selected. If no chopping is required then the operator can select for no knives to be engaged. On all V660 machines, knife selection is engaged from the baler while on all Fusion Vario machines, knife selection can be decided from the tractor cab.

Single Belt

A single, full width, endless belt exerts a high pressure on the crop in order to form a dense bale in the chamber. Heavy-duty belts are manufactured to the highest of standards using layers of synthetic and rubber material to form a durable endless belt with no joins. This full width belt reduces crop loss, particularly in Alfalfa and provides better belt traction for the operator compared to multiple endless belts.

Automatic Greasing

Automatic Greasing is standard on all McHale Fusion Vario machines but is available as an option on all McHale V660 machines. Automatic greasing saves time as it reduces the amount of manual greasing to be done by the operator. All drive and non-drive side chamber bearings and rotor bearings are greased as the machine is working through the Automatic Greasing cycle. A measured amount of grease is distributed around the machine every time the bale chamber door opens on the McHale Fusion Vario and V660 machines. A lube alarm sounds after 300 bales to inform the operator to refill the grease cartridge.

Tyre Options

A number of tyre options are available to meet your requirements. Please see the table below for the tyre options available to suit your machine of choice.

Machine	Standard	Option 1	Option 2
V640	460/65/20	500/50/22.5	560/45/22.5
V660	500/50/22.5	560/45/22.5	—
Vario	650/50/22.5	680/50/22.5	—

Single Belt	Greasing Automatic Greasing	Tyre Options	Brakes Hydraulic	 Air
Optional	Not Available	500 / 50 / 22.5 560 / 45 / 22.5	Optional	Optional
Optional	Optional	560 / 45 / 22.5	Optional	Optional
Standard	Standard	680 / 50 / 22.5	Standard	Optional

FUSION VARIO

ONE OPERATOR. TWO JOBS.
INCREASED PROFIT.

STANDARD SPECIFICATION

The McHale Fusion Vario is a fully automatic variable chamber integrated baler wrapper, which consists of a high output baler and a vertical wrapping ring. The machine benefits from two unique patents; a patented bale transfer system and a patented vertical wrapping ring.

The McHale Fusion Vario is equipped with a host of **FEATURES AS STANDARD;**

2.1 Metre, Five Tine Bar Pick-Up	Crop Roller	I Touch Control System	Inbuilt Camera System
Drop Floor Unblocking System	Double Drive Variable Bale Chamber	15 Knife Chopper Unit with Heavy-Duty Rotor	Single Belt Bale Chamber with Endless Belt
Bale Shape Indicators	Patented Bale Transfer Delivering Higher Output	High Speed Vertical Wrapping Ring	Fully Automatic Operation

ADVANTAGES OF THE FUSION VARIO

REDUCED LABOUR

As it is an integrated baler wrapper, only one operator is required to carry out the task of baling ***and*** wrapping which leads to reduced costs in labour.

ONE MACHINE

The Fusion Vario provides the operator with the flexibility to produce various size bales without the need to return to the yard to change machines for baling different types of crop over the course of a day.

REDUCED CROP LOSS

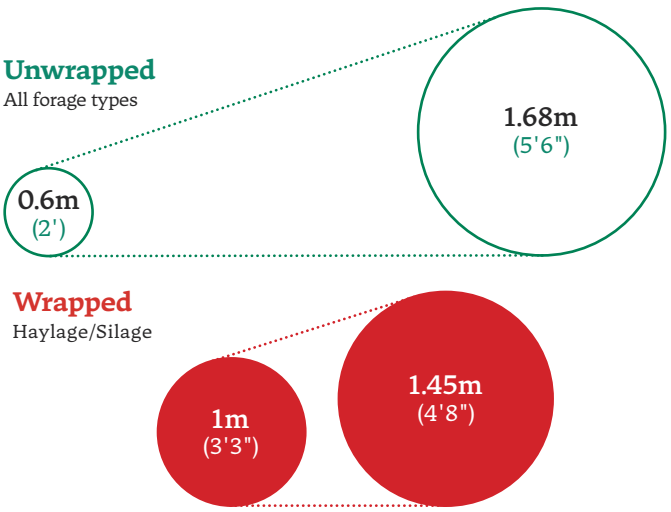
The single belt on the McHale Fusion Vario reduces crop loss compared to multiple belts which is particularly beneficial when baling short crops such as Alfalfa.

BALE ONLY PROGRAMME

When baling hay or straw, the operator has the ability to place bales in pairs of two for easy collection.

Bale Size

The **McHale Fusion Vario** also has the ability to make bales of **hay and straw** from **0.6m** (2') **to 1.68m** (5'6") but in **haylage or silage,** it produces bales from **1m** (3'3") **to 1.45m** (4'8") to allow for wrapping.



UNIQUE FEATURES
DELIVERING HIGHER OUTPUT

The McHale Fusion Vario is a unique machine which benefits from two **MCHALE PATENTS.**

High Speed Transfer System

As the transfer cradle moves the bale towards the wrapping ring, the wrapping roller closest to the bale chamber pivots out of the way which reduces the height the bale has to travel to get to the wrapper. This clever system saves time, as the patented system moves the bale quickly ensuring the McHale Fusion Vario delivers the highest possible output.

WRAPPING SYSTEM

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

01 *Two 750mm Dispensers*

The vertical wrapping ring on the Fusion Vario is fitted with two 750mm dispensers, which take under 20 seconds to apply 4 layers of film and approximately 25 seconds to apply 6 layers of film using both dispensers. This means 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.

Tip Roller

The McHale Fusion Vario can produce bales of various sizes, from 1m—1.45m (3' 3"—4' 8"), for wrapping with the high speed vertical wrapping ring. On adjustment of the bale size from the i Touch Control Console, the patented tip roller adjusts its height in line with the selected bale size to ensure the plastic always goes onto the centre of the bale, regardless of the bale diameter. This ensures the correct overlap is always achieved resulting in an even distribution of plastic on the bale.

03 Film Break Sensors

The dispensers are fitted with film break sensors, which notify the operator through the control box in the tractor cab if one or both dispensers run out of film. If one dispenser runs out of film the Fusion Vario will continue working and automatically slow bale rotation and increase the number of rotations of the wrapping ring to ensure that the bale is wrapped correctly.

04 Reliable Cut and Holds

On the last rotation of the wrapping cycle, the cut and holds extend out and the wrapping film is gently supported in the cut and hold rails, 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 Vario's performance much more reliable, particularly in hot or wet conditions.

i TOUCH
CONTROL BOX

The McHale Fusion Vario is a **FULLY AUTOMATIC BALER WRAPPER** *which is controlled by the McHale i Touch Control Unit.*

i Touch Monitor

The McHale "i Touch System" has a 7 inch colour touch screen monitor, which provides clear indicators of machine performance and allows for increased levels of monitoring, through its graphic display.

Fully Automatic

The i Touch control console, when combined with the load sensing valve on the Fusion Vario, is capable of making baler & wrapping operation fully automatic.

Camera

The i Touch control console is fitted with a rear camera as standard. In manual mode, the operator can switch the camera mode to view the wrapper and rear of the machine on the i Touch screen. In automatic mode, the camera image will appear at different predetermined times on the screen such as when the bale is being transferred or being tipped.

Number of Layers

The operator can adjust the number of layers of net and the stretch of the net being applied to the bale in the bale chamber from the comfort of the tractor cab.

The operator can also select, if they want:

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

To record multiple bale totals

A lube alarm

Various bale transfer options depending on ground conditions

VARIABLE BALER RANGE TECH TABLE

	V640	V660	Fusion Vario
DIMENSIONS & WEIGHT			
Length	4.8m (15' 9")	4.8m (15' 9")	6.3 m (20' 8")
Width	2.54 / 2.58* (8' 4" / 8' 6")	2.54 / 2.58* (8' 4" / 8' 6")	2.94m (9' 8")
Height	2.75m (9')	2.75m (9')	3.3m (10' 9")
Weight	3700kg (8,157 Ibs)	4000kg (8,818 Ibs)	6500kg (14,330 Ibs)
PICK-UP			
Working Width	2100mm (6' 11")	2100mm (6' 11")	2100mm (6' 11")
Tine Bars	5	5	5
Tine Spacing	70mm	70mm	70mm
Short Crop Guard	Standard	Option	Option
Crop Roller	Option	Standard	Standard
Pick Up Guide Wheels (pneumatic)	Standard	Standard	Standard
CHOPPER UNIT			
Number of Knives	0	15	15
Theoretical Chop Length	-	65mm	65mm
Knife Protection	-	Hydraulic	Hydraulic
Knife Deactivation	-	Hydraulic from Cab	Hydraulic from Cab
Unblocking System	Drop Floor	Drop Floor	Drop Floor
BALE CHAMBER			
Diameter	0.6 m (2') to 1.68 m (5' 6")	0.6 m (2') to 1.68 m (5' 6")	0.6 m (2') to 1.68 m (5' 6")
Width	1.23m (4')	1.23m (4')	1.23m (4')
Bale Chamber Feed	High Intake Feed Rotor	15 Knife Chopper Feed Rotor	15 Knife Chopper Feed Rotor
Number of Belts	3	3	1
NET WRAP			
Control	Manual or Automatic	Manual or Automatic	Manual or Automatic
Net System	High Performance Netter	High Performance Netter	High Performance Netter
Net Roll Capacity	1 + 2 Storage	1 + 2 Storage	1 + 2 Storage
Net Adjustment	In Cab	In Cab	In Cab
TRANSMISSION			
Gearbox	Split Drive	Split Drive	Split Drive
Main Drive Protection	Cam Clutch	Cam Clutch	Cam Clutch
Pick-Up Protection	Slip Clutch	Slip Clutch	Slip Clutch
Chain Lubrication	Continuous	Continuous	Continuous
Bale Chamber	Primary Drive	Double Drive	Double Drive
CONTROL			
Control System	Expert Plus	Expert Plus	i Touch
Operation	Semi-Automatic	Semi-Automatic	Fully Automatic
Density Adjustment	In Cab	In Cab	In Cab
Bale Size Adjustment	In Cab	In Cab	In Cab
Inbuilt Camera	N/A	N/A	Standard
OTHER			
Axle	8 Stud	8 Stud	8 Stud
Tyres Standard	460/65/20	500/50/22.5	650/50/22.5
Tyres Optional	500/50/22.5 or 560/45/22.5	560/45/22.5	680/50/22.5
Bale Kicker	Standard	Standard	N/A
Road Lights	Standard	Standard	Standard
Electronics	12 Volt DC, 20 amp	12 Volt DC, 20 amp	12 Volt DC, 20 amp approx
TRACTOR			
Minimum Hydraulic Flow	30 Litres / min at 180 bar	30 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 PTO Requirements	55 kW (73hp)	60 kW (80hp)	85kW (114hp)

Higher specification **over the V640**

Unique to the **Fusion Vario**

M-Hale

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