# **TOMAHAWK** Bale Processors





www.teagle.co.uk

# **TOMAHAWK** Bale Processors

The Tomahawk range of Bale Processors. First for quality, performance and reliability.





Teagle Machinery Ltd was established over 75 years ago, manufacturing the first Tomahawk bale shredder in 1983. We remain a family business focussed on meeting the needs of our customers whether just around the corner, or in one of the 35 countries worldwide to which we regularly ship machinery. From the outset, our machinery has been designed to be simple, robust and easy to use. We still stand by these values, with all our products being tested extensively on farms throughout the world to ensure that they perform reliably day-in dayout, even under the toughest conditions. As sales of Tomahawk Bale Processors continue to grow, the reasons that customers return time after time to buy Teagle are twofold:

**Product Focus** - We actively invest in research, design and manufacturing

technology to ensure that our product range constantly evolves to remain at the cutting edge, whilst being available at a competitive price. With the largest range of models from any manufacturer we ensure that our customers benefit from ease of use, the best performance, and day-in day-out reliability. Through our 35 years experience in the design, manufacture and support of Tomahawk Bale processors, Teagle are recognised internationally as a specialist in this field.

**Backup** – After-sales support is our priority, requiring commitment to a comprehensive parts stock and effective Dealer network. We set aside part of our 25,000m<sup>2</sup> facility in Cornwall to a substantial stock of wearing and non-wearing parts to keep you up and running.





**400 Series** 404M/4040



**400XL Series** 404XLM/4040XL



**500XL Series** 505XLM/5050XL

# Applications

# Why own a Teagle bale processor?



#### For Processing

Pre-process straw for feed.

Achieve consistency - provide a consistently short and palatable feed component.

**Process on demand** - no need to stockpile.

**Improve efficiency** - reduce operating time of mixer wagon.

**Prevent over-processing** - of silage in a Total Mixed Ration.



**Cleaner and healthier livestock** lightly shredded straw improves moisture absorbance for cleaner lying areas.

**Save straw** - users regularly report up to 30% savings by spreading the correct amount of straw evenly across the bedding area.

**Labour saving** - one person can quickly and easily bed livestock.

Safer - no need to enter the pen.

**Better Manure** - straw is evenly incorporated into the muck.

#### For Feeding

**One machine, two jobs** bed down and feed with the same machine.

**Versatility** - If you can bale a crop, we can shred it! Feed clamp or baled silage, hay and root crops.

**Improve palatability** - users report increased feed conversion of shredded bale silage.

**Reduce wastage** - selective feeding/sorting is reduced.

### "There are tremendous benefits in bedding with short straw".

Paul Whyand (pictured). Suffolk, UK.





Mulching

Dairy

Beef

Pigs

# Select the drum to suit your bale size



MODEL	400 Series	400XL Series	500 Series	500XL Series
DRUM				
Diameter Length Optional Length	<ul> <li>→ 1.55m</li> <li>↓↓↓</li> <li>↓↓↓↓</li> <li>↓↓↓↓</li> <li>↓↓↓↓</li> <li>↓↓↓↓↓</li> <li>↓↓↓↓↓</li> <li>↓↓↓↓↓↓↓↓</li> <li>↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓↓</li></ul>	⊖ 1.55m ▲1 3.00m −	<ul> <li>→ 1.80m</li> <li>→ 1.55m</li> <li>→ 1.85m</li> </ul>	⊖ 1.80m ↓1 3.00m −
BALES				
<b>ROUND</b> 1.2m (4') 1.5m (5')	1 x bale capacity –	2 x bale capacity –	<ol> <li>x bale capacity</li> <li>x bale capacity</li> </ol>	2 x bale capacity 2 x bale capacity
<b>RECTANGULAR</b> 0.9 x 1.2 x 2.4m 1.2 x 1.2 x 2.4m		1 x bale capacity –		<ol> <li>x bale capacity</li> <li>x bale capacity</li> </ol>

# Select rotor type



MILLING TMR/Cubicles/Poultry/Pigs Short Straw 10mm - 150mm



**CHOPPING** Loose Housed Bedding/ Feeding Long Straw/Silage/Hay

400 Series Model	404M	4040
400XL Series Model	404XLM	4040XL
500 Series Model	505M	5050
500XL Series Model	505XLM	5050XL

# 404M/505M



**SUITABLE FOR:** Processing short material for TMR, Cubicles, Poultry Bedding or Biomass

# Milling system

Interchangeable screens made in Hardox<sup>®</sup> wear plate enable calibration of Straw / Dry materials from 10mm to 150mm (recommended moisture content <20%). Process and discharge material to either side of the machine.

up to 10m*	up to 2.5t/hr*	10-150mm**
Four central blades tear the bale apart		**For extended service life interchangable screens use Hardox® wear plate
		Available with blades to cleanly chop, or hammers to grind.

	A			$\bigcirc$				
MODEL	A	В	C	Round Bales	Rectangular Bales	Min.	Kg	PTO*
404M	2.18m	2.36m	3.13m	1 x 1.2m (4')	-	80	904	1000
404XLM	2.53m	3.77m	3.13m	2 x 1.2m (4')	1x (0.9 x1.2 x 2.4m)	120	1122	1000
505M	2.44m	2.36m	3.13m	1 x 1.5m (5')	-	80	970	1000
505XLM	2.80m	3.77m	3.13m	2 x 1.5m (5')	1 x (1.2 x1.2 x 2.4m)	120	1320	1000

Swivel Giraffe Chute	0	Hydraulic Deflectors	0	Hydraulic Top Link	0
Giraffe Chute	0	Strawberry Chute Kit	0	Lower Chute Kit	•
Quick Hitch A-Frame	0	Fine tailgate mesh (400/500 series)	0	Wide Angle PTO	0

For options details see page 10. \* Depending on chop length.

# 4040/5050



**SUITABLE FOR:** Spreading long straw for loose housing or dispensing Hay / Silage for feeding

# Chopping system

Even the toughest bales can be processed with ease. The robust chopping rotor shreds material from round or rectangular bales and delivers a steady feed to either side of the machine.\* Also suitable for root crops.

Spread Distance	Output	Output Length
up to 10m**	up to 3.0t/hr	150 - 200mm
Long blades chop material		Triangular blades tear bale apart
steady feed rate, even with wet material		

	A	Į		$\bigcirc$				
MODEL	Α	В	С	Round Bales	Rectangular Bales	Min.	Kg	PTO*
4040	2.18m	2.36m	2.32m	1 x 1.2m (4')	-	80	811	540/1000
4040XL	2.53m	3.77m	2.32m	2 x 1.2m (4')	1x (0.9 x1.2 x 2.4m)	120	1029	540/1000
5050	2.44m	2.36m	2.42m	1 x 1.5m (5')	-	80	877	540/1000
5050XL	2.80m	3.77m	2.42m	2 x 1.5m (5')	1 x (1.2 x1.2 x 2.4m)	120	1227	540/1000

Swivel Giraffe Chute (straw only)	0	Hydraulic Deflectors	0	Hydraulic Top Link	0
Silage Giraffe Chute	0	Strawberry Chute Kit	0	Lower Chute Kit	0
Quick Hitch A-Frame	0	Fine tailgate mesh (400/500 series)	0	Wide Angle PTO	0

For options details see page 10. \*Optional lower chute kit required for LH discharge. \*\* Distance reduced to 10m at 540rpm PTO speed

**Key:**  $O = Optional \bullet = Standard N/A = Not Applicable$ 

# **T500BM**



**SUITABLE FOR:** Delivering milled bedding / mulching materials up to 80 metres from the Mill

Access all areas; minimise livestock disturbance and risk of biocontamination. Based on our mill system (see page 3) the turbo fan enables centralised processing and remote transfer of milled material via a flexible hose and/ or fixed

Remote distribution

manifold system.

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The independent hydraulic system is PTO driven, featuring onboard pump, tank and fan cooled radiator.

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MODEL	A	В	С	Round Bales	Rectangular Bales	Min.	Kg	PTO*
T500BM	2.45m	2.55m	3.13m	1 x 1.5m (5')	-	80	1390	1000
T500BXLM	2.80m	3.95m	3.13m	2 x 1.5m (5')	1 x (1.2 x1.2 x 2.4m)	120	1680	1000

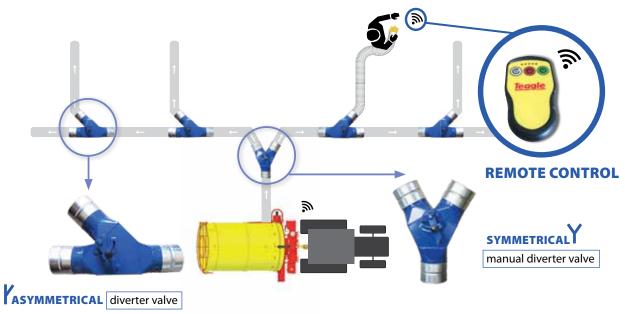
Rearward deflector	0	Liquid spray kit	0	20m hose kit (127mm)	0
Duct Divertor Valves	0	Trailed Chassis	0	Radio Remote control	•
WAJ PTO	•	Fine Mesh tailgate	•	Dust sealing kit	٠

For options details see page 10. \* Depending on chop length. \*\* (chute closed/open)

**Key:**  $O = Optional \bullet = Standard N/A = Not Applicable$ 

# Remote control and optional manifold components

As standard the T500BM is supplied with a radio remote control to enable the operator to start/stop material flow up to 80m from the machine. Options include 20m lengths of flexible hose (127mm) and high specification mechanical diverter valves to enable assembly of bespoke fixed manifold systems.



# Liquid Spray Kit

#### DUST SUPPRESSION FOR DRUM TOMAHAWKS

The liquid spray kit can be fitted to any model in the 400 - 500 Tomahawk range to reduce dust from milled straw, or to enable the application of anti-bacterial products to bedding.



#### TANK

- Suitable for Water / Antibacterial liquids
- 60 Litre Capacity
- Robust polypropylene
- 12 volt pump system up to 60 psi
- Tank includes drain point



#### **SPRAY SYSTEM**

- Flow activated when T500BM starts
- Manual Valves control flow to LH/RH sides
- Pressure / Flow adjustment
- Maximum 3 nozzles per system
- Anti-drip nozzles



#### HIGH PRESSURE LIQUID SPRAY SYSTEM

• Apply disinfectant to bedding or water for dust reduction

### Trailed Chassis

#### STRIKE THE BALANCE WITH A SMALLER TRACTOR ...

A trailed chassis to accommodate all models in the Drum Tomahawk range. Convenience, control and improved travel.

#### **TRACTOR REQUIREMENTS**

Hydraulic services: 2 double acting services required (pivoting axle and drum rotation). Minimum Tractor size (PTO): 80HP for chopping/100HP for milling.

Dimensions	400XL	500XL
Overall Height Lowered	2.89m	3.16m
Overall Height Raised	3.32m	3.57m
Overall Machine Width*	2.03m	2.03m
Overall Length (with Tomahawk)	4.86m	4.86m
Clearance Under Chassis**	0.20m	0.20m

\* Chassis kit width - for Tomahawk widths refer to page 12

\*\* Drawbar height 0.47m

# Case Study



**THE HEINIGERS** purchased a Teagle 505M for adding fiber to the ration. They use 2.5kg of dry hay per ration for the lactating cows and 6.5kg for the cows in calving preparation. They shred 30 large square bales a month, dry storing and used daily for adding to the self-propelled mixer along with silage.

"The cut must be absolutely uniform to avoid

the cows sorting through the ration and the clean cut ends help to scratch the rumen of the cow and improve the assimilation of nutrients in the diet. Adding fiber to the diet improves the balance between protein and energy. "It's like a triangle, you need to get the best balance between protein, energy and fiber to have the best results." Getting more fiber into the diet also has other benefits, as well as increasing

FERME BERNERHOF

> the butterfat by .2% after only 2 weeks it has added health benefits of improving the BHB levels and fertility and there has been a marked decrease in problems with acetonemia (glucose deficiency). Labour time is reduced by the simplicity of operation and maintenance, making it faster and safer than a forage harvester along with the added benefit of it being more affordable.

## How it works

Whether feeding or bedding simply load the bale into the drum, start the cutting rotor and set the drum to rotate.

#### DRUM

A hydraulic motor rotates the drum via drive belts. Discharge rate is controlled by varying the drum angle and speed of rotation.

#### CHUTE

The rotor discharges material to one or both sides, depending on chute options. Chutes can be turned off independently.





#### ROTOR

Direct drive from the PTO spins the cutting rotor. As the bale rotates with the drum, material is skimmed from the end of the bale.



### Built to meet your needs

From round to rectangular bales, to bed straw or feed silage - configure your Tomahawk as follows:





Scan to watch the Tomahawk in action.



### Features



#### ROUND AND RECTANGULAR BALES

1.2m or 1.5m round bales, with drum extensions available for 2.4m rectangular bales.



#### DISCHARGE TO ONE OR BOTH SIDES

Chutes can be open or shut independently. Various chutes are available for special applications, see options on page 9.



#### STRAIGHT-FORWARD LOADING

Horizontal drum can easily be loaded. A hydraulic top link enables easy adjustment of drum angle.



#### MANOEUVRABLE

Machine weight is close to tractor, ensuring manoeuvrability even with smaller tractors.



#### EASE OF OPERATION

Simply start the cutting rotor, and then adjust the drum speed of rotation to control the discharge rate.



#### ACCESSORIES FOR EASE OF USE

For easy hitching-up and adjustment of the drum angle select the optional A-Frame attachment and hydraulic top link.

# Suitable for feeding and bedding

MILL, CHOP OR SHRED. Rotors available for straw, hay, silage and root crops.

See pages 3 to 5 for suitable models.

CHOP STRAW SHORT



Poultry & cubicle bedding

TMR Pre-processing



• Loose housing

Landscaping/Mulching



DISTRIBUTE BALED SILAGE



TMR Pre-processing
 Barrier Feeding

TMR Pre-processing
 Barrier Feeding

### Options



#### STRAW GIRAFFE CHUTE

Increase delivery height and blow distance. Dry materials only.



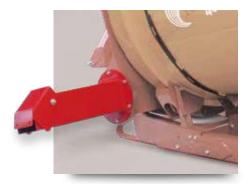
#### SILAGE GIRAFFE CHUTE

Increase delivery height and blow distance.



#### STRAWBERRY CHUTE KIT

Quickly and conveniently lay straw mulch between rows on both sides of the tractor, the chute kit can be fitted to the discharge chutes on both sides of the machine.



#### LOWER CHUTE KIT

Required for delivery to left hand side of machine. Dry materials only. Includes open/closed control.





#### SWIVEL GIRAFFE CHUTE

Increase delivery height, available with hydraulic rotation and deflector. Dry materials only.

#### HYDRAULIC DEFLECTOR CONTROL

Available for all chutes except lower chute kit.

#### HYDRAULIC TOP LINK

For straightforward, in-cab adjustment of drum angle and feed rate. Not suitable for XL models.

#### TAILGATE MESH

Available for all models to improve containment. Standard on T500B.

### The key is consistency

# The benefits of adding processed straw to a TMR



In dry cow rations straw can be used to control energy intake and reduce the risk of milk fever.

In milking cow rations straw can be very useful as physically effective fibre when required.

"Our results show how beneficial consistently pre-processed straw is in obtaining good dry cow intakes, even over straw that is mixed well in a wagon."

James Johns (pictured) farms a herd of 260 high performance Holsteins at Sixty Acre Farm, UK.

"For either group the key to feeding straw is incorporation to create a homogenous mix. Poorly processed straw will not blend which can encourage cows to sort the ration, making the problem worse rather than better."

Jeremy Hamilton, Three Counties Feeds

#### Trial undertaken by Three Counties Feeds at Sixty Acre Farm

A farm trial was conducted to investigate whether processing straw before it is added to a total mixed ration (TMR) increases the dry matter intake of dry cows fed a ration with high straw inclusions.

The far off dry cow ration contained 6kg of straw and the transition ration 4kg, the effectiveness of these rations depends totally on good feed intakes.

Control rations were prepared using the mixer wagon to chop and incorporate the straw, as best as this equipment would



allow prior to the trial. At this point feeding was already at a high standard.

Without changing anything else the straw was pre-processed to 25mm in length. When the cow's intake increased, the portions were increased, with the diet proportions staying constant.

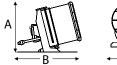
Before straw was pre-processed the far off dry cows ate 21.6kg, after processing they were eating 25.9kg - equating to 20% more. The transition group ate 9% more - a significant improvement in this critical stage.

"With improved and more consistent straw intakes we are better equipped to control metabolic stress in fresh cows, which can cause issues such as retained placenta and metritis. Getting off to a better start these cows have less negative energy balance and sub-clinical ketosis. Straw rations can also help prevent milk fever."



Pictured (left to right) Jeremy Hamilton & Andy Hawken AMTRA, DipRN. Three Counties Feeds

# Specifications













SPECIFICATIONS	400 SERIES	400XL SERIES	<b>500 SERIES</b>	500XL SERIES
Maximum Round Bale Diameter	1.20m	1.20m	1.50m	1.50m
Maximum Rectangular Bale Size	N/A	1.20m x 0.90m	N/A	1.20m x 1.20m
Overall height (A)*	2.18m	2.53m	2.44m	2.80m
Overall Length (B)	2.36m	3.77m	2.36m	3.77m
Drum Diameter	1.57m	1.57m	1.83m	1.83m
Drum Length (standard)	1.55m	3.00m	1.55m	3.00m
Long Drum (optional)	1.85m	N/A	1.85m	N/A
Lower Chute discharge height*	0.40m	0.40m	0.40m	0.40m
Upper Chute discharge height*	1.14m	1.14m	1.14m	1.14m
PTO power required**	80HP	120HP	80HP	120HP
Mill (see page 3)	404M	404XLM	505M	505XLM
Transport width (C)***	1.91m	1.91m	2.01m	2.01m
Operating width (C)	3.13m	3.13m	3.13m	3.13m
Straw Giraffe discharge height*	1.84m	1.84m	1.84m	1.84m
Weight	904kg	1,168kg	970kg	1,259kg
Chop (see page 4)	4040	4040XL	5050	5050XL
Transport width (C)***	1.96m	1.96m	2.06m	2.06m
Operating width (C)****	2.32m	2.32m	2.42m	2.42m
Silage Giraffe discharge height*	1.53m	1.53m	1.53m	1.53m
Weight	811kg	1,075kg	877kg	1,166kg
Turbo Mill (see page 5)			T500BM	T500BXLM
Overall Length (B)			2.56m	3.97m
Transport width (C) fan no RHC			2.51m	2.51m
Operating width (C) fan with RHC open			3.11m	3.11m
Weight			1390kg	1680kg

#### Key:

\* Working heights will increase by up to 1m depending on tractor \*\*Typical tractor size to provide adequate lifting capacity and stability \*\*\* Chute extensions not fitted \*\*\*\* No optional left hand chute fitted

# <u>Teagle</u>

With over 30 years experience designing, manufacturing and supporting The Tomahawk range of Bale Processors, Teagle has established a reputation for performance and reliability, offering feeding and bedding solutions for all applications.

call our Sales Desk: 01872 560592



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**C12** Calibrator





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