

Teagle

TOMAHAWK

T500E : Electric Mill



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PRECISION PROCESSING RANGE



TOMAHAWK 404/505M

Capacity up to 2.0t/hr
Material output: 20-100mm
80HP (min.)



TOMAHAWK 404/505XLM

Capacity up to 2.0t/hr
Material output: 20-100mm
120HP (min.)



TOMAHAWK 500B

Capacity up to 2.0t/hr
Material output: 20-100mm
120HP (min.)



TOMAHAWK 500FSM

Capacity up to 3.5t/hr
Material output: 20-100mm
120HP (min.)



TOMAHAWK C120

Capacity up to 15t/hr
Material output: 20-100mm
180HP (min.)



TOMAHAWK 500E (Electric Mill)

Capacity up to 3.5t/hr
Material output: 20-100mm
45kW



 **WATCH
THE VIDEO**



TOMAHAWK 8250 | M

Capacity up to 2.25t/hr
Material output: 50mm (min.)
150HP (min.)



TOMAHAWK 8250 | T

Capacity up to 2.25t/hr
Material output: 50mm (min.)
80HP (min.)



TOMAHAWK 8555

Capacity up to 2.25t/hr
Material output: 50mm (min.)
80HP (min.)



Established in 1937, Teagle Machinery began manufacturing the Tomahawk bale processor 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 50 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 day-out, under the toughest conditions. As sales of Tomahawk bale processors continue to grow, the reasons that customers return time after time to buy from 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. Through our focus on feeding and bedding machinery over the last 40 years we are able to offer a machine to fulfil your needs.

Backup – After-sales support is our priority, requiring commitment to a comprehensive parts stock and effective dealer network. We dedicate part of our 27,000m² facility in Cornwall to a substantial stock of wearing and non-wearing parts to keep you up and running.

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ELECTRIC MILL

An automated Feed Conveyor and Straw Mill for round and rectangular bales. The mill is equipped with a 45kW electric motor to process up to 3.5 tons/hr. Processed material can then be discharged at low or high level, or transferred up to 60m with an optional transfer fan. Calibrate dry material (recommended <20% moisture content) from 10mm to 120mm by changing the screen size in the mill.

BEDDING



- POULTRY BEDDING
- CUBICLE BEDDING

FEEDING



- TMR PRE-PROCESSING

BIOMASS



- PELLETING/BRIQUETTING
- BIOGAS

STRAIGHTFORWARD PROCESSING

The T500E control system automatically manages material processing so that bales can be loaded to the conveyor and the machine set to run.

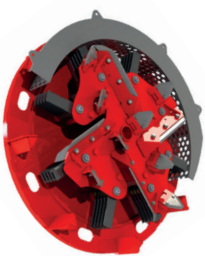


SET

Select a suitable screen size for your application.

Interchangeable screens are made in Hardox® wear plate for extended service life to enable precise calibration of Straw / Dry materials from 10mm to 150mm.

Screens are available with Ø 10, 13, 15, 18, 21, 25, 28, 36, 50mm holes and 120mm slots.



PROCESS

The bales are loaded to the feed conveyor which delivers the material into the rotating drum. Output is automatically controlled by adjusting the frequency of drum rotation and conveyor feed.

As the drum rotates the mill system processes the material to the desired length. The T500E can be fitted with blades to provide a clean cut product, or hammers to break the product apart.

CONTROL



To manage peak power loading and maximise material output the control system continuously monitors the current drawn by the milling motor and adjusts the frequency of the drum rotation. The conveyor feed is then linked to ensure that the drum is continuously fed with material.

An inverter controls the main rotor motor which enables peak current to be carefully managed. Rotor and Drum motors are sequenced on Startup / Shutdown to eliminate the chance of blocking.

Communications ports are available for control of:

- Plant equipment which may request a pause or shut down of the mill system.
- Machine shutdown triggered by fencing interlock or fire systems.

Remote connectivity

The system is equipped with a SIM card for remote data collection. This enables continuous improvement of processing efficiency, as well as remote factory support and settings update.

THE ELECTRIC ADVANTAGE

✓ Lower Running Costs

A smaller drive unit

A significantly smaller electric drive (45kW) is needed than when using a tractor (typically 90kW) for the same output.

This is achieved in two ways:

✓ Reduce peak loading:

Electrical current is carefully monitored and the feed rate controlled.

✓ Non-stop feed:

The automated feed continuously provides material for the mill to process, reducing idle time.

✓ Reduced Waste

The system will automatically shut down when the feed conveyor is empty.

✓ No tractor required

Don't tie up a valuable tractor. Reduce fuel and maintenance costs.

✓ Save time

Simply load the bales and press run.
Prepare bales for loading whilst the T500E processes.

✓ Quieter

The quiet operation of the T500E reduces environmental impact in the local area.

✓ Sustainable

Reduce your environmental footprint by switching from diesel to electric drive.

REDUCE PROCESSING COSTS

	STRAW			
Output Length	10mm	30mm	50mm	150mm
Tons/hr*	up to 1.0t/hr	up to 2.0t/hr	up to 3.0t/hr	up to 3.5t/hr
Screen Size	10mm	21mm	36mm	120mm
Energy Consumption kWh/ton	15.0kWh/ton	7.5kWh/ton	5.0kWh/ton	4.3kWh/ton
Cost/ton**	£4.50 / 5.25€	£2.25 / 2.60€	£1.50 / 1.75€	£1.30 / 1.50€

*Typical values for wheat straw at <20% moisture. Output subject to material and moisture content.

** Based on £0.30/kWh or 0.35€/kWh.

Connection Rating: 125A hardwired

Typical Power Requirement

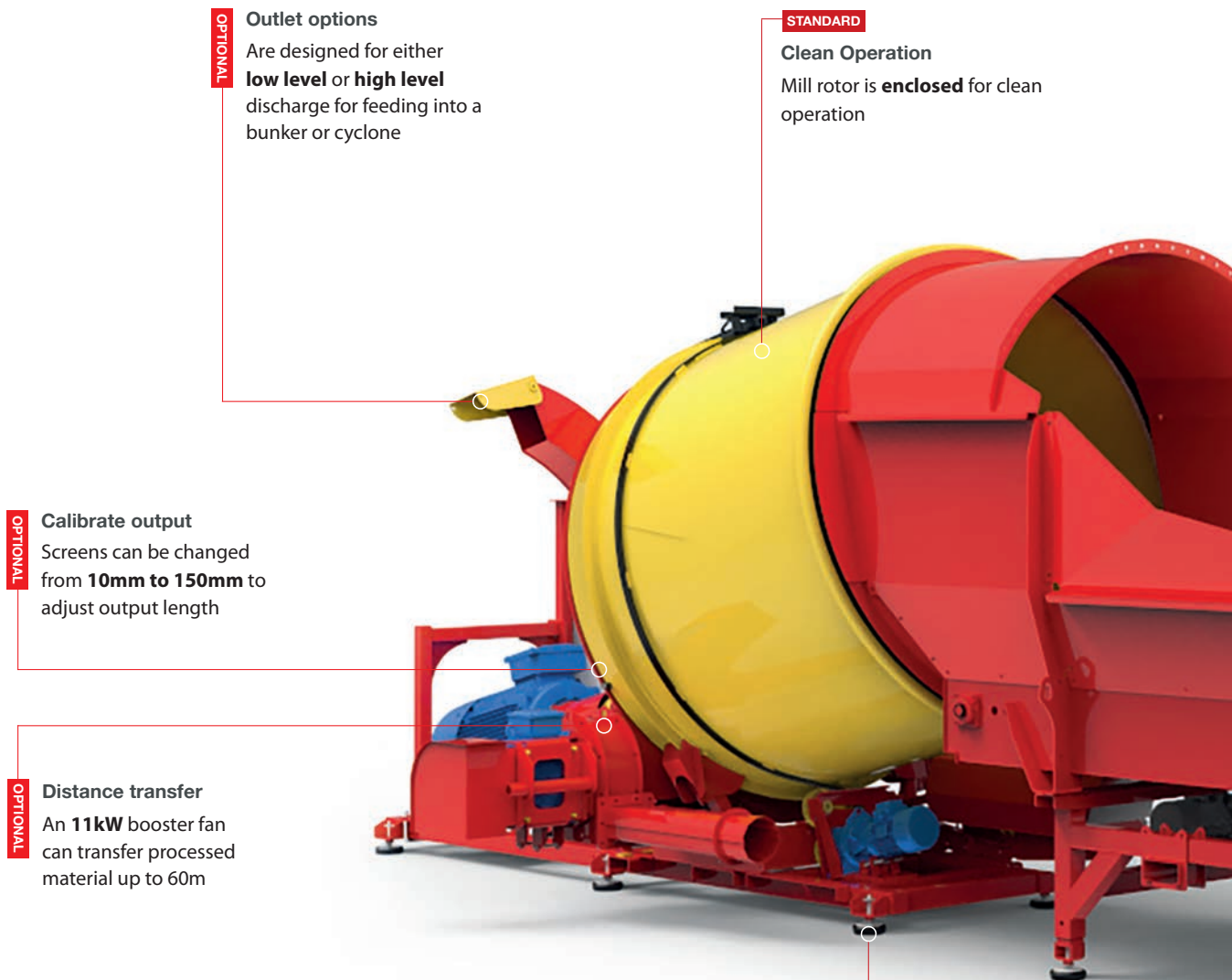
Running Empty: 30 Amps | Average Running: 45 Amps | Peak load: 80 Amps | Typical power requirement: 15 kW

T500E

ELECTRIC DRIVE BALE PROCESSOR

Simple to use and efficient to run. The Tomahawk 500E offers semi-automated straw processing, with less than half the running cost of a Tractor per hour.*

* See page 2 for operating costs.



OPTIONAL **Outlet options**
Are designed for either **low level** or **high level** discharge for feeding into a bunker or cyclone

STANDARD **Clean Operation**
Mill rotor is **enclosed** for clean operation

OPTIONAL **Calibrate output**
Screens can be changed from **10mm to 150mm** to adjust output length

OPTIONAL **Distance transfer**
An **11kW** booster fan can transfer processed material up to 60m

Standard equipment
45kW Electric Mill System | Automated processing Control
Electric Feed Conveyor (1 section)

Optional equipment
Additional feed conveyors (up to 4 total) | Various Outlet Chutes | Booster Fan to transfer processed material | Liquid dust suppression / Dust removal cyclone
See p.5 for additional information

STANDARD **Smooth operation**
The T500E stands on rubber **anti-vibration feet** that can be secured to the floor

AUTOMATED processing



PROCESS OPTIMISATION

To manage peak power loading and maximise material output the control system continuously monitors the current drawn by the electric mill motor and automatically adjusts material feed rate.

A screen on the control cabinet allows the operator to fine tune parameters to optimise output. This is dependant on the material being processed, available power and the desired output length.

The controls can be integrated to associated plant equipment to run / pause the mill, and a SIM card allows remote factory optimisation.

OPTIONAL

Modular conveyor system

Up to 4 conveyors can be fitted to the Mill to ensure a **continuous feed** of material to the milling rotor



STANDARD

Straightforward maintenance

For exceptional reliability, components in the T500E are based on **many years of experience** with our Tomahawk range of bale processors

STANDARD

Low loading height

Makes it easy to remove bale string or netwrap

STANDARD

Remote conveyor startup

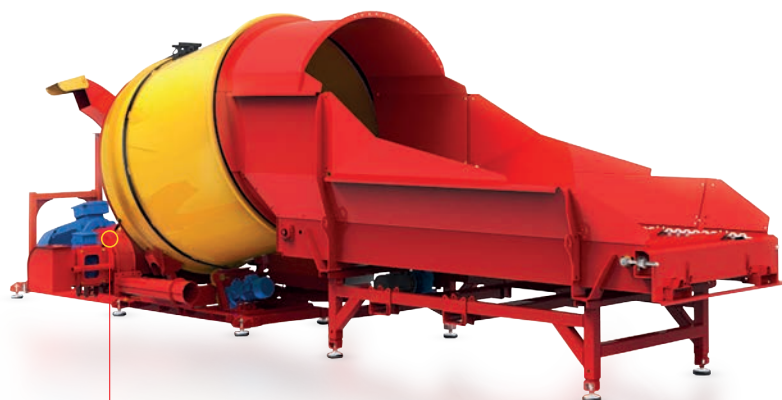
Initiate processing from the end of the loading conveyor



OUTLET options

CONFIGURE THE MACHINE

according to your application



Electric Booster Fan

An electric fan with a 11kW motor is available to blow straw through ducting up to 60m long. Start/stop can be managed by the remote control.



High pressure liquid spray system

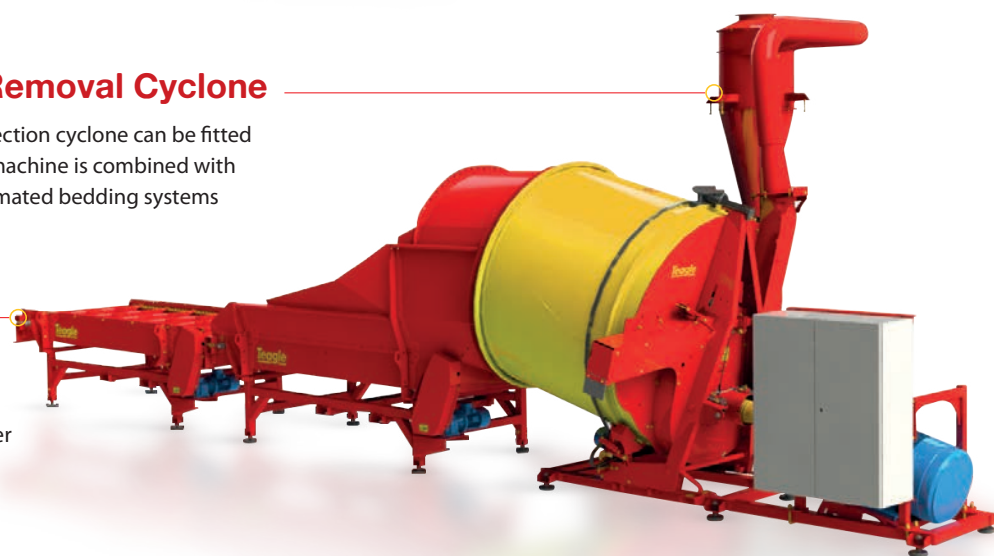
With its **unique 5-point action**, straw is sprayed with a high-pressure fine water (or disinfectant) mist reducing inhalable dust particles by 41%.

Dust Removal Cyclone

A dust collection cyclone can be fitted when the machine is combined with some automated bedding systems

Additional Conveyors

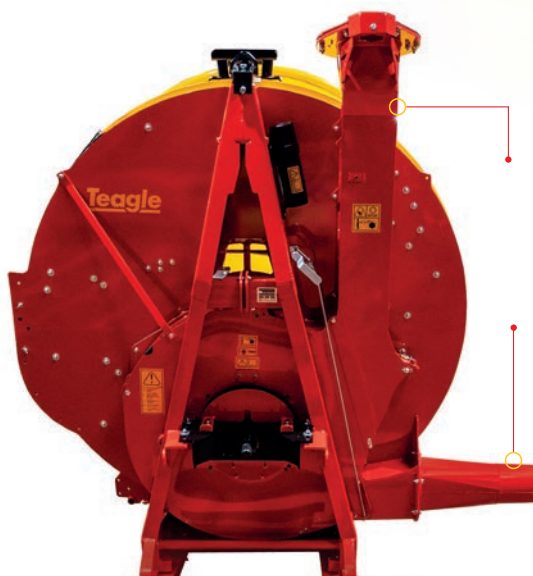
Up to four conveyors can be configured with the machine in order to increase the autonomy of the milling plant and minimise loading operations.



Right hand outlet: Blanking plate

If you need a right hand output then we recommend a vertical outlet from the left hand side which passes over the top of the machine to the right hand side.

(Left/Right when viewed from feed table)



Left Hand outlet: 180mm hose Adaptor

Upper vertical: Ideal for connection to a cyclone for dust extraction or to fill a bunker.

Lower horizontal: Connect a pipe to the machine at low level

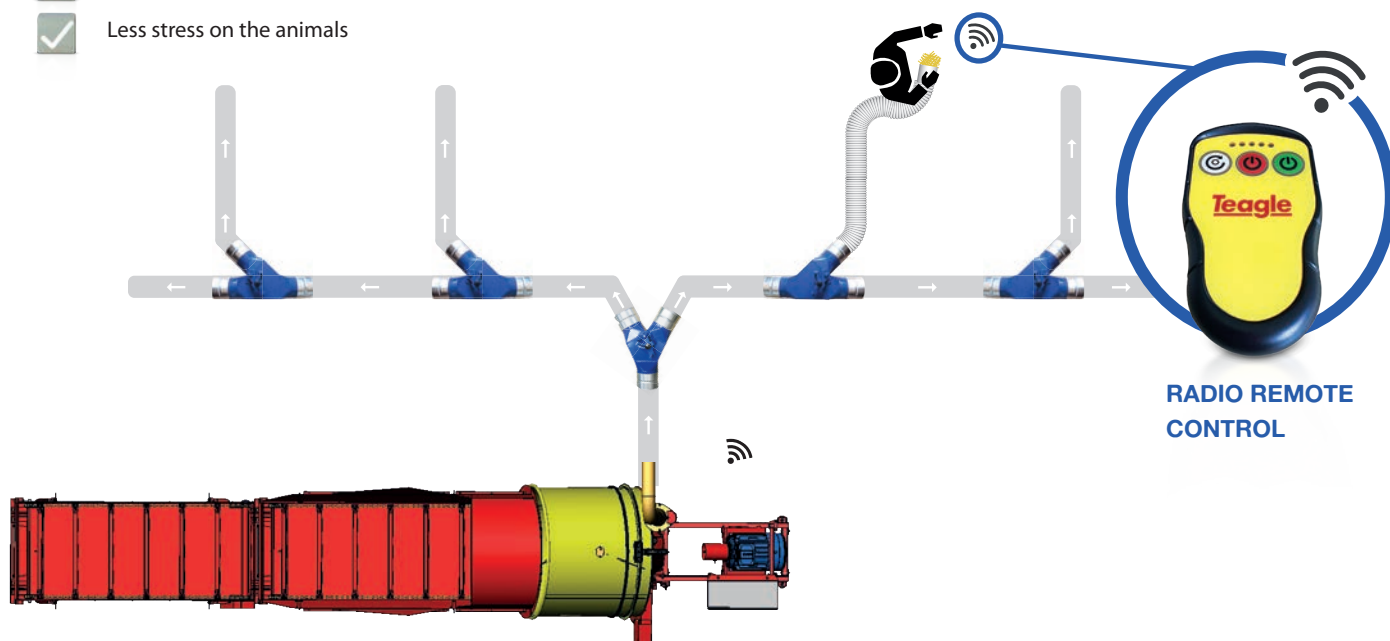


HIGH SPEED FAN

can be connected to various delivery systems

BENEFITS

- ✓ Processing system compliant with biosecurity standards
- ✓ The machine remains outside of the building
- ✓ No risk of cross contamination
- ✓ Less stress on the animals
- ✓ Quick release couplings for connection from the machine to the distribution network
- ✓ Radio remote control provides simple operation of the machine during processing



customer REVIEWS



THE BENEFITS OF ADDING PROCESSED STRAW TO A TMR



JAMES JOHNS farms a herd of 260 high performance Holsteins at Sixty Acre Farm, UK.

"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."

- ✓ 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.

"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

TURBO MILL 500B AND 500BXL

Re-bedding is an essential step in handling a flock of turkeys correctly.



The unique rotor design combined with a fine calibrating screen makes it possible to obtain very consistent short straw of 2 cm, which is ideal for bedding poultry.

"Before I started on a batch of turkeys, I already tried the Teagle 500B on a batch of chickens. I put 5kg/m² to see how the litter would behave. I had great results, very similar to what could be achieved on wood shavings.

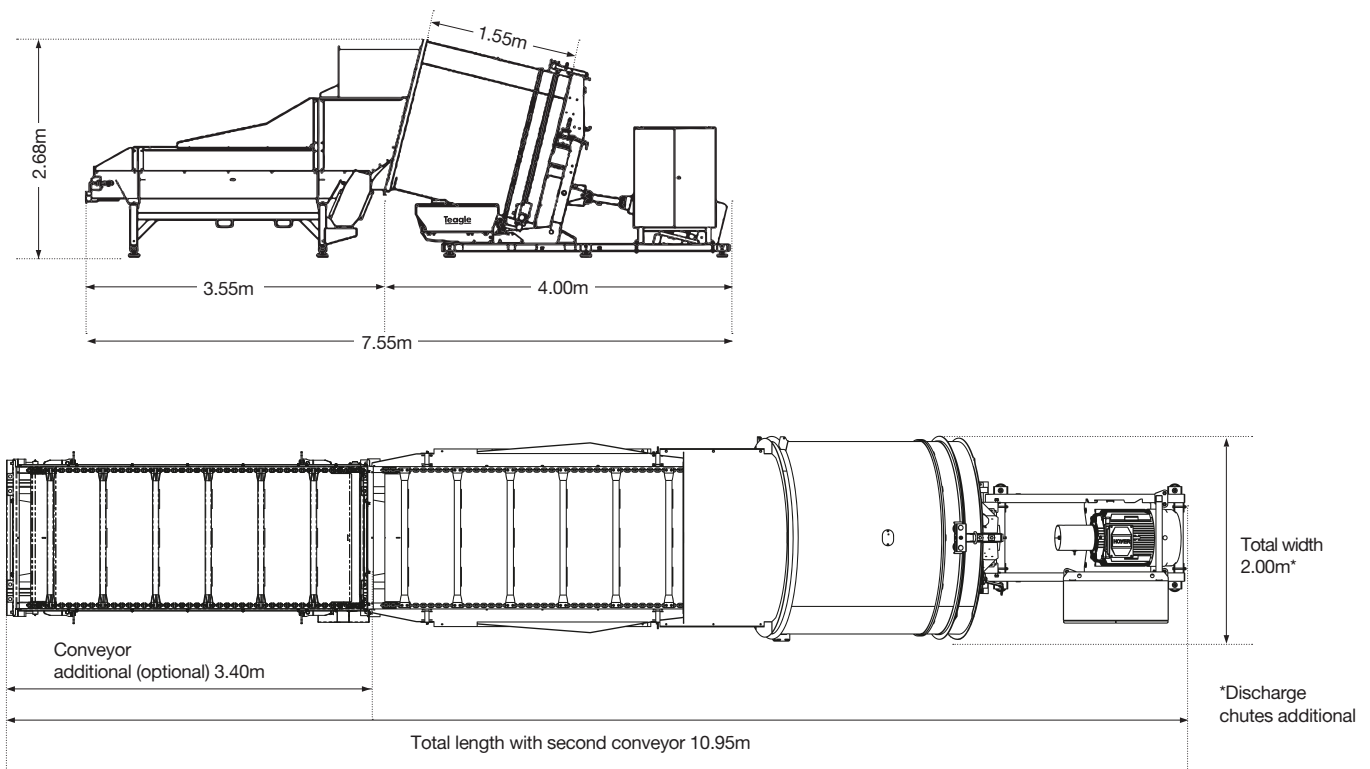
With this positive experience in hand, Henry now raises his turkeys on 100% straw bedding at a rate of 10kg/m² for the first layer of straw. For the re bedding, Mr Cabaud can add up to four round bales. It takes 1h30 from starting the tractor until it returns to the shed. "Re-bedding is an essential step in handling a flock of turkeys correctly. I notice a systematic increase in the ADG in

the days following re bedding as well as a drop in humidity in the building, this is a direct consequence of a clean, dry litter and a healthy atmosphere.

The machine is fitted with the Teagle Hydrosshield which sprays a fine mist onto the straw. It is synchronized with the drum rotation, thus starting, and stopping at the same time as straw delivery. "I see a reduction of at least 80% in dust when processing the straw. I take this opportunity to add essential oils of Thyme and Eucalyptus, on one hand, it allows me to secure the re-bedding by disinfecting the straw and on the other hand to significantly freshen up the atmosphere in the building."

HENRY CABAUD, Andelaroche de Allier

SPECIFICATIONS



GENERAL

Bale chamber diameter	1.80m	Weight T500E	1,900kg
Rotor Speed	1000rpm	Weight conveyor	1,250kg

BALE CAPACITY

Max. Round bale diameter 1.5m	1.5m	Max. Rectangular bales	1.2m x 1.2m x 2.4m
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DIMENSIONS

Overall width	2.00m	Overall height	2.68m
T500E length	4.00m	T500E length with one conveyor	7.55m

The company's policy is one of continuous improvement and development, therefore specifications are subject to change without prior notice.

Excludes:

Electrical supply / Installation / Fencing / Guarding / Integration with Fire / Building systems

Please Note:

The Tomahawk Electric Mill and conveyors are supplied as "Partly Completed Machinery" as defined by the EU Machinery Directive 2006/42/EC Edition 2.2 – October 2019

It is the responsibility of the person / company installing the machine to ensure compliance with the essential health and safety requirements as defined in the EU Machinery Directive 2006/42/EC Edition 2.2 – October 2019.



With over **85 years** experience in designing and manufacturing of agricultural machinery you can be confident when you choose Teagle.

Contact us today to discuss your individual requirements.

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