GOWEIL

Baler-wrapper combination

LT-Master

GCW-Master

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LT-Master – Development & History

Since 1988 the wrapper expert GÖWEIL has offered a high quality product range of bale wrapping and baler technology. All machines and equipment are designed, developed and produced exclusively at the company's location in Kirchschlag (Austria).

Over the last few decades, GÖWEIL has established itself as a specialist in manufacturing agricultural machinery. As an exceptionally high portion of its products are exported, GÖWEIL machines have become renowned and are widely used throughout the world.

When it comes to developing and manufacturing the bale pressing and bale wrapping devices, GÖWEIL put its trust in their own planning department and their employee's long years of experience and know-how.

All products made by GÖWEIL reflect the state of the art and are designed to fit the individual requirements of your specific applications.

LT-MASTER

Introduction

Advancement through versatility:

The LT-Master is THE baler-wrapper combination for round bales. This is because it can turn almost any chopped material into perfectly pressed and wrapped round bales - whether it be maize, CCM, alfalfa, sugar beet cossettes, and grain, or even garbage, wood chips, mixed feed, etc.

The idea behind the development of the LT-Master was to both make silage maize easier to handle by pressing it into convenient round bales and make it useful also for smaller agricultural operations.
Each bale forms a small unit that can be fed to the animals in a quick and simple fashion. Bales of silage maize are an excellent choice as they keep the quality of the feed exceptionally high by protecting it against secondary fermentation or post-heating after the feed was pressed into bales.

Other benefits that speak for themselves:

- Simple and cost-efficient storage of the bales
- Easy and economic transport of the bales
- Straightforward production of mixed feed (TMR)
- Silage maize can be utilized as summer feed

The possible applications of the LT-Master have evolved a great deal in the course of time. Since GÖWEIL's LT-Master is so unique and so well equiped, it has become a popular choice to press ever more finely chopped materials, such as alfalfa, grain, sugar beet and even garbage, into round bales. Customers requesting the machine now include large agricultural and even industrial businesses rather than just traditional contract harvesters.

This is how the LT-Master's success story began. It took no time at all for the machine to take the place of the baler-wrapper combination that is most widely known in the industry around the world.

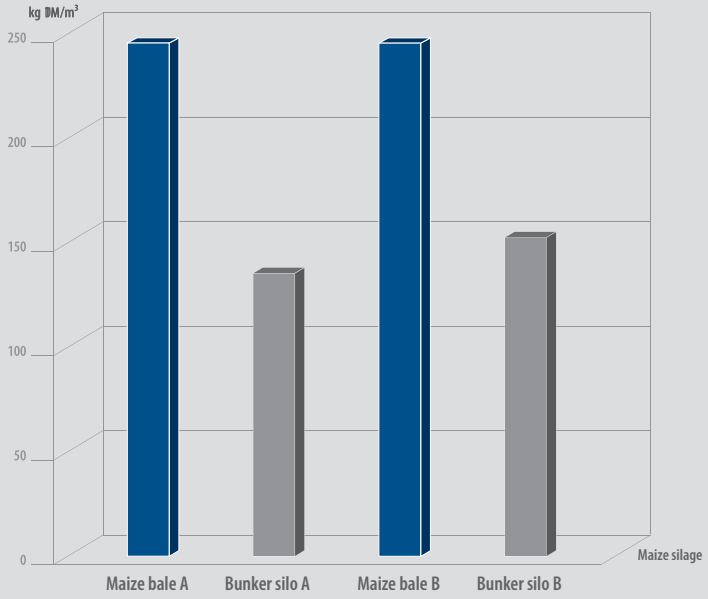
LT-Master baler-wrapper combinations are used world-wide

LT-MASTER

Feed quality

It is every farmer's desire to provide their animals with the best feed available. The use of silage offers a great number of benefits and is an indispensable part of modern feed distribution. Numerous factors have to be taken into account in order to achieve premium silage quality. Chief among these factors is, aside from a quick exclusion of air and a clean production process, a high degree of feed compression. The LT-Master unifies these factors perfectly.

Compression of the maize silage



There are clear differences in the density of the maize silage:
Bunker silo: 148 (120) kg DM (dry matter)/m³
Round bales: 239 kg DM/m³

Maize bales	Standard	Option: Variable bale size
Diameter:	1.15 m	0.60 - 1.15 m
Width:	1.20 m	1.20 m
Weight: (at 29% TM)	~ 1,100 kg 880 kg/m³	~ 500 - 1,100 kg 880 kg/m³
Volume:	1.25 m³	0.35 - 1.25 m³

„Strikingly low in round bales of silage is the concentration of germ group 2 bacteria (spoilage-indicating bacteria: Bacillus, Micrococcus, coagulase-negative species of Staphylococcus - orientation value: 200) with values between 6.0 and 6.5 CFU/gram. This low concentration can be attributed, first and foremost, to the quick anaerobic storage of the feed."

Source: LFZ raumberg gumpenstein - Pöllinger 2011

LT-MASTER

Materials

Its ability to bale and wrap a large variety of different materials makes the LT-Master ideally suited for a slew of different applications. And, since these materials are harvested at different times throughout the year, it is possible to use the machine all year round. This guarantees the highest possible efficiency and utilization of capacity. The most common materials at a glance:

The ensiling process

The finely chopped mass is packaged air-tight and stored. The process of lactic acid fermentation ensues as a result of the residual sugar contained in the finely chopped material and the deoxygenation. The silage becomes acidified and, consequently, preserved. Silage is a high-quality and essential feed especially for ruminants.

If the silage is too wet or contains too much residual oxygen, an undesirable result can be a high degree of acetic acid fermentation or butyric acid fermentation. This will render the silage inedible for the cattle and carries the risk of causing disease as a result of toxic excretion.

Using the LT-Master baler-wrapper combination allows you to eliminate several sources of danger thanks to the efficient ensiling process it guarantees:

- Formidable compression during baling translates to perfect preservation and exceptional feed quality
- Exceptionally rapid air exclusion thanks to an optimized baling-wrapping process
- Perfectly clean production work flow and, consequently, no contamination of the feed
- No risk of secondary fermentation or post-heating

Maize / Corn:

Maize silage is made from the entire maize plant and serves as one of the most important roughage feeds for ruminants with a high milk yield. Maize silage provides particularly nutritious energy that is stored in the starch of the crushed maize kennels and is also very rich in crude fiber. This makes maize silage the ideal feed to achieve the highest milk yields and best fattening results. The quality of the feed is at a particular risk of becoming affected in temperatures above 15 degrees centigrade due to the increased activity of microbacteria. The formidable compression applied by the LT-Master during the baling process guarantees unsurpassed shelf life and feed quality.

CCM:

CCM (Corn Cob Mix) is an outstanding high-energy feed that consists of the cob and the kennels of the maize cob. It is used for feeding pigs, cattle or other ruminants. CCM silage provides highly concentrated energy thanks to the added starch and offers an exceptional price-performance ratio when compared to conventional concentrate feed. Since this feed retains more of its texture than other feeds thanks to the crushing of the kennels, it is easier for the animals to consume. Thanks to their compact shape, bales of CCM silage are perfect to handle and exceptionally well-suited to be fed in small quantities as well.

Alfalfa:

Apart from maize silage, alfalfa silage is the most important component in the roughage feed given to cattle. High feed consumption and a particularly good structure value have their share in the significant milk yield of the cattle. Apart from guaranteeing high yields, growing alfalfa also improves the quality of the soil. However, as it is low in sugar, alfalfa is difficult to preserve using conventional methods. The LT-Master helps preserve the quality of alfalfa silage significantly as it excludes air rapidly and provides effective compression while pressing the material into round bales.

Sugar beets:

Sugar beet cossettes are distinguished by their extremely high energy content and are, furthermore, easy to digest and very palatable. They are an ideal supplement for grass silage as they have a negative ruminal nitrogen balance and, therefore, set off the protein balance in the rumen. Pressed pulp silages are very low in lactic acid and, consequently, contain little acid overall. It is vital for the quality of the silage that it be processed cleanly while still warm and at a high rate of compression. The round bales produced by the LT-Master also cool down more quickly and are, therefore, ready to be fed more quickly.

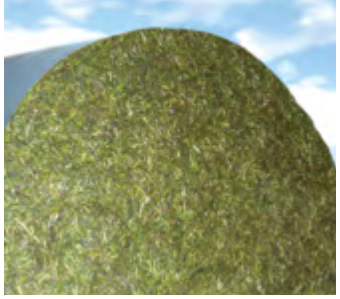
Maize bale

Maize

CCM

Alfalfa

CCM bale



Alfalfa bale

Bale of sugar beet cossettes

Sugar beets

TMR mixed feed

Grass

Grain GPS

Wood

Waste substitute fuels

TMR - Total Mixed Ration:

A TMR is made up of a balanced mix of roughage feed and concentrate feed. Dry matter portion and energy content are perfectly attuned. TM rations have a decidedly positive effect on the milk yield and the health of the animals. TMRs are prepared for storage by mixing already fermented silages and ensiling these batches again. As the LT-Master produces highly transportable storage TMR in a quick, easy and affordable way, it is also an ideal solution for commerce.

Grass:

Grass silage is the most important roughage feed for ruminants. Ideally, the feed is composed of true grasses, herbs and clover. Species of grass that are high in sugar guarantee a thorough fermentation process. As it delivers high compression density, the LT-Master is capable of processing grasses of all kinds even if they are high in crude fiber.

Grain GPS:

Grain GPS (whole crop silages) are usually made from barley, wheat or triticale. Their cultivation guarantees high yields and has many enefits when it comes to crop farming. However, grain contains only a very low portion of energy and is difficult to ensilage using conventional methods. As it delivers perfect compression and provides rapid air exclusion, the LT-Master makes producing grain silage effortless.

Wood chips/shavings:

Whether you are processing sawdust, wood chips, wood wool, bark mulch, wood chips or pellets... The LT-Master allows you to package all kinds of materials into compact bales. This makes both transport easier and helps save valuable storage space at the same time. The bales can be transported, stacked or loaded onto a pallet using a tractor. When pressed into a bale, the material will stay dry and clean.

Waste substitute fuel:

Storing garbage and waste is becoming an ever more pressing problem. Some materials are recycled for further processing and used as substitute fuels. The LT-Master offers a quick and easy solution for the storage and transport problem associated with this type of usage. The pressed bales can be transported in a space-saving manner and are ideally suited for intermediate storage. It is generally possible to shape both solid waste (plastic, household garbage,...) and residual wastewater treatment products such as sewage sludge into wrapped round bales.

Other materials that have already been shaped into round bales include:

Wild animal feed, vegetable leftovers, sugar cane, crushed grain corn, horse manure, apple remnants, and straw

LT-MASTER

Function – Advantages

General benefits:

More bales per hour:
The perfectly attuned work flow guarantees a high output – up to 60 tons per hour.

Design of the machine:
A tremendous plus! With a little practice, you will be able to have the machine ready for use in approx. 3 minutes.

It does not get any easier than this:
The program control "PROFI" uses a bus system to control the entire work flow in a fully automatic fashion - all that remains for the driver to do is monitor the machine.

Fast and agile:
The mobile pivoting drawbar makes it possible to swivel out the machine on both sides by 30°. This guarantees a minimum turn radius and allows you to power the machine with the tractor on both the left and the right hand side.

A greasy affair:
The central lubricator supplies the most important lubrication points continuously with grease/oil. This guarantees an exceptionally long lifetime and keeps wear at a minimum.

No way is too long:
The 80 km/h chassis allows you to reach any site of operation fast - whether you travel there by tractor or truck. (80 km/h chassis requires the use of a dual-line air brake system)

Sophisticated brake system:
A dual-line air brake system combined with a hydraulic brake system comes standard.

Never coming up empty:
Thanks to its hydraulically folding film storage that holds up to 20 rolls of film, the LT-Master is ideally suited even for long workdays.

Let there be light:
The LED lighting system keeps the LT-Master perfectly lit even if you have to work at night.

Benefits of the wrapper:

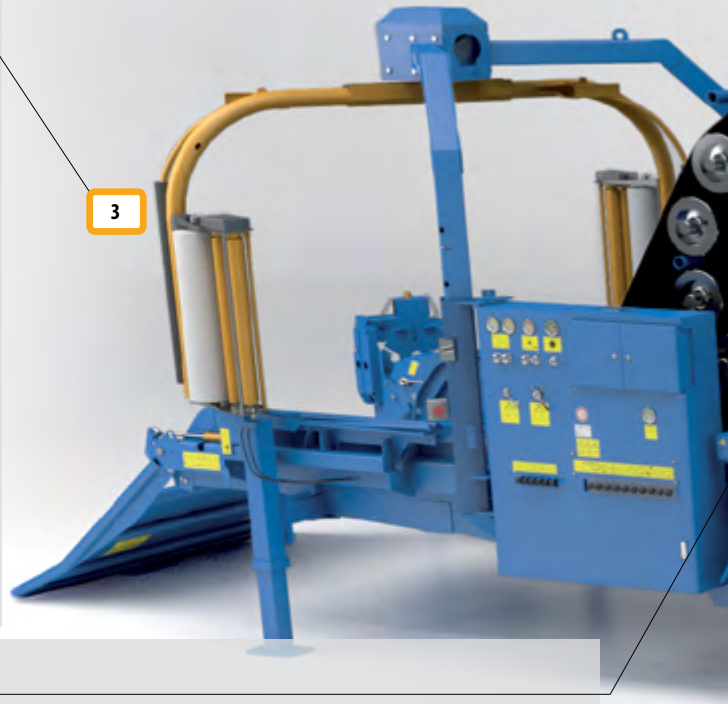
Mobile wrapping table:
Just as in the G5040 Kombi, the mobile wrapping table slides under the baler and picks up the bale directly, quickly and gently.

Twin wrapping arm:
The wrapper always stays one step ahead thanks to its standard twin wrapping arm including 2 x 750 mm film stretching unit. More bales per roll of film - that is the result of the patented plastic rollers. What is more, two sensors reliably monitor the film and respond quickly when the film has run out or tears.

Film monitoring in single-film mode:
When a film runs out or tears, the feed rate of the wrapping table is reduced until a 50% overlap is guaranteed again. This makes it possible to complete the wrapping process for the bale without interruption. If
both films run out or tear, the film monitoring unit will terminate the wrapping process.

Bale ramp:
A gentle bale drop is guaranteed by the hydraulically folding bale ramp.

Automatic film cutting & holding system:
The rust-free gravity knife guarantees that the film will be cut precisely. The standard float position of the film cutter ensures that the film comes off easily and prevents any remnants from being clamped.



Benefits of the baler:

High compression density:
The endless belt constantly subjects the material to a high degree of compression. A bale with a diameter of 1.15 m consequently reaches a weight of approx. 1,100 kg!

Long lifetime:
Large-size bearings in concert with a perfectly attuned lubrication system guarantee that the baler will last for a long time.

Fixed roller chamber:
The two halves of the forming chamber are embraced by a continuous endless belt. This minimizes disintegration losses. It is also possible to alter the tension of the belts hydraulically. This ensures that the baling process starts in a reliable manner and ends with a sound bale ejection.

Whether net or film:
You will need an efficient binding system to preserve a bale in perfect condition. The main objectives are to ensure the highest possible feed quality and save cost and time at the same time. The LT-Master comes standard with a net binding unit. It is, however, also available with a film binding unit, which is combined with a net binding unit.

Refeed belt:
The refeed belt running along the entire length of the machine's underside prevents disintegration losses as it catches any crumbs and feeds them back into the sloping conveyor without contamination.

Benefits of the feeder / metering unit:

Low profile design:
Whether you use a dumper, push-off trailer or truck - the feeder with its width of 3.50 meters and its low profile design makes the filling process quick and easy.

Metering rollers and feed screws:
The rollers with their continuous profile guarantee that the material is distributed perfectly at the sloping conveyor.

Large capacity feeder:
Thanks to its volume of 12 m^3, the feeder provides a large buffer. This large capacity prevents the LT-Master from coming to a standstill when the dumper is replaced.

Metering unit:
The speed of the scraper floor automatically adapts to and controls the material quantity.

Scraper floor chains:
The galvanized, die-forged scraper floor chains on the sloping conveyor and the feeder are indestructible.

LT-MASTER

Design of the machine

1:00 2:00 3:00

1. Positioning the LT-Master correctly and swiveling out the drawbar >>

2. Extending the support feet >>

3. Lowering the feeder >>

4. Folding down the panels of the sloping conveyor and the feeder >>

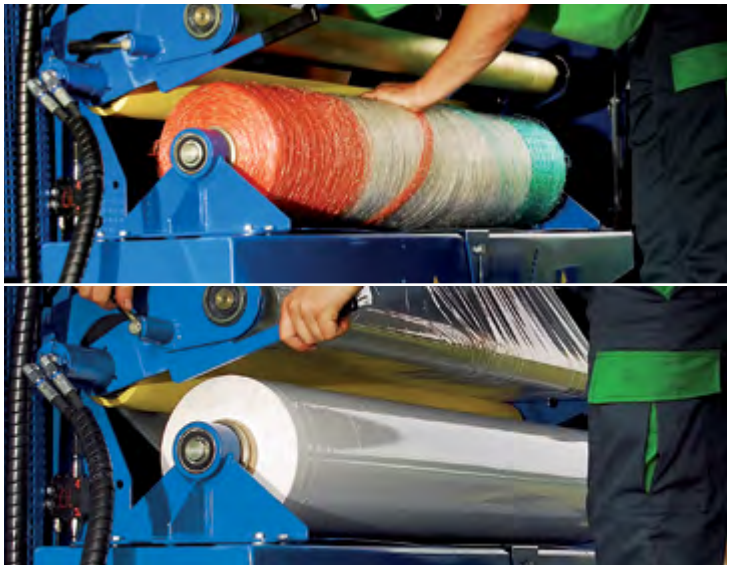
5. Folding down the bale ramp >>

6. The LT-Master is ready for use inside of three minutes!

LT-MASTER

Preparations

Replacing the wrapping film



Replacing the net or the wide film

Adjusting the program setting to the material

Ideal grease and oil supply to the machine

Setting up and preparing the machine

One obvious highlight of the LT-Master is its short setup time of approx. three minutes. This is a feature of no little importance especially for professional contract harvesters who often need to change locations several times a day. Setting up the machine is an entirely hydraulic process. The LT-Master is ready for use after only a few simple steps.

What is more, other usually time-consuming steps can be completed in a swift and straightforward fashion thanks to optimized details such as the following:

- Replacing the wrapping film takes no time at all thanks to the quick-release fastener.
- Replacing the net or the wide film requires only a few simple steps.
- The program control „PROFI“ makes it possible to tune the machine perfectly to the material. A decisive advantage: The menus can be navigated in 9 different languages.
- Refilling the central lubricator with grease and oil is effortless.

LT-MASTER

Material flow

Quick, easy and fully automatic. Each minute detail contributes to a perfect flow of material. The LT-Master scores high in this department thanks to its first-rate throughput. The material flow shown below illustrates the straightforward, yet efficient way the LT-Master operates.

The bale is wrapped perfectly by the twin wrapping arm and dropped gently afterwards.

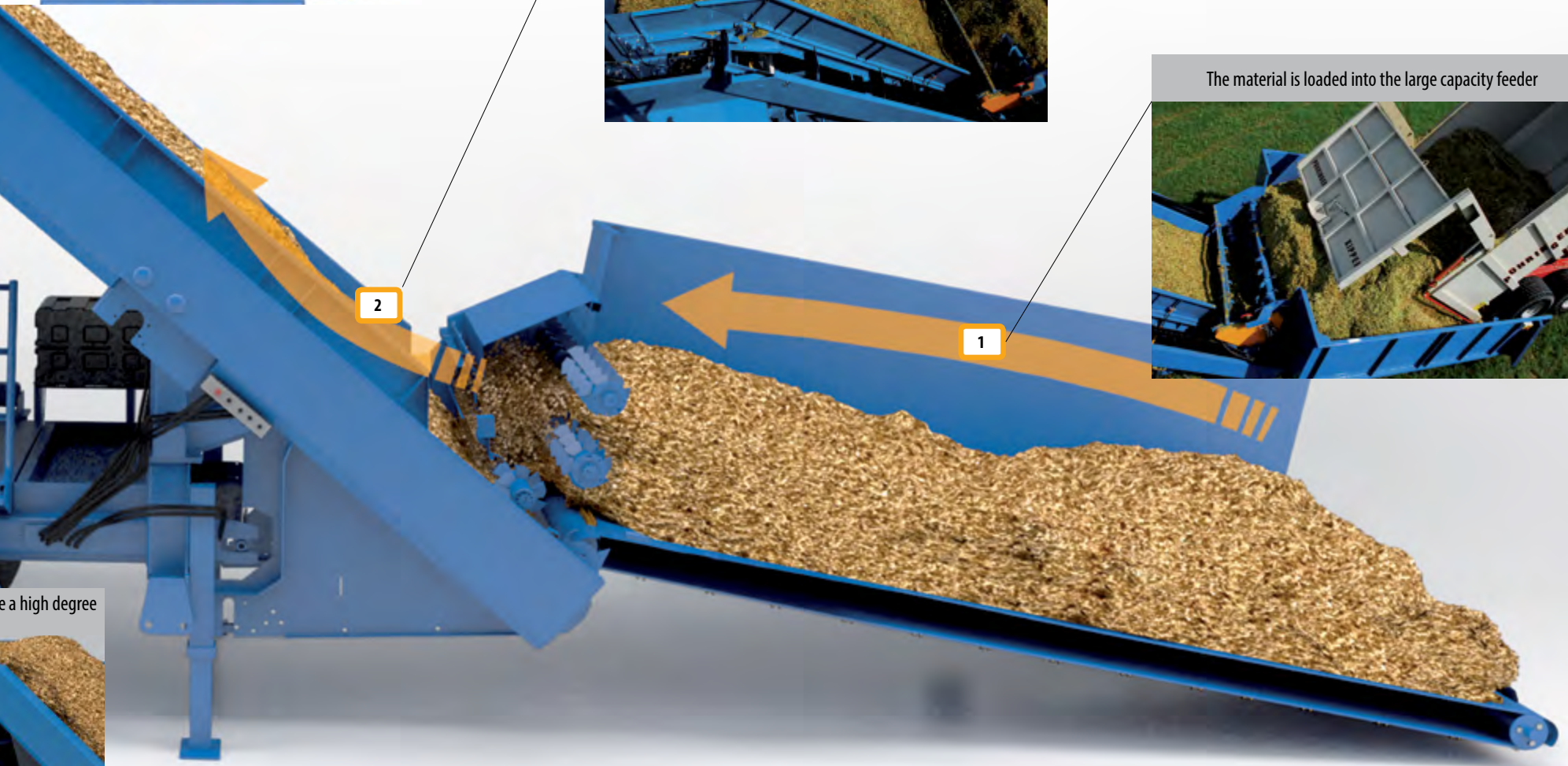
The bale is picked up by the mobile wrapping table

The endless belts inside the chamber provid
of compression

e material drops from the sloping conveyor into the forming chamber

The material is metered perfectly and transported from the feeder to the sloping conveyor

The material is loaded into the large capacity feeder



e a high degree

LT-MASTER

Features

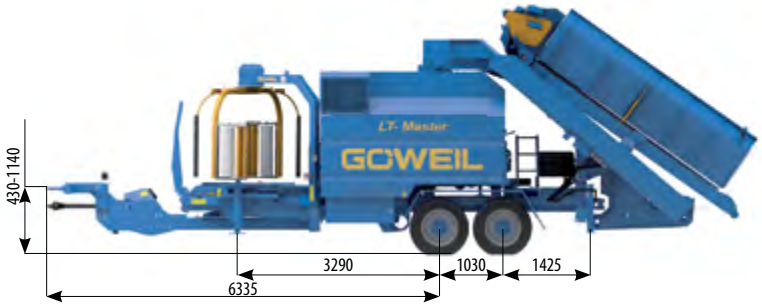
Basic model

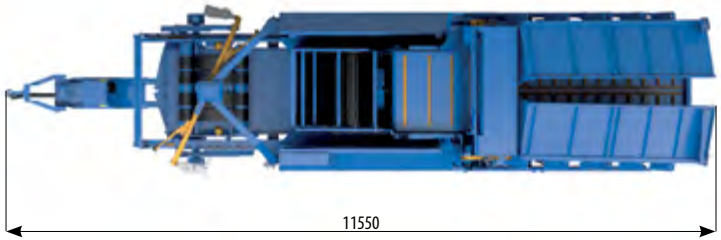
- Twin wrapping arm
- Net binding
- On-board hydraulic system with oil cooler
- Hydraulic belt pre-tensioning
- Refeed for possible crumbling losses
- Integrated feeder (working width 3.50 m)
- Hydraulically actuated wrapping table
- 4 bale conveyor belts including belt guide and 2 bale guide rollers
- Bale drop towards the front via hydraulic bale delivery ramp
- Height-adjustable drawbar
- Film stretching unit 750 mm combined with overlap adjustment
- Automatic film cutting and holding system
- Tandem axle chassis with suspension and tires 315/60 R 22.5
- LED working headlight
- Hydraulically lowerable film storage for up to 20 rolls of film
- Fully automatic program control PROFI
- Film monitoring unit
- Single-film mode
- Dual-line air brake system for 80 km/h combined with hydraulic brake

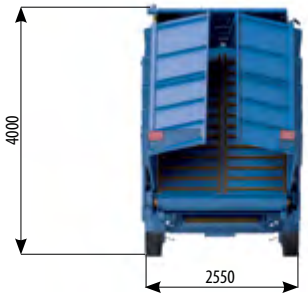
LT-MASTER

Technical data

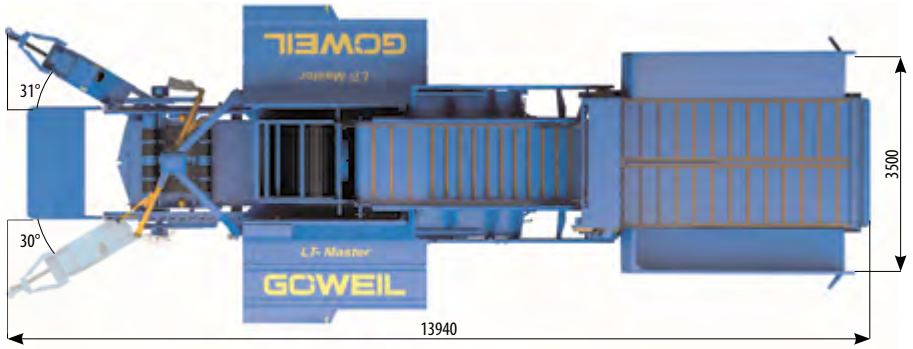
Transport position

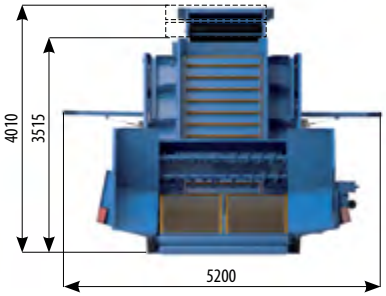






Work position





Data

Dimensions:

Transport position:
Length: 11,550 mm
Width: 2,550 mm
Height: 4,000 mm

Work position:
Length: 13,940 mm
Width: 5,200 mm
Height: 4,010 mm

Weight:
15,200 kg

LT-MASTER

Features

Additional equipment

Film binding combined with net binding:
The applied wide film binding forms bales that are particularly well-proportioned and stable. Another benefit: Wide film and wrapping film do not need to be separated prior to disposal.

Variable bales option 0.60 - 1.15 m:
Infinitely variable bale size from 0.60 - 1.15 m combined with film stretching unit 500 mm and 750 mm
Only in conjunction with film binding

Camera system:
The camera is positioned in such a way that the operator can look into the forming chamber

Rotating light

Electric drive:
Consists of a 90 kW electric motor with soft starter. Complete with switch cabinet, wiring, base with forklift slings, emergency switch and main switch

Water injection for forming chamber:
Consists of solenoid valve, tubing, and adjustable nozzles.
For mixing water into dry materials

Additional wireless sensor transmitter for bale deposit

Weighing system:
Consisting of weighing system (4 load cells integrated into the wrapping table), display and a label printer.

Drawbar eye types:
A, B, C, D, E, G

Film binding combined with net binding

Variable bales option 0.60 – 1.15 m

Water injection for forming chamber

A K80 drawbar eye
Drawbar/ball hitch

B Standard drawbar eye D40 mm
DIN similar to 11026
ISO similar to 5692-2

C Ring drawbar eye D50 mm
rotatable (hitch ring),
DIN similar to 9678
ISO similar to 5692-1

D Ring drawbar eye D50 mm
rigid (hitch ring),
DIN similar to 9678
ISO similar to 20019

E Standard drawbar eye D50 mm
(truck drawbar eye)
DIN similar to 74053
ISO similar to 1102

G Standard drawbar eye D40 mm
(truck drawbar eye)
30 mm thick
DIN similar to 74054
ISO similar to 8755

Drawbar eye types

Details

Weighing system

The four load cells are integrated directly into the wrapping table. The display is mounted next to the switch panel. The weighing process of the finished bales is automatic, thereby preventing any delays in the work flow. The wrapped bales can be weighed individually or evaluated as a complete batch. Setting the different options using the terminal is quick and easy.

The weighing system is also available with an optional label printer. The label contains such information as the weight of the bale, the date, the time as well as a recorded logo. If labels are not required, this function can be switched off at the terminal. Adhesive labels and the writing tape are commercially available goods and can be purchased at specialized dealers. It is possible to retrofit an existing weighing system with the label printer at any time.

Electric drive

Since the machine is powered by the cardan shaft, using the tractor without too much retrofitting remains possible.

The motor generates very little noise during operation and keeps the cost of operation very low in order to steer clear of the high prices of fuel. When compared to tractor operation, the electric drive not only saves space but produces no exhaust gases, also making it a good solution for operation in halls. Nonetheless, its steel frame roof construction makes the electric drive also suitable for outdoor use (temperature range: -15°C to +60 °C). Maintenance costs are very low, and the electric drive is easy to transport thanks to the base with forklift slings. The electric drive is equipped with a soft starter. This feature significantly reduces initial voltage peaks and the starting torque. This helps save power and puts less strain on drive, shafts, and gearbox.

Voltage: 400 V	Frequency: 50 Hz	Protection class: IP 55	Weight: 2,970 kg
Rating: 90 kW	Drive: 1,000 rpm	Power input: Max. 125 A	L x W x H: 1,773 x 1,323 x 1,652 mm

Weighing system with four integrated load cells

Display

Label printer

Electric drive for LT-Master

Powered by cardan shaft

Switch cabinet

LT-MASTER

Features

To ensure that the operating sequence between tractor and LT-Master runs smoothly, we have compiled an overview of all necessary connections:

Required connections

Connections necessary for operation

- One double-acting and one single-acting control device for the pivoting drawbar
- Cardan shaft connection: Speed: 830 -1,000 | 1 3/8“ Z6
- A 2-pin power outlet for the electrical supply to the machine
  A supply cable is supplied with the machine.

Brake connections

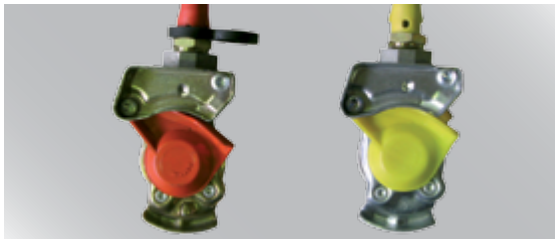
- Connections for dual-line air brake system or
- Brake valve connection for the hydraulic brake system

Transport connections

- A 7-pin power outlet for the entire lighting system, excluding working headlights
- Adapter for truck: 24V | 7-pin | 15-pin (optional)
- ABS

Cardan shaft connection (Z6)

2-pin power outlet for electrical system



For dual-line air brake system

For hydraulic brake system

7-pin power outlet

Adapter for truck

ABS

LT-MASTER

Service

You can rely on us! With the GÖWEIL Service-Kit you are always in good hands.

The GÖWEIL Service-Kit includes:

24 h SERVICE – 24 hours per day – 7 Days a week

Service Hotline: 07215 / 2131-0 | Service Mail: service@goeweil.com

We are there for you when you need a reliable partner! Whether on work days, weekends, or during the night because of the time shift... It is very important to us to be available around the clock.

Genuine parts

Fast and for a long-term high quality

Especially in the busy harvest season, it is important that any replacement or wearing parts are available as soon as possible. Through our sophisticated warehouse system, you get the parts you need in no time. GÖWEIL original spare parts convince not only by their quality, they are also available for older machines.

Expert staff

Our professionals are working for you

Whether by phone, mail or in front of your place, our highly trained professional staff is always on hand with help and advice. We endeavor to process your request as quickly as possible, so you can once again concentrate on your work.

GÖWEIL

Art. Nr. 86 00 291A / English

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