

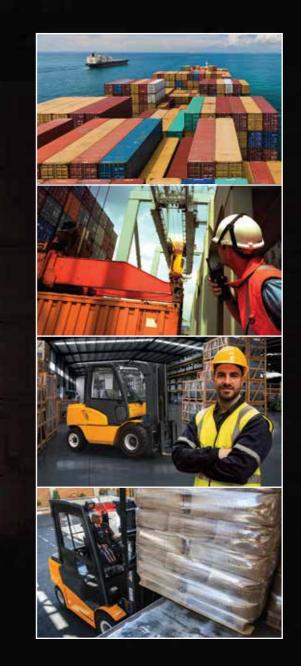


Transporting air is nonsense. Nevertheless many packs on the move everyday are filled with air. Compression makes products and packaging more compact.

Being compressed there will be saved immediately on:

- Packaging material. Using foil, cardboard and plastic will be limited and that is environmentally friendly.
- Storage volume and costs. Fewer pallets and containers mean less capacity in warehouses and storage areas.
- Transport volume and costs. Less freight, handling and fuel consumption.

Optimum packaging starts with the tight bales of Willems Baling Equipment.



02 l 05 compression

06 | 07 tight bales in many sizes

08109 balers

10 | 27 different types of machines

28 | 30 flatfoil and bulk products

31 | 33 Willems (since 1992)

34135 product range

Willems makes that packaging...
...fits like a glove

willemsonline.com



Producing bales is all about compression. It is important that the bulk products become so compact that specifications and charactistics of the product remain, but the volume decreases





Producing bales is all about compression. It is important that the bulk products become so compact that specifications and charactistics of the product remain, but the volume decreases significantly and the product becomes available in a manageable form.

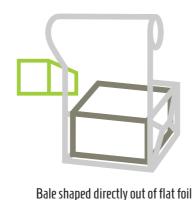
As one of the leading manufacturers worldwide, Willems has a lot of experience in advanced compression and packaging of various bulk products in rectangular bales. Shaped from flatfoil -without spilling packaging material- gives a tight result so the bales look beautiful and can perfectly be stacked.



The tight bale of strong foil provides excellent protection for the content during storage and transportation. As a result the product can be transported efficiently from producer to consumer to arrive in good condition at the destination.

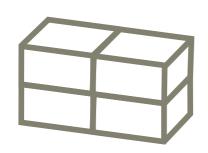




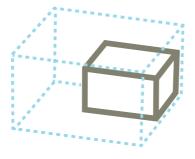


UNIQUE SPECIFICATIONS

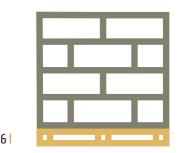




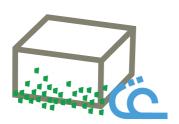
Tight presentation



Compression means less volume







No moist, green moss and splashing water



And... logo printing possible on foil



Willems is a **leading manufacturer** of state-of-the-art packaging machines.

We build machines and transportation systems for handling bulk, bales, boxes et cetera.

Our production is fitted with the finest equipment, which allows them to work accurately and efficiently. We employ highly-qualified specialists and utilise extremely advanced facilities for designing, fabricating, assembling, and thoroughly testing our machines and transportation systems.

Our experts have a lot of experience designing and developing complete production lines.

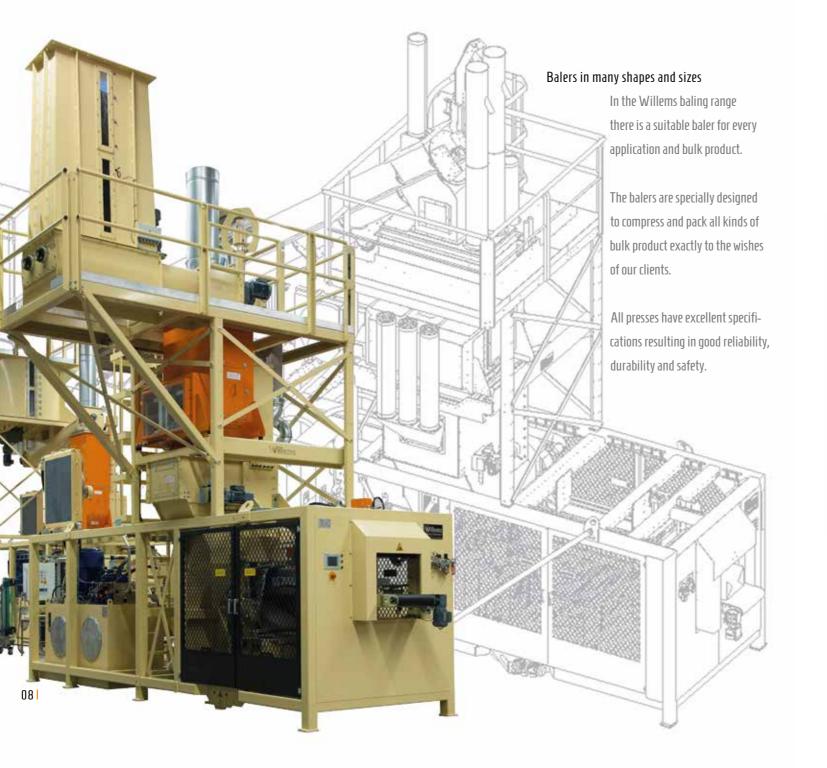
Willems Baling Equipment was established in 1992.

With pride we are looking back at many successes in designing and developing the ultimate packaging machines. When the ideas of experienced engineers and creative young designers meet, special things are happening.

Together we generate a massive capacity in solving complex packaging challenges.

Every day. For 25 years already. And... the best is yet to come.





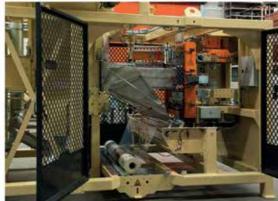


Luzerne, bark, celluloid fibres, flax, alfalfa, grass, chopped and non-chopped hay/straw, hemp fibres, pellets, kenaf, substrates, sugarcane, tee tree mulch, wood shavings, granulate, pin chips, insulation, peat, paper pulp, sawdust, nylon fibres, et cetera...



HL baler

- Standard Willems baler
- Low density products
- Standard dimensions of the bales: 790 x 395 x 310 mm (l x b x h) *
- Capacity up to 300 bales per hour **
- Bale weight up to 50 kg **
- * Depending on customers wishes
- ** Depending on product specifications
- Option: Noise reducing panels

















Maxi baler

- Low density products
- Standard bale dimensions:
 1,600 x 1,200 x 480 mm (l x b x h) *
- Capacity up to 60 bales per hour **
- Bale weight up to 300 kg **
- * Depending on customers wishes
- ** Depending on product specifications

Option: - Noise reducing panels























- Standard dimensions of bales:
 1,150 x 950 x 2,700 mm (l x b x h)^{*}
- Capacity up to 30 bales per hour **
- Bale weight up to 1,500 kg**
- * Depending on customers wishes
- ** Depending on product specifications
- Options: Bale stacker
 - Noise reducing panels

vertical BIG baler













Our bales are shaped out of **flatfoil**. This offers advantages over so-called This offers advantages over so-called tubular foil or preformed bags; the foil may be thinner, less machining required, no bags in stock and much less material loss. An environmentally friendly and reliable continuous process. The flatfoil sheet is made up of 3 layers of UV-resistant and with good adhesion properties. Foil thickness of 40 to 150 microns.

Polyethylene is very suitable for recycling: it can be processed and used indefinitely. Even in places where reuse is not feasible, it is a useful 'fuel' and supplies energy0.

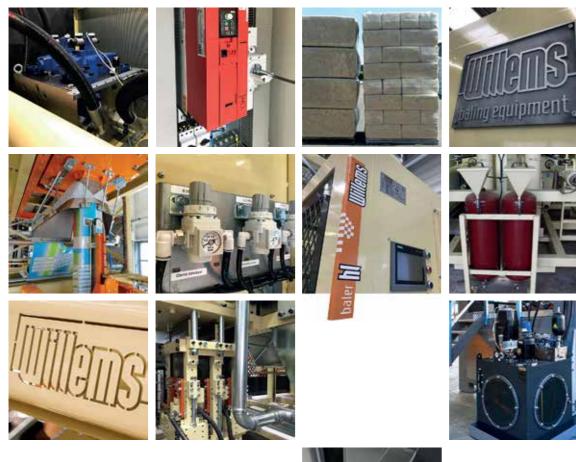
Perfect fit packaging

Not just a promotional text or commercial advert. The bales produced by all Willems balers are always tight in shape. That makes them easy to stack and they look great!

With printed logo, product title and information they can be displayed immediately at sales locations.

The smaller bales can be provided with a functional handle in the foil for easy transportation by consumers.





Clever design smart in every small part











All disciplines are represented in our enterprise; designers, constructors, production staff, service engineers. From the first ideas and sketches up to installing and adjusting machines on your location, our professionals are prepared for the job.

Brilliant ideas from experienced engineers and creative designers come together to create smarter solutions. Everyday. For more than 25 years.

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Quality In manufacturing, a measure of excellence or a state of being free from defects, deficiencies and significant variations. It is brought about by strict and consistent commitment to certain standards that achieve uniformity of a product in order to satisfy specific customer or user requirements. ISO standard defines quality as "the totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied needs."

Reliability 1. The ability of an apparatus, machine, or system to consistently perform its intended or required function or mission, on demand and without degradation or failure.

2. Manufacturing: The probability of failure-free performance over an item's useful life, or a specified timeframe, under specified environmental and duty-cycle conditions.

Efficiency The comparison of what is actually produced or performed with what can be achieved with the same consumption of resources (money, time, labour, etc.). It is an important factor in determination of productivity.

Willems builds robust machines to last for long. All integrated systems and electronics meet the highest standards so reliability is guaranteed. Our involvement does not stop when the system has been sold. Willems feels responsible for trouble free operation of the total production line, 24/7. Via built-in modems in machines, we can monitor data online and any malfuctions can be cured or even prevented from a distance. If necessary, we ensure that experienced specialists are available at your location to keep your production line in good condition. Everywhere, worldwide.

Product range

Willems offers total solutions for compressed packaging of bulky products; high quality machines for sorting, compressing, weighing, packaging and palletising. All of them easy to integrate into your production line.

log shavers

Transport and processing of logs

Our systems for **cross- and long-haul transport** supply via step feeders the debarker and log shaver.

Log shavers are equipped with advanced interchangeable blade cassette for optimised production.

bulk handling and storage

Not only the machines, but the entire logistics of production can be delivered by Willems turnkey.

Screens, transportation and storage systems belong to this. **Drum screen** for separation in two formats; small parts fall through the screen, large parts remain.

Star screen to remove large parts from the product too. **Shake screen** separates the product in different roughnesses: A / B / too large parts. Airscreen for product-specific applications.

Chain conveyors, infeed systems and redlers

Horizontal and conductive screws with various

dimensions and capacities, depending on the product.

Stationary and conveying floor bunkers or bunkers with screws for storage are being produced to the clients specifications.

balers

Willems supplies horizontal and vertical balers for compressed packaging of various products. Depending on your wishes, our presses produce bales

with weights between 1 and 1500 kg.

Products: Alfalfa, bark, cellulose fibres, flax, fiberglass, glass wool, grass, hay or straw, hemp fibre, insulation material, corn, mulch, nylon fibres, paper pulp, potting soil, compost soil, pulp fibres, sawdust, short dusty fibres, silage, substrates, synthetic fibres, peat, wood chips, wood shavings, etc ...

Bundling machines for merging small packages. The machine collects products, packs two pieces of foil on roll and draws the film over the formatted products.

Form filling machine for pellets and other release products. Capacity: Depending on product specifications tailored to customer requirements.

FFS machines (Form Fill Seal) for the disposal of bulk products.

robots

Our high end robot palletising systems can be easily adjusted to requested, constantly changing product specifications and sizes. For example for stacking bags, bales or barrels.

pallet packaging machines

Our experience in designing and building high-quality packaging systems led to the ultimate stretch hooder machines. These offer an excellent solution for a large number of pallet packaging needs during storage and transportation.

We develop logical software for intuitive operation via a touch screen on which complex systems, mechanical processes and movements in the machine are being visualised.

Online Teleservice Monitoring (OTM) allows us to analyse machine data remotely. Possible problems can be cured (or even prevented) using our online remedies. OTM is our advanced diagnostic system in which potential malfunctions are defined for all machines. Anywhere in the world.

Log shavers

- Tree transport, cross and along
- Singulator, stepfeeder, debarker
- Log shavers



Bulk handling and storage

- Stationary and conveying floor bunkers
- Chain conveyors, infeed systems, redlers and air transport

Product brochures

- Screens
- Truck loading- and unloading systems



Baling equipment

- Balers
- Flatfoil machines
- Lowering machines
- Bundling machines



Robots

- Robot palletising systems
- Product handling and transport
- Pallet transport



Pallet packaging machines

- Stretch hooders
- Bricks packaging machines
- Insulation sheets bundling machines



