



bulk handling

Willem's

baling equipment



Bulk products are often difficult to handle. They are usually natural products with undefined shapes and structures that are not easy to stack. Sand, gravel, soil, coal, seeds, fibre and grain are some examples of those bulk products.

Many raw materials that are incorporated into consumer articles in other locations.

Willems Baling Equipment knows very much about handling, packing and transportation of bulk goods. Just ask!

Daily transport of commodities

Bulk handling... On the move.



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willemsonline.com

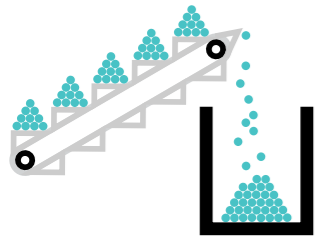


Willems
baling equipment

Transport should never be the weakest link in the chain. Nevertheless, anyone working in a production environment knows that transporting raw materials, semi-manufactures and end products always gives rise to additional risks. Products should be treated with care to avoid damage or collision. Also, external factors such as moisture or dust may not affect the products. When fewer human hands are needed we can guarantee that the passage will go faster and with minimal risks.

As a worldwide leading producer, Willems has a lot of experience with connecting transport systems. We choose products with a perfect track record and reputation, which work smoothly and require minimal maintenance. We connect all components with each other to a complete and reliable production line.

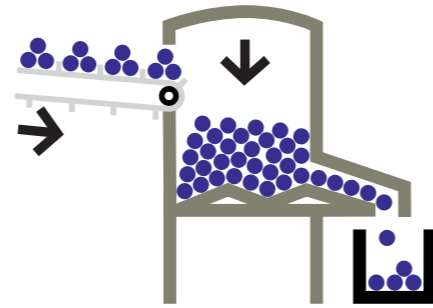




Overcoming height differences

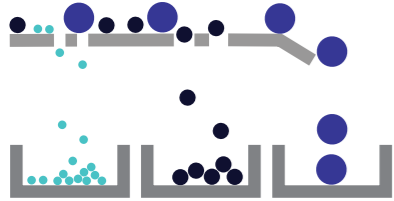


Transportation using augers

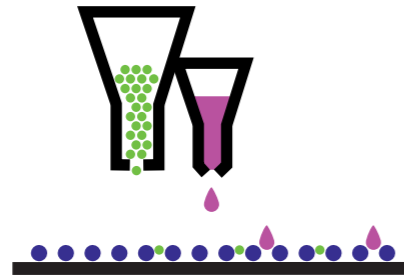


Buffering (input, storage, output)

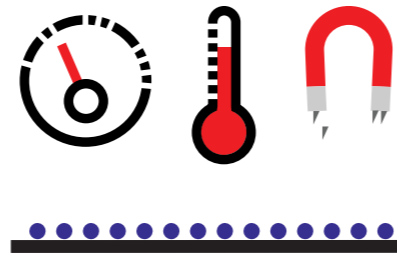
UNIQUE SPECIFICATIONS



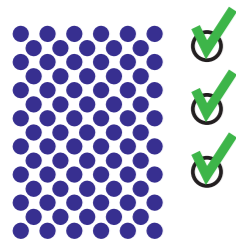
Screening (selection and sorting)



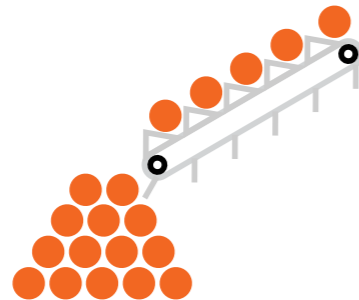
Merge (mixing and dosing)



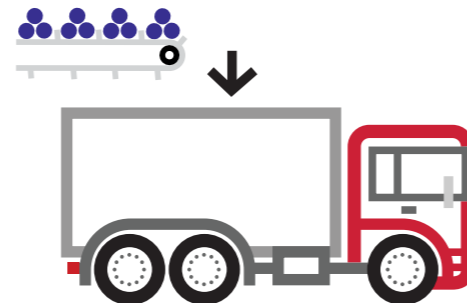
Checking (inspection and detection)



Keeping quality and specification



Separation of bulk transportation



Truck (un)loading systems



Willems belongs to **the market leaders** in top-class packaging systems.

The products to be packaged differ greatly from each other. In most cases, we are talking about bulk goods pressed in bales. Then, the rectangular bale can be significantly handled, transported, stacked, stored and presented.

Both for supply of raw materials to bale presses and for pressing of bales itself, appropriate systems are required to transport both bulk and goods transport efficiently through the production line.

Willems Baling Equipment was founded in 1992. With pride we look back on countless successes in design and development of special packaging lines, both with machines and all associated transport systems to connect the units. Ideas from experienced engineers and creative designers come together in smart solutions for complex issues. Every day. For more than 25 years. And... the best is still to come.



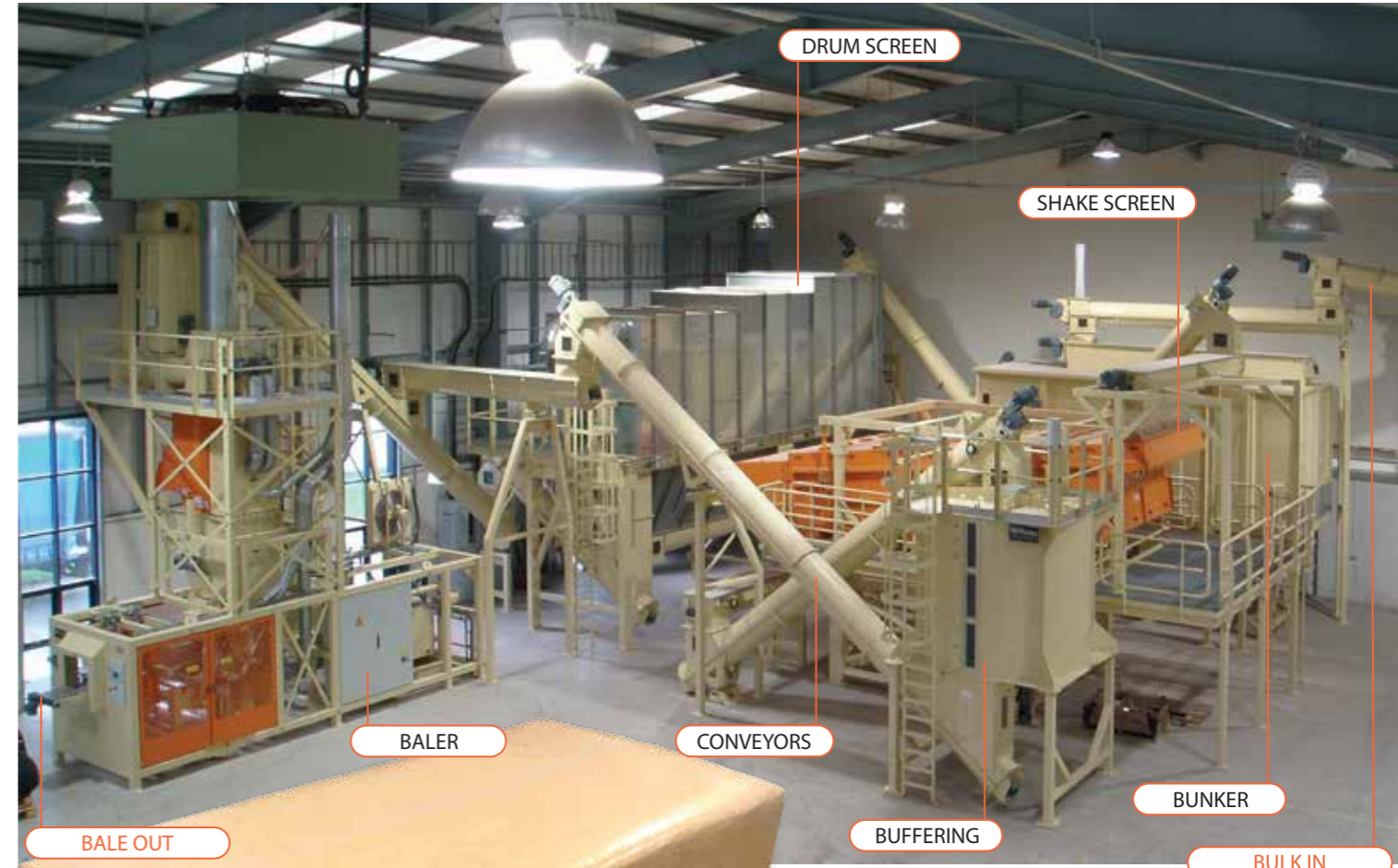


turnkey

To allow a production environment to run smoothly, installing stand-alone machines is insufficient. It's important to have experience in optimisation of the total operational work flow, from start to finish.

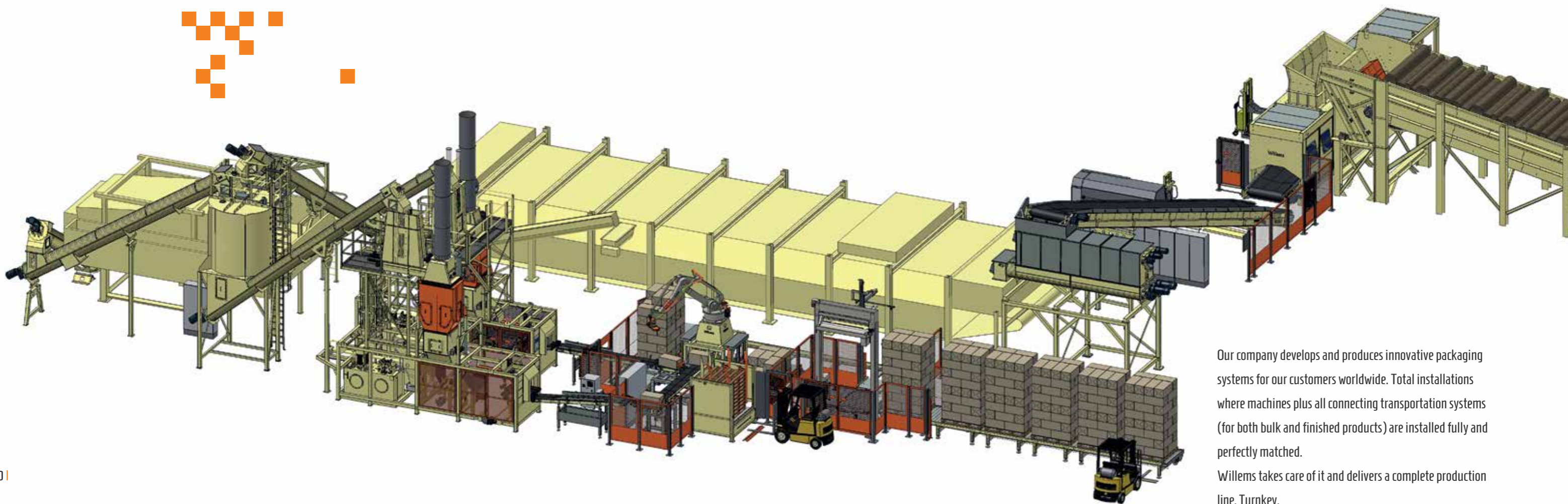
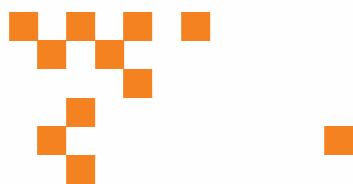
Fine-tuning and synchronisation of the various machinery and connecting conveyors are essential to generate perfect output.

Transport from the start (supply of raw materials) can be automated and streamlined. Transportation from one to all subsequent processing sites and finally stacking and moving of finished products to storage or transport, it can all be done without human hands by using intelligent transport systems, specially designed and arranged for their particular tasks.





A complete production line with tree trunks input... and output of bales with wood shavings on pallets



Our company develops and produces innovative packaging systems for our customers worldwide. Total installations where machines plus all connecting transportation systems (for both bulk and finished products) are installed fully and perfectly matched.

Willems takes care of it and delivers a complete production line. Turnkey.



bale breakers

The so-called 'bale breaker' is suitable for straw, hay and grass.

This machine breaks the bale straw. Via air transport the cut slices are fed through a hammer mill.

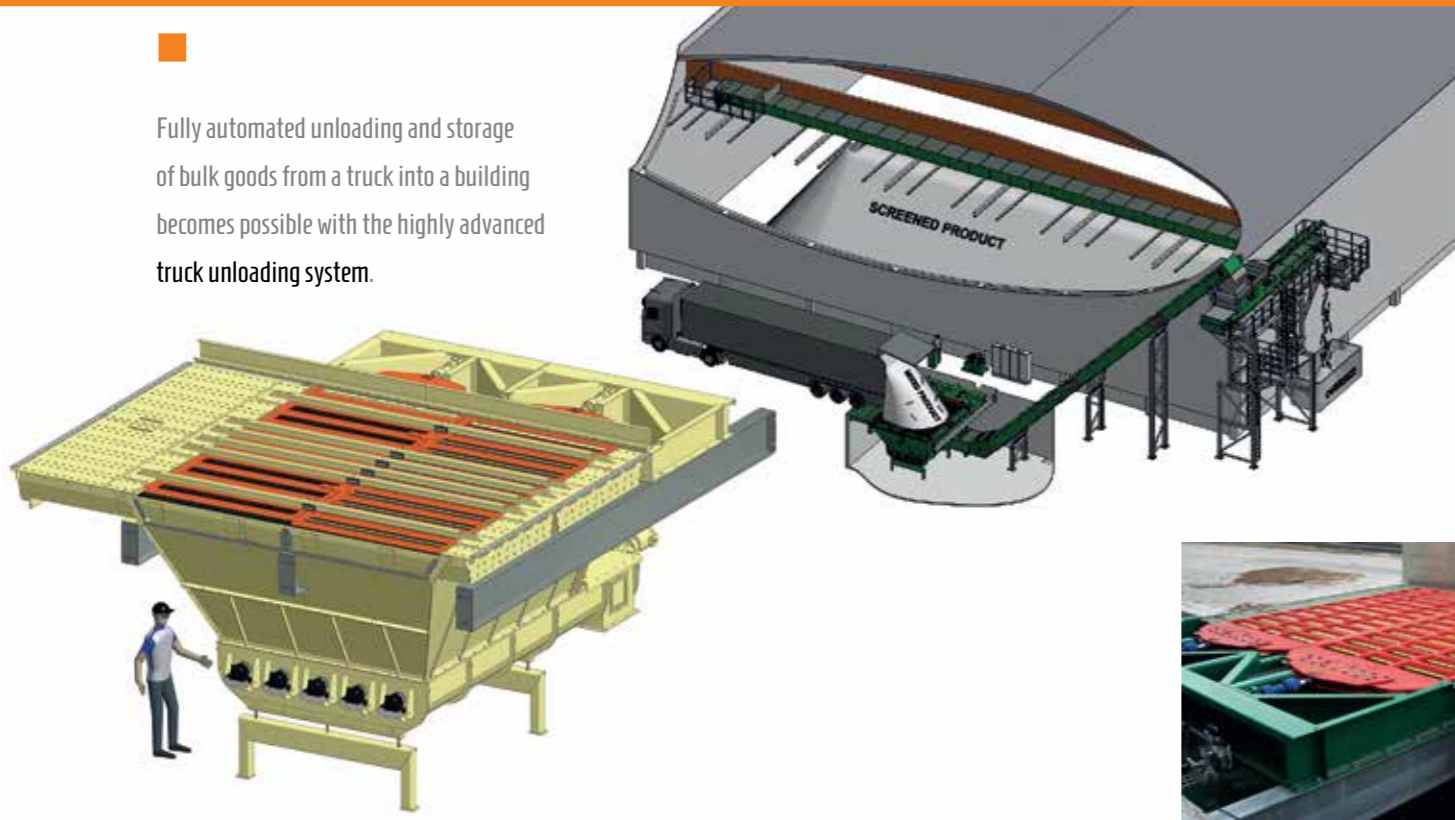
The hammer mill makes the product fine to the desired length. Stones and other contamination fall out and the product itself is passed through a drum screen. With this the product is ready for use.

The chopped straw wrapped in bales as a final product.



input and buffering bulk products

Fully automated unloading and storage of bulk goods from a truck into a building becomes possible with the highly advanced truck unloading system.



Several possibilities:

- (a) infeed bunker with augers
- (b) infeed bunker with walking floor
- (c) buffering drum
- (d) silo discharge system
- (e) truck unloading station



transportation

Screw conveyors

Willems offers a wide range of screw conveyors for the transport of bulk products. We deliver both horizontal and conductive transport jacks with different sizes and several capacities, all designed product-specifically. Our screw conveyors have a robust design, are easy to maintain and run with a bearing that is provided an additional seal between the screw shaft and bearing.

Types: Tube screw and Trog screw.

Buffer and infeed bunkers

Bunkers with augers on the inside (Conveying Floor bunkers) are used to buffer bulk material.

The bunkers are designed for a specific product.



Several possibilities of transportation:

- (a) screw
- (b) redler
- (c) auger
- (d) air

Choosing the best-suitable system depends on your wishes as a customer and the technology that gives the best results.

Due to our extensive experience with all transport techniques, we can advise you professionally.

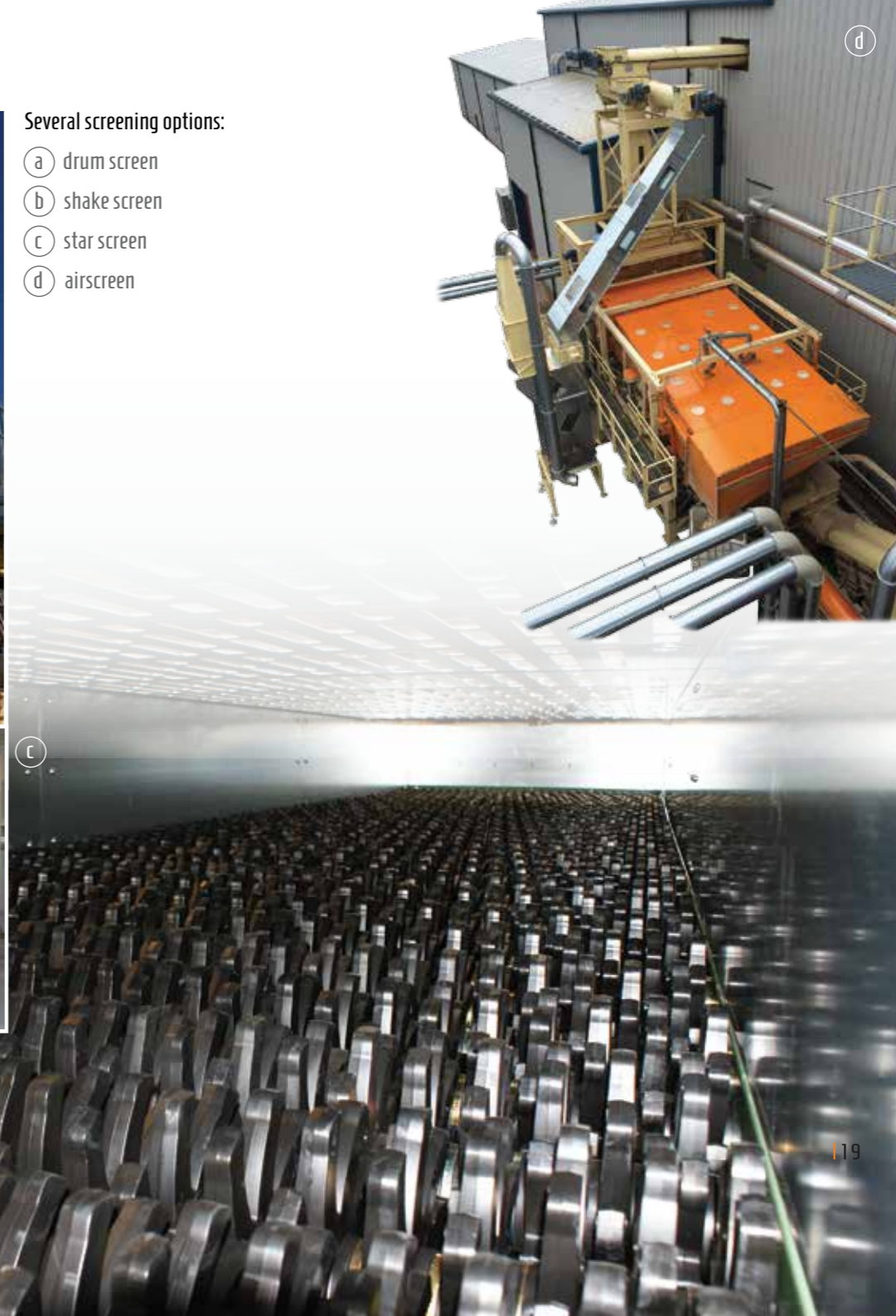


screens



Several screening options:

- (a) drum screen
- (b) shake screen
- (c) star screen
- (d) airscreen



product handling



Several possibilities:

- (a) unloading deck
- (b) supplying to the baler





Clever design
smart in every small part

Rexroth
Bosch Group

SIEMENS

SEW
EURODRIVE

SMC

Willems

QUALITY is on the basis of durability and reliability.

Willems is highly critical of both, own production and components from our suppliers. All these components have to fit and work together smoothly in our machines and connecting transport systems.

“Always be aware of the weakest link...”

And since we cannot and will not produce everything ourselves, we only hire professional suppliers who share the same mentality and enthusiasm. Reliable suppliers who produce their specific components to high standards.

Top brands with a good and solid reputation.

Innovations are important to get along with the demands of today and to be able to continue to meet new wishes and requirements. Our suppliers are - as we are - constantly working on product improvements.

Having been extensively tested, Willems applies them. We always want to provide you with a product that is top quality.

You can rely on that 100%!



Spare parts Maintenance After sales Responsible partner Teleservice

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 malfunctions 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.



Quality In production environments, a measure to obtain the desired, good results without disturbances, irregularities and obvious deviations. This is achieved by the continuous and consistent testing of the final products to predefined criteria. Uniformity and standardization ensure that the products meet the agreed standards and requirements and are up to the expectations of the consumer.

Reliability 1. The ability of a device, machine or system to perform a preset and set function consistently and - over a long period of time - without interference or quality loss.
2. Production: The probability of trouble-free performing under the desired conditions and the intended result over an expected life cycle.

Efficiency The comparison between what is actually produced or respected. Performed with what would be possible with the same use of resources (money, time, work, raw materials, etc.). It is important to be able to test the utility of productivity in this way.



Since its foundation in 1992, **Willems** has grown into one of the industry leaders. Nowadays the Willems brand is synonymous with innovation and top quality. We invest in the latest developments in machine construction. Our designers work on machines that are safer, faster, more efficient and even more precise. Modern techniques and continuous improvements result in reliable machines that meet the highest standards of effectiveness.

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.





Engineering



Assembly



Manufacturing



Automation

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, fiber-glass, 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.

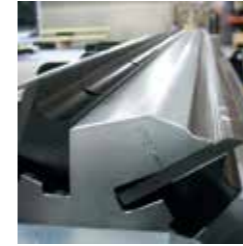
We develop logical software for **intuitive operation** via a touch screen on which complex systems, mechanical processes and movements in the machine are being visualised.

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.

Product brochures

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
- Screens
- Truck loading- and unloading systems



Baling equipment

- Balers
- Flatfoil machines
- Lowering machines
- Bundling machines



Robots

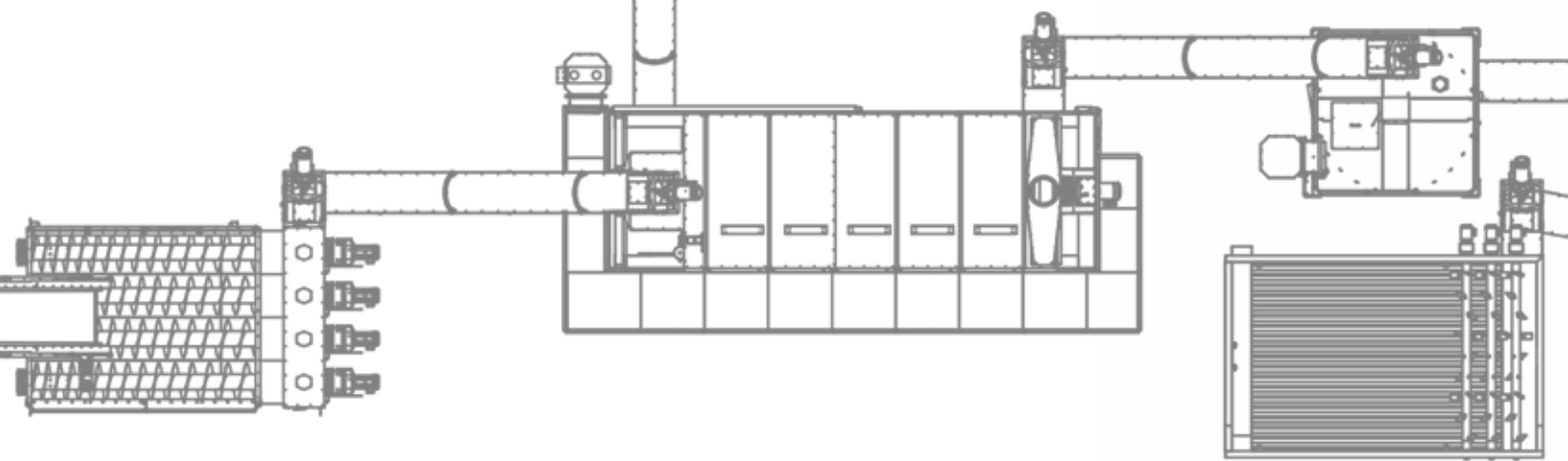
- Robot palletising systems
- Product handling and transport
- Pallet transport



Pallet packaging machines

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





top quality from The Netherlands



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B2.2017.08.E



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