

innova
group

innova

END OF LINE PACKAGING SOLUTIONS

Automatic Packaging Systems
for the End-of-Line

innova
END OF LINE PACKAGING SOLUTIONS

Innova Group

01

Discover Innova Group

Specialized end-of-line manufacturers



We are **INNOVA GROUP PACKAGING SOLUTIONS**, specialized manufacturers in end-of-line packaging systems. We offer the complete automatic packaging line for pallets: from automated strapping systems, stretch wrapping, shrink wrapping, securing accessories, and conveying solutions... to the most innovative Stretch Hood pallet wrapping technology.

We are specialists and leaders in the innovative Stretch Hood system, the most sustainable packaging solution for pallets. Stretch Hood provides total load protection, securing, and savings in consumables and energy compared to similar solutions.

Innovation

Technological innovation is the main component of our DNA and the driving force of our company. We innovate in products and services, developing new engineering and 4.0 Industry solutions, and researching new trends in different industries. Our commitment to constant and innovative development makes **INNOVA a dynamic and highly flexible company**, which fulfills the objective of offering solutions for the maximum optimization of the resources in the production processes.



Discover Innova's DNA



Sustainability

We think in your Future, we think in Green. Because sustainability and performance are not incompatible. That is why we are developing high-efficiency technologies that reduce CO2 emissions and allow for lower energy consumption.

We also provide permanent eco-consultancy, recommending recycled and biodegradable consumables to our customers.

Proximate technical support

One of our premises is to offer a **local, proximate, and specialized technical support service**. Our Support and Customer Service teams provide very close support to our customers. We anticipate your needs with a complete preventive maintenance program

More than a partner

For Innova, our customers are much more than a business relationship. We are your partner. **We not only accompany you in your project, but we want to forge a long-term alliance with you to improve your competitiveness.**

Welcome to INNOVA GROUP

Packaging line

Your customized end-of-line with Innova

We design the packaging line that best suits your needs for protection and safety in transportation and handling. We work with the latest 4.0 communication technologies to fully integrate your production line and logistic flows.

The complete packaging line with Strapping and Stretch Hood:



Stretch Hood
Pag. 8

Vertical Strapping
Pag.17

Horizontal Strapping
Pag.16



Watch the video of this line



We design the packaging line that adapts to your needs

The complete packaging line with Strapping, Wrapping and Stretch Hood:



Horizontal Strapping
Pag.16
with Edge
Protector Applicator
Pag. 20

Automatic
Ring Wrapper
Pag. 10

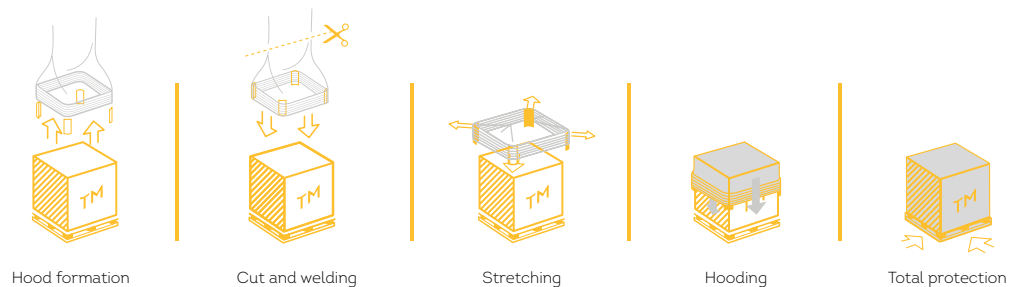
Stretch Hood
Pag. 8

Stretch Hood

The best pallet packaging system

The Stretch Hood pallet wrapping system offers maximum stability and load protection. This is an innovative technology that applies a tubular film that stretches and adapts to the shape of the load, offering maximum stability and protection.

Stretch Hood provides **greater savings** on consumables, **faster wrapping speed**, **total load protection**, transport **security**, and a **superior quality** finish that adds value to your palletized product.



Benefits

Savings on packaging costs

The Stretch Hood system **saves up to 50% on film consumables and energy**. It uses just the right amount of stretch film to protect the load, reducing waste and excess film. Thanks to its highly efficient motors and components it also reduces energy consumption.

Total load protection

Stretch Hood is **the only system that provides total product protection and waterproofing**. This is achieved by the hooding itself and the properties of Stretch Hood film, a multilayer film composed of linear low-density polyethylene (LLDPE) with barrier properties against moisture, dust, and UV rays.

High-speed wrapping

Stretch Hood is **the fastest packaging system, which can wrap up to 150 pallets/hour**, versus heat-shrinking systems that wrap up to 60 pallets/hour. This is a decisive argument for many companies that decide to further automate and optimize their end-of-line production.

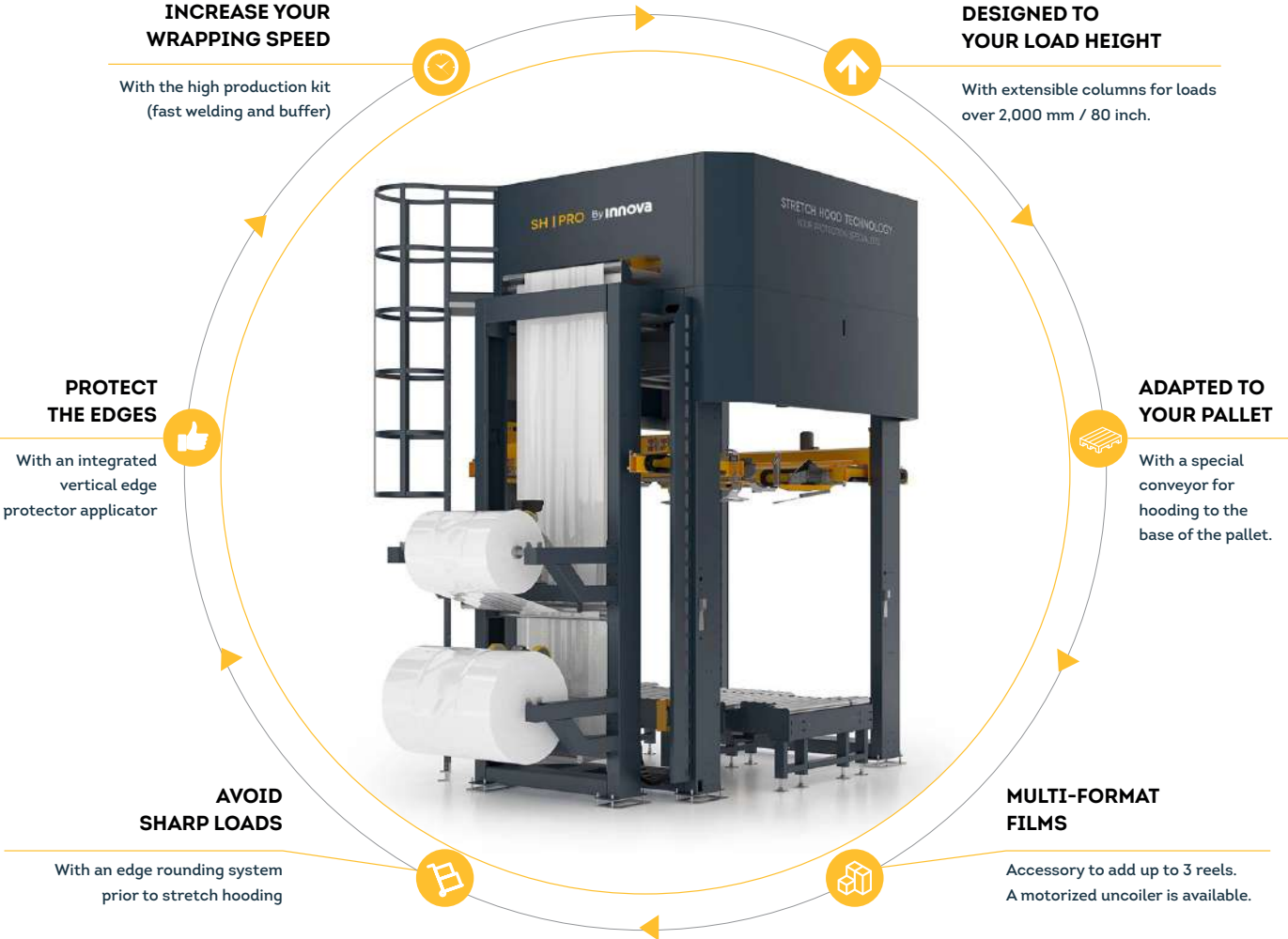
Stability and securing for transport

With Stretch Hood, **the load remains secure and stable to prevent shifting, falling, or breakage during transport**. The Stretch Hood film is highly stretchable and, with the combination of vertical and horizontal shrink forces during stretch hooding, it conforms to and holds the load, providing additional stability for palletizing.



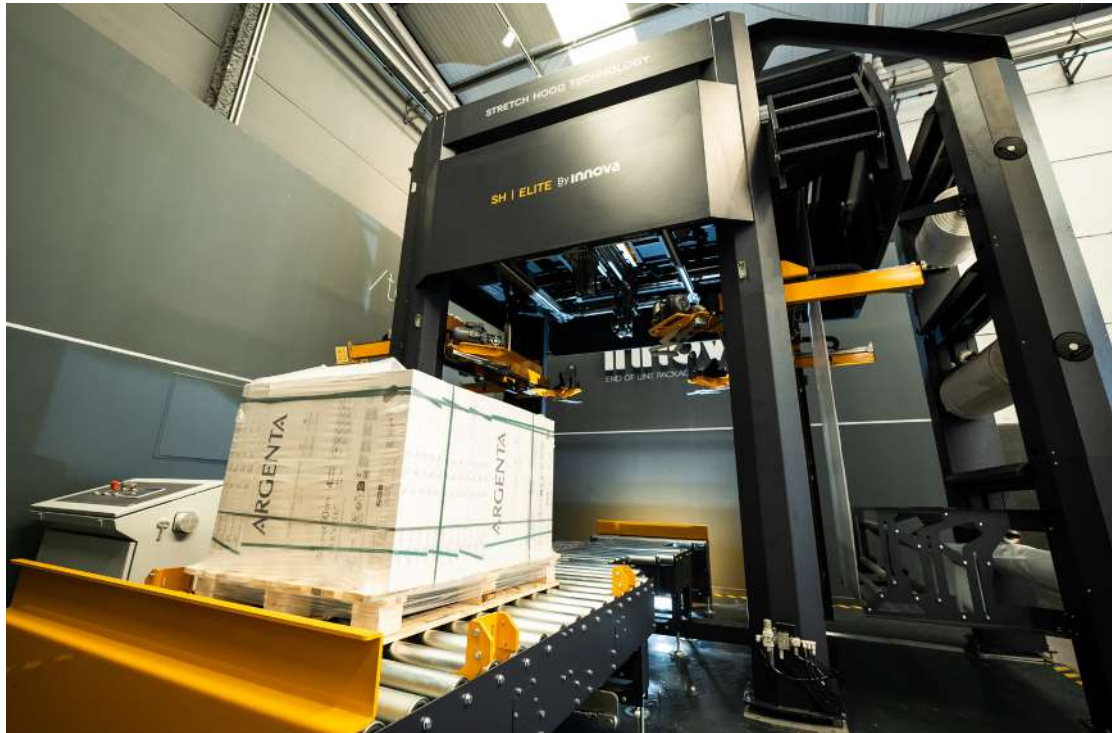
Stretch Hood SH | Pro: Versatility and Modularity

The **Stretch Hood SH Pro by Innova** is designed to adapt to your load and production needs. It is the most modular system with a wide range of accessories to improve the speed and protection of your product and adapt to the dimensions and characteristics of your loads.



Stretch Hood SH | ELITE: Load Adaptability and Maintenance

The new **Stretch Hood Elite** offers even more adaptability to the load, thanks to **the descending hooding carriage technology**. With Stretch Hood Elite, gain safety and efficiency in maintenance and changes of Stretch Hood film. In addition, it facilitates hooding with the carriage at different heights depending on the load format, offering greater speed (150 pallets/hour) and greater energy efficiency.



Stretch Hood SH | Pro XL: Wrapping for Large Formats

The **Stretch Hood Pro XL** offers an automated solution for wrapping loads up to 3,800 mm / 150 inches in length for large-format applications. From slabs, ceramic tiles, countertops, and various building materials, the Stretch Hood XL system brings great advantages in terms of total protection, packaging speed, and reduction of consumables.

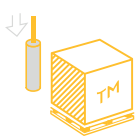


Ring Stretch Wrapping Machine

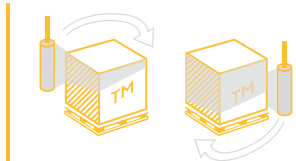
The high-performance stretch wrapper

Introducing Innova's **high-performance wrapping machine**. Thanks to its wrapping ring and double film carriage, it provides greater speed and efficiency in wrapping, **achieving maximum stability and support for the transport of your loads.**

The stretch film adapts perfectly to the volume of the load, wrapping it efficiently with the least possible use of film. In addition, the Innova wrapping machine includes a multitude of additional add-ons and accessories for fully customized wrapping.



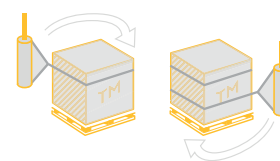
Lowering of wrapping carriage



First stretch wrapping cycle



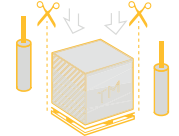
Top cover positioning



Roping application



Second stretch wrapping cycle



Cutting and welding

Benefits

Maximum speed

Innova's Ring wrapping technology makes it possible to wrap 100 pallets/hour, with a double carriage system in its rotating ring. It is a high-speed stretch-wrapping machine that contributes to optimizing end-of-line production.

Increased support and stability

The rotating ring provides a **more compact wrapping and securing** of the load from the base of the pallet to the top of the pallet. Innova's stretch wrapper also has an **elastic roping system** to offer a **fixation similar to the strapping application**.

Lower film consumption

Innova's automatic wrapping machine uses the exact amount of stretch film needed according to the pallet load and dimensions. Thanks to its electronic system with torque control, its advanced stretch wrapping programming, and its film **pre-stretching system of up to 400%**, the use of film can be optimized to the maximum.



Watch the video of the ring stretch wrapping

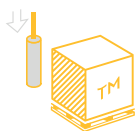


Automatic Arm Stretch Wrapper

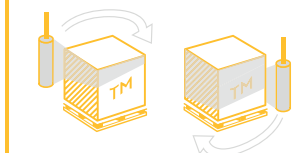
Fast and efficient Arm Wrapping Machine

Discover Innova's most versatile and efficient Stretch Wrapper. With its wrapping arm and a multitude of available accessories, it adapts to any type and size of load.

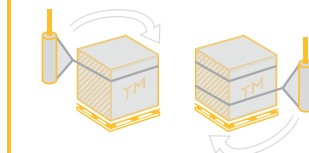
Innova's Arm Stretch Wrapper is one of the most efficient and sustainable machines in the market, since it incorporates energy-efficient components and motors, in addition to the pre-stretch system of up to 400% to reduce film consumption.



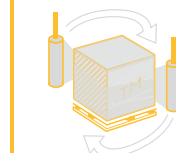
Lowering of Wrapping Arm



Wrapping cycle



Roping application



2nd wrapping cycle



Roping application finish

Benefits

The fastest arm stretch wrapper

Innova's Arm Stretch Wrapping system performs the wrapping cycle in only 32 seconds with a standard pallet. Includes double wrapping carriage accessory for speed.

Increased load protection

Includes automatic top Cover Applicator System for total load protection against external agents. For loads with boxes, it can also include an accessory to apply edge protectors prior to wrapping to protect the product from the wrapping.

Faster finish with Rope Tying System

Own developed wrapping sealing technology with roping device. Using an end of rope tying system the wrapping is finished and secured. This is a faster and swift system that does not need heating, welding or gluing to seal the wrapping.



Semi-automatic Wrapping System

Cyclone, the most versatile turntable wrapping system

Discover the advanced **semi-automatic turntable wrapper Cyclone** with pre-stretch system and reinforcement roping device. European quality technology, adaptability to your facility space, and savings in consumables come together in one of the most complete semi-automatic stretch wrapping solutions.



Benefits

Adapts to your facility and your load

Cyclone adapts to different sizes and heights, reaching heights of up to 2,600 mm / 102 inches. It does not require anchoring to the ground or additional compressed air installation, as it is fully electric. It is easy to transport and includes options for pallet truck access with a low-profile ramp.

Easy to use and adjust: Plug & Wrap

From the color display, it is easy to set up and operate the machine. The intuitive control panel allows programming up to 99 cycle codes. The control panel is available in several languages and it is adapted to the technical requirements of different countries.

Lower maintenance

The Cyclone wrapping machine is designed for less wear and tear, with top-quality components. The traction is by chain and the power supply is totally electric, avoiding unnecessary compressed air installations.



Includes a wide range of additional accessories

- Remote Access Connection
- Reinforcing roping system
- Weighing system
- Low-profile access ramp
- Formwork system
- Stainless Steel finish for the food industry
- Corporate customization

STAINLESS STEEL model for the food industry

This turntable wrapper is also available in Stainless steel finish for food and beverage companies. It offers all the features of the standard model, with a stainless steel design and finish.

PAPER FILM model for greater sustainability

New wrapping system with paper film for wrapping with a 100% recyclable and environmentally friendly film. Same performance as the standard model, without the application of reinforcement rope.



Horizontal Strapping

Compacting and securing for load transport

The automatic horizontal strapping system is the best solution to guarantee the **compacting and securing of the load in a block**.

Innova's strapping machine is one of the most robust in the market since it incorporates an anti-vibration portal frame composed of 4 pillars, which offers greater stability and safety in the strapping process. It also includes an automatic side compactor that guarantees the complete securing of the load.

Innova's strapping machine includes its own strapping head with 4.0 technology and a multitude of accessories to offer maximum load securing.



Vertical strapping of pallets

Vertical strapping is the optimal solution for **securing the load to the base of the pallet for transport**. The vertical strapping system allows strapping different pallet sizes on 2 or 4 sides of the load. It includes a 90° turning system for strapping in 1 or 2 directions for better load securing.

It also incorporates a lateral shift system to perform several strapping processes without moving the load, saving space on the production line.



Innova's strapping head

The new generation strapping head

Discover the 4.0 strapping head Oden by Innova: light and compact, with servomotors and strapping tension control.

Increased accuracy

With the torque control system, the necessary tension is applied to the strapping, avoiding breakage.

Lower maintenance

Sensorless head, with fewer components and greater resistance. Reduced maintenance. Compact and modular design with a sensorless system for reduced maintenance.



It is a high-performance head, with fewer parts and more advanced electronics for greater control. In the event of a collision during launching, the strap can be pulled back and the maneuver repeated.

Innova's own technology head has two servomotors, one of which has a parking brake, resulting in less wear and tear and no need for sensors or clutches

The head of Industry 4.0

Effectiveness and error reduction

With the torque control system, the head adapts the strapping to the characteristics of the load (size, geometry, and resistance). Thanks to torque control, breakage of the final product due to over-tightening is avoided.

Remote connection

Predictive maintenance: the head allows tracking of strapping cycles. Connects in real time for remote assistance.



Securing accessories

Protection of boxes with the edge protector applicator system

The edge protector applicator is an accessory that can be included in both the horizontal and vertical strapping machines.

This system uses cardboard edge protectors interposed between the load and the strap to ensure that the **boxes are fully protected** and cannot be damaged during strapping.



Benefits

Improves strapping on the load, since it allows strapping with greater tension and precision.

The edge protectors **help to absorb damage to the edges** and sides of the load that may occur during transport.

They offer greater uniformity and compactness to the pallet, providing a clean and defined appearance of the product in its transportation, storage and display.



Automatic Sealing System: Extra support for boxes

As a complement to strapping, we offer an automatic tape sealing system for palletized boxes. This type of tape sealing is used as a **special reinforcement for heavy cardboard boxes**.

Secures cargo to prevent possible collapse during handling and transport.

It provides extra support for the boxes in the final delivery to the customer.

It provides greater unity between the boxes as they are held together when the strapping is removed at the point of sale.

It offers extra protection at the top of the load.



Securing accessories

Compaction of the load with the Hydraulic Press

The **Hydraulic press PR | Pro** is a vertical pressing system for compacting FIBC or bulk bags on the pallet.

Its main objective is to reduce the volume of the bagged material, providing greater safety, support, and stability for transportation while providing savings in packaging and shipping costs. The pressing of bulk bags on pallets is performed by 2 hydraulic cylinders.





PORCELANOSA®

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DELWARE NOGAL



Conveyor systems

Conveying solutions that integrate your packaging line



Turntable platform conveyor



Pallet centralizer conveyor

Roller conveyors

The motorized roller conveyor is designed with a compact and resistant structure, for **easy transport of any type of palletized load**, able to adapt to any type of existing installation.

The roller conveyor uses a gear motor with a frequency inverter and $\frac{3}{4}$ chain drive.

Conveyor with pallet centralizer

The pallet centering system integrated into the roller conveyor adjusts and centers the pallet in the correct position on the line for subsequent packaging. It detects the pallet format at the line entry to send the information to the other packaging systems.

Centering carried with a pneumatic cylinder system and chain drive system for pallet self-centering.

Turntable conveyor

Roller conveyor with turntable platform to rotate the pallet 90° for strapping in 2 directions or to adapt to the geometry of the plant.

It includes a tilting roller system for linking to the previous and following conveyors and a 90° rotating system with a gear motor with brake and $\frac{3}{4}$ chain.



Pallet elevator



90° transfer conveyor



Scissor lift conveyor

90° Transfer Conveyor

This conveyor system comprises a combination of roller conveyors and chain conveyors that enables a 90-degree pallet transfer, adapted to the dimensions of the facility.

It contains a lift system that uses a gear motor with a brake and eccentric cam system. The traction system uses 3 simple 1" chain circuits.

Scissor lift conveyor

TScissor lift conveyor with lifting platform to connect the line at different heights.

It is used to lift **the load from ground level, for access with a hand pallet truck, or for connection between conveyors of different heights**

Hydraulic lifting system by means of scissor platform. Lifting platform on chain plate conveyor or roller conveyor, depending on the project requirements.



Turntable conveyor

Pallet elevator

Vertical load conveyor system to transfer the load to different heights. It contains a built-in roller conveyor.

The lift system uses a gear motor with a brake and a 1" chain system.

Safety and Measurement

Safety and measuring systems for the end of the line

We commission and install the safety and measurement systems that your packaging line needs.

Note: The following systems and accessories are marketed and compatible only with Innova machinery.

Security Elements

Perimeter fencing

All our machinery is enclosed within a protective net enclosure, through metal fencing with security access gates by key or security code.

Photocell safety barriers

All our packaging systems include photoelectric barriers or safety curtains in certain areas of the line that need to be accessible to ensure people's maximum protection.

Photocell barriers can also be used as a substitute for perimeter fencing depending on the project.

Safety signage

Any emergency technical anomaly is signaled acoustically and optionally using luminous emergency beacons, in order to prevent danger to the physical integrity of the worker.

Machinery safety systems

Our machinery includes internal fall arrest systems of moving parts of the machine that are activated in case of emergency, power failure, or supply failure. When the fall arrest system is activated, mechanical safety cylinders engage the guide attached to the machine chassis. This system is also used to perform maintenance safely.

Safety PLC

Our systems include a safety PLC to simplify installation, avoid safety manipulation and achieve a more versatile system. This system is responsible for activating the fall arrest systems in the event of an emergency stop.



Photocell safety barrier



Safety access pushbuttons

Measurement systems

Gauge control

We offer a gauge control with a pallet load height detection system for format detection. The collected information is sent to the corresponding packaging system to perform the packaging process according to the detected format.

This type of control also serves to detect possible protruding packaging or defective finish of the cargo. The information collected by the gauge system can be sent to the customer's logistics management system.

Weighing system

Load weighing measurement system before and after the packaging process. This system consists of a scale system with 4 weighting cells installed on the legs of the roller conveyor.

The pallet scale system transmits the weight information in real-time to all systems to which the packaging line is connected, such as the logistics ERP and/or the labeling system for logistics management label printing.



Innova's Control Panel



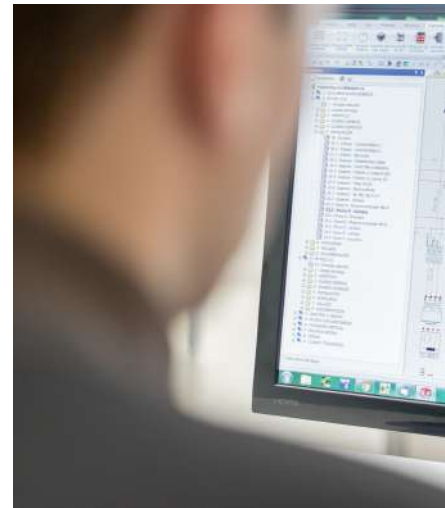
Weighting cell under roller conveyor

We help you to comply with international regulations

- CE Marking
- UL Certification
- Work Safety regulations
- International freight transport regulations

Innova Support

Your machine is in the best hands



For Innova, the Technical Support service is one of the most important aspects in each of the packaging projects and, therefore, we have a network of offices in several countries from where we offer an International Technical Support Service with localized and personalized assistance.

Preventive maintenance

We carry out **Preventive Maintenance plans** in which periodic inspections are performed covering the following aspects:

- Technical inspection of all machinery or special components.
- Recommendation of spare parts.
- Corrective assistance service.

Local and nearby technical support

Our support team offers immediate response and fast assistance, with the objective of offering the most local and proximity service. Thanks to the **Remote Access Service**, failures can be diagnosed and resolved in real-time, worldwide, and the machine can be configured remotely.

Spare parts service

Both our central facilities and our branches have an **intelligent warehouse and spare parts service** to offer the fastest assistance in both preventive and corrective actions.

Our spare parts warehouse has exhaustive quality control carried out upon receipt and dispatch of the parts.

Specialized training

Preventive planning includes **tailor-made training plans** for the technical personnel in charge of operating Innova's machinery. Training is very important for the staff to achieve sufficient autonomy in the operation of the machinery, and even to be able to solve minor incidents immediately.

Industry 4.0 at the service of our customers



Remote connection service

Innova systems have a **remote connection system** for the diagnosis and monitoring of machinery. With this system, **our Technical Support team** can access machine control panels to detect and evaluate faults, shorten machine downtime, and obtain real-time information.

This remote connection allows you to perform actions such as:

- Remote troubleshooting
- PLC controller programming
- HMI interface access and control
- Optionally, connection to webcams to provide assistance on incidents and other aspects.

4.0 connectivity and reporting

Our machinery includes a **customized information supply system for each customer**. Through this system, periodic reports are provided on the performance and use of the machinery, including information such as:

- Packaging cycles by type
- Failures, alarms, and malfunctions
- Film or strap consumption
- Downtime
- Other data according to the project

This system facilitates the minimization of breakdowns and assists in preventive and predictive maintenance. The client has access to periodic and systematic information, unattended, without the need for consultations or trips to the line.

Industries

Advanced packaging solutions for all industrial sectors

The packaging solutions developed by Innova adapt to the requirements and demands of various industrial sectors.

Chemical



Packaging solutions for solid chemical products palletized in bags, bulk bags, and other formats.

Ceramic



Innova specializes in packaging systems for the ceramic sector: from strapping to Stretch Hood and other securing complements.

Cement and Construction



Final wrapping of cement pallets or other construction materials such as roofing tiles, roofing sheets, insulation panels, etc..

We offer final packaging systems for agricultural products, fertilizers, animal feed, and grain food, among others.



Agri-food

We offer innovative packaging solutions for paper, cardboard, pulp reels, cellulose, or end-product boxes.



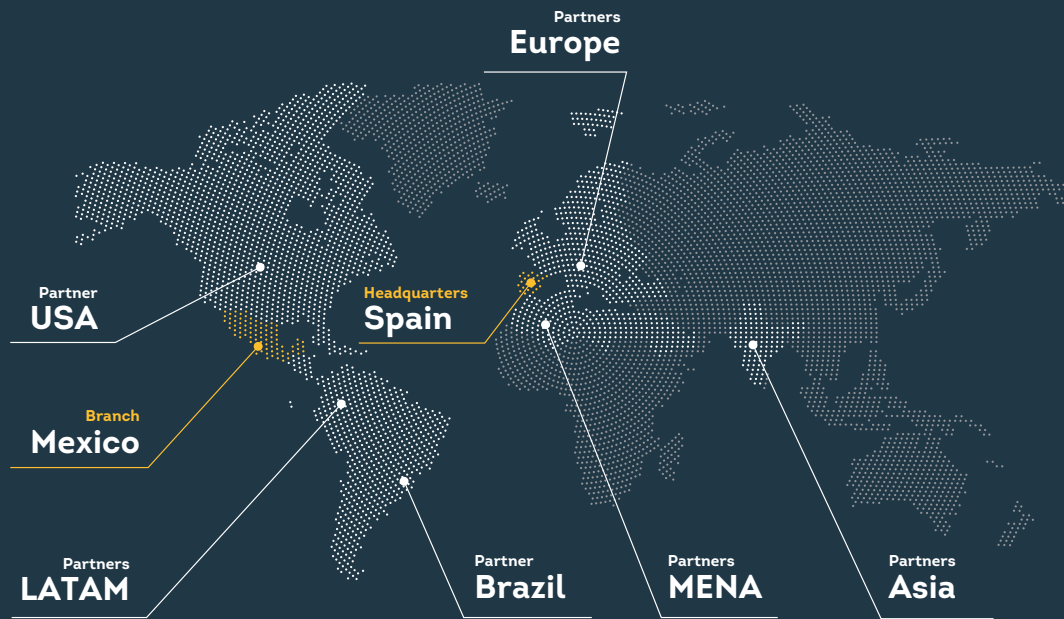
Paper and cardboard

Pallet packaging solutions that meet the diverse requirements of the Food and Beverages industry.



Food and beverages

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