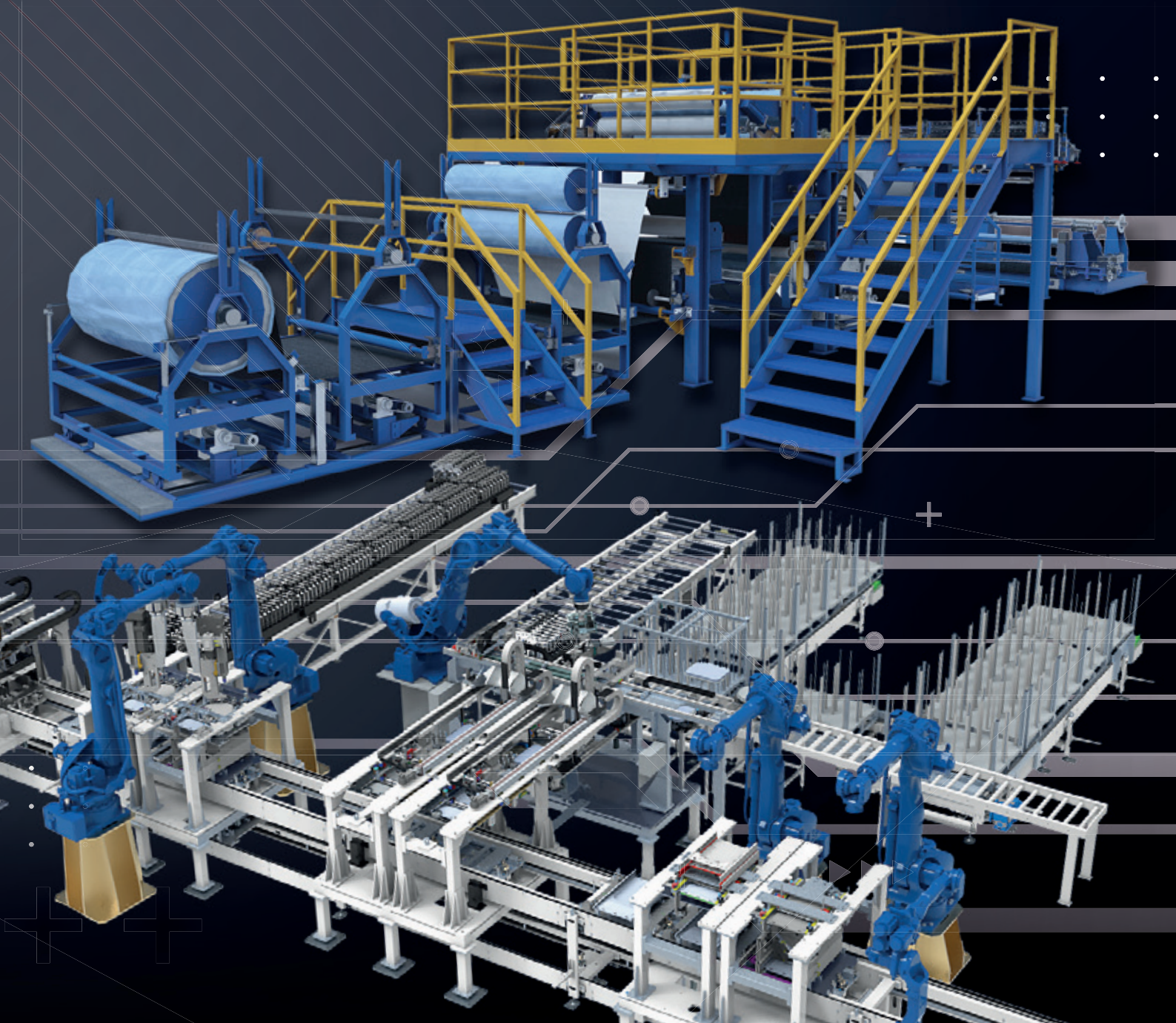


CUSTOMIZED SPECIAL MACHINES

— We know how —





The ESEA Group operates as a leading global provider in the industrial automation sector, specializing in the design and construction of customized machinery.

Since its establishment in 1980, ESEA has installed over 700 custom machines for production and quality control purposes.

ESEA is a global provider, serving clients in the United States, Japan, France, the United Kingdom, Germany, Sweden, Russia, China, India, Argentina, Korea, and many other countries.

Located in the middle of Italy, Pescara, our ESEA Group headquarters span across a 15,000 square meter facility. It houses our mechanical, electrical, and software engineering, with production, R&D, testing, assembly, and service departments.

ESEA augmented reality services are the first choice for modern (remote) maintenance and installation of our machines.

A team of 150 professionals and our expertise stands for your success now and in the future

-We Know HOW-





Production Lines



Robotics



**AGV
LGV**



**Supervisory
Software**



**Machine
Vision**



**Augmented
Reality**

Our Services



CASE HISTORY



Coupling Line

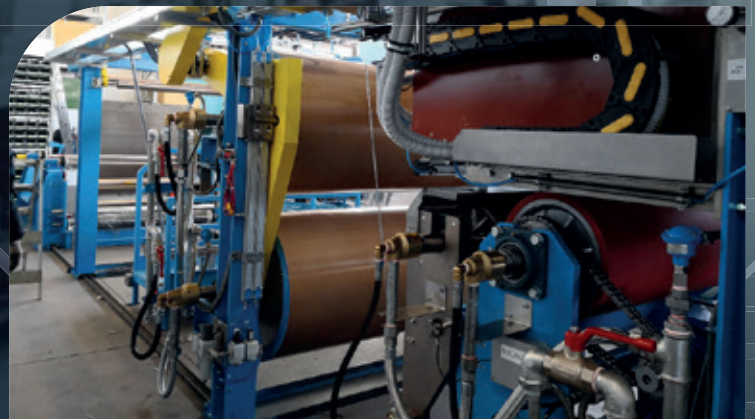


The line compounds rubber and PTFE sheets to a multilayer sheet.

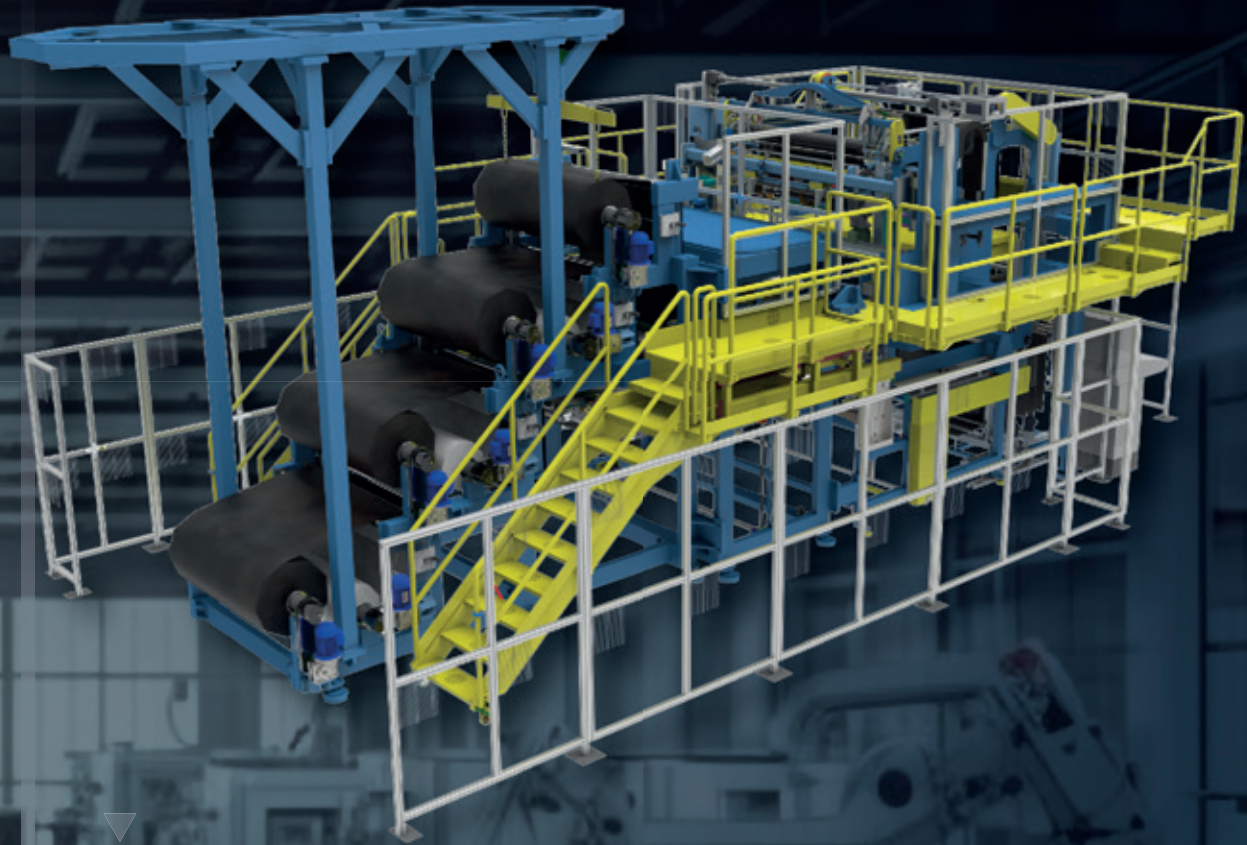
The sheet is prepared by interposing a non-stick polyethylene sheet between the various layers thus obtaining a single reel containing the intermediate product that is ready to be used in the subsequent stages of the production chain.

The machine is made up of the following subassemblies:

1. Unwinders for raw materials
2. Laminators
3. Rewinders for final material



Automatic Fabric preparation machine



Rubber coupling sock cutting and joining machine designed for efficient production of this specific product.

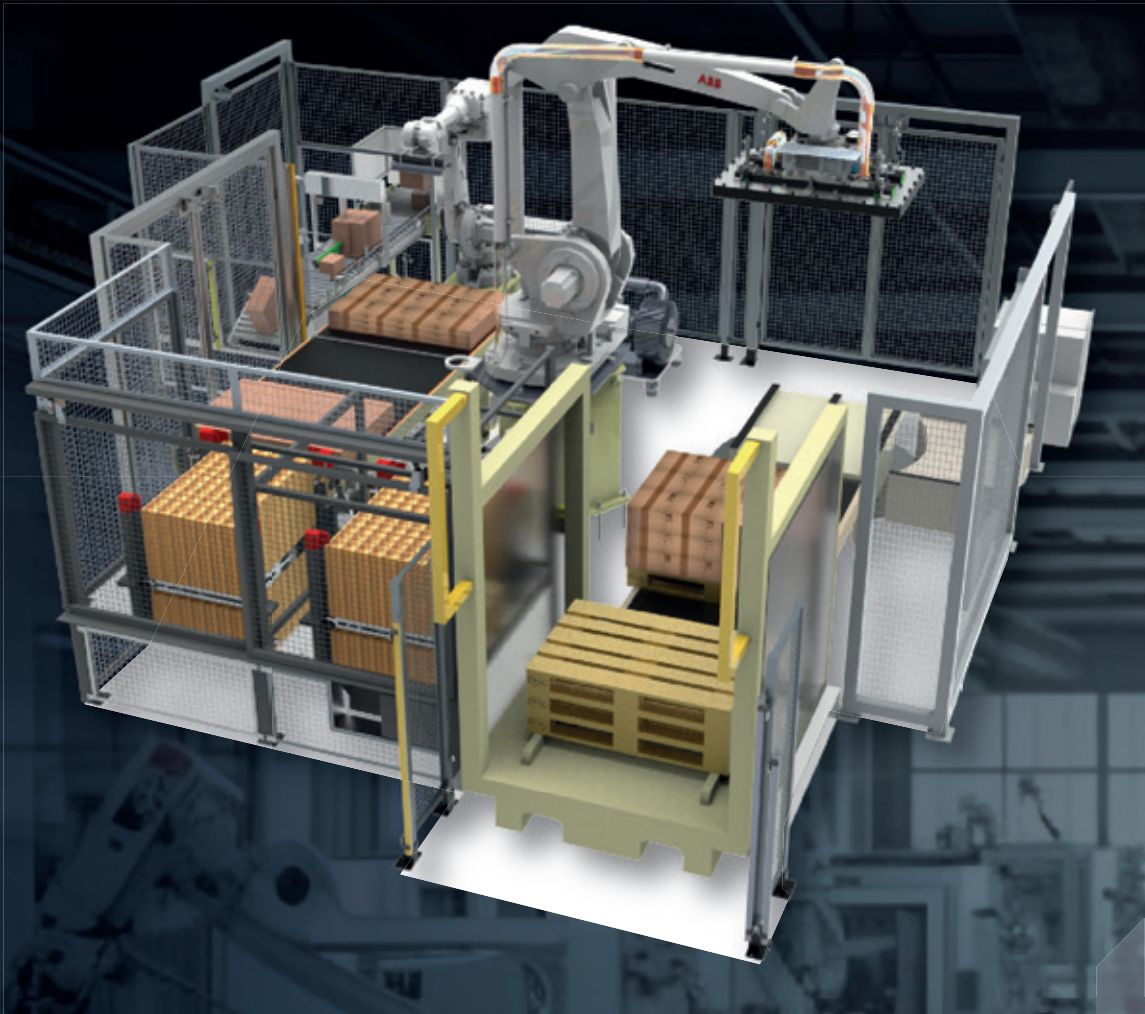
The machine is engineered to process 5 types of material simultaneously. The layout allows for the production of one sock in 4 minutes.

The process begins with the operator placing the calendared material onto the feed table. Subsequently, the material reaches the area where the decal and date code are applied, and with a motorized arm, they are picked up to ensure even coverage.

A hot roller travels over the sock part, applying it onto the material. Afterwards, the cutting head retracts to allow the material to slide downwards.

The head returns to press against the material, and the cutting axis proceeds with the head-to-head joining of the sock. An additional axis removes excess waste. The finished sock is collected on a dedicated tray.

Robot Island – Palletizing carton Boxes



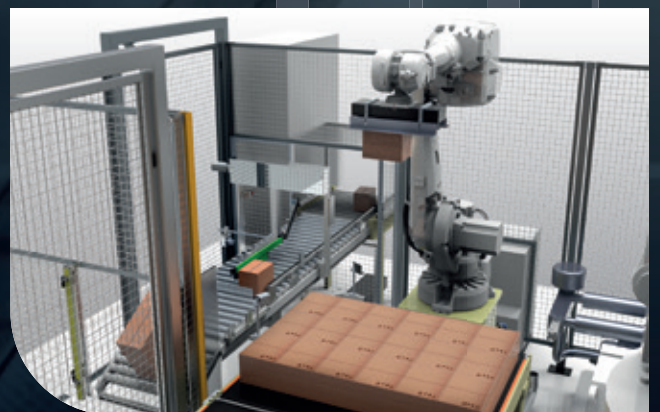
The palletization island is designed and built to palletize diaper boxes and wrap completed pallets.

Boxes from the upstream line enter the island via a motorized roller conveyor. The first robot picks up individual incoming boxes and places them on a motorized conveyor belt, forming a layer, which is a row of adjacent cartons that will become a level in the final pallet.

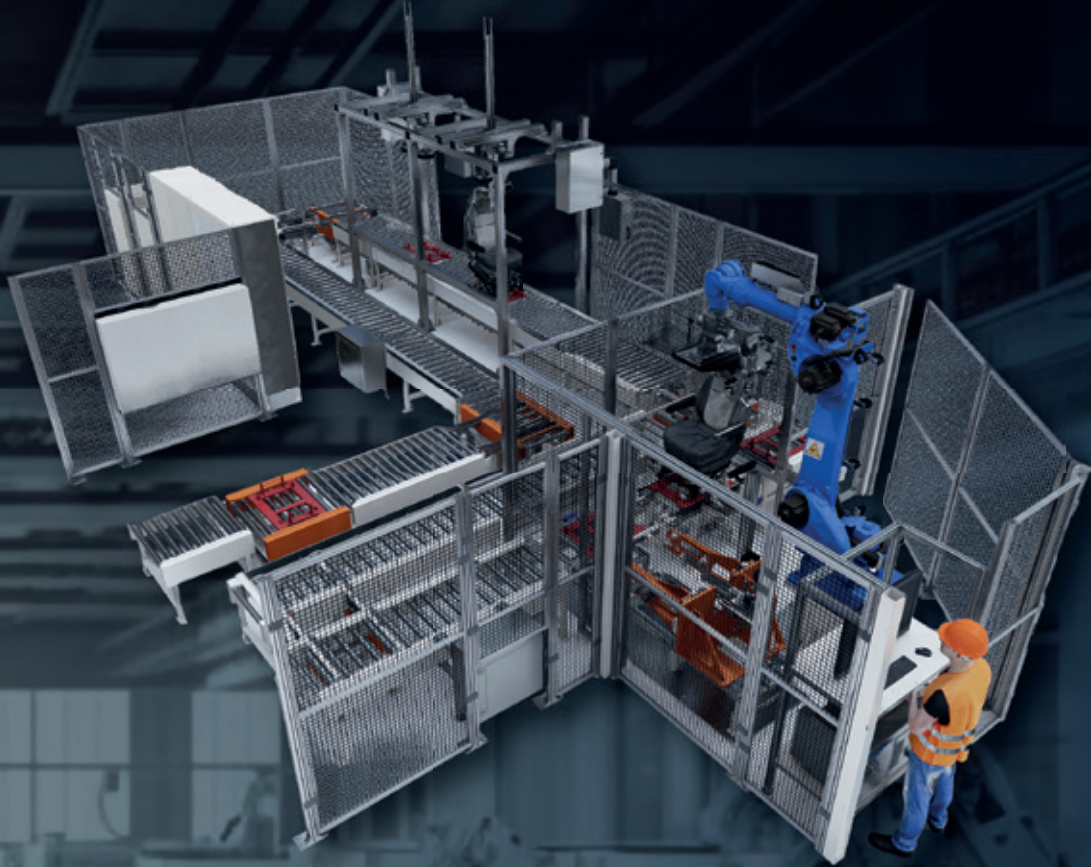
Subsequently, the second robot picks up the entire already-formed layer using a suction gripper tool and places it on a pallet. The robot repeats this process by vertically stacking the subsequent layers, inserting interlayers taken from the interlayer depot between them.

Once the last layer is deposited on the pallet, it is conveyed via a transport system to a conveyor belt wrapper. Here, the pallet is wrapped with transparent plastic film.

Later, an automatic label applicator applies the necessary labels for correct product identification. Once these operations are completed, the pallet proceeds to exit the island using two dedicated conveyor belts. Pallet retrieval from the belts is done via LGV carts, ensuring a continuous and efficient flow of material in the production line.



Seat test line

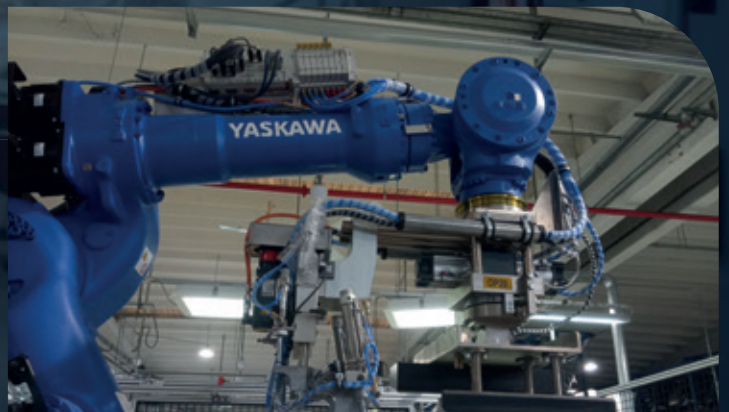


This line has been designed and built for the automatic testing of seats for the Ducato Fiat Chrysler Automobiles vehicle, using Yaskawa robots with electro-pneumatic hybrid grippers.

A certain amount of seats is tested to verify consistent quality of the production.

There are three main stations on the system, identified as:

- **OP10** - This station tests the correct functioning of the sled for the horizontal positioning.
- **OP20** - In this station, a Yaskawa robot tests the correct functioning of the levers for adjusting the seat height.
- **OPJOFA** - These stations perform the last part of the cycle consisting in the testing of all the electrical components present on the seat.



AGM Automatic Loading



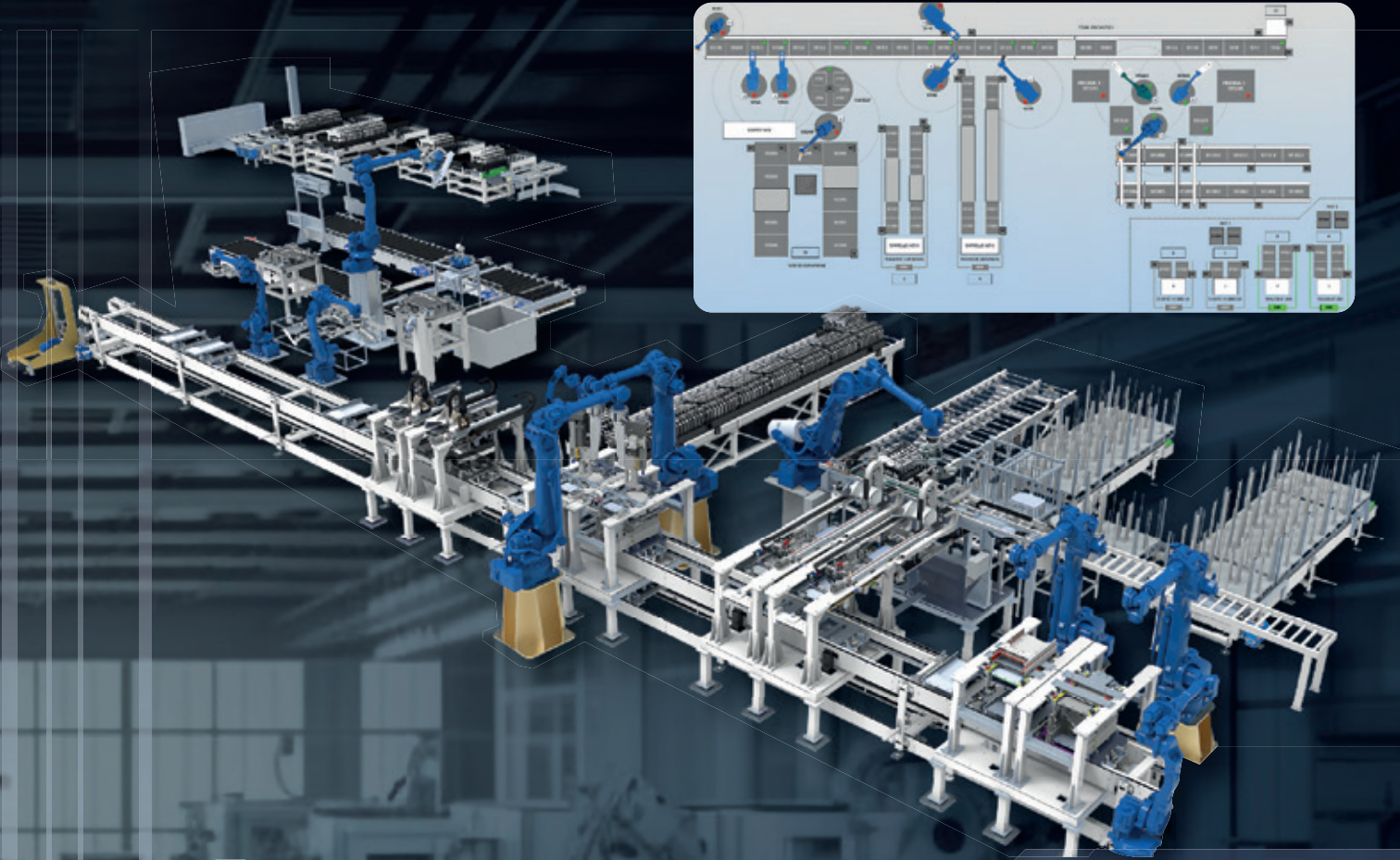
The AGM AUTOMATIC LOADING SYSTEM has been designed to automatically perform the loading operations of AGM bags into the silos, which supply Baby Care production lines.

The automation of the loading system replaces the previous manual loading

The system integrates functionalities for retrieving empty sacks via Laser Guided Vehicle (LGV) and compressing the bags inside the recovery bin by a dedicated press.



Automatic Boilers Assembling Line



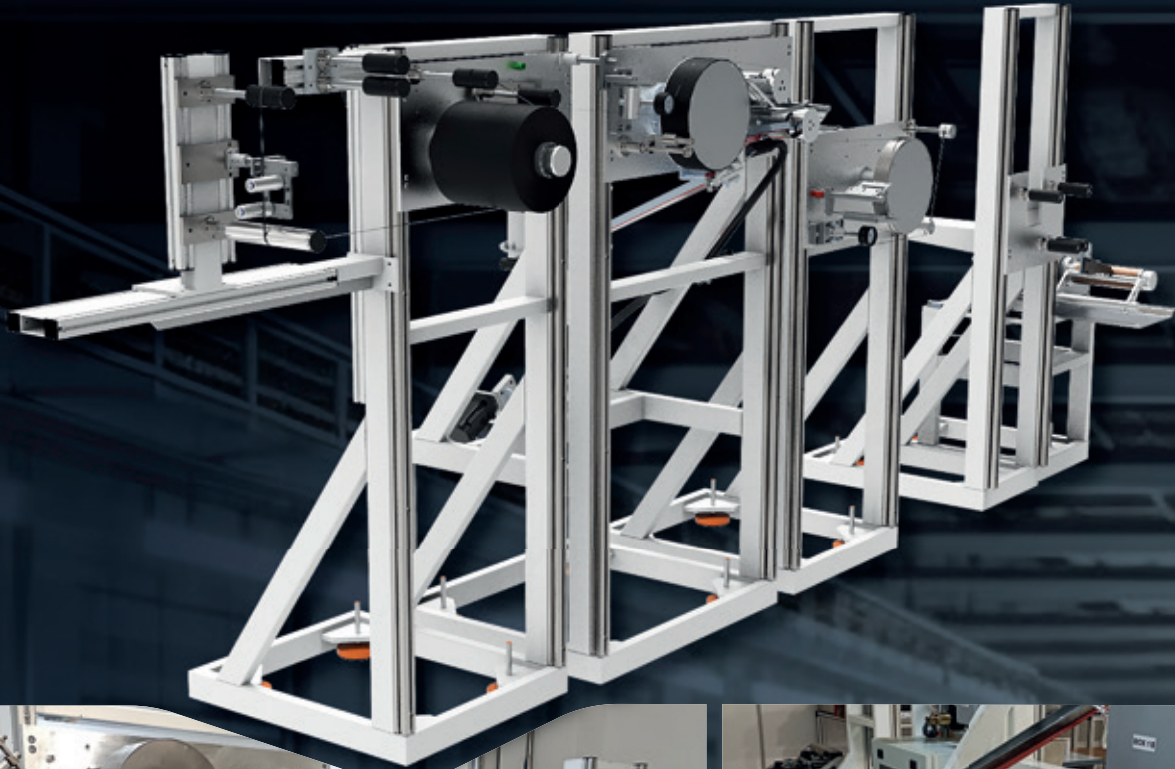
The "FRAMES line" is an advanced system designed for the efficient and precise assembly of gas wall boiler frames.

Equipped with 13 robots and several workstations, this machine operates on two interconnected levels to optimize the production flow. Thanks to its advanced automation, the line handles loading, bending, assembly of crossbars and expansion tanks, as well as visual inspection with cameras.

Operators interact with the system via dedicated PCs, while parameter management is done through a central workstation. With a division into specialized areas, the FRAMES line offers unparalleled efficiency in the frame assembly process, ensuring maximum quality and precision of the finished product.



Tow-Preg Lab Scale



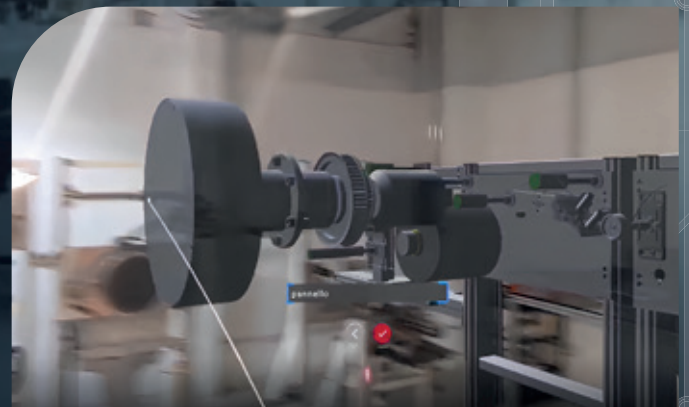
Towpreg augmented reality

On our Tow Preg machine, we have integrated cutting-edge technologies to provide our customers with first-class maintenance and remote assistance services.

Thanks to augmented reality (AR), operators can receive direct and comprehensive support while in the field, keeping their hands free to perform tasks safely.

AR technology allows the operator to view maintenance instructions and data directly on their smart glasses, making operations more efficient and reducing downtime.

With remote assistance, we have streamlined the troubleshooting process, allowing our customers to communicate directly with our experts through an interactive channel. This means higher productivity, less operational downtime, and superior support for our customers.





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We know how

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