

LP UP Series

modprocess

Handling System and
Automation

modprocess

With nearly 40 years of industry experience, we manufacture woodworking machines that improve efficiency and support measurable productivity. We focus on practical innovation and customer needs to deliver reliable solutions that fit modern production requirements. Our machines are built for precision and consistent performance.

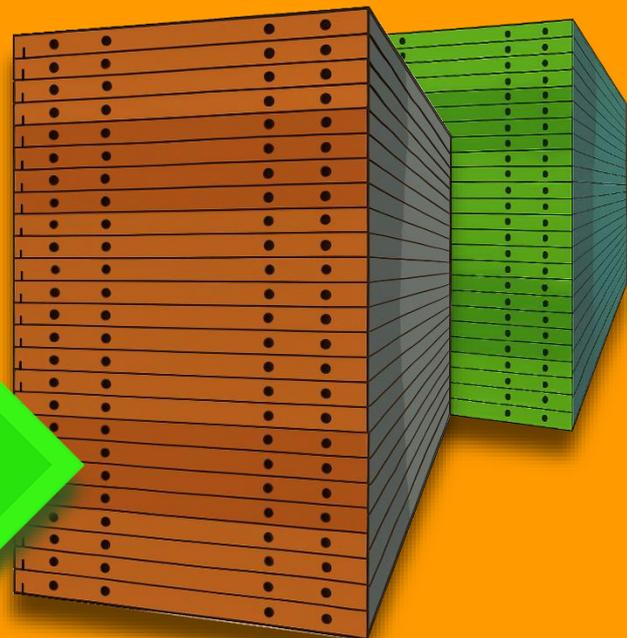
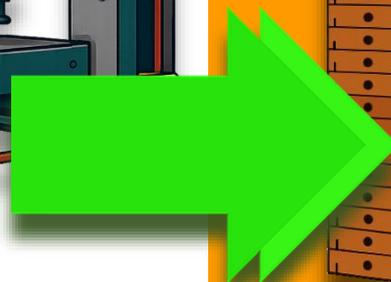
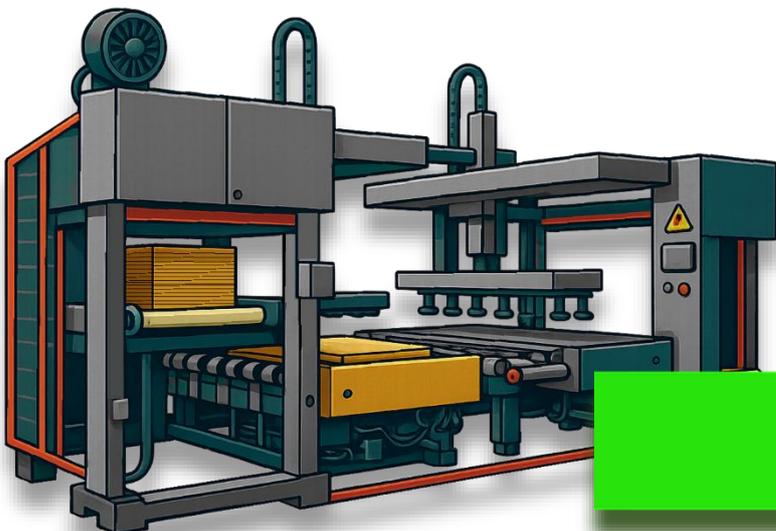
**We Always
Have
a Solution.**

LP-UP Series;

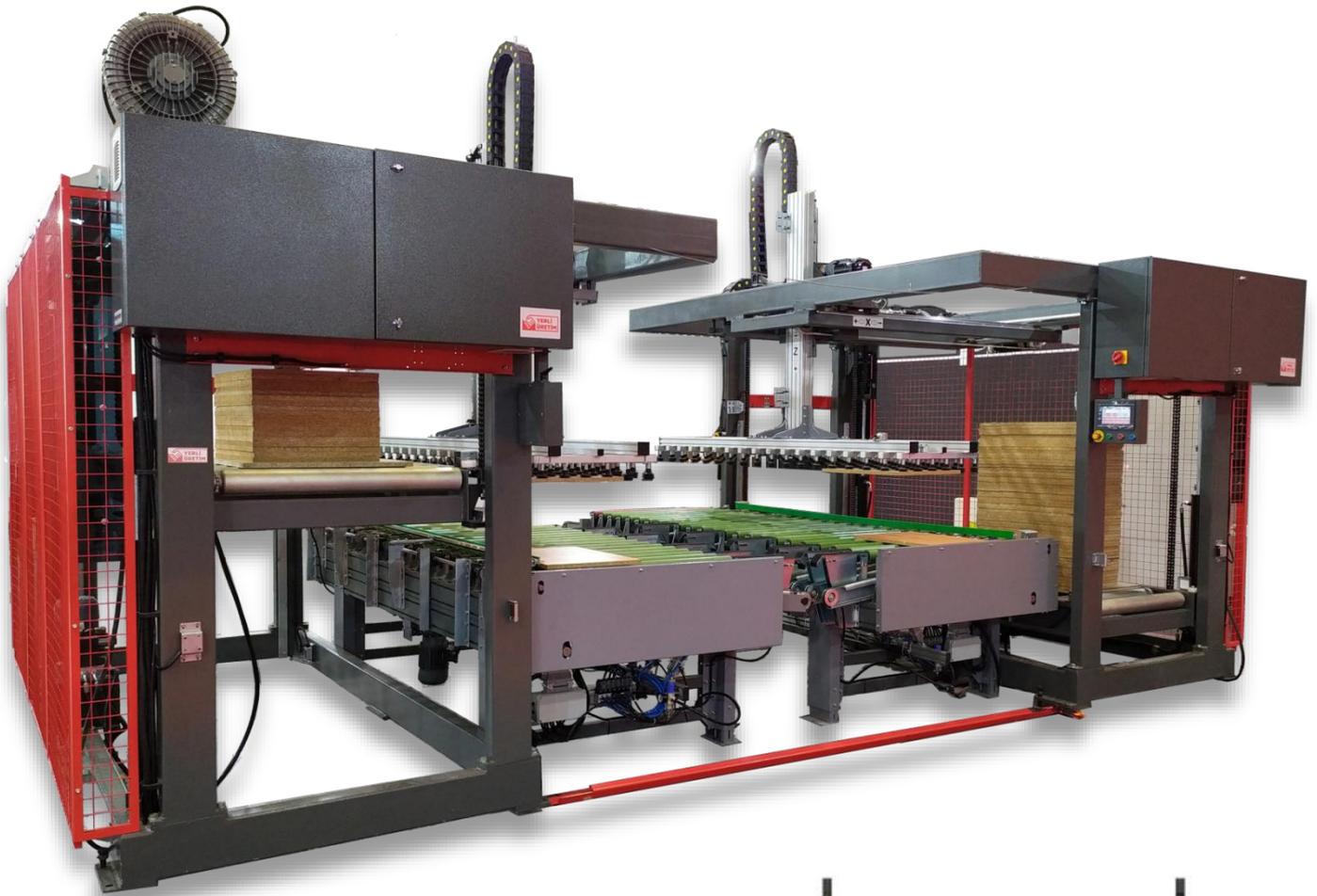
Our Stacking Robot Systems for Automation

Our handling robot is specifically designed to automate the loading and unloading of one or more through feed drilling lines with a single operator. It significantly reduces time and labor costs and supports a fast return on investment through higher efficiency.

- Integrates with edge banding lines with a panel turner and through feed boring lines, enabling automatic loading and unloading.
- Automatically loads and stacks panels in single, double, or 3×6 matrix layouts.
- User friendly PLC touchscreen interface; parameters can be set quickly.
- Hydraulic stacking platform reduces Z axis travel, enabling faster stacking cycles.
- 130 asymmetrically positioned vacuum cups support continuous operation and typically eliminate the need for width - length adjustments for different panel sizes.
- Multi zone active vacuum system ensures secure gripping and safe transport of panels.

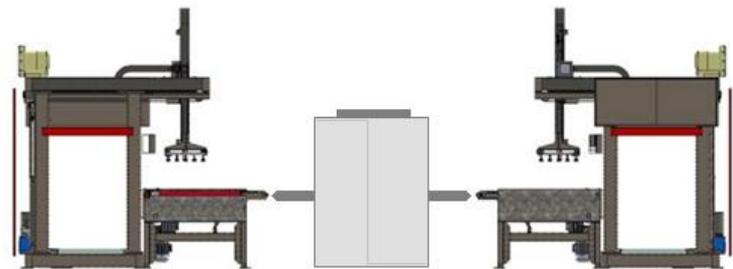


LP UP 3000



LP – UP 3000: Smart Efficiency for Through Feed Boring Machines

Our handling robot is an automation solution designed to automate loading and unloading operations on through feed boring machines. A single operator can manage multiple machine lines at the same time. This helps keep production flow organized and standardizes the feeding and offloading processes. The system reduces repetitive manual work for the operator. It lowers labor needs while keeping a consistent pace across shift operations. By minimizing time losses, it reduces waiting time and helps the line run more efficiently.



**Fast, modular 3 axis
robotic loading and
unloading system easy
to install and quick to
start.**

- Operates as an automatic loading and unloading system for through feed boring machines.
- Works as a loading and unloading system for edge banding machines together with a panel turner.
- Automatically loads and stacks panels in single, double, or 3x6 matrix row-stacked layouts.
- Easy to use via PLC touchscreen; all parameter settings can be adjusted quickly.
- Hydraulic stacking platform reduces Z axis travel, enabling faster stacking cycles.



Technical Specifications

Single panel feeding: up to 10 panels/min.

Multi panel feeding: up to 22 panels/min.

Panel sizes: 120 × 300 mm up to 850 × 3000 mm.

Max. stacking height: 1.350 mm.

130 continuously active vacuum cups.



The advantages of:

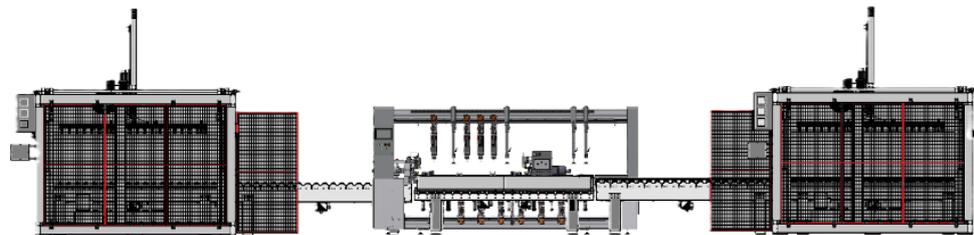
- Fast and easy operation via touchscreen.
- High speed performance with a hydraulic lift and synchronized servo Z axis.
- Servo driven conveyors enable CNC level panel positioning and in line synchronization.
- Cross transfer conveyors engage automatically based on part width. Continuously active vacuum cup group that typically requires no width or length adjustment.
- High performance automation solution for through feed boring and edge banding lines.

2 LP UP 3000



2LP UP 3000: The Most Effective Solution for Through Feed Boring Machines,

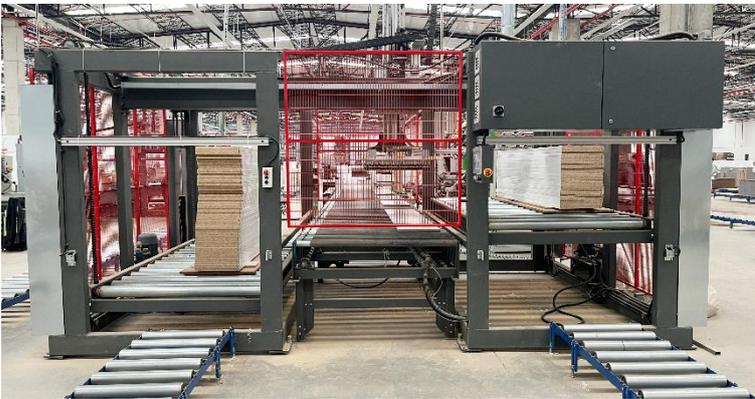
Our handling robot line is developed to fully automate the loading and unloading of one or more through feed boring lines that require continuous feeding managed by a single operator. It accelerates production flow, maintains consistent running performance, and supports line safety. By delivering clear savings in time and labor costs, it supports a fast return on investment.



**More precision, easier
operation, higher speed,
better performance with
every innovation.**

Double Lift Gantry Automation for Through Feed Boring Lines

- Operates as an automatic loading and unloading system for through feed boring machines with a new-generation control program.
- All movements and conveyors are servo motor controlled.
- Servo system ensures precise positioning and speed synchronization between the robot and conveyors.
- Automatically loads and stacks panels in an ordered sequence, in single, double, or 3x6 matrix row stacked layouts.
- PLC touchscreen enables easy control of infeed and outfeed functions.
- Hydraulic stacking platform reduces Z axis movement, enabling faster stacking cycles.



Technical Specifications

Single panel feeding: up to 10 panels/min.

Multiple panel feeding: up to 22 panels/min.

Panel sizes: 120 × 300 mm up to 1.250 × 3.000 mm.

Max. stacking height: 1.350 mm.

130 continuously active vacuum cups.

Hydraulic lift stacking conveyor with automatic feeding from both left and right sides.

3 position adjustable backstop barrier, configurable for single panels or grouped panels.

Self adjusting cross transfer conveyor arms, automatically set based on panel width.

Laser line marked stacking centering warning guide system.

Anti sticking control during panel pickup: shaking function plus dual sensor monitoring to detect panel adhesion double pick.



The advantages of:

- Continuous operation with a single operator.
- Loading or unloading of panel stacks up to 1.350 mm height.
- Sensor system to detect panel sticking, plus an additional vacuum shake mode.
- Stacking programs for single, double, and side by side matrix pattern panels.
- Communication and synchronized operation between the loading robot, through feed boring line, and unloading robot.
- Hydraulic stacking lift that reduces Z-axis travel for faster cycles.

2 LP UP 3000



2LP UP 3000:

Robotic Automation for First and Second Pass on Double Sided Edge Banding Lines,

This handling robot system is specifically designed to automate the loading and unloading processes on double sided edge banding lines, working together with a continuous panel turner and requiring only a single operator. Its high performance 3 axis robot structure delivers significant time and labor savings for your operation.

An ideal automation solution for heavy duty operations on double sided edge banding.

Double side Lift Gantry Robot Automation for Edge Banding Lines

- Works as an automatic loading and unloading system for double sided edge banding machines via integrated software.
- All movements and conveyors are servo motor controlled.
- Servo system enables precise positioning and robot conveyor synchronization.
- Automatically loads and stacks panels in an ordered sequence, in single, double, or 3x6 matrix row stacked layouts.
- PLC touchscreen provides easy control of infeed and outfeed functions.
- Non stop operation with a 90° conical roller panel turning system.



Technical Specifications

Single panel feeding: up to 10 panels/min.

Multi-panel feeding: up to 22 panels/min.

Panel sizes: 240 × 350 mm up to 1.250 × 3,000 mm.

Max. stacking height: 1.350 mm.

130 continuously active vacuum cups.

Hydraulic lift stacking conveyor with automatic feeding from both left and right sides.

3 position adjustable backstop barrier, configurable for single panels or grouped panels.

Self adjusting cross conveyor arms, automatically set based on panel width.

Laser marked stacking center placement warning guide system.

Anti sticking control during panel pickup: shaking function plus dual sensor monitoring to detect panel adhesion, double pick.



The advantages of:

- Full synchronization of the automatic panel turning system with first or second pass double sided edge banding lines.
- Communication between robot control HMIs, with the ability to monitor and control each other remotely.
- Continuously active vacuum cup system with vacuum pads that typically require no adjustment for different panel sizes.
- Hydraulic stacking lift minimizes Z axis travel, enabling faster robot axis movement.

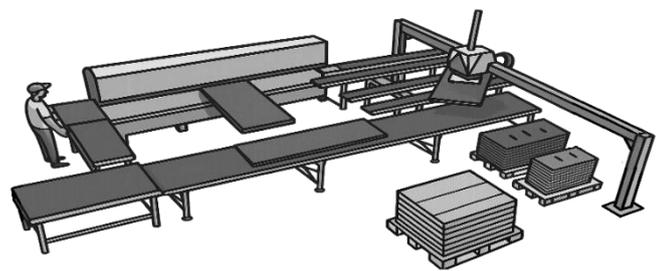
Boomerang



Boomerang :
Non stop single sided edge banding automation,run by a one operator with less effort,

An automation systems, featuring three alternative return conveyor solutions. Panels are continuously fed into the machine and re stacked via robotic automation operated.

- Return conveyor system (basic return only).
- Return system with cross conveyor, enabling transfer direction changes or switching to a dispatch outfeed line.
- 3 axis robotic return system with pallet stacking and automatic panel turning.



Manage the entire edge banding operation effortlessly with a single operator.

Robotic Panel Turning and Pallet Stacking System

A long axis, vacuum cup linear robot automatically turns panels coming out of the edge banding machine by 90°, 180°, or -90° according to the edge banding sequence, keeping the line continuously running.

Based on the infeed barcode scan (optional area scanning via camera), the part is identified; the software automatically defines the processing sequence and controls robot movements accordingly.

An ideal solution for furniture panels, especially for door edge banding operations. It enables efficient and ergonomic handling, turning, and edge banding of large and heavy doors. It reduces operator workload, ensures precise alignment, and delivers maximum throughput in a compact footprint.



Technical Specifications

Panel length: 300–2.300 mm

Panel width: 80–1.300 mm

Panel thickness: 8–45 mm

Panel density: 650–750 kg/m³

Max. stack height on pallet: 820 mm

Operating speed: approx. 9 panels/min (based on average panel sizes)

Vacuum system: continuously active cup set, no size adjustment required

Vacuum cup area: 400 × 400 mm

Max. panel lifting weight: 52 kg

Integrated vacuum generator



The advantages of:

- Automatic rotation within the process cycle to edge band 1, 2, or 4 sides, depending on the selected program.
- Higher efficiency and more comfortable operation with minimal operator intervention.
- Servo controlled precise alignment and panel rotation.
- Compact footprint and efficient use of floor space.
- Integration ready software with open interfaces for connecting to other automation systems.

MOD PROCESS Mak.San.Tic.A.Ş.

Demokrasi Cad. 233 Sultanbeyli 34930

Istanbul – Turkiye

info@modprocess.com modprocess.com

MOD PROCESS - USA

4212 Frontage Road, Suite B

Atlanta GA 30340 USA

usa@modprocess.com modprocess.us

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