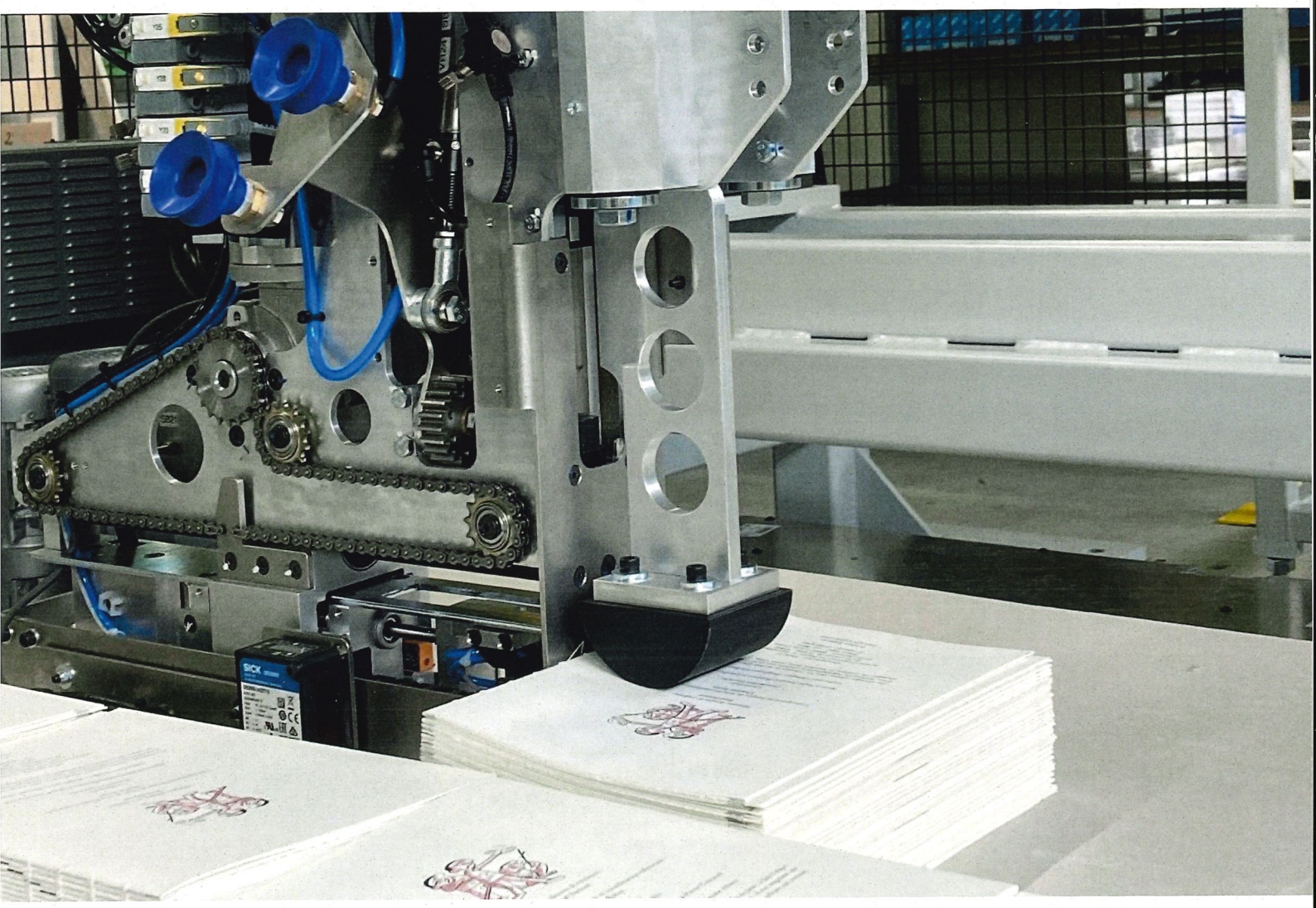
concept Recmi
GLOBAL SOLUTIONS

1/1-DPAL Depalletizer

RECMI Industrie "One-By-One" robotic concept



Robotic depalletizing for finishing line input

Automated depalletizing of finishing line inputs

The 1/1-DPAL is a robotic depalletizer which uses RECMI Industrie **"One-By-One"** technology. Stacks are depalletized **1 by 1** with a 6-axis robot (3D motion technology) according to the position and shape of each stack on the pallet at the finishing line infeed, wider range of printed products, high productivity.

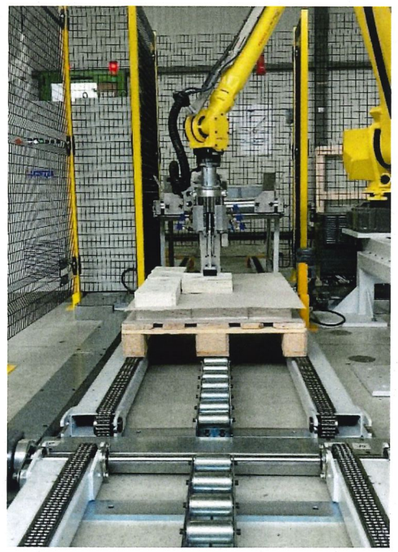
1/1-DPAL

- 1 x 6-axis robot with multi-function gripper (2 robots are possible for higher production rates)
- 1 pallet-conveying line
- 1 pile placement station
- 1 pile-conveying line
- Final 4-side jogger
- Interleaving magazine
- Storage for 1 empty pallet
- Tactile operator interface
- RecmiPal Depalletization software
- RecmiPilot Monitoring software

The conveying line transfers the full pallet into the depalletizing cell, this is detected by the sensors which trigger depalletization. This specific depalletizing process is carried out **stack per stack**, from pallets in **crossed** or **parallel** layers. Final 4-sided jogging is performed before transfer to downstream equipment.

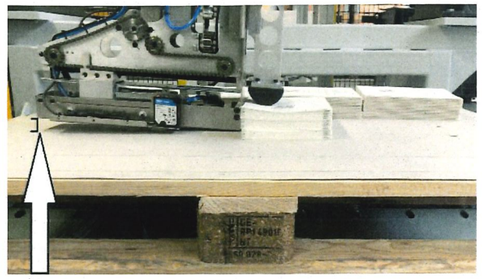
Pallet depalletizing with crossed or parallel layer patterns

Automatic pallet flow management



Accurate, flexible depalletization

- Reliable 1-by-1 stack separation (patented One-By-One technology)
- 3D modeling of the pallet and optical realignment system allowing the gripper to position itself and pick up the stack
- 3D trajectories (6-axis robot) to fit to any shape of stack
- Stack-specific learning and pick-up strategy



3D trajectories
(Gripper tilt) and pick-up strategy through learning

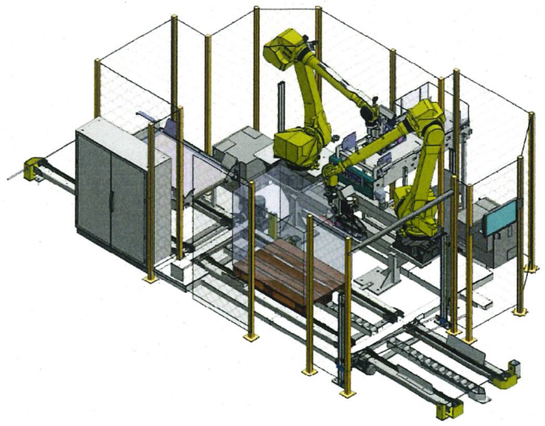
Final 4-sided jogging system

Interlayer removal

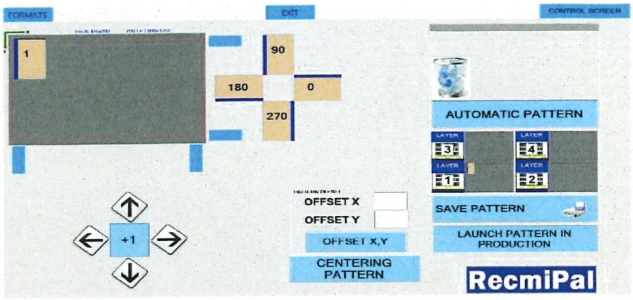
- Design which ensures optimal accessibility for quality control
- A simple, robust concept
- Processing of a wide variety of formats
- The 1/1-DPAL robotic depalletizer is available in a fully automatic version with complete automated pallet infeed, and in a "floor pallet" version.
- 6-axis robotic system (3D technology)

Product protection

- Patented gripper specifically designed to maintain the stack during pick-up
- Gripper with a broad dimensional range (from 100 mm to 170 mm and from 320 mm to 430 mm)
- Smooth product pick-up and placement using contact sensor
- Stacks placed with final 4-sided jogging
- Multi-functional gripper equipped with suction devices for gripping the interleaves between each layer of piles.



RecmiPal software



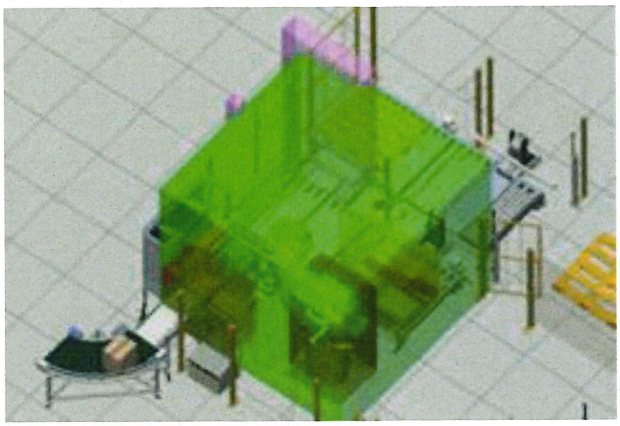
The **RecmiPal** software supplied as standard enables palletizing layouts to be generated automatically, based on product and pallet formats.

These layouts can be saved and called up at a later date.

The interface is both quick and intuitive to use.

Safety module

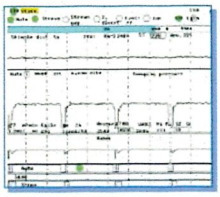
- Operator safety guaranteed by protective mesh enclosures, safety light curtains, interlocking doors, etc.
- Additional virtual safety fencing surrounding the robot
- Compliance with **Level 4 CE Standards**

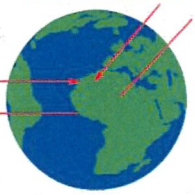


OPTION
Telemaintenance system

- Secure access by means of fixed RECMI IP address identification, password and VPN
- Possibility of incorporating the remote maintenance system into the client company's security strategy via IP
- Programming software for the various components installed on an industrial PC platform

Remote assistance via Internet and reduced maintenance costs





- Remote intervention to modify the client's production parameters
- Remote diagnostics
- Remote parameter and settings management

Technical specifications

Min/max product length	170 mm – 430 mm
Min/max product width	100 mm - 320 mm
Product height	minimum 50 mm, maximum: 150 mm (other, please enquire)
Weight of the stack, max.	10 Kg
Height of the stack, max.	1200 mm
No. of stack per hour, max.	depalletizing of joined or non-joined stacks, (multi-function gripper) : 700 stacks / hour (according to configuration and products)
Pallet type	EUR-pallet 800 x 1200 mm other formats, please enquire

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