

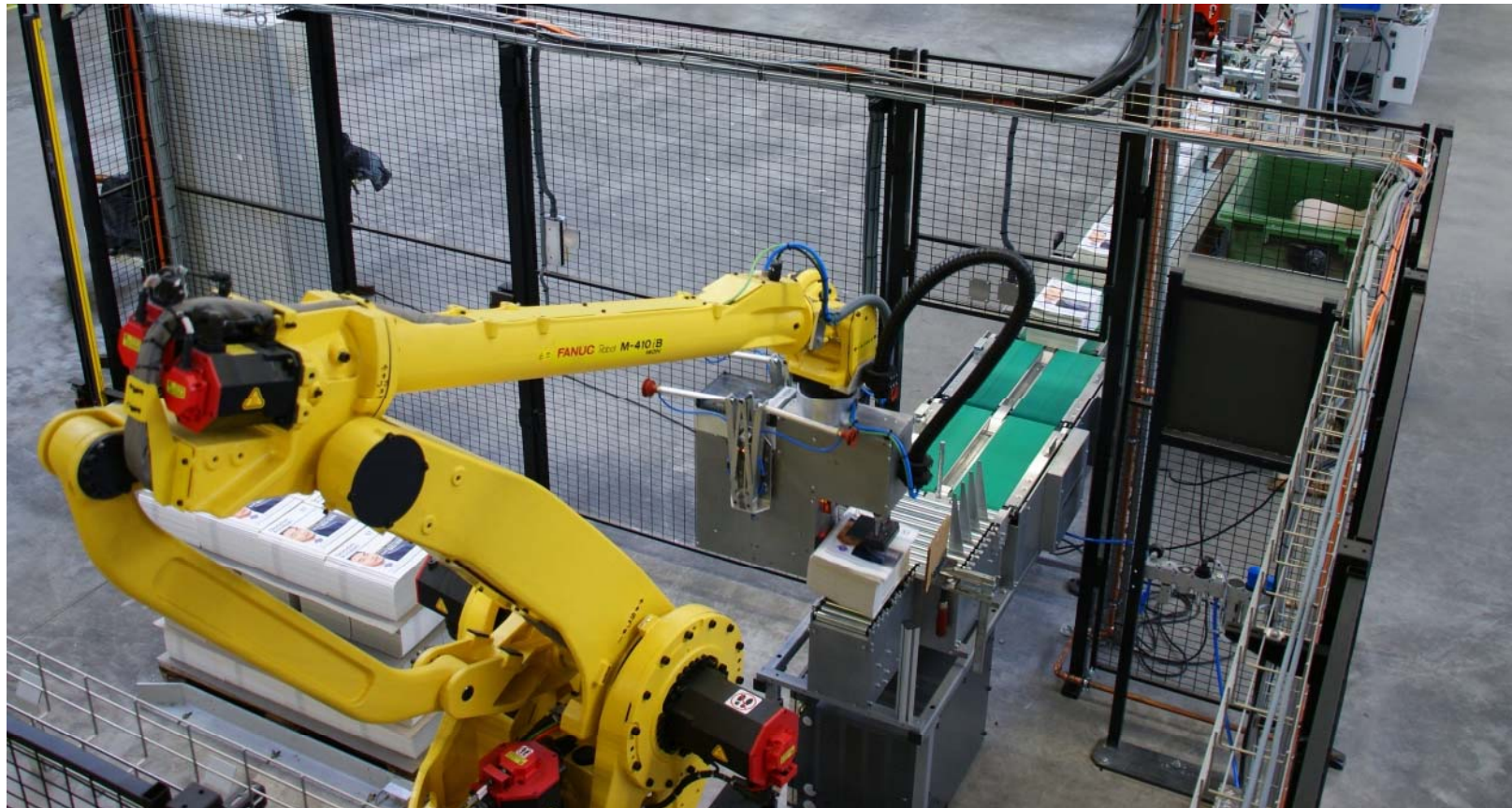
CONSULTING
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RS 550 DEPALLETIZING ROBOT

RIMA SYSTEM
including  CIVIEMME  SYSTEM technology

The RS 550 Depalletizing Robot automates the manual feeding of the mailing lines. It takes single bundles of perfect bound products from a pallet inside the robot cell and places them on the bundle reception position of the stack feeder which will automatically feed the downstream equipment. In case the RS 550 is equipped with automatic pallet conveying the whole logistic inside the robotic cell is automated – from the feeding of the full pallet to the depalletizing position to the restacking of the empty pallets inside a pallet magazine.



Features:

The RS 550 Depalletizing Robot generally consists of:

- A four-axis joint arm robot, fixed on the ground or on a platform and a safety fence around the complete palletizing cell
- A single-gripper for fixed format bundles around magazine size (A4) picking up the loose bundles from the pallets
- A slip sheet gripper and a magazine to collect the slip-sheets from the depalletized pallets
- A pallet position on the floor for different pallet sizes from EURO-pallets to standard US-pallets 40" x 48" and 48" x 48"
- A stack feeder with bundle reception position, stack aligner and accumulation conveyor
- The PALETTI d-PAL control software with graphical packing pattern editor, process monitor and real-time video window
- A PC-based touch screen panel with real-time video window

The RS 550 Depalletizing Robot can be upgraded with different Hardware & Software options fitting different needs:

- Complete pallet conveying system with full pallet feeding and restacking of empty pallets in a pallet dispenser.
The full pallet is loaded automatically to the depalletizing position and the empty pallet is moved under the pallet dispenser where it is restacked
- Remote Maintenance via Internet for easy access to the PALETTI d-PAL and PLC software for troubleshooting, SW-updates, parameter settings, etc.
- Basic order management
- Interface to ERP System for basic closed loop order management in real time
- Data collection and documentation module

Unique robotic depalletizing (patent pending) increases productivity !

Automation #1 – save heavy manual labor on stack feeding

The RS 550 Depalletizing Robot automatically places loose bundles from a pallet onto a stack feeder for further downstream processing (inserting, film-wrapping, addressing & labeling, pre-stacking, palletizing). The heavy manual labor (can easily be a point of dispute with unions, health insurance,...) is successfully replaced by a reliable automated process.

Automation #2 – collecting and restacking of slip sheets & empty pallets

After each layer the gripper takes the slip sheet and collects them in a magazine. The whole stack of slip sheets can easily be pick-up and reloaded into the palletizing robot in the bindery.

After depalletizing, the empty pallet is moved underneath the pallet magazine and then added to the pallets already in the magazine. The whole stack of pallets (up to 15) can easily be picked-up by a forklift truck or by an AGV and reloaded into the empty pallet dispenser of the Palletizing Robot in the bindery.

Flexibility – better planning, less overtime, smoother handling of unplanned peaks:

The workload in the bindery can be very volatile with sudden down times and sudden peaks. The RS 550 Depalletizing Robot is ready for the depalletizing of loose bundles at any time. It avoids running into the situation where you have to begin an earlier or unplanned job, but you are short of operators. By integrating reliable robotic palletizing and depalletizing technologies, you will shape a modern operation with a better workflow, less low skilled manning, less need of overtime and the ability to respond quicker and smoother to the unpredictable peaks in production.

Technical Data:

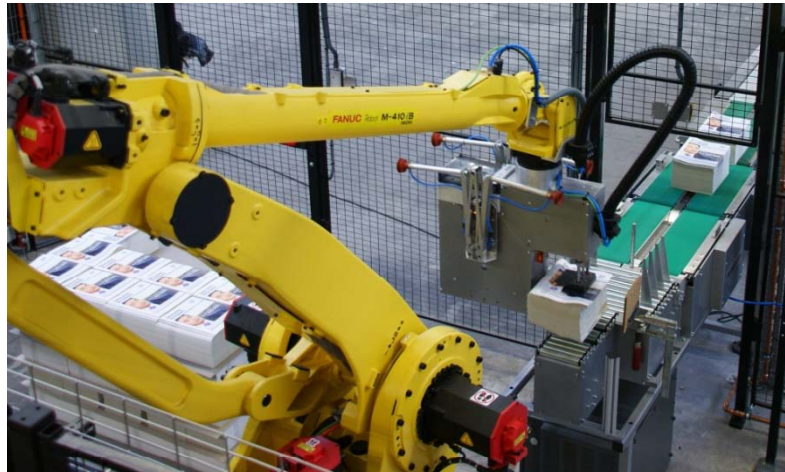
	Minimum	Maximum
Bundle size	Around magazine size (A4)	Around magazine size (A4)
Bundle height	80 mm (3.15")	330 mm (12.99")
Depalletizing positions	1	1
Depalletizing height (from pallet)		1500 mm (59") top edge of last layer from floor
Depalletizing speed		500 bph (product permitting, not including slip sheets)
Pallets	800 x 1200mm (Euro), 1000 x 1200mm, 1300 x 1300mm (Chep), 40" x 48", 48" x 48"	
Input power	400 V, 3 ~, N, PE, 50/60 Hz, 32 kVA	
Air requirement	120-500 l/min @ 6 bar	
Weight of Robot	Robot : ~2000 kg (4400 lbs)	
Weight of pallet conveying	Pallet conveying: ~1500 kg (3300 lbs), Pallet magazine : ~400 kg (880 lbs)	



View of the RS 550 Depalletizing Robot and its stack feeder in front of the downstream inserting, film-wrapping, addressing and palletizing line.



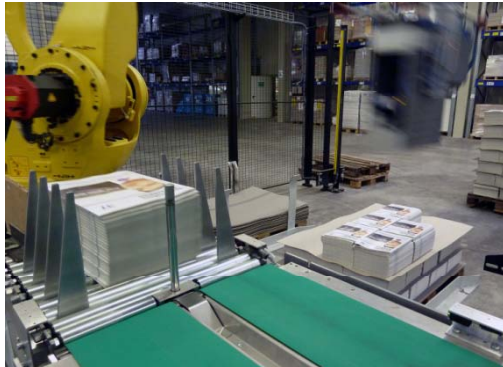
The single gripper of the RS 550 Depalletizing Robot takes the loose bundles from the pallet and places them onto the bundle reception position of the stack feeder in front of the downstream equipment. Each layer is separated by a carton slip sheet. If the bindery is equipped with the RS 400 Palletizing Robot the depalletizing process becomes especially easy since the palletizing patterns can be exchanged electronically and presented to the operator for a final and camera supported check.



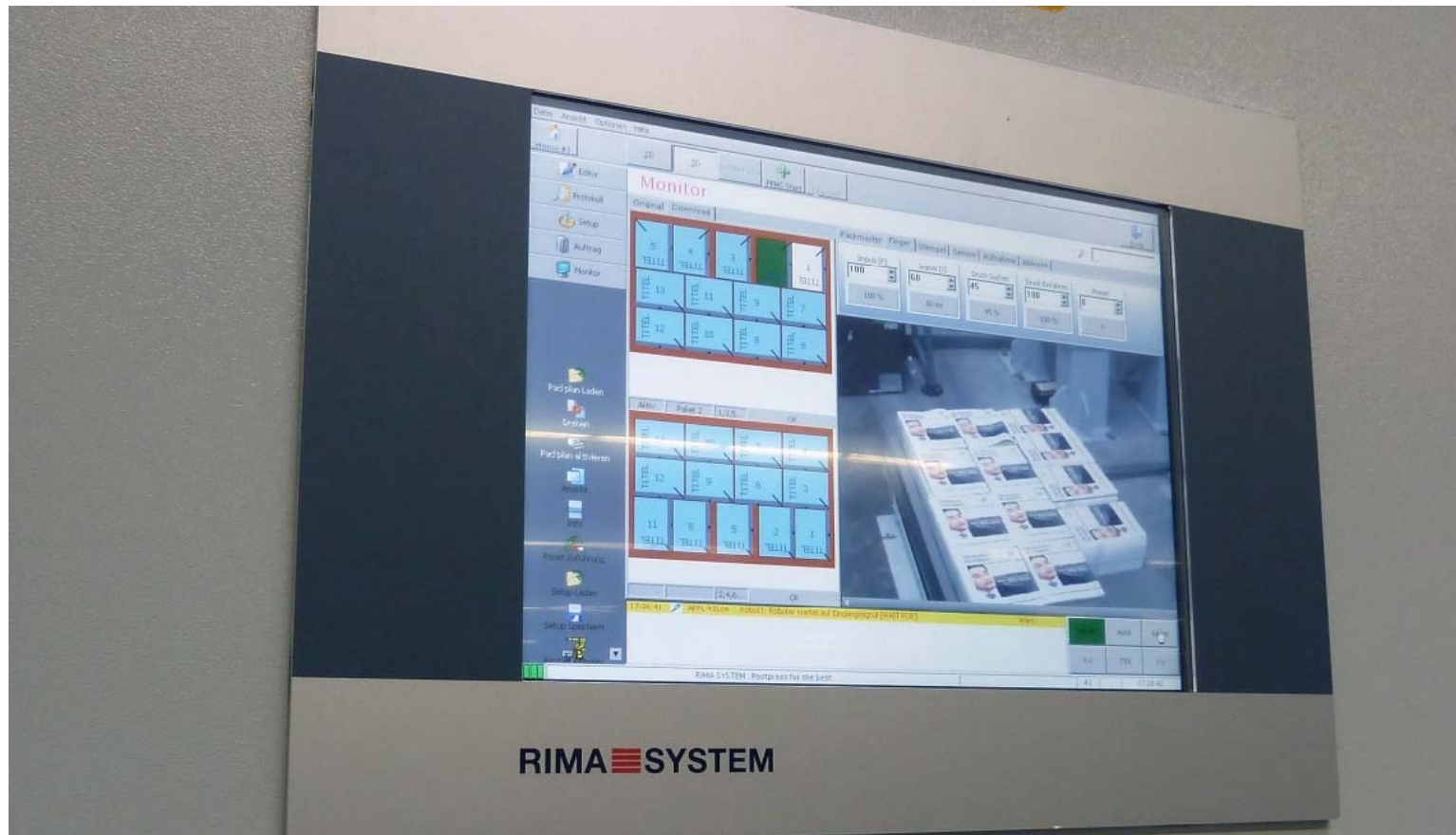
The single gripper of the RS 550 Depalletizing Robot takes the loose bundles and places them onto the bundle reception position of the stack feeder in front of the downstream equipment. Each layer is separated by a carton slip sheet. If the bindery is equipped with the RS 400 Palletizing Robot the depalletizing process becomes especially easy since the palletizing patterns can be exchanged electronically and presented to the operator for a final, camera supported check.



After the depalletizing of each layer the slip sheets are picked-up by the gripper and stacked and collected in the slip sheet magazine.



The RS 550 places bundles on the bundle reception position from where they get into the stack aligner. The bundles are realigned on all sides and delivered onto the accumulation conveyor in front of the downstream equipment (inserting, film-wrapping, routing, pre-stacking, ZIP-code palletizing).



The RS 550 Depalletizing Robot is controlled by PALETTI d-PAL running on a wide PC-touch screen. PALETTI d-PAL is based on the proven PALETTI Software from our RS 400 palletizing robots and gives the operator the full control of the depalletizing process. A video camera allows the operator to compare the chosen depalletizing pattern with the real situation. During the depalletizing process the camera stream is shown in a real-time window on the PALETTI d-PAL main screen.

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