

▶ POST PRESS

▶ MAIL ROOM

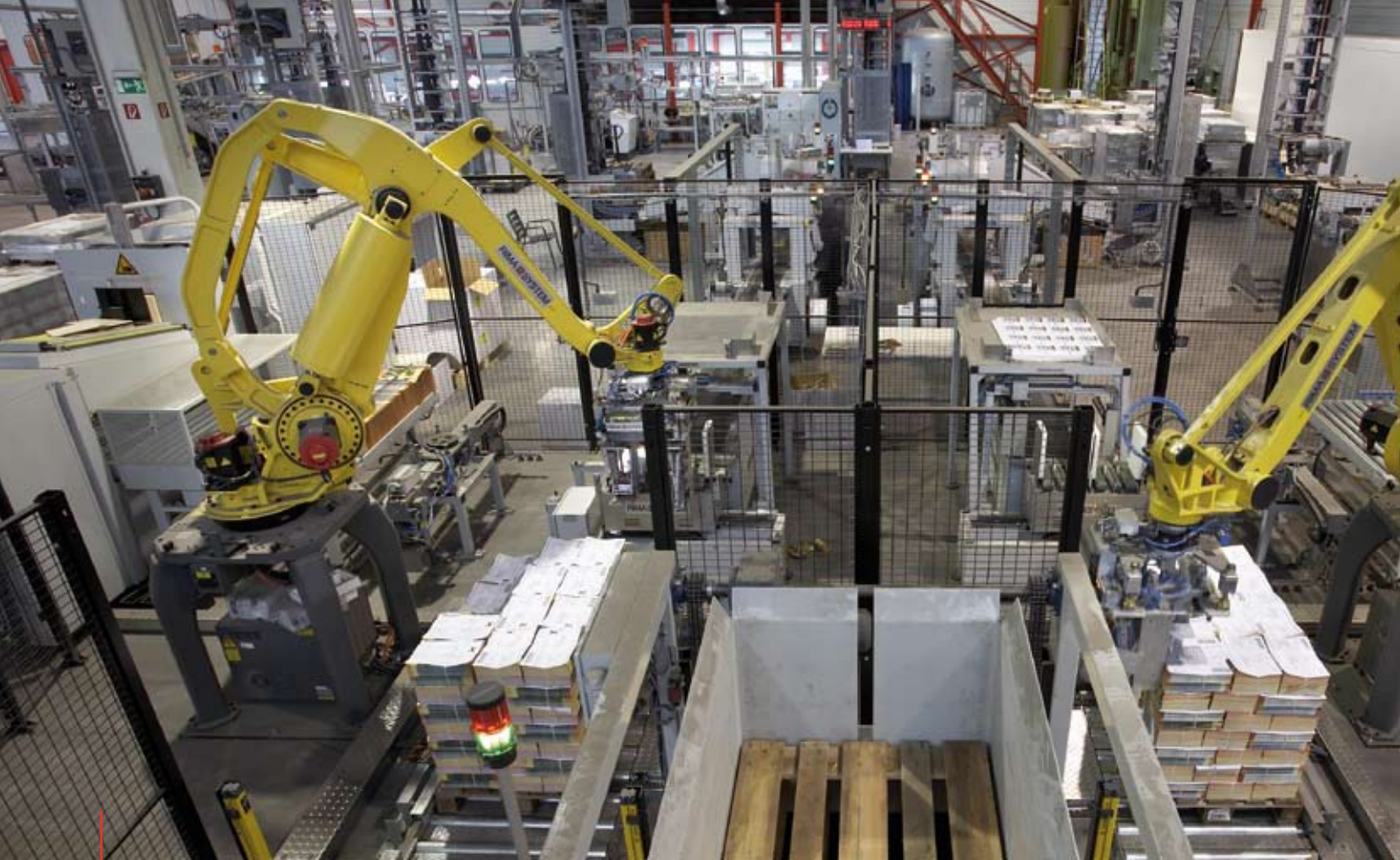
▶ BOOKBINDERY

Leading through Automation

RS 400 / RS 500 - Palletizing Robots for Stacks & Logs



RIMA  SYSTEM



RS 400

Whether one or two streams, one or two pallets, stacks or logs or formats between A4 and A3, all are covered by the standard configuration of our Palletizing Robot RS 400. Its flexible configurations solve nearly every post press requirement.

Leading through Automation

Post Press solutions from RIMA-SYSTEM turn automation into competitive advantage. Especially robotic palletizing with the RIMA-SYSTEM palletizing robots RS 400 and RS 500 transform the manual pile down into a completely automated process. The confidence shown in our robotic technology by America's largest printers and the highest installation base in Europe emphasizes our technological leadership.

Fully automated palletizing for:

- **Pressroom:** behind web presses with compensating stacker, brick or log stacker
- **Bookbindery:** behind perfect binder, saddle stitcher, casemaking machines and others
- **Mailroom:** behind compensating stackers, strapping, wrapping and packaging machines

Save and Precise - "Smooth Approach Technology"

RIMA-SYSTEM's „Smooth Approach Technology“ guarantees the precise palletizing of loose, wrapped or strapped stacks and strapped logs. „Smooth Approach Technology“ means that the gripper is realigning itself at the start of each new layer. With the first stack of each layer the robot gripper places itself over the calculated pallet height and approaches the real pallet height very slowly and smoothly. A sensor in the gripper determines the exact actual height of the pallet. In the following palletizing processes of the same layer the robot can work at highest speed while at the same time placing the stacks smoothly and precisely on the pallet. The result is a perfect and stable pallet.



Optimized Production Flow

RIMA-SYSTEM guarantees superior Post Press processing even at highest production speeds. During short stoppages our Post Press configurations react in an intelligent way, by using buffers, or by switching to alternative routes. This enables the operator to detect and fix the problem directly. The robot is coupled to the upstream equipment by means of an accumulating conveyor acting as a buffer.

Only if all the buffer locations are occupied, the stacker ejects onto the emergency delivery. In day to day work this time has proven sufficient to solve typical stoppages due to damaged pallets.

In addition, the combination of compensating stacker and blocking unit ensures perfect and stable stacks which are safely transported towards the pick-up station. These are best conditions for automated palletizing, resulting in perfect and stable pallets.

Accumulating Conveyors: a concept with many advantages

- *Best accessibility by separating the robot from up-stream machines*
- *Buffer between stacker and robot synchronizes the different cycle times*
- *Possible pick-up (e.g. sample stacks) and insertion of stacks on the accumulating conveyor*
- *No incomplete pallets beside the stackers. The whole production is processed through the robot*



RS 500

The RS 500 can reach up to 2000 cycles per hour palletizing complete rows of bundles from two accumulation conveyors. Single bundles are rotated at 90° to optimize packing patterns and stabilize the pallet. For log palletizing the gripper can be changed in less than a minute. The RS 500 can optionally be equipped with an automatic pallet dispenser and an automatic slip sheet feeder.

Proven Gripper Technology

Single- or double gripper for A4 formats and mini-tabs, multi-gripper for A3 and double parallel formats and log gripper - the RS 400 and RS 500 robots ensure automatic palletizing behind web presses, in the bookbindery and the mailroom:

RS 400-productions (stack and log gripper)

- Loose and blocked stacks
- Strapped or wrapped stacks
- Strapped logs
- up to 900 bundles/hour

RS 500-productions (only A4 double gripper)

- Loose and blocked stacks
- Strapped or wrapped stacks
- up to 2000 bundles/hour



Double gripper: Centralized palletizing behind two web presses or small stack heights at high production speed - the double gripper offers the best solution for formats from delta to mini-tab. Its twin hand takes two stacks at once and gently places them on the pallet.



Multi gripper: Equipped with the multi-gripper for A3, slim jim and double-parallel formats the RS 400 palletizing robot palletizes up to 800 stacks per hour. With its extralong, strong gripper forks even large and heavy tabloids can be handled.



Log gripper: Besides the stack grippers, the log gripper allows „Multi-Product-Palletizing“ - the palletizing of stacks and logs with the RS 400 palletizing robot. In this combination the log gripper substitutes the otherwise necessary log palletizer. Gripper exchange is done automatically in the gripper exchange station.



Multi-format palletizing with fully automatic gripper exchange:

After activation of the gripper exchange in PALETTI the RS 400 Robot places down the current gripper in the gripper exchange station ①, removes the mechanical, electrical and pneumatical connections ②. After that the robot arm moves to the second position of the gripper exchange station and connects to the new gripper. ③

Flexible Configuration

Former folder with monoformats or combination folders with a great variety of formats, one or two Post Press lines, compensating stacker and/or log stacker productions - RIMA-SYSTEM offers reliable palletizer and gripper configurations which solve nearly every palletizing requirements in an automatic and efficient way.

RS 400 palletizing configurations:

- Multi-Pallet: from 1 line onto 2 pallets
- Multi-Line: from 2 lines onto 1 or 2 pallets
- Multi-Product: palletizing of stacks and logs
- Multi-Format: palletizing of A4, A3, double parallel, delta and others

RS 500 palletizing configurations:

- Multi-Product: palletizing of stacks and logs
- One to One: from 1 line onto 1 pallet



Multi-Pallet palletizing:

Palletizing from one line onto two pallets. Fast and continuous production is ensured even during pallet change, since the robot is alternatively using the two palletizing places.



Multi-Line palletizing:

From two lines onto one or two pallets - two post press lines (A/B production) can be processed simultaneously by a single palletizing robot separating the A-/B-product.

Multi-Product palletizing:

The RS 400 palletizing robot palletizes stacks as well as logs. The necessary gripper exchange is done automatically in the gripper exchange station in less than a minute.





Easy operation with PALETTI

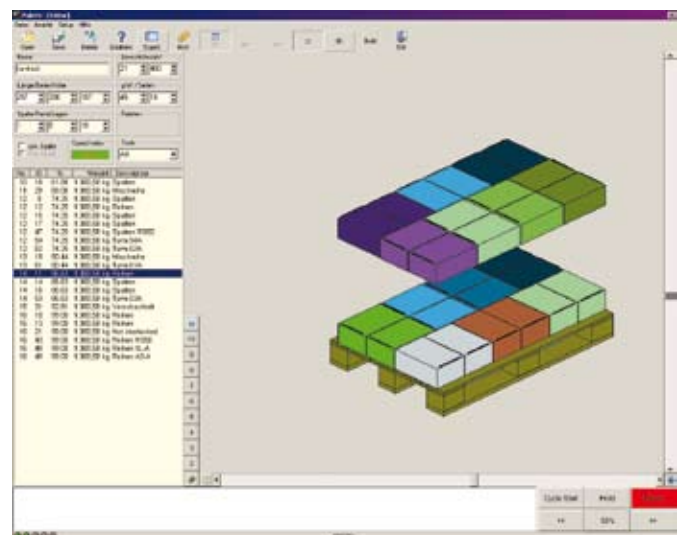
PALETTI is the graphic Interface for our palletizing robots. The software allows easy operation by the operator on site, integrating all relevant functions on the PALETTI-monitor. Additional modules such as the pallet editor, an optional order management or the error logbook are easily accessible via tabs.

Basis function of PALETTI

- *Pallet editor with automatic package plan generator*
- *Robot operation through graphic display*
- *On-line palletizing monitor*
- *Interface to shop and plant floor management systems*
- *Extensive maintenance functions*
 - *Listing of stoppages, logbook and electronic documentation*
 - *Automatic error diagnosis and correction of the palletizing process*
 - *Remote access via modem by a RIMA-SYSTEM technician*

Optional functions

- *Order processing*
- *Pallet management*
- *PPMS (Post Press Management System)*





Slip sheet feeder: Slip sheets can be placed automatically onto empty pallets and onto each layer. The operator defines the slip sheet position directly on the PALETTI screen.



Automatic pallet dispenser : The feeding of pallets within the palletizing cell is fully automated by the empty pallet dispenser. It stores up to 15 pallets delivered one by one onto the palletizing position after a full pallet is ejected.



Pallet transport: An optimized logistic concept progressively integrates the transport of full pallets. RIMA-SYSTEM realizes the pallet transport to a pallet stretch wrapper, a pallet strapper or to a central point for delivery or intermediate storage.

Highest Reliability

Countless installations and extensive experience in the manufacturing and automotive industry have made Fanuc-robots, used by RIMA-SYSTEM as base technology, an industry standard. We combine this proven technology with intelligent concepts for the printing industry. Together with our own experience from more than 9000 post press and nearly 160 robot installations our customers benefit from increased reliability, efficiency and profitability in their installations.

Technical Data

RS 400	Minimum	Maximum
Product format	A5	approx. A3 (depending on gripper)
Stack height	80 mm	330 mm
Log length	600 mm (others on request)	1200 mm
Infeed	1 line (stack or log)	4 lines (2x stack; 2x log)
Palletizing places	1	2
Speed Double gripper Multi gripper Log gripper		up to 900 staks/h up to 500 stacks/h up to 145 logs/h
Stack weight		30 kg
Log weight		200 kg
Pallet formats	800 x 1000 mm; 800 x 1200 mm; 1000 x 1200 mm; 1220 x 1220 mm (custom)	
Power	400 V, 3~, N, PE, 50/60 Hz	
Air requirement	35l/min @ 6 bar	
Weight	approx. 1500 kg (robot), 2500 - 3000 kg (robot with pallet conveying system)	

RS 500	Minimum	Maximum
Product format	approx. A4	approx. A4
Stack height	80 mm	330 mm
Log length	600 mm	1200 mm
Infeed	1 line (stack or log)	2 lines (1x stack; 1x log)
Palletizing places	1	1
Speed Row gripper Log gripper		up to 2000 stacks/h up to 145 logs/h
Stack weight		30 kg
log weight		200 kg
Pallet formats	800 x 1000 mm; 800 x 1200 mm; 1000 x 1200 mm; 1220 x 1220 mm (kundenspezifisch)	
Power	400 V, 3~, N, PE, 50/60 Hz	
Air requirement	35l/min bei 6 bar	
Weight	ca. 1500 kg (robot), 2500 - 3000 kg (robot with pallet conveying system)	

Technical specification available on request. The manufacturer reserves the right to change the technical specifications without prior notice (RS 400/500-E-May08).

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