

# ADVANCED SYSTEMS GROUP

## C A P A B I L I T I E S

Motoman Robotics' Advanced Systems Group (ASG) designs solutions to meet customer-specific robotic application needs. As one of the Western Hemisphere's largest custom solution providers, we have the resources and experience to address the most demanding manufacturing challenges.



### SIMULTANEOUS ENGINEERING

Motoman Robotics' highly experienced application and project engineers assist our customers in designing products and processes that are automation-friendly.

### CUSTOM TOOLING

To ensure project success, Motoman Robotics manages all aspects of custom tooling, including tooling design, design reviews, quality inspection, run-off and start-up.

### PROJECT MANAGEMENT

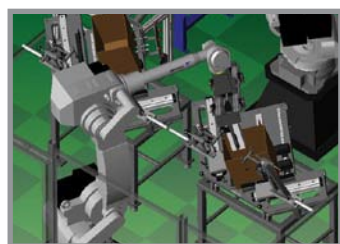
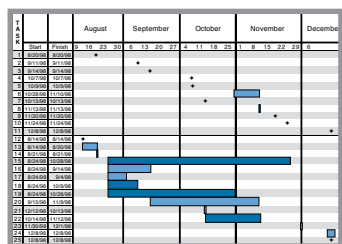
Motoman Robotics' Project Management Team coordinates all details of a project. This ensures that all needs and resources are balanced to meet delivery and budget requirements.

### SIMULATION

Motoman Robotics utilizes state-of-the-art simulation tools to aid in the concept and design of robotic automation solutions. To reduce risk, simulation software is used to verify system form, fit, function, throughput and ergonomics prior to project execution.

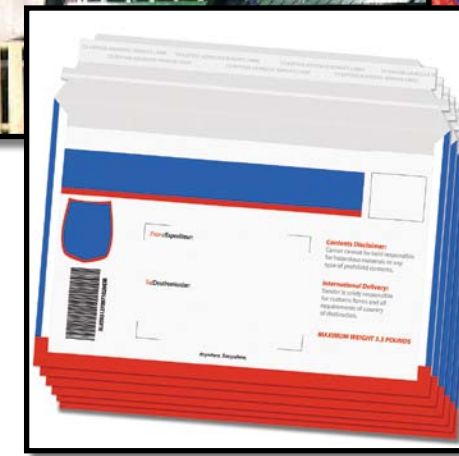
### APPLICATION EXPERIENCE

The Advanced Systems Group has experience providing loose-load stack, pack and palletizing solutions ranging from express mailers to lottery tickets and loose-leaf printed material. Motoman solutions feature our broad line of material handling and palletizing robots, custom end-of-arm tooling for product, tier sheets and pallets, stacking equipment, case erection equipment, pallet dispensing, infeed and outfeed conveyors for product and pallets, and complete control packages. Our expertise enables us to provide a unique solution to meet your specific needs.



# STACK, PACK & PALLETIZE

## S O L U T I O N S



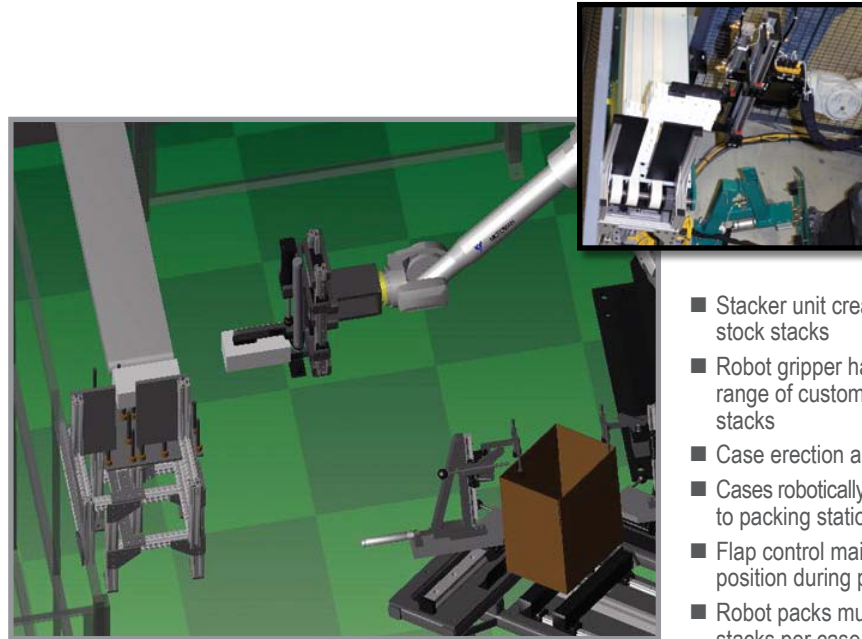
### CUSTOM ROBOTIC SOLUTIONS

Visit our web site to see how your industry is taking advantage of Motoman Robotics' expertise and to request a visit from your local salesman.

[www.motoman.com/spp](http://www.motoman.com/spp)

# STACK, PACK & PALLETIZE SOLUTIONS

Motoman Robotics provides unique solutions for a variety of loose-load stack, pack and palletizing applications. With our comprehensive line of material handling and palletizing robots, infeeds, outfeeds, grippers, software and sensors, we can provide a customized solution that delivers enhanced quality, productivity and ROI.



- Stacker unit creates card stock stacks
- Robot gripper handles a range of customer product stacks
- Case erection and sealing
- Cases robotically transferred to packing station
- Flap control maintains flap position during packing
- Robot packs multiple stacks per case
- Optional layer divider available

— STACK: Lottery Tickets —



— Magazines —

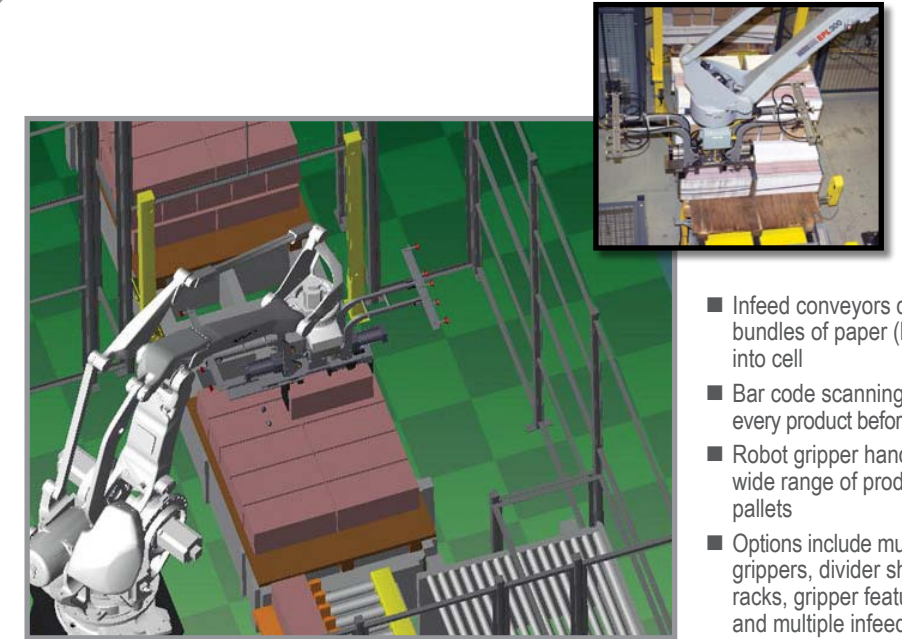


— Newspapers —



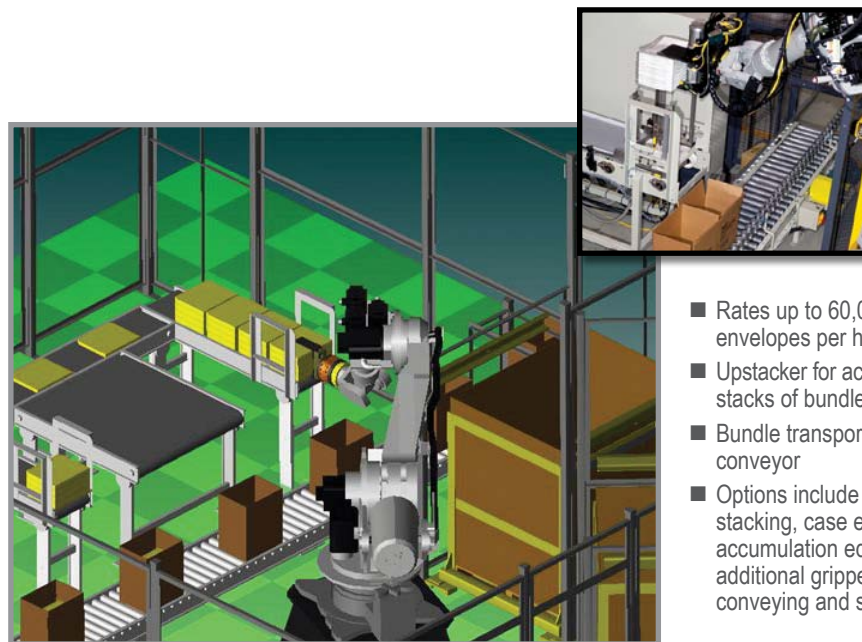
— Books —

WORLD-LEADING ROBOTIC SOLUTIONS BY MOTOMAN ROBOTICS



- Infeed conveyors deliver bundles of paper (logs) into cell
- Bar code scanning verifies every product before picking
- Robot gripper handles wide range of products and pallets
- Options include multiple log grippers, divider sheet racks, gripper features, and multiple infeed and outfeed conveyors

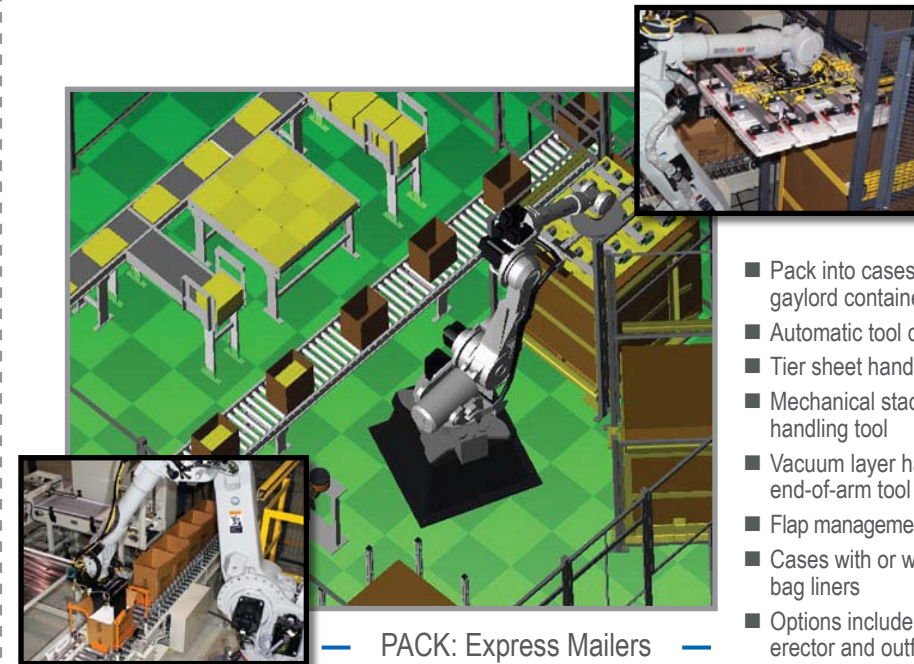
— PALLETIZE: Printed Material —



- Rates up to 60,000 envelopes per hour
- Upstacker for accumulating stacks of bundles
- Bundle transportation conveyor
- Options include down-stacking, case erection, accumulation equipment, additional grippers, taping, conveying and sealing

— STACK: Express Mailers —

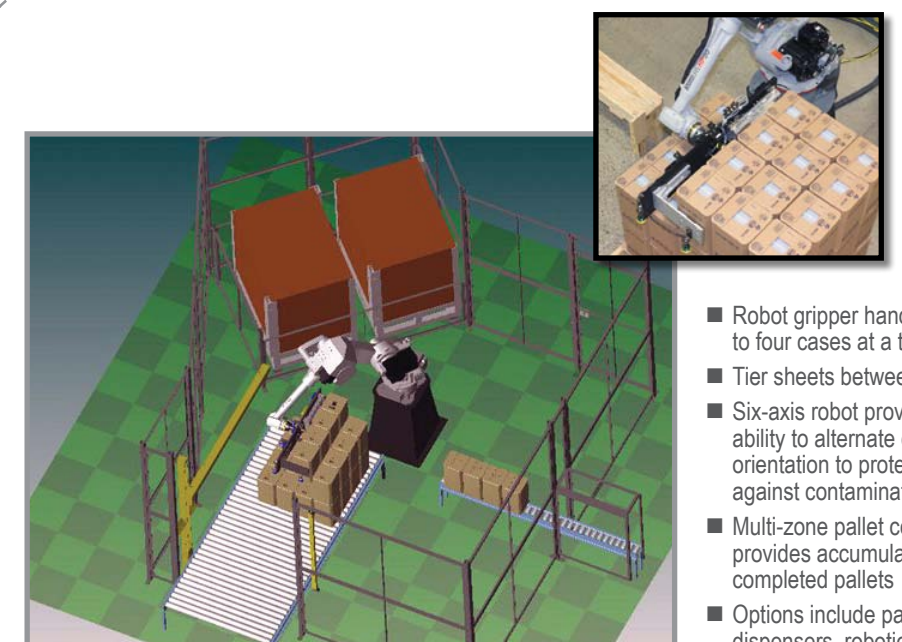
## GAYLORD PACK



- Pack into cases or gaylord containers
- Automatic tool change
- Tier sheet handling
- Mechanical stack handling tool
- Vacuum layer handling end-of-arm tool
- Flap management for cases
- Cases with or without poly bag liners
- Options include case erector and outfeed conveyors

— PACK: Express Mailers —

## CASE PACK



- Robot gripper handles up to four cases at a time
- Tier sheets between layers
- Six-axis robot provides ability to alternate case orientation to protect against contamination
- Multi-zone pallet conveyor provides accumulation of completed pallets
- Options include pallet dispensers, robotic pallet handling and stretch wrapping

— PALLETIZE: Cases —