When you need to meet the most rigorous demands of pallet patterns, stability, precision and cycle time, nothing compares to robot-based automation for your palletising needs.

Through our devotion to develop reliable and robust palletising systems we approached ABB. Together we discovered a shared commitment in providing quality robotic systems and support packages to our customers.

Robots are the most flexible method of automated product handling, offering speeds of over 2,000 cycles per hour. We understand that it is important to deliver systems to our customers that their packing operators are confident to run. That’s why our engineers have developed an innovative programme specifically for ABB robots, making them far more user friendly when switching between various products and pallet stacks. Extensive training for our systems is provided to all customers following installation.

At RMGroup we offer new and used systems to suit customer specifications. For extra peace of mind, we can support our robot palletising systems with planned preventative maintenance schedules, 24hr emergency response packages and spares service to prevent any down time. All robot palletising systems are fully tested in our factory and come with a minimum of 6 month warranty once installed.

Robot Palletising Systems

ABB Robot System Integrator

- Clear ABB product offerings
- Industry specific knowledge and experience
- Fast and flexible delivery
- Local presence in the market

Options & Features...

- New and reconditioned systems available
- Bespoke programming and operator training
- Planned preventative maintenance schedules
- Pallet magazines/Slip sheet applicators/Top sheets and pallet wrappers
- Full layout drawings following a no obligation site assessment.
- Emergency Response packages
Robot Studio

Offline programming is the best way to maximise return on investment for your robot systems. Our programming engineers use ABB’s latest simulation and offline programming software to create new programmes for palletising systems prior to installation on site.

The software enables our engineers to make changes to existing programmes offline which minimises production downtime. Programmes are altered and then dropped into the robot control panel on site.

Robot studio is built on the ABB virtual controller, an exact copy of the real software that runs your robot in production. This allows realistic simulations to be performed.

RMG-HMI V2 Bespoke Robot Programming

Developed in response to the need for a simple “operator” friendly interface platform, RMG software engineers have extracted the commonly required process controls from the complex robot programming pendant and made them available on a simple to use and understand touch screen display.

The main robot controller never needs to be touched by the operator as all modifying positions and general running of the robot can be accessed via the RMG HMI. Bag position values can be altered whilst the robot is running and the new position is updated and saved immediately and automatically.

Number of layers required on a pallet is input on the HMI and can be changed while the machine is running.

Layer heights are calculated automatically from the bag height value. As bag heights can often vary in the production process, a simple procedure on the HMI allows quick manual adjustment. Thereby retaining clean accurate placement on higher layers.

Advantages of using RMG-HMI V2 . . .

- HMI Training from RMGroup engineers provided.
- No prior knowledge of programming a robot required.
- Reduces costly production downtime.
- Allows operators to make programme changes safely - without having to use the robot teach pendant.
- Provides operators more confidence to make their own programme changes without assistance from RMGroup engineers.
- RMG-HMI V2 collates accurate production figures that can be exported via USB.
On-the-floor palletising systems

RMGroup provide the perfect solution to those looking to further automate their packaging systems. The 1-on-floor palletising system serves as a budget starter system for lower production throughputs.

As standard the system includes new or used ABB robot palletising system with gripper head, pick up conveyor and pallet loading section. Our palletising cells are provided with the latest safety systems that meet British standards. Safety cells include fixed guarding, fortress interlocked operator door and set of light barriers. A set of beacons are also provided to indicate to operators when a pallet is full and needs removing.

One empty pallet is placed onto the pallet loading section by an operator. Bags are transferred into the palletising cell via bag handling conveyors. Retro reflective sensors detect the bag in position on the pickup conveyor and the robot arm glides into position to pick up the bag. Bags are then stacked on the pallet. Once a pallet is full all bag handling conveyors stop and the robot waits for the pallet to be removed by an operator before it begins the next cycle.

Customers have the option to include the following items to complement the system:

- Bag kicker to transfer product from existing bagging machinery
- Bag flattener – recommended for a presentable pallet stack
- Pacing conveyor with integrated check weigher
- Additional programming options - 3 empty pallet stack
- Stack directly onto a semi-automated pallet wrapper to limit FLT movements.

Customers have the option to include the following items to complement the system:

- On-the-floor palletising systems can be upgraded to include pallet magazines and pallet conveyors at a later date to meet increased production demands.

Principle Of Operation:

An empty pallet is placed onto the pallet loading section by an operator. Bags are transferred into the palletising cell via bag handling conveyors. Retro reflective sensors detect the bag in position on the pickup conveyor and the robot arm glides into position to pick up the bag. Bags are then stacked on the pallet. Once a pallet is full all bag handling conveyors stop and the robot waits for the pallet to be removed by an operator before it begins the next cycle.
3 Full Pallet Accumulation

Minimise ‘pallet take off time’ with 3 full pallet accumulation robot palletising. This layout allows operators to carry out other duties without having to spend time on a forklift truck waiting for full pallets to exit. This system will accumulate three full pallets before an FLT operator is required. Systems include a pallet magazine for automatic placement of pallets.

Alternatively customers can choose to also feed empty pallets in manually onto the 3 pallet accumulation system. All robot cells include fixed and light guarding to prohibit entry to robot. Fixed mesh guards are installed to prevent physical entry from the pallet exit point and through the pallet magazine. Fortress interlock switches on operator doors ensure highest level of safety in line with current British standards.

Include the following features:

- Pallet Magazines - to hold up to 15 empty pallets
- Pre-Palletising - Slip sheet applicators
- Post-Palletising - Top sheet applicators
- Automated Pallet Hooders
- Pallet wrapping - Automated rotary arm pallet wrapping for up to 60 pallets an hour.

Full turnkey solutions and beyond...

In addition to our set piece 1, 2 and 3 position palletising systems, RM Group design and supply turnkey solutions tailored to our customer needs. From raw product to end of line, we can incorporate; PACKING, DATA TRACKING, INTERFACE WITH SAP, LABELLING, PALLETISING, PALLET WRAPPING / STRETCH HOODING.

To find out more about our robot palletisers, please contact a member of our sales team would be happy to conduct a no obligation assessment of your site and quote for a system.
Bespoke Palletising Systems
Manufactured by RMGroup

All associated conveying for our palletising systems are designed and manufactured in house in order to offer a fully integrated system that compliments your palletising need. In order to remain the leading supplier in bespoke palletising systems we recognised the need to produce our own bag handling and conveying systems to ensure ultimate continuity.

Remote access services

At RMGroup we realise the importance of minimising downtime for our customers which is why we offer remote access services to all customers.

Hardware fitted inside robot control panels enable our engineers to log in remotely in order to carry out preventative maintenance, fault find or change programmes. To the customer the access allows production managers to log in and monitor productivity on a daily basis. The technology is often used in conjunction with a CCTV system, giving customers a good insight to activity on the production floor.

The remote access service is used in conjunction with an annual service plan. Dedicated RMGroup engineers are available in order to support customers through any changes to programmes or assist with fault finding. Please contact the service manager in order to enquire further about these services.

Advantages

- Timely Response from specialist engineers
- Reduced travel and time costs
- Hints for predictive maintenance
Aftersales Service & Support

Here at RMGroup we understand that the availability of parts and a strict service regime is crucial to all of our customers to minimise downtime. That’s why we have compiled a number of preventative measures for our customers to put in place following the commissioning period. Our highly skilled mechanical and electrical engineers are the driving force of our ‘customer care team’. To book a service visit simply contact our office.

Warranty

All new equipment supplied by RMGroup is covered by 12 months warranty. Used equipment is supported by 6 months warranty. This covers any repair or replacement of defective parts from the date of installation.

Response Package

Designed to support unplanned down-time. Our priority is to resolve the problem and return you to production as soon as possible. 24 hours a day, 365 days a year, RMGroup is guaranteed to be on hand to answer technical questions and provide priority telephone and reactive response service at short notice.

Emergency call outs are based on two different rates and include an annual fee.

Spares Packages

RMGroup endeavour to hold all consumable spares for your systems in stock. Spares can be sent on an overnight delivery and can arrive with customers before 9am. (orders can be placed up to 5pm)

For every new system installed, a spares list can be provided and all consumable spares highlighted. Giving the customer an option to purchase a pack of all consumable spares to store on site.