

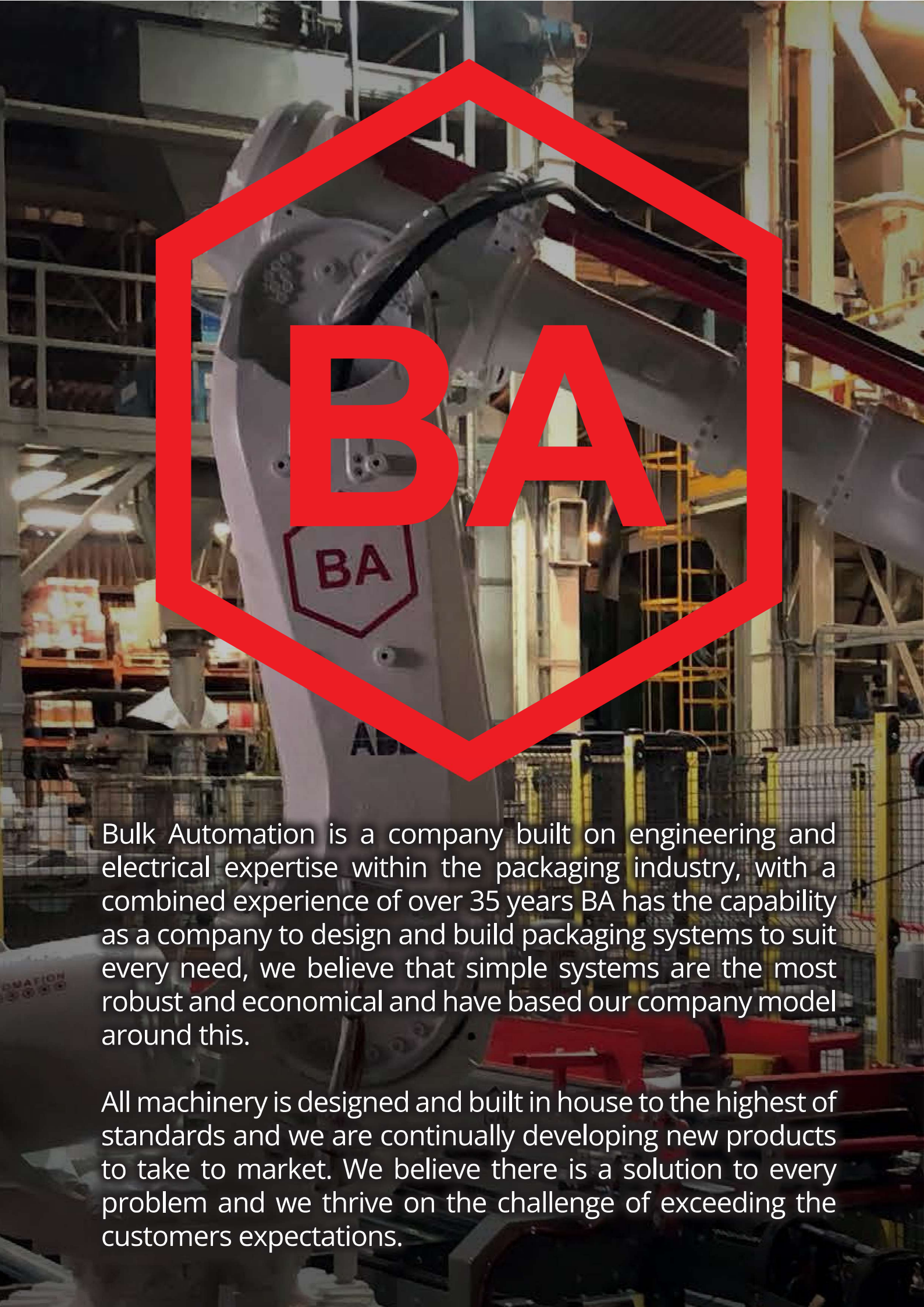


BULK AUTOMATION

PACKAGING AND ROBOTICS SOLUTIONS

PRODUCT CATALOGUE

Specialists in Automated
Bagging & Palletising Systems

The background of the image is a photograph of an industrial factory setting. A large, white robotic arm is the central focus, with a red hexagonal logo overlaid on it. The logo contains the letters 'BA' in a bold, red, sans-serif font. The factory floor is visible in the background, with various pieces of machinery, scaffolding, and lighting. The overall tone is industrial and professional.

BA

Bulk Automation is a company built on engineering and electrical expertise within the packaging industry, with a combined experience of over 35 years BA has the capability as a company to design and build packaging systems to suit every need, we believe that simple systems are the most robust and economical and have based our company model around this.

All machinery is designed and built in house to the highest of standards and we are continually developing new products to take to market. We believe there is a solution to every problem and we thrive on the challenge of exceeding the customers expectations.

BULK AUTOMATION

PACKAGING AND ROBOTICS SOLUTIONS

PRODUCT CATALOGUE CONTENTS



AUTOMATIC BAGGING MACHINES

2

PALLET WRAPPING

27

MOBILE PACKING UNITS

32

PALLETISERS

34

CASE PACKING & BOX ERECTING

41

PALLET HANDLING

42

BESPOKE ROBOTIC SYSTEMS

44

PRODUCT LOADING & TRANSPORT

46

SHRINK WRAPPING

48

WEIGHING & FEEDING

50

AUTOMATION ACCESSORIES

54

SERVICE & SUPPORT

60

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IABA 600 S

Automatic Bagging Machine

The IABA 600 S bagging machine is designed to fill and close pre-formed bags easily and reliably. This bagging machine, which is ideal for medium and high production, adapts to the most varied market requirements of any sector.

The possibility of coupling any weighing or closing system makes IABA 600 S the perfect solution for a wide range of granular products.

Its single-piece structure and “step-by-step” handling of the products, elements typical of the IABA series, allow any type of bag, with or without gusset, to be treated with maximum precision and efficiency. Transfer speed is guaranteed by servo-assisted movement with brushless motors.

Efficiency is guaranteed by the particular handling of the packages: the bag proceeds from the filling area to successive closing on relevant belt conveyors, while it is guided at the top by a pair of transferring arms, which introduce it onto the selvedge guide conveyor.





IABA 600 D

Automatic Bagging Machine

The IABA 600 D bagging machine is designed for filling and closing pre-formed bags in a simple and reliable way. This bagging machine, ideal for high production, is equipped with a double filling station that allows to manage 2 bags at each working cycle.

The possibility of combining the bag vibration system with the deaeration probe allows to remove excess air, obtaining extremely compact bags that are optimal for palletizing.

The step by step handling of the bags is a typical element of the IABA series and allows to treat any type of bag, gusseted or not, with maximum precision and efficiency.

Bags move from the filling area to the closure on a special conveyor belt, while at the top they are firmly guided by a pair of transferring arms that insert them into the selvedge conveyor belt.

According to specific needs, the machine can be completed with different closing systems (stitching, pinch-top, welding etc).



IABA 600 F

Automatic Bagging Machine

The IABA 600 F bagging machine is designed to fill and close pre-formed bags easily and reliably. Developed for medium and high production. It is the perfect solution for packaging flours and similar products.

Thanks to the presence of a double vibration/compacting station, which allows excess air to be eliminated, the IABA 600 F can reach high production and quality levels.

Its single-piece structure and “step-by-step” handling of the products, elements typical of the IABA series, allow any type of bag, with or without gusset, to be treated with maximum precision and efficiency. Transfer speed is guaranteed by servo-assisted movement with brushless motors.



IABA 600 P

Automatic Bagging Machine

The IABA 600 P bagging machine is designed to fill and close pre-formed bags easily and reliably. Designed for medium production. This model is the ideal solution for packaging products such as flours, powdered food additives or powdered chemical products, etc.

The reduced surfaces in contact with the product, typical of gross weight dosing, guarantee very easy cleaning and prevention of contamination.

Distinctive elements of the IABA 600 P are the deaerating probe, which allows removal of excess air and the filling “mouth”, with hermetic sealing of the package during the filling cycle. The combination of these two elements means this model can manage any powdered product with slow flow speed.

Its single-piece structure and “step-by-step” handling of the products, elements typical of the IABA series, allow any type of bag, with or without gusset, to be treated with maximum precision and efficiency. Transfer speed is guaranteed by servo-assisted movement with brushless motors.



IABA 600 R

Automatic Bagging Machine

The IABA 600 R automatic bagging machine is designed to fill and close non-gusseted polypropylene raffia or laminated bags. Ideal for medium and high production, this bagging machine adapts to the most varied market requirements of any sector.

The possibility of coupling any weighing or closing system makes IABA 600 R the perfect solution for a wide range of granular products.

Efficiency is guaranteed by the particular handling of the packages: the filled and formed bag proceeds from the filling area to successive closing on a relevant belt conveyor, while it is guided at the top by a pair of transferring arms, which introduce it onto the selvedge guide conveyor.

Transfer speed is guaranteed by servo-assisted movement with brushless motors.



IABA 800 S

Automatic Bagging Machine

The IABA 800 S bagging machine is top of the range in the IABA series, thanks to its high production capacity and wide range of formats that can be processed.

The possibility of coupling any weighing or closing system makes IABA 800 S the perfect solution for a wide range of granular products with medium and high flow speed.

Its single-piece structure and “step-by-step” handling of the products, elements typical of the IABA series, allow any type of bag, with or without gusset, to be treated with maximum precision and efficiency. Transfer speed is guaranteed by servo-assisted movement with brushless motors.

Efficiency is guaranteed by the particular handling of the packages: the bag proceeds from the filling area to successive closing on relevant belt conveyors, while it is guided at the top by a pair of transferring arms, which introduce it onto the selvedge guide conveyor.



MF POUCH 3000

Automatic Bagging Machine

The MF POUCH 3000 automatic bagging machine for open mouth bags, made entirely in stainless steel, is ideal for packaging different food products with particular features regarding fragility, flow and granule size such as pet-food, baked products, sweets, nuts, snacks, legumes, cereals, etc.

The “step by step” movement of the packages is achieved by a chain conveyor activated by a brushless servo-motor.

The bags are filled by a series of small product unloaders, which follow the packages while they are conveyed along a semi-circular curve.

Vibrating devices fitted in the lower conveyors of the automatic bagging machine facilitate filling operations.

They are closed thanks to multiple sealing stations and successive cooling.



UNIVERSAL 1200

Automatic Bagging Machine

The UNIVERSAL 1200 automatic bagging machine is the best solution for filling and closing open mouth bags.

The modular structure and movement of the packages in “step-by-step” mode, allows processing of any type of bag and product, with the possibility of coupling it to any closing system and any additional device.

The high speed packaging speed is ensured by the “pendulum” movement of the bag holding and handling devices during the filling and evacuation phases.

The successive traversing of the packages through the various phases of treatment, up to definitive closure, is entrusted to brushless motors controlled by relevant drives.



MF 50

Vertical Packaging Machine

The MF 50 vertical packaging machine is designed for packaging small formats of a wide range of products. The bag is created starting from a reel of flat sheet while the hermetic closure of the bag is performed by two hot sealing bars.

Even though it is the smallest in the range, this automatic packaging machine embodies all of the technology of the larger packaging machines.

Versatile, compact and fast, the MF 50 packaging machine adapts to an enormous variety of applications. It can be used in the foodstuff sector as in the chemical and pharmaceutical industries. The packaging machine is available in various versions according to the products to be handled:

MF 50/S for solid granular and non-granular products (pet-food, confectionery products, snacks, legumes, nuts.)

MF 50/L for liquid products, products, products in brine.

MF 50/N for packaging in modified atmosphere.

The MF 50 vertical packaging machine cannot only make pillow type bags but also block bottom bags, which are highly demanded by the food industry.



MF 52

Vertical Packaging Machine

The MF 52 vertical packaging machine is an automatic machine designed to realise small and medium formats. Fitted with brushless servo-motors, it can reach high production speeds and adapts to all industrial applications that require fast and consistent production.

Depending on the type of product, it can be combined with volumetric or weight dosing machines. Complete with a Multi-head electronic scale, it is a vertical packaging machine ideal for products with particular characteristics in terms of fragility and flow speed, such as pet food, pasta, baked products, vegetables, snacks etc.

If coupled with a rotating cup volumetric dosing machine, it becomes an ideal packaging machine for granular products, such as granulated sugar, cornflour, cereals, legumes, washing powders etc.

Starting from a reel of flat sheet, the MF 52 packaging machine can make a wide range of formats and types of bags. Filling can take place in a modified atmosphere.



MF 52 Vacuum Vertical Packaging Machine

The MF 52 VACUUM vertical packaging machine is developed to make small and medium formats starting from a reel of flat sheet, with vacuum filling.

This solution is particularly suitable every time the product shelf-life must be extended. At the same time, the vacuum packaging allows perfectly compact and square packaging to be obtained.

The vacuum chamber will be positioned inside the automatic machine, in the lower part of the packaging machine, at exit of the forming tube. For this reason, the machine is taller than the other MF 52 series models. The vacuum chamber can be double or single, depending on production requirements, and was developed to make format change functional and fast.



MF 52 Continuous Vertical Packaging Machine

The MF52 C model vertical packaging machine with continuous motion, distinguishes itself for its high production and its capacity to adapt to the most varied production situations. This means it is the ideal tool for anyone wishing to quickly and hermetically package their own products.

The very fast production rate (up to 180 b.p.m.) is the element that distinguishes this automatic machine. This is obtained via the combination of different factors, among which:

- ⊙ The special plastic film drive system controlled by 2 independent brushless servomotors.
- ⊙ The continuous movement of the sealing units driven by the brushless servomotor. The vertical and horizontal heat-sealing devices in fact make a continuous “up and down” movement and the temperature is checked via PLC.

Fast, flexible format change, easy to clean and very reliable, the MF 52 continuous vertical packaging machine is one of the top of the range products in the MF VFFS series.



MF 54

Vertical Packaging Machine

In the MF TECNO vertical packaging machine range, the MF 54 automatic machine is the intermediate model and is a reliable, high performance solution for packaging medium-sized bags.

The MF 54 is characterised by its extreme user-friendliness and great versatility, which allows it to be introduced into many other sectors: animal feed, cereals, flours, sand, aggregates, soil, bark, supplements, oxides and more.



MF 58

Vertical Packaging Machine

The MF 58 vertical packaging machine is the ideal solution for automatically forming, filling and closing big bags for bulk products. Among these we can indicate soils, seeds, animal feed, plastic granules, low density products with various particle size.

Starting from a reel of flat film, the bag is formed around the tube and then heat-sealed vertically and horizontally. A pair of rubberised tracks, driven by servo-motor and with self-centring device, pull the film downwards for the desired bag length; simultaneously the dosing machine unloads the selected amount of product into the bag.

The sealing horizontal grippers opening and closing movements are via servo-motor.



MF 58 VACUUM

Vertical Packaging Machine

The MF 58 VACUUM is a vertical packaging machine developed to make large formats with vacuum filling, starting from a reel of flat sheet.

This solution is particularly suitable every time the product shelf-life must be extended. At the same time, the Vacuum packaging allows perfectly compact and square packaging to be obtained, even if very large.

Given the large dimensions of the bags, in this case the vacuum chamber will be positioned outside the automatic machine, at the side. The vacuum chamber can be double or single, depending on production requirements, and was developed to make format change functional and fast.



MF 62

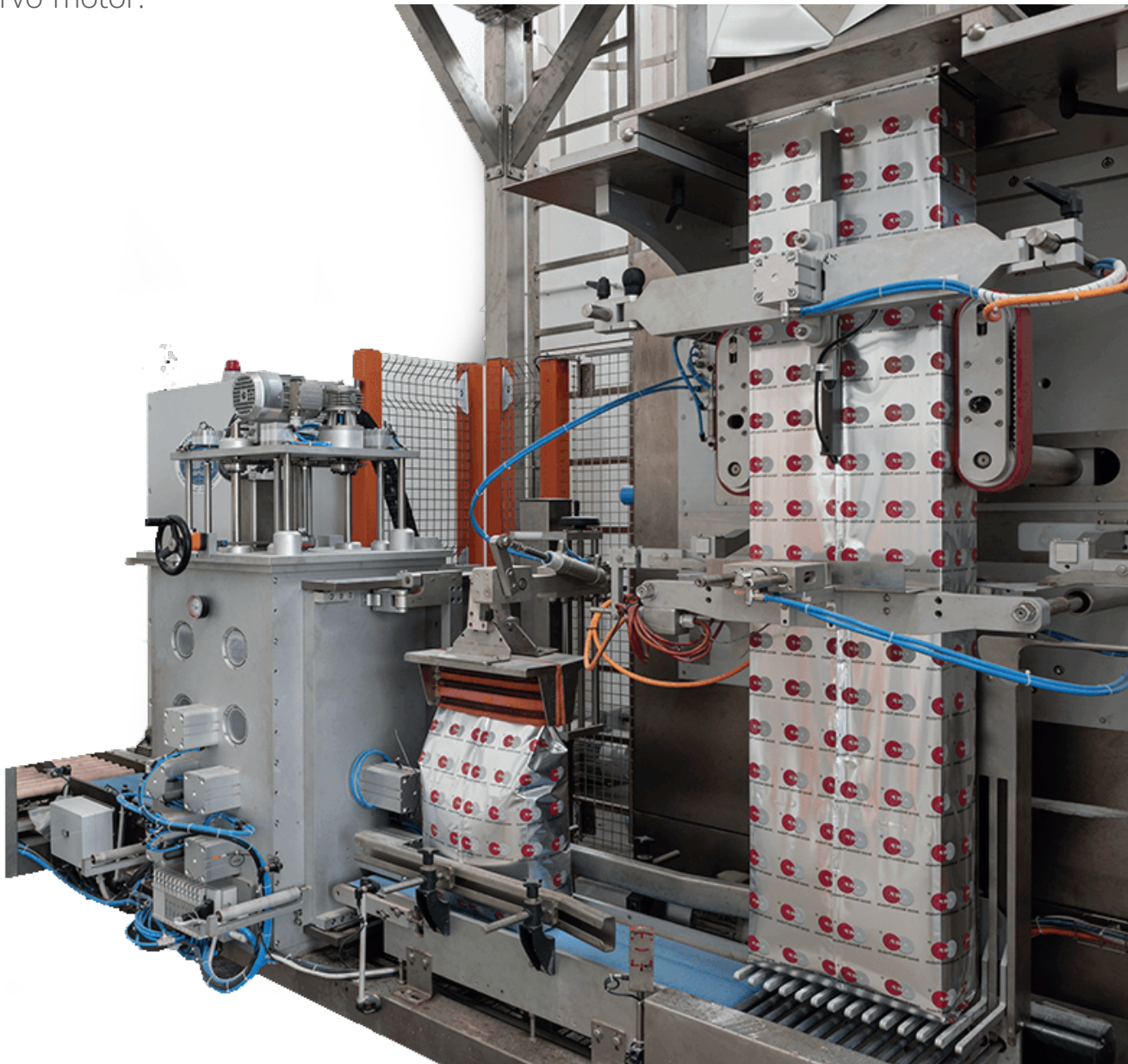
Vertical Packaging Machine

The MF 62 vertical packaging machine is the ideal solution for automatically forming, filling and closing big bags for bulk products.

Among these, soil, seeds, animal feed, plastic granulate, low density products with various granule size.

Starting from a reel of flat film, the bag is formed around the tube and then heat-sealed vertically and horizontally. A pair of rubberised tracks, driven by servo-motor and with self-centring device, pull the film downwards for the desired bag length; simultaneously the dosing machine unloads the selected amount of product into the bag.

The sealing horizontal grippers opening and closing movements are via servo-motor.



BAF-600M

Open Mouth Bagging

The BAF-600M is a semi-automatic pre-made mobile bagging system which can be customized to suit all customer requirements including robot palletising and pallet wrapping.

Ideal for customers who have available factory space the BAF-600M provides a Robust system to increase production rates.

Complete with the BAW-400B, Bag Handling and ABB robotic palletiser the standard unit is a robust reliable bagging unit capable of producing 600 bags an hour.





BAB 180B

Belt Feed Unit

The Ultimate Bulk Bag Filling System the BAB-180B is the quickest bulk bagger available from Bulk Automation.

Capable of filling 3 bulk bags per minute, the 8m³ heavy duty hopper feeds onto a large in-feed belt conveyor which then feeds the product up to waiting Bulk Bag.

The Bulk Bag Filling is controlled Via an integrated weighing system that fills the bag to a pre-set weighment, making bulk automation quick, accurate and operator friendly.

The tunnel or looped Bulk Bags are place onto the waiting weigh frame by the operator and filling begins to the pre-set weight, once the target weight is reached the feed belt stops and the filled bag is ready to be removed and the process is repeated.

The BAB-180B can be customised to suit multiple different products and designed to the customers unique specifications and requirements to ensure the unit exceeds their expectations in productivity and reliability.

BAB180C Belt Feed Unit

The BAB-180 C Bulk bagger has been specifically designed for compost, topsoil and other non-free flowing products such as mulch and bark. The system comes with the straight sided hopper that has a wide flat belt below feeding product onto the infeed conveyor that fills the bag.

The hopper has built in agitator screws to ensure the product does not compact and bridge, these also ensure a consistent flow of product into the infeed belt, this will ensure consistent weights. Product is gross weighed via the platform scale as the product fills the bag. Target weights can be altered to suit using the weigh indicator.

Operators place tunnelled or looped bulk bags onto the forks attached to the weighing unit, the operator starts the filling process by pressing "Start System" on the control panel, once the filled bulk bag is removed with a forklift or telehandler the process can be repeated.



MF BIG BAG

Net Weight Bagging Machine

The MF BIG BAG PN semi-automatic bagging machine is designed to fill big bags of various sizes and is the ideal solution for a wide range of granular and non-granular products.

The presence of a net weight weighing machine allows the product already weighed to be unloaded directly into the big bag, thus allowing high levels of production to be reached. The 4 column load-bearing structure in tubular steel and the service gangway allow the operator to work with maximum ease and safety.

Several versions are available, from the smallest composed of a dosing machine and hooking structure, to the most automated with a hydraulic lift, automatic pallet storage, outfeed rollers and parking rollers for big bags that have already been filled.

MF BIG BAG

Gross Weight Bagging Machine

The MF BIG BAG PL semi-automatic bagging machine is designed to fill big bags of various sizes and is the ideal solution for medium production.

It is made up from a 4 column load-bearing structure in tubular steel with service gangway for the operator responsible for hooking the big bags. The simplicity of big bag hooking and release, along with a gross weight weighing system, make this bagging machine a simple and reliable solution for a wide range of granular and non-granular products.

Several versions are available, from the smallest composed of a dosing machine and hooking structure, to the most automated with a hydraulic lift, automatic pallet storage, outfeed rollers and parking rollers for big bags that have already been filled.





BAW-400B

Belt Feed Unit

The BAW-400B is the Ultimate in Semi-Automatic Pre-Made Bagging equipment, a Compact Robust system for bagging Aggregates, Rock Salt, Wood pellets, Animal Feeds and much more.

An extremely robust unit the BAW-400B is designed and built to operate in the harshest environments, the "v" profile rollers ensure a reliable product transfer up to the electron bag clamp.

Capable of 600 bags an hour, typically the BAW-400B is integrated with an 8m³ hopper, infeed belt conveyor, filled bag conveyor and continuous Saxon Hot Air Sealer, Bag Handling system and Robotic Palletiser.

Please contact our sales team for more information.



DR SERIES

Semi-Automatic Bagging Machine

The DR line automatic bagging machine has a strong AISI 304 stainless steel single-piece structure and is available in two versions: with gross weight or net weight weighing machines and can be supplied with various dosing systems: belt, gravity or screw depending on the type of product.

The filling spout of the semi-automatic bagging machine, made up from a stainless steel cone, is interchangeable on the basis of the different formats to be made.

The foot pedal at the base of the structure drives the pistons that support the empty bag and opening of the jaws to release the full bag. The control panel is fitted with management and safety systems, such as the manual double push-button controls to unload the product into the bag.

It becomes a complete system when combined with a closing line (sewing machine, heat-sealer, gluing machine).



MF CF 1200 Carousel Semi-Automatic Bagging Machine

The MF CF 1200 carousel semi-automatic bagging machine, available in versions with four or six rotating filling spouts, is designed to fill open mouth bags of various sizes and materials. Thanks to the intermittent movement, the products are compacted perfectly inside the bags.

The perfect movements of this high production rotating bagging machine make it the ideal solution for packaging particularly fluidified products.



MF 35 WRAP

Turntable Unit

The MF WRAP 35 automatic pallet wrapping machine with turntable is one of the automatic solutions offered by MF TECNO to wrap palletised loads. It can be introduced downstream from a new or existing palletising line.

Designed for heavy duty applications (up to 2000 Kg capacity), it allows fast, compact and reliable wrapping with stretch film.

The platform wrapping system allows easy rotation of any pallet within the rotation range required. A roller or chain platform can be mounted on the rotation bearing, according to layout requirements and the type of pallet. They easily adapt to any transport speed, pallet type and weight.



MF 60 WRAP

Rotary Arm Unit

The MF WRAP 60 rotating arm wrapping machine is the fastest automatic wrapping solution for pallets offered by MF TECNO. It must be introduced downstream from a new or existing palletising line.

Designed for heavy duty applications (up to 2000 Kg capacity), it allows fast, compact and reliable wrapping with stretch film.

The rotating arm wrapping system guarantees perfect stabilisation of the palletised load: during the wrapping operation, the pallet remains completely still, while the mechanical arm rotates around and wraps it. This feature makes this solution ideal when the material packaged and palletised is highly unstable.



MF SPW 20

Semi-Automatic

The MF SPW 20 semi-automatic pallet wrapping machine with turntable offered by MF TECNO represents a flexible and user-friendly stand-alone solution for wrapping any shape and weight of palletised loads using stretch film.

Designed to support up to 1500 Kg, it is an efficient, strong and reliable line end solution.

The operator must fasten stretch film to a corner of the pallet to allow the machine to start the wrapping operation and, finally cut the film at the end of the process.

The semi-automatic wrapper with turntable can be manufactured entirely in stainless steel. It is developed for use in the foodstuff sector, for loads with aggressive products or for positioning outdoors or in environments with a high level of humidity.

Efficient, practical and reliable semi-automatic wrappers for the most varied sectors. Available in different versions, they can easily be moved from one wrapping point to another, allowing for the positioning of the palletised load using pallet jacks or forklift trucks.



FB1000

Stretch Hood Machine

The FB1000 is the base line of the Bocedi stretch hood end of the line packaging machines, and a very popular solution.

Small, Standard, Large & Extra-Large

A loyal and trustworthy servant of your end of line packaging process, the stretch hooder FB1000 is available in 4 different versions: small, standard, large and extra-large

Capable of hooding up to 2600×1400 mm to load size, the FB1000 can be arranged with up to 3 different sizes of tubular stretch film reels, with an automatic film feeding selection, to offer the flexibility to pack various pallet sizes with one machine only.





FB2000

Stretch Hood Machine

The FB2000 is the mature, complete, comprehensive flexible line of Bocedi stretch hood packaging machines.

Largest Stretch Hooder

The FB2000 end of the line hooding machine range has been specifically designed for the most challenging production cycles and packaging requirements.

The line includes 8 different models which are able to hood from a 500x400mm load size up to the larger 3600x1700mm size. The FB2000 has a hooding capacity as fast as 280+ pallets per hour depending on the load size.

The wide variety of machine models allows one to find the perfect match for your production rates and packaging requirements.

FB3000

Stretch Hood Machine

The FB3000 stretch hooder is designed to offer flexible packaging standards. With the integrated cartesian system to stretch the film, the hooder can operate with a large variety of different load shapes and sizes.

The FB3000 has the innovative patented head lowering system that allows to perform all maintenance services and operations at floor level. You can easily choose to lower the cutting edge and the sealing bar OR the film change station separately to allow the operator to perform all the necessary action within maximum safety.

With a latest up to date film opening device the hooder can work with any stretch film type or thickness from 20 to 200 micron, printed or not.

The FB3000 output capacity can reach the 80 loads per hour. Thanks to the integrated load dimension reader the machine will automatically tailor each hood for each load.

Easy to operate and with little maintenance requirement the FB3000 is designed with pneumatic movements to keep the machine as simple as possible.

With the many hood finishing achievable with the stretch hooder, do not just pack the load, pack it the way you want it.



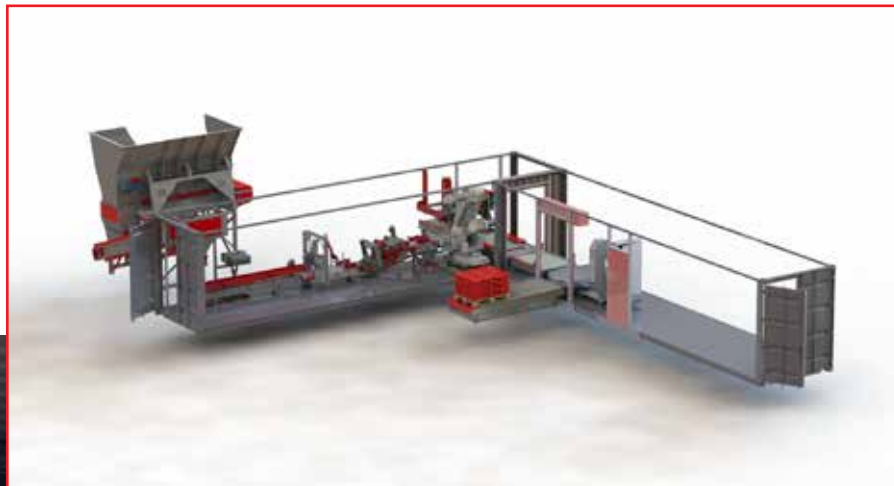
BAC-600M

Mobile Packaging System

The BAC-600M is semi-automatic pre-made mobile bagging system housed in a shipping container, a modular system which can be customised to suit all customer requirements including robot palletising and pallet wrapping.

Ideal for customers who have limited factory space the BAC-600M provides a complete self-contained factory to increase production rates.

Complete with the BAW-400B, Bag Handling and ABB robotic palletiser the standard unit is a robust reliable bagging unit capable of producing 600 bags an hour.



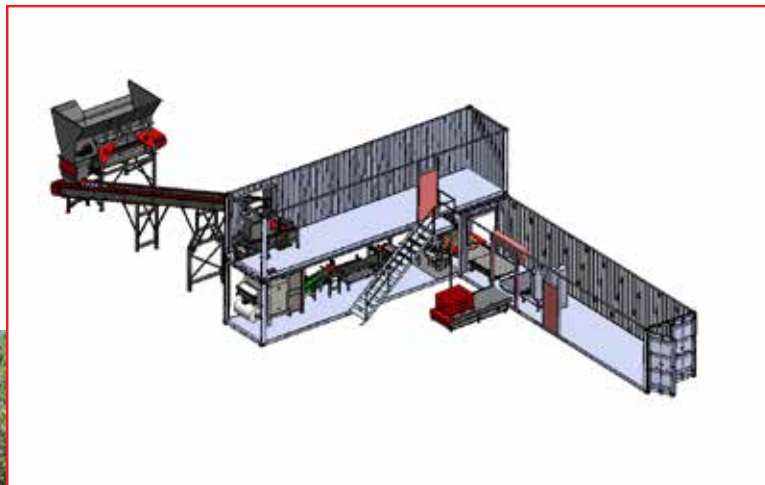
BAC-1000A

Mobile Packaging System

The BAC-1000A is the ultimate in Fully Automatic Mobile bagging systems, housed in a shipping container, a modular system which can be customised to suit all customer requirements including robot palletising and pallet wrapping.

Ideal for customers who have limited factory space the BAC-1000A provides a complete self-contained factory to increase production rates.

Complete with Automatic Bagging Unit, Bag Handling and ABB robotic palletiser the standard unit is a robust reliable bagging unit capable of producing up to 1000 bags an hour.





COMPACT MF PCA 400 TWIN

Automatic Cartesian Palletiser

The MF PCA 400 model is an automatic cartesian palletiser designed for medium production and is characterised by a structure with 4 load-bearing columns, while the grippers move along a beam that lifts and lowers on two structural aluminium vertical arms, which in turn slide forward and backward longitudinally along a strong tubular steel structure, which makes up the main frame.

Thanks to the different optionals, the following palletising can be obtained:

On the ground with a single palletising station (standard version)

On the ground with a double palletising station ("Twin" version): The advantage of this solution consists in the increased work autonomy; being able to evacuate the already completed pallet in a station without having to stop the machine operating cycle.

On service rollers: thanks to the combination of other modules (e.g. automatic pallet storage, parking rollers, etc.), this solution grants maximum operating autonomy, since it is possible to accumulate several complete pallets without interrupting the work cycle.

Use of the brushless motors for movement of the axes (X, Y, Z and R) allows the fast processing of loads up to 50 kg per cycle together with high precision and repeatability of the movement.

COMPACT MF PCA 700 TWIN

Automatic Cartesian Palletiser

The MF PCA 700 model is a robotic telescopic cartesian palletiser for medium and high production, based on a structure with 4 load-bearing columns and a vertical telescopic arm.

Thanks to the different optionals, the following palletising can be obtained:

On the ground with a single palletising station (standard version)

On the ground with a double palletising station ("Twin" version): The advantage of this solution consists in the increased work autonomy; being able to evacuate the already completed pallet in a station without having to stop the machine operating cycle.

On service rollers: thanks to the combination of other modules (e.g. automatic pallet storage, parking rollers, etc.), this solution grants maximum operating autonomy, since it is possible to accumulate several complete pallets without interrupting the work cycle.

Use of the brushless motors for movement of the axes (X, Y, Z and R) allows the fast processing of loads up to 50 kg per cycle together with high precision and repeatability of the movement.





MF PRC 1000 – 6 COLUMN

Automatic Cartesian Palletiser

Robotic palletiser with top loading, based on a structure with 6 load-bearing columns with electro-mechanical pallet lift. It is distinguished by its particular strength, versatility and high production speed.

The precision and flexibility of bag positioning, typical of robots, merges with a compacting capacity and the speed of a traditional “layered” palletiser.

The finished pallet results extremely compact since the bags can be pressed vertically and horizontally.

The use of cutting edge brushless motors and drives make this palletiser fast and reliable. The electronics used allow any type of layer to be made. The simplified and user-friendly management software allow also less expert operators to quickly change the work program, and even change the palletising pattern to adapt it to various needs.

PSM 1500/S

Automatic Push Type Layer Palletiser

The MF PSM 1500 model is a layer palletiser, based on a strong structure with 2 load-bearing columns with pallet on the ground at the roller and bag infeed and mid height. It is distinguished by its particular strength, versatility and high production speed.

The central loading station, an upgrade of the traditional bottom and top loading systems, allows up to 1500 bags/hour to be processed. The result is an extremely compact and stable pallet, which does not undergo typical ascent/descent stress, due to the lifting device of a palletiser above.

The use of brushless motors and cutting edge drives make the PSM 1500/S palletiser fast and reliable. The electronics used allow any type of layer to be made. The simplified and user-friendly management software allow also less expert operators to quickly change the work program, and even change the palletising pattern to adapt it to various needs.

Ideal for customers who have limited factory space the BAC-600M provides a complete self-contained factory to increase production rates.

Complete with the BAW-400B, Bag Handling and ABB robotic palletiser the standard unit is a robust reliable bagging unit capable of producing 600 bags an hour.





Robotic Palletising

Automatic Robotic Palletiser

Robot palletising machine based on the much tested IRB 460 model anthropomorphic robot, characterised by its small dimensions and with a 110 kg capacity, defined the fastest palletisation robot in the world.

It can perform over 2190 revs. per hour and this 4 axes robot is perfect for high speed palletisation. It is characterised by its strength, versatility and production speed.

Combined with the other peripherals manufactured by ourselves and our partners it is the ideal tool for creating any type of layer. The simplified and user-friendly management software means that even less expert operators can quickly change the work program and even change the palletising pattern to adapt it to your various needs and requirements.

PICK & PLACE

Complete Systems

Bulk Automation offer a wide range of “pick & place” solutions for the introduction of packets, bricks or cases into the boxes via robot or more conventional means.

Our solutions are ideal for handling medium and high production palletising, depalletising, stacking and filling, systems are designed to work within the space constraints of your work space.

Having top quality anthropomorphic robots or conventional cartesian solutions capable of ensuring high speeds, the automated withdrawal and positioning of units can be customised to move any product size coming from any type of packaging.

The entire process is designed specifically for the customer’s requirements, manufactured with top quality components and installed by our expert technicians to provide an excellent solution.



MF PCA SMART

Automatic Cartesian Palletiser

The automatic palletiser has been designed to work efficiently and easily in limited work spaces.

The bag clamp moves along an arm that lifts and lowers on a column, which slides longitudinally on relevant guides along the tubular steel structure, which makes up the main frame.

Use of the brushless motors for movement of the axes (X, Y, Z and R) allows the fast processing of loads up to 50 kg per cycle together with a high precision and repeatability of the movement.

Palletising on the ground is envisioned in standard versions, however the automation of the empty pallets loading process and the evacuation of the same at cycle end (optional), facilitates work in the company, thus reducing operator interventions with consequent increase in production.



MF/FC 450/600

Case Packer

The MF TECNO cardboard box automatic forming line is made up from two main models (version 450 or 600), which differ due to the min. and max. dimensions to be processed and production.

Both the machines perform the same function of withdrawing the dies from inclined, high-capacity storage, using a swing arm with suction cups, to open and form the box via an electromechanical unit and then transfer it to the filling area. Once filled, the box can be closed using adhesive tape or hot glue.

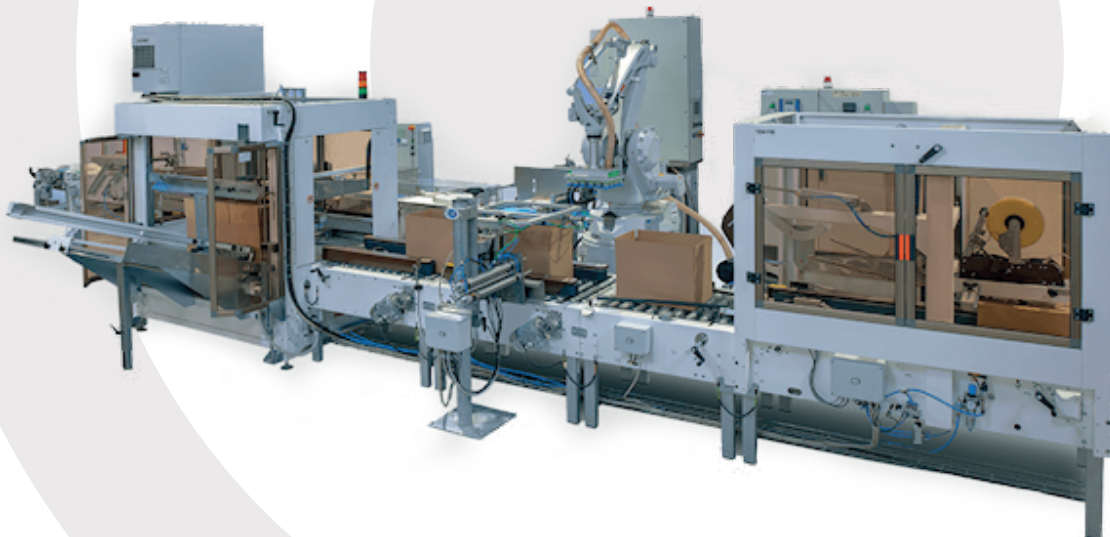


MF-CS-N/HM

Case Packer

The MF TECNO cardboard box Automatic Closing Machines line adapt perfectly to completely automatic lines, where the box arriving on a roller is centred, closed and dragged towards the sealing unit, which can be using Hot-Melt glue in the CS-HM version or adhesive tape in the CS-N version

A system of wing compression rolls provides the correct pressure on the upper and lower edges of the boxes. The small dimensions and user-friendliness make this solution safe and easily adaptable to any production reality.



AUTOMATIC DISTRIBUTORS

Pallet Handling

Bulk Automation offer three different types of automatic Warehouses/Distributors: empty pallets, underlay and P.E. sheets.

The first automatically distribute empty pallets of any size. They can contain up to 14/15 stacked pallets (Weight approx. 600 Kg). Each pallet is picked electro-pneumatically. No adjustment is required on variation of the dimensions of the pallet.

Starting from a pile of pre-formed sheets of any size, the automatic cardboard or "PE" underlay distributors, can position the underlay on the empty pallet between the layers (during palletising) or on the top of the finished pallet. Various optionals available.

Starting from a reel of "PE" film, the automatic sheet distributors can automatically dimension, cut and apply the sheet onto the surface of the empty pallet. Various optional available, like the systems used to fasten the sheet onto the pallet (automatic riveting machines, staplers) and the like.

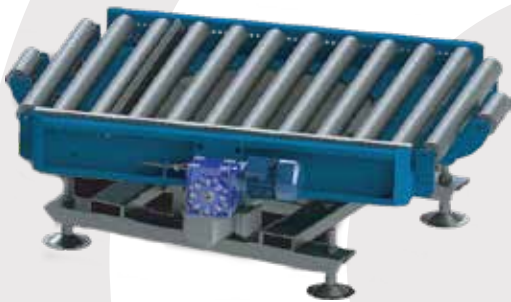


PALLET HANDLING

Turntable Unit

Manufactured for heavy duty applications (up to 2000 Kg capacity), they facilitate rotation of any pallet within the rotation range required.

A roller or chain platform can be mounted on the rotation bearing, according to layout requirements and the type of pallet. They easily adapt to any transport speed, pallet type and weight.



PALLET HANDLING

Shuttle Systems

Carriage platforms and shuttles on tracks, with upper transport on rolls or chains for sorting and transfer of empty or full pallets. Several solutions available.



CHAIN CONVEYORS

Pallet Handling

Strong and reliable conveyor modules with two or three chains, for full and empty pallet transport. Compact and versatile design thanks to the "modular" execution, which enables easy adaptation to customer layout.

Made up from a welded, high strength iron structure. The chain conveyor can measure up to 8 metres long thanks to the high yield a small motor can produce with this type of conveyor system. The physical characteristics of the load to convey also affect the amount of chains used and their dimensions.



ROLLERS

Pallet Handling

Different types of rollers, both motorised and idle, for conveying empty or full pallets. Compact and versatile design thanks to the "modular" execution, which enables easy adaptation to customer layout.





BAR-100R

Bespoke Robotic Palletising

Bulk automation design and build robot palletising systems that are robust and reliable to suit every requirement. Robot palletisers increase production and reliability, systems are designed to suit each customers specific needs the flexible ABB robotic range allows Bulk Automation to provide bespoke systems.

Our programming engineers have developed our own "PRO STACK" program which integrates with the ABB platform to allow operators to manipulate the stacking patterns via the HMI.

We offer the full range of new ABB robotics and also have an extensive range of reconditioned units available, our palletising systems range from a simple one on the floor for manual lines to fully automatic pallet handling systems for high speed packaging lines complete with pallet wrappers and stretch hood machines.



FEATURES AND BENEFITS

- ⊙ Automatically adapts to different formats simply and quickly
- ⊙ Management of movement on the 4 axes via brushless motors
- ⊙ Preparation for assembly of different clamping elements: gripper for bags, boxes and bundles
- ⊙ Bags press installed in the clamping element, which increases stability of the pallet
- ⊙ Possibility of processing 800 x 1200 mm and 1000 x 1200 mm pallets
- ⊙ Maximum pallet height 1800 mm
- ⊙ Automatic control of the correct operating cycle
- ⊙ Integrated security and access control system
- ⊙ Fall arrest and anti-collision against gripping system safety device
- ⊙ Touch-screen operator panel
- ⊙ Self-diagnosis system for anomalies and verification via display

PALLET & BAG HANDLING SPECIFICATIONS

PALLETS

Minimum – 800mm x 1200mm
Maximum – 1100mm x 1400mm

BAGS

Minimum – 850mm x 350mm
Maximum – 600mm x 1100mm

PRODUCTION

Up to 500 Cycles Per Hour



LOAD BELTS

Granular Products

The load belts are the ideal solution for feeding packaging machines with granular products with medium and high flow speed.

Depending on the type of product, the capacity required and the space available, MF TECNO can offer several solutions such as linear, inclined, "Z"-type belts, etc.



PENDULUM BUCKET ELEVATOR

Conveyance of Delicate Products

The Pendulum Bucket Elevator is the compromise for conveying delicate products at a height, thus guaranteeing integrity.

Its modular structure allows it to be used for the most varied requirements, allowing it to be installed in confined spaces.

The wide range of models allows its use in many sectors, from food, to chemical, to animal feed.

The possibility to have a variable number of loading and unloading points, guarantees maximum flexibility of use.





MF-O-100/120

Shrink Wrapper

The MF-O series shrink wrapper, available in versions 100 and 120, is a continuous movement packaging machine designed for packaging bags of any shape, bricks and cases arriving horizontally on the infeed belt, using heat-shrinkable film.

The MF-O 100/120 shrink wrapper is essentially made up from 3 modules:

Automatic stacker: it has the function of grouping and stratifying the product (bags, bricks and cases): great possibility of customisation on the basis of the dimensions and the number of products to be introduced into the bundle.

Sealing unit of the heat-shrinkable film around the bundle: the ends of the film, unwound by two reels, are sealed via a sealing bar.

Heat-shrinking tunnel: final module of the plant where the possibility of adjusting the speed and temperature of heat-shrinking inside the tunnel from the panel, allows a perfect bundle to be obtained.

Thanks to advanced electronics and strong frame, the MF-V 100/120 is a simple, reliable and economic solution for a wide variety of products.

MF-V-80-120

Shrink Wrapper

The MF-V series shrink wrapper, available in versions 80 and 120, is a continuous movement packaging machine designed for packaging square bottom bags, bricks and cases arriving vertical on the infeed belt, using heat-shrinkable film.

The MF-V-80/120 shrink wrapper is essentially made up from 3 modules:

Row formation unit: the module is composed of a bags reception carousel followed by a sorting device to distribute the packages on 2 rows and, finally, a pneumatic pusher for transfer of the pairs formed onto the bundle pre-forming belt.

Sealing unit of the heat-shrinkable film around the bundle: the ends of the film, unwound by two reels, are sealed via a sealing bar.

Heat-shrinking tunnel: final module of the plant where the possibility of adjusting the speed and temperature of heat-shrinking inside the tunnel from the panel, allows a perfect bundle to be obtained.

Thanks to advanced electronics and strong frame, the MF-V 80/120 is a simple, reliable and economic solution for a wide variety of products.



MULTI-HEAD

Weighing Machine

The electronic multi-head weighing machines allow a wide variety of food and non-food products to be weighed quickly and accurately. This weighing machine, available in various models, can reach up to 120 weighing operations per minute, compatibly with the dimensions and degree of smooth running of the packages.

Operation of the multi-head weighing device is based on advanced software, which allows the desired weight to be obtained using the average of the cells that make up the weighing device.

This weighing device is available with 10 or 20 heads with containers from 1.5 to 5.0 litres and is ideal for weighing products of various dimensions with different particle size, for example pet-food, biscuits, rice, short pasta or small snacks, with very high accuracy and without sacrificing weighing speed.

This model is also ideal for individually deep-frozen products.

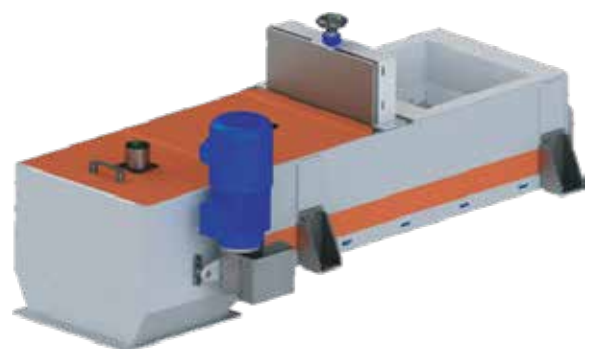


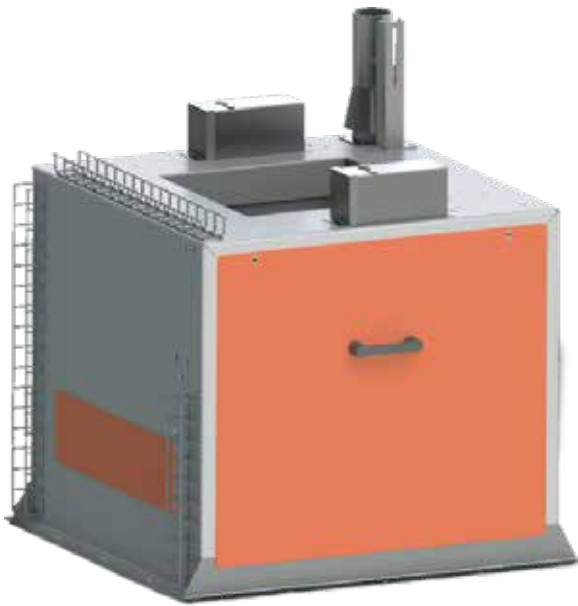
VOLUMETRIC BELT DOSING

Weighing & Feeding

Volumetric dosing machine with belt dosing system, for products with average flow speed, such as sands, soils, fibres, shavings, flakes, pellets and many more.

Developed for all production situations which do not require gravimetric dosing by weight.





GROSS WEIGHT Weighing Machine

The “gross weight” weighing machines, used for low-medium production, dose the product directly into the bag. The weight is recorded by electronic load cells, usually connected to the filling spout.

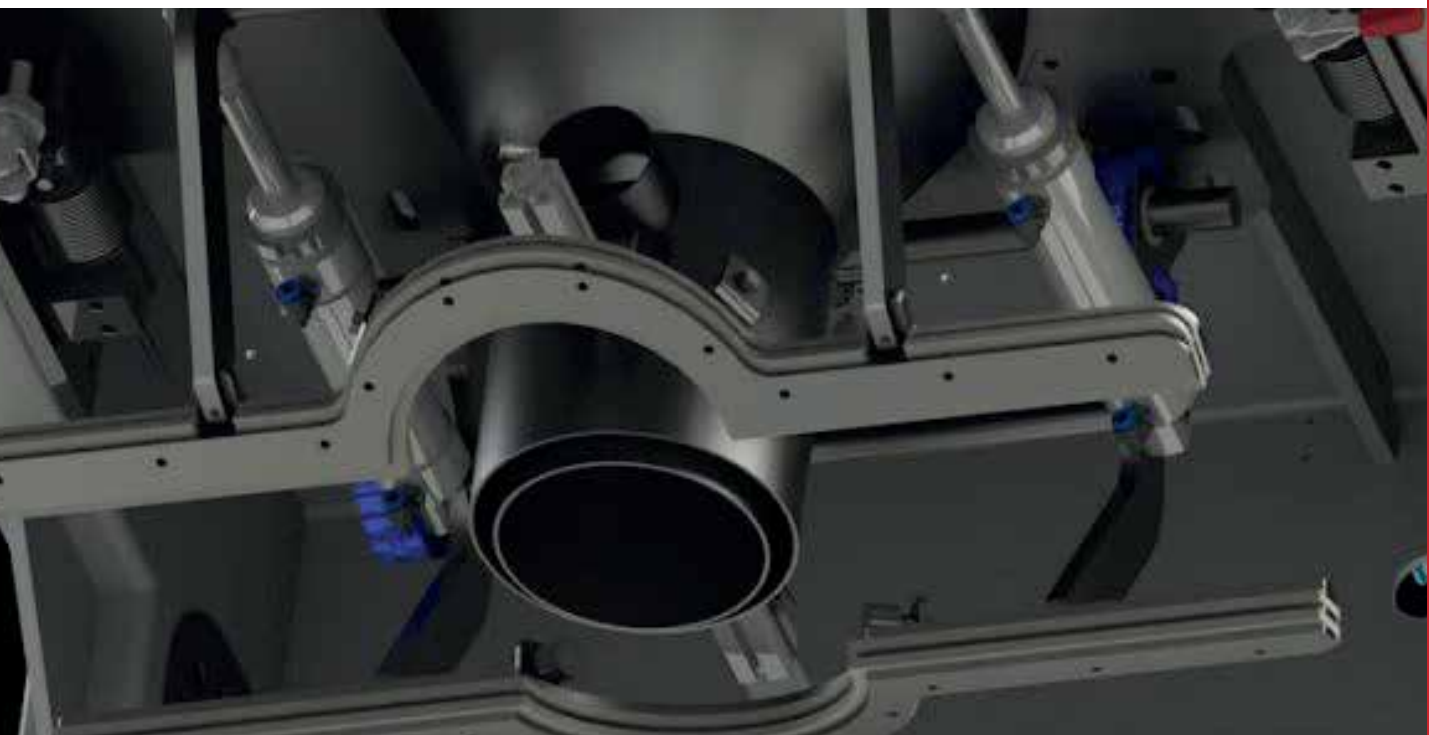
They are characterised by the reduced amount of parts in contact with the product, allowing easy access for inspection and cleaning. As for the net weight weighing machines, different types of dosing systems can also be used for the gross weight weighing machines, depending on the products that are to be handled.

The use of gross weight weighing systems becomes necessary each time products with a high degree of fluidity must be packaged, which tend to absorb a lot of air during the dosing and filling phases.

NET WEIGHT Weighing Machines

The “net weight” weighing machines, intended for medium-high production, dose the product into an appropriate weighing pan which, once the desired weight has been reached, unloads the product into the bag through a relevant connection hopper.

The weight is recorded by electronic load cells, usually connected to the weighing pan and transmitted to the weigher management electronics.





GRAVITY FEEDERS

Weighing and Feeding

Feeding system for granular products with excellent flow, made up from a slide gate, which can split the flow of product during the gross feed, fine feed and final cut phases.

The slide gate can be driven by an electro-pneumatic device or a "brushless" motor according to the speed that is to be reached.

BELT FEEDERS

Weighing & Feeding

Feeding system for powdery, cubed, flaky or granular products with medium flow.

Consisting of a conveyor belt, driven by a two-speed geared-motor, able to manage the gross and fine feeding phases.

The height of the product layer on the dosing belt is adjustable. Specific electro-pneumatic devices make the final cut.





VOLUMETRIC CUP DOSING

Weighing & Feeding

Volumetric cup dosing machine suitable for dosing granular products. Developed for all the production situations which do not require gravimetric dosing by weight.

Bulk Automation is a company built on engineering and electrical expertise within the packaging industry, with a combined experience of over 35 years BA has the capability as a company to design and build packaging systems to suit every need, we believe that simple systems are the most robust and economical and have based our company model around this.

VOLUMETRIC SCREW DOSING

Weighing & Feeding

Vertical screw volumetric dosing machine suitable for dosing particularly fast flowing powdered products.

The rolling action of the dosing machine feeder screw on the product, allows excess air to be eliminated, thus allowing it to be compacted in the bag during the unload phase.

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AUTOMATION ACCESSORIES

The necessity to adapt to the various production requirements and individual automation needs of each of our clients means that it is of course essential for us to offer a wide range of of the shelf and custom accessories.

Our accessories range improve the preliminary bagging process phase, intermediate bag closing phase and the final phase where the bag is inspected and subjected to various checks to guarantee the quality of the final result.

CHECK WEIGHER

Motorised Belt System

Check weigher systems on motorised belt are dynamic weighing systems that verify each individual product to remedy the wide margins of error of spot checks.

The unit can be completed with an automatic pusher to expel non-conform bags without having to interrupt the production cycle.



METAL DETECTOR

Annular Type

The metal detector is an instrument designed to detect small pieces of metal and signal their presence so that the contaminated product can be removed.

The annular version is particularly useful for anyone without a lot of horizontal space since it is installed astride between the weighing machine and the packaging machine.



METAL DETECTOR

Motorised Belt System

The metal detector is an instrument designed to detect small pieces of metal and signal their presence so that the contaminated product can be removed from the production line automatically.

Available in many dimensions according to the size of the package and the system can be completed with a pusher in order to expel contaminated bags without having to interrupt the production cycle.



INKJET PRINTERS

Boxes & Bags

Ink-jet printer technology is ideal for high speed industrial marking and is characterised by absence of contact with the product.

It can be used with different types of ink and is a simple and effective solution for marking packages and boxes.

Whether you're printing onto beverage cans, food containers, electronic PCBs or cables, the Ax350i provides cutting edge technology to enhance your product and maximise your production. Based on a highly-flexible modular design, the Ax350i offers an extensive range of printed drop sizes, ink types and configurations to tailor to your requirements.

The Ax350i features a range of i-Pulse printheads optimised for high-impact text printing, bar codes and QR Coding. The extensive i-Pulse ink range includes MEK-free and highly-pigmented options, as well as specialised inks for direct food contact, cable marking, PCB production and many more industry specific requirements.

All ink and make-up changes are quick and easy, thanks to the intelligent consumable system and the i-Tech module removes the cost and inconvenience of traditional servicing.



PRINT APPLY UNIT

Bags, Boxes & Pallets



Print & apply devices are versatile and simple systems to be installed in any industrial context, they allow application of highly-customisable labels in terms of both size and content. They can be applied to various packaging types such as bags, boxes and pallets.

Modular and flexible labelling maximum uptime performance safer by design with the M230i-T4 and M230i-T6 you will get one of the most flexible and safe Print & Apply solutions on the market.

Providing a choice of three standard stroke lengths, eight standard non stick pad sizes and left or right hand configuration, the M230i-T4 and M230i-T6 is highly configurable to meet your increasingly demanding and dynamic production environments – both today and in the future.

The modular design of the M230i-T4 and M230i-T6 lets you configure your Print & Apply solution to suit your specific needs. With three standard stroke lengths, reaching products up to 560 mm from the machine, as well as easily switchable pads ranging from 50 x 66 mm to 150 x 210 mm, the solution will give you the flexibility and efficiency you need in your day-to-day operations.



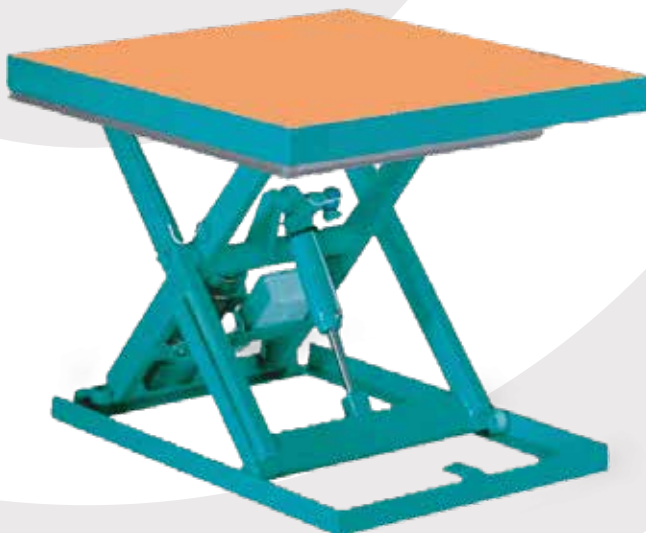
VACUUM CHAMBER

Reel Packing

The vacuum chamber designed by MF TECNO allows the vacuum packed bag to be formed automatically and directly on the line, starting from the reel of film or a pre-formed bag.

The vacuum solution is particularly suitable for products like coffee and dried fruit, and whenever there's a need to extend the product's shelf life and to obtain a perfectly compact and square packaging configuration.

Since the vacuum unit's casing is located below the packaging machine, at the forming tube's outlet, this machine is taller with respect to the other models of the same series. The particular design of the vacuum unit's casing allows for extremely fast format changes.



HYDRAULIC LIFT

Bulk Bag Handling

The hydraulic lifts are normally installed in the Big / Bulk Bag filling stations in order to facilitate release and removal of the full bags.

Several models are available depending on the measurements of the Bulk Bags.

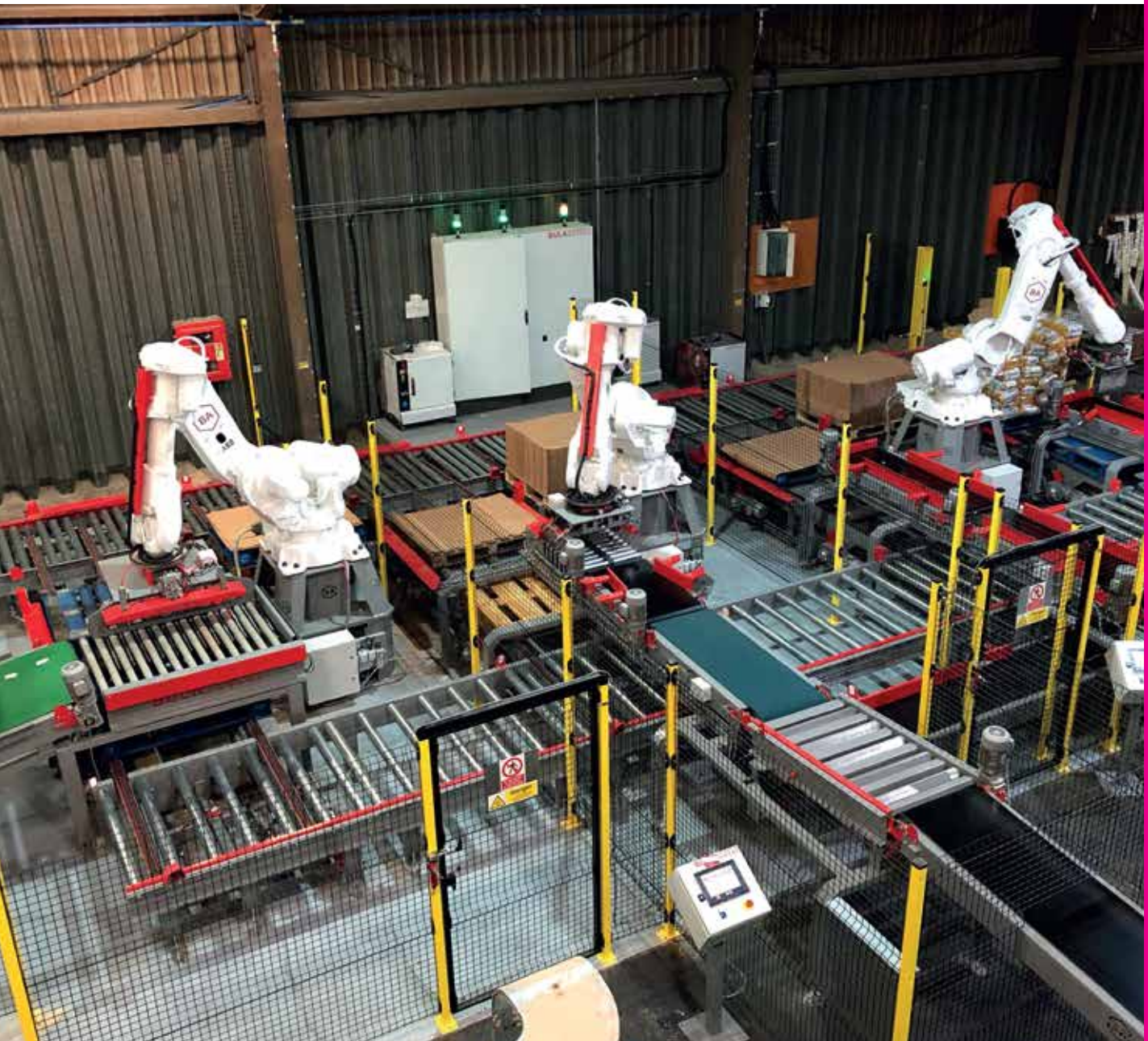
PALLET HANDLER

The pallet gripper is a device that is installed on the palletiser clamp and allows relevant mobile “arms” to be used to withdraw an empty pallet and to position it in the palletising area.

The addition of service rollers allows a completely automated system to be created, which reduces stand-by times during pallet change.

Underlay Removal

The underlay gripper is a device that is installed on the palletiser clamp and allows the use of suction cups to withdraw a piece of paper underlay and place it on the empty pallet (or one piece of underlay for each pallet layer), in order to add an additional degree of protection to the finished pallet.



SERVICE & SUPPORT

Bulk Automation appreciate the importance of rapid response to any technical queries or parts required therefore service takes priority.

Every new system we build comes with a 12-month parts and labour warranty, refurbished equipment comes with a 6 month warranty.

Service packages can be put together to suit all budgets and on site operators ability.

Repeat sales are not accidental, they occur due to relationships built with customers and Bulk Automation also knows the power of "word-of-mouth" therefore relies heavily on this marketing tool for future projects.

SUPPORT AT A GLANCE

- 12 Months Parts and Labour
- Email & Telephone Support
- Remote Access Support
- Remote Diagnostics & Monitoring
- Dedicated Service & Spare Parts Team
- Bespoke Customer Training
- Preventative Maintenance Plans



BULK AUTOMATION

PACKAGING AND ROBOTICS SOLUTIONS

Thank you for your interest in Bulk Automation, please do not hesitate to get in touch should you have any questions or require a quotation for your automation project.

Our experienced team will be happy to guide you to the perfect system for your specific requirements.

BULK AUTOMATION
Llanidloes, Powys

01686 413 399
sales@bulkautomation.co.uk
www.bulkautomation.co.uk



“ Throughout the initial design process all the way through to commissioning Bulk Automation have provided us with the highest standard of professionalism and quality.

The build quality is exceptional and the user interface simple and easy to navigate.

We would definitely recommend Bulk Automation and will certainly be using them again. ”

Altico Garden Products Ltd

BULK AUTOMATION

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