S P E C I F I C A T I O N S  &  O P T I O N S

and/or vertical packing in almost any packing pattern. The heart of the P&P case packer is the product collation system. The P&P arm enables the system to shift the complete product-handling module. This system is suitable for top loading directly into a case or loading via the vertical case-filling module. The Pick and Place arm can be equipped with a servo driven rotation unit. When packing block bottom bags or containers, the P&P arm must be equipped with a block bottom bagging or containers handling the products up to speeds of 350 bags/minute.

The vertical case-filling module enables the VP case packer to pack the products standing upward in the case. The products are pre-loaded into a cassette, where after the cassette rotates and positions it in front of the cassette. After the modulating stage the cassette is tipping upward and the products are filling the cassette.

Filling horizontal on the HVP case packer results in a SWING module. The HVP case packer combines the functionality of the HOP and the VP. This system is suitable for top loading of two, three or four cases at the same time resulting in a more controlled flow. The changeover of the patented SmartTrak® system is quick and easy (in 30 seconds only). In doing so an overlapping by which a compact packing is achieved.

The vertical packing orientation enables the system to shift the complete product-handling module. This system is suitable for top loading of two, three or four cases at the same time resulting in a more controlled flow. The changeover of the patented SmartTrak® system is quick and easy (in 30 seconds only).

At high capacity demands it may be essential to fill more than one case at a time. This can be achieved using the partition belt. A partition belt keeps the product fully under control. Even with large overlaps it remains in the exact position when indexing toward the pick up position. The flights on the partition belt keep the product fully under control. Even with large overlaps it remains in the exact position when indexing toward the pick up position.

Worldwide BluePrint Automation is recognized as the pioneer in the designing and manufacturing automated inline case pack systems for flexible products. Since its founding in 1981, more than 3500 case pack systems have been installed all over the world. The success of the company lays in the ever-growing ability to define the most effective solution for handling flexible bagged products, ensuring optimal product presentation, minimum transport volume and thus, optimizing product quality.

Multiple case loading

The Pick and Place arm can be equipped with a servo driven rotation unit. When packing block bottom bags or containers, the P&P arm must be equipped with a block bottom bagging or containers handling the products up to speeds of 350 bags/minute. The system consists of two servo-driven sets of pockets and once a row has been collected it is independently driven by the range of row collation systems available to match the specific packing needs.

Packing Patterns

Vertical packing

Horizontal packing

Product examples

- meat products, etc.
- medical bags, pastas, sugar, rice, confectionery, pet foods, snacks, crisps, dried fruit, nuts,
- all types of flexible products, such as pillow bags, block bottom bags, pouches, any pouch, flat wallets, etc.

Case dimensions

- 200 x 400 x 600 mm
- 250 x 450 x 650 mm

 Capacities

- up to 650 bags/two cases
- up to 600 bags/minute

Case pack systems available to match the specific packing needs.

Any choice of frequency detected puts the product in the correct path for either horizontal or vertical packing. After separating and packing separately speedily, the products overlap up to 10 bags maximum. The high speed High Speed smart® conveying system allows the handling of the products to an output of 600 bags/minute. A case derived from the SmartTrak® system is pre-loaded in the cassette. After the SmartConveyor® conveyor is indexing toward the pick up position the last up position. Without complicating any packing already made, the overlapping can be removed up to 10 bags maximum.

For more information, visit our website at www.blueprintautomation.nl.
P & P GENERAL DESCRIPTION

The BluePrint Automation range of Pick & Place case packers has been specially designed to pack a variety of products such as pillow bags, stand up pouches, doypacks, boxes and other products into RSC cases, trays, crates and other secondary containers.

The P&P casepacker is capable of horizontal packing and/or vertical packing and can be changed over to a complete new packing style in minutes. By using quick release systems, referenced mechanical settings and an efficient changeover procedure the changeover to a total different product and case size is realized within 5 minutes only (this may even include the change from horizontal to vertical packing).

The case packers consist of a standard Robotic platform provided with dedicated handling parts to match the specific application. This may include e.g. the patented SmartTrak® system for high speed bag pre-collation and the End-effector to pick up the pre-collated bags and place them into the case. This construction method simplifies changeovers and makes the machine easily adaptable for future packing needs.

The ergonomic and open design provides easy access to the machine and creates a maximum process overview. The robust construction in combination with high quality components ensures minimal maintenance needs.

This machine provides the solution for all your case packing needs. Whether you are running small volumes at a modest speed or high volumes at high speed, packing horizontally or vertically, the Pick and Place case packer will be tailor-made for your application.

You provide us with your requirements, we provide the solution.

1. Product Feed Conveyor
   - Transports the product toward the infeed height of the case packer. During this transport different ways of bag verification can be performed such as weight control, metal detection and open seal testing.

2. Product Cross Transfer
   - The products are transferred to the product collation system. Depending on speed, type and the orientation of the product the appropriate cross transfer is applied.

3. Product Collation System
   - Individual bags are pre-collated with or without an overlap. A complete row of products is formed as per desired packing pattern. The type of collation system is depending on product type, capacities and packing patterns.

4. Pick & Place Robot
   - The arm of the P&P robot is controlled by two stationary servo drives. These stationary drives in combination with the light-weight P&P arm allow up to 35 cycles/min. The P&P arm picks up the row of bags and places it directly into the case when packing horizontally or into the intermediate cassette when packing vertically.

5. End Effector
   - Specially designed end-effectors provide optimal control when the row is picked up and placed. The effector may consist of simple vacuum cups or a unit creating the required overlap of the bags up to individual controlled mechanical grippers. A servo driven turning unit on the end-effector may invert the product.

6. Empty Case Transport
   - Cases are separated and transported into the case packer in length or crosswise direction.

7. Case Filling Position
   - One or more cases are automatically positioned on the case filling position. When the products are laying flat in the case, they are filled directly into the case.

8. Case Tipper
   - When packing in a standing up orientation, one or more cases are tipped 90° in front of the intermediate cassette. When the case is filled it is tipped back in two steps to prevent the product to fall out of the case during the tipping movement.

9. Intermediate Cassette
   - For vertical packing, a row of bags is placed into the intermediate cassette by the Pick & Place unit. This movement is repeated until a full case is formed.

10. Side Load Pusher
   - The complete caseload as formed in the intermediate cassette is pushed sideways into the tipped case. The movement is servo controlled so the caseload remains fully under control during the transfer into the case.

11. Case Outfeed Conveyor
   - Filled cases are discharged from the case packer towards the downstream equipment such as a case closer, label-unit or palletiser.
P & P GENERAL DESCRIPTION

The BluePrint Automation range of Pick & Place case packers has been specially designed to suit a variety of products with output ranges, design structure, boxes and other packages into RSC cases, trays, crates and other secondary containers.

The P&P casepacker is capable of horizontal packing and / or vertical packing and can be changed over to a complete new packing style in minutes. By using quick release systems, referenced mechanical settings and an efficient changeover procedure the changeover to a total different product and case size is realized within 5 minutes only (this may even include the change from horizontal to vertical packing).

The casepackers consist of a standard Robotic platform provided with dedicated turning parts to match the specific application. This may include e.g. the patented SmartTrak® system for high speed bag pre-collation and the Gripper unit to pick up the pre-collation and the machine parts designed for low maintenance requirements and easier changeovers.

The ergonomic and open design provide easy access to the machine and creates a maximum process overview. The robust construction in combination with high quality components ensures minimal maintenance needs.

This machine provides the solution for all your case packing needs. Whether you are running small volumes at a modest speed or high volumes at high speed, packing horizontally or vertically, the Pick and Place case packer will be tailor-made for your application.

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1. Product Feed Conveyor
   Transports the product toward the infeed height of the case packer. During this transport different ways of bag verification can be performed such as weight control, metal detection and open seal testing.

2. Product Cross Transfer
   The products are transferred to the product collation system. Depending on speed, type and the orientation of the product the appropriate cross transfer is applied.

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   Individual bags are pre-collated with or without an overlap. A complete row of products is formed as per desired packing pattern. The type of collation system is depending on product type, capacities and packing patterns.

4. Pick & Place Robot
   The arm of the P&P robot is controlled by two stationary servo drives. These stationary drives in combination with the light-weight P&P arm allow up to 35 cycles/min. The P&P arm picks up the row of bags and positions it directly into the case when packing horizontally or into the intermediate cassette when packing vertically.

5. End Effector
   Specially designed end-effectors provide optimal control when the row is picked up and placed. The effector may consist of simple vacuum cups or a unit creating the required overlap of the bags up to individual controlled mechanical grippers. A servo driven turning unit on the end-effector may invert the product.

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   Cases are separated and transported into the casepacker in length or crosswise direction.

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10. Side Load Pusher
    The complete caseload as formed in the intermediate cassette is pushed sideways into the tipped case. The movement is servo controlled so the caseload remains fully under control during the transfer into the case.

11. Case Outfeed Conveyor
    Filled cases are discharged from the casepacker towards the downstream equipment such as a case closer, label-unit or palletiser.
Different case packer types are available allowing horizontal or vertical packing in almost any packing pattern. The heart of the P&P case packer is the product collation system, by which the product is pre-loaded into a cassette, whereafter the product is collated, so that the agent can pick up products up to eight at a time. At high capacity demands it may be essential to fill more than eight products per cycle. The Pick and Place arm can be equipped with a servo driven SmartTrak® collation system enabling the system to shift the complete product handling between horizontal and vertical at the same capacity. With the servo driven SmartTrak® collation system, the changeover of the patented SmartTrak® system can be done in 30 seconds only.

Without compromising on packing security speeds are reached up to 100 bags/min. By means of frequency controlled belts the product is collated next to each other or with a controlled overlap. The flights on the partition belt keep the product fully under control. Even with large overlaps it remains in the exact position when indexing toward the pick up position. Our object is to achieve customer satisfaction and remain market leader by being highly efficient and minimum maintenance. In addition, our comprehensive service team is available twenty-four hours a day around the clock operation, seven days week.

The success of the company lays in the ever-growing ability to define the most effective solution for handling flexible bagged products, ensuring optimum product presentation, minimum transport volume and thus, optimizing product quality. Remaining at the leading edge of technology is a high priority for us. Our objective is to achieve customer satisfaction and remain market leader by being highly innovative, as well as the several benefits of the customers. Our vision is to achieve customer satisfaction, increased productivity, process optimization and high service support.

Our pick and place system is the product shown in this magazine. It is the successor of BluePrint Automation experience and know-how in designing and manufacturing automated end-of-line case pack systems for flexible products. Since it’s founding in 1980, more than 2500 case pack systems have been installed all over the world.
Specifications & Options

Packing orientation

Other case packer types are available allowing functional and vertical packing in almost any packing pattern.

Horizontal packing

The HOP and Vertical packing are designed to pack the product directly into the packaging case.

Vertical packing

The vertical packing module enables the VP case filler to fill the case in a vertical mode. The product is fed directly into the cassette, where after packaging is oriented for horizontal loading next to the position of front of the cassette. After loading the cassette is fed into the case filling position.

Horizontal/Vertical packing

A vertical packaging module is available allowing the horizontal packing indexed towards the back of the VP case. This is a very good solution for filling long cases. The vertical module is put on top of the VP to make it a VP and HVP case packer.

Filling orientation

Filling horizontal on the HVP case packer results in a case with two different rows of bags on the right hand side. The product is fed from right to left into the cassette. The cassette is tipped back after the last bag is placed horizontally. The upper bags are then tipped sideways into the case. The bottom bags are filled horizontally every second row.

Multiple case loading

The Pick and Place arm can be equipped with a servo driven SmartTrak® collation system. When packing block bottom bags it is essential to fill a full case every 2, 3 or 4 cases. The case is filled with block bottom bags, with the product horizontally packed. The case is then filled with the next row and tipping the case back the product is standing upward in the case.

Vertical & Horizontal packing

The vertical case-filling module enables the VP case filler to fill the case in a vertical mode. The product is fed directly into the cassette, where after packaging is oriented for horizontal loading next to the position of front of the cassette. After loading the cassette is fed into the case filling position. This results in a case with two different rows of bags on the right hand side. The vertical module is put on top of the VP to make it a VP and HVP case packer.

Rotation head

The Vertical Pack head is a.c. driven and is equipped with a very smooth electronically controlled Governor. The Governor controls the rotation of the Vertical Pack head, which is very smooth and constant. Even with large overlaps it remains in the exact position when indexing toward the pick up position.

Weight range

Horizontal packing enables the system to shift the complete product-handling frequently without disturbing the infeed flow. The changeover of the patented SmartTrak® system is quick and easy (in 30 seconds only).

Case specifics

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Pick and Place Case Packer

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Pick and Place Case Packer