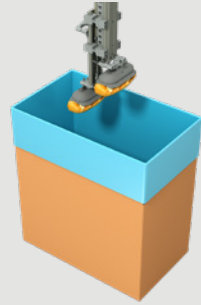# PATTYN®

3-IN-1 ROBOT SOLUTION
ARGOSWING-31

Quality control, counting and pick & place solution to feed any container with any type of frozen bread product.

THE UNIVERSAL BAKERY SOLUTION

Maximum Automation on minimum Footprint

- **Compact** and **high speed** pick & place system
- Box conveying engineered for **optimal flow**
- **Consistent packing** of your products - 24/7
- **Non-conform** products are **ejected**

One solution for all types of frozen bread products

- **Quick changeover** between products & boxes
- In-line product specific **quality control & counting**
- **Robot picking** adaptable to a **wide range of products**
- **Bulk products** can be **packed independently** from the robots

▶ **Watch our videos at pattyn.com**

TECHNICAL SPECIFICATIONS ARGOSWING-31

3D and color vision technology
- Highly accurate 3D scanning system to guarantee the product shape
- Non-conform products are identified and will not be picked
- Detailed belt position identification managing the picking robots

3D Vision

Box conveying
- Empty box distribution and full box collection from a central conveyor under the product conveyor
- Empty boxes are buffered upstream into each filling station to guarantee continuous operation of the robots
- Boxes are conveyed short side leading for an optimal flow
- Retractable box conveyor for easy access

Robot picking system
- The program assigning products to the robots balances reactiveness on fluctuations in the product flow with an optimal use of each individual robot
- Ceiling mounted robots minimize interference with the products on the conveyor and maximize the overall speed
- Individual lifts bring the boxes to an optimal height and limit potential product drops or extra robot manipulations
- The specific design of the cups connected with a centralized high volume vacuum turbine allows the system to handle any product, even heavily seeded products

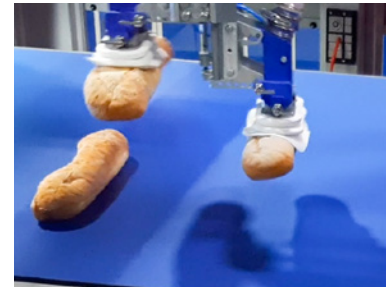Robot with 2 individual suction cups

Product handling
- Robots have 2 individual suction cups or mechanical grippers to ensure gentle product handling
- The optimal combination of Double Pick / Single Drop, Double Pick / Double Drop or Single Pick / Single Drop is chosen in function of the product and its packing arrangement
- Only conform products are picked, non-conform products are collected at the end of the line.

Ceiling mounted robot

Handling of bulk products
- An optional bulk box filler MEC-11 puts the batches in the right boxes
- No extra robot capacity is to be foreseen for high volume bulk products
- The combination of the 3D vision counting and an optional bottom-up-finger system separates the product flow accurately into batches

Optional MEC-11 bulk box filler

CAPACITIES PER ROBOT (UP TO)				
	Double Pick / Single drop		Double Pick / Double drop	Single Pick / Single drop
Rate	2500 p/h	2200 p/h	1750 p/h	1500 p/h
Product Weight Max	150 g	300g	300 g	800g
Product Width Max	180 mm			Box size limit

BOX SIZES			
	Length	Width	Height (flaps open)
Min	400 mm	300 mm	250 mm
Max	610 mm	410 mm	550 mm

CONSUMPTION PER STATION FOR 2 ROBOTS (ABB)			
Installed power	7 kW	Voltage	3 x 400 V + E / 50 Hz
Air supply	6bars	Air consumption	100 Nl / min

CONSTRUCTION
Painted steel construction
Open frame for product conveyor width of 870 or 1000mm
Weight 1800 kg (one station with 2 robots)

OPTIONS (More options available, please contact Pattyn)
Stainless steel frame
Product conveyor width, 870 or 1000mm

PATTYN®

Turnkey solutions for industrial packaging.

DIFFERENT LAYOUT OPTIONS

3240mm

6170mm

3630mm

1200mm

Optional
bulk box filler

A

B

3380mm

Optional
bulk box filler
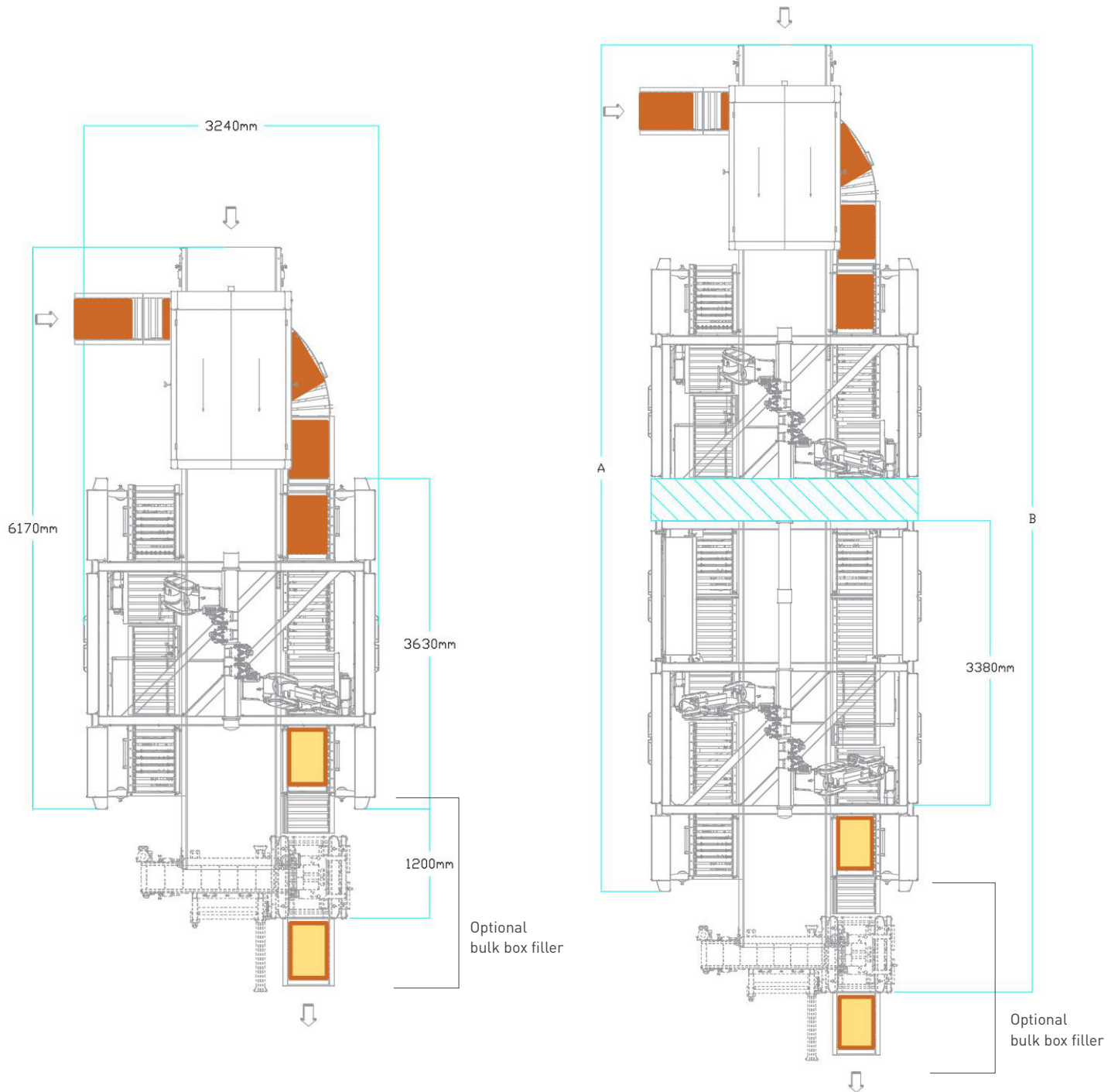
Number of stations	Number of robots	A (mm)	B (mm)
1	2	6170	7370
2	4	9550	10750
3	6	12930	14130
4	8	16310	17510
5	10	19690	20890

PATTYN ®

Turnkey solutions for industrial packaging.

THE UNIVERSAL BAKERY SOLUTION

MAXIMUM AUTOMATION ON A MINIMUM FOOTPRINT

The Argoswing-31 is the most compact and fastest all-in-one bread packing solution available on the market. Thanks to its high speed, compactness, high flexibility and quick changeover, it forms a versatile solution for a multitude of bread products, including baguettes & half baguettes.

By simply adding the optional **MEC-11 bulk box filler**, it is even possible to bulk pack bread products on the same line with a simple changeover.

VISION THROUGH THE EYES OF THE BAKERY EXPERTS

Thanks to Pattyn's extensive experience with bakery vision technology, we were able to develop this unique 3-in-1 robot solution Argoswing-31.
This new vision system is equipped with a completely new camera platform which allows the classic dimensional inspection to be more detailed and allows color inspections such as needed for the baking aspect (level) or scoring.

PATTYN®

Turnkey solutions for industrial packaging.