

# Induction robot

**The induction robot picks items from bulk delivery and feeds it directly into a sorter. By automatically picking and placing items, your logistic process becomes more reliable and is able to run 24/7.**

## What is an induction robot?

An induction robot picks items from a tote, carton or conveyor belt and places them on an infeed belt. The robot combines the following elements:

- Robot arm
- Gripper
- Vision camera and software

# Are you ready for the future, today?

## Why use an induction robot?

Within the automatic sorting process, the infeed is an area where a lot of operators are still required. They pick items from a tote, carton or trolley and place them on the infeed belt or directly into the sorter.

This labor-intensive task is one of the hurdles in modern-day logistics. It is hard to find sufficient personnel to keep up with the explosive growth in e-commerce and parcel delivery. By automating this task it is possible to increase your throughput while keeping up quality and with the same number of personnel.

## Benefits

- 24/7 operation
- Reduce the number of errors
- Increase your operational efficiency
- Relieve your operators from repetitive and heavy work

## Applications

The induction robot can be used as a singulator for parcel, e-commerce and fashion applications, where its core task is to pick items from bulk and put it on an infeed belt as single items.

## Modular design

If you replace manual operators you can start with 1 cel, then add additional cels. At the end of the cels there is always a manual operator to induct items not picked up by the robots. It is possible to combine human and robot picking on the same infeed. Therefore it is a perfect match for new or existing installations with an automatic infeed.

## Dero PIP\*12Y

Equinox works closely together with Dero as we believe this is the best infeed robot cell available in the market today with this price/quality ratio. Dero's drive in finding the solution for your challenge fits well to Equinox's drive. The synergy between our varied fields of expertise (robotics and sorting) is key.

## How to implement the robot cell?

For example a sorter running 8.000 parcels per hour. 6 operators, 3 on each side of the feed belt, are required.



You can start with 1 robot cell at one side of the belt. The robot can induct 1.500, so 6.500 remains for 5 manual operators.

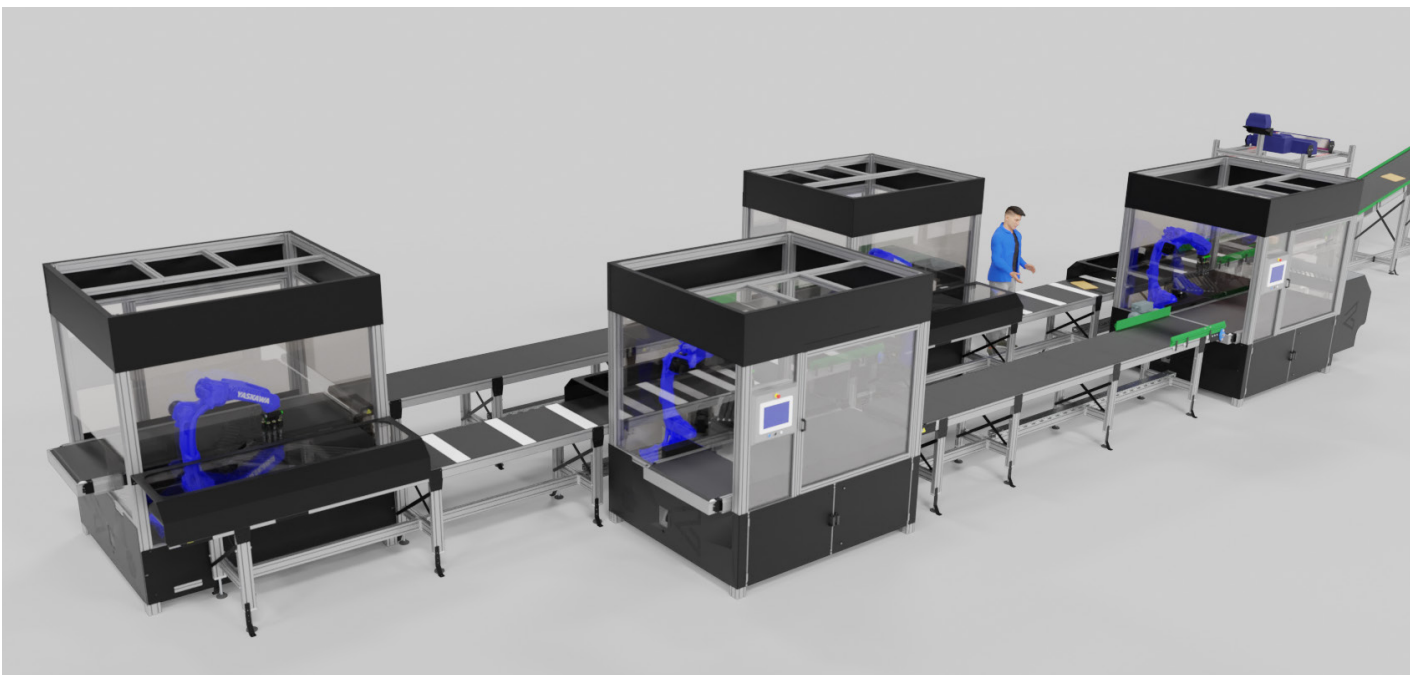


Items need to be inducted on the front, this can be done by emptying bags, boxes, roller cages into a hopper feeding the belt to the robot. Items not picked by the robot are collected in the box at the rear of the cell. An operator inducts these parcels manually.

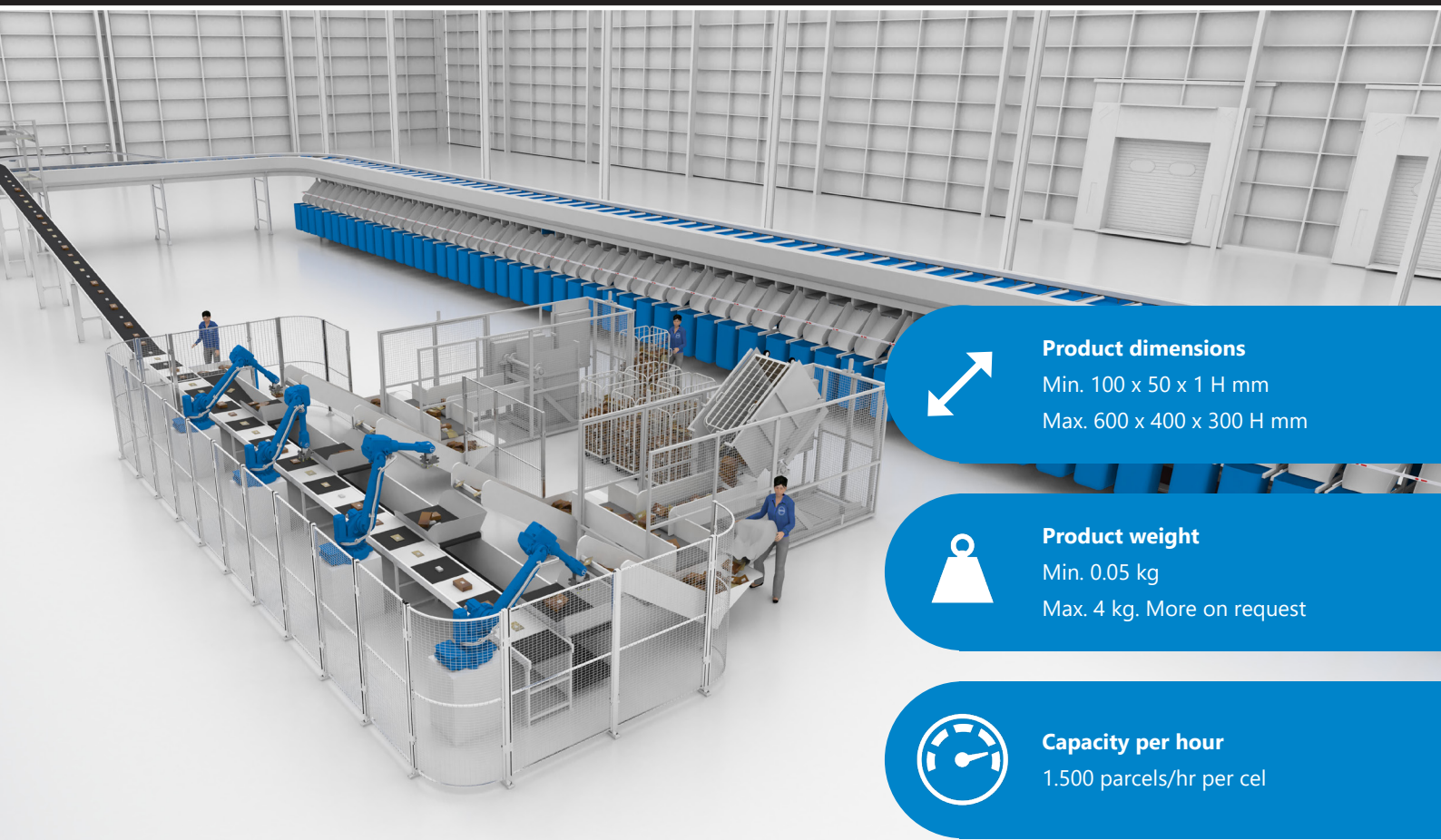
Later on it is possible to extend with another cell. Now  $8.000 - 2 \times 1.500 = 5.000$  parcels per hr need to be inducted manually requiring 4 manual operators:



With 3 cells  $8.000 - 3 \times 1.500 = 3.500$  remain for manual induction for 3 manual operators. And with 4 cells  $8.000 - 4 \times 1.500 = 2.000$  for 2 manual inductors. This is the maximum you can automate as there will always be items not picked by the robot cells. The vision technique and deep learning database will continue to improve with less manual operation required in the near future.



The above is just an example. There are many more possible lay-out and concept solutions so please contact our specialists to find the optimal solution for your project.



#### Product dimensions

Min. 100 x 50 x 1 H mm

Max. 600 x 400 x 300 H mm



#### Product weight

Min. 0.05 kg

Max. 4 kg. More on request



#### Capacity per hour

1.500 parcels/hr per cel

## Benefits



Relieve operators from repetitive and heavy work

Reduce the number of errors



Increase your operational efficiency

24/7 operation



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