

ETEK AUTOMATION SOLUTIONS JSC

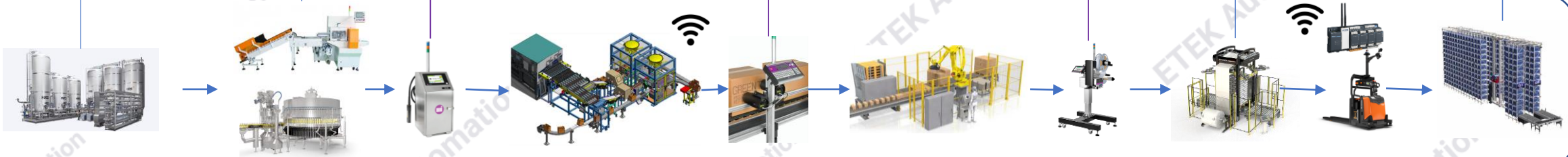
Packaging Solutions

Ver: 2

Update: 25.12.2024

Total Automation Solutions for Packing zone

ERP
MES
Monitoring
Field Machine



Processing

Primary packaging

Secondary packaging

Tertiary Packaging

Storage and Logistic

Industry target

PERSONAL CARE



- Detergent
- Fabric care
- Soap and bath
- Skincare
- Oral care, ...vv

FOOD & BEVERAGE



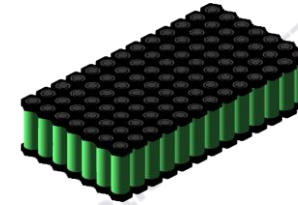
- Staple foods
- Snacks,
- Milk
- Fruit drinks/juices
- Tea/coffee,...vv

ELECTRONICS AND COMPONENT



- Electronic components
- Home application

BATTERY



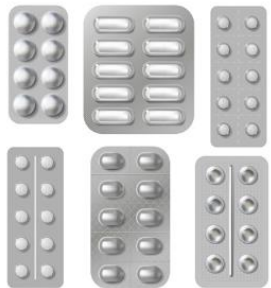
- Raw materials
- Cell Pin
- Pack Pin

MEDICAL



- Needle
- Drug, Disinfectants
- Syringes

PHARMA



- Pill
- Bottle of Pill

PELLET, RESINS



- Fertilizer
- Pet food, Animal food
- Plastic resin
- Rice

POWDER



- Salt
- Flour powder
- Building material

GARMENT



- Fabric
- Wool
- Leather

CHEMICAL



- Oil
- Lubricant

Industry target

Concerns

Inventory
management

Brand and
customer
satisfaction

Efficiency

Challenges



Production
information
control



Quality control



Manual work

Troubles

- Fragmented manufacturing data
- Can not track

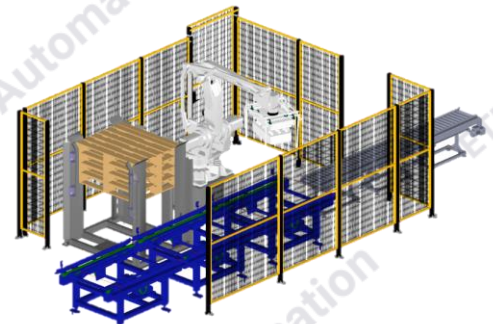
System not reliable,
manual checking

Low productivity
Not stable

Solutions



Computer vision checking



Robot solutions for packing

Solution for Home and Personal Care



Overview

- Production capacity: 140 – 200 ppm
- Package type: Plastic bottle
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Delta robot pick and place
 - Computer vision
 - Empty puck detection and rejection

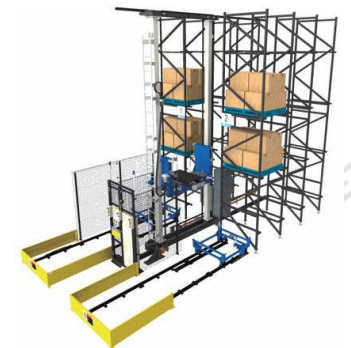
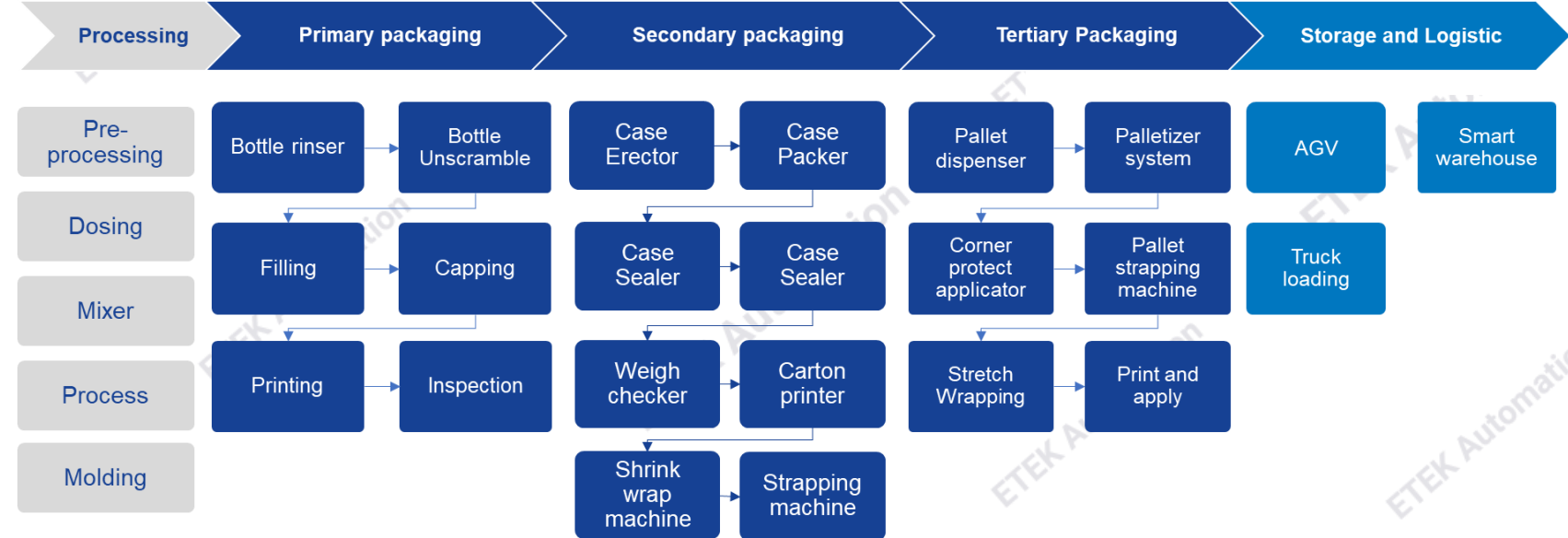


Products



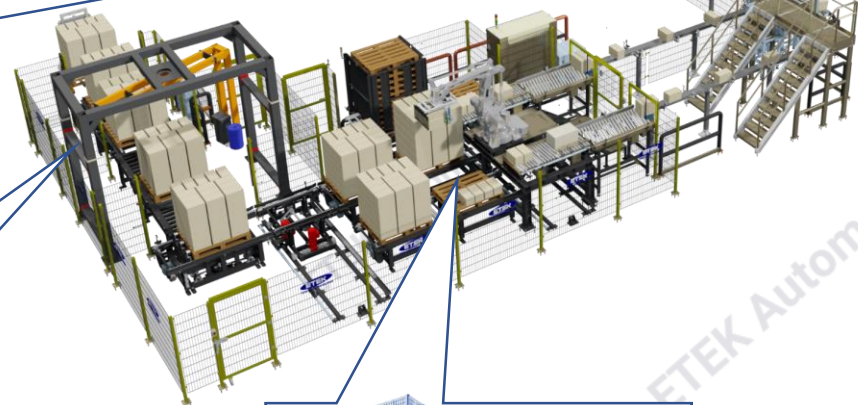
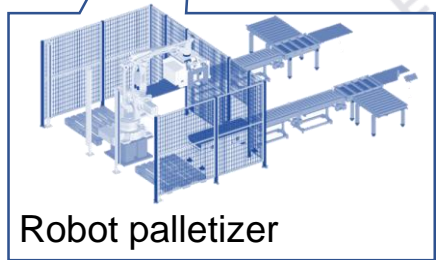
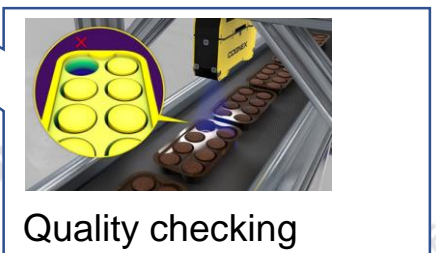
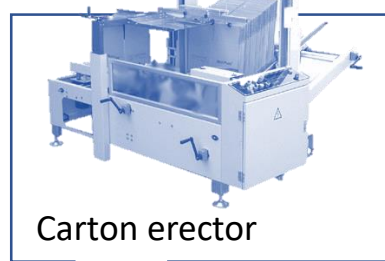
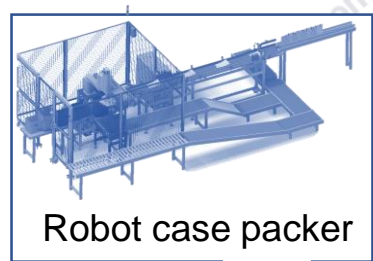
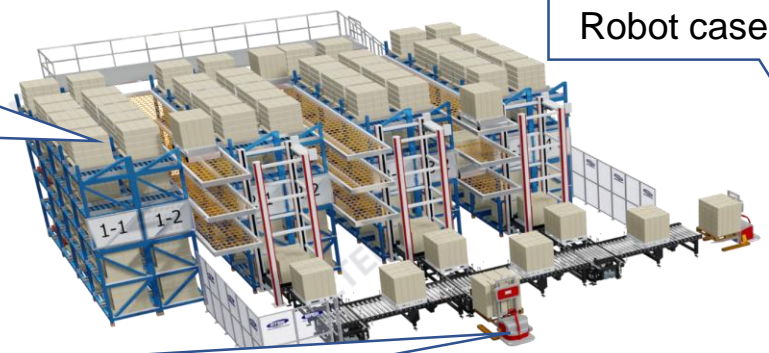
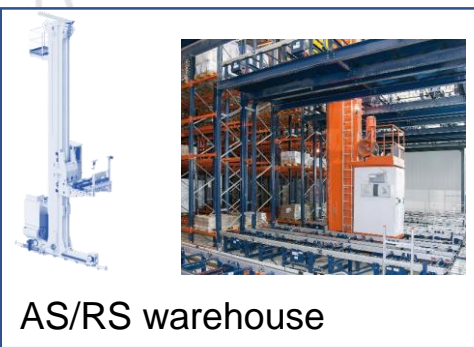
Industry

- Personal & Home care
- Chemical



Solution for Bottle Packing

ETEK



Solution for Food and Beverage



Overview

- Production capacity: 140 – 200 ppm
- Package type: Doy and Pouch pack
- Scope: Design, Assembly, Installation and commissioning
- Technology:
 - Scara robot pick and place
 - Merging lane conveyor

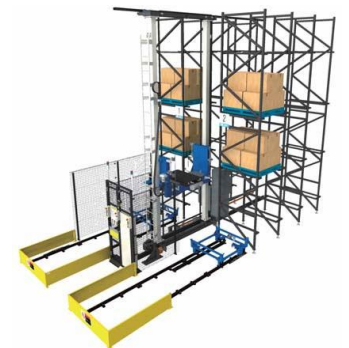
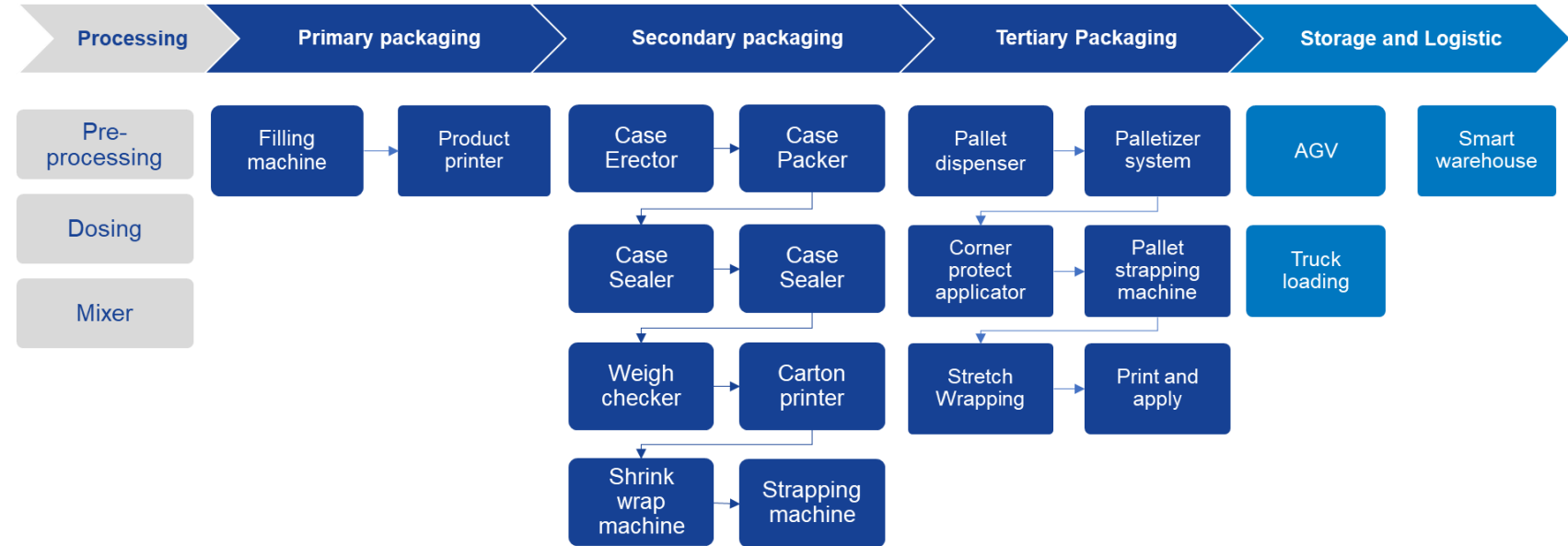


Products

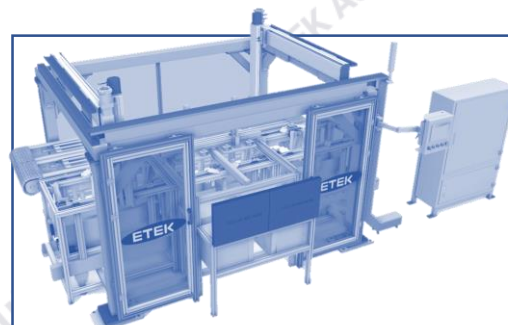


Industry

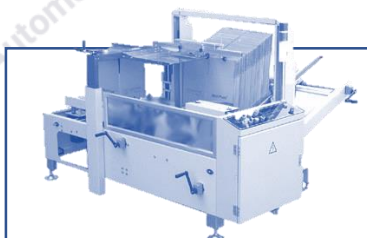
- Food and Beverage
- Cosmetic
- Home and personal care



Solution for Bottle Packing



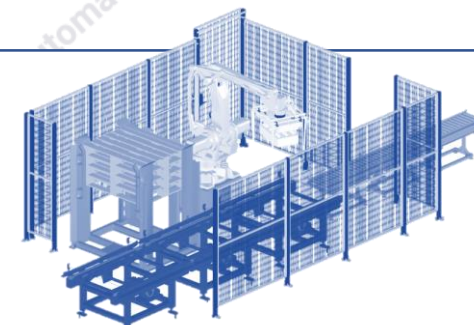
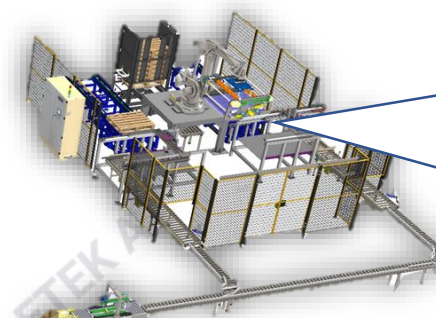
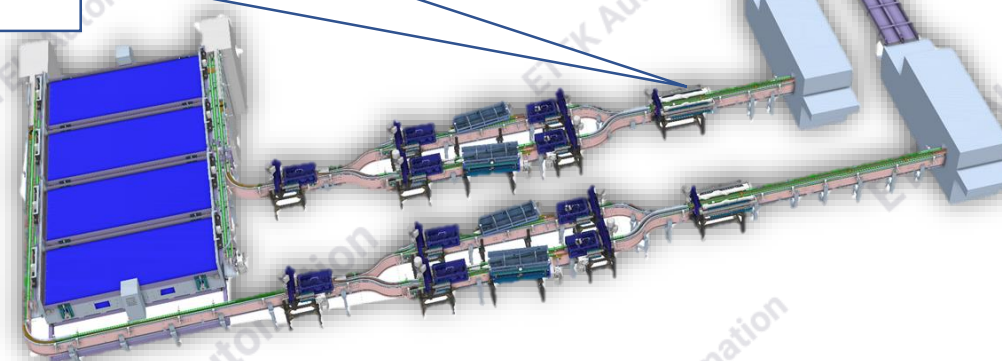
Robot case packer



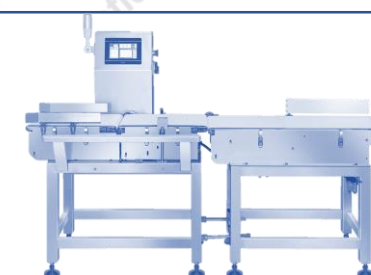
Carton erector



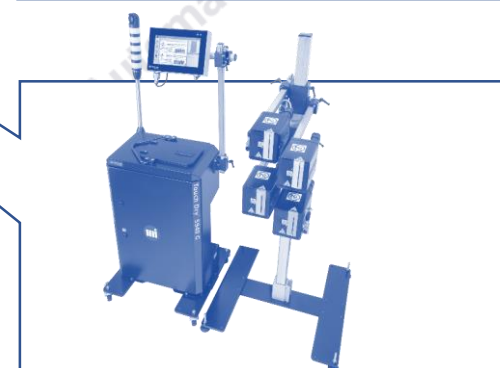
Appearance checking



Robot palletizer

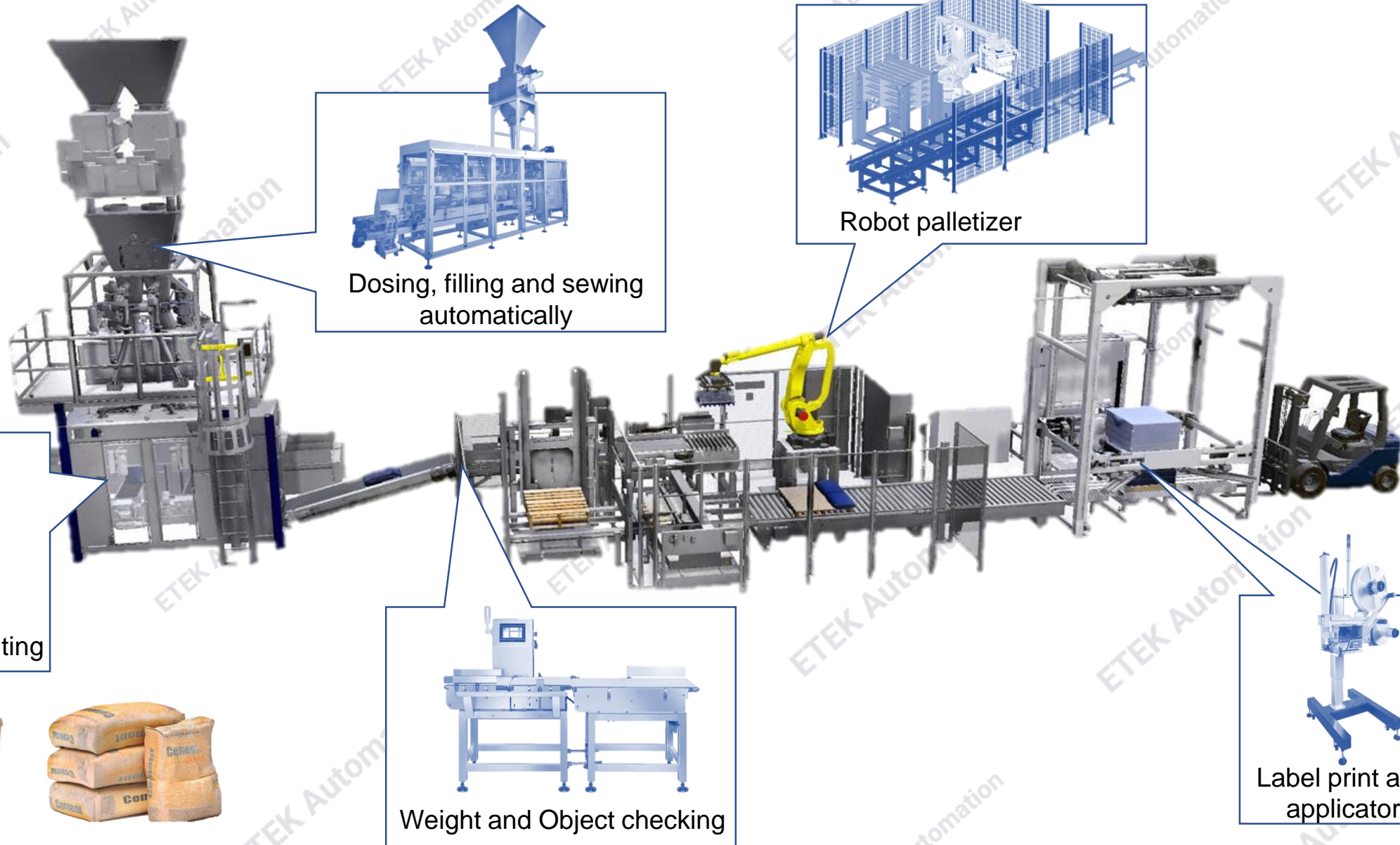


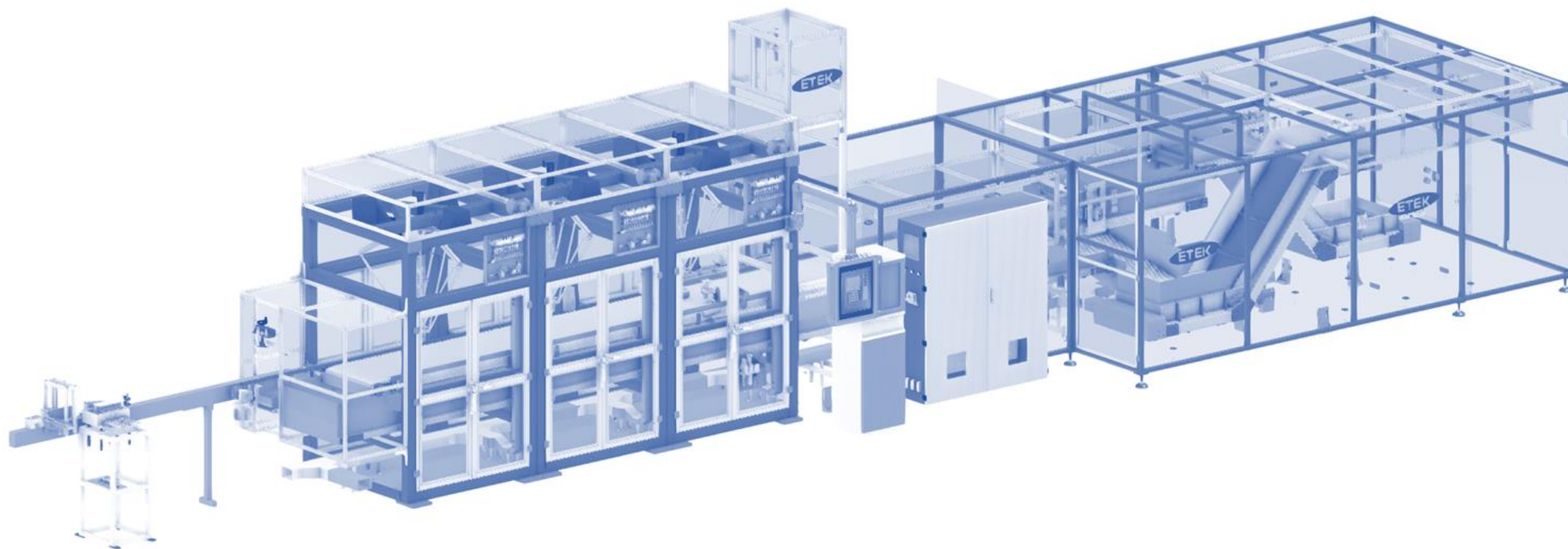
Quantity checking



Carton online printing

Solution for Fertilizer and Powder





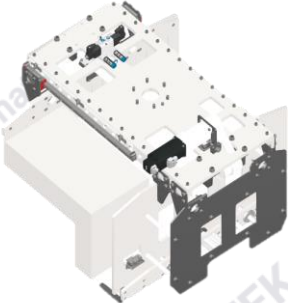

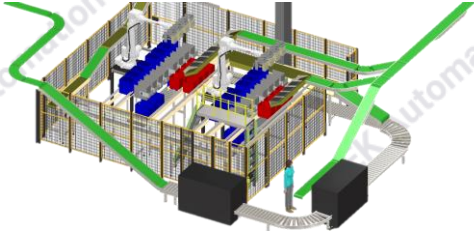
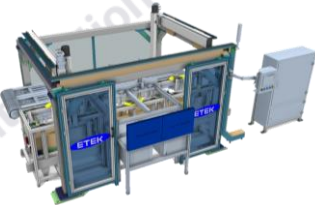



**Total solutions for
Packaging Zone**






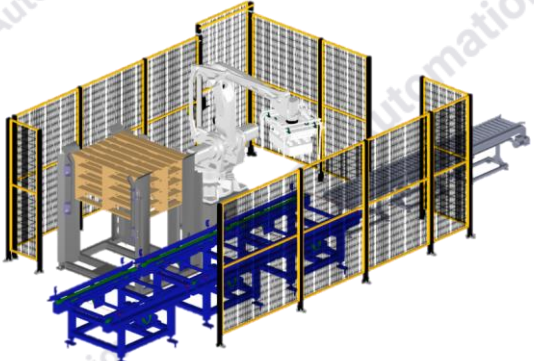

Bottle Unscramble

Product	Capacity	Technology	Variant
<ul style="list-style-type: none"> Detergent bottle Home care bottle Personal care 	<ul style="list-style-type: none"> Speed: 70 – 200 bpm Volume: 500ml-5000ml 	<ul style="list-style-type: none"> Delta/Parallel robot picking 5 axis  <ul style="list-style-type: none"> Tracking by computer vision  <ul style="list-style-type: none"> Screw leading bottle 	 <p>Single station: 50-70 bpm</p>  <p>Triple station: 150-200bpm</p>

Robot Case packer

Product	Capacity	Technology	Variant
<ul style="list-style-type: none"> Detergent bottle Home care bottle Personal care Fast Food <p>Type of package</p> 	<ul style="list-style-type: none"> Speed: 70 – 200 bpm Weight: 500g-5000g 	<ul style="list-style-type: none"> Robot pick and place  <ul style="list-style-type: none"> Customized tool 	<p>SCARA robot case packer</p>  <p>Articulated case packer</p>  <p>Cartesian case packer</p>  <p>Delta/Parallel case packer</p> 

Palletizer

Product	Capacity	Technology	Variant
 <ul style="list-style-type: none"> Detergent bottle Home care bottle Personal care  <ul style="list-style-type: none"> Food and beverage  <ul style="list-style-type: none"> Fertilizer Rice Powder 	<ul style="list-style-type: none"> Speed: 10 – 70 cpm Weight: 5-40kg 	<ul style="list-style-type: none"> Articulated robot palletizer  <ul style="list-style-type: none"> Data recording and connection 	 <p>Single robot: 5 – 15 cpm</p>  <p>Multi robots: 25 – 70 cpm</p>

Automatic bottle Unscramble and feeding system



Overview

- Application: Bottle unscramble
- Production Details : 140 – 200 ppm
- Product: Plastic bottle
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Delta robot pick and place
 - Computer vision
 - Empty puck detection and rejection



Products



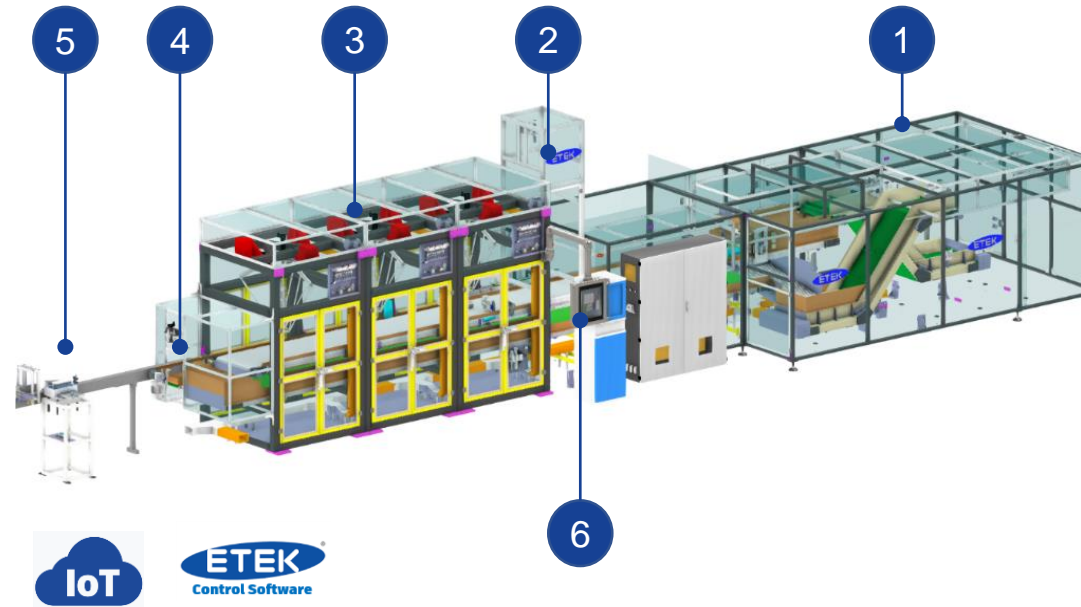
Industry

- Personal & Home care
- Liquid detergent
- Chemical

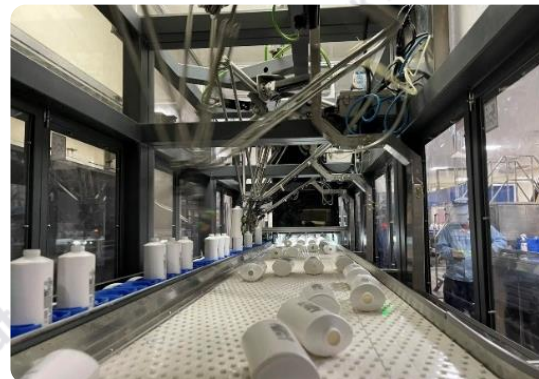


Process

1. Bottle feeding
2. Vision station
3. Robot pick and place station
4. Re-orientation station
5. Output conveyor
6. HMI and controller



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Automatic Case packer system



Overview

- Application: Case packer
- Production Details : 140 ppm
- Product: Ice-cream
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Delta robot pick and place
 - Computer vision
 - Merging lane conveyor



Products



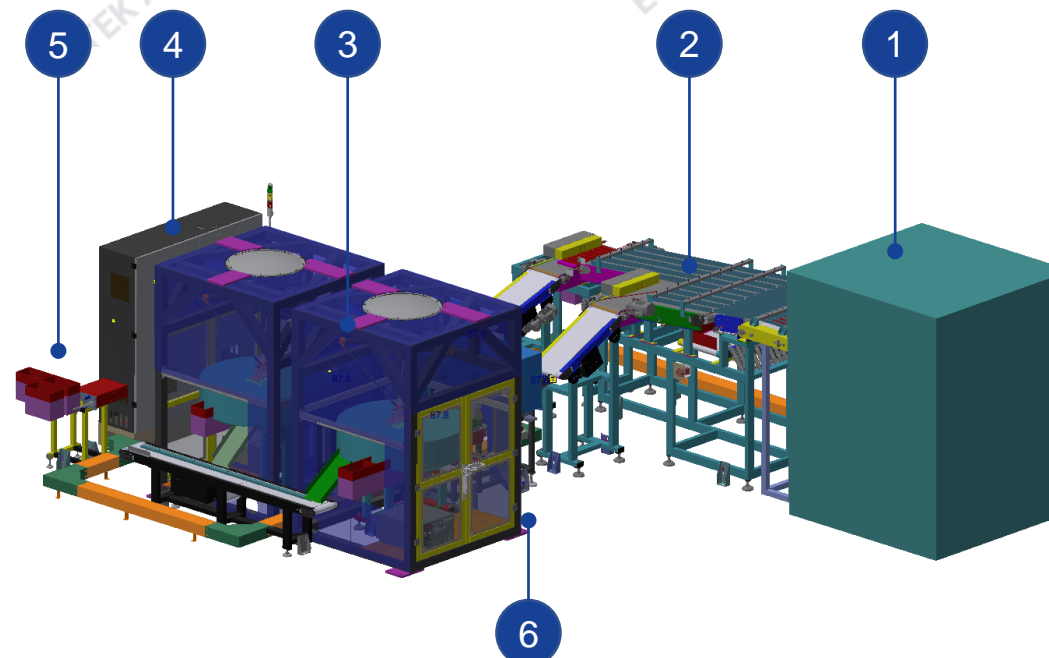
Industry

- Food and Beverage
- Cosmetic



Process

1. Ice-cream making
2. Station
3. Pick and place station
4. Electrical cabinet
5. Output conveyor
6. HMI and controller



WATCH VIDEO



Automatic Case Packer System



Overview

- Application: Case packer
- Production Details : 140 ppm
- Product: Doy and Pouch pack
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Scara robot pick and place
 - Merging lane conveyor

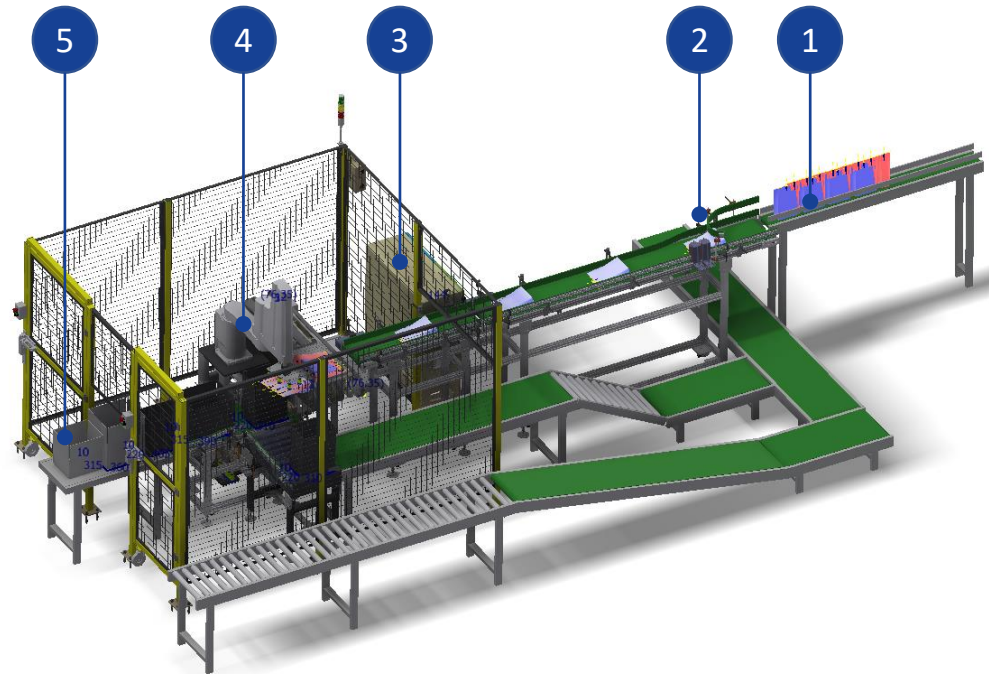


Products



Industry

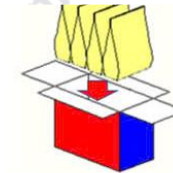
- Food and Beverage
- Cosmetic
- Home and personal care



Process

1. Input conveyor
2. Turning station
3. Electrical cabinet
4. Pick and place station
5. Output conveyor

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Battery cell Packing



Overview

- Application: Case packer
- Production capacity : 200 cell per min
- Product: Cylindrical Battery
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Clutch conveyor
 - Computer vision checking
 - Data connection and printing
 - Industrial robot palletizer



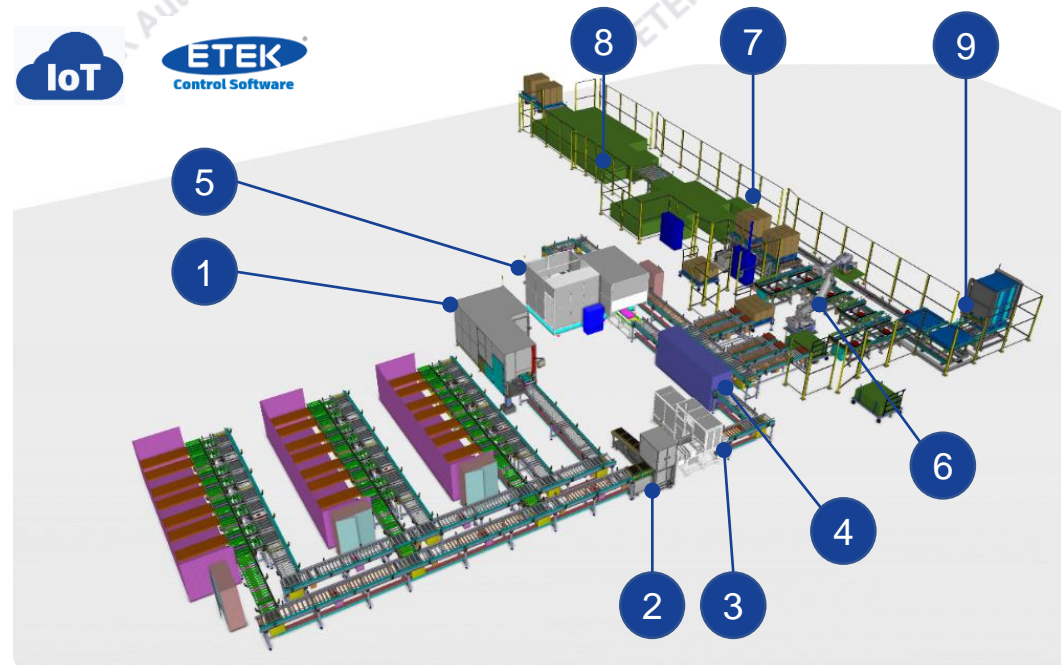
Product

Battery cells



Industry

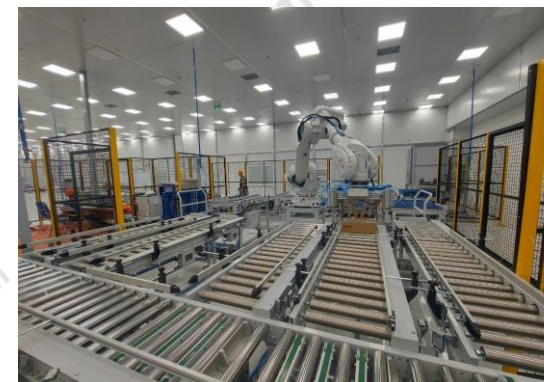
- Electronics component
- Battery manufacturing
- Energy device



Process

1. Corrugated tray forming
2. Plastic tray inserter
3. Quantity check
4. Shrink wrapping machine
5. Outer box wrapping
6. Robot Palletizer
7. Strapping and corner applicator
8. Stretch wrapping machine
9. Pallet dispenser

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Automatic Case Packer System



Overview

- Application: Case packer
- Production Details : 24,000 ppm
- Product: Cone pack
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Screw flip top down device
 - Screw merging lane conveyor
 - Top load case packer

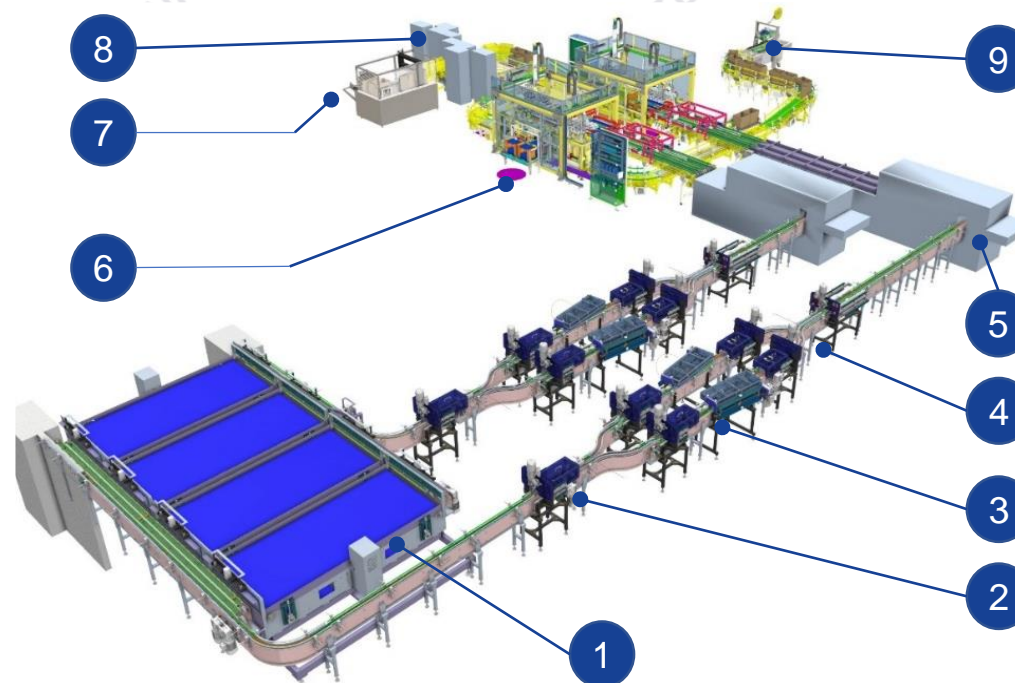


Products



Industry

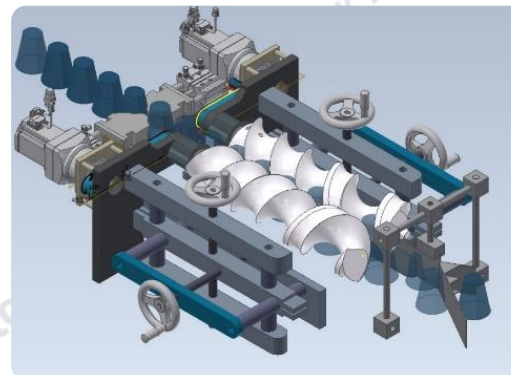
- Food and Beverage
- Home and personal care



Process

1. Buffer zone
2. Lane divider
3. Turning station
4. Merging and blocking station
5. Shrink wrapping
6. Case packing
7. Case Erecting
8. Straw inserting
9. Case sealing

WATCH VIDEO



Automatic Case Packer System



Overview

- Application: Layer picking
- Production Details : 24,000 ppm
- Product: Cone pack
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Screw flip top down device
 - Screw merging lane conveyor
 - Top load case packer



Products



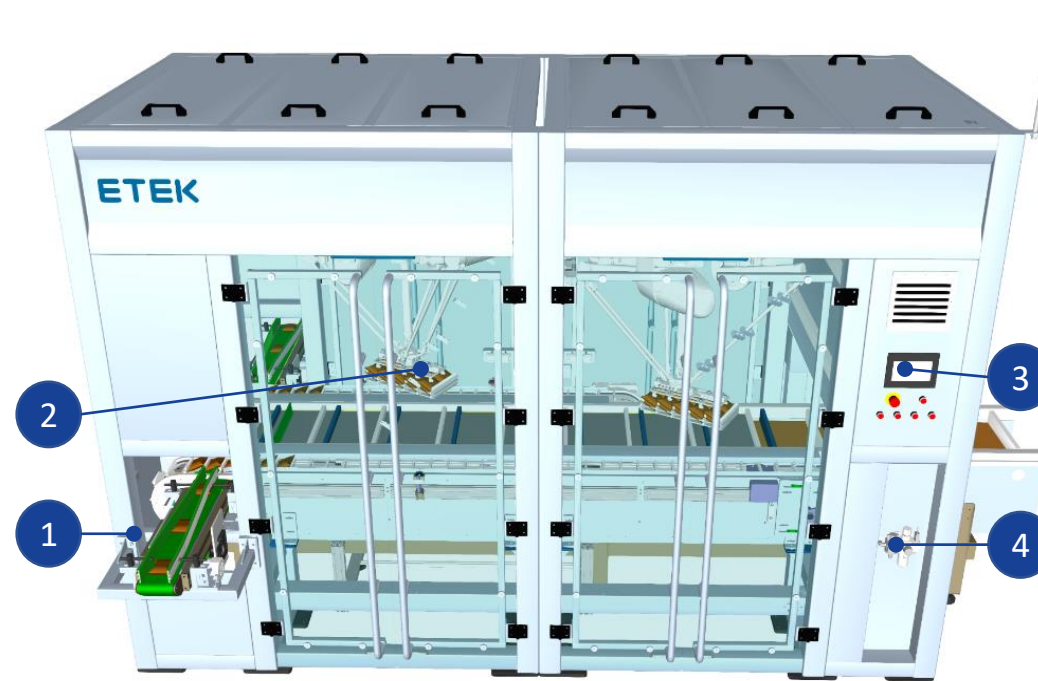
Industry

- Food and Beverage
- Home and personal care



Process

1. Infeed conveyor
2. Robot pick and place
3. HMI controller
4. Pneumatic supplier



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Palletizer System



Overview

- Application: **Robot palletizer 4 In 4 Out**
- Production Details : 70 bpm
- Product: Carton package
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Robot palletizer
 - Automatic adjustable tool



Products



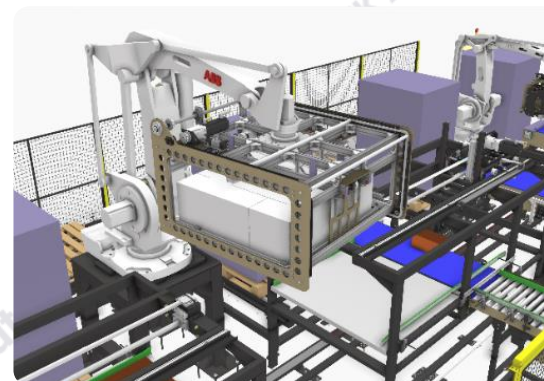
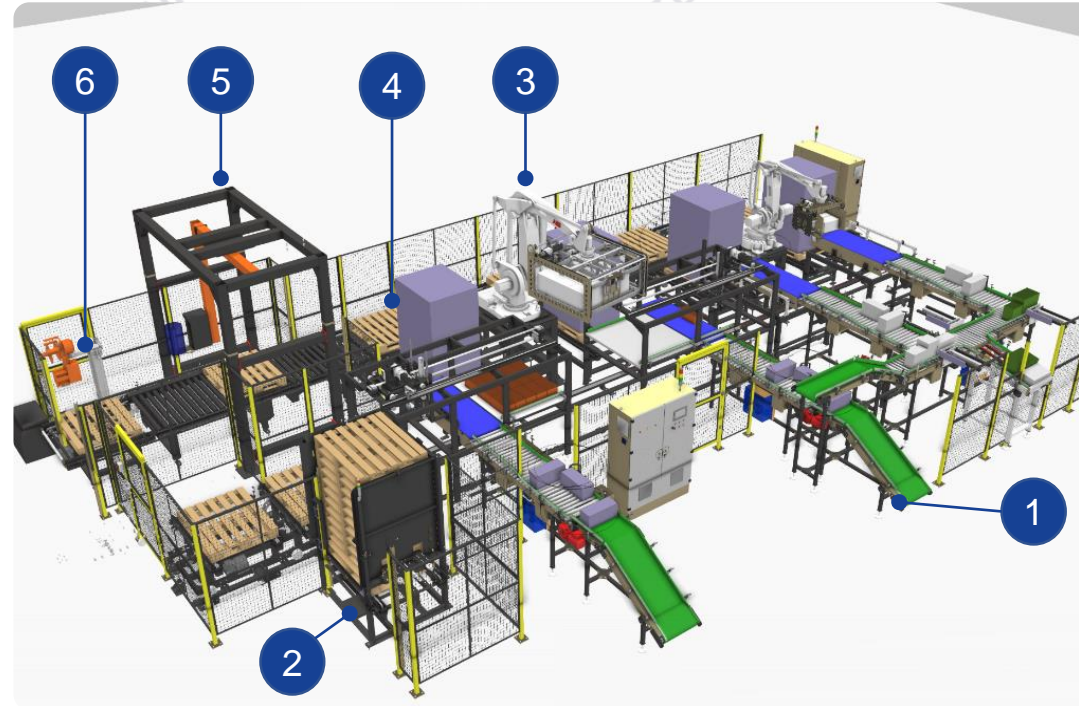
Industry

- Food and Beverage
- Home and personal care
- Electronic and component



Process

1. Infeed conveyor
2. Pallet dispenser
3. Robot palletizer
4. Finish good pallet conveyor
5. Stretch wrapping machine
6. Label print and applicator



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Palletizer system



Overview

- Application: **Robot palletizer 4 in 4 out**
- Production Details : 45 bpm
- Product: Carton package
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Robot palletizer
 - Automatic adjustable tool

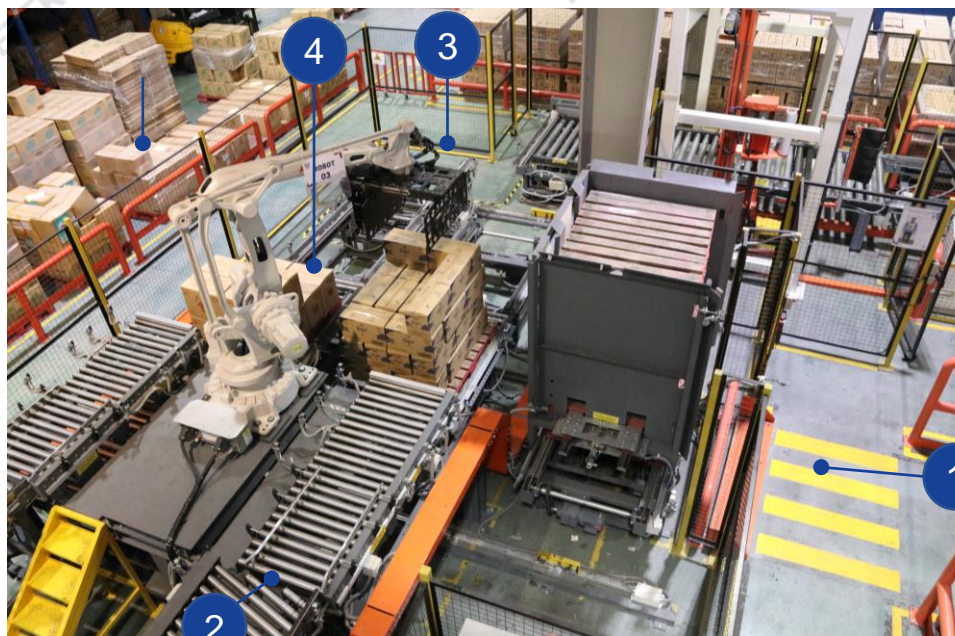


Products



Industry

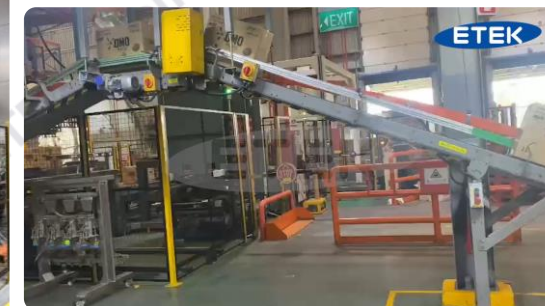
- Food and Beverage
- Home and personal care
- Electronic and component



Process

1. Infeed conveyor
2. Pallet dispenser
3. Robot palletizer
4. Finish good pallet conveyor
5. Stretch wrapping machine
6. Label print and applicator

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Palletizer system



Overview

- Application: **Robot palletizer 4 In 4 Out**
- Production Details : 40 bpm
- Product: Carton package
- Scope: ETEK provide
 - Design, Assembly, Installation and commissioning
- Technology:
 - Robot palletizer
 - Automatic adjustable tool

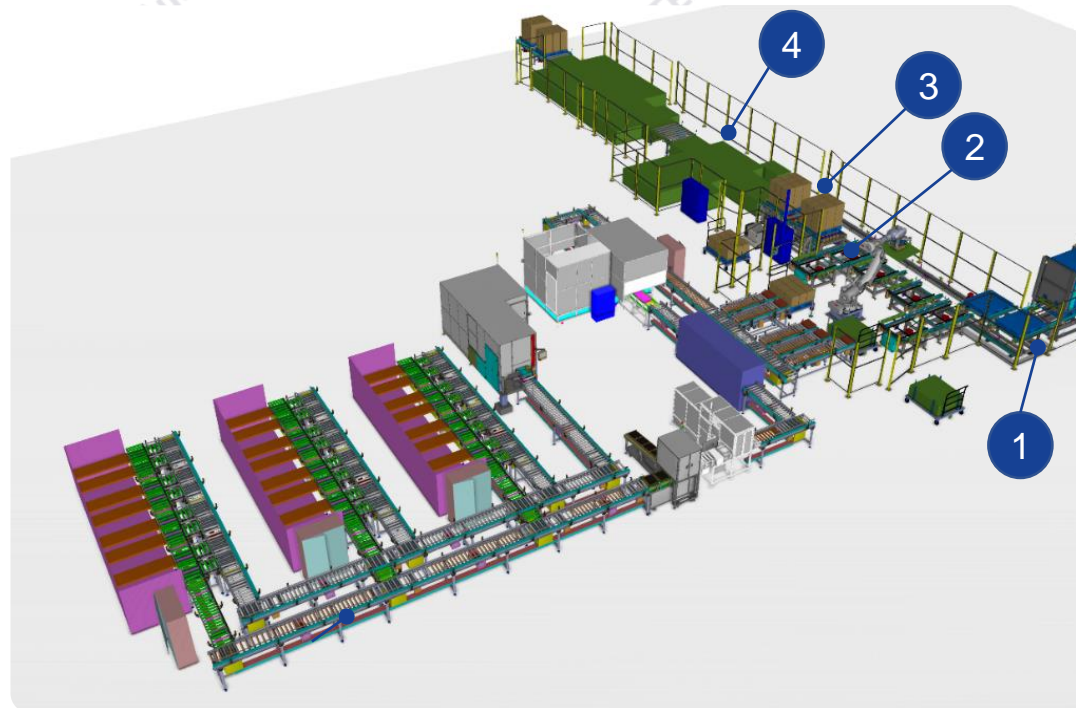


Products



Industry

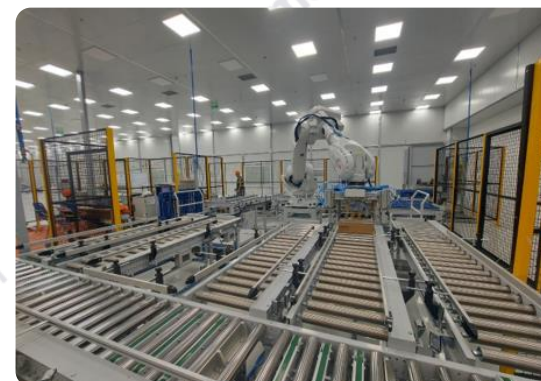
- Food and Beverage
- Home and personal care
- Electronic and component



Process

1. Pallet dispenser
2. Robot Palletizer
3. Strapping and corner applicator
4. Stretch wrapping machine

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Smart Conveyor



Plastic chain conveyor

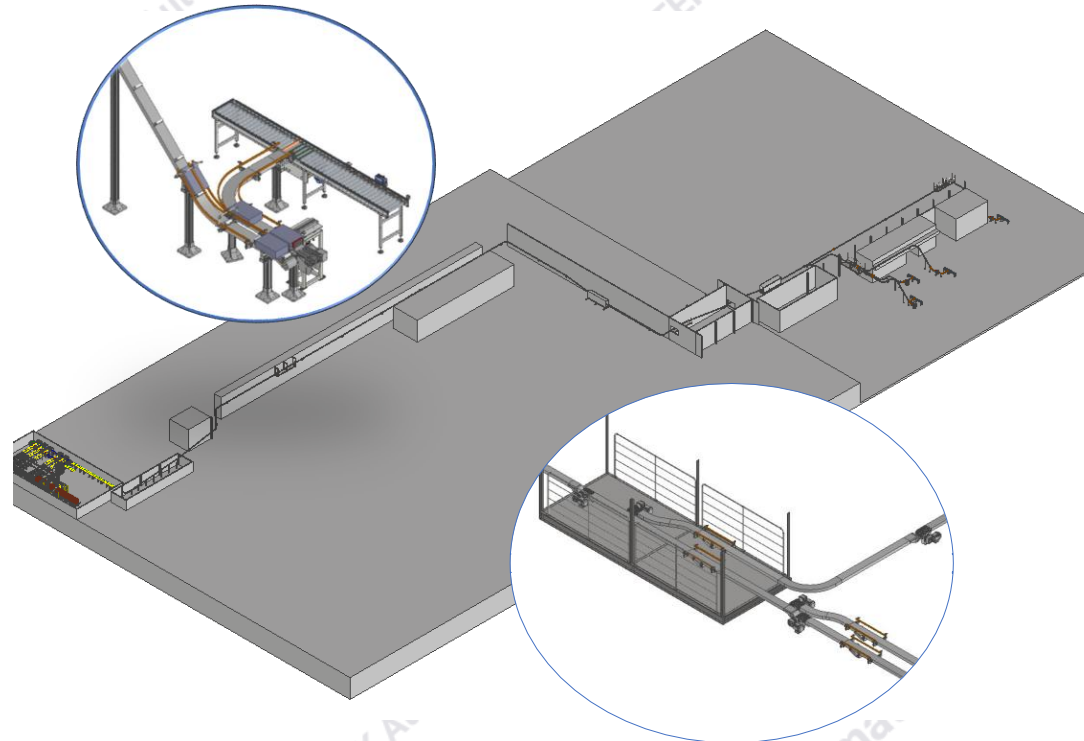
- Type: Plastic chain conveyor



- Speed: can up to 2700 ppm
- Payload: up to 15 kg
- Frame: Aluminum, Stainless steel
- Width: can up to 180mm

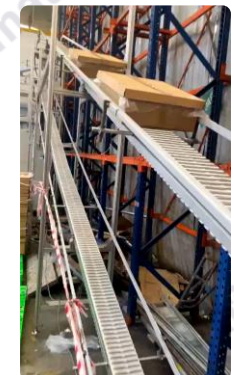


- Storage finish/raw material pallet
- Industry: F&B, FMCG, Automotive & component, Paper,...



1. Plastic chain conveyor
2. Conveyor buffer
3. Lifter

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Thank
you

ETEK
TOTAL AUTOMATION SOLUTIONS

ETEK AUTOMATION SOLUTIONS JSC

Headquater

189 Phan Trong Tue Road, Thanh Liet Ward, Thanh Tri Dist, Hanoi, Vietnam

Ho Chi Minh Branch

No 1 Le Duc Tho Road, Tan Thoi Hiep Ward, 12 District, Ho Chi Minh, Vietnam

info@etek.com.vn

www.etek.com.vn