

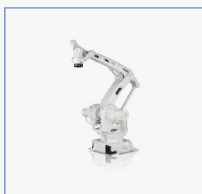


主板A股代码 (Stock code): 603656



# SMART PACKAGING

## LEADING THE WORLD WITH WISDOM



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Hefei Packunion Intelligent Equipment Co., Ltd.

WISDOM INTELLIGENCE

LEADING THE FUTURE WITH WISDOM

# Packunion--

## An intelligent packaging solution provider

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Packunion takes “leading the intelligent packaging industry” as its development tenet.

Provide users with perfect solutions, high-quality products, fast and excellent services and sustainable technical consultation service.

Carry forward the company concept of “what customers need is what we do and what we do is what customers need”.

Build PACKUNION into a leading brand in smart packaging industry with unremitting effort!

Smart, intelligent, leading the future with wisdom

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# ENTERPRISE OVERVIEW



Smart packaging, smart manufacturing in Packunion  
Learning about the truth and connotation of Packunion  
is just like browsing the history of Chinese packaging industry.  
In the finite world, infinite concept and globalized vision,  
PACKUNION is still workong wonders...



Automatic weighing and packaging equipments,focusing on the R&D, production and sales

## ABOUT PACKUNION

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Hefei Packunion Intelligent Equipment Co., Ltd. (“Packunion”) is a technical innovation enterprise focusing on the R&D, production and sales of automatic weighing and packaging equipments. Since its establishment, it has grown from a product-oriented company to a market-oriented company, setting up a national technical R&D and sales service network.

## INTELLIGENT PACKAGING PRODUCTION LINES

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Packunion is not only a manufacturer of intelligent packaging equipments but also an integrator of intelligent packaging production lines. In the fields of Grain and oil, sugar, fertilizer, chemical industry and so on, it provides automatic weighing, automatic packaging, automatic sealing, automatic detection, robot palletizing and other whole line solutions.

## INTELLIGENT UPGRADING AND IMPROVEMENT OF INDUSTRIAL EQUIPMENTS

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In 2019, Packunion set up strategic partnership with Hefei Taihe Optoelectronic Technology Co., Ltd. which was listed on the main board and is now a subsidiary of Taihe Optoelectronic Holdings. It has passed ISO9001 quality management system certification and national recognition of high-tech enterprises, and its products have passed European CE certification and obtained a number of patents and software copyrights. Packunion will be market-oriented, adhere to the business philosophy of “ingenuity, integrity, innovation and service”, improve packaging efficiency, reduce the production cost for customers and assist the intelligent upgrading and improvement of industrial equipments!

**ORIGINALITY**

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**INTEGRITY**

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**INNOVATION**

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**SERVICE**

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# PATENT QUALIFICATION



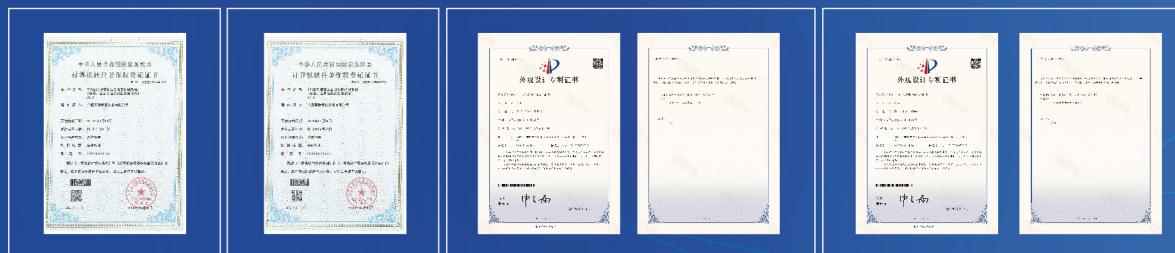
02

CERTIFICATION CERTIFICATE



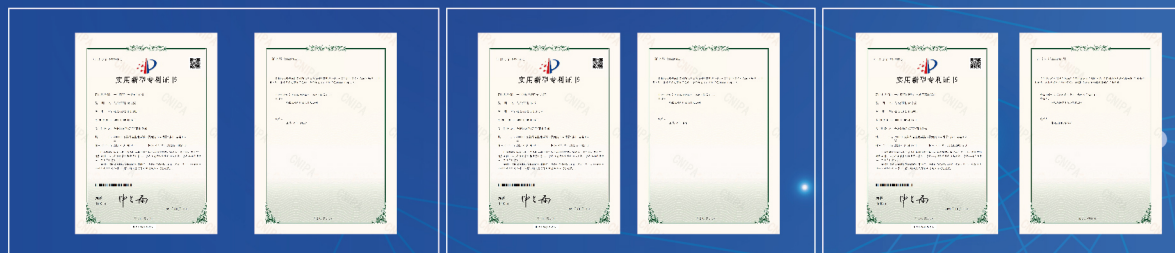
01

SOFTWARE WORKS



02

APPEARANCE PATENT



18

NEW TYPE PATENT

03

# PATENT CERTIFICATE



# CORE PRODUCTS



Packunion takes the smart packaging technology as its core.  
Through the combination of packaging intelligent industrial technology and service,  
and the combination of digital management technology and industry management capability,  
internationally advanced, automatic and intelligent packaging solutions are provided.  
Provide packaging products and services in the world!

01

Intelligent automatic weighing, packaging and stacking production line

02

SAG-900A series manual bagging automatic sealing packaging unit

03

SAG-700B manual bagging automatic sealing packaging unit

04

FAG-900 series automatic packaging unit

05

FAG-750 series automatic packaging unit

06

FAG-850B automatic packaging unit

07

FAP-360B automatic packaging unit

08

FAP-180B automatic packaging unit

09

Sealing equipments automatic bag folding and sewing machine

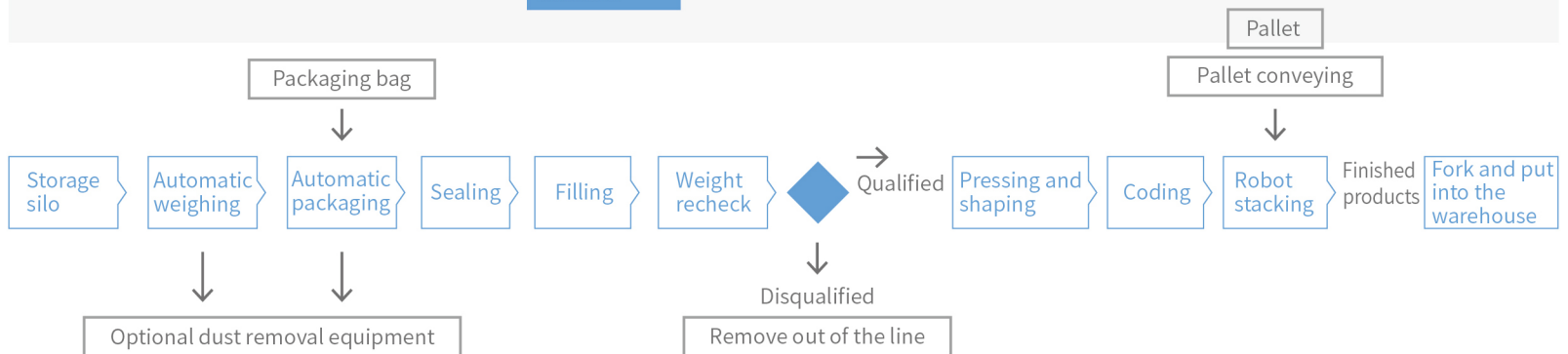
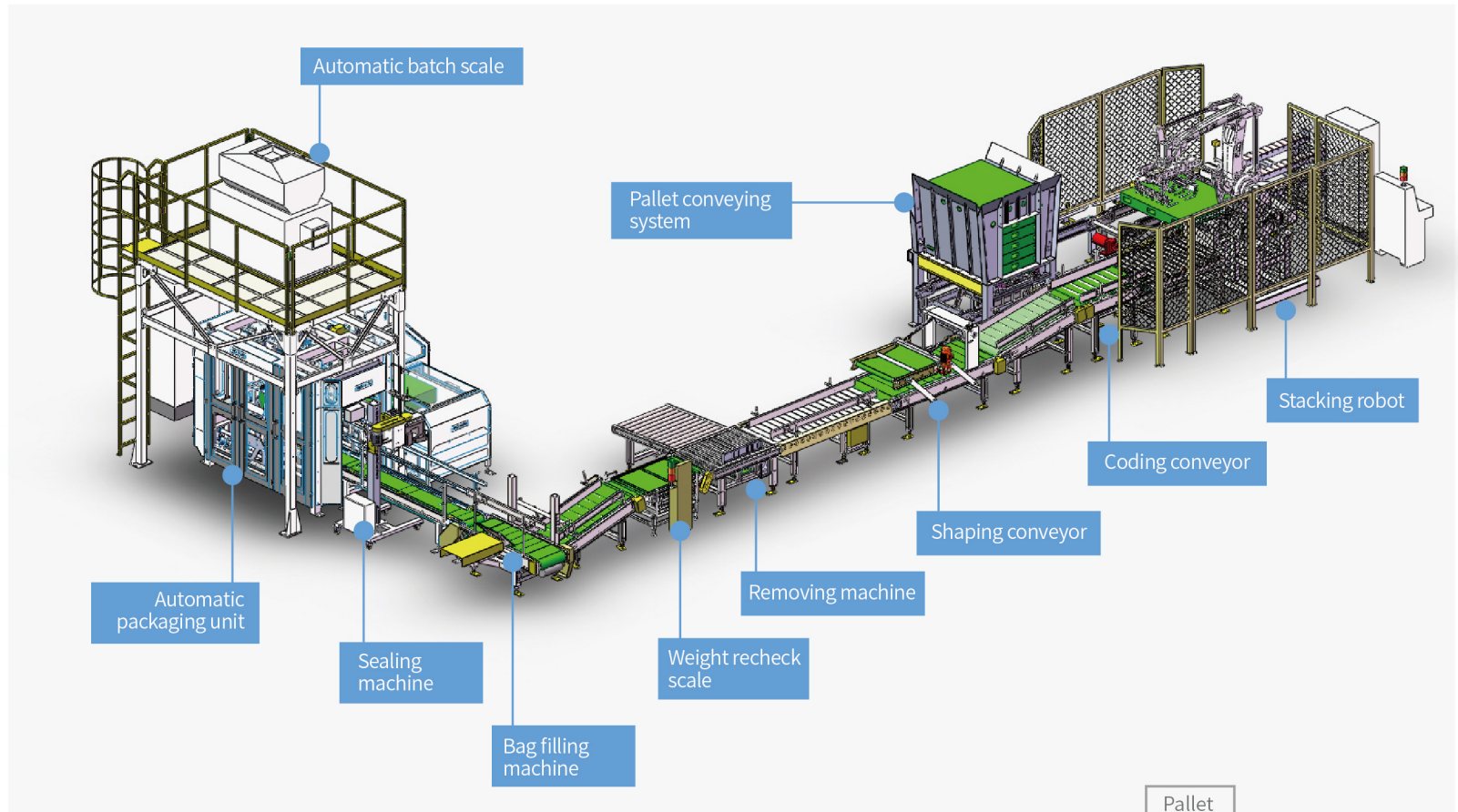
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Palletizing robot ABB IRB460 Palletizing robot

05

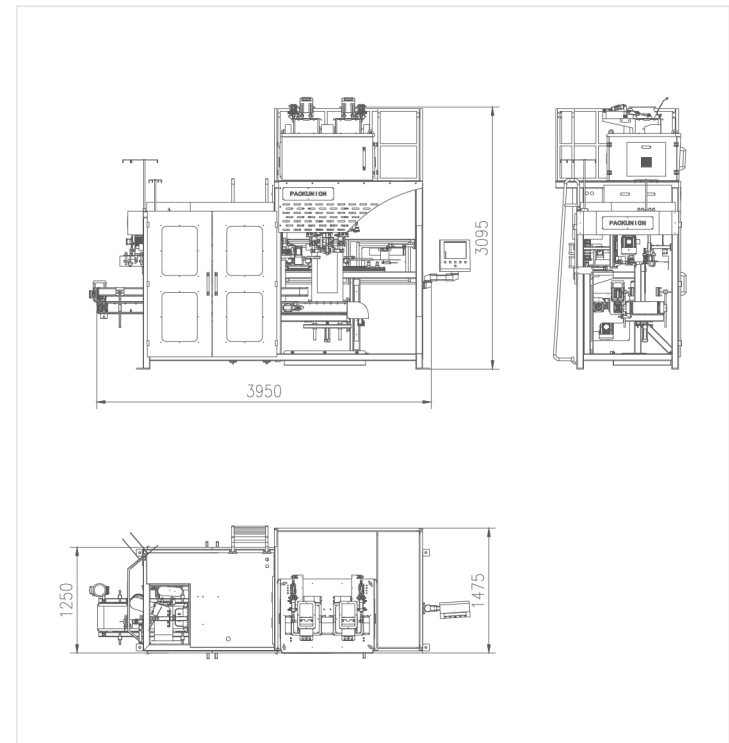


# OI / Intelligent automatic Weighing, packaging and stacking production line



## 02 / SAG-900A series

### Manual bagging automatic sealing packaging unit



#### SCOPE OF APPLICATION

Manual bagging automatic sealing and packaging unit for granular materials in rice, coarse cereals, seeds, sugar and other industries.

## FUNCTIONAL CHARACTERISTICS

- |    |  |    |   |
|----|--|----|---|
| 01 | Only one person can load the bag, and the process flow of weighing, blanking, bag moving, bag sewing and so on is automated; | 02 | Double sided film covered M-type or slotted woven bag is applicable;            |
| 03 | It has a variety of specifications and formulas, and can realize one key switching, which is fast and convenient;            | 04 | The sealing mode can be automatically switched between folding and non folding; |
| 05 | PLC + touch screen control, simple and convenient operation;   | 06 | Optional with inkjet printer;   |
| 07 | It can be upgraded to a full-automatic packaging unit.   |    |   |

## TECHNICAL PARAMETERS

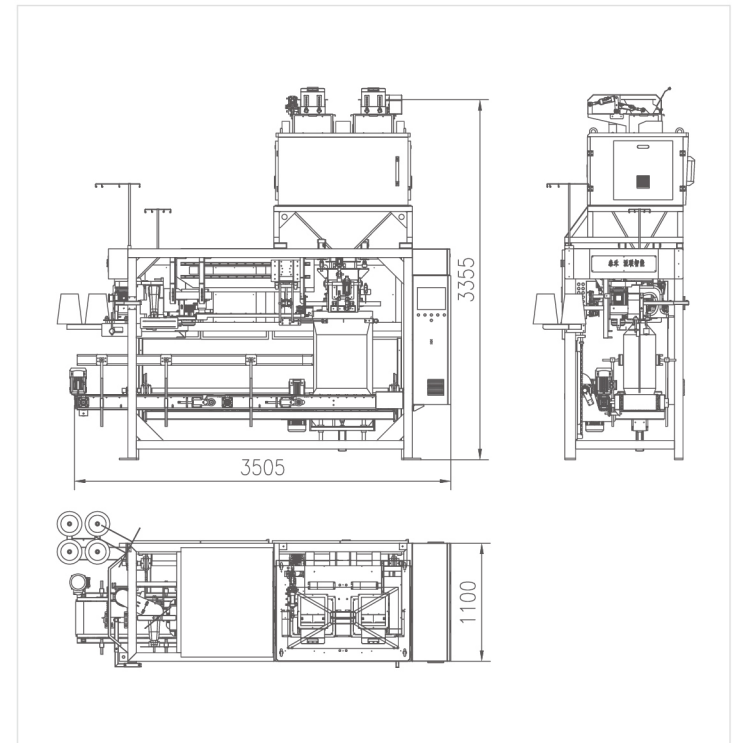
Model	SAG-900A
Packing Range (Kg)	5-25
Packing Speed (bag / h)	600~900 *
Quantify Precision	±0.1%
Bag Size (mm) Length X Width	(480~780) x (240~370) *
Ambient Temperature	0~40℃
Power Consumption	AC380V 50Hz, 3.7KW
Gas Source	0.5~0.7MPa, 9Nm <sup>3</sup> /h
Overall Dimension (mm) L X W X H	4353x1450x2991

\*The packaging speed data is measured with rice as the material, which depends on the specific characteristics and packaging specifications of the packaging material

\* The size of the packing bag can be adjusted appropriately. Please consult our technicians for details.

## 03 / SAG-700B

# Manual bagging automatic sealing packaging unit



### SCOPE OF APPLICATION

Manual bagging automatic sealing and packaging unit for granular materials in rice, coarse cereals, seeds, feed and other industries

## FUNCTIONAL CHARACTERISTICS

- 01

Only one person can load the bag, and the process flow of weighing, blanking, bag moving, bag sewing and so on is automated;
- 02

Both single-sided coated and double-sided non coated woven bags are applicable;
- 03

With material vibrating function, it does not need to increase the size of packaging bag and reduce the cost of packaging materials;
- 04

It has a variety of specifications and formulas, and can realize one key switching, which is fast and convenient;
- 05

PLC + touch screen control, simple and convenient operation;
- 06

Optional with inkjet printer.

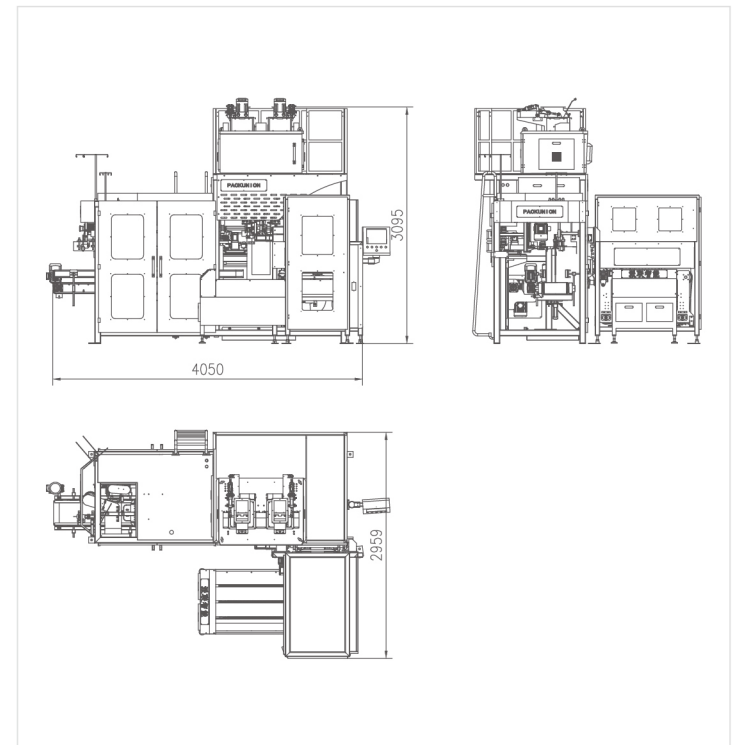
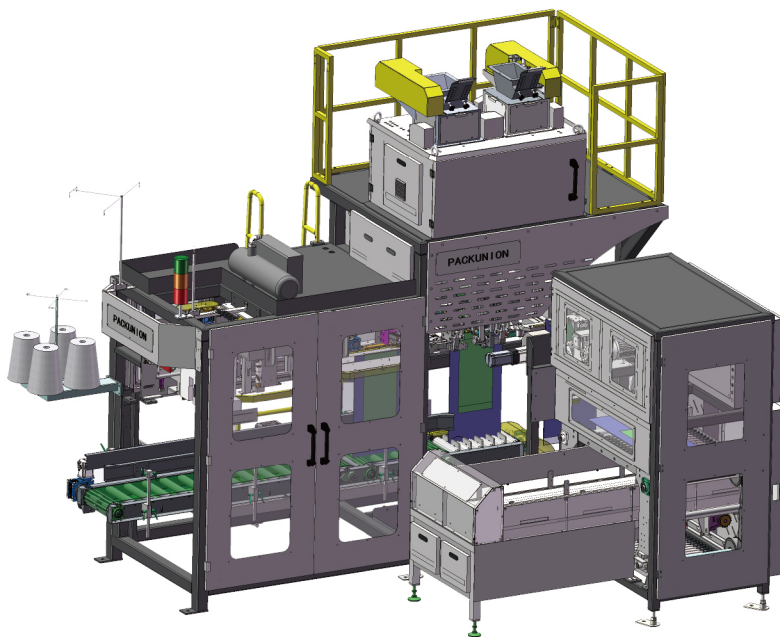
## TECHNICAL PARAMETERS

Model	SAG-700B
Packing Range (Kg)	25-50
Packing Speed (bag / h)	400-600 *
Quantify Precision	±0.1%~±0.2%
Bag Size (mm) Length X Width	(750~950) x (450~550) *
Ambient Temperature	0~40°C
Power Consumption	AC380V 50Hz, 3.7KW
Gas Source	0.5~0.7MPa, 5Nm <sup>3</sup> /h
Overall Dimension (mm) L X W X H	3590x1124x3453

\*The packaging speed data is measured with rice as the material, which depends on the specific characteristics and packaging specifications of the packaging material

\* The size of the packing bag can be adjusted appropriately. Please consult our technicians for details.

## 04 / FAG-900 series automatic packaging unit



### SCOPE OF APPLICATION

Fully automatic quantitative packaging of granular materials in rice, miscellaneous grains, seeds and other industries.

## FUNCTIONAL CHARACTERISTICS

- 01

The process flow of weighing, bag loading, bag opening, blanking, bag sewing, etc. is fully automated.
- 02

It is suitable for woven bags of various packaging specifications, and can realize one-key intelligent switching, which is fast and convenient.
- 03

It can switch freely between folded seam bag and non-folded seam bag.
- 04

It is suitable for both M-shaped ordinary woven bags and plastic portable woven bags.
- 05

Using touch screen + PLC control, simple and convenient operation.
- 06

Servo motor drive is used in many places, which is safe, reliable, fast and stable.
- 07

It has the function of automatic fault alarm, which can be quickly eliminated according to the fault prompt.
- 08

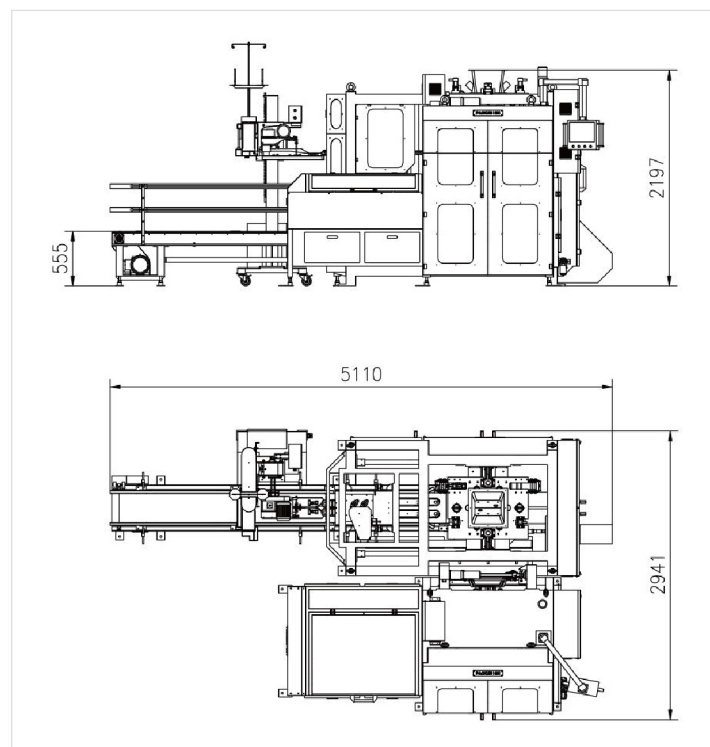
Optional remote diagnosis function, easy to maintain.

## TECHNICAL PARAMETERS

model	FAG-900A
Bag type	1. M-shaped woven bag (coated on both sides) 2. In-line woven bag (covered on both sides)
Packing range (kg)	5~25
Packing speed (bag/h)	600~900 *
Weighing precision	± 0.1%
Bag specifications (mm)L x W	(480~780) × (240~370) (Film-coated woven bag)
Ambient temperature	0~40°C
Power supply, power consumption	AC380V 50Hz, 12KW
Gas source, gas consumption	0.5~0.7MPa, 12Nm <sup>3</sup> /h
Overall dimension (mm) L x W x H	4050×2959×3095

\*Depend on the specific characteristics of packaging materials and packaging specifications.

## 05 / FAG-750 series automatic packaging unit



### SCOPE OF APPLICATION

Automatic quantitative packaging of granular materials and coarse powder such as rice, feed, sugar making and fertilizer.

## FUNCTIONAL CHARACTERISTICS

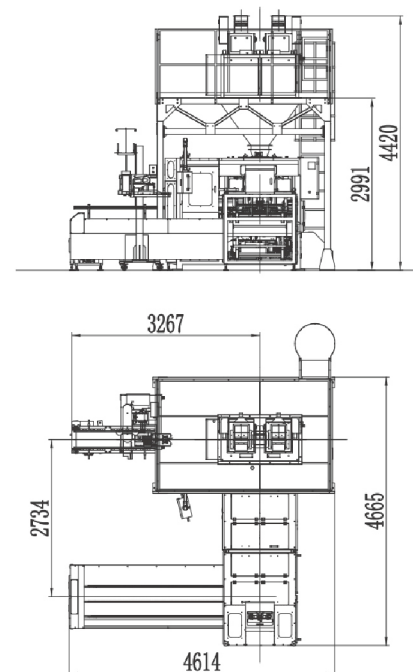
- |   |  |   |  |
|---|--|---|--|
| <div>01</div> <div>03</div> <div>05</div> <div>07</div> | <p>The processes of weighing, bagging, opening, baiting and sewing are fully automated.</p> <p>With compact bag design, multiple dust removing outlets are arranged reasonably to avoid dust.</p> <p>With servo motor drive, it is safe, reliable, fast and stable.</p> <p>It is optionally equipped with a function of remote diagnosis and can be maintained easily.</p> | <div>02</div> <div>04</div> <div>06</div> | <p>It is also suitable for light, soft and open packages.</p> <p>With friendly man-machine interface, it features simple and convenient operation.</p> <p>It is equipped with a function of automatic fault alarm and can be quickly troubleshoot according to the fault prompt.</p> |
|---|--|---|--|

## TECHNICAL PARAMETERS

model	FAG-750B
Packing range (kg)	25~50
Packing speed (bag/h)	500~750 *
Weighing precision	±0.1%~±0.2%
Bag specifications (mm)	Bag width:500~600 Bag length:800~1000
Ambient temperature	0~40℃
Power supply, power consumption	AC380V 50Hz, 12kW
Gas source, gas consumption	0.4~0.6MPa, 15Nm <sup>3</sup> /h
Overall dimension (mm) L x W x H	5500×3420×4630

\*Depend on the specific characteristics of packaging materials and packaging specifications.

## 06 / FAG-850B automatic packaging unit



### SCOPE OF APPLICATION

Automatic quantitative packaging of granular materials such as fertilizer and sugar making

## FUNCTIONAL CHARACTERISTICS

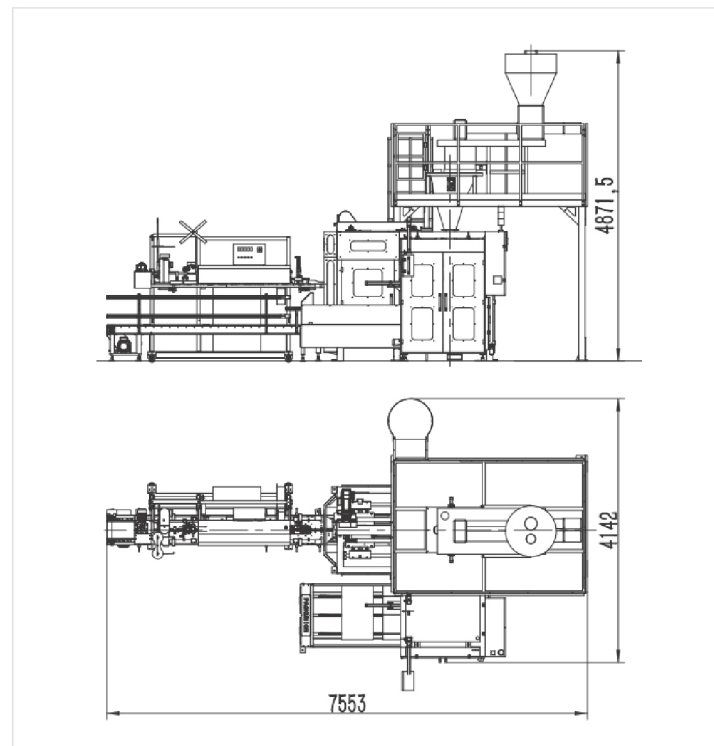
- |    |   |    |   |
|----|---|----|---|
| 01 | The process flow of weighing, bag loading, bag opening, blanking, bag sewing, etc. is fully automated.  | 02 | It is also applicable to soft and open packing bags.                                |
| 03 | The bag storage has 5 stations, which can store 400-500 bags at a time.                                 | 04 | Compact bag design, reasonable layout of multiple dust removal ports to avoid dust. |
| 05 | Friendly man-machine interface, simple and convenient operation.  | 06 | Driven by servo motor, safe, reliable, fast and stable.                             |
| 07 | With the function of automatic fault alarm, it can be quickly eliminated according to the fault prompt. | 08 | Optional remote diagnosis function, easy to maintain.                               |

## TECHNICAL PARAMETERS

model	FAG-850B
Packing range(kg)	25-50
Packing speed(bag/h)	600~850*
Weighing precision	±0.1%~±0.2%
Bag specifications(mm)	Bag width: 500~600; Bag length: 800~1000
Ambient temperature	0~40℃
Power supply, power consumption	AC380V 50Hz, 15kW
Gas source, gas consumption	0.5~0.7MPa, 45Nm <sup>3</sup> /h
Overall dimension(mm)L×W×H	4614x4665x4420

Depend on the specific characteristics of packaging materials and packaging specifications

## 07 / FAP-360B automatic packaging unit



### SCOPE OF APPLICATION

Fully automatic quantitative packaging of flake or coarse powder in chemical, food and other industries.

## FUNCTIONAL CHARACTERISTICS

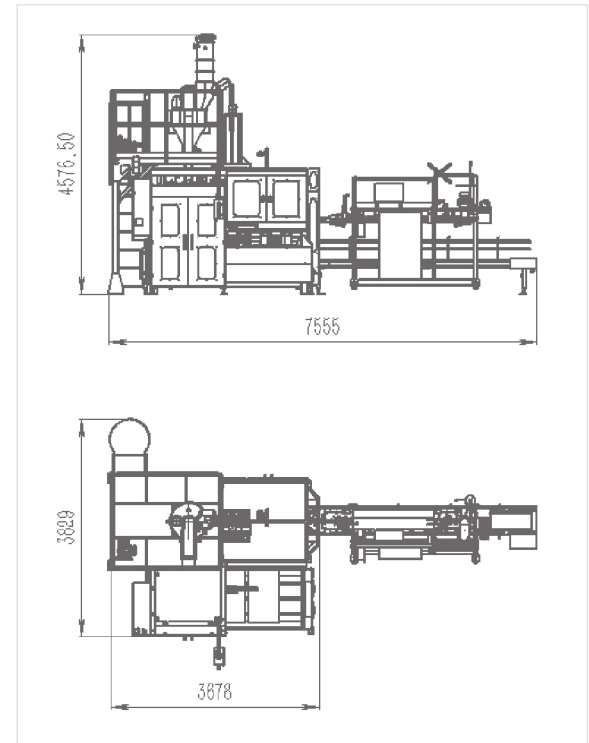
- |    |  |    |   |
|----|--|----|---|
| 01 | The process flow of weighing, bag loading, bag opening, feeding, exhaust, and sealing is fully automated.    | 02 | It is suitable for kraft paper bags (with PE bags inside), laminated woven bags (with PE bags inside), composite bags, etc. |
| 03 | It adopts horizontal double-screw feeding and hopper measurement, fast weighing speed and high precision.    | 04 | The bag holding mechanism is equipped with an exhaust device, which can effectively exhaust the air in the bag mouth.       |
| 05 | The packaging machine is equipped with dust removal ports in many places to avoid dust.                      | 06 | Friendly man-machine interface, simple and convenient operation.  |
| 07 | It has the function of automatic fault alarm, which can be quickly eliminated according to the fault prompt. | 08 | Optional remote diagnosis function, easy to maintain.   |

## TECHNICAL PARAMETERS

model	FAP-360B
Packing range(kg)	25-50
Packing speed(bag/h)	180~360*
Weighing precision	±0.1%~±0.2%
Bag specifications(mm)	Bag width:500~600;Bag length: 800~1000
Ambient temperature	0~40°C
Power supply,power consumption	AC380V 50Hz,14kW
Gas source,gas consumption	0.5~0.7MPa, 41Nm <sup>3</sup> /h
Overall dimension(mm)L×W×H	7553X4142X4871.5

Depend on the specific characteristics of packaging materials and packaging specifications.

## 08 / FAP-I80B automatic packaging unit



### SCOPE OF APPLICATION

Automatic quantitative packaging of gas fine powder such as chemical product and food additives.

## FUNCTIONAL CHARACTERISTICS

- 01

The technological processes of weighing,bag loading, bag opening, feeding, pumping,exhausting and sealing are fully automated.
- 02

It is suitable for kraft paper bags(with PE bags inside),laminated woven bags(with PE bags inside),composite bags, etc.
- 03

The vertical spiral bottom-filled feeding is adopted to minimize dust.
- 04

The packaging machine is equipped with dust removal ports in many places to avoid dust.
- 05

The second station is equipped with a filter rod suction mechanism to effectively remove the gas in the packaging material. At the same time, the bag holding mechanism is
- equipped with an exhaust device, which can effectively exhaust the air in the bag mouth.
- 06

Friendly man-machine interface, simple and convenient operation.
- 07

With the function of automatic fault alarm, it can be quickly eliminated according to the fault prompt.
- 08

Optional remote diagnosis function, easy to maintain.

## TECHNICAL PARAMETERS

model	FAP-180B
Packing range(kg)	25-50
Packing speed(bag/h)	120~180*
Weighing precision	±0.1%~±0.2%
Bag specifications(mm)	Bag width:500~600;Bag length: 800~1000
Ambient temperature	0~40℃
Power supply,power consumption	AC380V 50Hz,10kW
Gas source,gas consumption	0.5~0.7MPa, 22Nm <sup>3</sup> /h
Overall dimension(mm)L×W×H	7555X3829X4509

Depend on the specific characteristics of packaging materials and packaging specifications.

# 09 / Sealing equipments

## ① Automatic bag folding and sewing machine

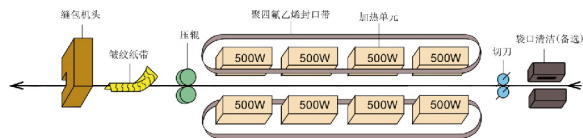


The automatic bag folding and sewing machine adopts photoelectric control and can automatically and continuously complete folding, stitching, trimming and braiding of the mouths of kraft paper or plastic woven bags. Its air supply system realizes thread trimming, cutting and oil mist lubrication. The height of the machine can be adjusted according to the bag size.

### ■ TECHNICAL PARAMETERS

Height of stitching head	720-1220mm(From the ground to the needle)
Brake motor	4P,3Ph, 0.75kW/0.4kW (Depend on the conveying speed)
Start-stop	Photoelectric switch
Stitching head	DS-9C(Japan NEWLONG)
Maximum speed	2700rpm
Stitch width	7-10.5mm(Standard setting 10mm)
Stitch type	Single needle, double-stitching chain stitch (single-stitching needs to be customized.)
Cutter type	Cylinder-driven cutter
Air pressure	0.4MP/cm <sup>2</sup>
Air consumption	3.5NL/min
Lubrication system	Automatic oil bath system (recommended lubricant: Shell Tellus Oil No. 32)
Threads	Synthetic fiber or cotton threads, 3 x 3 strands

## ②Automatic bag heat sealing and sewing machine



Workflow for heat sealing and sewing: Bag mouth cleaning (alternative) → cutting knife: bag mouth trimming→heat sealing of inner bag (heating of 4 groups of heating blocks: PTFE sealing belt makes the heating blocks not directly contact with the bag in order to protect the appearance of the bag from adhesion with the heating blocks.) →roll pressing→wrinkled paper tapes→bag sewing machine: sewing of external bag.

### TECHNICAL PARAMETERS

Sealing speed (m/min)	7-10
Power of heating block (kW)	0.5*8
Power of sealing machine (kW)	0.4
Power of sewing machine (kW)	0.4
Power of bag mouth cleaning (kW)	0.55 (alternative)
Total power (kW)	5.5
Equipment dimension (L * W * H mm)	3153*1090*2052
Weight (Kg)	≈650
Stitching head	DS-7C(Japan NEWLONG)
Sealing height (mm)	800-1700 (The height from the ground)
Sealing temperature	0-400°C
Scope of application	Woven (laminated) bag, hot PE film sealing inside the bag, wrinkled paper bag outside

# IO / Palletizing robot

## ABB IRB460 Palletizing robot



Main application areas: packaging, stacking, destacking, material handling, loading and unloading, machine tool management

Advantages: shortened cycle time, high-precision operation, small footprint, high output, low cost of ownership, high production efficiency, faster and simpler programming, Unparalleled professional experience and global support

### ■ TECHNICAL PARAMETERS

Main application	Palletizing,depalletizing,material handling
Specification	Load: 110kg, reach:2.40m, installation:landing
Performance (according to ISO 9283)	Repeat positioning accuracy(RP):0.20mm, repeat cycle accuracy:(RT)0.11mm
Sports	Axis 1 Working range: +165°~-165° Maximum speed: 145°/s
	Axis 2 Working range: +85° ~ -40° Maximum speed: 110°/s
	Axis 3 Working range: +120° ~ -20° Maximum speed: 120°/s
	Axis 4 Working range: +300° ~ -300° Maximum speed: 400°/s
	+150 rev ~ -150 rev (the highest)
Physical properties	Robot base size: 1007×720mm, robot weight: 925 kg
Ambient temperature of mechanical part	During operation: +0°C (32°F) to +45°C (113°F)
	When transported and stored: -25°C (-13°F) to +55°C (131°F)
	Short time (not more than 24 hours): up to +70°C (158°F)

# ABB IRB 660 Palletizing robot



Main application areas: material handling, pallet stacking

Advantage: Improved range of motion  
The ultra-high-speed 4-axis running mechanism, the reach of 3.15 meters and the payload of 250 kg make the IRB660 an ideal stacking tool for packaging materials such as bags, boxes, crates and bottles.

## ■ TECHNICAL PARAMETERS

Main application	Material handling, pallet stacking
Specification	660-180/3.15 (version) 180kg (load) 3.15m (stroke)
	660-250/3.15 (version) 250kg (load) 3.15m (stroke)
Performance	Repeat positioning accuracy: 0.1mm, repeat cycle accuracy: 0.3mm
Axis movement	Axis1 rotation:+180°to-180°,+220°to -220°optional; Axis2 arm: +85°to -42°; Axis3 arm:+120° to -20°
	Axis 6 flip: default +300° to -300°, maximum value +150 (reverse) to -150 (reverse)
Maximum speed	IRB 660-180/3.15 version: axis 1, axis 2, axis 3: 130°/s, axis 6: 300°/s
	IRB 660-250/3.15 version: axis 1, axis 2, axis 3: 95°/s, axis 6: 240°/s
Physical properties	Robot base: 1136 × 850 mm, weight: 1650 kg
Ambient temperature of mechanical part	During operation: +5°C (41°F) to +50°C (122°F)
	During transportation and storage: -25°C (-13°F) to 55°C* (131°F)
	Short time (not more than 24 hours): +70°C (158°F)

# 泰禾智能 TAIHO

GLOBAL INTELLIGENT MANUFACTURING

AI Vision Expert

## 2004

At the end of the year 2004, Hefei Taiho Optoelectronic Technology Co., Ltd. was established.

## 2017

In the march 2017, Hefei Taiho was officially logged in the main board of Shanghai Stock Exchange and became a listed company!



- It is a complete set of intelligent equipment and service providers based on AI visual recognition.
- CCD intelligent color sorter, we continue to lead the technological upgrade of the color sorter market;
- Based on AI visual recognition and machine learning technology, after the launch of rice, grains, and tea color sorters, we have successively developed ores, non-ferrous metals, Recycle resources and other industrial AI sorting equipment;

- Expand and develop intelligent equipment such as intelligent packaging machine and intelligent loading systems set.
- With excellent quality and excellent service, our products are distributed in more than 80 countries and regions around the world.



## **Hefei Packunion Intelligent Equipment Co., Ltd.**

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Add: Intersection of yulan avenue and fangxing avenue, taohua industrial park  
development zone, hefei economic and technological development zone, anhui, China

Tel: +86 551-68580039 / Export: +86 551-65399015

Fax: +86 551-65399188 / P.C: 230601

E-mail: [contact@packunion.com.cn](mailto:contact@packunion.com.cn)

Url: [www.packunion.com.cn](http://www.packunion.com.cn)

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Due to continuous innovation of our product technologies ,if the products listed in this album involve upgrading of  
appearance or performance etc,the actual upgraded product performance shall prevail.

05.2022