

Specifications and Configurations of ZD-FJ18P+P Roll-fed Square Bottom Paper Bag Machine with Patch Unit



1. Company Introduction

1.1. Profile

Jiangsu Fangbang Machinery Co., Ltd. is a high-tech enterprise including research and development, production, sales and service, located in Suzhou, China, covering an area of 26600 square meters. Our company is specialized in the production of paper bag making machines (sheet paper feeding, roll paper feeding, full-automatic, and semi-automatic) and flexographic printing machines and so on, with more than one hundred sets of processing and testing equipment in the workshops. Our company has passed through ISO9001:2008 quality system authentication and all of our products have obtained CE certifications.



Figure 1. The Appearance of Our Company

We are on the basis of main industry, focusing scale effect and fulfilling quick development to create the first ranking group company. With the trade mark of "JianShe" brand, our company has the rights to import and export. Our products are popular all over the world due to customers like their excellent performance. We understand the clients' requirements very well so that we can supply not only the first ranking printing & packaging machinery but also have more than 30 offices in China and abroad, which brings a perfect after-sales service system to ensure that we can provide strong technical support and attentive, efficient service for customers.

"Be dependable friend of customers" is our purpose, "Create value for customers" is our goal. "JianShe" brand products are your best choice; we sincerely welcome old and new customers to cooperate with Fangbang and make progress together.

1.2. New Production Base

Zhejiang Hancent Technology is located in Wenzhou China, and was officially put into use in March 2022. As the new production base of Fangbang group, it has 7 buildings and covers an area more than 100,000 square meters. In this factory we are committed to the research and production of valve sack machines, paper bag machine and flexo printing machines. With the ability of annual production capacity of 300 paper bag machines, Hancent will work together with Jiangsu Fangbang to provide global customers with more perfect products and services.



1.3. Inside Views of Plant



Figure 2. Assemble Workshop (1)



Figure 3. Assemble Workshop (2)



Figure 4. Assemble Workshop (3)

1.4. Certificates



Drafting Organization of Industry Standard



The Manufacturer of First Great Equipment in China



CE Certificate



IOS9001:2008 Quality Management System Certificate

Figure 5. Honors and Certificates

2. Product Specification

2.1. Product Introduction

This machine is designed to manufacture square bottom paper bags without handles from paper roll and patch roll. By implementing steps including paper feeding, patch application, tube forming, handle punching, tube cutting and bottom forming inline, this machine can effectively save labor costs. The equipped photoelectric detector can correct cutting length, so as to ensure cutting precision. The equipped SIEMENS PLC system ensures that the machine can perform quickly and stably. Special bags collection platform and counting function, improve packing efficiency of paper bags packing. This machine can produce paper bags of varying greatly sizes at a high speed, thus is especially suitable for being applied in food and clothing industries.

This machine can not only produce paper bags in fairly fast speed same as ZD-FJ18P, but also make patch handle paper bags of various sizes. Two applications from one machine, bring customers more values.





Figure 6. Side View of ZD-FJ18P+P for reference

2.2. Main Technical Parameter

Model	ZD-FJ8P+P
Paper Roll Width	590~1390mm
Max. Paper Roll Diameter	φ1500mm
Material Core Diameter	φ76mm (3'')
Paper Thickness	60~160g/m ²
Tube Length	280~620mm
Bag Body Width	200~460mm
Bag Bottom Size	80~220mm
Patch Length	120~160mm
Patch Width	75~138.75mm
Film Patch Thickness	0.1~0.3mm
Paper Patch Thickness	80~160gsm
Die-cut Window Length	30mm
Die-cut Window Width	80mm
Max. Production Speed	180bags/min
Total Power	25kw
Total Weight	Approx.12000kg
Overall Dimension	L12000mm×W3450mm×H2000mm

Note: the parameters above are not absolute; operator's skills, temperature, moisture, material and size of paper, categories and quality of glue can affect production speed, rejection rate, and applicable range of machine.

2.3. Advantages

-  This machine can produce paper bags in very fast speed (180 bags/min at MAX.).
-  This machine can produce paper bags of wide-range sizes. It can produce not only small-size food bags, but also big-size shopping bags.



2.4. Finished Product Samples



Figure 7. Finished Product Samples

3. Technology Analysis

3.1. Bag Forming Process

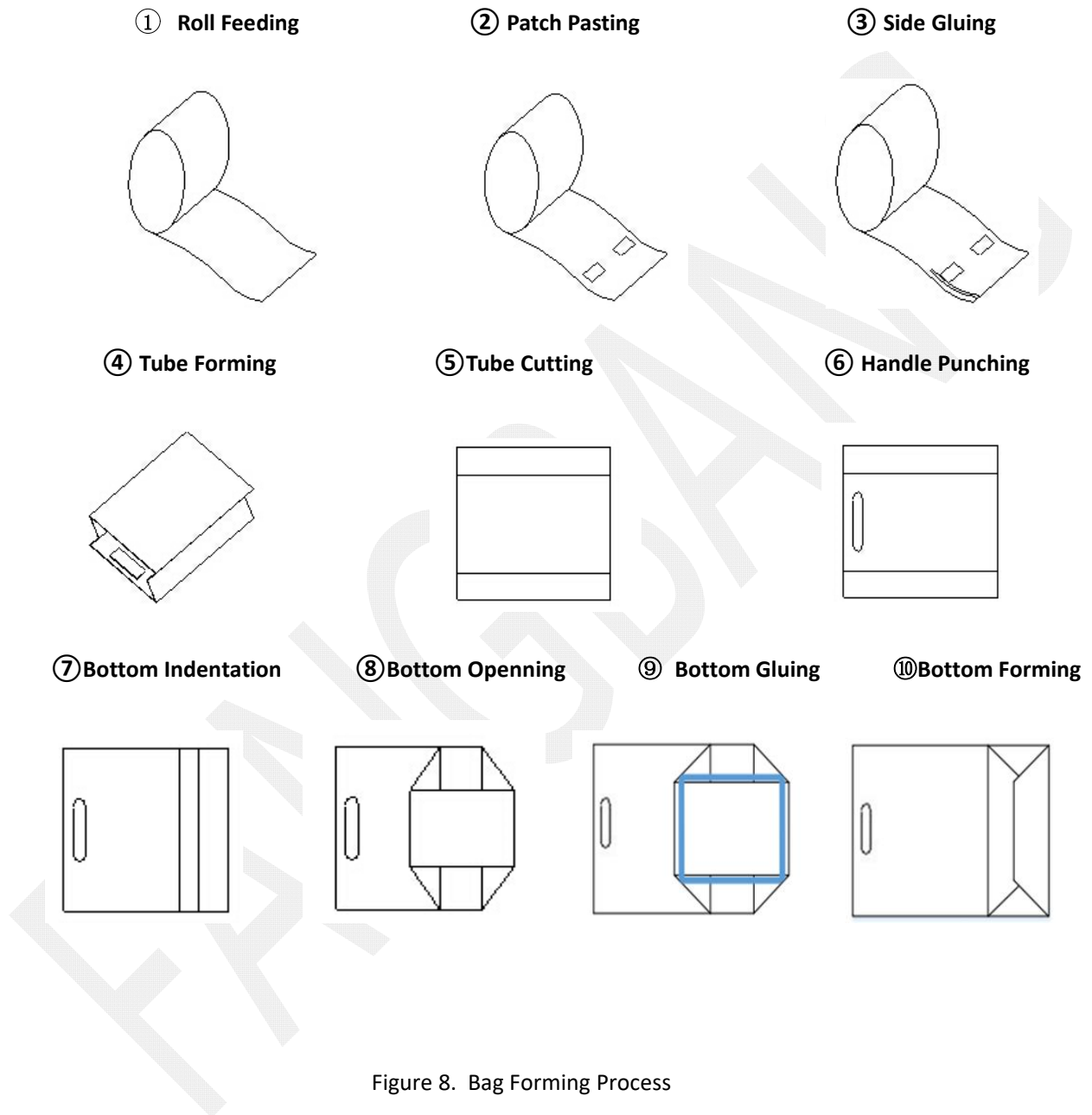


Figure 8. Bag Forming Process

3.2. Different Bag Bottom Styles

According to the different requirements of customers, we can make different bag bottom styles.

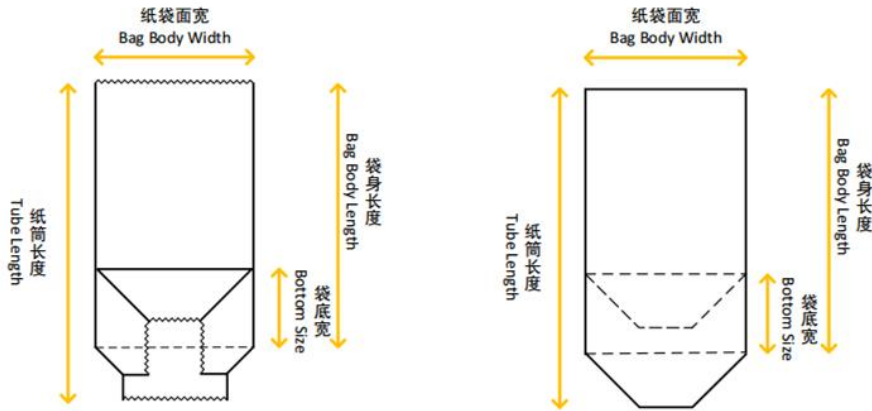
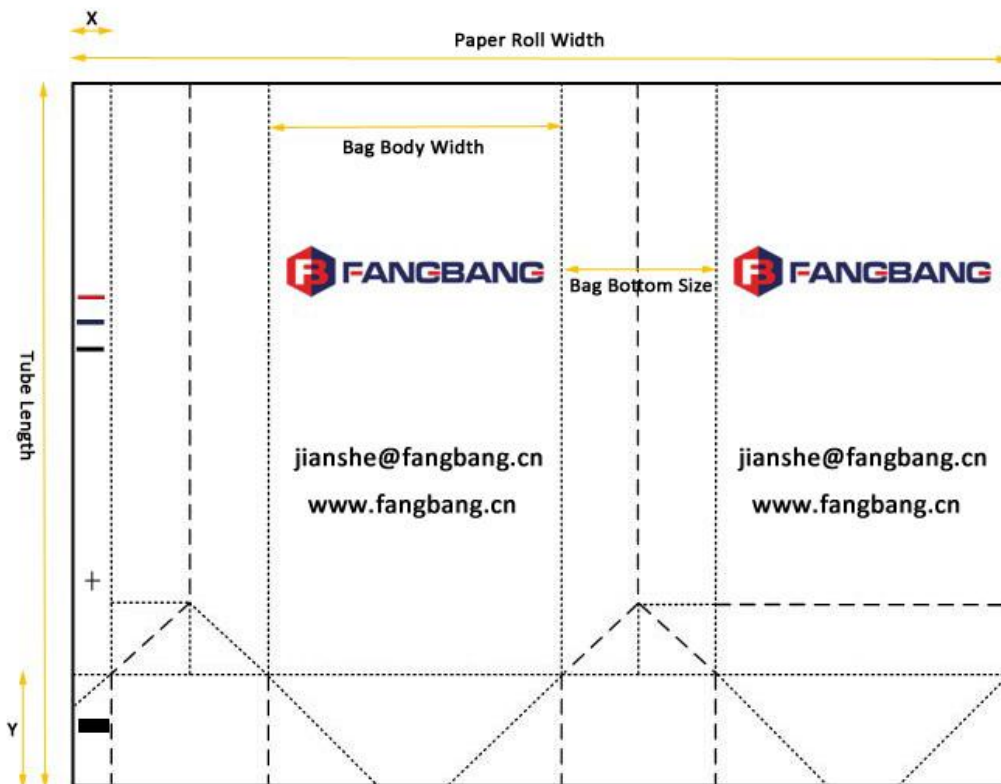


Figure 9. Diagram of Different Bag Bottom Styles



X= Gluing Zone =25mm~30mm

Y= Bottom Folding= Bottom Size × (65%~75%)

4. Detailed Specification

4.1. Unwinding Section

- 1) Separate single-station unwinding rollstand with hydraulic lifting device.
- 2) Air shaft for paper reel loading, equipped with air gun.
- 3) Magnetic powder brake for unwinding and automatically constant tension controller for unwinding tension control.
- 4) EPC web guide control system for material alignment.
- 5) Automatic Stop Function: the machine stops automatically when materials are broken.
- 6) Automatic Replacement Alarm Function: the alarm will be triggered automatically to inform the operator for replacement when material reel diameter becomes too small.



4.2. Patch Pasting Section

- 1) 2 small roll stands unwind the patch material into cutting components.
- 2) Servo motors are used for controlling the working pace same as the whole machine.
- 3) Vacuum air compressors are adopted to stick the patches and paste them onto the specific position of paper web.

4.3. Side Gluing Section

Glue transferring roller for side glue application;
automatically disengaged when the machine stops.



4.4. Tube Forming Section

- 1) Fixed forming mould structure (side sealing is above the forming mould).
- 2) Adjustable multi-discs for side tucking, which reduces the resistance of tube forming efficiently.



- 3) Equipped with 3 forming mould of customized size.

4.5. Bottom Forming Section

- 1) Material cutting is managed by servo motor; automatic photocell correction system is used for running preprinted materials.
- 2) The whole machine is mainly controlled by inverter-fed motor.
- 3) Rotary serrated cutter with elliptical gears.
- 4) Integrated window cutter is used for punching on paper bag.
- 5) Adjustable paper tube guiding forming mould.
- 6) Adjustable bottom creasing device is used to adjust the bag bottom size.
- 7) Bottom opening cylinder with split cam is for the stretch length adjustment of bottom opening.
- 8) Multi-layers bottom forming drum, center grippers, second tuck clamps, and drum grippers are adjustable for ease of changeover.
- 9) Automatic Disengaging Function: bottom gluing is prevented for empty feeding to avoid contamination to the surface of the drum.
- 10) The clutch function in bottom gluing part is managed by pneumatic control.



4.6. Bag Collection Section

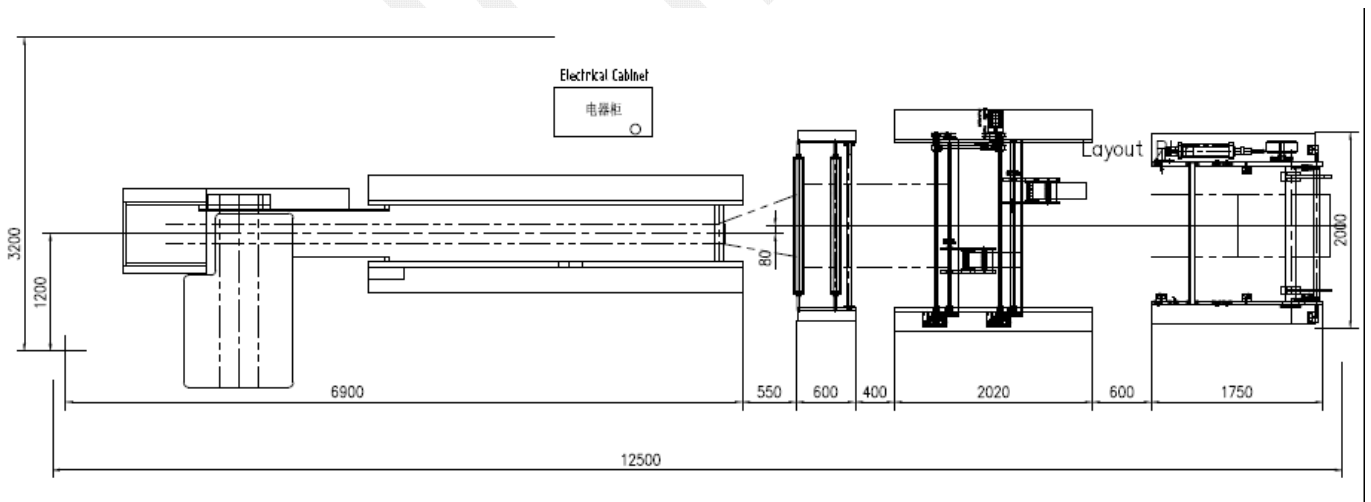
- 1) Paper bags are delivered on vertical collection workbench, which is easy for operations.
- 2) Flexible air-cylinder is adopted for counting the collected paper bags.



4.7. Control Section

- 1) The whole machine is centrally controlled by Original German SIEMENS PLC system, which has self-diagnosis function and monitors the machine status.
- 2) Touch screen is adopted for input control and machine status display.
- 3) The bag tube length is controlled by SIEMENS servo motor.
- 4) Bag collection speed is controlled by separate motor.
- 5) The whole machine is mainly controlled by inverter-fed motor.
- 6) Automatic counting; batch-delivery and acceleration-delivery functions.

4.8. Machine Layout



4.9. Main Electric Configuration List

Description	Qty	Brand
Simotion System	1	Siemens
Servo Motor of Main Machine	1	Siemens
Servo Motor of Traction	1	Siemens
Touch Man-Machine Interface	1	Siemens
PLC System	One Set	Siemens
Air-Break Switch	Full Set	China CHNT
A.C. Contactor	Full Set	China CHNT
Power Switch	1	China CHNT
Bijective Photocell	1	Germany SICK
Reflective Photocell	1	Germany SICK
Color Code Sensor	1	Germany SICK
Alert Lamp	One Set	Germany WERMA
Unwinding Tension Controller	1	China ZXTEC
Unwinding EPC	1	China Aibo

5. Others

5.1. Working Condition

Parameters	
Power	3 phases, 380V±10%, 50 Hz
Compressed Air	pressure: 0.6 MPa volume: approx. 0.5 m ³ /h oil and humidity: >8 mg/m ³
Installation Height	max. altitude: 1500 m
Ambient Requirement	relative moisture: max. 65% when 40°C temperature range: 10~40°C

Note: due to the availability of imported components and special requirements of customized machines, with the precondition that the machine performance is not influenced, the machine specification may be changed without notice in advance.

6. Thanks

Thank you for your consulting. We do sincerely hope to cooperate with your company. By the guarantee of outstanding machine quality, professional engineer, and strong team service, we have faith in our machine to contribute to the development of your company.

 **JianShe**[®] **Fangbang** **FANGBANG** **Felux**

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Sincerely hope for a pleasure cooperation

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