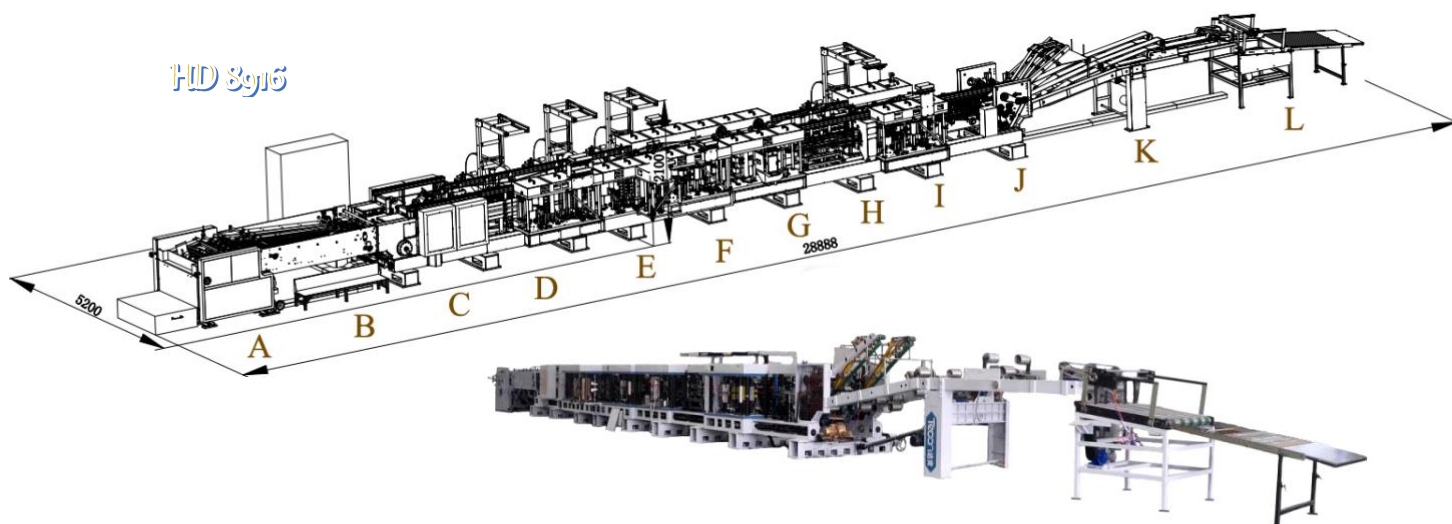


## **BOTTOMER MACHINE: HD 8916**

**Preface:** Each machine produced in our factory must undergo long time trial production before leaving here. Running, testing, checking and adjusting, to make each unit of the equipment to be the best situation. Carrying out the spirit of craftsmanship in design and production, and striving to deliver each piece of equipment to the customer immediately and stably to produce and create wealth for the customer.

The Tuber Machine only produce tubes, if need to produce valve bags, then Bottomer Machine is needed. The tubes are reworked by opening the bottom on each end, folding, gluing, compacting and finally form a complete valve bag on the Bottomer Machine. It is an indispensable device for the production of valve bags. HD 8916 is mainly used to produce cement bags and mortar bags.

After many years of actual production, testing and continuous innovation and technology upgrades of the top technical teams in China this field, the equipment is improving every day and has many patented technologies.



## **Bottomer machine introduction**

### **Operating Conditions:**

Working time: 18 hours / day

Design working environment temperature: 0 ~ 40 °C

Design working environment humidity: up to 95%

Working voltage: 380±10V 50Hz

### **Configuration**

**1. HDA001** Feeding mechanism : 1 set. Equipped with rotary roller feeding system. The small rollers rotate around the big roller, at the same time, feeding to the self-rotating adsorption, 8 rolls of paper can be loaded on one roll of the big roller )



The feeding mechanism is a downward suction roll feeding. The feeding workers need to continuously place the bag tube from above. The bag tube needs to be aligned when placing the bag tube. About 30 bag tubes are placed each time. In order to maintain the stable and rapid operation of the machine, the feeding Workers should load the materials in time and keep the stack of bags in the silo at a certain height.

1. The bag tube is absorbed by the suction nozzle and transferred to the sorting mechanism after rotating counterclockwise;

2. When the bag tube length L is changed, the handwheel A and handwheel B need to be adjusted accordingly (5mm longer than the bag tube length is sufficient); (At the same time, the corresponding nozzle needs to be adjusted, and the extra nozzle is blocked with a rubber head);

3. When the width W of the bag tube is changed, the handwheel C needs to be adjusted accordingly (appropriate to put up the horizontal support plate about 10mm);

4. When the width H of the bottom of the bag tube is changed, first adjust the handwheel A and handwheel B

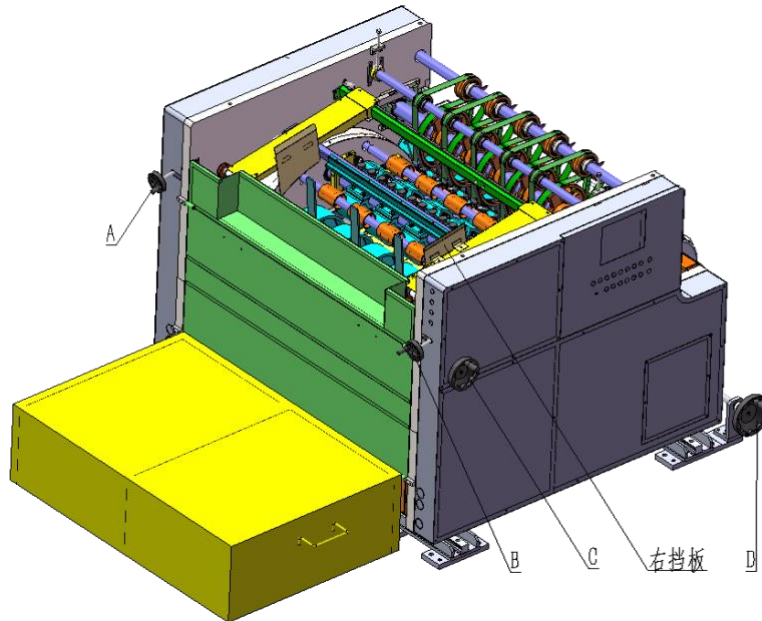
accordingly. If the needs cannot be met, you need to adjust the handwheel D accordingly;

5. Note: The right baffle driven by handwheel B should always be kept within 10-20mm of the inner surface of the vertical belt.

6. Electrical switches are equipped with: start button, stop button, indicator light, emergency stop button;

7. Touch screen

- ① Power start: control the power on and off status of the whole machine
- ② Lighting button: turn on or off the light.
- ③ Monitoring screen: display test parameters and test mode settings,



## 2. HDB001 Sorting out and perforation mechanism : 1 set:

A. To ensure accurate positioning of the conveyor, equipped with 3 sets of timing belts with baffles and conveyor belts, Automatic positioning when has speed difference;

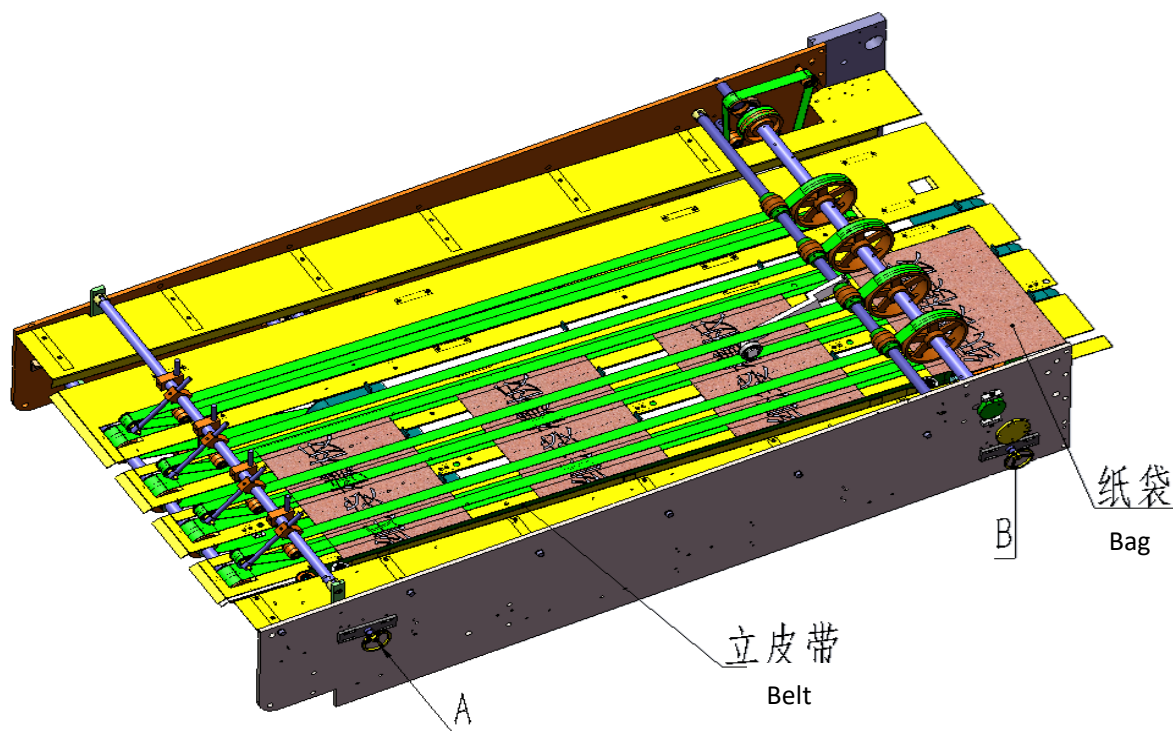
B. Equipped with 45 ° angular pressure oblique device, this device comes with a differential mechanism, can adjust the embossing position without stop the machine;

C. Equipped the center distance indentation device;

D. Equipped with longitudinal cutting device to the bottom of the flat cutting bag.



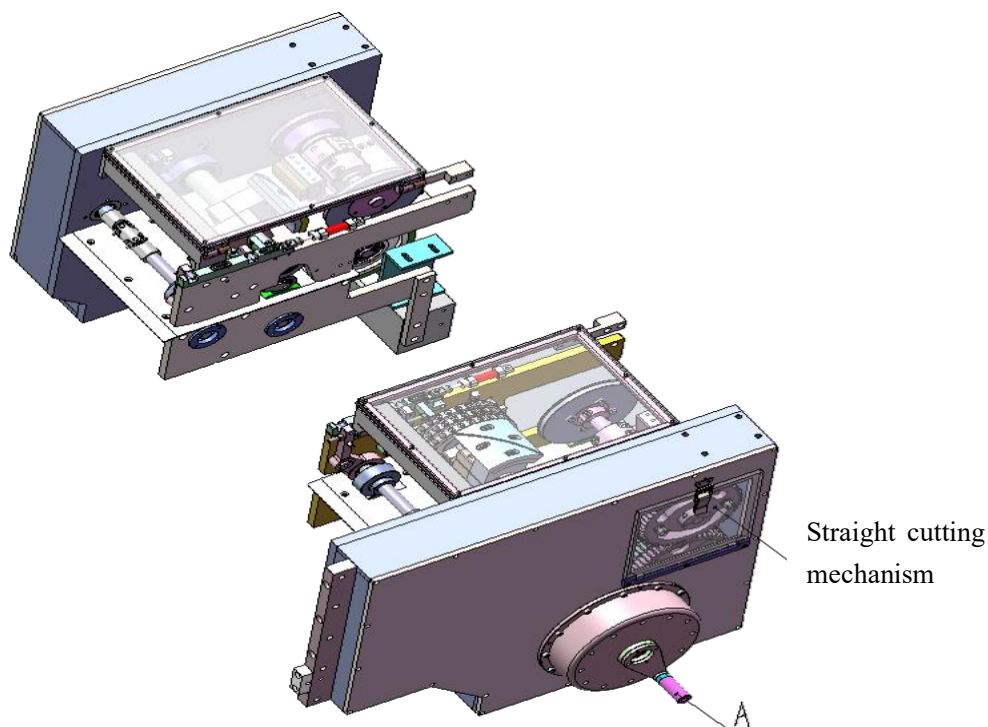




After the bag tube enters the sorting mechanism, the lower conveyor belt has a certain inclination angle, so that the paper bag is constantly aligned with the vertical belt, and the upper compression conveyor belt is faster than the lower conveyor belt, so the paper bag is aligned with the vertical belt at the same time Lean forward to arrange the alignment.

1. When the width H of the bottom of the bag tube changes, adjust the handwheel A and handwheel B accordingly;

(Example: When the bottom width of the original paper bag is changed from 100mm to 140mm, the handwheel needs to move 40mm outwards.)



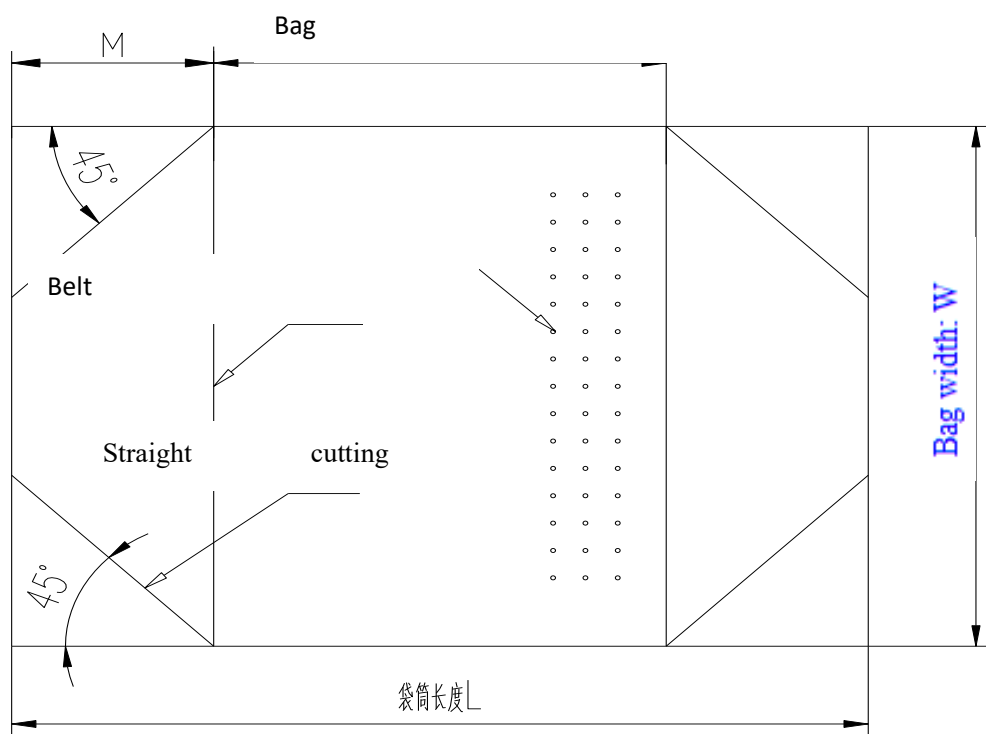
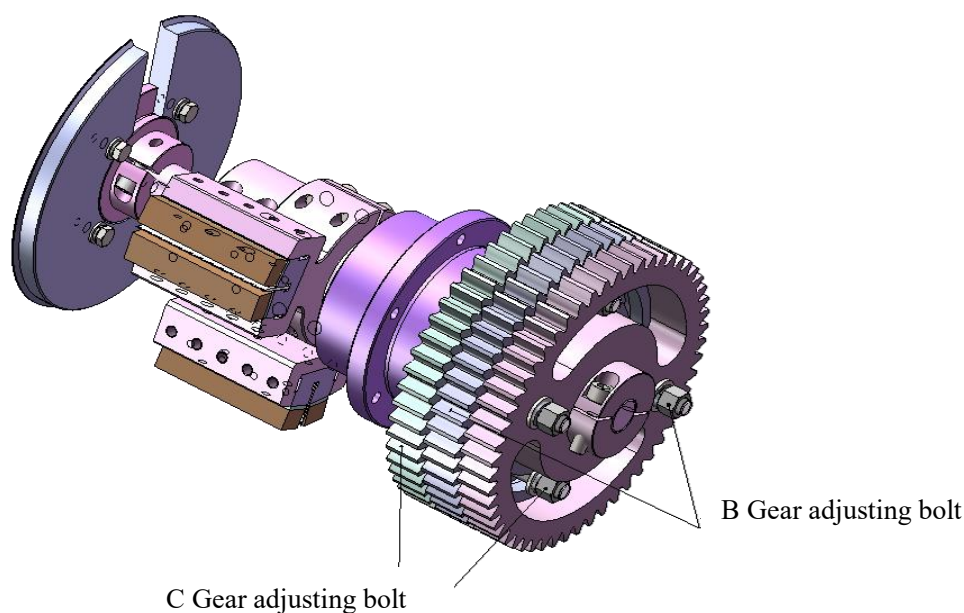
The indentation mechanism is equipped with puncture function (exhaust when filling the bag tube), straight cutting knife (position the bottom width H position of the bag tube, if the bag tube has been pierced and cut directly on the tube making machine, Then remove the piercing needle and blade.

1. When the width W of the bag tube is changed, the indentation position corresponds to the adjustment handwheel A (rear indentation position), (the front indentation position does not need to be adjusted);

2. When the width W of the bag tube is changed, open the cover of the straight knife mechanism to adjust the gear B (the position of the overall cutter) and the gear C (the position of the rear cutter).

Example: bag tube length L = paper bag center distance + [bag bottom width + 30 (adhesive mouth size)] X2

Then: center distance indentation margin  $M = (\text{bag tube length } L - \text{paper bag center distance}) \div 2$



The indentation of the bag tube is a fixed 45-degree oblique angle, with up to three rows of puncture holes.

**3. HDC003** Opening & horn flattening mechanism : 1 set:

A. Equipped with a opening device with a linear slide base, can also be flexibly adjusted to get the right position by turning the handwheel.

B. Equipped with horn opening device with the waiting function. Turn the two handwheels separately can control the position and waiting time of the horn open system;



1. When the width W of the bag tube changes, adjust the number of suction nozzles accordingly (the suction nozzles should be as close to the edge as possible);

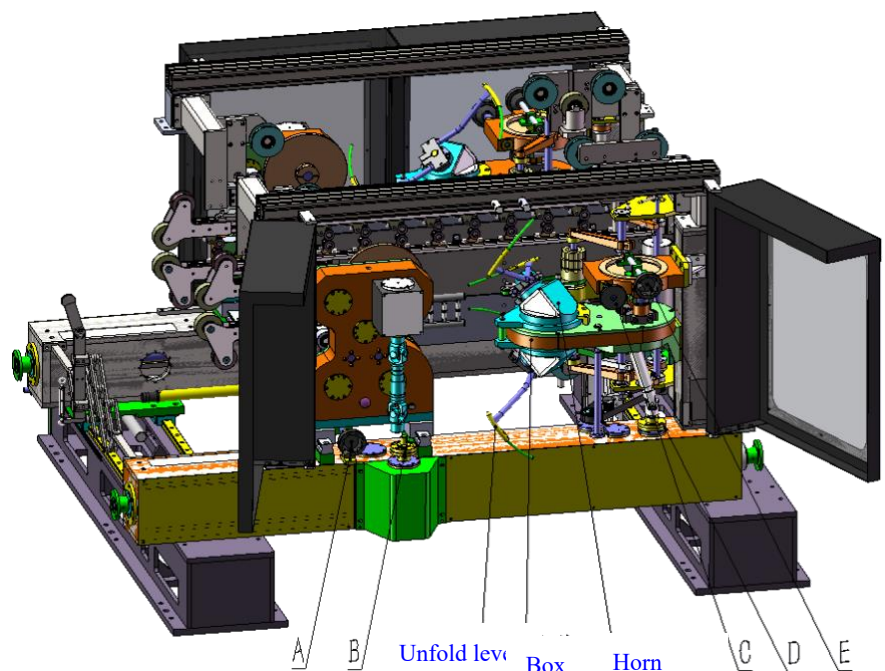
2. When the bottom width H of the bag tube changes, adjust the handwheel A correspondingly, (when the bottom width H of the bag tube changes greatly) adjust the connecting position of the drive shaft B correspondingly to keep a certain distance from the suction to the unfolding rod;

3. When the bottom width H of the bag tube changes, adjust the flattening rod (the gap between the flattening rod and the standing wall is 2mm), the handwheel E (the horn rotates one circle to accelerate and decelerate), and the handwheel C (the horn rotates one circle to increase Range of deceleration starting point);

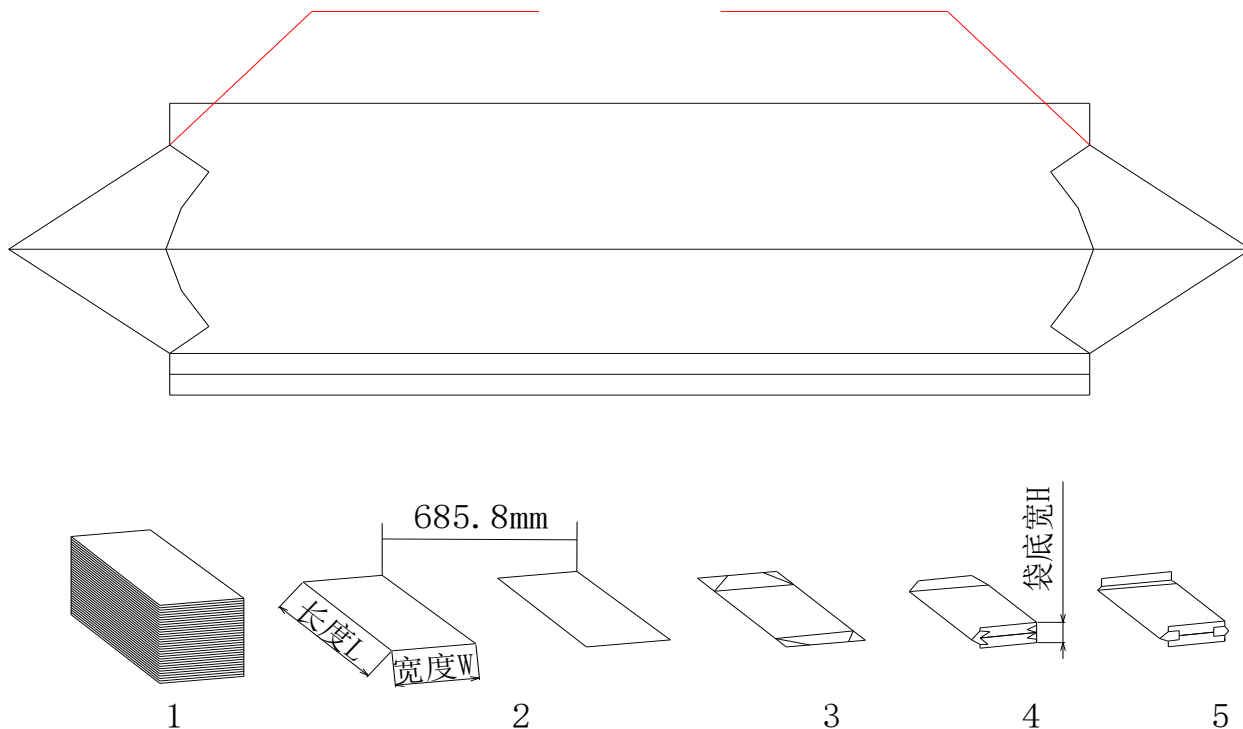
4. Note: For special specifications of the bag tube, the angle of the claw seat and the transmission box body seat can be adjusted correspondingly.

5. When the bottom of the bag tube is not fully opened, it will be detected by the electric eye, and the subsequent processes will not continue to paste or glue until the bottom turning mechanism will separate it as a defective product on the waste bag platform. Workers repaired it by hand into genuine products.

6. The figure below is the expanded figure:



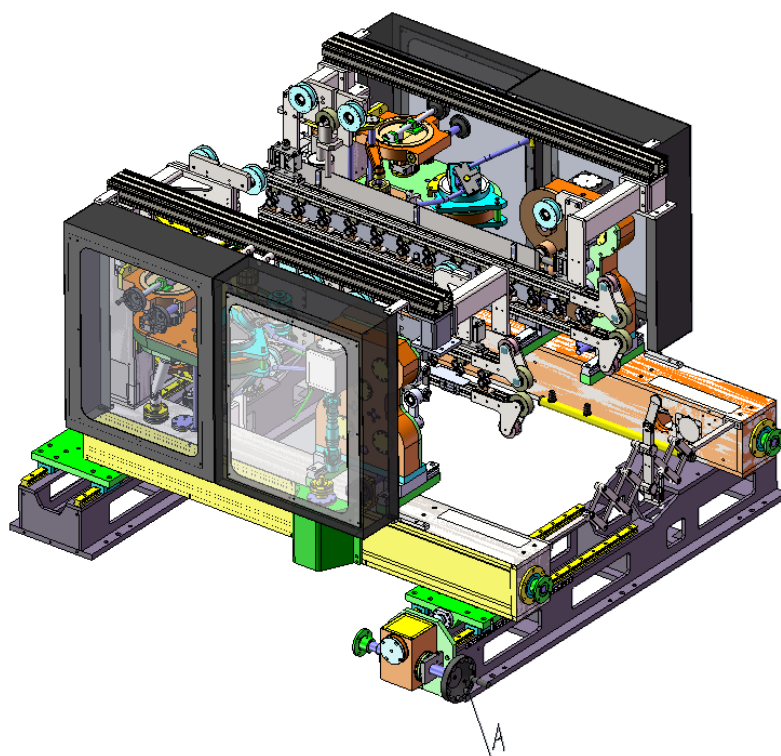
### C Gear adjusting bolt



Note: The suction opening mechanism only needs to be adjusted when the bottom width of the paper bag and the width of the paper bag change. Other size changes of paper bags have nothing to do with this adjustment.

5. The adjustment method of the left and right sides of the machine is the same.

6. When the length L of the bag tube is changed, the handwheel A needs to be adjusted accordingly (loading, sorting, and discharging will not be linked, and the rest of the mechanisms will move together).





**4. HDE002** Flake valve mechanism : (OPTIONAL)

A. Equipped with the whole unit differential adjustment device, can adjust the paper sticking position without stopping the machine.

B. can be attached to the internal valve port or external valve port

C. can be attached to the paper plus film misalignment valve port



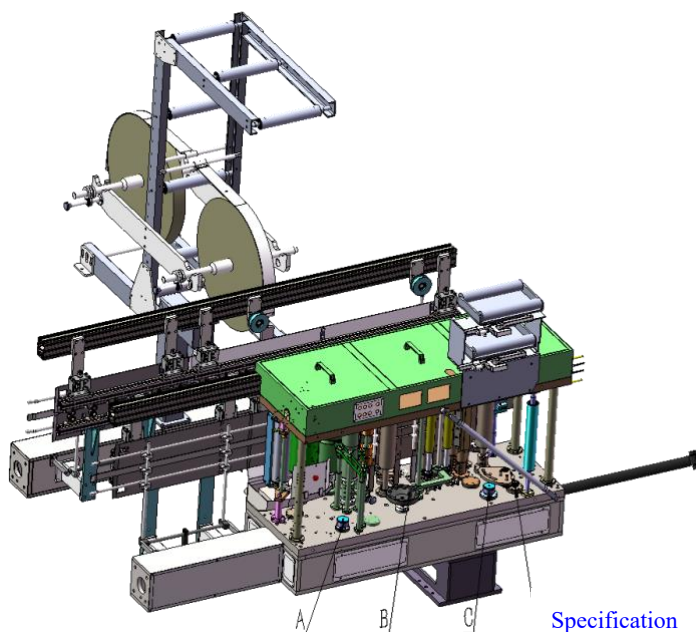
1. The basic process of the valve:

A) Built-in valve: ①Single layer of paper ②One layer of paper plus one layer of film

B) External valve: ①Single layer paper

Note: The position of the glue plate is attached according to the actual glue area.

2. Chip valve paper strips: For paste standard cement bags, the piece valve paper strips are discounted, as shown in the figure. The size of the valve port paper strip given by this machine is:  $C=20\text{mm}$ . The length of the paper strip A is determined according to the width of the paper bag. The length change only needs to change the specification wheel. The indexing circumference of the specification wheel is  $A+C$ , and the H size is determined according to the width of the bottom of the paper bag and process requirements. Adjustment. Dimension C generally does not need to be changed.

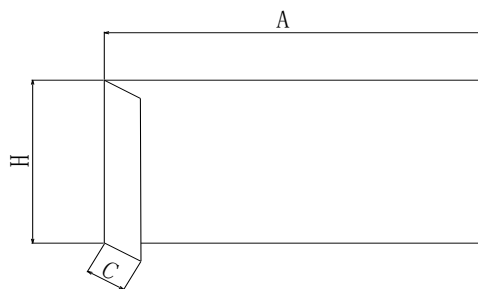




3. Loosen the locking sleeve A, you can individually adjust the position of the rubber plate on the rubber wheel in the circumferential direction to match the position of the paper strip.

4. Handwheel B is responsible for adjusting the front and back positions of the entire paper strip inserted into the host station.

5. With locking sleeve C, the movable knife can be adjusted individually.



6. When the bag tube needs to change the length of the sheet valve paper, replace the specification wheel correspondingly;

Standard configuration: 22 teeth  $\approx 138\text{mm}$  (the length of the sheet valve)

25 teeth  $\approx 157\text{mm}$

29 teeth  $\approx 182\text{mm}$

35 teeth  $\approx 220\text{mm}$

40 teeth  $\approx 251\text{mm}$

(Example: The length of the valve is 138mm, and the number of teeth of the specification wheel is  $138/2(\text{modulus})/\pi \approx 22$  teeth)

Note: The actual purchase model shall prevail.

#### **5. HDE013** Tube valve mechanism : (OPTIONAL)



1. Basic process of cylinder valve:

A) Built-in valve: ①Single layer of paper ②Single layer of paper into a tube ③Thumb mouth

B) External valve: ①Single layer of paper ②Single layer of paper into a tube ③Thumb mouth

Note: The position of the glue plate is attached according to the actual glue area.

2. Cylinder valve paper strip: When the craft product needs to use single-layer paper to form a cylinder paper strip, the cylinder valve paper strip is zero-clamped.

3. Loosen the locking sleeve A to individually adjust the position of the glue plate on the glue wheel in the

circumferential direction to match the position of the paper strip.

4. With locking sleeve B, the movable knife can be adjusted individually.

5. Handwheel C is responsible for adjusting the front and back positions of the entire paper strip inserted into the host station.

6. When the bag tube needs to change the paper length of the tube valve, replace the specification wheel correspondingly;

Standard configuration: 22 teeth  $\approx$  138mm (the length of the sheet valve)

25 teeth  $\approx$  157mm

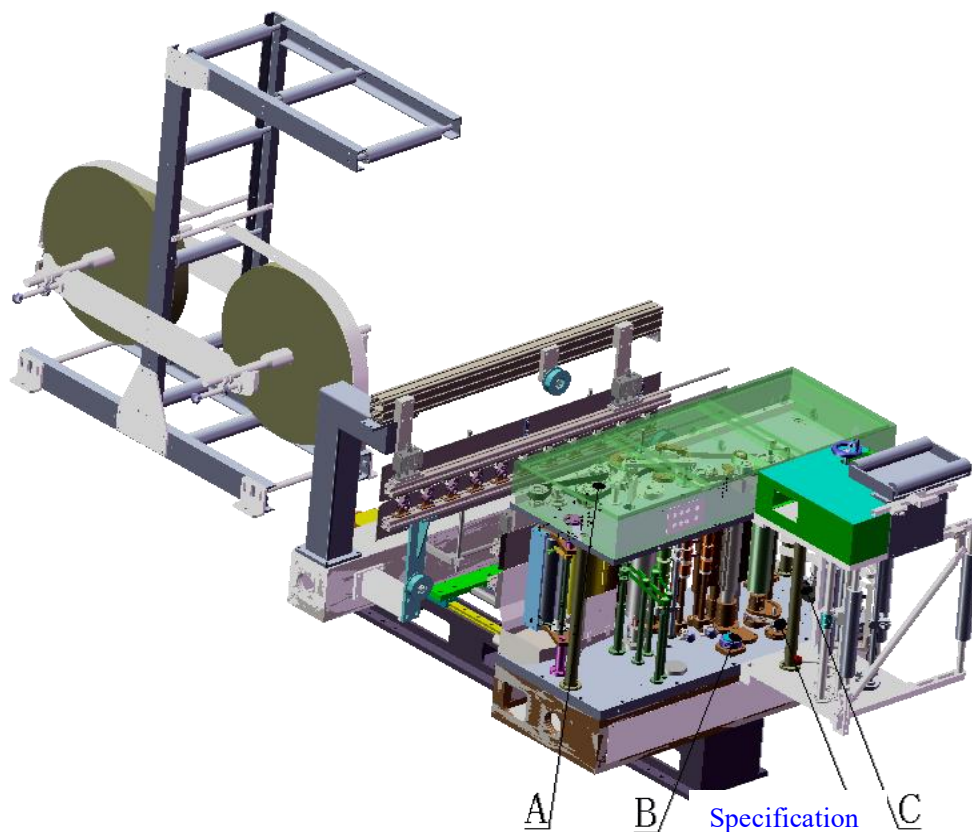
29 teeth  $\approx$  182mm

35 teeth  $\approx$  220mm

40 teeth  $\approx$  251mm

(Example: The length of the valve is 138mm, and the number of teeth of the specification wheel is  $138/2(\text{modulus})/\pi \approx 22$  teeth)

Note: The actual purchase model shall prevail.



**6. HDE005** Internal reinforcement mechanism : (OPTIONAL)

1) The basic process of internal reinforcement:

① Single-layer paper, the left and right station adjustments are exactly the same;

Note: The position of the glue plate is attached according to the actual glue area.

2) Loosen the locking sleeve A, you can individually adjust the position of the rubber plate on the glue wheel in the position direction to match the position of the paper.

3) Handwheel B is responsible for adjusting the entire internal reinforcement position.

4) The locking sleeve C is responsible for adjusting the front and rear positions of the entire paper strip inserted into the host station.

5) When the bag tube needs to change the length of the internal reinforcement paper, replace the specification wheel correspondingly;

Standard configuration: 37 teeth $\approx$ 233mm (the length of the sheet valve)

40 teeth $\approx$ 251mm

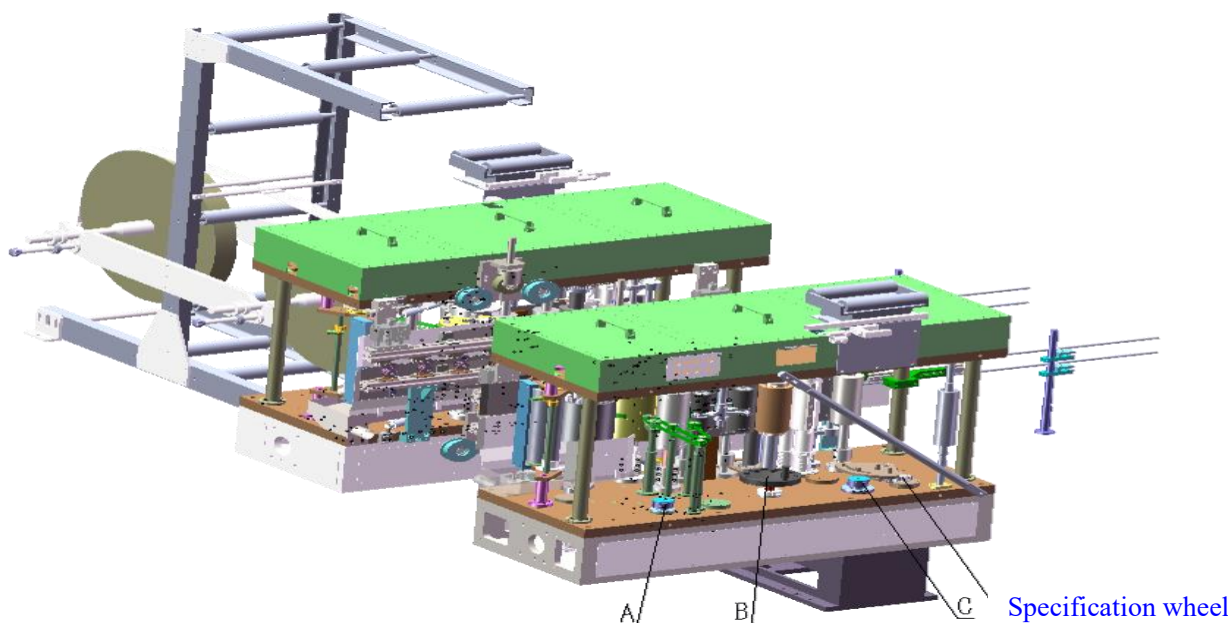
43 teeth $\approx$ 270mm

46 teeth  $\approx$  289 mm

(Example: The length of the valve is 233mm, and the number of teeth in the specification is  $233/2 (\text{modulus})/\pi \approx 37$  teeth)

Note: The actual purchase specifications shall prevail.

6) When the bag tube needs to change the width of the inner reinforcing paper, there is no need to change the specification wheel;





**7. HDE007** Bottom-closing & gluing mechanism: 1 set.

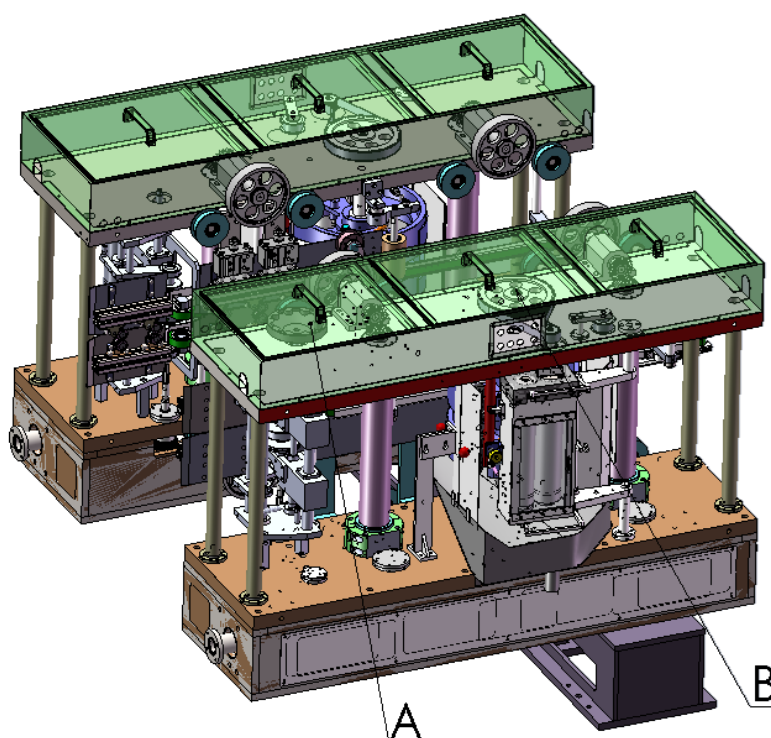
- A. Equipped with the indentation device of bottom width marking ;
- B. Equipped with the glue differential device to adjust the glue position without stopping the machine.



1) When the bottom width H of the bag tube changes, adjust the hand wheel A accordingly (the center distance of the creasing wheel is the distance before the bottom width H of the bag tube is closed).

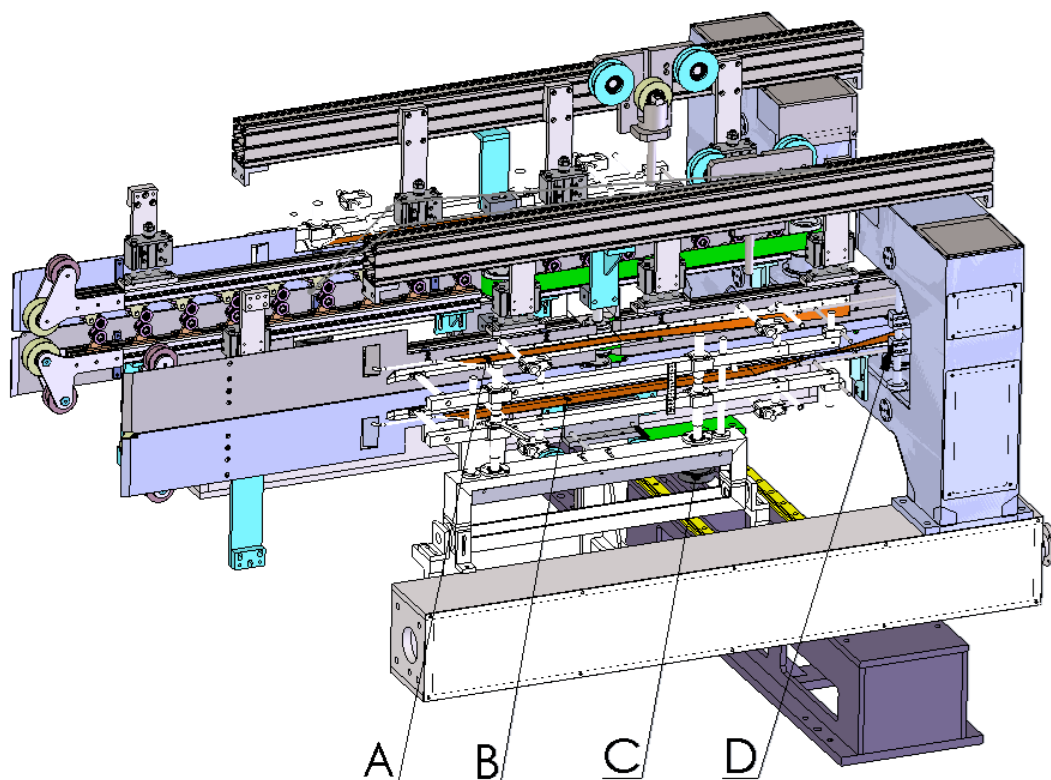
2) When the bottom width H of the bag tube changes, adjust the rubber wheel B correspondingly, turning left to decrease, and turning right to increase the center distance.

3) Note: When the bottom of the bag tube is cut in steps, because the bottom of the bag tube is in a staggered state, the upper and lower sides of the left and right gluing areas should be opposite (see the picture of the forming mechanism).

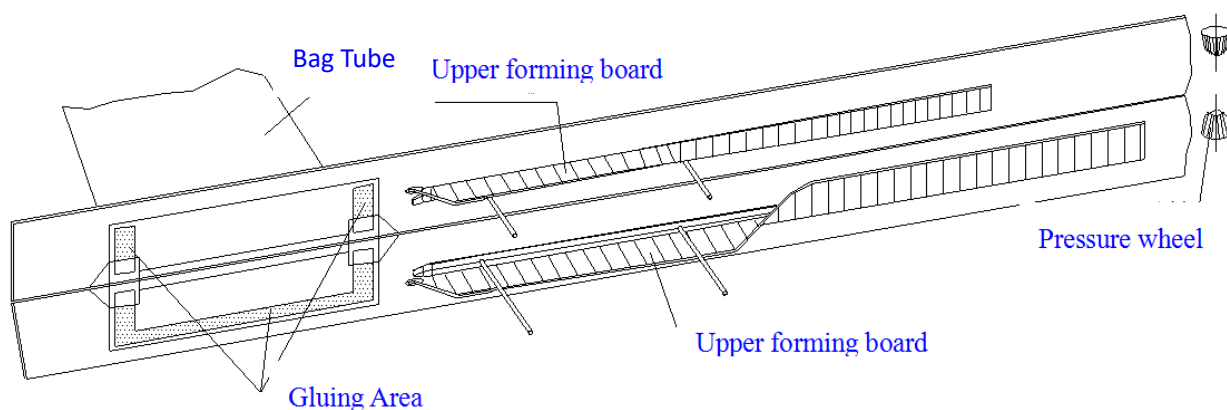


**8. HDF003** Bag forming mechanism: 1 set:

Equipped with Adjustable forming device, flexible adjustment of paper bag width, no need to replace core plate.



- 1) When the bag tube width  $W$  changes, the forming mechanism does not need to be adjusted;
- 2) When the width  $H$  of the bottom of the bag tube changes, adjust the position of the hand wheel  $C$  and the pressure wheel  $D$  accordingly;
- 3) Note: Since the bottom of the stepped bag tube is in a staggered state, the left and right parts of the upper forming plate and the lower forming plate are opposite. The right side of the bottom closing is to close the top first and then close the bottom (see the diagram below), on the left side To close the bottom is to close the bottom first and then close the top.



**9. HDE012** External reinforcement mechanism : (OPTIONAL)

1) The basic process of external reinforcement:

①Single-layer paper, ②Single-layer paper with color code printing, the left and right station adjustments are exactly the same;

2) Loosen the locking sleeve A to individually adjust the position of the glue plate on the glue wheel in the circumferential direction to make it match the position of the paper strip.

3) Handwheel B is responsible for adjusting the front and back positions of the entire paper strip inserted into the host station.

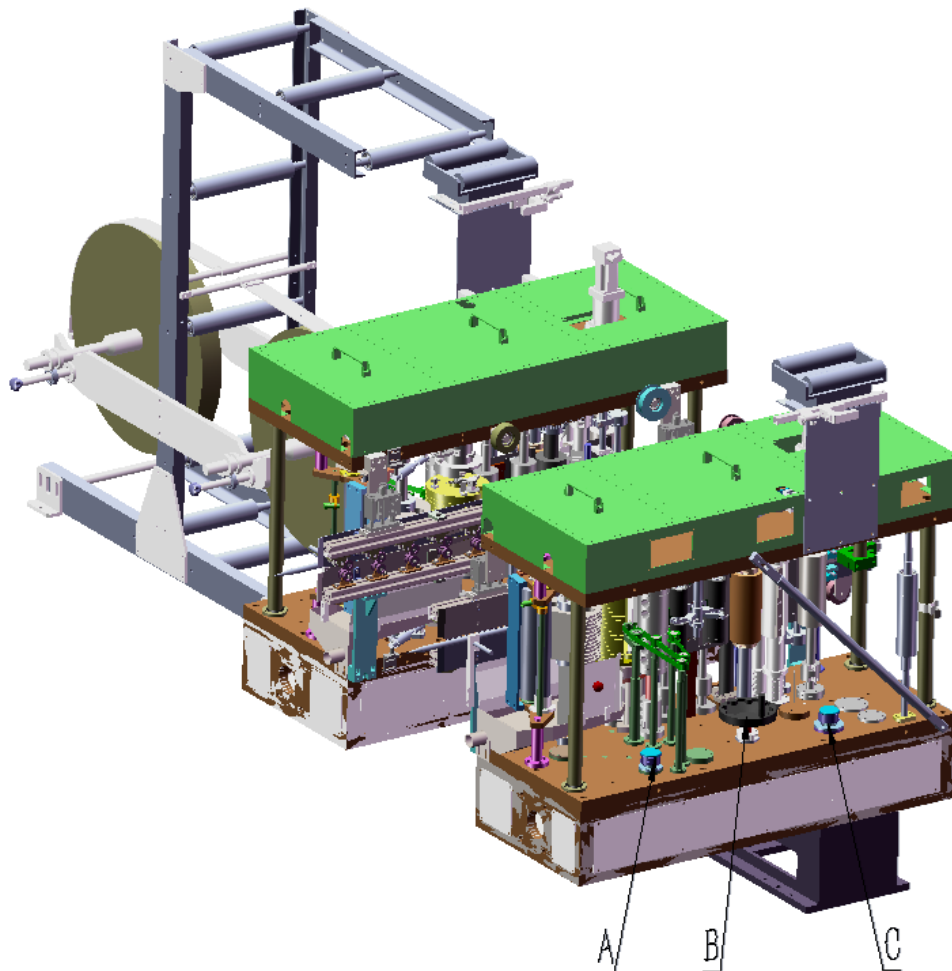
4) With locking sleeve C, the movable knife can be adjusted individually.

5) When the bag tube needs to change the length of external reinforcement paper, modify the servo motor parameters accordingly.

6) When the width of the external reinforcement paper needs to be changed for the bag tube, there is no need to modify the servo motor parameters.



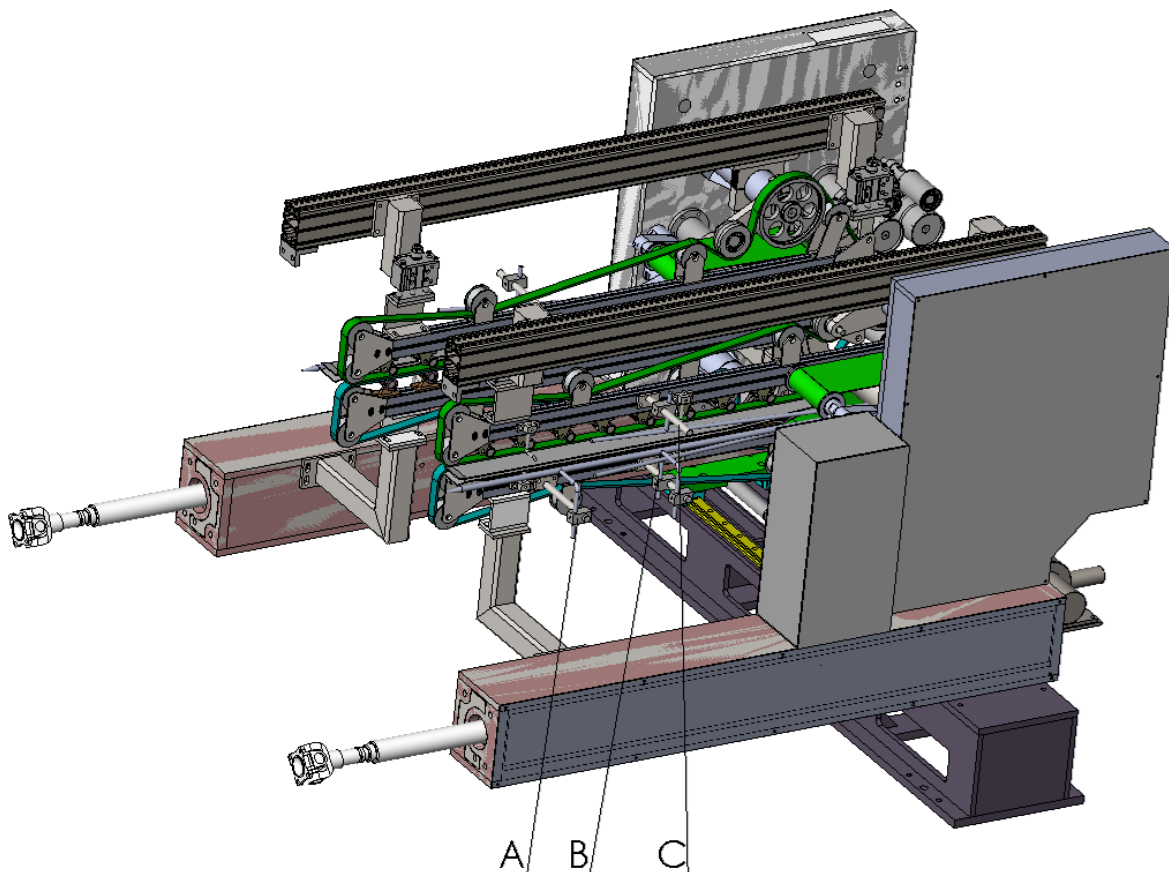




**10. HDG010** Bottom revising mechanism: 1 set.

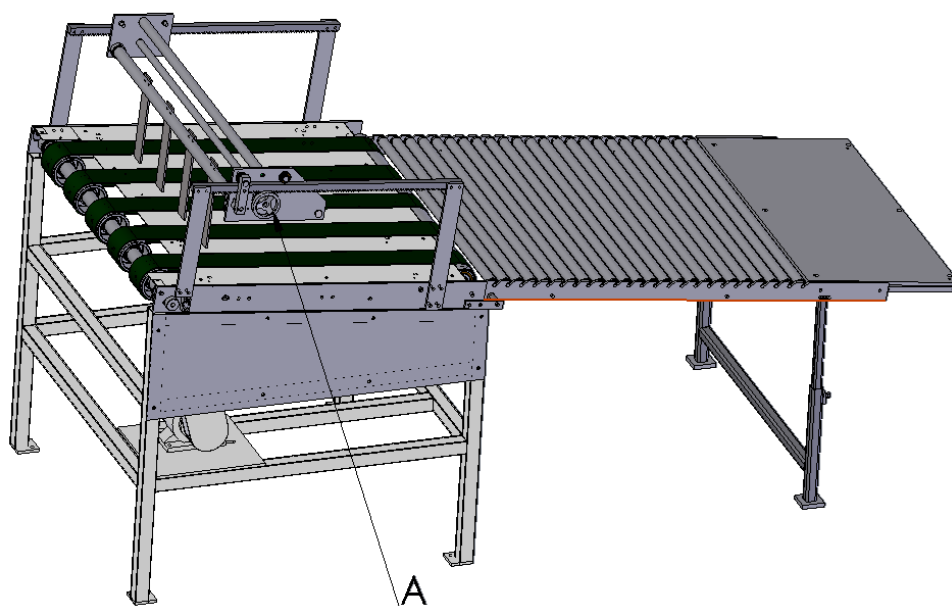
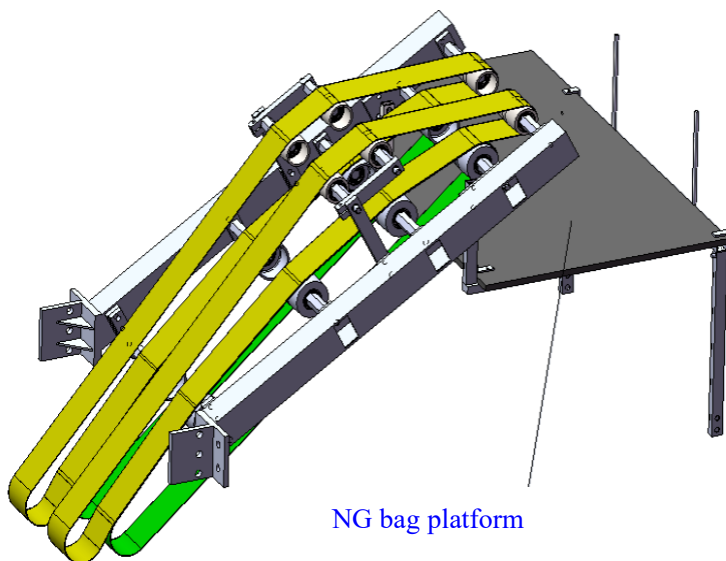
Equipped with two modes of Bottom revising device, the bottom of the bag can be turned up or down

1. When the bottom width H of the bag tube changes, adjust the bottom turning rod A, bottom turning rod B, and bottom turning rod C (the same for left and right).



**11. HDJ001** Outputting mechanism : 1 set

When the bottom of the bag tube is not completely opened, it will be detected by the electric eye. The subsequent processes will not continue to paste or glue until the bottom turning mechanism will separate it as a defective product on the **NG** bag platform, and the worker will remove it. Repaired by hand into genuine products.



- 1) When the width  $W$  of the bag tube changes, the handwheel A needs to be adjusted accordingly;
- 2) Every 20 paper bags form a group (adjustable), and the final product will come out.

**12. Electronic control system:** 1 set:





**Regarding different customers have different requirements, we have some options for customers choosing**

#### **Option 1: External Reinforcement Mechanism HDE012**

**Application:** Paste a layer of paper on the outside of the bottom (both ends) of the valve, which increases the bonding area of the glue between the layers of paper, so it strengthens the bottom structure, making it stronger and better quality. At the same time, the external reinforcement is generally printed, so that the entire bag looks even more beautiful.

**Remark:** The external reinforcement mechanism is integrated with the bottom machine. There are two sets (one set on each side), which is the option for the Bottomer Machine. After the equipment is installed and commissioned in the customer's factory and started to operate, if you want to add an external reinforcement mechanism, it will change the structure of the production line. And the added cost and difficulty are very large. It is not recommended to add it later. Customers are suggested to determine whether to purchase an external reinforcement mechanism base on thinking of whether need it in the coming future, and make the decision before purchase the Bottomer Machine.

#### **Technical Parameters :**

- 1 ) External reinforcement length: 260~380mm ;
- 2 ) Increase the length of the Bottomer Machine: 1.58 meters ;



3 ) Increase the total power of the Bottomer Machine: 4KW;

4 ) Increase the weight: 4 tons;

## Option 2: External Reinforcement Two-color Printing

### Machine **HDK001**

**Application:** Equipped with the external reinforcement two-color printing machines on the bottom machine, mainly for printing on the external reinforcing paper, to make the paper bag more beautiful. They are usually in pairs, one on each side.



**Note:** If you use an off-line (outside the production line) printing machine, you may need not these two-color printing machines. The external reinforcement paper can be printed on the off-line printing machine and then cut on the slit and then put directly on the Bottomer Machine. Only when using an online printing machine (barrel machine) for printing, but also for external reinforcement with printing, it is necessary to purchase the external reinforcement two-color printing machines. Customers can purchase two-color presses according to their actual needs. Because the two-color printing press also needs to be printed synchronously with our Bottomer Machine, it is not recommended for customers to purchase from other supplier, so as to avoid not matching between the printing machine and Bottomer Machine, resulting in unnecessary waste.

## Option 3: Internal Reinforcement Mechanism **HDE005**

**Application:** Paste a layer of paper inside the bottom (both ends) of the valve bags, which increases the bonding area of the glue between the layers of the paper, so it strengthens the bottom structure, making it stronger and firmer. More important, it can prevent powder leakage and better quality.

### Remarks:

1. The internal reinforcement mechanism is integrated with the Bottomer Machine, and a set of two units (one unit on the left and the other on the right) , it is the option for the Bottomer Machine. After the equipment is installed and commissioned in the customer's factory and started to operate, if you want to add an internal reinforcement mechanism, it will change the structure of the whole production line. And the added cost and difficulty are very large. It is not recommended to add it later. Customers are suggested to determine whether to purchase an internal reinforcement mechanism base on thinking of whether need it in the coming future, and make the decision before purchase the Bottomer Machine.



2. After select internal reinforcement, it is necessary to select external reinforcement as well. But it is not has to select internal reinforcement when select external reinforcement.

### Technical Parameters :

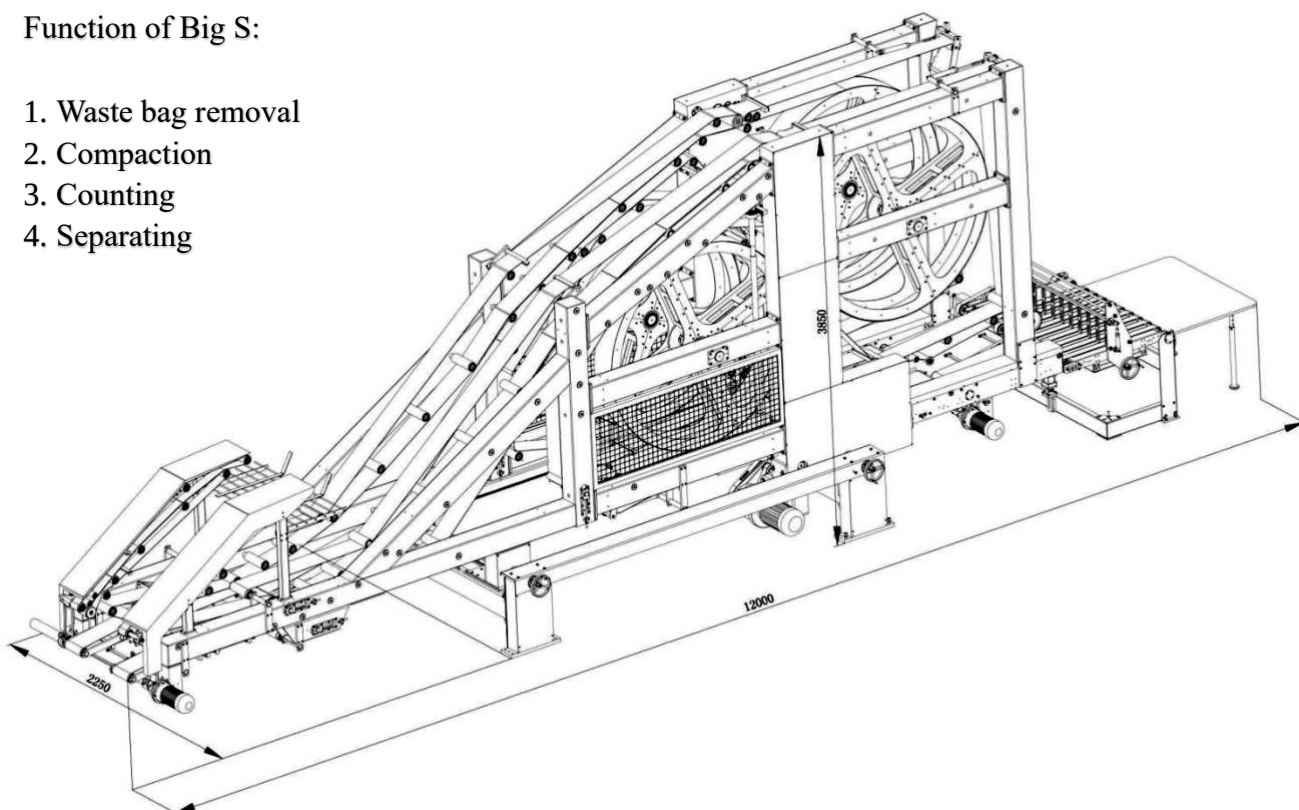
- 1 ) Internal reinforcement length: 260~380mm ;
- 2 ) Increase the length of the Bottomer Machine: 1.58 meters;
- 3 ) Increase the weight of the Bottomer Machine: 8 tons;
- 4 ) Increase the power of the Bottomer Machine: 0.5KW

### Option 4: **Big S - Double drum delivery machnism: HDL001**

Big S Mechanism is installed at the end of the bottomer machine. It like an electric iron, the bags are delivering by belts with pressure after glue the bottom, because of long and pressed delivery, the bags get better quality. Smoother and more beautiful

#### Function of Big S:

1. Waste bag removal
2. Compaction
3. Counting
4. Separating





## Big S technical characters:

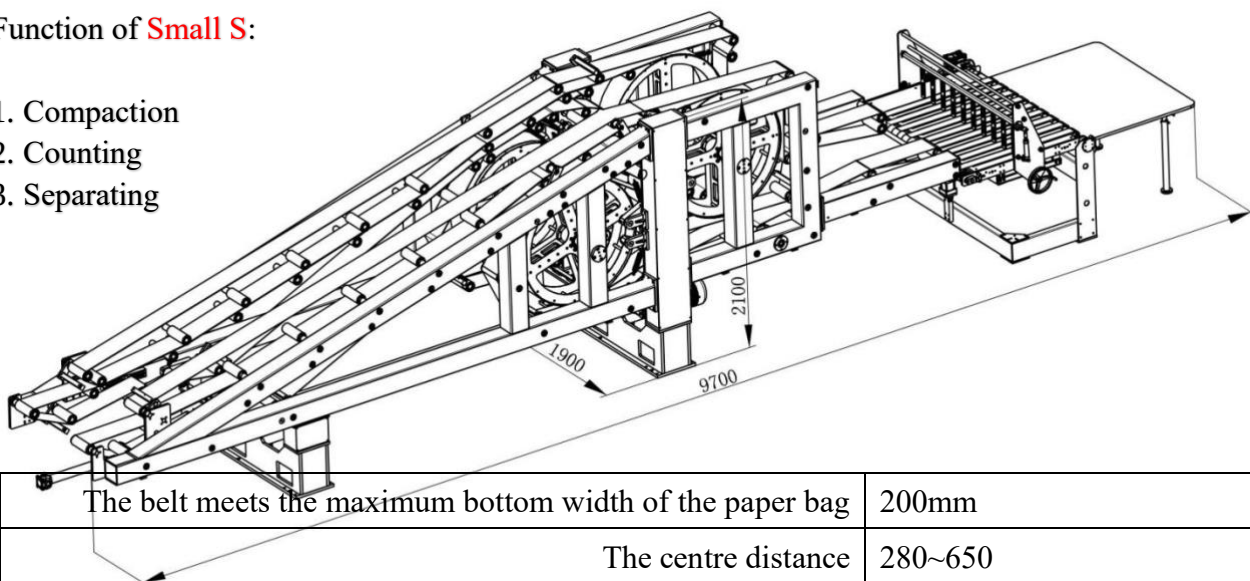
**Remark: Big S can be ordered seperately, if customer has paper production line already.**

## Option 5: Small S - Double drum delivery machnism: XS 001

Small S Mechanism is installed at the end of the bottomer machine. It like an electric iron, the bags are delivering by belts with pressure after glue the bottom, because of long and pressed delivery, the bags get better quality. Smoother and more beautiful, but it is smaller than Big S.

### Function of Small S:

1. Compaction
2. Counting
3. Separating



|                                                          |                  |               |
|----------------------------------------------------------|------------------|---------------|
| The belt meets the maximum bottom width of the paper bag |                  | 200mm         |
| The centre distance                                      |                  | 280~650       |
| Production speed of supporting                           | Bottomer machine | ≤180 bags/min |
| Power                                                    |                  | 6 Kw          |
| Size                                                     |                  | 12*2.25*3.85  |

## Small S technical characters:

**Remark: Small S can be ordered separately, if customer has paper production line already.**

### Main Technical Parameter

|                          |         |
|--------------------------|---------|
| Maximum Tube length (mm) | 1000    |
| Bag Length (mm)          | 370-770 |
| Bag Width (mm)           | 330-550 |
| Bottom Width (mm)        | 90-150  |

|                                                          |               |
|----------------------------------------------------------|---------------|
| The belt meets the maximum bottom width of the paper bag | 160mm         |
| The centre distance                                      | 280~650       |
| Production speed of supporting Bottomer machine          | ≤180 bags/min |
| Power                                                    | 4 Kw          |
| Size                                                     | 9.7*1.9*2.1   |
| bag Center Distance (mm)                                 | 280-620       |
| flake Valve Length (mm)                                  | 120-250       |
| Tube Valve Length (mm)                                   | 120-250       |
| Internal Reinforcement Length (mm)                       | 200-350       |
| External Reinforcement Length (mm)                       | 250-400       |
| Size (m)                                                 | 28.9*5.8*2.03 |
| Power                                                    | 35Kw          |
| Speed bags/min                                           | <b>80~150</b> |

## Price list

### 1. Standard Configurations

|                                                        |                                                     |
|--------------------------------------------------------|-----------------------------------------------------|
| A                                                      | <b>HDA001</b> Feeding Mechanism                     |
| B                                                      | <b>HDB001</b> Sorting out and Perforation Mechanism |
| C                                                      | <b>HDC003</b> Opening & Horn Flattening Mechanism   |
| E                                                      | <b>HDE013</b> Tube Valve Mechanism                  |
| G                                                      | <b>HDE007</b> Bottom-closing & Gluing Mechanism     |
| H                                                      | <b>HDF003</b> Bag Forming Mechanism                 |
| J                                                      | <b>HDG010</b> Bottom Revising Mechanism             |
| K                                                      | <b>HDH001</b> Compaction and Counting Mechanism     |
| L                                                      | <b>HDJ001</b> Outputting Mechanism                  |
| <b>Basic configuration, FOB Foshan: USD 782,880.00</b> |                                                     |

### 2. Options

| No.       | Item                                                      | FOB Foshan Port    |
|-----------|-----------------------------------------------------------|--------------------|
| <b>F</b>  | <b>HDE005</b> Internal Reinforcement Mechanism            | <b>USD 79,500</b>  |
| <b>I</b>  | <b>HDE012</b> External Reinforcement Mechanism            | <b>USD 79,500</b>  |
| <b>JO</b> | <b>HDK001</b> External Strengthen Paper Two-color Printer | <b>USD 18,000</b>  |
| <b>RL</b> | Replace HDH001+HDJ001 with <b>HDL001 Big S</b> Mechanism  | <b>USD 159,500</b> |
| <b>RS</b> | Replace HDH001+HDJ001 with <b>XS001 Small S</b> Mechanism | <b>USD 122,500</b> |

REMARK:

#### 1. Guarantee & Service:

- A. One year's guarantee and life-long service;
- B. Life-long spare parts with basic cost.

#### 2. Installation, commissioning and training:

- A. The seller shall dispatch qualified engineers to the job site for the erection, commissioning,



and training. The buyer shall responsible for expense of seller's engineers' round tickets, accommodation, and pay subsidy US\$300.00 for each person per day.

B. The buyer shall make available of testing facilities and skilled personnel as well as utilities and all raw materials in the specified quantity and quality.

**3. Acceptance:**

The goods only can be delivered after commissioning at the manufacturer site and accepted by the buyer.

**4. Package:**

Wooden boxes in container, the whole set of machine needs 3x40' HQ containers(not include Big S and Small S).

**5. Port of Delivery:** Foshan, China.

**6. Date of delivery:** within 8 months after receiving deposit

**7. Terms of payment:**

- 1) 40% payment of the total value as deposit paid by T/T;
- 2) Another 40% of the total value paid by T/T after two months of production.
- 3) 20% of the total value paid by T/T before shipment.

**8. Validity of quotation:** 20days.