

FBD-400T

**Computer control high speed
Mid sealed Bag making machine**

Operation Manual

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1.Note:

- a. Checking and acceptance .In case of divergence between products,

attachment and packing list, please contact us.

- b. Installation and operation .The instructions regarding installation, environment, operation and adjustment in the brochure should be clearly understood in advance, in order to avoid any possible accident. Under normal transportation, installation, operation and maintenance, if there is any quality problem within one year after acceptance, please contact us.
- c. Notice .AC 380V,30KW ,regulator output, stable protective cap fixed at all bare parts with thermal electricity ,reliable static eliminator connected with electricity, the switch that can cut off electricity in case of leakage should be reliable and sensitive, protective cover seat at each drive part should be connected stably with electric control box.
- d. Air source .Air source should be present when use our machine. Pure air pressure should be over 5Mpa.The water in the air cleaner that is fixed at the air source vent should be pleased every 2-3days in order to prevent the vapor in the air from entering into the cylinder and electro magnetic valve and to protect electro motion parts.

2.1 Product outline

We have been manufacturing bag machine for a dozen of years. Within

those years ,we have apparently shorten the gap with foreign technology by improving this product .To produce bag that are both elegant and reliable ,you must know the quality of plastic film as well as the 3 factors: pressure temperature, heating time (when heating intensity is ensured).Comparatively, great pressure ,low temperature and constant heating time will turn our elegant and reliable bags.

It can be only used to produce compound bags outlined with heat sealed materials inside .It is the advanced equipment which mixes the mechanical system and electrical system. It adopts double frequency converter and two AC servo motor to control the main engine, unwind motor and putting parts. The traction force for pulling rubber roll and tension is controlled by cylinder by means of pressure valve ,to realize the soft air controls soft plastic film .In electrical parts, we adopts industrial PLC to control servo motor and sign disposal as well as temperature ,let the servo motors realize synchronization in the process of traction. It adopts rotating coder to control the electromagnetic brake in tension, producing length and speed. Alarm parameter ,working type, temperature and a series of statistics are all input conveniently through keyboard ,and displayed clearly on the screen ,it also has function of emergency stop and times feeding ,It has the merits of high precision, well tension control, stable function, high speed ,low noise ,long life etc. It is suitable for producing three side sealing bag in soft packing

industrial. and it is an ideal equipment for producing bags.

2.3 Work conditions

- a. Sun light less than 3000LX
- b. Temperature around below 40°C and above -20°C
- c. Humidity in the air less than 85%(when temperature between 20°C ±5°C)
- d. No conductive dust
- e. No air or vapor that can erode metals and insulators.

2.4 Using Note

- a. 380V AC should be output through regulator with wire diameter of 10mm.
- b. All heating sealing parts shall be packed with Teflon cloth.
- c. Cooling temperature shall be setup well, and distribution shall be connected with water source.
- d. The temperature around the heater is high. Notice the accident of burning: meanwhile, prevent the wire being damaged to short circuit, leakage
- e. The temperature around the heater is high. Notice the accident of burn, meanwhile burning, prevent the wire being damaged to short circuit, leakage.
- f. Because the static eliminator has the high voltage of 7-9KV, it shall be earthed well. In electrifying, it is forbidden to replace of discharge tube and electric wire against the accident. When adjusting the cutter, the

eliminator shall be off.

3. Main specification and Technical Parameters

3.1 .1Producing Size

For WZFBD-600T

- a. Width: 50-600mm (without gusset) ,60-560MM(with gusset)
- b. Length: 75-600mm (The traction length of film without heating is 600mm,the film with heating length is 300mm,If the length is more than 300mm,the times feeding shall be used.)

3.2.1 Sealing width

- a. Vertical sealing: 10mm, 20mm
- b. Horizontal sealing :10mm, 20mm, 30mm, 40mm, 50mm

3.3.1 Producing Function

Max line speed: 35m/min Working Beating: 35-160times/min

Total power of electrical heating: 30KW

Temperature available:0-399℃

Main motor power: 30KW

Running speed: 1400round /min

3.4 .1Specification for unwinding

- a. Max diameter: 600mm
- b. Width: 200-1200mm

Overall dimension: 9600*1700*1700mm

Weight: 4800kg

For WZFBD-400T

- a. Width: 50-400mm (without gusset) ,60-360MM(with gusset)
- b. Length: 75-600mm (The traction length of film without heating is 600mm,the film with heating length is 300mm,If the length is more than 300mm,the times feeding shall be used.)

3.2.2 Sealing width

- a. Vertical sealing: 10mm, 20mm
- b. Horizontal sealing :10mm, 20mm, 30mm,

3.3Producing Function

Max line speed: 35m/min

Working Beating: 35-160times/min

Total power of electrical heating: 30KW

Temperature available:0-399℃

Main motor power: 30KW

Running speed: 1400round /min

3.4 .2Specification for unwinding

- a. Max diameter: 600mm
- b. Width: 200-1200mm

Overall dimension: 9600*1500***1700mm**

Weight: 3700kg

4. Main structure and adjustment

The machine is composed of following parts: Machine body(1),Rewind part(2),Tension part(4),Vertical sealing hot/cold sealing part(5),Central traction part(6) Traction tension part (7) Horizontally hot sealing cold upper/lower part(8) Photocell part(9) Punching part(10) Front traction part(11) Cutting part(12) Working table(13) and the other electrical control system.

4.1 Machine body

It is the main conveying system, decelerating motor drives the conveying board and eccentric shaft means of connecting rod take up/down movement.

4.2Rewind part

The sign connected by rotating coder controls the voltage of electromagnetic brake, let the roller is in stable position, thus the unwind tension is controlled constantly.

4.3 Folding part and making shape part

It is made up of outside, inside folding plate , aluminum heating block ,make-shape plate, guide seat, Nylon-wheel.

The film go ahead to the folding part, the distance of inside folding part should be same as width of bag, and height of between the inside /outside folding board should be same as folding depth, drawing as followings:

The size A depend on the bag width, move the control handle

wheel of inside folding part by deasil. The A size will be shorten, or it will be wider .The inside folding part can move by mechanism ,and must keep the distance same as film thickness.

If it is not the same, can adjust the folding board by releasing the metal ring in the folding splint.

The inching screw can inch 1-2mm where lie in the bottom of control handle-wheel of folding part.

When it start ,please adjust the folding board first to make the film no folded ,then move the outside folding board to supply the film gradually.

Depend on the film width can control the position of guide roller and angle feeding roller. If the folded part don't aim at the shaped part exactly ,the each side will not aim at each other .U can move the handle wheel to adjust the folded part.

4.4 Tension control

It is used for keeping the tension force, micro adjusting rewind sign as well as adjusting the upper film and lower film justified.

4.5 Vertically hot/cold sealing part

When heating blade is pressed, the interval between bun ton and support structure is about 1-1.15mm, then lock up the nuts. According the material thickness to adjust the vertical sealing pressure, tighten the screw

stem to press the spring properly, and then lock up the nuts. The pressure shall be properly, in order to prevent overloading .If the interval is so large, the film shall be stitched by traction shaft, leading to servo alarm. Micro adjusting screw stem is used to adjust the position of vertical blade and film.

4.6 Central traction part

It is used for drawing the film .Main control box set out the sign of length to control the servo motor, the sign shall be transferred to rubber by means of synchronic gear belt, The pressure for rubber roller is controlled by the relevant pressure valve, $P_a = 2-5\text{kg/cm}$,it is subject to the film thickness.

4.7 Traction tension part

It is used for adjusting the feeding length under the use of the sign from roller.

4.8 Horizontal hot/cold sealing part

It is used for horizontally sealing the film. The upper blade is for heating and lower blade for lower heating. When heating blade is pressed, the interval between bun ton and support structure is about 1-1.5mm,then lock up the nuts. According the material thickness to adjust the vertical sealing pressure, tighten the screw stem to press the spring properly, and then lock up the nuts. The pressure shall be properly, in order to preventing overload. If the interval is so large ,the film shall be stitched

by traction ,leading to servo alarm.

4.9 Photocell part

It pre adjusts and micro adjusts the photocell vertically and horizontally .After adjusted well .lock it up, as to prevent affecting the electrical tracking .

4.10 Punching part

It is used for punching the slot. According to the different size material ,the punching position can be get freely. After adjusted well ,it shall be locked up.

4.11 Front traction part

It is used for drawing the film ,Main control box set out the sign of length to control the servo motor ,the sign shall be transferred to rubber roller by means of synchronic gear belt. The pressure for rubber roll is controlled by the relevant pressure valve, $P_a=2-5\text{kg/cm}$,it is subject to the film thickness.

4.12 Cutting part

It is used for cutting the bag regulated after the film horizontally sealing well. The adjusting as follows :screw 1 is used for adjusting the interval of upper cutter and lower cutter in order to cut the film in different thickness . The pulling force of upper cutter is controlled by pressure valve.

4.13 Working table

It is used for conveying the cut bag. When get to the set up number ,the convey belt shall move in one time.

5 Hoisting, Installation and Adjusting

In the process of hoisting ,the cover of machine shall be protected well. rope contact points shall be padded ,and incline and shaking are forbidden.

The machine is divided in six parts to transport ,front parts ,back parts, tension parts, central cutting parts, electrical control part and auxiliary parts.

5.2.1 Installation for machine body

Four M16 screws are fixed under the machine body. It is used to adjust the machine in balance, after adjusted well, connect it with back parts

5.2.2 Tension control parts

Four M16 screws are fixed under it .It is used to adjust the machine in balance ,after adjusted well. connect it with back part.

5.2.3 Central cutting part and Unwind parts

Four M16 screw are fixed under it, It is used to adjust the machine in balance ,after adjusted well. Connect it with back part

6.Operation and Using

6.1 Clear the machine body

6.2 Lubricate all joint and movable points

6.3Thermo electrical panel ,electrify to heat and keep constant

temperature.

6.4 Inspect the machine ,only after ensure all parts well to idle test run, The working beating is improving from 35 times/min. If no any problem appeared ,it is time to produce.

6.5 Connect cooling water

6.6 Loading the plastic film roll on the unwind parts

6.7 Refer the layout to put on the film

6.8 Set up the bag length

6.9 Set up the counting number

6.10 Set up working type

6.11 Set up punching type

6.12 Set up times feeding type

6.13 Adjust the photocell position and its sensitive

6.14 Adjust central cutting position, let it is as high as the machine body, then lock up the cutter.

6.15 Adjust cutter position

6.16 Star tubg rectifying controller, adjust photocell and sensitive, lock up the photocell.

6.17 Adjust the film.let the cut film overlap well.

6.18 Set up the tension and pressure of roll.

7.Maintenance and repair

Pay more attention to the maintenance of machine, get known well for its structure, adjustment and operation, which will improve its working life and ensure its producing precision.

Different lubrication points shall use different lubrication oil as follows:

- a. Connecting rod and axis joint shall be lubricated everyday with HJ40
- b. Traction convey gear shall be lubricated everyday with HJ40
- c. Cutter leading bearing and slide way shall be lubricated everyday with HJ40.
- d. Leading screw bearing and slide way shall be lubricated with HJ40 every week,

8. Trouble shooting

In the process of working, if the machine stops abnormally, and the screen displays color code lost, tension spacing, rectifying system spacing, the first, second feeding alarms

8.1 Press down the RUN key, after cut three bags, the screen displays color code lost

- a. check the bag length setup is right or not
- b. check the alarm number setup is right or not
- c. check working type setup is right or not.
- d. the film is qualified or not

8.2 In the process of working, the machine stopped abnormally, the

screen displays tension spacing

Upper tension spacing

- a. check the control board for electromagnetic brake is good or not
- b. check the speed is more than .5m/min or not.
- c. The control board for unwind motor is good or not.

Lower tension spacing

- a. check the control board for electromagnetic brake is good or not.
- b. The control board for unwind motor is good or not.

8.3 In the process of working ,the machine stopped abnormally,the screen displays rectifying system spacing

Adjust the position of material roll

8.4 In the process of working ,the machine stopped abnormally ,the screen displays the feeding alarm

- a. The intervals between vertical /horizontal sealing blade and support structure are so large
- b. The synchronic belt is so tightened.

8.5 Film can not be cut well

- a. Adjust the interval of upper blade and lower blade
- b. Check the blades is wore or not

8.6 After the film central cut,they can not overlap well

- a.To check the tension of film is good or not
- b.To check the central part is as high as table height
- c.To check central part and cutter structure are in harmony or not