FRM-980 and SMT 980

INTELLIGENT PRINTING SEALING MACHINE

USER MANUAL

INDEX

I. FEATURES

◇ Unlimited sealing length
◇ Ink printing
◇ Digital temperature controlling
◇ User-friendly
◇ Horizontal and vertical double usage
◇ Durability

II. STRUCTURE AND WORKING PRINCIPLE

This machine is composed by frame, speed controlling system, heating system, Conveyor and printing system.

Power on the machine and switch on the heating system, 1 minute later the copper blocks is heating.

Adjust the temperature and speed according to thickness and material of bags, to find out the best parameter.

Put the mouth of bag between the 2 running sealing belts, to let the sealing belts convey the bag to the heating area.

The mouth of bags is clamped and heated by the copper blocks.

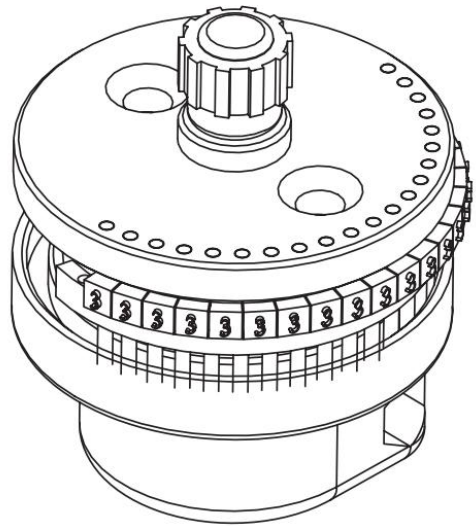
Then the sealed bag is conveyed to the cooling area where the optical sensor will find the bag, and printing system works.

There are any colors of ink rollers optional.

Normally equipped with 52 “R” type (PT10.5) numbers and letters including “MNF EXP LOT 123456789…”

Other letters are customizable.

The letter holder accommodate 3 lines, and each line accommodate 20 pieces



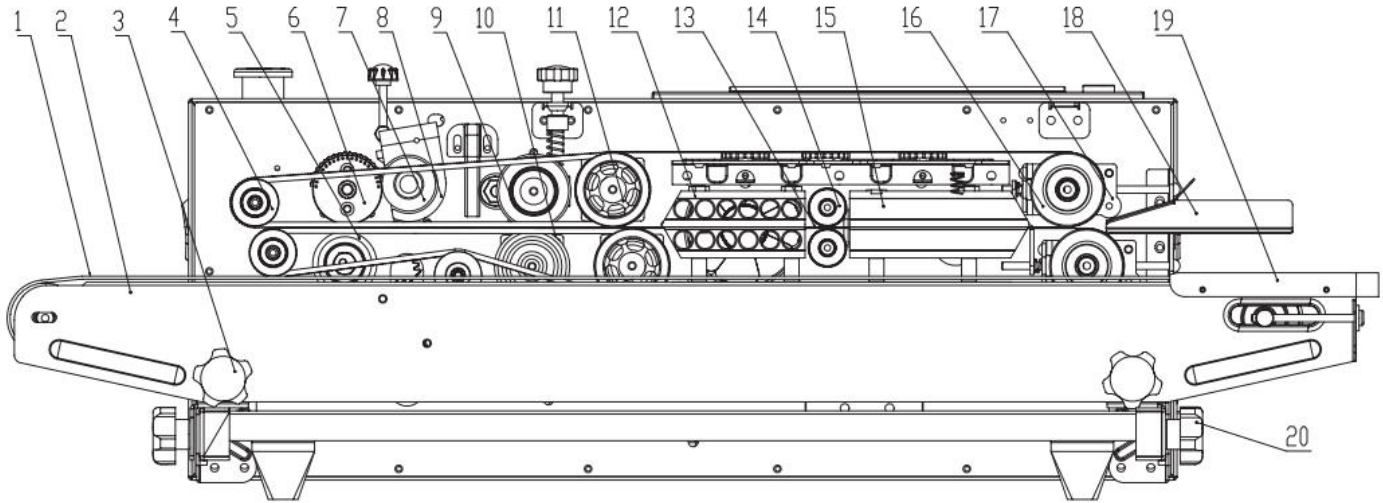
Pic.1

III. TECHNICAL SPECIFICATIONS

	FRM-980	SMT-980
Voltage	220 ±10V /50Hz or 110 ±10V/50Hz (customizable)	
Controlling panel	Analog thermostat （digital optical）	Intelligent PCB
Power	760W	
Counter	No	Yes
Speed	0 - 16 m / min	0 - 30 m / min
Temperature	0 - 300 ℃	
Position of printing	0 - 200 m	
Max. loading weight	5 kg	
Dimension of machine	Horizontal 920*390*290 mm, vertical 920*390*590 mm	
Shipping dimension	970*430*380 mm	
Gross weight	Horizontal 30 kg, vertical 33 kg	

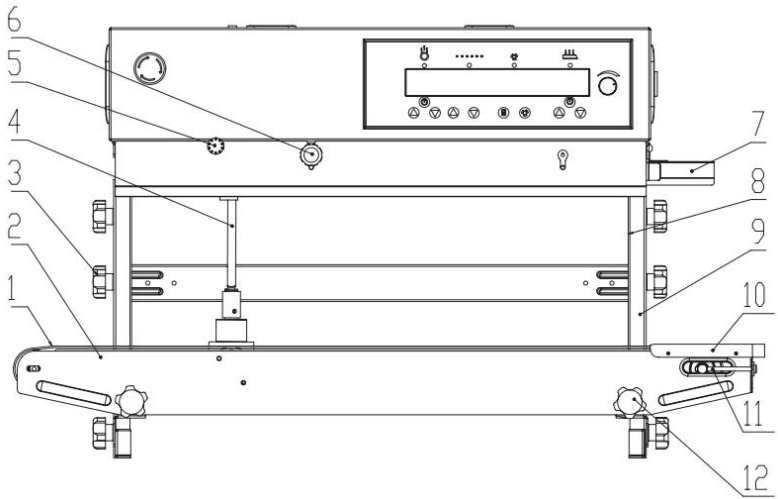
IV. OVERVIEW OF MACHINE

Fig.2



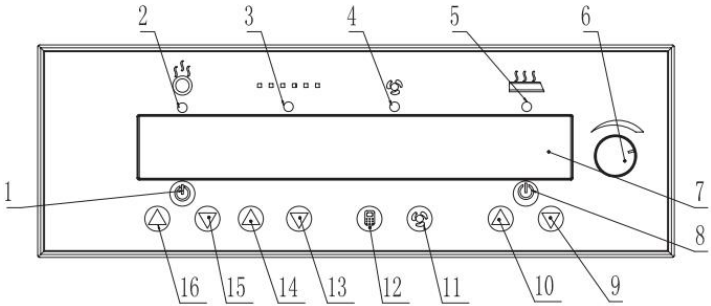
1. belt of conveyor	2. conveyor	3. knob adjusting conveyor	4. guiding wheel	5. silicone wheel
6. letter holder	7. solid ink	8. seat of wheel	9. embossing wheel	10. rubber wheel
11. driving wheel	12. cooling block	13. Teflon belt	14. holding wheel	15. healing block
16. pasive wheel	17. movable seat	18. feeding	19. plate	20. knob adjusting conveyor

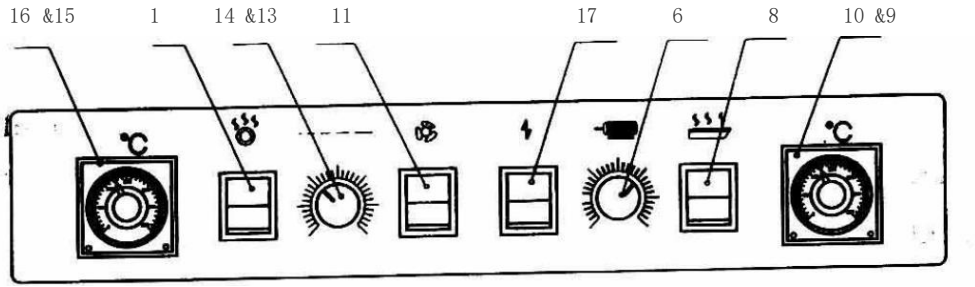
Fig. 3



1. belt of conveyor
2. conveyor
3. knob adjusting height
4. long vertical axle
5. pressure of ink
6. presure of embossing
7. feeding
8. pillar
9. footing
10. plate
11. bolt fixing belt
12. knob adjusting conveyor

Fig.4 Controlling panel of SMT-980 and FRM-980





1.Switch of printing 2.heating up the ink 3.indictor of printing 4. Indictor for fan 5.heating up for sealing

6.spead controller 7.LED digital indicator 8.switch for sealing heat 9.lower temperature for sealing 10.higher temperature for sealing

11.switch for fan 12.switch for counter 13.less space before printing 14.more spare before printing 15.lower temperature for ink

16.higher temperature for ink

V. PREPARATION

(1) For safety, the housing should be earthed, please make sure the 3-pin plug can be well connected.

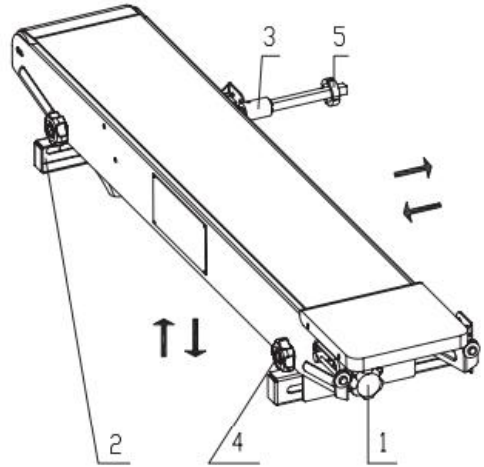
(2) Preheat for 1 minutes with low temperature, and if it is unused for a long time, 3 minutes for preheating is necessary.

(3) Adjust the position of conveyor by bolt and nuts to match bags.

(4) Adjust the feeding according to the desired sealing width.

(5) Adjust the space between the 2 heating coppers block and between the 2 cooling blocks if the bag is very thick.

(6) lose the Knob 1 to adjust the horizontal position of conveyor, the loose the Knob 4.



VI. START AND OPERATION

(1) Power on the machine, all indicators light and all belt and wheel run synchronously.

(2) Adjust the pressure embossing wheel.

(3) Turn on the heating switch, and adjust the temperature according to material, thickness and speed.

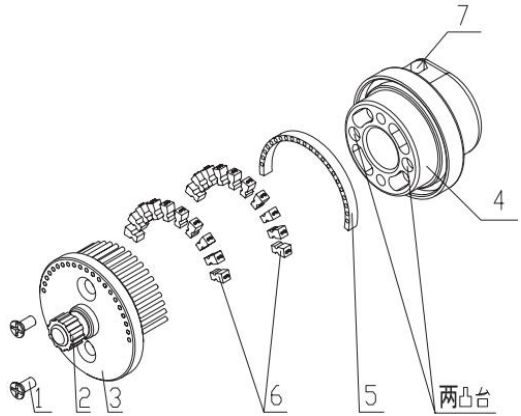
The following setting is only for reference at the maximum conveying speed.

Material	Thickness of entire bag (mm)	Temperature (℃)
Polyethylene	0.4	100 ~ 140
Polypropylene	0.6	170 ~ 180
Polyolefin compound	1	180 ~ 189
Aluminum compound	0.8	200 ~ 250

When the indicator of the temp. controller light up, please test it with the bags, and re-adjust the temperature, speed and embossing pressure if necessary. Then start continuous sealing work.

(4) To prevent bags from being wrinkle, please open the fan, if necessary.

(5) Put bag to the feeding, and let the sealing belt grip the mouth of bag which should be aligned with the feeding, and let bag be conveyed automatically.



VII. CHANGE COPPER LETTERS

Losse the screw (1),take off the letter holder, take off the rubber(5), change the letters(6), fix the letter holder to the sit (4).

VIII. CHARGE BELTS

a) Take off the hood.

b) Unscrew the guiding wheel according to Fig.2.

c) Take off the gear belt from the passive wheel.

d) Lift a little the copper coppers block by adjusting A and A1.

e) Push B or B1 to loosen the sealing belts and change them.

f) Put the gear belt to the passive wheel.

g) Put the other end of gear belt to the guide wheel, meanwhile put the wheel back to its axle.

h) Screw the guide wheel.

VIII. VERTICAL TRANSPORMATION

1. Fix the left base and right base to the base beam and transverse beam with nuts according to the Fig.3, now the vertical frame is ready.

1.Loose the two bolts and nuts on the conveyor nut and take the conveyor apart from the machine.

3. Fix the conveyor to right left base and right base which are combined in the first step.

4. Instead the short horizontal axle with the long vertical axle and the bevel gear seat.

5. Put the long vertical axle into the axle hole of the machine, in the meantime, put the right and left stand of the main body into right and left base, and tighten the bolts and nuts

X. TROUBLE-SHOOTING

MALFUNCTION	POSSIBLILITY	SOLUTIONS
Do not works	1. No well connected to the power 2. The speed controlling circuit is broken	1.Inspect if the machine is correctly connect to the power supply, and the fuse is in good condition 2. Change the speed controlling circuit
Can not adjust speed	The speed controller is broken	Change the speed controller
Do not heat	1. The heating tube is broken 2. The wire of heating tube is not well connected 3. The temperature controller is broken 4. The thermal sensor couple is broken	1. Change the heating tube 2. Connect it and screw the terminal with force 3. Change temperature controller 4. Change the thermal sensor couple
Embossing pattern is unclear	1. Not enough pressure 2. Rubber wheel is aged	1. Adjust the knob of embossing pressure 2. Change the rubber wheel

	3. The embossing wheel is stained 4. Hot enough temperature	3. Clean te embossing wheel 4. Adjust the temperature
Sealing belt is fragile	1. Not enough space between the 2 heating copper blocks 2. The space between the copper blocks is not clear 3. The sealing belt is stained with plastic 4. Temperature is still high when machine stopped 5. The bolt and nut B or B1 is too tight	1. Adjust the wheel A1 in Fig.4 2. Clear copper blocks 3. Clear the sealing belt 4. Switch off heating firstly, few minute later power off the machine. 5. Loose the bolt and nut B or B1 in Fig.4
Sealing belt slips	1. It is slack 2. Not enough space between the copper blocks	1. Tighten the bolt and nut B or B1 in Fig.4 2. Adjust A or A1 in Fig.4
Conveyor belt slips	3. It is slack	3. Adjust the N.15 knob in Fig.1
No printing	1.Heater for ink roller is broken 2.Thermostat is broken	1. Charge the heater 2. Charge the thermostat
Can not control printing position	1. The screw (7) in Fig.4 is loose 2. Objective sensor is broken 3. Position controller is broken	1.Fix it tightly 2.Change the objective sensor 3.Change the controller

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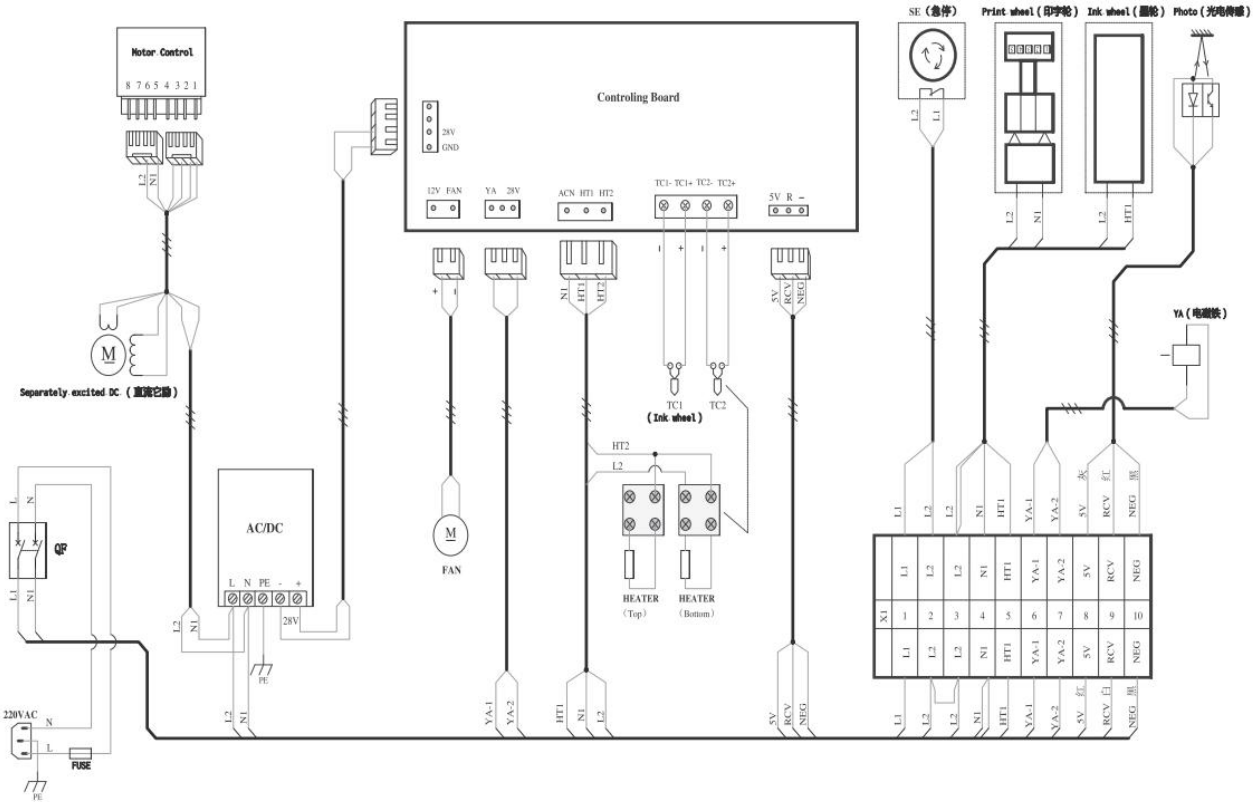
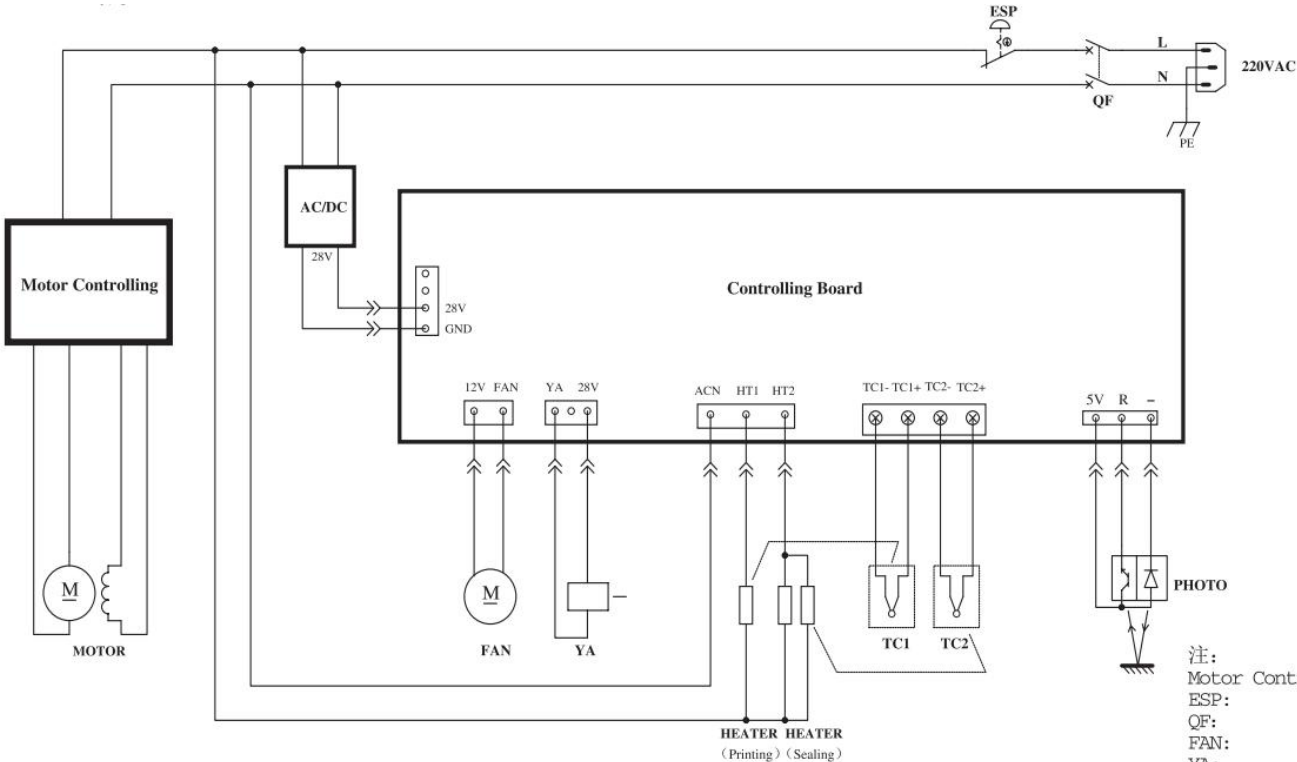
XI. DIAGIAM


Motor Control
8 7 6 5 4 3 2 1
Controling Board
28V
GND
12V FAN
YA 28V
ACN HT1 HT2
TC1- TC1+ TC2- TC2+
5V R -
SE（急停）
Print wheel（印字轮）
Ink wheel（墨轮）
Photo（光电传感）
YA（电磁铁）
Separately excited DC（直流它励）
AC/DC
L N PE - +
28V
QF
FAN
TC1
TC2
(Ink wheel)
HEATER
(Top)
HEATER
(Bottom)
220VAC
FUSE
PE
X1
L1 L2 L2 N1 HT1 YA-1 YA-2 5V RCV NEG
灰 红 黑



FRM980 Electrical schematic diagram

注:
Motor Controlling
ESP:
QF:
FAN:
YA:
TC1:
TC2:
PHOTO:

XII. PACKING LIST

Machine	1 unit
Cable	1 unit
Sealing belt(772*15*0.2mm)	4 units
O Ring	2 units
Solid ink	1 unit
Cross-headed screwdriver（4#）	1 unit
User manual	1 unit
Crescent wrench	1 unit
Ceramic washer	2 unit
Screw (M4*25)	8 units
Screw (M4*25)	3 units
Screw (M4*25)	2 units
Washer(φ8)	2 units

ADDINIONAL PART FOR VERTICAL TYPE

Frame	2 sets
Bevel gears	1 set
Rubber Footing	4 units
Bolt (M8)	2 units
Nut (M4*8)	4 sets