

## Multiple-Color Silk-Screen Label Printing Machine JD300

## **Operation Manual**

(Welcome to purchase Jingda Printing Machine)

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JINGOA JD Screen Label Printing Machine Series

# Multiple-Color Silk-Screen Label Printing Machine **I. Introduction**

It adopts servo from Anchuan Company and imported PLC control as one unit with ease of operation and steady running as well as lower trouble.

It adopts printing principle to deal with, roller to roller, CNC servo feedmultiple-color printing- infrared drying-electric eye fixed position for printing.

It is widely used in any textile, cloth, paper, non-adhesion; PVC etc. the printing area is larger and dedicate as well as clear without fading.

This machine is easy to maintain and upkeep, it adopts one-unit steel to ensure its precision and prolonging its life of span for parts. Varied assortment of combination and man-machine interface as well as unique structure to make this machine in the leading position.

Please read the operation manual carefully before operating, it will guide the users how to operate, do not operate the machine when you can not understand the operation completely.

Main technical index:

Size: 600\* 400(mm)

Length: 20-450mm It is not allowed to be more than 460(mm)

Width: 300(mm)

Speed: 300-1500 t/h

Hot wind drying: 3.6KW/220V/ color



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Total power: 8.5KW/2-color coating

Conveying belt specifications: 300 (mm)

Overall dimensions: 8m\* 1m\* 1.4m press one button for another color.

Overall view:

- 1. Feeding part
- 2. Unwinding part
- 3. Servo step set
- 4. Frame
- 5. Pressure adjusting handle
- 6. Ink blade
- 7. Angle adjusting
- 8. Frame clamp
- 9. Hand wheel
- 10.Worktable
- 11.Drying part
- 12.Unwinding part
- 13.Unwinding Machine

Operation parts for Digital Controlled Fully Automatic Multiple-Color Silk Screen

II. Unwinding Part

It is composed of frame, holding plate, guiding roller, as well as front pressure roller to ensure its working evenly and equal distance and moderate fastening,



moving from unwinding frame to the belt with glue.

## **III** Printing part

It is composed of some parts with high precision, its parts is composed of inking blade, moveable frame, frame fixed and color running part, wire printing table and electric equipment and circuit part. The working process of every printing unit is given as following:

Start switch: vacuum table to intake the belt, scratch blade down and inking blade up, blade frame moving to the right to the position and stop, inking blade down and scratch blade up, the vacuum stop, the air blow open, the blade frame moving to the left to the original place and enter the next cycle. The distance of the blade frame and the speed is controlled by computer for its second color. The worktable can be adjusted greatly for color offset.

IV. Drying device

It is equipped with ironing plate drying oven, air blower. its temperature is not more than 50  $^{\circ}$ C. (This machine has not man-controlled temperature system, do not raise its temperature) otherwise it will cause the belt out of shape.

V. Conveying belt system

There are two methods to convey the belt, when cleaning or replacing the belt or coating glue, press the button Conveyor Belt Move, the conveying belt will move successively to the right, press the Pinch Roller on switch, the belt will moved by the transferring of the servo motor.

VI. Bridge oven and unwinding

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When finishing printing,, through the bridge oven, it is delivered to the last oven to the unwinding, heat it till the temperature is up to 80  $^{\circ}$ C. The unwinding shaft must be operated till the machine starts. Adjust the tension to control its friction and switch.

After knowing its basic parts. Then we will introduce how to operate and the switch role.

Connect the power, the indicating lights are on. When starting the machine, if the air source doesn't work, the machine can not work. Firstly, clean the vacuum room by blowing, then press the button ON for conveying belt moving to the right and heat the air blower. Then do the coating glue evenly. After coating, press the button OFF, the belt stops moving to the right. The heater will stop automatically.

VII. Feeding:

Put the machine into the feeding frame then position it, press the ON switch, press the button OFF switch to make the frame fixed. Adjust the blade position to 1mm front to the design. (Open it on the page of the touch-screen, make it sure then press it). Then set the length of the scratch blade. After that, adjust the pressure and angle for blade as well as position of the inking blade. The pressure of the blade is adjusted by the cylinder nut. Its pressure should not be too high. Its angle scope is from 80\*45 degree. After doing the above mentioned procedure to finish printing till the second color, if the position of the offset for its right and left position, adjust it by rotated handwheel, its up



and down position can be adjusted by two handles.

Operation Menu:

Program is connecting, please waiting for

Auto

Manual

**Registration Set** 

Set

Manual Operation Menu

Length

Display Times

Stop Times

Printing Length

2. Click automatic key, it will display automatic operation menu

Length: it means labor length

Displaying times: it means the total times of printing

Printing length: it means the length of the scraper up and down.

Printing times: it means the times of the scraper.

Click manual key, it will display manual operation menu

Pinch Roller key: turn on this key to make the belt transferred.

scraper key: control it's up and down (its position can not start the machine)

Printing Head key: control its head up and down

Left and right key: adjust the distance of the scraper



Click the Registration Set key, it will display operation menu

Automatic key: two kinds can be chosen: automatic and manual (choose the set position key, use automatic key, use the Turn Left and Turn Right key,

and use the manual key)

Photocell Off key: two kinds of

Photocell Off and Photocell on key: Photocell Off with manual operation and Photocell on with automatic tracking)

Click Registration Set operation interface, page down will display,

Combining key: non-combining and combining key can be selected (2#.3# can be operated with color offset.)

Click set key, it will display set interface

Original reset key: select the start position of the scraper by digital)

1st, 2ed, 3rd, 4th, station switch: you can select them to print.



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Displaying set: 1#, 2#, 3# according to its English and numbers to set. VIII. Cautions and Upkeep:

- anti-heating protecting program: if the machine stops, and the hot air blows all the time, it will make the tape out of shape, stop in the printing procedure to prevent this happening, Do not use petrol to clean the belt, all above mentioned happens, we have no responsibility.
  - VIIII. Drying device
- It is equipped with PVC belt to dry the temperature, its temperature is not more than 50°C. Otherwise it will cause the belt out of shape. We have no responsibility if you do this.

3. PLC data and program controller set: before out of the factory all the data of converter and program controller are well set. Do not change it at random. If due to changing the data by users to cause the parts damaged, we don't guarantee to repair. (Users change the data and program, all the revised data will be recorded) if the users want to change the data, please contact suppliers.

VV. Routinely maintain

1. Linear shaft and linear bear shaft: the guide orbit is the key to ensure the frame moving correctly, so check it and add the oil regularly to ensure it lubricated.

2. worktable: due to the worktable dirty or something oil etc substance, it will affect the surface of the worktable level or block the hole of the worktable, it



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will reduce the ability of vacuum and affect the quality of the product, so rinse the worktable regularly by detergent, make the worktable clean, when cleaning, press the button of blowing to OFF to avoid the dirty things into the hole. Users can use the hammer to make the whole work well. Do not make the detergent or substance into the interior of the machine through the hole. Thus it will cause the vacuum pump damaged.

3. Head: scratching blade and inking blade is equipped on the head. If the ink becomes hard, it will damage the wire net, so it should be cleaned regularly.

4 Compressed air circuit: we hope there is a kind of air source, it must be clean and dry as well as steady. Check the intake two-connecting parts regularly and add 34-40# lubricating oil, pour the left water from the cup. The air pressure must not be less than 0.6 pa, but it can not be more than 0.65 pa.

5. Vacuum pump: check the intake filter per week, when rinsing , do not use the detergent water, alcohol, volatilized oil, petrol lamp oil etc. organic solvent. Use the compressed air to rinse. And replace the dirty filter in time.

6. Electric part: keep the button for PLC and every button clean, keep solvent or ink oil out to avoid electric break. Pay attention to the entrance of the electric distributor, do not shield by person to ensure the air to be intake. Fasten the screws for every part. (Generally speaking, due to shaking, some screws must be loosening). What's more, the terminal with blowout fuse may be loose,

Enhance its spring by small screw drivers



## 7. Servo motor

Connect electric power/ cutting off should be done by operator himself.

After cutting off the power, the circuit board still have electricity state for some time, checking should be done after cutting off the power and the indicating light being off. It's about 5 minutes to check. Do not check in the insulation state. It will damage the step motor.

The temperature and the damp is normal or not. Whether something dirty or dust as well as other substance etc.

The sound and shaking of the motor can work normally or not, or it is too hot or smell is not normal.

The temperature is high or not, its ground is clean or not. The connection is loose or not as well others are not good.

The output current is great different from the normal value, the terminal is burnt or not.

Environment of workshop:

The working environment should be kept clean and well ventilated. If it is possible, install an air conditioner to make the room damp. It is useful for printing.

## VVI. Parts Tool Schedule of the Multi-chromatic Silk Screen Machine

No.	Specifications	UNIT	Qty.	PS
1	toolbox	Piece	1	
2	ruler of 500mm	piece	1	
3	Cross-screwdriver,6mm in diameter, 6mm long	piece	1	
4	Straight screwdriver,6mm in diameter, 6mm long	piece	1	
5	Double-ended Dual-purpose Solid Wrench 8-10	piece	1	
6	Double-ended Dual-purpose Solid Wrench 12-14	piece	1	
7	Double-ended Dual-purpose Solid Wrench 17-19			
8	Double-ended Dual-purpose Solid Wrench 22-24			
9	Double-ended Dual-purpose Solid Wrench 22-24	piece	1	
10	Adjustable Wrench of 8 inches	piece	1	
11	Snap-off Knife	piece	1	
12	1/2Rubber Hammer			
13	Inner Hex Wrench	piece	1	
14	High-pressure Oil Gun	piece	1	
15	Ink Blade	piece	2	
16	Base Plate	piece	1	Used for cutting tape
17	PVC Conveyor Belt	pieces	2	
18	Import Vacuum Pump	piece	1	
19	<b>Operation Instruction of Jingda Circuit Diagram</b>	piece	1	



