



Flat screen printing machine with Slide-Vacuum worktable

OPERATION INSTRUCTION

操作说明书



KC Printing Machine (group) Limited

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Brief Introduction

This type of vacuum sorption plane screen printing machine is designed for the screen printing of plane substrates, such as paper, Film etc. This printer has a vacuum sorption platform and an automatic screen-throwing function, which is particularly suitable for the printing of paper cards, nameplates and circuit boards. To guarantee the quality of the machine, the pneumatic, electronic and mechanical components of the printing scraper frame, sliding frame and printing arm, etc. are all imported from well-known brand. With the combination of high quality organs, which ensures the stable running of the machine and reduces the maintenance? In the aspect of electrical and pneumatic control, this printer adopts the IC Programmed controller to translate and edit the action programmed, which is compatible with the imported cylinder , to make every action faster and more accurate, enhancing the productivity and printing quality to the maximum.

● ***Technology Parameters***

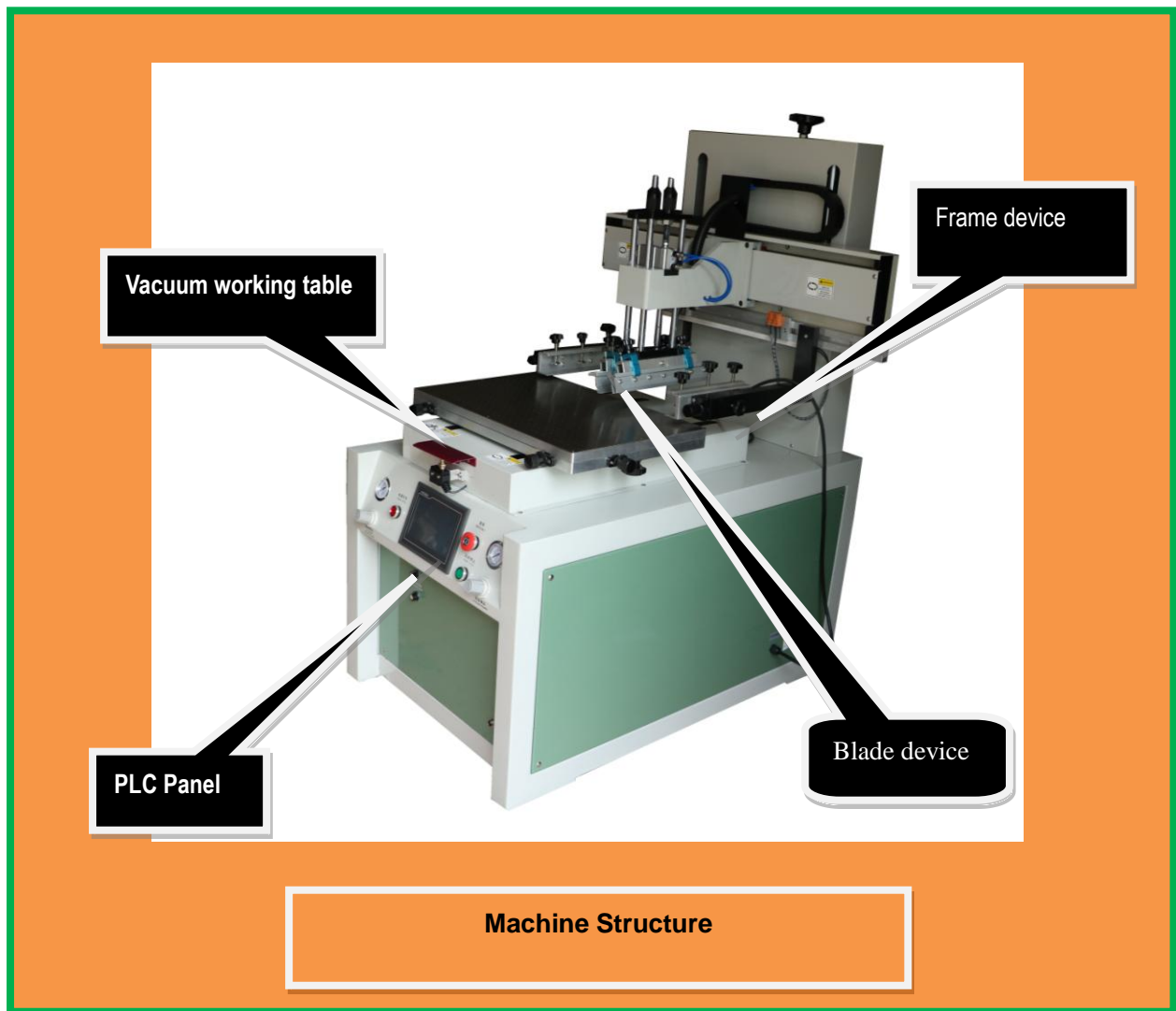
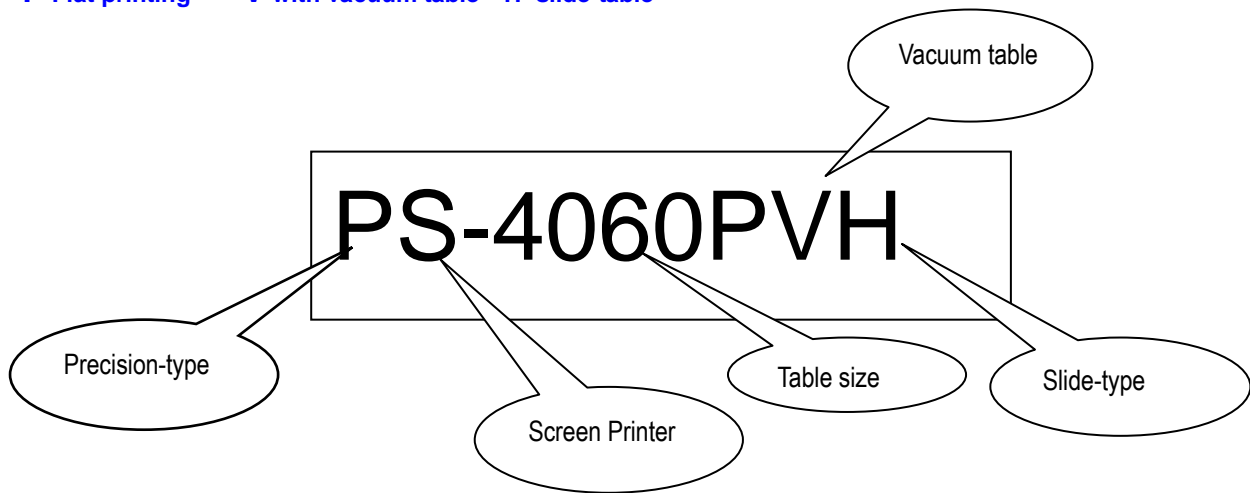
Model	PS-4060PVH	Table area	400×600MM
Power supply(V)	220	Inspiration area	380×580MM
Max printing area	300×500MM	Printing speed	650PCS/H
Max printing height	80MM	Total weight	182KG
Max Frame size	500*800mm.	Blade stroke	500mm
Plate up-down stroke	200mm	Table stroke	500mm
Up-down stroke of blade	25mm	Vacuum bump wattage	3700W
Net weight	276kg	Air- pressure	5-7bar



Model

PS-Precision type screen printer 4060- working table size : 400*600mm

P-Flat printing V-with vacuum table H- slide-table



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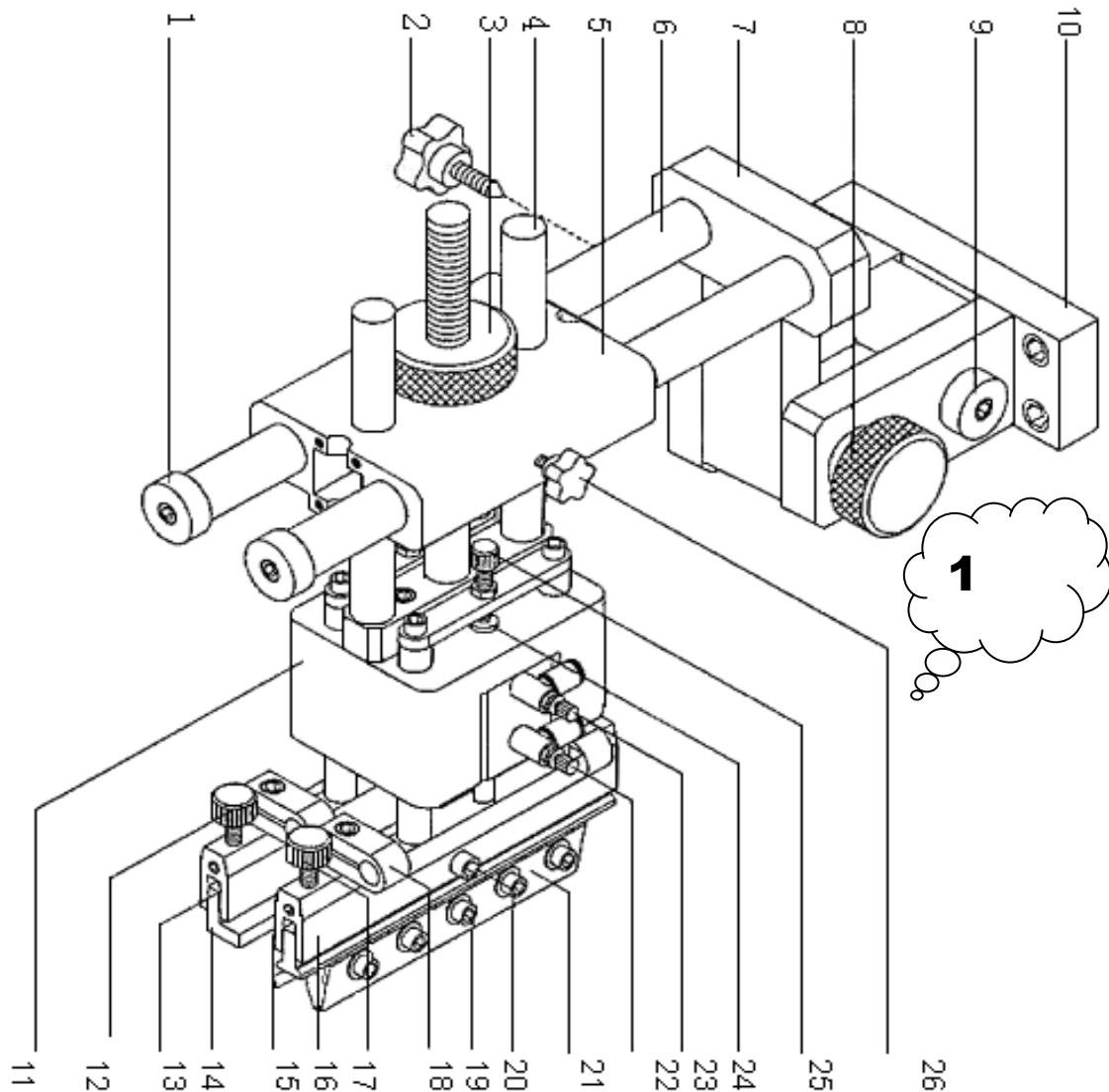
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Machine structure

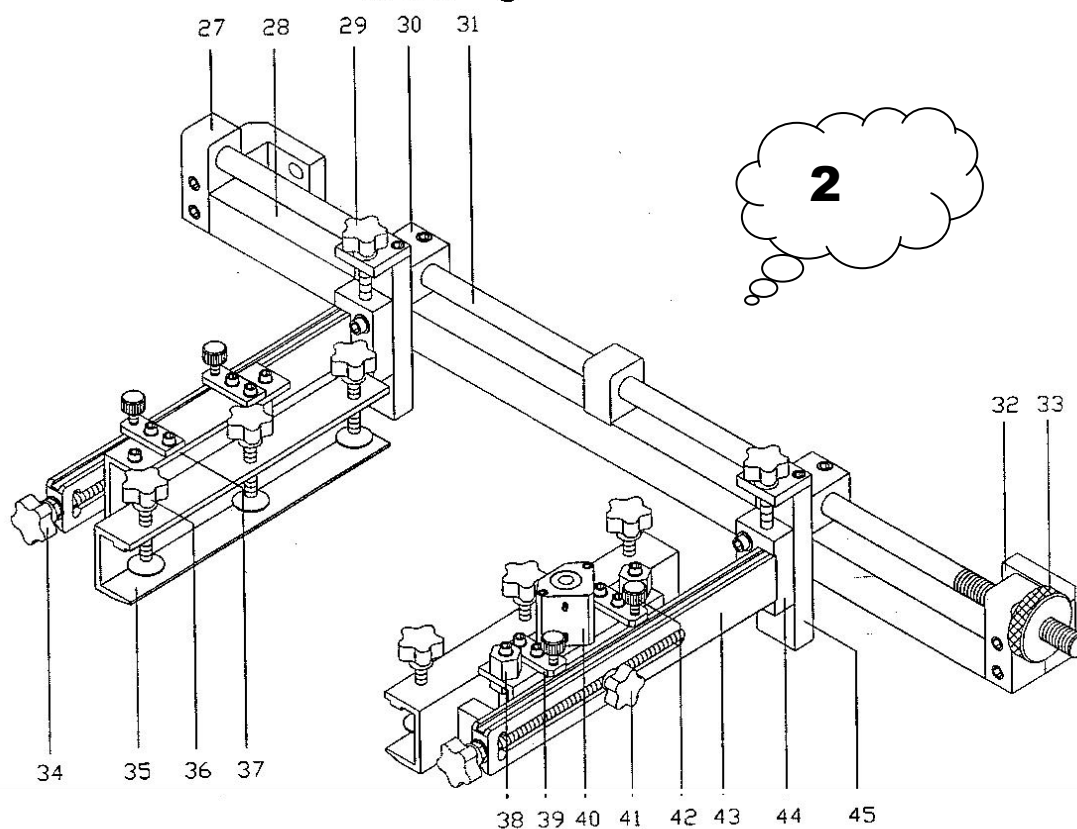
◆ *Printing Squeegee system*



1. End position screw: prevents the printing scraper from going out of the position-adjusting shaft.
2. Turning panel setscrew: fastens the turning panel of the printing scraper frame.
3. Lifting adjusting knob: adjusts the cylinder components of the printing scraper frame in vertical direction.
4. Vertical direction slide shaft: balance-keeping shaft for the cylinder components on printing scraper frame.
5. Sliding carriage: upholds the printing scraper frame.
6. Slide shaft: adjusts the position of the printing scraper frame in front-back direction.
7. Turning panel: turns the printing scraper frame upwards through it in order to adjust the screen frame conveniently.
8. Setscrew knob: controls the turning of the panel.

9. Panel turning spindle: central revolving spindle of the panel.
10. Fastening bar: fastens and connects the printing scraper frame with the sliding carriage on the machine frame.
11. Cylinder fixture: fixes the cylinders on the printing scraper frame.
12. Adjusting knob: adjusts the parallelism among the ink-reclaiming scraper fixture, mesh and substrate.
13. Ink-reclaiming scraper fixture: fastens the ink-reclaiming scraper.
14. Ink-reclaiming scraper fixture: fastens the ink-reclaiming scraper
15. Ink-reclaiming scraper: reclaims ink to the printing pattern on the mesh after one stroke.
16. Scraper fixture: fixture of the squeegee clamp.
17. Adjusting knob: adjusts the parallelism among the squeegee clamp. Mesh and substrate.
18. Angle adjusting fixture: adjusts and fastens the ink-reclaiming scraper and the squeegee clamp to the appropriate angle.
19. Squeegee clamp setscrew: fixes the squeegee after adjusting the position of it.
20. Angle adjusting spindle: a screw that drills through the squeegee clamp.
21. Squeegee clamp: fixes the squeegee.
22. Throttle valve: adjusts the upstroke compressed air current
23. Throttle valve: adjusts the down stroke caused air current,
24. Downgrade cushioning : reduces the shock caused by down stroke
25. Inching knob: adjusts down stroke length of the squeegee and ink-reclaiming scraper
26. Setscrew knob: fixes the sliding carriage of the printing scraper frame after positioning it.

◆ **Screen frame nip system**

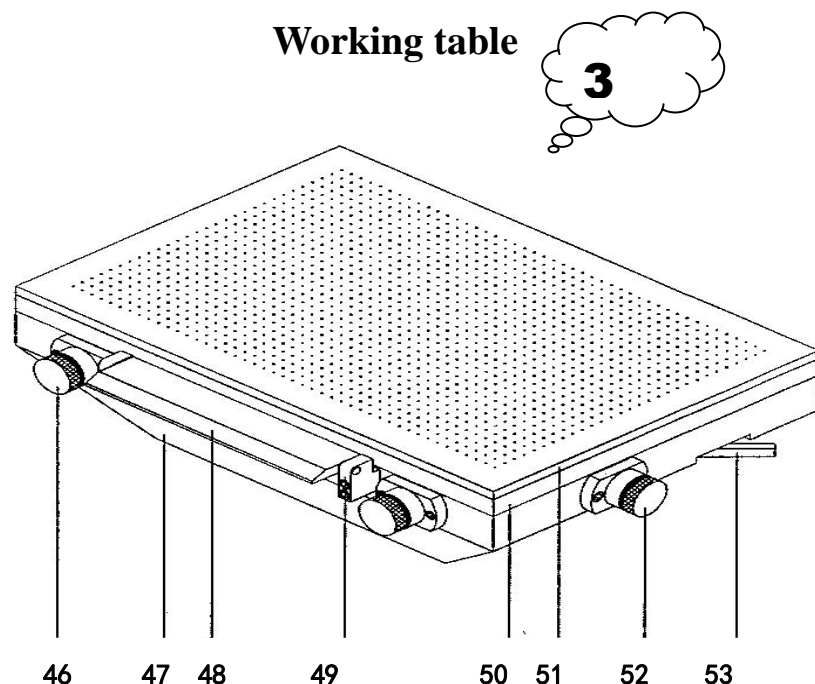




- 27. Side bar of the printing arm: fixes the slide shaft to the machine frame.
- 28. Upholding bar of the printing arm: keeps the relative positions of the printing arm components.
- 29. Inching knob: adjusts the screen frame in vertical direction
- 30. Sliding setscrew: fastens the printing arm after positioning it .
- 31. Slide shaft: moving the printing arm components horizontally through it.
- 32. Printing arm upholding frame: connects the printing arm components with the machine frame.
- 33. Inching knob: moving the printing arm frame in horizontal direction.
- 34. Inching knob: moving the printing arm components forwards or back wards.
- 35. Screen frame clamp: fixes the screen frame.
- 36. Pressing setscrew: presses the screen frame tightly in order to fasten it.
- 37. Fixture of the screen frame clamp: moves it forwards or backwards to adjust the position of the screen frame.
- 38. Setscrew: fixes the screen frame clamp after adjusting its position.
- 39. Parallelism adjusting work piece: adjusts the parallelism between screen frame and substrata through the screw on this work piece
- 40. Cylinder: pulls the screen frame away from the surface of substrate after printing
- 41. Setscrew knob: adjusts the parallelism between the screen frame and the substrate
- 42. Inching knob: adjusts the parallelism between the screen frame and the substrate
- 43. Printing arm : fixes the position of the screen frame.
- 44. Slide bar: mows' the printing arm components in vertical direction
- 45. Slide track: controls the up and down moving of the printing arm

◆ **Working table system**

There are two types working table machine to provide by KC Printing Machine, one is vacuum table screen printer, this machine is suitable for printing thin and soft substrates such as paper, film etc, the other is T Model working table, this machine is suitable for printing more thicker and weight products such as plastics metal glass materials, Vacuum working table keep substrates stillness by absorbing objects to be printed. Fix screws fix the fixture and products when using T model working table screen printer.



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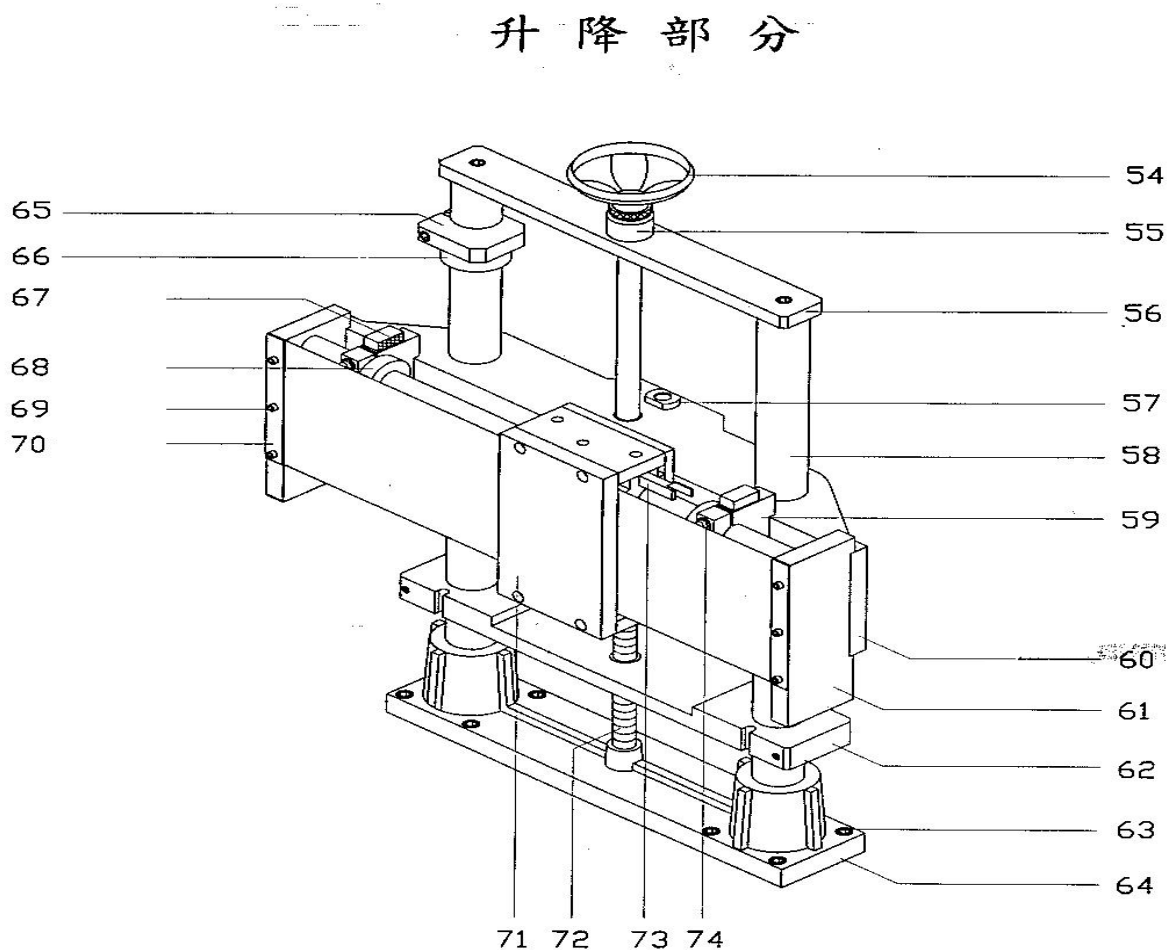
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- 46. Adjustment screw: adjust the front-back position of working table
- 47. Machine frame: install working table;
- 48. safety protection plate: press it the machine will be stopped immediately when dangerous happen;
- 49. safety switch: connecting with safety protection plate ;
- 50. guide plate: vacuum table plate support;
- 51. vacuum table plate: put objects to be printed on it;
- 52. adjustment screw: adjust the right-left position of working table;
- 53. setscrew: after the working table adjustment, fix it the working table will be keep stillness.

◆ Screen frame lifting system

- 54. Hand wheel: adjusts the height of lifting frame
- 55. Graduation knob: indicates the distance moved
- 56. Upholding frame: fixes the lifting frame components to the machine precisely
- 57. Setscrew: fixes the raise and fall function cylinder
- 58. Slide shaft: keeps the printing arm frame moving in vertical direction precisely
- 59. Stroke length fixture: adjusts and confines the horizontal stroke length

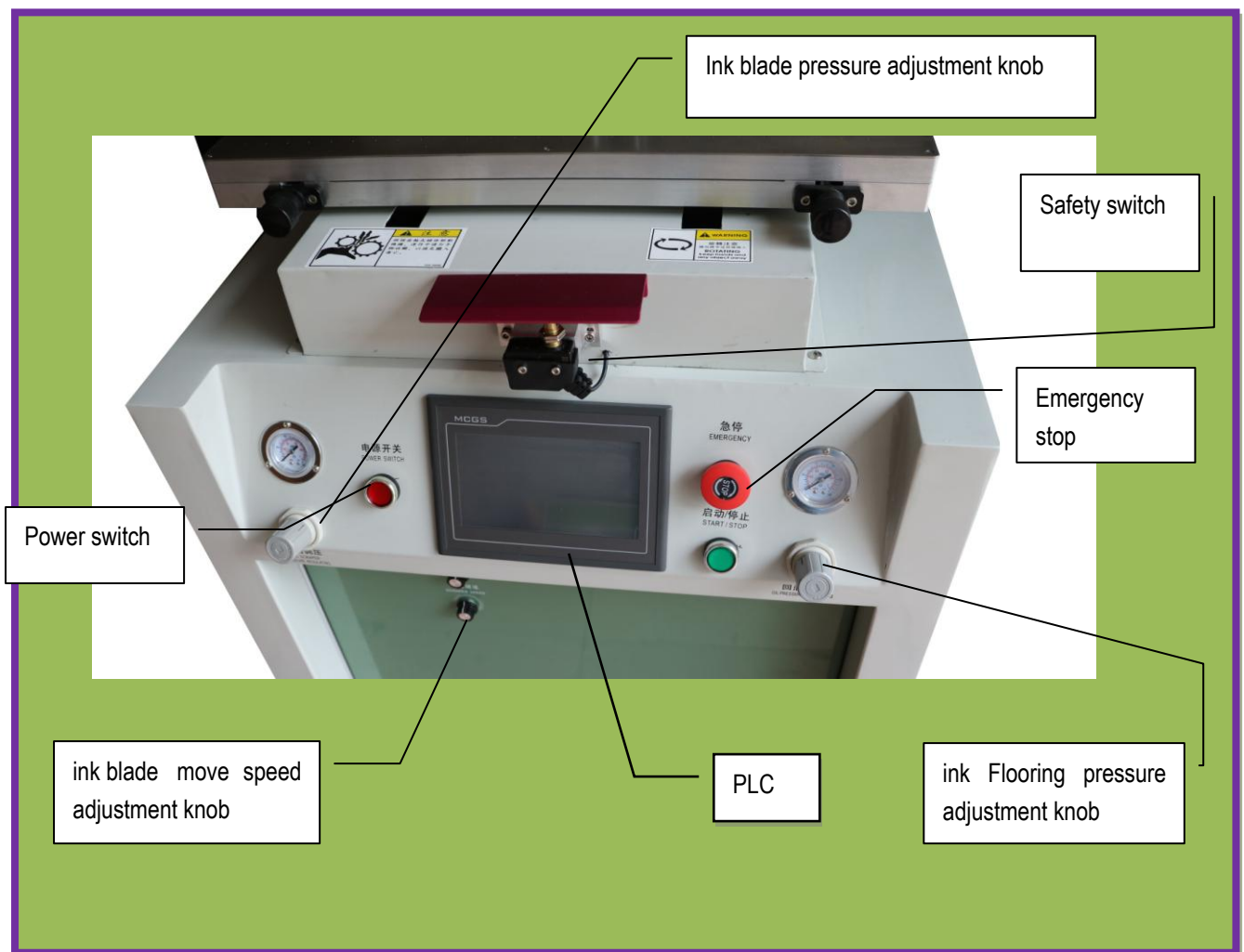


- 60. Lifting frame: fixes the printing arm components



- 61. Left and right side plate: fixes the rod less cylinder and the slide shaft
- 62. Cylinder fixture: fixes the raise and fall function cylinder
- 63. Setscrew: fixes the lifting frame components to the machine frame
- 64. Pedestal of the lifting frame components: fixes the lifting frame
- 65. Upstroke top fixture: confines the highest point of upstroke
- 66. End position cushioning: reduces the shock caused by upstroke
- 67. Proximity switch: controls the raise and fall of the squeegee and the ink-reclaiming scraper
- 68. End position cushioning: reduces the shock caused by horizontal strokes of the printing scraper frame
- 69. Setscrew: fastens the pressing plate tightly
- 70. Fixing plate: presses the safety protection cloth tightly
- 71. Sliding carriage: fixes the printing scraper frame and the slide Dearing
- 72. Lifting shaft: adjusts the height of the printing scraper frame and the printing arm frame
- 73. Proximity sensor: near the sensor switch,
which controls the raise and fall of the squeegee and the ink-reclaiming scraper?
- 74. Setscrew of the stroke length fixture: fixes the position of the fixture

Operation Panel



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When you press the "POWER SWITCH"

PLC will show below screen, Please switching "CHINESE" AND "English" Language



English

Chinese



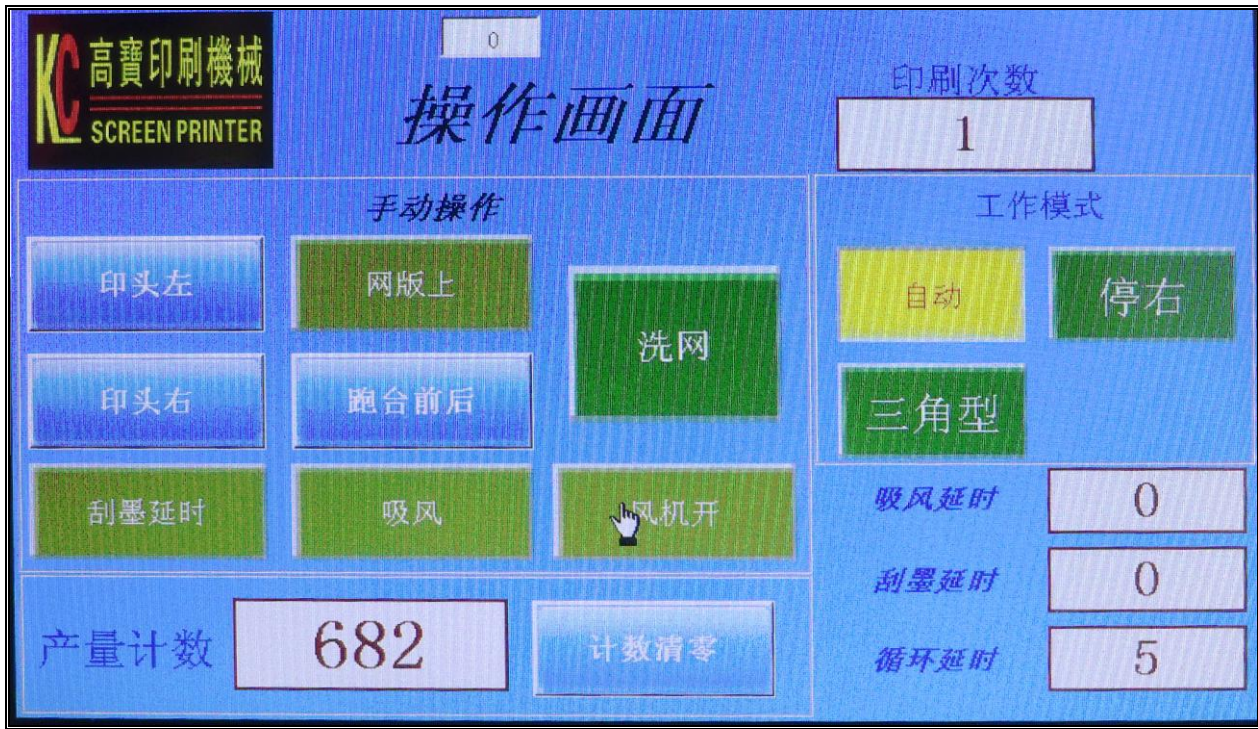
English screen

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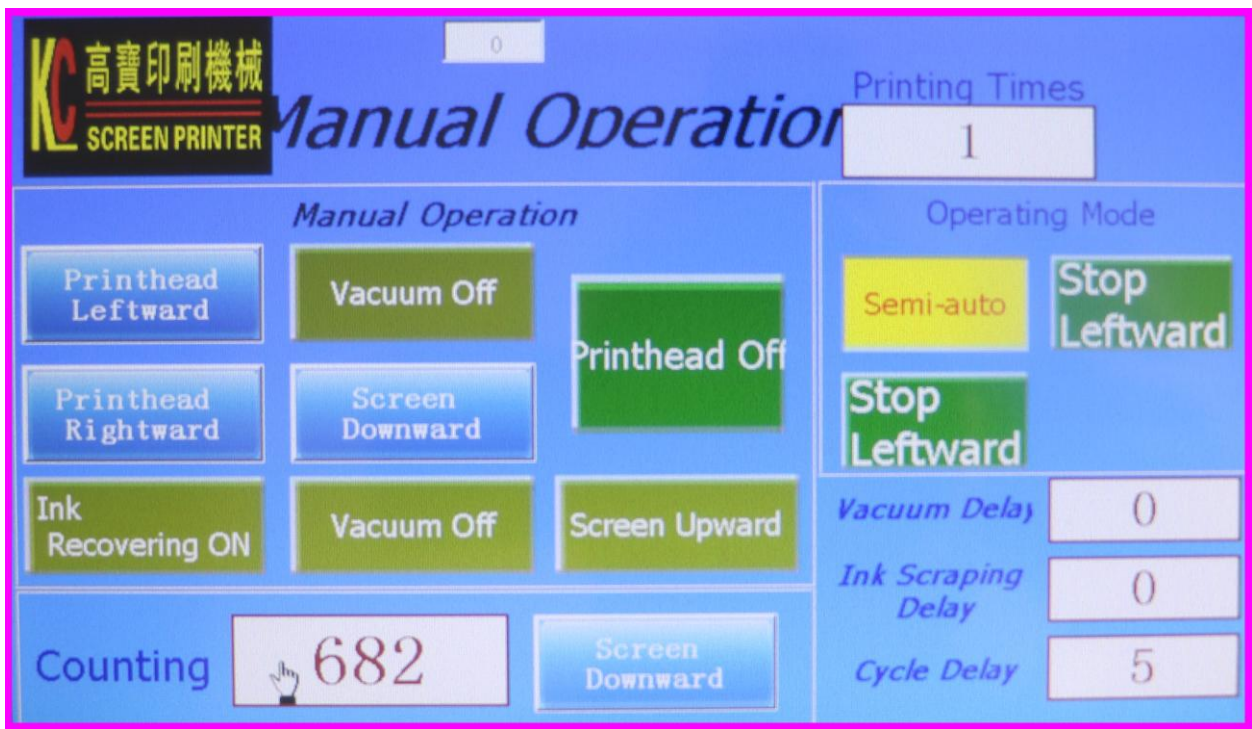
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Chinese screen



English screen

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Printing Times-Setting ink-printing time

Manual Operation

Print-head leftward- Press the button, print-head will move to left

Print-head rightward-press the button, print-head will move to right

Vacuum off- Press the button, Screen plate move to upward.

screen Downward-press the button , Slide- table move to front and back

Print-head off- press the button, the print-head will rise up, you can wash the screen plate

Ink recovering ON- press the button, ink floor recovering ink delay

Vacuum off- Press the button, Vacuum function open

screen upward-press the button, the vacuum pump start on

Counting- Show the printing times.

Screen downward- press the button, the counting will clear to zero

Operating mode

Semi-auto- Press the button to switch semi-auto or Auto

Stop leftward-press the button, the print-head will stop at right side;

Stop leftward-press the button, the print-head will stop at left side;

Vacuum delay-setting vacuum working time delay

Ink scraping delay-setting ink scraping time delay

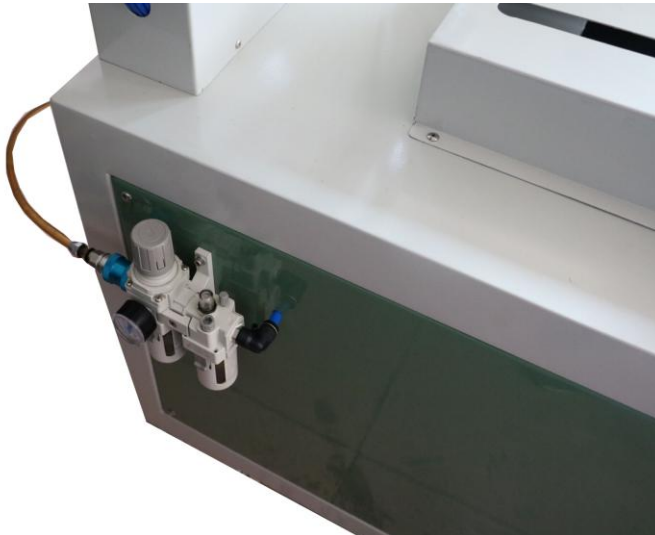
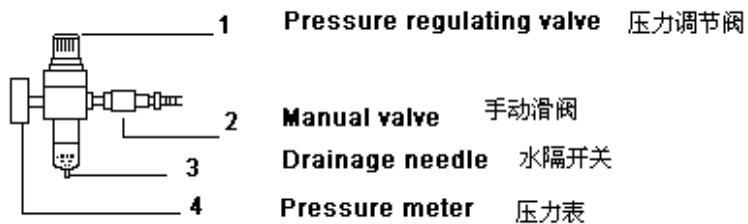
Cycle delay- setting Machine running one cycle delay time.



Operation process

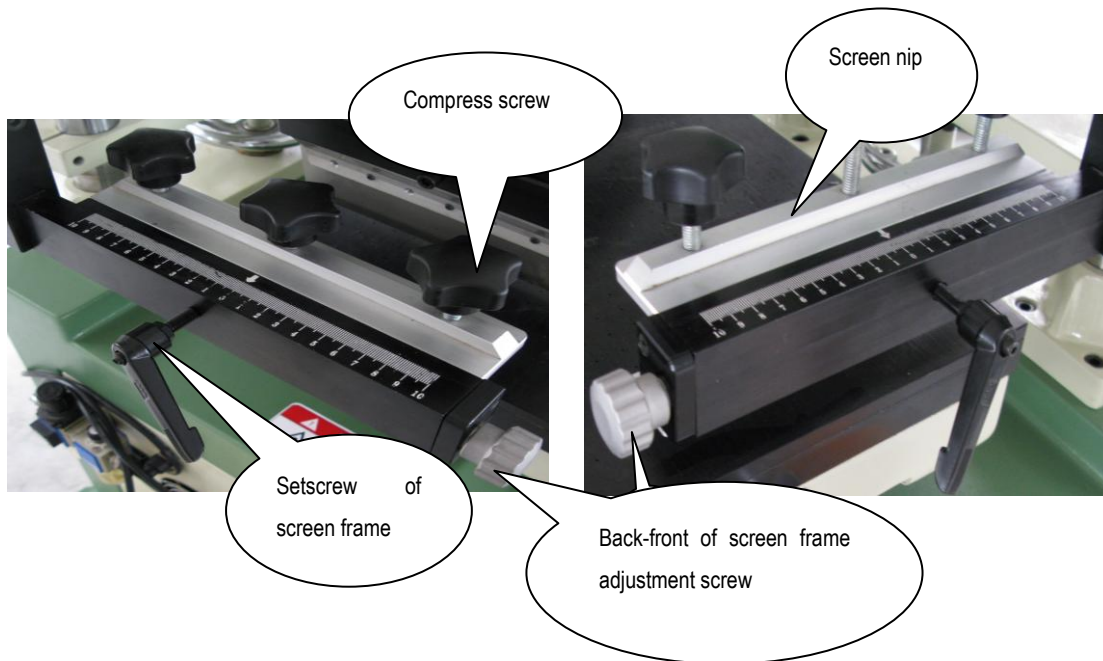
1) **Connect the electric source;**

Standard machine use one phase 220 V power supply. Some countries such as, USA, Canada, Mexico use one phase 110V, We will change the voltage when you make a demand on it. First confirm



2) **Connect the compressed air.**

Your printing plant must be have one set compressor to provide compress air to machine, Please enquire to our sales Members, we will give you some advice on how to choose it. Please Check the display of the pressure gauge, adjust the pressure to 4~5 Bar (the standard pressure).



3) Install screen frame.

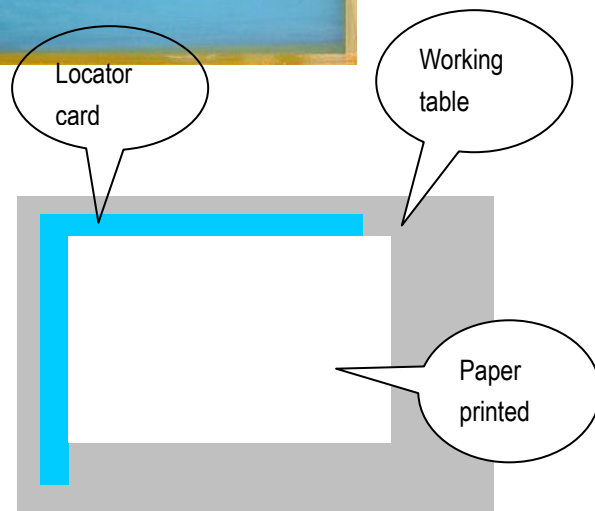
You must make one set screen frame by yourself, at the first order, we can suggest you sending printing document by email and make one pc screen plate for you, It is expert technology to make screen plate, some equipment and



materials , one operating worker with excellent experiences. Please keep the screen frame surface parallel with working table, or please adjust the screw 29 of picture 2.

4) Install fixture.

T model working table need to make one fixture to fix it one the working table . when printing paper, only adhere two pcs locator thickness about 75um card on the working table.





5) **Install rubber squeegee.**

there are different size rubber squeegee, we suggest you use the size 45*7mm or 50*9mm . Please cut it to the length only longer than printing design with knife Adjust the stroke of squeegee. Loose the screw and put down of squeegee combine nip, first push the rubber squeegee at the beginning of printing design, fasten the setscrew at the right side, then push the rubber squeegee to the other end till it can cover all printing design, then fasten the screw of left stroke screw.

6) **Adjust the distance between screen frame and products.**

Turning the handle wheel of machine at the back of machine to drop the screen frame. It is best distance is 2-3mm when the screen frame press down. Adjust the height of rubber squeegee make it contact with the surface of screen silk exactly.

7) **Adding ink and thinner.**

Choose ink according to your products. Pour them into screen frame a long the direction of rubber squeegee , start the machine and make a one circle run, check the printing quality, Please adjust the pressure till clearly words .

