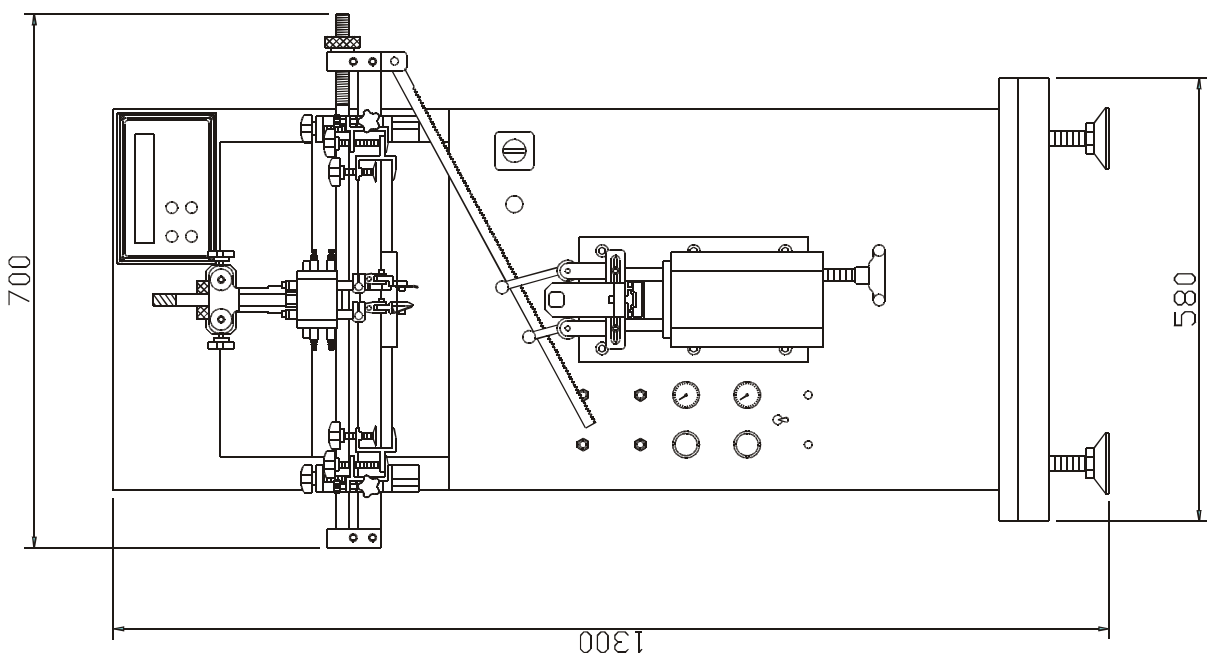
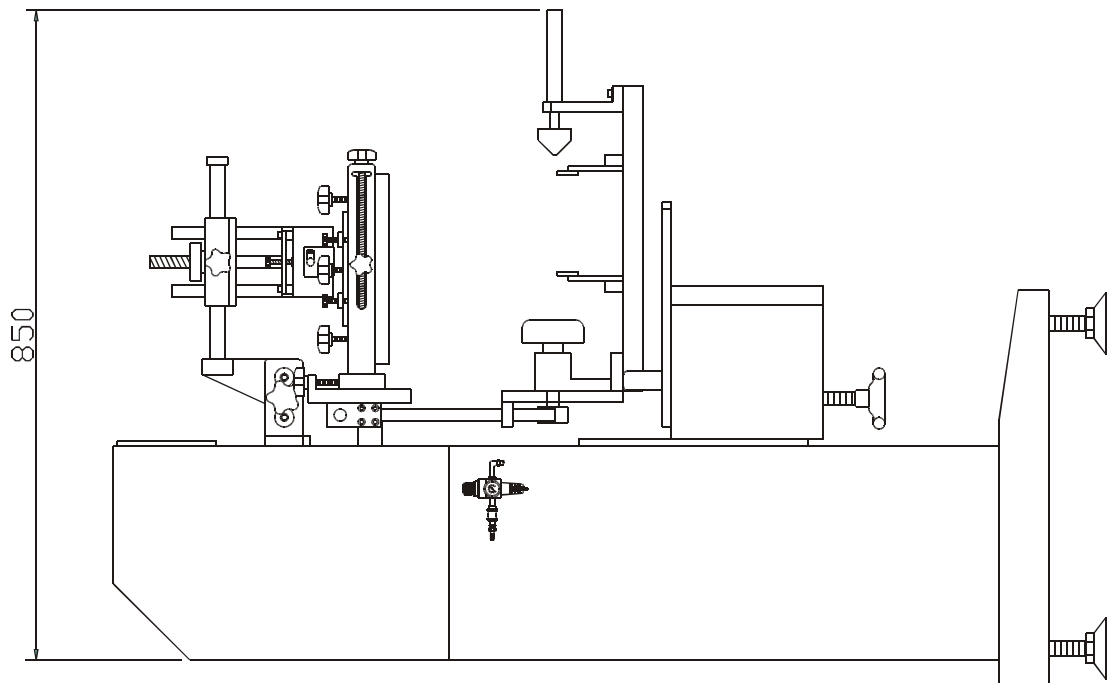


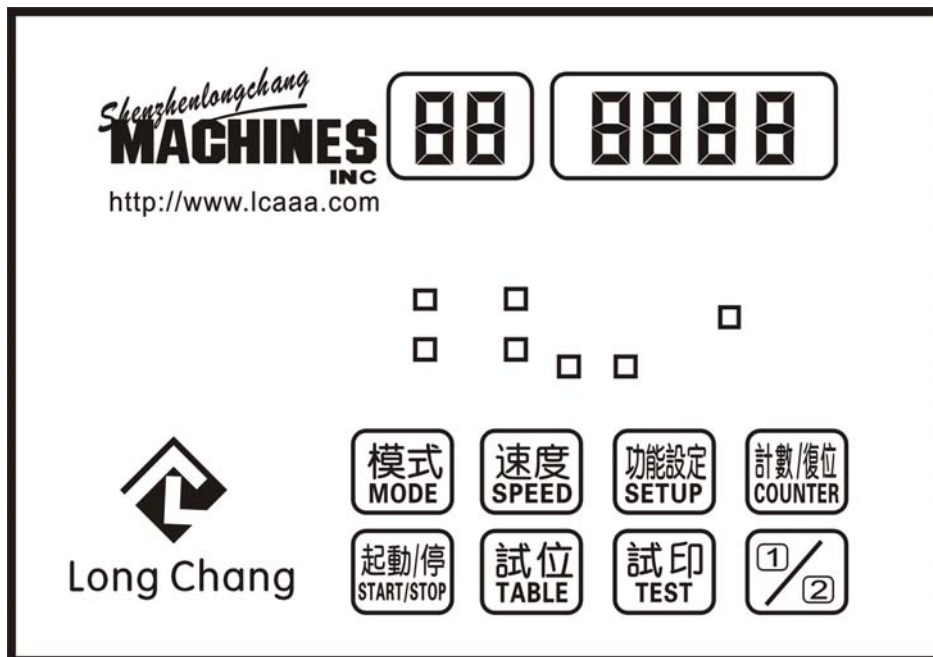
# 1. Dimensions



## 2. Parameters

Model	Printing Area	Printing Speed	Power Supply	Shape of Workpiece
Ls- 250s	Φ 80*200 (cylindrical surface)	1200PCS/ HOUR	110/220V SPN 100W	Cylindrical
	Φ 200*200 (elliptical surface)		AIR5-6KG/ c m <sup>2</sup>	Conic
LS-400E	Φ 100*200 (cylindrical surface)	1200PCS/ HOUR	110/220V SPN 100W	Cylindrical
	Φ 200*350 (elliptical surface)		AIR5-6KG/ c m <sup>2</sup>	Conic
LS-700E	Φ 215*200 (cylindrical surface)	1200PCS/ HOUR	110/220V SPN 100W	Cylindrical
	Φ 200*350 (elliptical surface)		AIR5-6KG/ c m <sup>2</sup>	Conic

## 3. IC Panel



### Instructions of the keys:

“Start/Stop”: press it at any time to start or stop the ongoing action.

“Man/Ink”: press it once and the indication light No.5 lights up, which means printing twice, then press it again and indication light No.5 is off, which means printing once.

“Test”: in the mode of stop, press it once, the worktable moves upwards or downwards.

“Table”: in the state of stop, press it once, the printing arm frame moves leftward or rightward.

**“Setting”**: in the mode of stop, press it once, the solenoid valve for air supply shuts off, the counter displays “0000”, which indicates the adjusting mode and all the keys are locked, press it again to quit the adjusting mode.

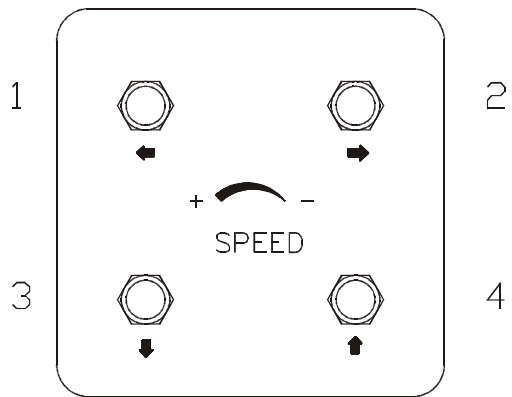
**“Counter”**: no matter in which mode, press this key once, the brightness of the counter will reduce by 50%, which means pausing the counting, press it again, the brightness will restore, which means beginning counting. In the mode of stop, press this key for about 2~3 seconds till the counter reset.

**“Mode”**: “0”: means running once, press the key “Start” one time, the machine will stop after finishing each automatic printing process.

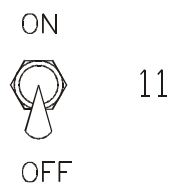
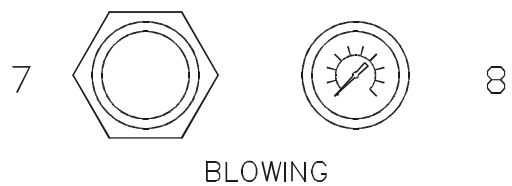
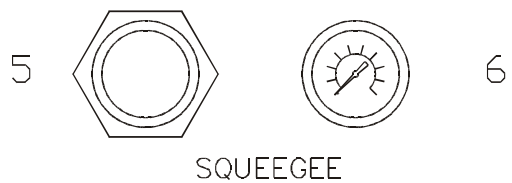
“1”: means fully automatic consecutive running.

**“Speed”**: from level 0~9, from low speed to high speed.

## The Operation Panel



1. Leftstroke throttle valve of the printing arm frame
2. Rightstroke throttle valve of the printing arm frame
3. Downstroke throttle valve of the worktable
4. Upstroke throttle valve of the worktable
5. Hand-operated valve for the pressure of squeegee
6. Pressure meter of squeegee
7. Hand-operated valve for the blowing pressure
8. Pressure meter of blowing
9. Tie-in of the cylinder for container holding
10. Tie-in of the cylinder for blowing
11. Blowing switch



## **4. Maintenance**

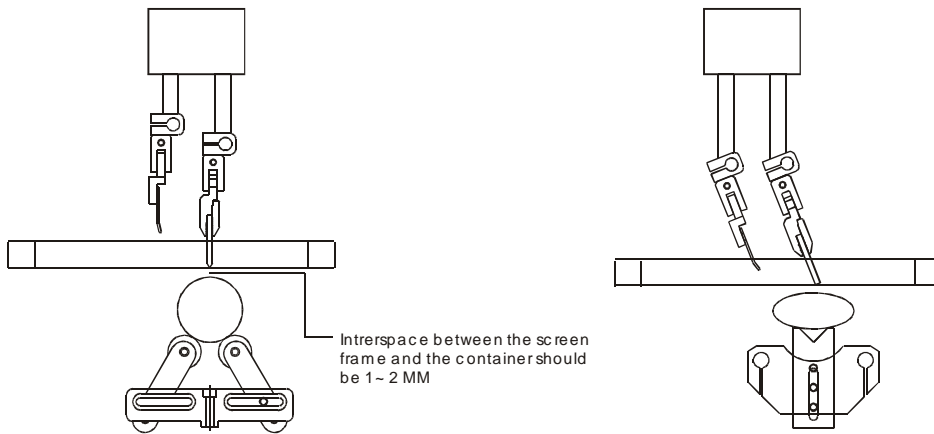
1. Infuse the slide shafts of printing arm and lifting worktable with the Mobil lubricant MP once per week, in order to keep the lubricative of the shafts.
2. The moisture in the compressed air should be filtered, in order to prevent the moisture from entering into the cylinders, which could reduce the service life of the cylinders.
3. Remember to drain the contaminative water accumulated in the filter after a day's work.
4. Keep the cleanness of the machine, and clean the printing ink adhering to it frequently.

## **5. Cautions**

1. **The workshop should be kept ash-free, because the ash could affect the screen-printing quality badly.**
2. **Make fixtures for the substrate on worktable, and make sure that you can put in and take out the substrate conveniently, also position it accurately.**
3. **If the screen is jammed, you can only wash it with diluent or the screen cleaning solvent. It is strictly forbidden to use other kinds of chemical solvent.**
4. **Check whether the shape of squeegee is compatible with the characteristic of substrate (Square squeegee is suitable for even surface, and the knife-edged squeegee is suitable for accidented surface).**
5. **Based on the features of the printing pattern, choose the mesh of appropriate density**
6. **Mix the ink to the appropriate chroma, if the ink is too ropy, not only it lacks the active, but also it could jam the mesh. If the ink is too watery, the chroma of the pattern printed will not be enough, and the lines of the pattern will be fuzzed.**
7. **While printing, the ink stored on the surface of mesh should not be too much or too less, otherwise, the mesh will be jammed and the ink will leak through it, or the chroma of the pattern will be uneven.**

## 6. Operation Procedure

1. Turn the power switch(64) from position “0” to position “1”, to switch on the power supply, and check whether the indication light for power supply lights up.
2. Connect the machine to the compressed air source.
3. Check the indicator of the pressure meter on the filter, and adjust the pressure to 4~5 Bar (The standard pressure for machine in operation).
4. Adjusts the rack holding fixture(83) to make the rack mesh with the gear tightly (Reduces the interspace between them to the minimum).
5. Turn the screen frame fastening knob(35) in order to install the screen frame and fasten it . (Check whether it comes loose)
6. Turn the worktable lifting setscrew(86), revolve the handwheel(91) to move the worktable upwards or downwards to the appropriate height (the distance between the screen frame and the substrate should be 1~2mm), and then fasten the setscrew(86), at the same time, turn the knob(30), to adjust the balance of the screen frame in order to keep the relative level between screen frame and substrate. See pictorial drawing below:

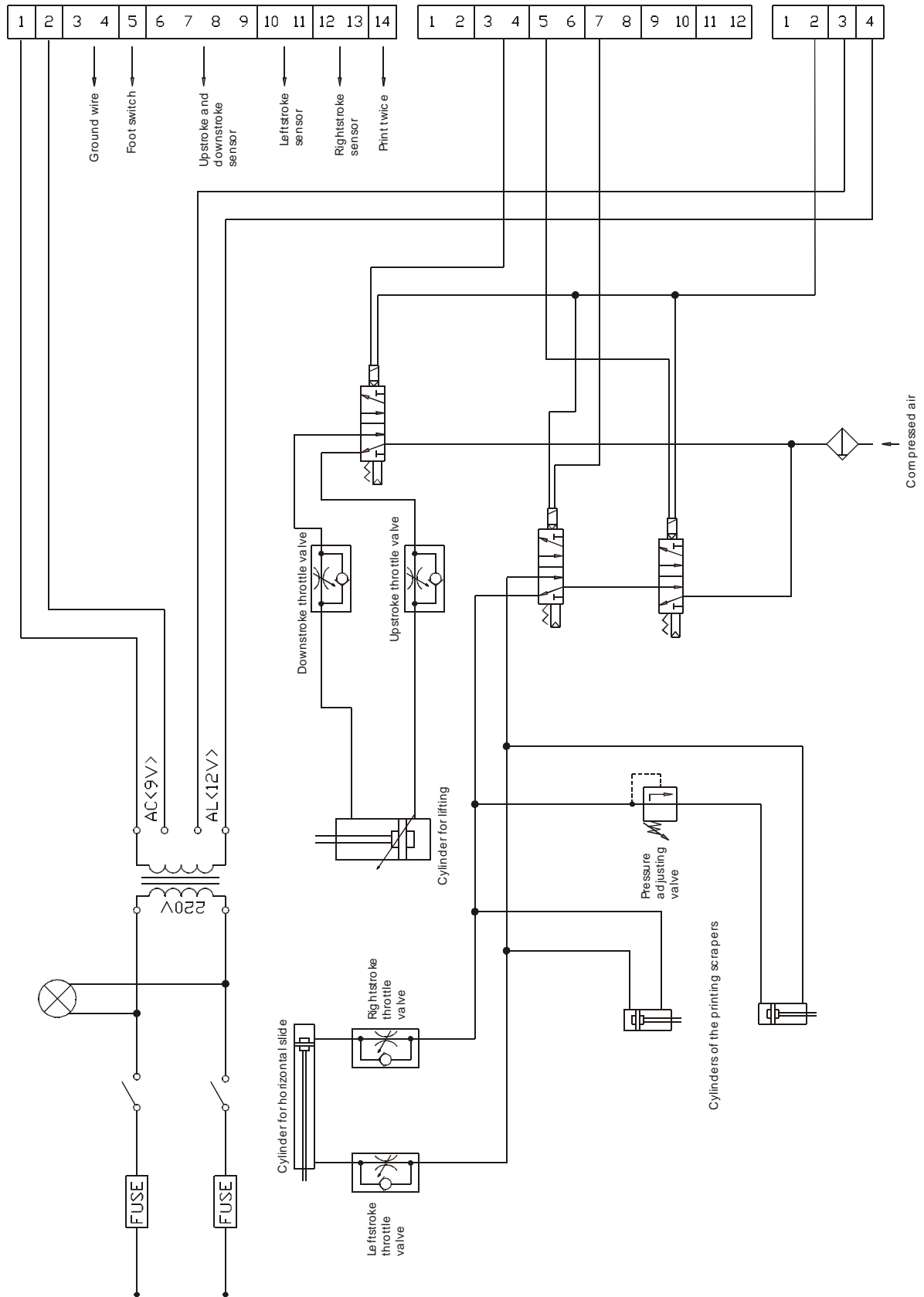


Printing Cylindrical Container

Printing Elliptical Container

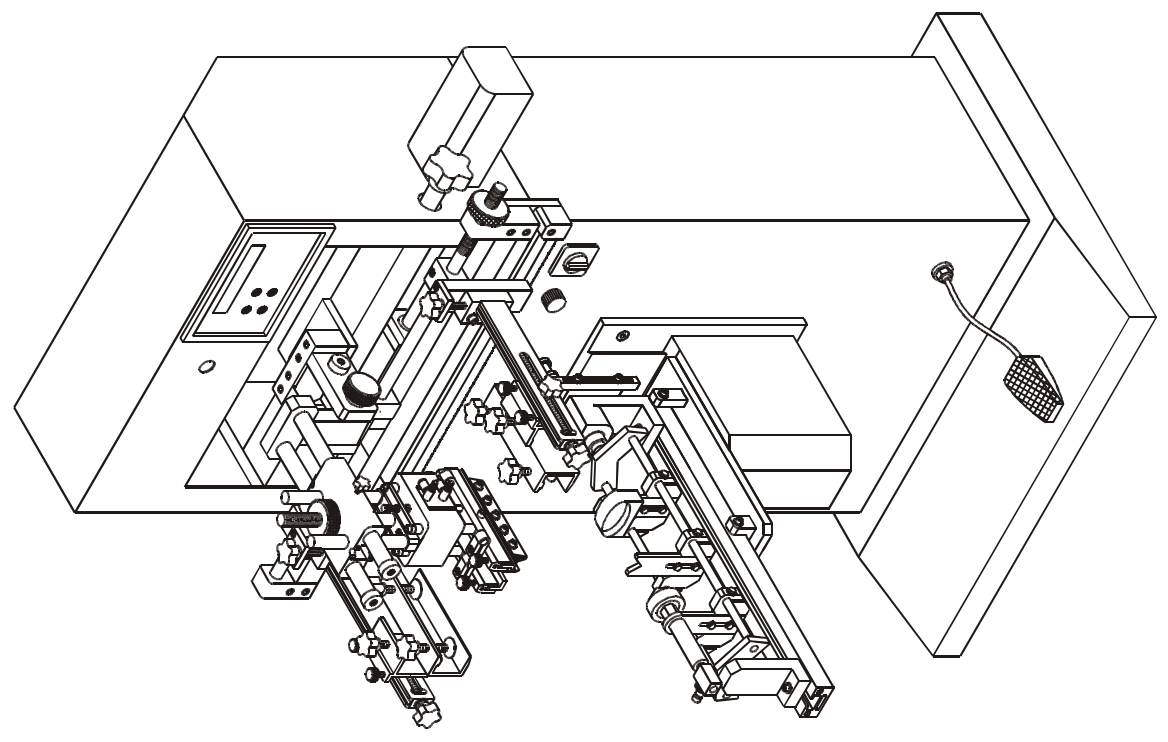
7. Based on the size of screen-printing pattern, move the adjustable stroke end(43) to the appropriate position.
8. Adjusts the printing scrapers: turn the inching knob(25) to adjust the height of the printing scraper. Turn the throttle valve(22,23) to adjust the up stroke and down stroke speed of the printing scraper, in order to reduce the shock caused by the strokes of cylinders. Turn the inching knob(17) to adjust the level between printing scraper and screen frame.
9. Adjusts the working pressure of the printing scraper, which usually should be 2~4 kg/ c m<sup>2</sup>, the longer the printing scraper is, the higher the pressure should be.
10. After all the procedures above, you can refer to the instructions of the IC panel to operate the machine and begin your work.
11. Please refer to the structure drawing and instructions of other key parts of this machine to adjust them.

# 7. Pneumatic System Diagram

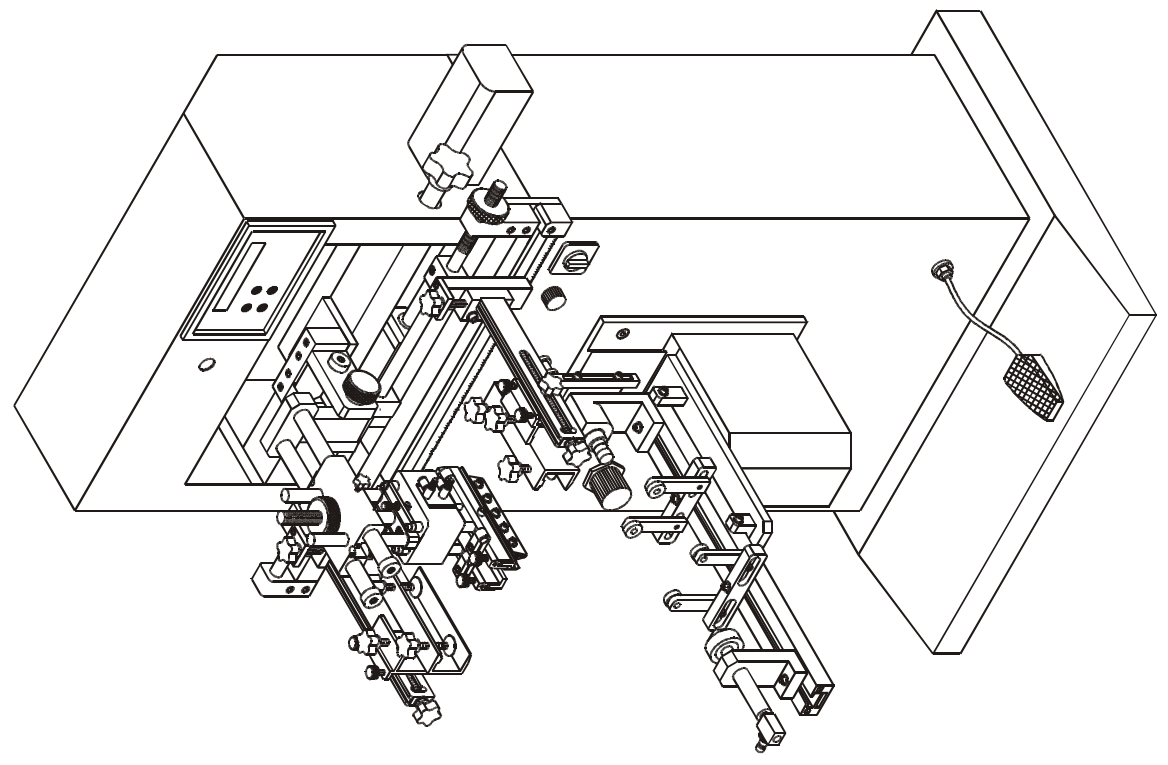


# 8. Pictorial Drawing of the Machine

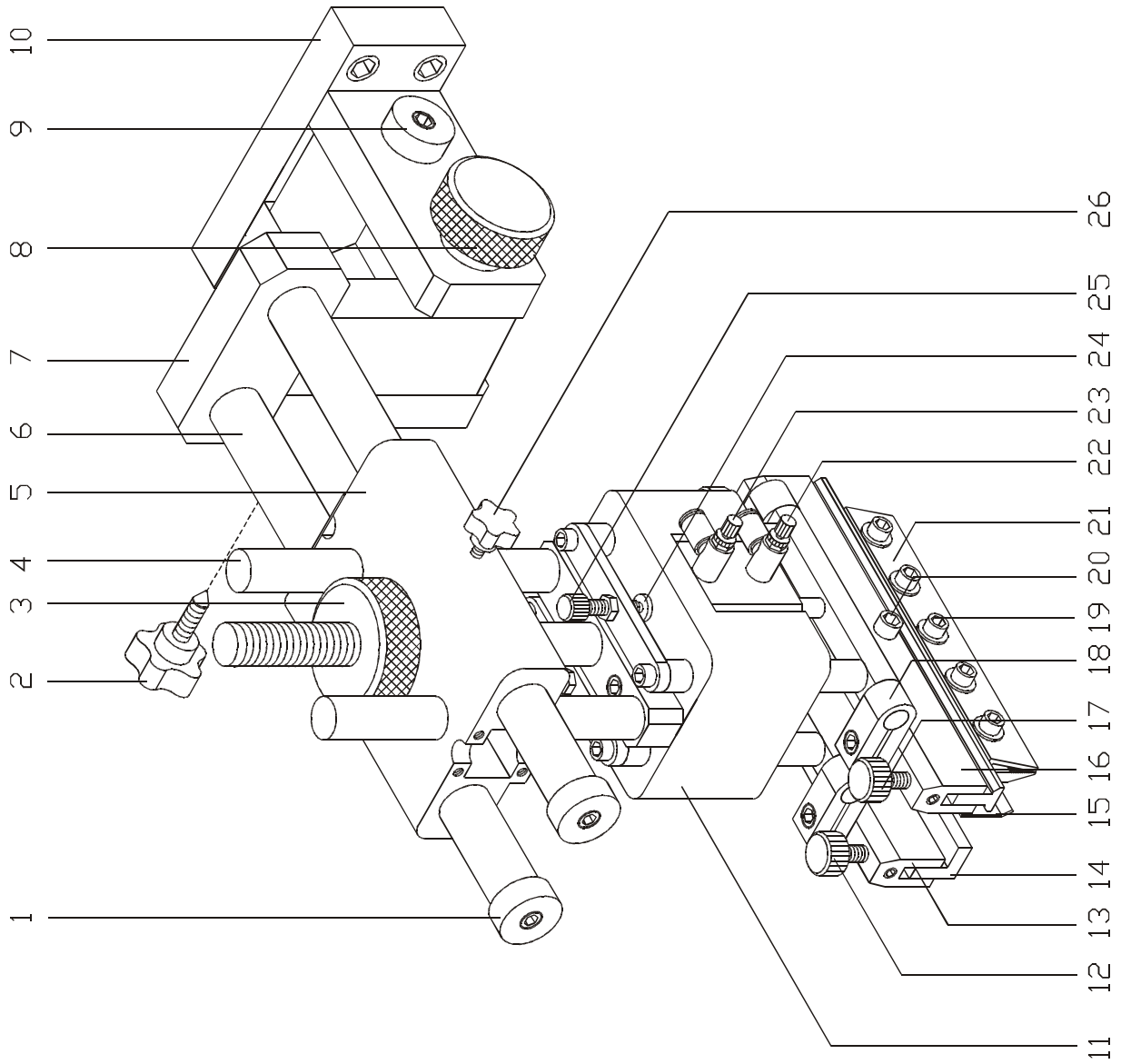
Elliptical Container  
Screen Printing Machine



Cylindrical Container  
Screen Printing Machine



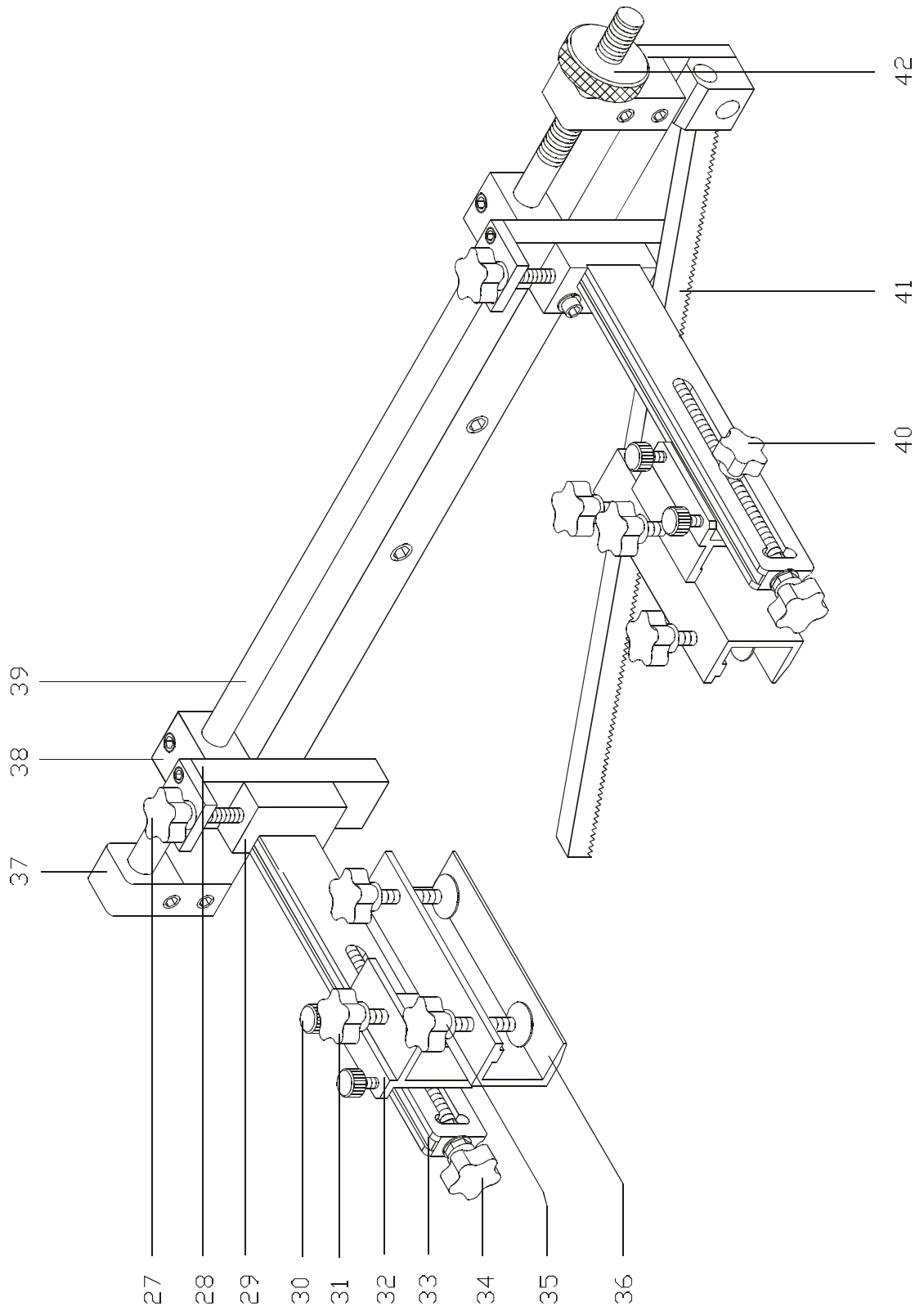
# Printing scraper frame



## ***Detailed instructions of the parts***

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 downstroke compressed air current.
24. Downstroke cushioning: reduces the shock caused by downstroke.
25. Inching knob: adjusts the downstroke length of the squeegee and ink-reclaiming scraper.
26. Setscrew knob: fixes the sliding carriage of the printing scraper frame after positioning it

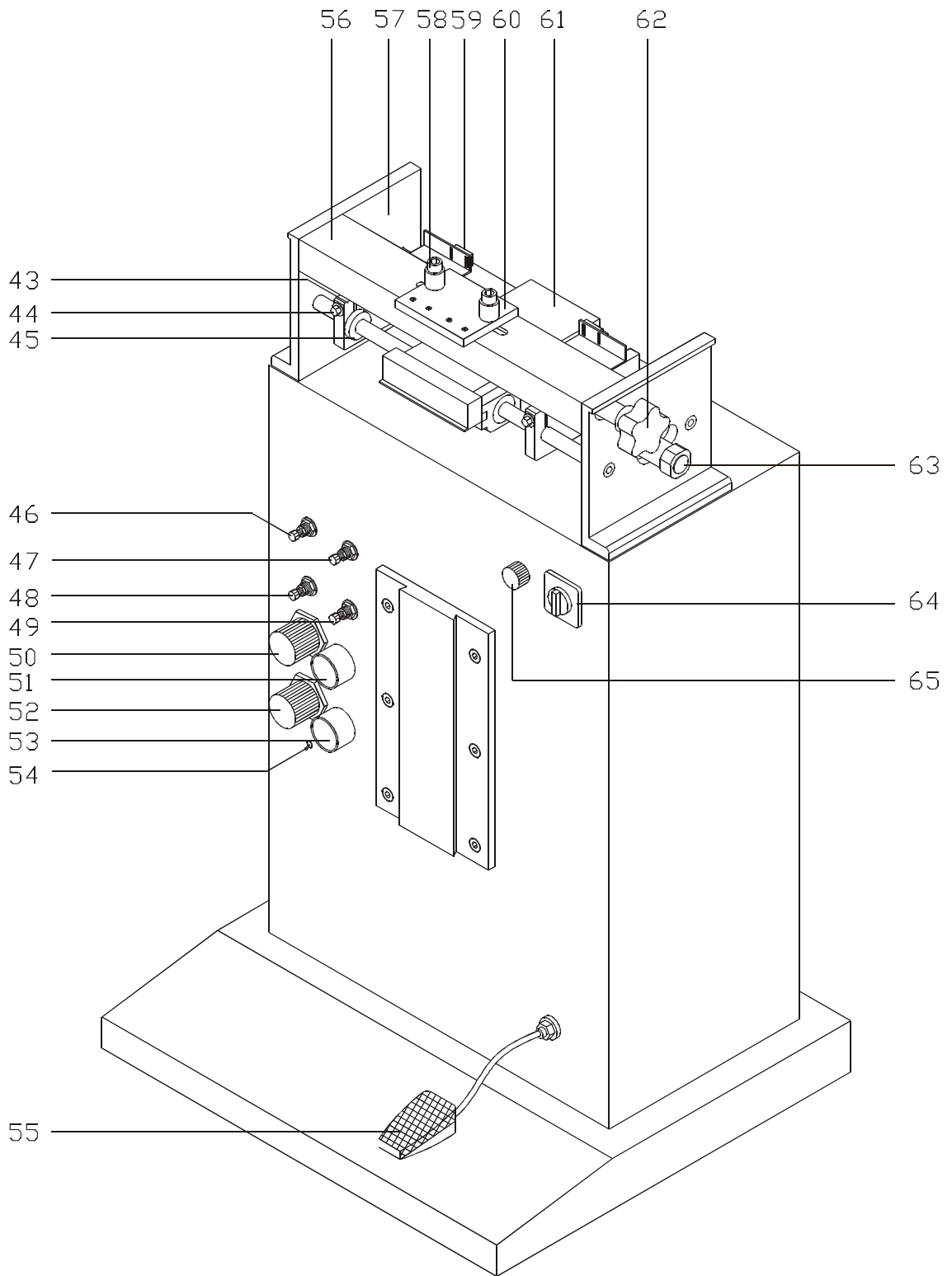
# Printing Arm Frame



## ***Detailed instructions of the parts***

27. Lifting adjusting knob: adjusts the lifting of the screen frame.
28. Lifting pedestal: the supporting pedestal for the lifting of screen frame.
29. Lifting bar: sliding bar for the lifting of screen frame, fixes the printing arm.
30. Angle adjusting knob: adjusts the position of screen frame in horizontal direction.
31. Screen frame fixing knob: fixes and fastens the screen frame.
32. Sliding fixture: move it in front-back direction to adjust the position of screen frame.
33. Printing arm: fixes the position of the screen frame on it.
34. Position adjusting knob: adjusts the screen frame in front-back direction.
35. Screen frame setscrew: revolves it to fasten the screen frame.
36. Screen frame clamp: clamps the screen frame.
37. Supporting pedestal: the main supporting pedestal for the horizontal slide of the screen frame.
38. Sliding carriage: fastens the printing arm after positioning it.
39. Slide shaft: move the printing arm components leftwards or rightwards through it.
40. Setscrew knob: fastens the screen frame after adjusting the position of it.
41. Rack: meshes with the gear in the cylindrical or conical printing.
42. Inching knob: leftwards or rightwards moving the printing arm components.

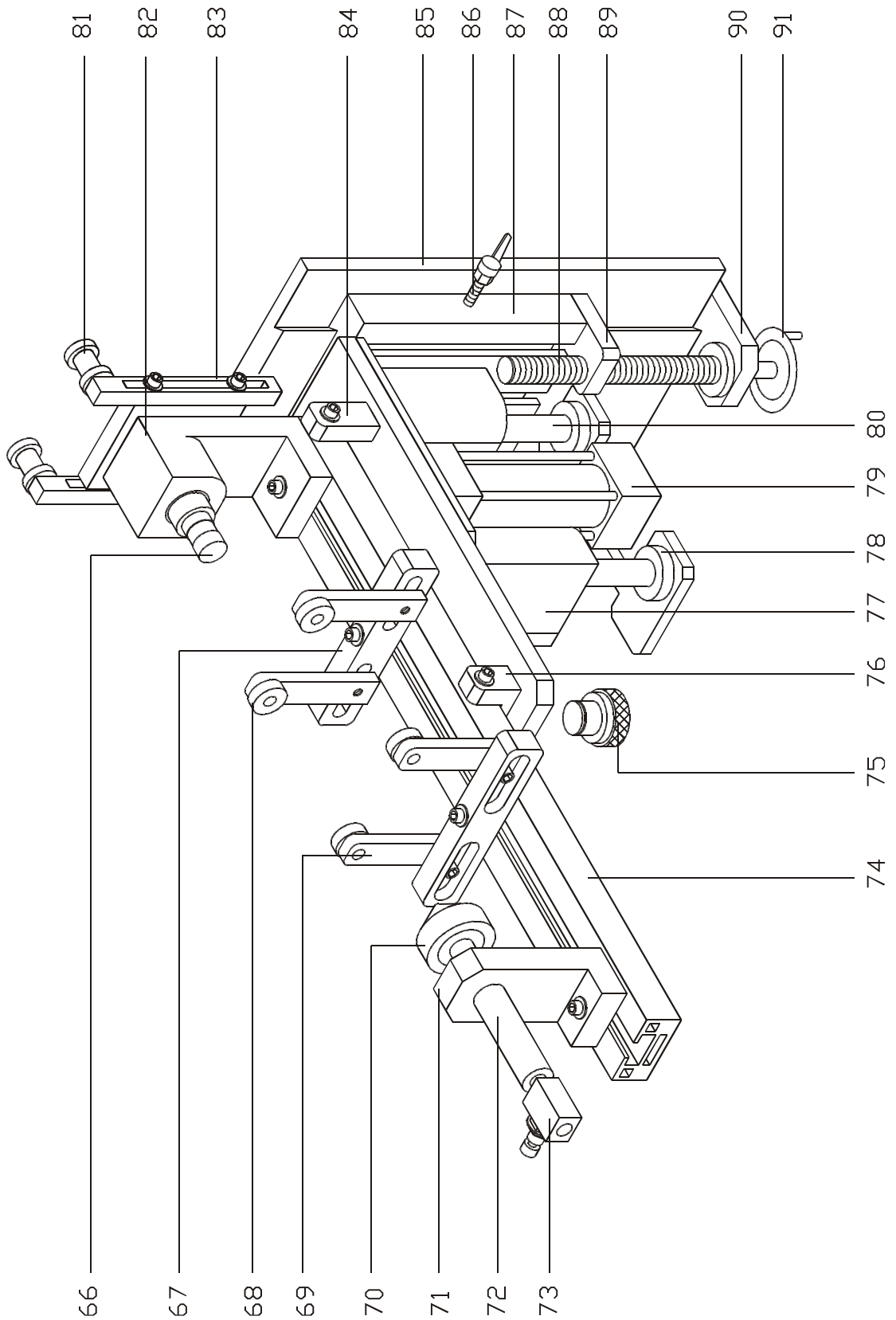
# Machine Frame



## *Detailed instructions of the parts*

43. Adjustable stroke end: sets the confine of the slide stroke of printing arm frame.
44. Setscrew: fixes the position of the adjustable stroke end to prevent it from moving.
45. End position cushioning: reduces the shock caused by the strokes of sliding carriage.
46. Throttle valve: adjusts the leftstroke speed of the printing arm frame.
47. Throttle valve: adjusts the rightstroke speed of the printing arm frame.
48. Throttle valve: adjusts the downstroke speed of worktable.
49. Throttle valve: adjusts the upstroke speed of worktable.
50. Pressure regulating valve: adjusts the working air pressure of the printing scraper.
51. Pressure meter: indicates the working pressure of the printing scraper.
52. Pressure regulating valve: adjusts the working air pressure of blowing.
53. Pressure meter: indicates the working air pressure of blowing.
54. Blowing switch: switches on / off the blowing.
55. Foot switch: controls the running of machine with foot.
56. Supporting pedestal: supports the printing scraper frame.
57. Side plate: fixes the slide shafts and supporting pedestal on it.
58. Setscrew: fixes the printing scraper frame after adjusting it to appropriate position.
59. Proximity sensor: receives the signal that the printing arm frame has reached its left end, and then to actuate the movements of other machine parts.
60. Slot: adjusts the position of the printing scraper frame in horizontal direction through it.
61. Sliding carriage: drives the slide of the printing arm frame in horizontal direction.
62. Inching knob: adjusts the position of the printing scraper frame in horizontal direction slightly.
63. Cylinder for horizontal slide: drives the slide of the sliding carriage in horizontal direction.
64. Power switch: master switch of the electrical source.
65. Indication light: indicates the state of power supply.

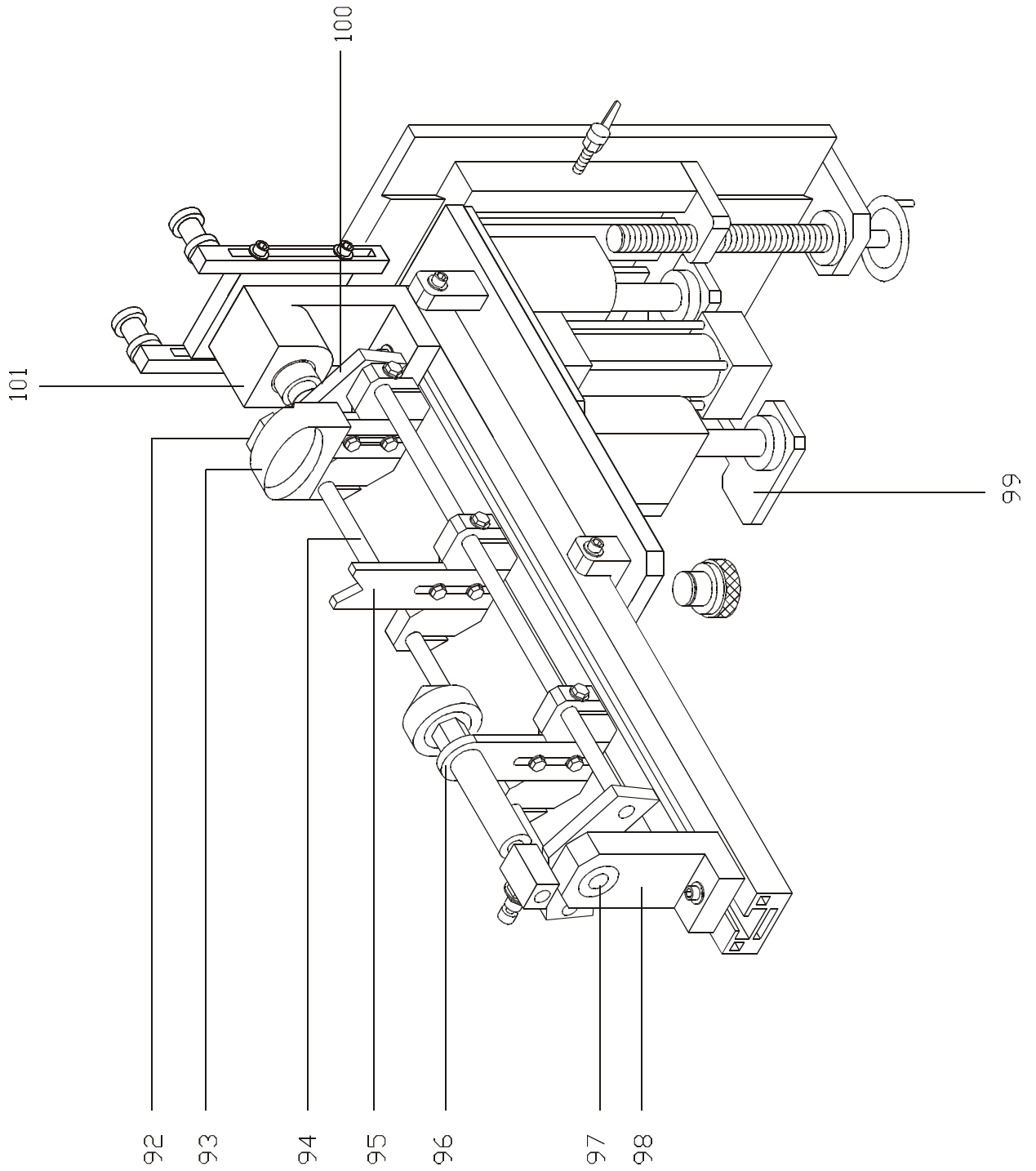
# The Cylindrical Container Pedestal



## ***Detailed instructions of the parts***

66. Fixing axle: fixes the container holding fixture on it.
67. Supporting rack: supports the system of pulleys.
68. System of pulleys: supports and rotates the container.
69. Supporting bar: supports the pulley.
70. Container holding wimble: fixes the container.
71. Cylinder fixture: fixes the cylinder for holding container.
72. Cylinder for holding container: a pneumatic organ for fastening the container and putting compressed air into the container.
73. Throttle valve: adjusts the volume of the compressed air flow for blowing.
74. Guiding track: supports the container holding fixtures.
75. Gradient adjusting knob: adjusts the angle of the holding fixture.
76. Supporting pedestal: supports the guiding track.
77. Lifting shaft barrel: supports the pedestal of container holding fixtures.
78. Cushion pad: reduces the shock caused by strokes in vertical direction.
79. Cylinder for lifting: drives the lifting of worktable components.
80. Slide shaft: guides the lifting of worktable components.
81. Regulating pulley: presses the rack in order to make the rack mesh with the gear tightly.
82. Supporting post: supports the container bottom holding fixture.
83. Rack holding fixture: adjusts the interspace between the rack and gear.
84. Supporting pedestal: supports the guiding track.
85. Guiding rail: adjusts the lifting of worktable components through it.
86. Setscrew: fixes the position of worktable after adjusting the height of it.
87. Sliding carriage: adjusts the lifting of worktable components through it.
88. Screw for lifting: raises or lowers the worktable components through it.
89. Lifting driver: drives the lifting of worktable components through it.
90. Screw fixture: fixes the screw.
91. Handwheel: adjusts the lifting of worktable.

# The Elliptical Container Pedestal



## ***Detailed instructions of the parts***

- 92. Supporting rack: supports the container holding fixture.
- 93. Container holding fixture: fastens the elliptical container.
- 94. Parallel shafts: parallels the holding fixtures and adjusts the position of the fixtures through these shafts.
- 95. Container mouth support: supports the mouth of elliptical container.
- 96. Cylinder fixture: fixes the cylinder for holding container.
- 97. Rotation axle: drills through the bearing bush in order to make the container holding fixtures swinging.
- 98. Supporting post: supports the front part of the container holding fixtures.
- 99. Fixing panel: fixes the lifting shaft.
- 100. Supporting rack: fixes the parallel shafts on it.
- 101. Supporting post: supports the rear part of the container holding fixtures.