

OPERATING INSTRUCTION

Name: Automatic Foam Sealing Machine

Model: KW-523

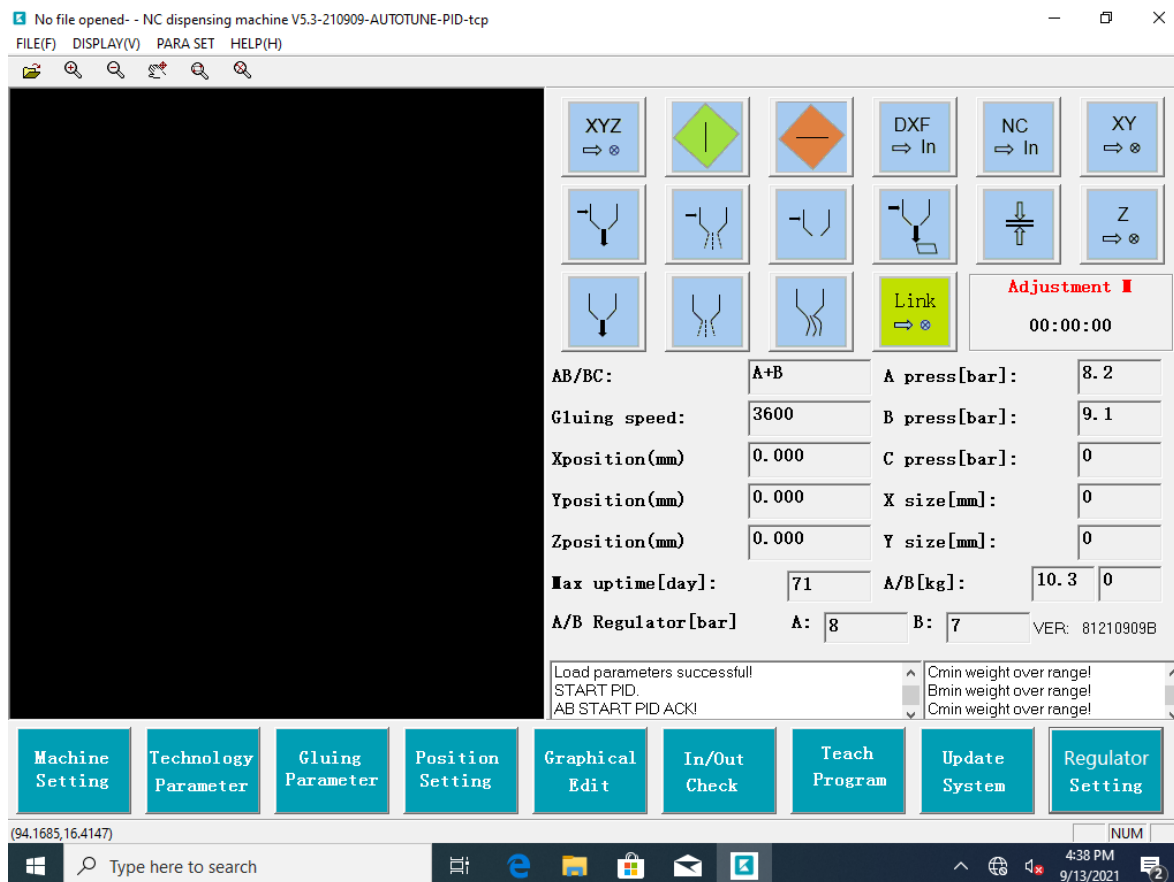
Department.	Name	Tel./Cell phone	Email	Note
After-sales				
After-sales				

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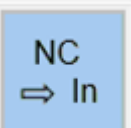
1 Control system overview

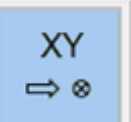
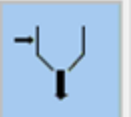

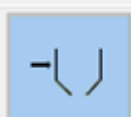

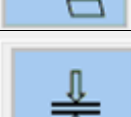

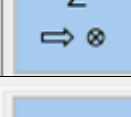


1.1 Main operating interface



1.2 Main interface parameters

button/item/option	Description	Option/Value	Note
Machine Setting	modify/set parameter	into "setting" interface	Modifying a parameter requires a password, The original password is 123456
Technology Parameter	Modify /set technology parameter	Into "Tech. Parameter" interface	
Gluing Parameter	Modify /set gluing parameter	Into "gluing Parameter" interface	
Position Setting	Modify /set position setting	Into " position setting" interface	

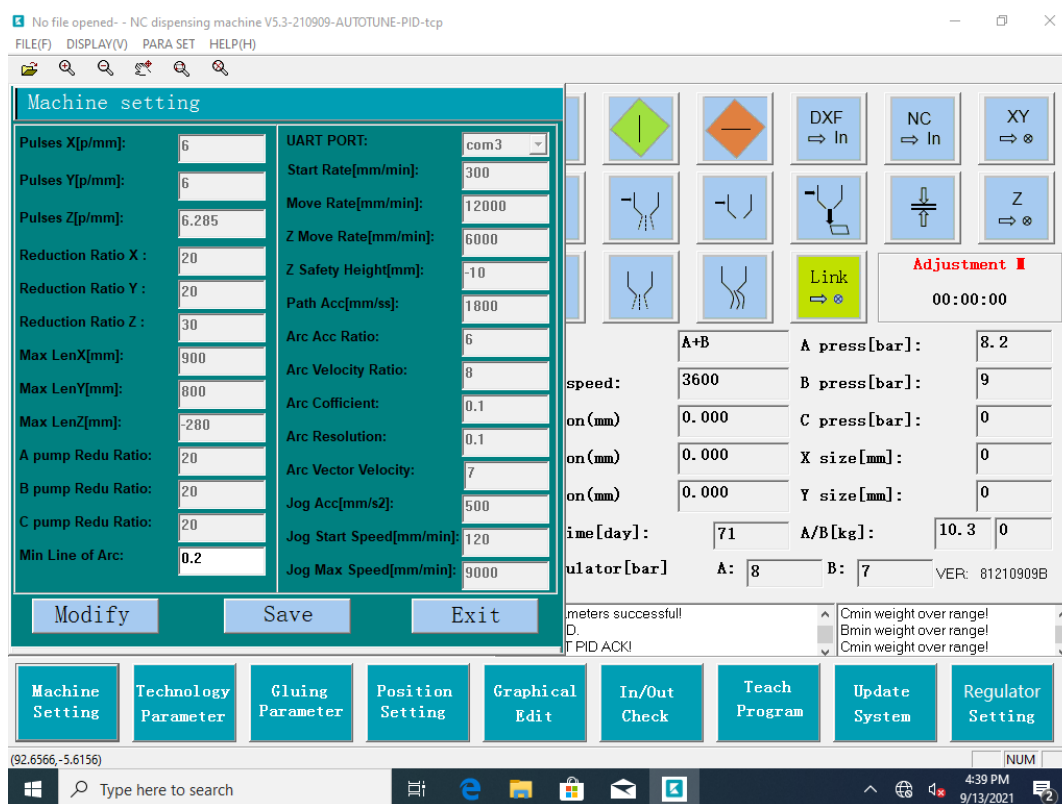
Graphical Edit		Edit glue path	Into “ graphical edit” interface	
In/Out Check		In / Out IO signal point check interface	Enter the In / Out IO signal point check interface	Test whether the signal point is normal
Teach Program		Teaching interface	Complex path tracing	Complex path tracing
Update System		update system	Enter the update system interface	
Regulator Setting		Regulator setting	Into “Regulator setting” interface	Modifying a parameter requires a password, The original password is 123456
		Machine reset		
		Path program startup		Path program startup in the adjustment status and the dispensing startup in the automatic status.
		Path program pause		Path program pause in the adjusted status
		Path program stop		Path program stop in the adjusted status .
		DXF File Import of CAD		
		NC file import		

	Grasp Zero Point of XY Axis Workpiece		
	To the pre-dispensing position		
	To the cleaning position		
	To the maintenance position		
	To Workpiece zero-point		
	Check the stir bar clearance		
	Grasp Zero Point of Z Axis Workpiece		
	pre-dispensing		
	cleaning		
	drying		
State	Display the machine key gear	Adjust / ready / auto	Displays the time when the path is used in an automatic state
AB/BC	Display the current composition	A+B/B+C	
X position	Show X-axis coordinates	XXXX.XXXXmm	

Y position	Display Y coordinate	XXXX.XXXXmm	
Z position	Show Z coordinate	XXXX.XXXXmm	
MAX UPTIME	Show days in use	XXX	
A PRESS	Show the pressure of the component A	Xxxbar	
B PRESS	Show the pressure of the component B	Xxxbar	
C PRESS	Show the pressure of the component C	Xxxbar	
X SIZE	Displays the x axis length of the current graph	Xxx.xxmm	
Y SIZE	Displays the y axis length of the current graph	Xxx.xxmm	

1.3 Main interface parameters

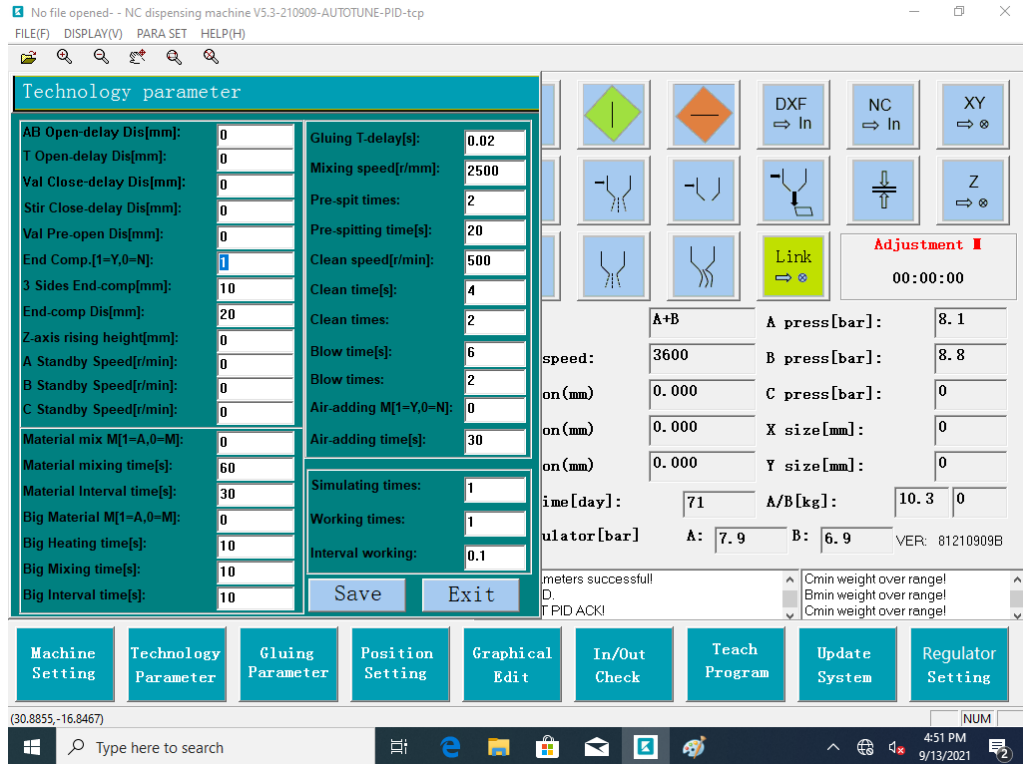
1.3.1 Machine setting



Note: Modifying a parameter requires a password: 123456; Please contact the manufacturer when you modify it.

button/item/option	Description	Option/Value	Note
Pulses X	x-axis Pulses	X.XX p/mm	
Pulses Y	y-axis Pulses	X.XX p/mm	
Pulses Z	z-axis Pulses	X.XX p/mm	
Reduction ratio X	Reduction ratio of x-axis	XX	
Reduction ratio Y	Reduction ratio of y-axis	XX	
Reduction ratio Z	Reduction ratio of z-axis	XX	
Max Len X	Max Len of the x axis direction		less than limit Length
Max Len Y	Max Len of the y axis direction		less than limit Length
Max Len Z	Max Len of the z axis direction		less than limit Length
A pump Redu Ratio	A pump Redu Ratio	XX	
B pump Redu Ratio	B pump Redu Ratio	XX	
C pump Redu Ratio	C pump Redu Ratio	XX	
Min Line of Arc	Set the min line of Arc	X	
Start Rate	Set the start rate	XXXmm/min	
Move Rate	Set the move rate	XXXXXmm/min	
Z Move Rate	Set the move rate of z-axis	XXXmm/min	
Z Safety Height	Set the safety height of the z-axis rise	XX	
Path Acc	Set the path acceleration	XXXmm/s ²	
Arc Acc Ratio	Set the arc acceleration ratio	XX	Suggest 6
Arc Velocity Ratio	Set the arc velocity ratio	XX	Suggest 8
Arc Coefficient	Set the arc coefficient	XX	Suggest 0.1
Rac Resolution	Set the Rac resolution	XX	Suggest 0.1
Arc Vector Velocity	Set the arc vector velocity	XX	
Jog Acc	Set Jog accelerated speed	XXXmm/s ²	
Jog Start Speed	Set Jog start speed	XXXmm/min	
Jog Max Speed	Set Jog max speed	XXXXXmm/min	

1.3.2 Technology parameter

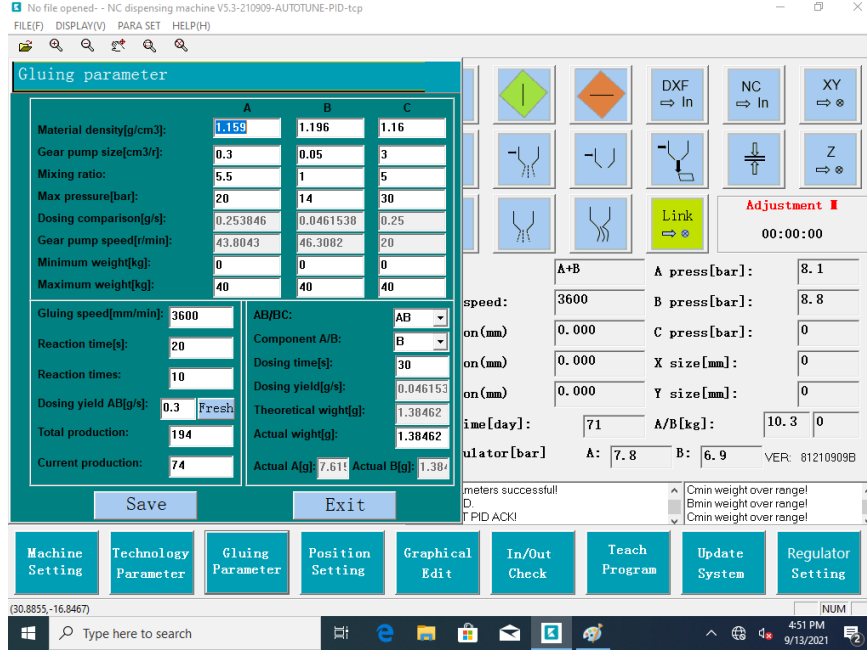


button/item/option	Description	Option/Value	Note
End compensation	Open/close compensation	1/0	1:open /0:close
Val Open-delay Dis	Set Val Open-delay Dis	XXmm	Dispensing start joint parameters
Val Close-delay Dis	Set Val Close-delay Dis	XXmm	Dispensing end joint parameters
Stir Close-delay Dis	Set Stir Close-delay Dis	XXmm	Set the size of the starting segment of the glue, which can be negative
3 Sides End- comp	Set the 3 sides end compensation distance	XXmm	3sides use
End-Comp	Set the end compensation distance	XXmm	four-sided use
Z-axis rising height	Set the End compensation z-axis rising height	XXmm	
A Standby Speed	Set the standby speed of component A	XXr/min	
B Standby Speed	Set the standby speed of component B	XXr/min	

C Standby Speed	Set the standby speed of component C	XXr/min	
Material mix mode	Set the material mix mode	1/0	1: auto /0: Manual
Material mix time	Set the material mix time	XXs	
Material Interval Time	Set the material Interval Time	XXs	
Val Pre-open Dis	Set Val Pre-open Dis	XXmm	
End Comp.	Open/Close End Compensation	1/0	1: Open/0: Close
A Standby Speed	Set the standby speed of component A	XXr/min	
B Standby Speed	Set the standby speed of component B	XXr/min	
C Standby Speed	Set the standby speed of component C	XXr/min	
Big material M	Set the material mix mode	1/0	1: auto /0: Manual feeding device
Big heating time	Set automatic feeding time		feeding device
Big mixing time	Set the mixing time of raw materials	XXs	feeding device
Big interval time	Set the mixing time between raw materials	XXs	feeding device
Mixing speed	Set the mixing speed	XXXr/min	
pre-spitting times	Set the pre-dispensing times	X	
Pre-spitting time	Set the pre-dispensing time	XXs	
Clean speed	Set the clean speed	XXXr/min	
Clean times	Set the clean times	X	
Blow time	Set the blow time	XXs	
Blow times	Set the blow times	X	
Air-adding M	Set air-adding mode of Raw Material Tank	1/0	1: yes/0: no
Air-adding time	Set Air-adding time of the raw material tank	XXs	

Simulation times	Set the number of simulations	XX	
Working times	Set working times	XX	
Interval working time	Set interval working time	XXs	

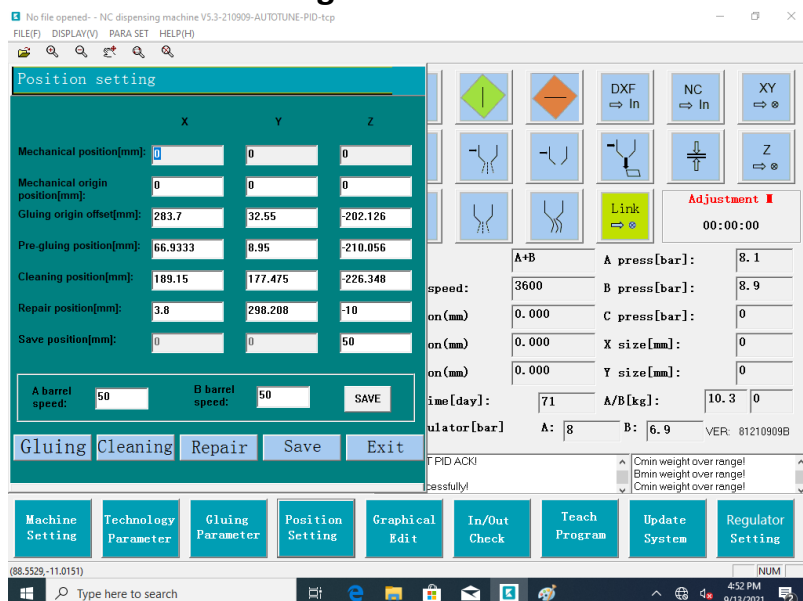
1.3.3 Gluing parameter



button/item/option	Description	Option/Value	Note
Material density	Set material density	X.XXXg/cm ³	
Gear pump size	Set gear pump size	X.Xcm ³ /r	Do not modify
Mixing ratio	Set the mixing ratio of the components	X	
Max pressure	Set the maximum pressure protection value	XXbar	
Dosing comparison	Display one-component dosing comparison	XX.Xg/s	
Gear pump speed	Display the gear pump speed of the current parameter	XX.XXXr/min	
Gluing speed	Set gluing speed	XXXmm/min	
Reaction time	Set reaction time	XXs	
Reaction times	Set reaction times	X	
Dosing yield	Set the dosing yield	X.Xg/s	Range 0.2-0.5g/s
Component selection	Select component	A/B/C	Cooperate with manual operation device
Dosing time	Set the single-component dosing time	XXs	Cooperate with manual operation device

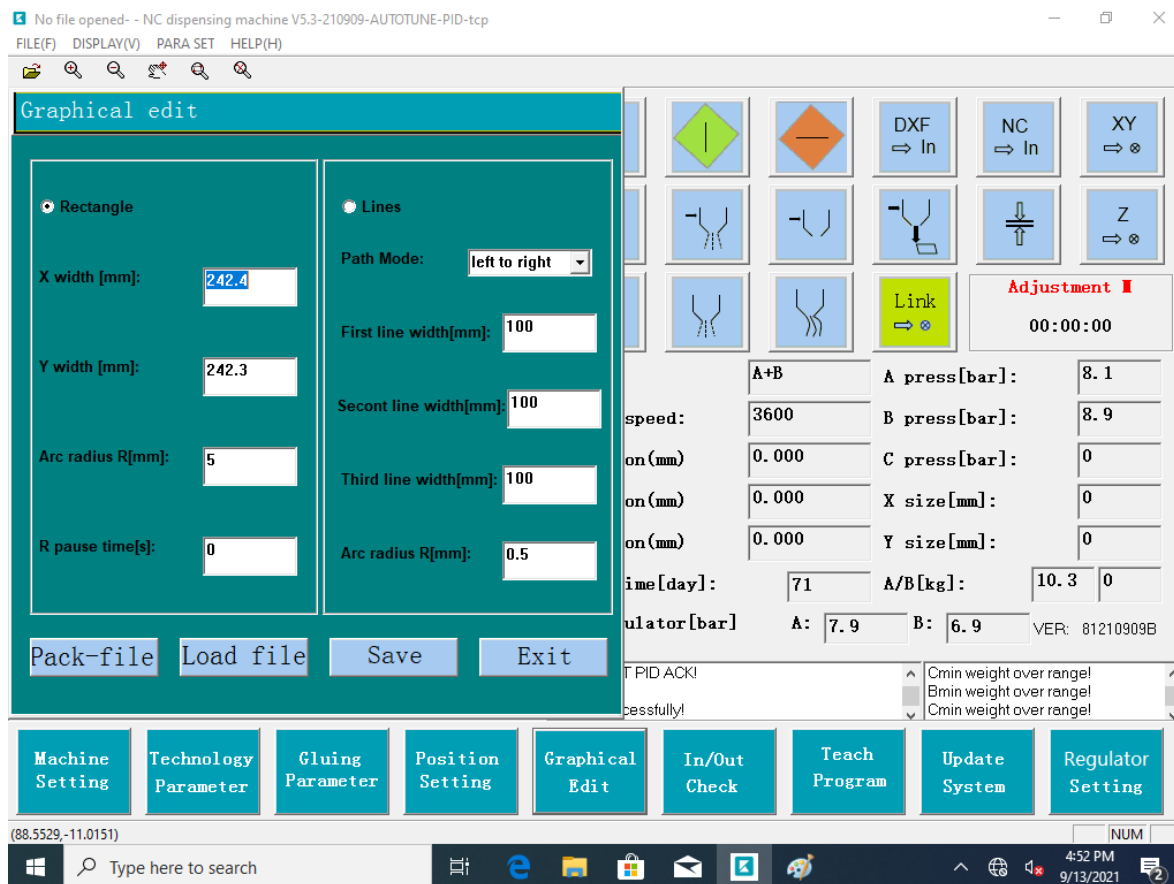
Dosing yield	The dosing yield of the single-component	X.Xg/s	Cooperate with manual operation device
Theoretical weight	the theoretical weight of the single-component	X.Xg	Cooperate with manual operation device
Actual weight	the actual weight of the single-component	X.Xg	Cooperate with manual operation device Modified metering pump parameters

1.3.4 Position setting



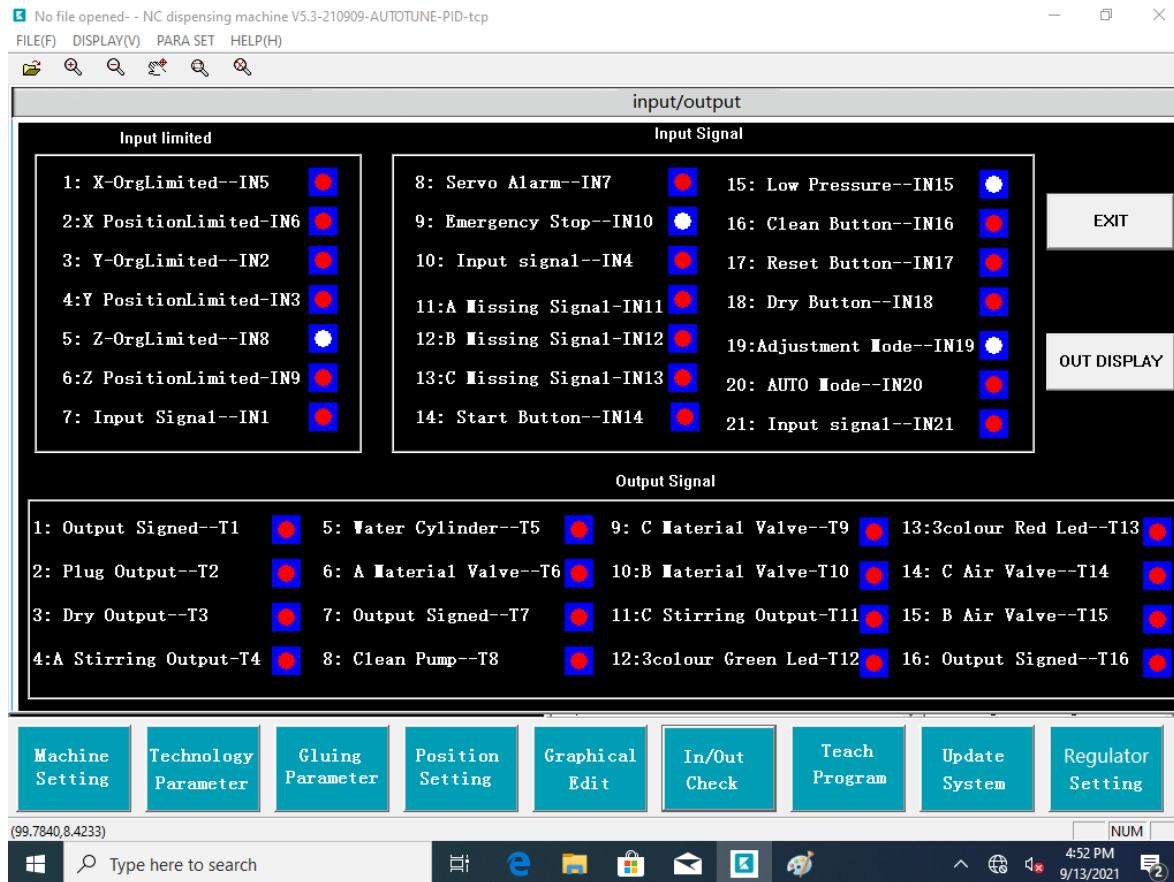
button/item/option	Description	Option/Value	Note
Mechanical position	Display the mechanical position	XXXX.XXXXmm	
Mechanical origin position	Position of nozzle after reset	XXXX.XXXXmm	Usually located above the intersection point of the worktable grille
Gluing origin offset	Set the gluing origin offset	XXXX.XXXXmm	
Pre-gluing position	Set the pre-gluing position	XXXX.XXXXmm	
Cleaning position	Set the cleaning position	XXXX.XXXXmm	
Repair position	Set the repair position	XXXX.XXXXmm	
A barrel speed	Invalid		
B barrel speed	Invalid		

1.3.5 Graphical edit



button/item/option	Description	Option/Value	Note
Rectangle			
X width	Set x axis working width	XXXX.XXXXmm	
Y width	Set y axis working width	XXXX.XXXXmm	
Fillet R	Set fillet R	X.Xmm	
Fillet pause time	Set fillet pause time	X.Xs	
Repair position	Set repair position	XXXX.XXXXmm	
Lines			
Path Mode	Planning line segment direction	From left to right / from top to bottom / from front to back	
First line width	Set first line width	XXXX.XXXXmm	
Secont line width	Set Secont line width	XXXX.XXXXmm	
Third line width	Set third line width	XXXX.XXXXmm	

1.3.6 IO test



1.3.7 Teaching program

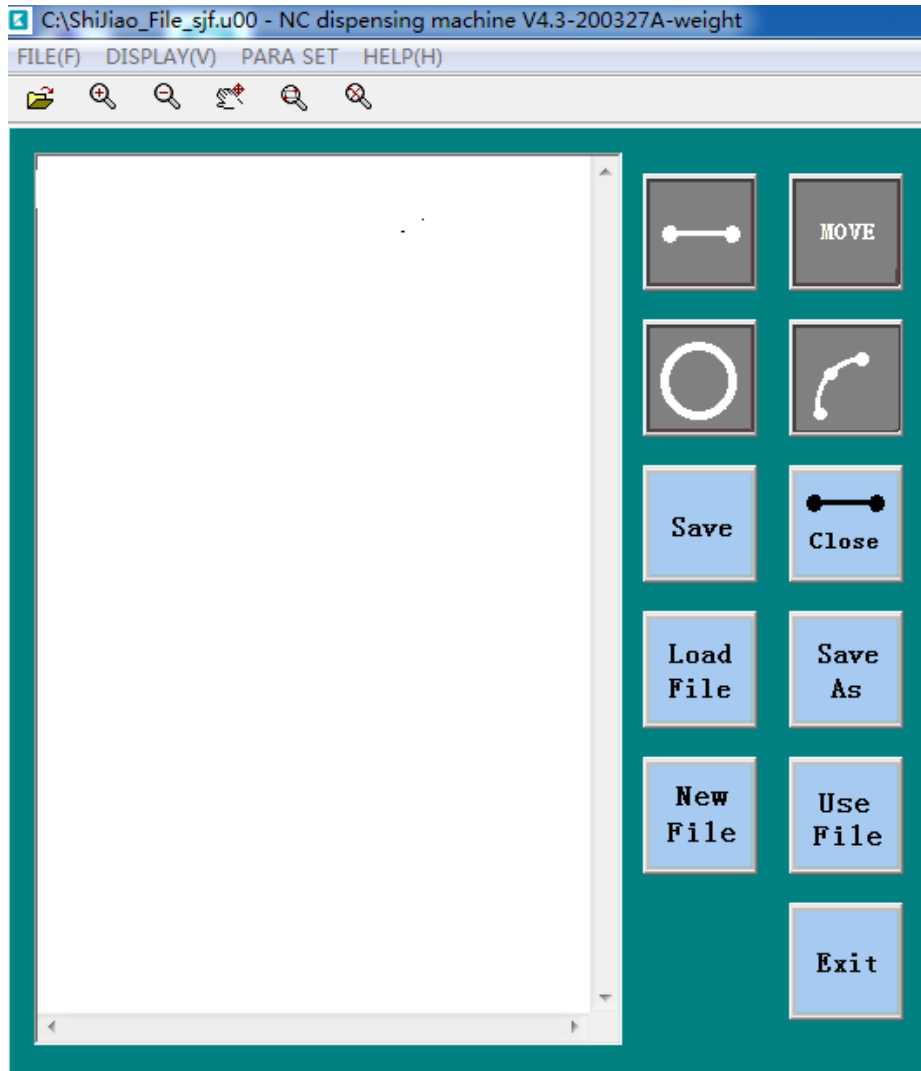
1. Move the nozzle to the starting point of dispensing, press the two buttons on the manual operation device to determine the starting

point of the workpiece dispensing.



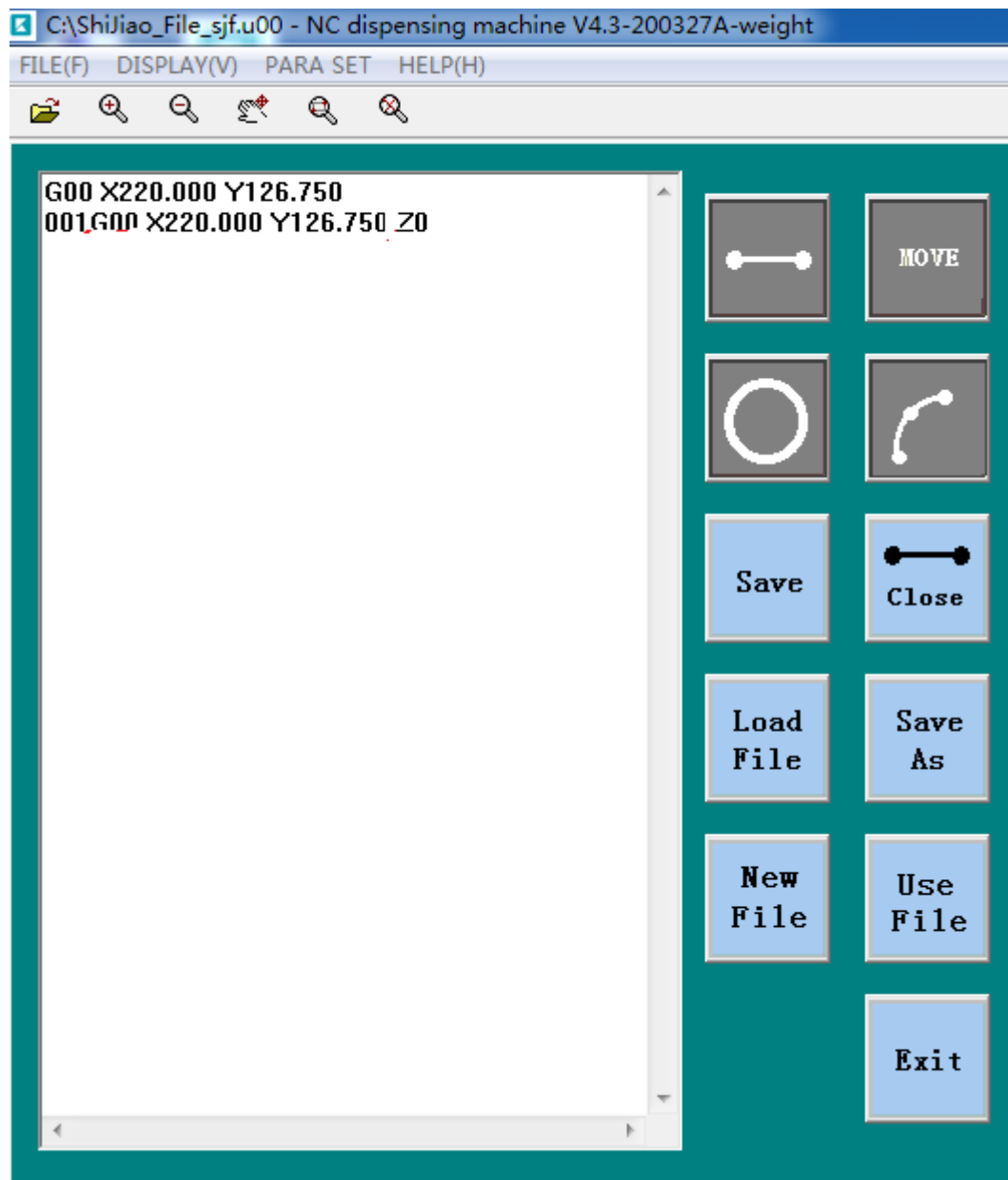
2. Open the main interface button



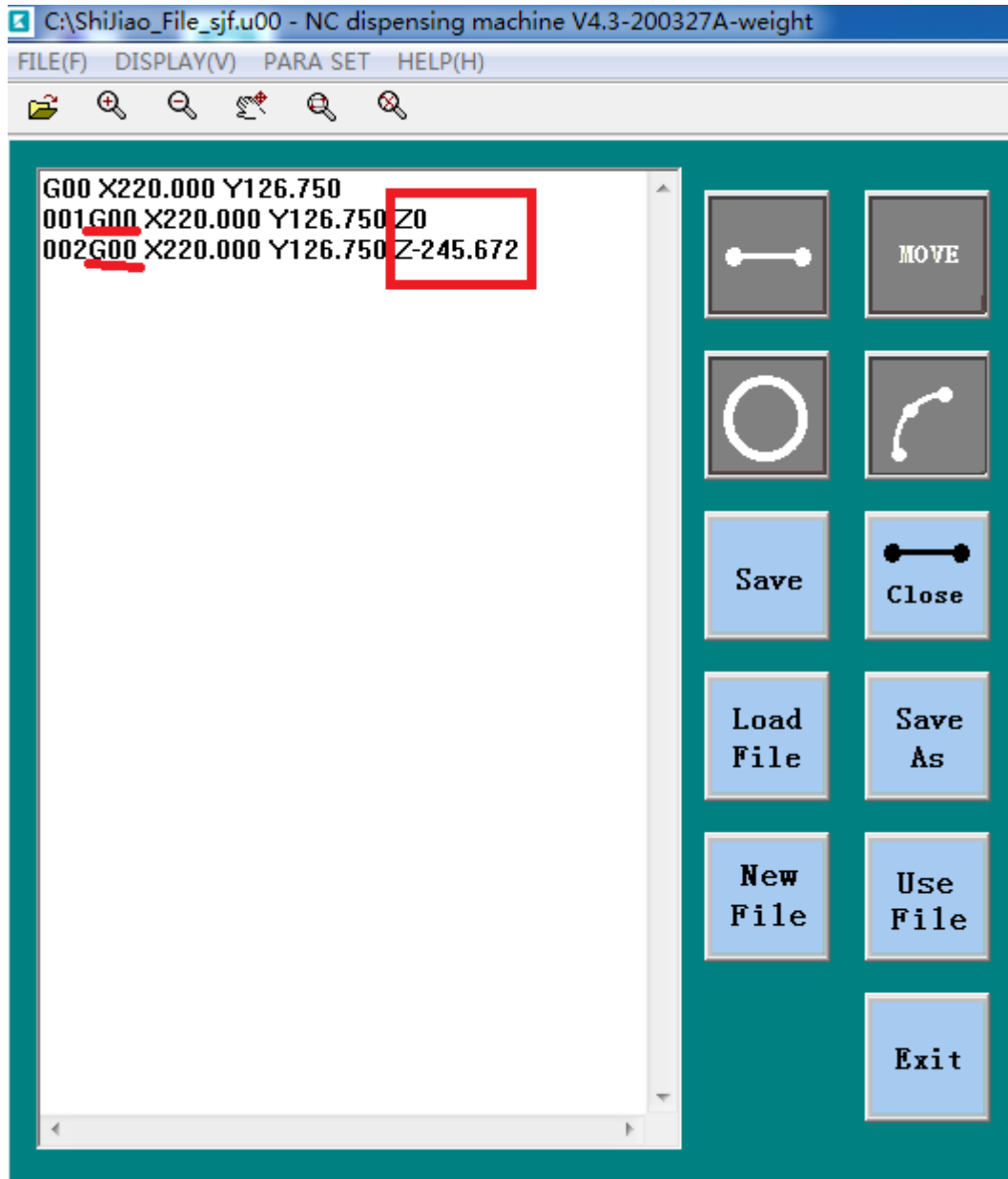


3. Press the button on the manual operation device at the starting point of the glue to get a point 001-G00.





4. Press the get button in the second time, 002-GOO appears, at this time the value of the 2 lines is the same, manually enter the Z value of line 001 to 0.

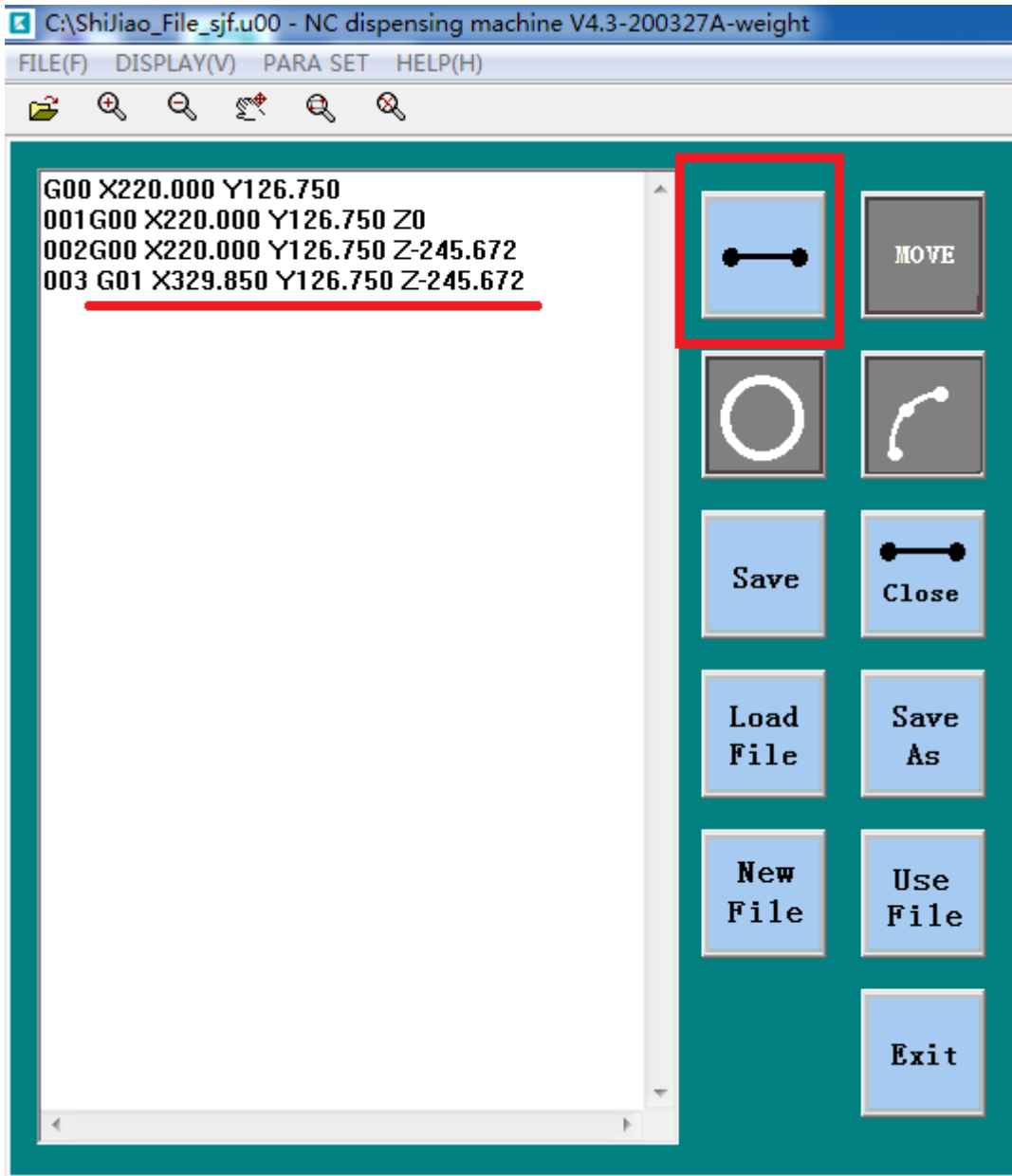


5. In this way, the first point of dispensing is determined

6. If you draw a straight line, click the line command, find the end of




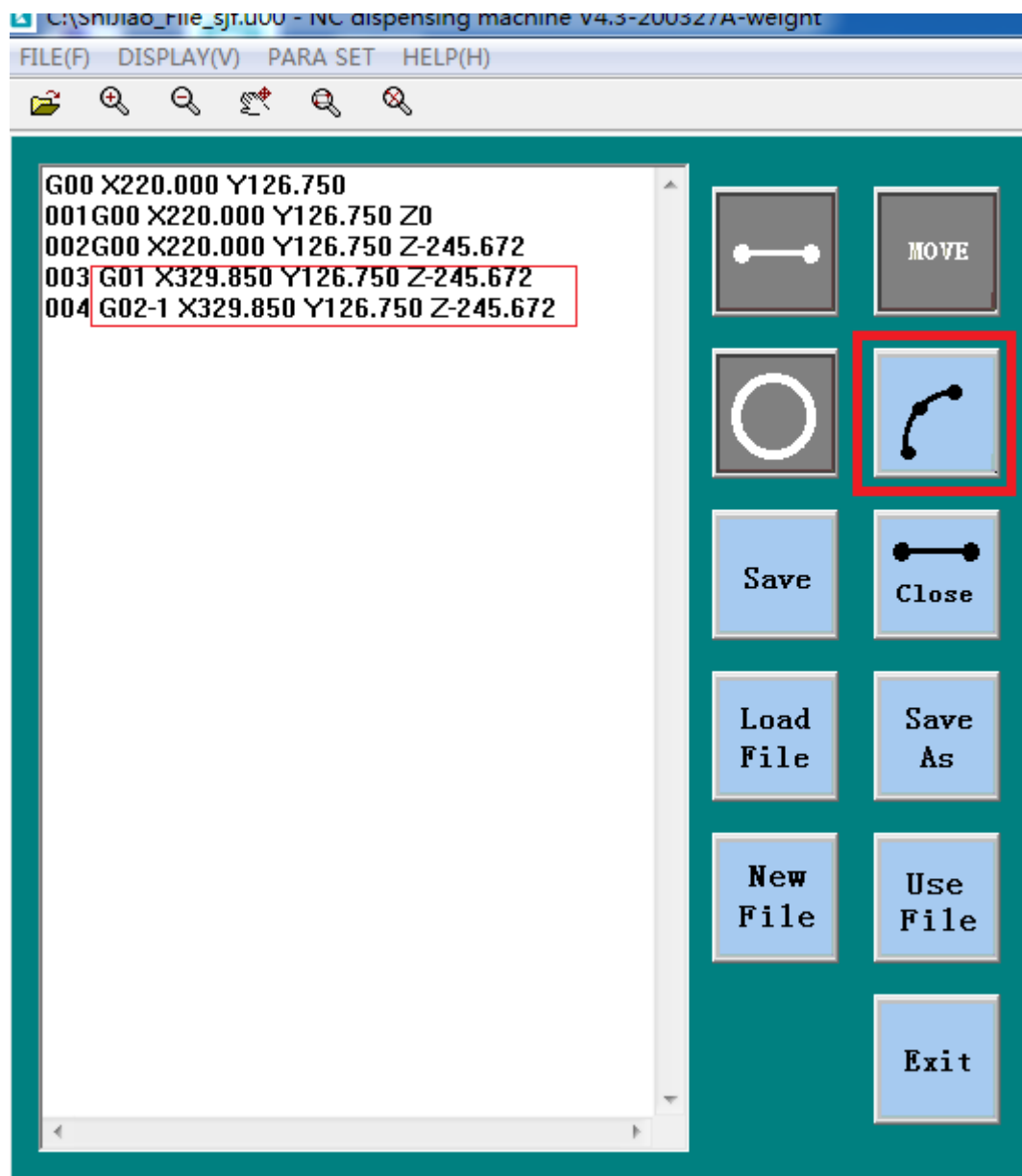
the line, press the get button on the Communicator again, it will display G01.



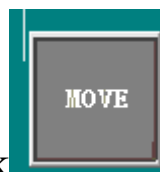
7. To draw an arc or circle, click  / , then press



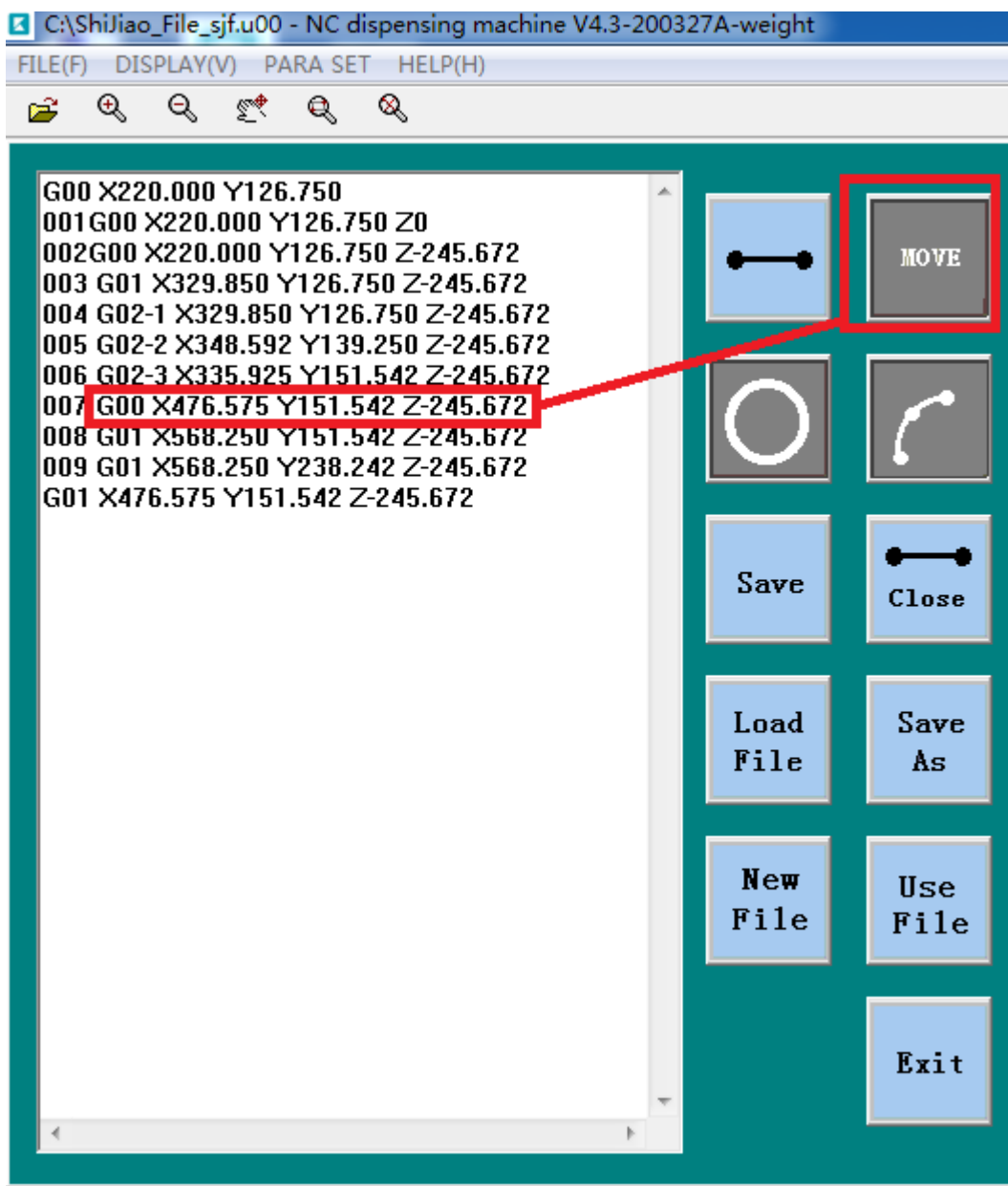
button  to get point G02-1、G02-2、G02-3



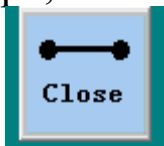
8. To draw a discontinuous graph, you need to determine the position

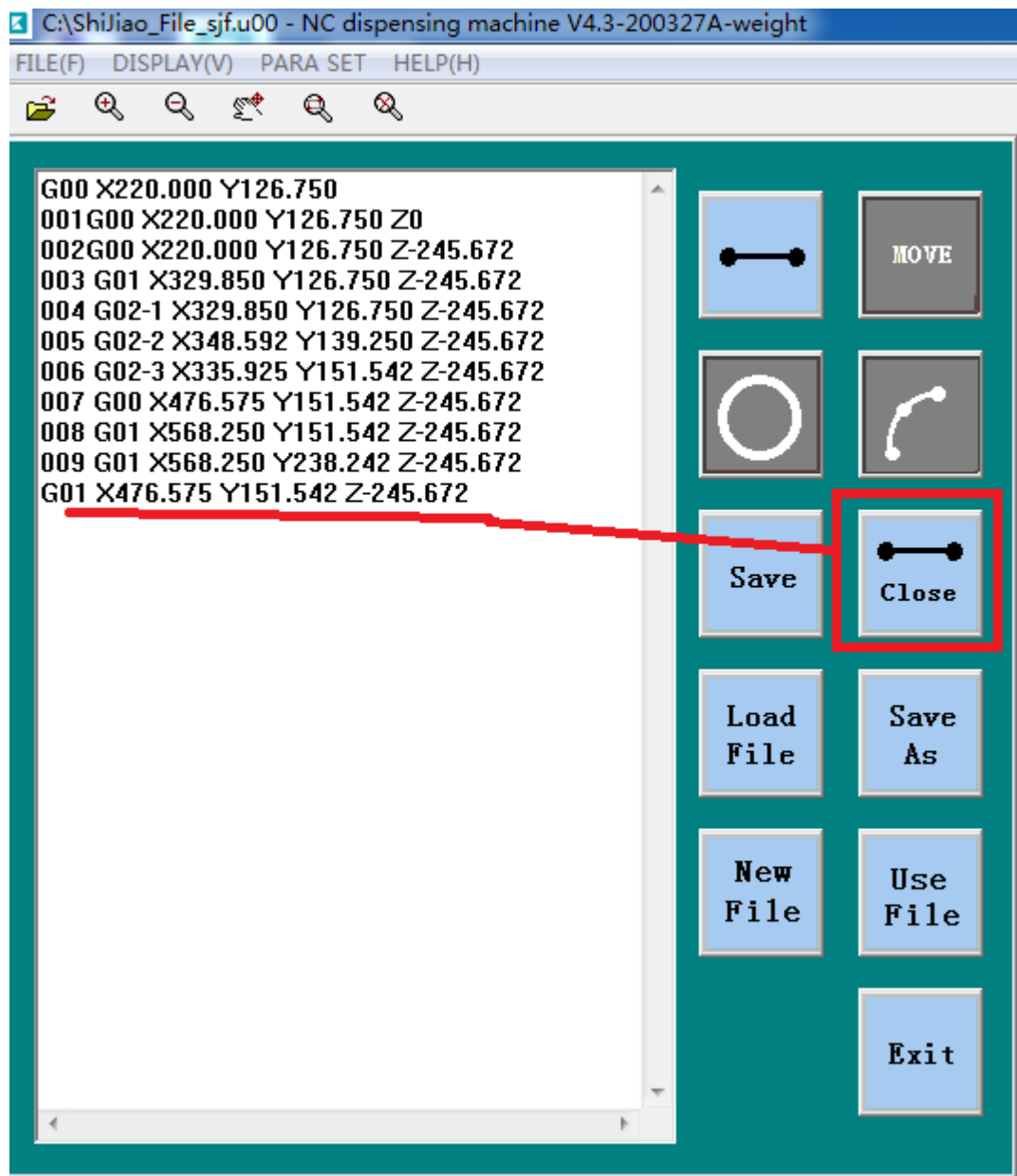


and the height of the Z axis, and then click



9.If drawing a closed graph, after the end of the graph is determined,

you can click the button  to close the graph.



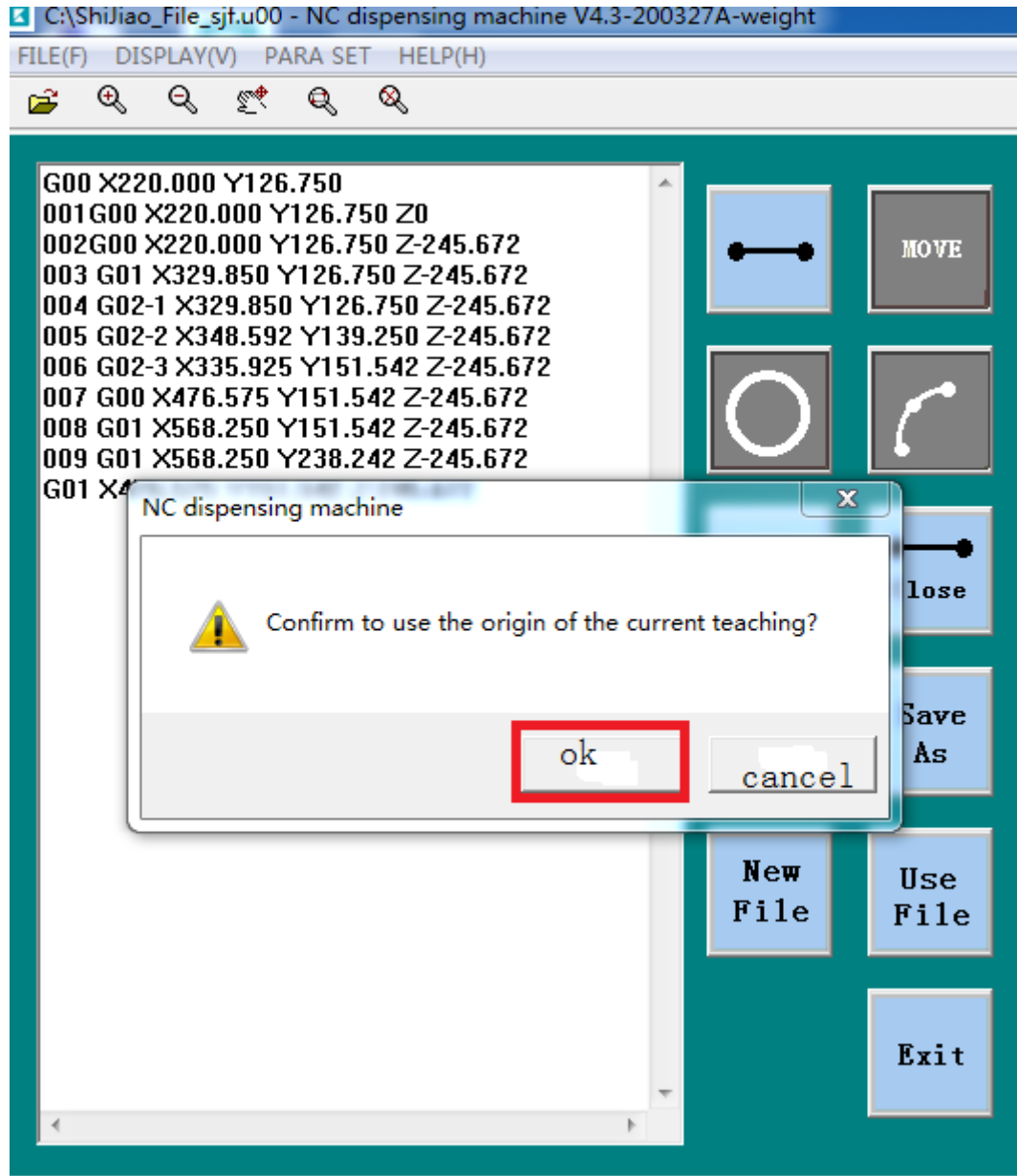
Save
As

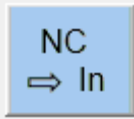
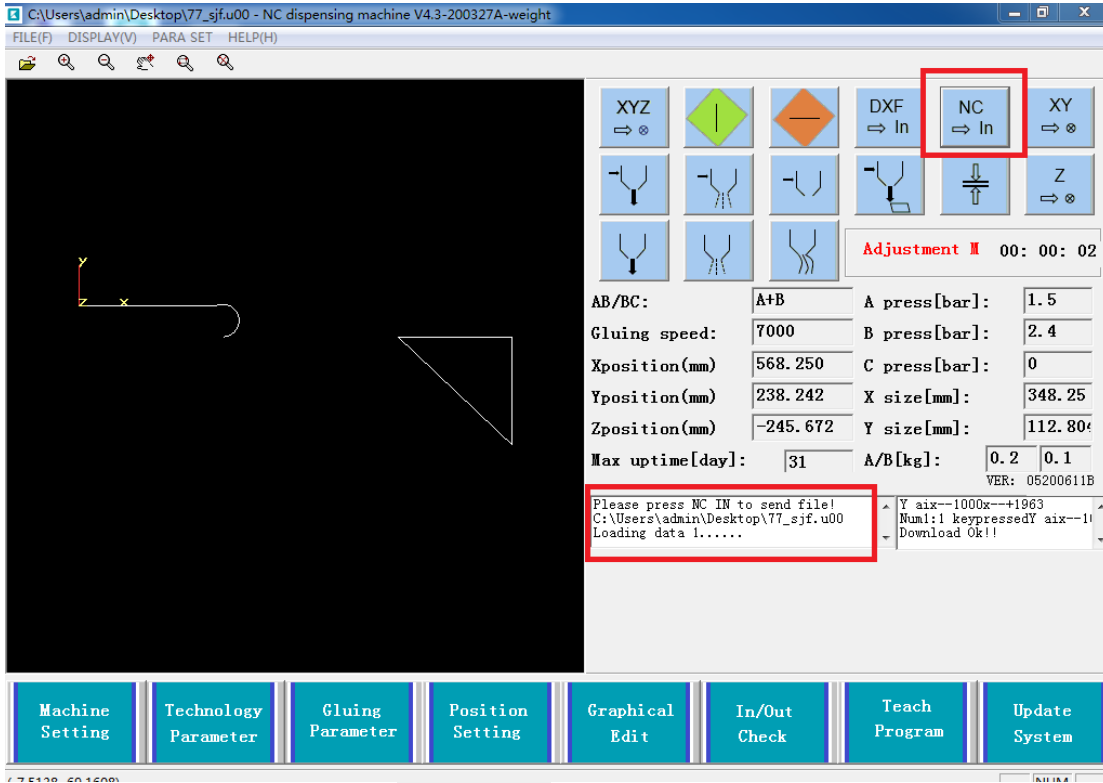
10. After drawing, click button  to save graph.

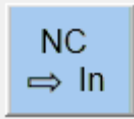
Use
File

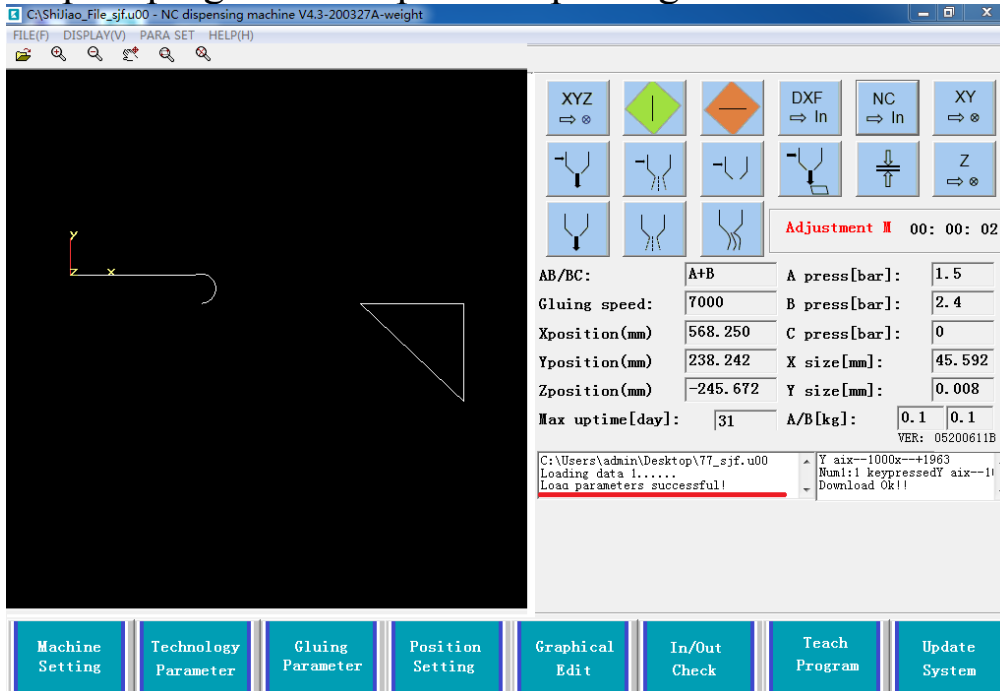
11. click 

12. click OK, make sure to use the origin of current teaching, you can use this NC file.





13. click main interface  , after inputing successfully, you can run the path program startup and dispense glue



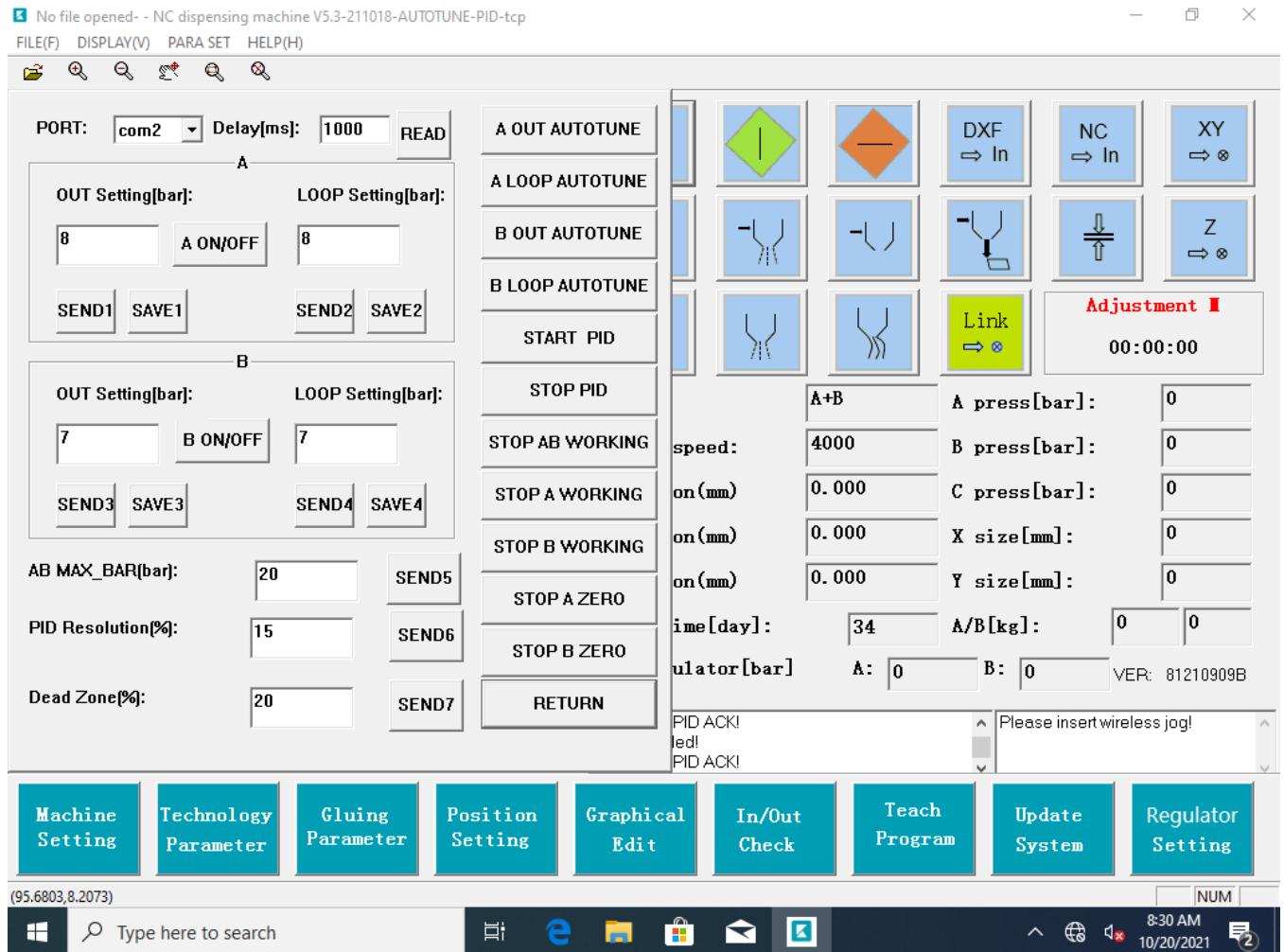
14. Other button :  -update and save  -load

 -create new file,  -Exit

15. Note: Every time you use Teach program, you need to click the

button on the main interface to input. 

1.3.8 Regulator Setting



Button/item/option	Description	Option/Value	Note
PORT: <input type="text" value="com2"/>	Setting com <input type="checkbox"/>	XXXX.XXXXmm	
Delay[ms]: <input type="text" value="1000"/>	Set the time delay of the proportional valve after reset to start working	0-5000ms	
<input type="button" value="READ"/>	Readparam	XXXX	
OUT Setting[bar]: <input type="text" value="8"/>	Set discharging pressure	X.Xbar	
LOOP Setting[bar]: <input type="text" value="8"/>	Set cycle pressure	X.Xbar	
<input type="button" value="SEND1"/>	Send a numerical	XXXX.XXXX	
<input type="button" value="A ON/OFF"/>	Open/close feedwell	Cycle pressure is set when closed The discharge pressure is set when opening	
<input type="button" value="SAVE1"/>	Save the proportional valve value after the pressure stabilizes	After saving, the next boot will be this value	Click when the pressure stabilizes save 1, save 2, save 3, save 4
AB MAX_BAR(bar): <input type="text" value="20"/> SEND5	AB Maximum range of pressure sensor	Xxbar	
PID Resolution[°]: <input type="text" value="15"/> SEND6	PID precision	XXXX.	
Dead Zone[°]: <input type="text" value="20"/> SEND7	Dead Zone	XXXX	
<input type="button" value="A OUT AUTOTUNE"/>	A OUT AUTOTUNE		
<input type="button" value="A LOOP AUTOTUNE"/>	A LOOP AUTOTUNE		
<input type="button" value="B OUT AUTOTUNE"/>	B OUT AUTOTUNE		
<input type="button" value="B LOOP AUTOTUNE"/>	B LOOP AUTOTUNE		

START PID	START P I D		
STOP PID	STOP P I D		
STOP AB WORKING	Stop AB proportional valve and hold current value		
STOP A WORKING	Stop A proportional valve and hold current value		
STOP B WORKING	Stop B proportional valve and hold current value		
STOP A ZERO	Set the value of A proportional valve to 0		For maintenance
STOP B ZERO	Set B proportional valve value to 0		For maintenance

2. Wireless hand operator

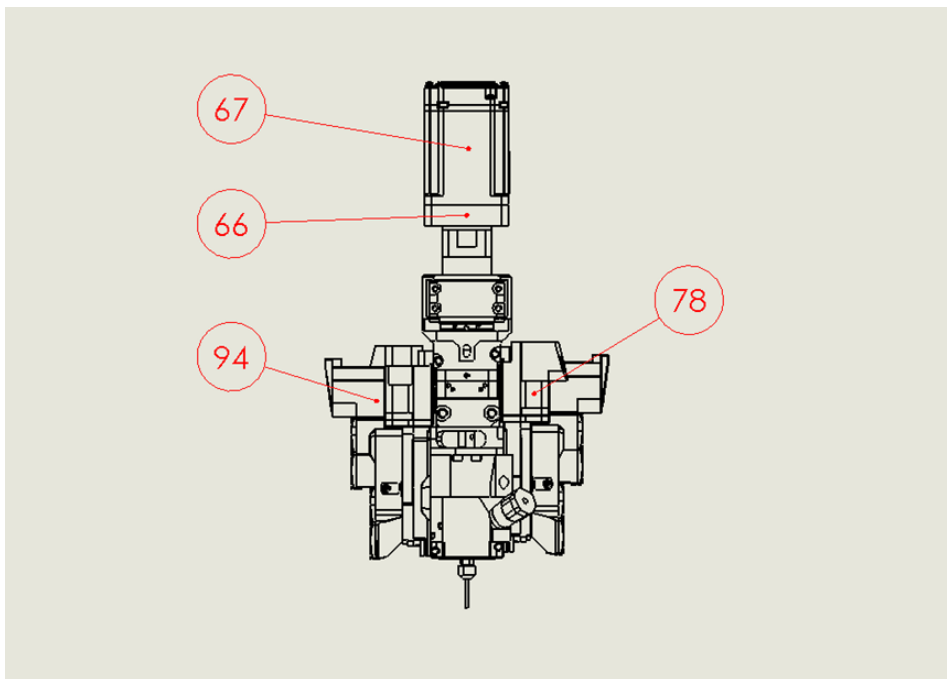
2.1 the button of hand operator



Reset / Get point	Simulating the path in "Manual" statue; / Gluing in "Automatic" statue. / Starting Calibration in Gluing parameter	Suspending simulating; / Stop gluing and back to pre-gluing position / Stoping calibration in Gluing parameter.	POWER	
To pre-gluing position	To cleaning position	To maintain position	To Gluing position	
Pre-gluing	Water cleaning	Air Drying	Get zero-point of X/Y axis	Get zero-point of Z axis
Shift X, Y, Z Axis		solenoid valve	Adjust speed of axes	
MOVE Axes				

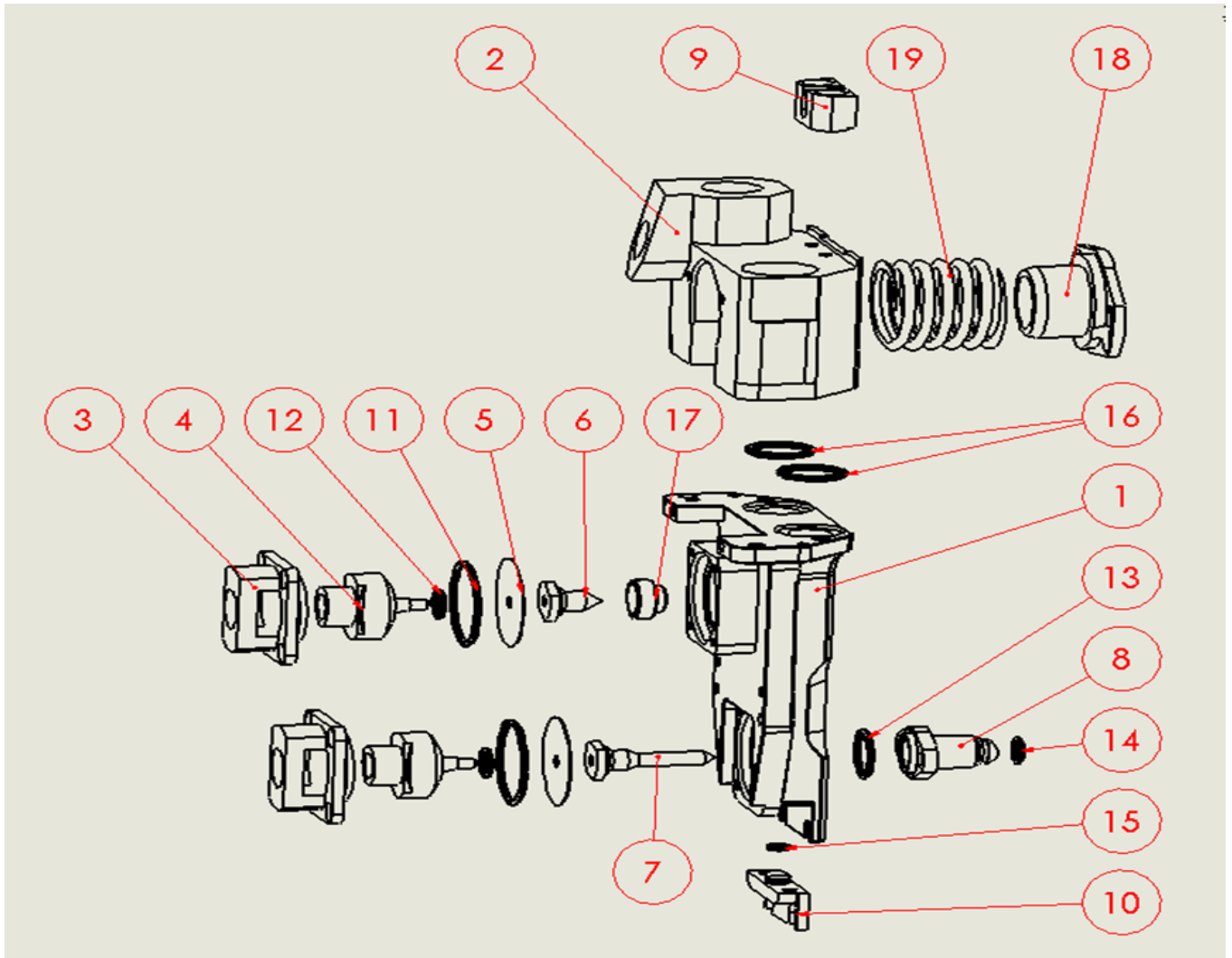
3 KW800 Mixing head

3.1 KW800 Mixing head installation



NO.:	Name	Specification	Quantity
66	Motor base		1
67	Servo motor		1
78	A supply valve		1
94	B supply valve		1

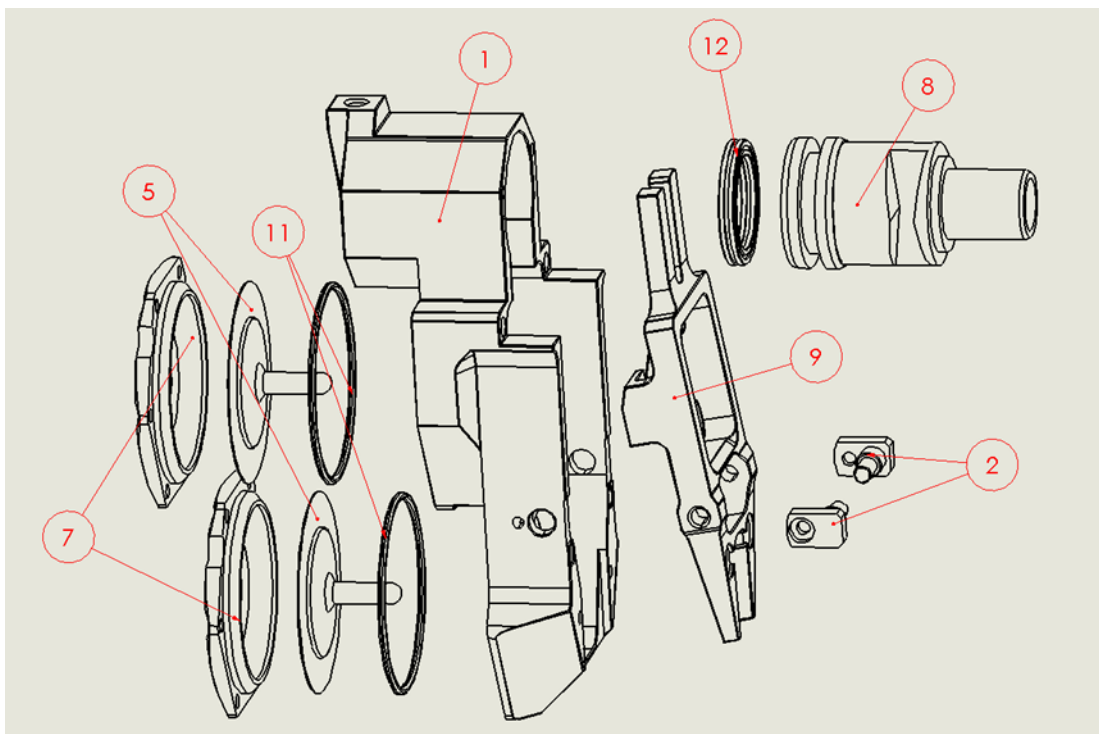
3.2 A, B supply valve



NO.:	Name	Specification	Quantity
1	supply valve body		1
2	Feed the flange		1
3	Thimble piston outer frame		2
4	Feed the piston		2
5	The piston diaphragm	external diameter 26	2
6	Loop thimble		1
7	Feed thimble		1

8	Nozzle		1
9	Locked tight piece(above)		1
10	The locking block(below)		1
11	O Ring	26x1.5	2
12	O Ring	9x1.5	2
13	O Ring	15x1.5	1
14	O Ring	8x1.5	1
15	O Ring	6x1.0	1
16	O Ring	17.5x1.5	2
17	Circulation thimble cushion		1
18	Warped cylinder spring pressing block		1
19	spring	D28-d3-L50	1

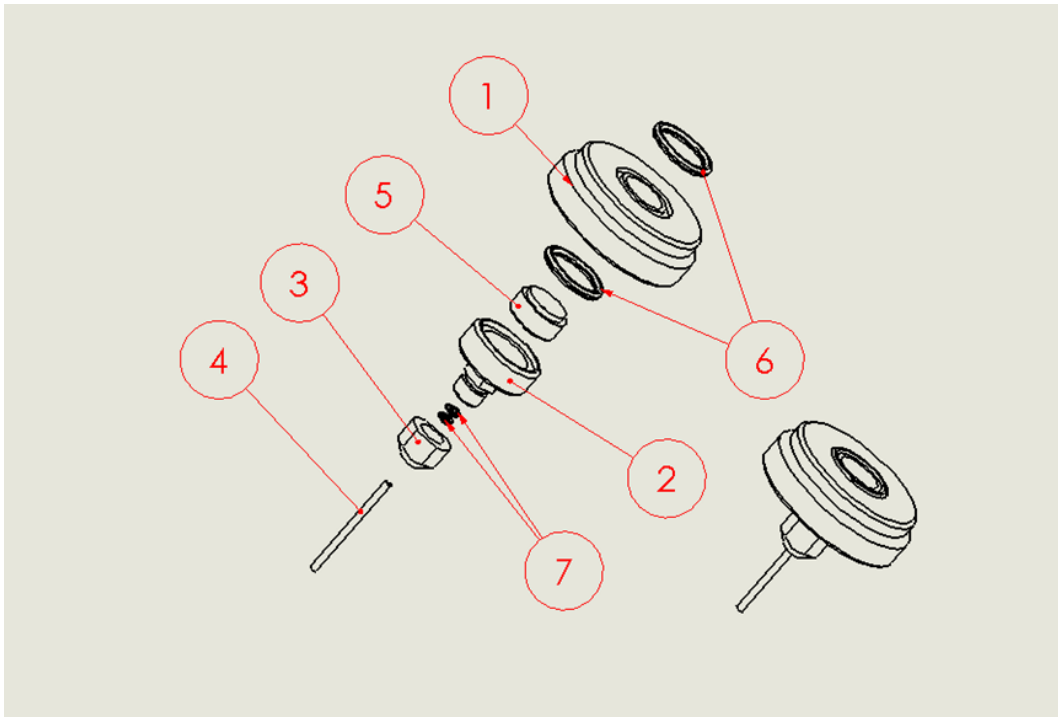
3.3 A, B supply valve Assembly



NO.:	Name	Specification	Quantity
1	Pneumatic controlled valve body		1

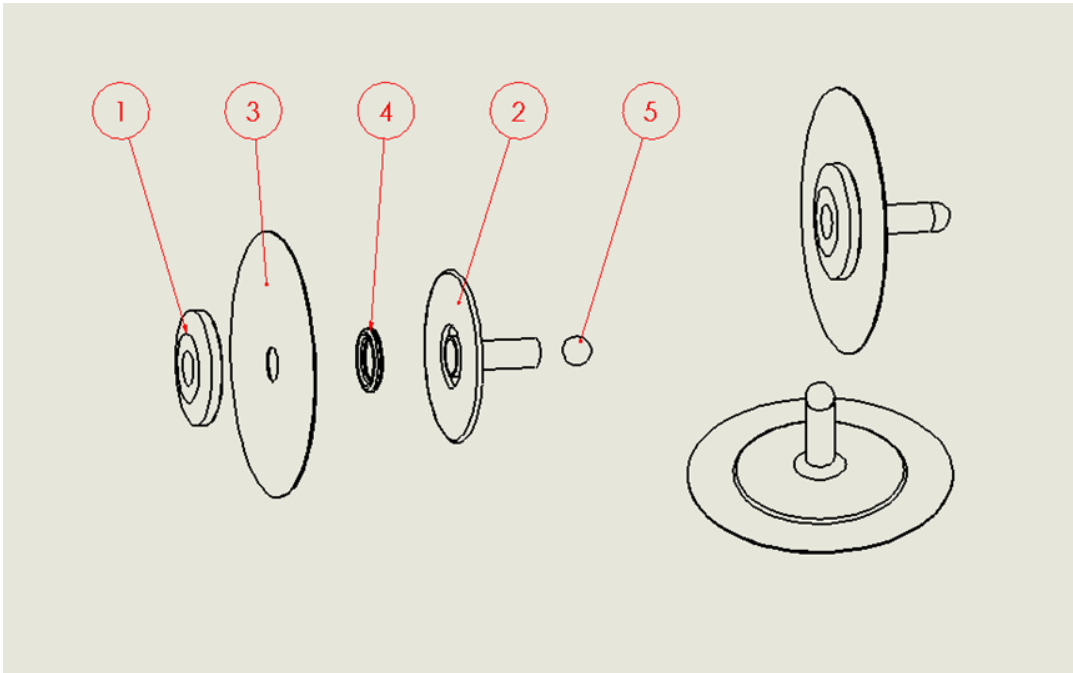
2	Warped plate pin		2
5	Pneumatic diaphragm assembly		2
7	Controls the cylinder head		2
8	The cylinder of the warped plate		1
9	warp		1
11	O Ring	46x1.5	2
12	Quadring	24.99x3.53	1

3.4 Mixing cup Installation



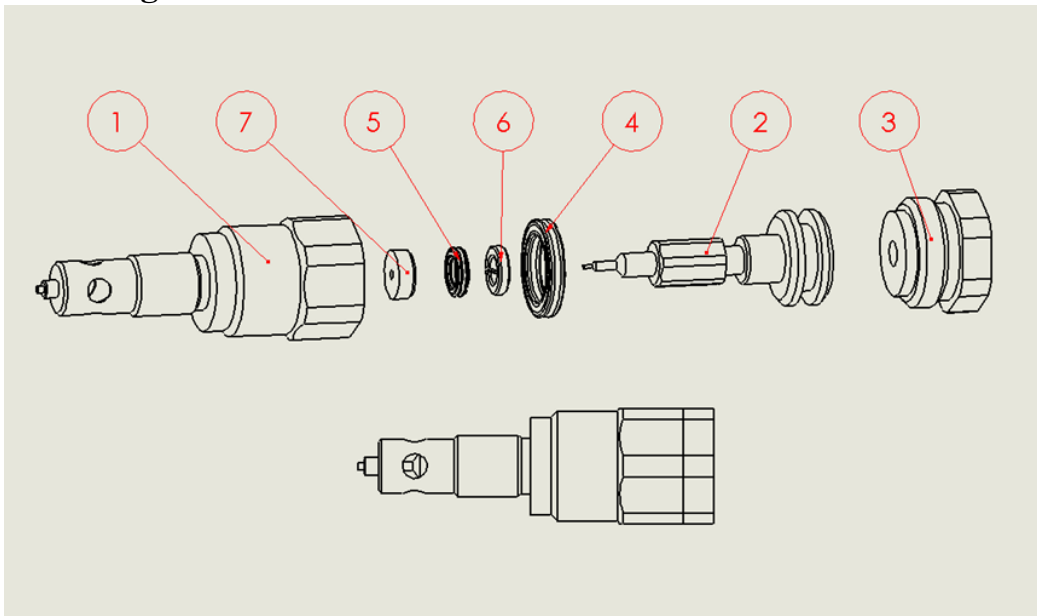
NO.:	Name	Specification	Quantity
1	Micromixing cup		1
2	Micronozzle holder		1
3	Nozzle nut		1
4	Nozzle tube	2mm	1
5	Lock teflon		1
6	O Ring	18x2.0	2
7	O Ring	5*1.5	2

3.5 Pneumatic diaphragm assembly



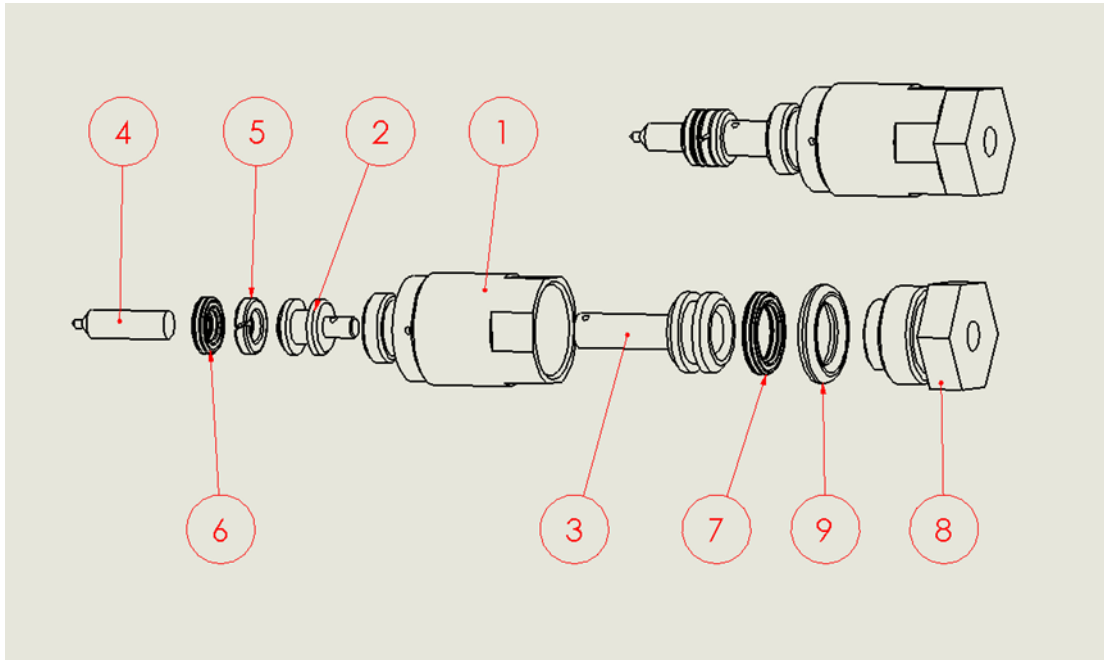
NO.:	Name	Specification	Quantity
1	Diaphragm splint - rear		1
2	Diaphragm splint - front		1
3	Diaphragm	External diameter 46	1
4	O Ring	11x1.5	1
5	Steel ball	5mm	1

3.6 Clearing valve



NO.:	Name	Specification	Quantity
1	Cleaning valve body		1
2	Clean valve thimble		1
3	Clean valve end cover		1
4	Quadring	10.77x2.62	1
5	Quadring	4.47x1.78	1
6	Teflon gasket ring with small star ring		1
7	Front U sealant gasket		1

3.7 Blow air valve



NO.:	Name	Specification	Quantity
1	Blow valve body		1
2	Blow valve piston head		1
3	Blow valve piston shaft		1
4	Blow valve teflon thimble		1
5	Quadring teflon gasket ring		1
6	Quadring	4.47x1.78	1
7	Quadring	8.2x1.78	1
8	Blow valve end cover		1
9	O Ring	14x2.5	1

4 Operation and maintenance

4.1 Safety

Please read the instructions carefully before using the machine.

The following should be observed before using the machine:

Prohibition Act	1. Do not use in environments where corrosive or ignitable gases exist or near flammable substances.	It can cause fire accidents.
	2. Do not place combustibles around the equipment.	
	3. Do not use open fire around equipment	
	4. Do not use in places where vibration/shock is intense	It can cause electric shock/injury/fire accidents.
	5. Do not use the conductor when it is immersed in oil/water.	It can cause electric shock/malfunction/damage.
	6. Do not use wet hands for wiring or equipment operation.	It can cause electric shock/injury/fire accidents.
	7. Never put your hand inside the moving parts/drivers of the equipment.	It can cause electric shocks/injuries.
	8. Motor with axle end keyway, please do not touch keyway with bare hand.	It can cause injuries.
	9. Never touch the rotating part of the motor in operation.	
	10. The temperature of motor, driver radiator and its connection will increase, so don't touch.	It can cause burns or parts damage accidents.
	11. Do not damage the conductor or make it bear excessive external force, heavy pressure and clamp.	It can cause electric shock/malfunction/damage.
Compliance behavior	1. Wiring operations are performed by professional electricians.	Electric shock accidents will occur when people without relevant professional knowledge do wiring work.
	2. The conductor should be connected properly and the electrified part should be insulated through insulators.	Electric shock/fire/malfunction may occur due to wrong wiring and short circuit.
	3. Equipment wiring must be grounded.	If it is not grounded, it will cause electric shock accident or interference.
	4. Driver movement/wiring/point inspection should be carried out by professional electricians after power cut off and beyond the time shown in the main table.	When the power supply is not cut off for operation, it will cause electric shock accident.

When using the machine, observe the following:

Prohibition Act	1. Don't stand on the equipment. Don't place heavy objects on the equipment.	It can cause electric shock/injury/malfunction /damage.
	2. Do not plug the heat release holes or put foreign bodies into them.	It can cause electric shock/fire accidents.
	3. Do not make the product suffer strong impact.	It can cause malfunction.
	4. Do not turn on or off the main power supply frequently.	It can cause malfunction.

	5. When the power cut is over and the power supply is restored, sudden restart may occur, so please do not approach the machine.	It can cause injuries.
	6. Never alter or decompose equipment by yourself.	It can cause fire/shock/injury/malfunction.
	7. Do not modify mechanical parameters at will.	Careless modifications can cause injury/malfunction.
	8. When cleaning the residue of mixer, no sharp and rigid tools shall be used.	It can cause damage.
Compliance behavior	1. The specified voltage shall be observed.	Electric shock/injury/fire accidents may occur when used outside the rated voltage range.
	2. Maintenance should be carried out by professionals.	Improper maintenance can lead to injury/malfunction.
	3. When the equipment is not used for a long time, the power supply must be cut off. In the absence of complete lightning protection facilities in the workplace, all cables connected to the outside, such as power lines and network cables, should be disconnected.	Faults in equipment operation, etc. can lead to injury accidents. Lightning strike can cause fire/damage.
	4. Operators of the equipment must be well trained and licensed to operate the equipment independently.	Untrained operations can cause injury/malfunction.
	5. Personnel should wear protective glasses and latex gloves when operating equipment.	Washing, polyurethane overflow or spillage are often needed during work, which can cause injury.
	6. In case of emergency, press the red emergency stop button.	Failure to press the emergency stop button in time may cause injury/malfunction.
	7. Before starting to use the equipment, check the electrical components to make sure that the servo driver and other electrical components are normal without alarm.	Abnormal electrical components may cause fire or malfunction injury.
	8. When abnormal noise and misoperation occur, the emergency stop button should be pressed quickly, and the power supply should be turned off if necessary!	Abnormal or incorrect movements can cause injury/damage.
	9. The equipment shall be placed in an independent space with ambient temperature of 18-23 C, and maintain good ventilation and unobstructed passages.	Too low (too high) temperature or humidity will lead to unqualified rubber strip quality (this is determined by the

		chemical properties of the glue itself).
	10. When chemical solvents or glue come into contact with the skin, rinse it quickly with clean water.	Improper handling can lead to injury.
	11. When chemical solvents or glue splash into the eyes, rinse them quickly with clean water and immediately go to the hospital for treatment.	
When the product needs to be treated as waste after normal use, please abide by the laws and regulations of the relevant departments concerning the recovery and reuse of electronic information products.		

4.2 Instructions for machine operation

4.2.1 CAD Path Mapping and Import System

Open the computer's CAD program, draw the graph, mark a red dot on the graph as the starting point, and save it as a DXF file (as shown in Figure 2).

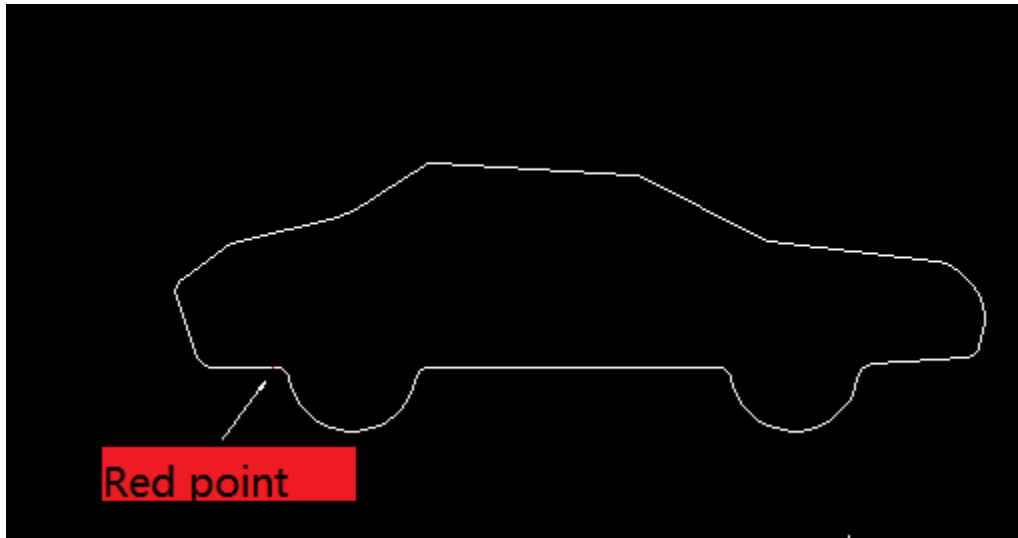


Figure 1

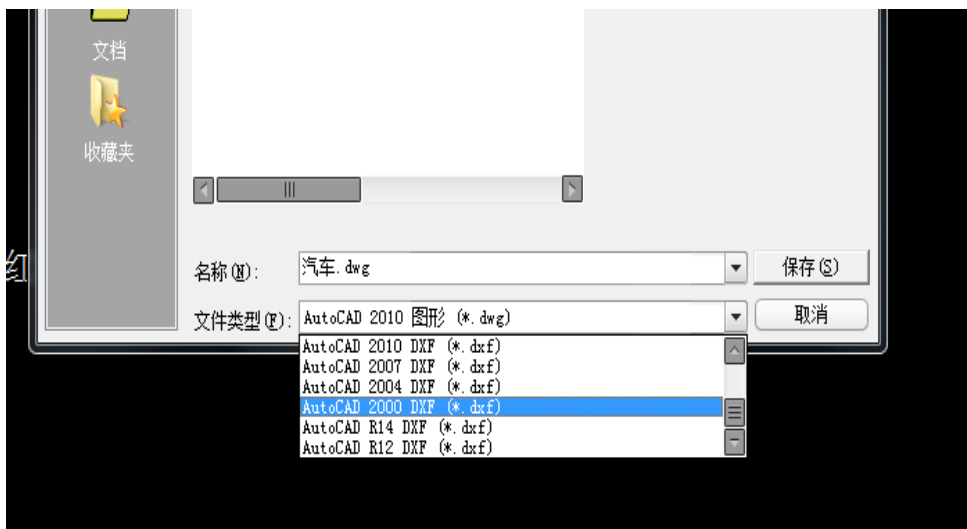


Figure 2

Return to the production interface of the operation interface, open the drawn files, and import them after confirming. Then use the hand-operated device to locate the workpiece, determine the origin of the workpiece, click the analog button on the handheld operation panel or the main panel, and then click the start/temporary button to operate, confirming the safety before gluing.

Note: Operation is to ensure safety, novice should use low-speed operation equipment. When running the Z-axis, please use the point movement to avoid the damage caused by the nozzle hitting the desktop!

4.2.2 Metrological calibration

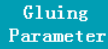
Equipment feeding valves need to be calibrated in the following areas

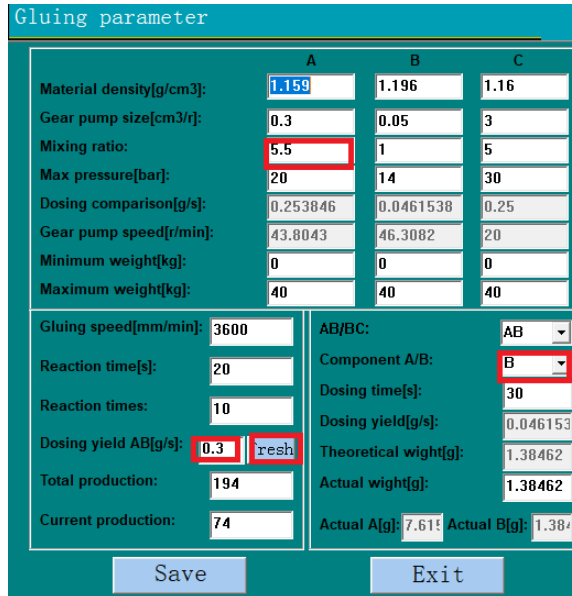
- ① Adding raw materials
- ② Replacement of raw materials
- ③ Maintenance of feeding valve
- ④ Instability of pipeline pressure
- ⑤ Abnormal foaming

Calibration steps of Metrology

- ① Preparations: Electronic scale (0.01g), disposable cups
- ② Remove the quantitative feeding valve that needs to be measured from the mixing chamber. In addition, the valve mouth should be cleaned up, and no foreign matter or crystallization can block the valve mouth.

Gluing
Parameter

③ Click  button, The measurement calibration page is



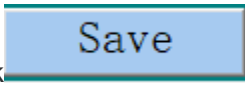
	A	B	C
Material density[g/cm3]:	1.159	1.196	1.16
Gear pump size[cm3/r]:	0.3	0.05	3
Mixing ratio:	5.5	1	5
Max pressure[bar]:	20	14	30
Dosing comparison[g/s]:	0.253846	0.0461538	0.25
Gear pump speed[r/min]:	43.8043	46.3082	20
Minimum weight[kg]:	0	0	0
Maximum weight[kg]:	40	40	40


Gluing speed[mm/min]:	3600	AB/BC:	AB
Reaction time[s]:	20	Component A/B:	B
Reaction times:	10	Dosing time[s]:	30
Dosing yield AB[g/s]:	0.3	Dosing yield[g/s]:	0.046153
Total production:	194	Theoretical wight[g]:	1.38462
Current production:	74	Actual wight[g]:	1.38462
		Actual A[g]:	7.61
		Actual B[g]:	1.384


Buttons: Save, Exit

displayed.

Select the component to be calibrated, set the proportion of raw materials and the amount of

glue spit, and click  Button, keep the current interface, place the measuring

cup at the nozzle, and then use the wireless hand operator, click  button, you can discharge

the material according to the set time, if you need to stop halfway, you can press  cancel,

Multiple measurement, after stabilization can be calibrated raw material density, error range ± 0.1 g

Note: The specific steps of calibration are according to the actual training. When calibrating, please wear gloves. If necessary, please wear eyewear and protective tools. Operators are requested to prepare for the calibration.

4.3 Routine maintenance of equipment

In order to increase the service life of the equipment and reduce the wear and tear of the equipment, the operator shall carry out relevant maintenance of the equipment.

1. Maintenance of mixing head

After the glue applicator finishes working, please start the cleaning button immediately to clean the glue cavity head. After cleaning the glue applicator, please disassemble the A and B material valves, and apply petroleum jelly on the nozzles of the A and B material valves. Make A, B. material valve seal. After sealing the A and B material valves, please disassemble the mixing cup and the stirring rod, and soak the mixing cup and the stirring rod in the mold cleaning agent. Note that the sealing ring cannot be omitted during the disassembly process. The sealing ring is strictly prohibited from being soaked in the mold cleaning agent. Before production, check whether there is any stolen goods in the mixing chamber. If so, clean up and clean it in time. When starting work, clean up the mixing cup and mixing rod, and install all kinds of sealing rings as they are. Check the mixing chamber for leakage before get off work every day; clean the mixing chamber according to the workload, and remember not to scrape the mixing chamber with hard metal objects.

2. Track maintenance

The track should be dust-proof and moisture-proof. The movement mechanism (X, Y, Z axis) of the glue applicator should be checked once a week to keep the track clean and inject butter.

3. Cleaning of pipeline valve filter

There is a Y-type filter at the on-off valve of the A and B tanks with a filter net inside. The filter cleaning cycle is determined according to the viscosity of the raw material itself (usually imported raw materials once/3 months).

4. Add lubricating oil

Please add lubricating oil to the couplings of the A and B motors of the feeding system every week.

5. Turn on the A material stirring motor

After adding the A material, you must turn on the A material stirring motor to fully stir the A material for 5-10 minutes before it can be turned on. Note: The A material stirring button is on the system operation panel.

Note: The maintenance of the equipment should be maintained and maintained by a dedicated person. The operator should do the relevant maintenance work and make a regular maintenance and maintenance record.

4.4 equipment failures and troubleshooting methods.

4.4.1 after curing, the surface of the adhesive strip is densely distributed with pores and hardened by touch.

1. Reason analysis: the discharge gap between the mixing rod and the mixing cup is too small (plug gap).

Treatment: when replacing large and small mixing cups and mixing rods, the size of the plug gap needs to be adjusted in time.

2. Reason analysis: the discharge volume does not match the size of the mixing cup and the mixing rod. When the discharge volume is greater than the cup capacity, the discharge becomes larger as a whole.

How to deal with it: please adjust the discharge volume of the suitable range in time.

3. Reason analysis: the stirring rod and stirring cup have not been cleaned or cleaned for a long time, which leads to the reduction of the capacity of the stirring cup and the diameter of the nozzle.

Treatment method: please clean quantitatively when working continuously, disassemble the mixing cup in time for a certain period of time, clean the mixing rod and soak in the mold remover for 5-10 minutes.

4. Reason analysis: the raw material A are not stirred evenly after changing or adding raw materials.

Treatment method: when adding raw materials to the bucket, it is necessary to open the air supply valve to replenish the air in the bucket while stirring the raw material A.

4.4.2 the adhesive strip does not foaming in a certain position, and the pressure fluctuates all the time in the process of applying glue.

Cause analysis: the cause of the problem is generally due to the unstable pressure of material B in the gluing process and the lack of material B.

Treatment method 1: check the B material filter to see if the filter is blocked, resulting in insufficient supply of gear pump.

Treatment method 2: re-calibrate and check the discharge of material B to see if the discharge is accurate.

Treatment method 3: check whether the discharge hole of the nozzle of material B valve is blocked.

Treatment method 4: check whether the feed and return diaphragm of material B valve is damaged, resulting in insensitive or motionless movement of ejector pin and cylinder piston, resulting in constant pressure fluctuation during glue application, and material B discharge more or less.

Treatment method 5: check whether material B is deteriorated and whether there is crystallization.

Treatment method 6: check whether the B material metering pump is blocked.

4.4.3 Calibration check An and B discharging incorrectly.

1. Cause analysis: the filter screen is blocked, resulting in insufficient supply of gear pump.
Treatment method: clean the filter screen.

2. Cause analysis: there is air in the pipe.

Treatment method: material A: the stirring cycle is required for 30 minutes, the discharge volume is increased to 4 grams during the cycle, and the return pressure of material A valve is loosened.

Material B: the gear pump circulates the air to ensure that there is no air in the feed pipe.

3. Reason analysis: the activity of the feed and return thimble in the An and B material valve is not sensitive, and the piston activity of the feed and return cylinder is not sensitive.

Treatment method: disassemble and check the supply valve.

4.4.4 the adhesive strip shrinks after curing, and the surface shows a wrinkled strip.

1. Reason analysis: the proportion of mixing is out of balance, and the proportion of curing agent is too small, which leads to the fact that the adhesive strip is not reflected in foaming in the early stage and shrunk in the internal curing in the later stage.

Treatment method: adjust the mixing proportion of A.B material, calibrate and check the discharge to confirm the accuracy.

2. Reason analysis: this phenomenon generally occurs in winter, when the adhesive strip foams, the heat is released, and the lower external temperature leads to the internal closure of the adhesive strip, resulting in the shrunk of the adhesive strip.

Treatment method: the product is solidified in a place with higher temperature.

Note: the shrunken adhesive strip can be baked by hot air, or pierced at the bottom of the tape to replenish the air.

4.4.5 the surface of the adhesive strip is uneven after foaming and curing.

1. Cause analysis: the problem generally occurs on different metal surfaces, such as stainless steel products and plastic spray products, and there will be different phenomena.

Treatment method: some individual metal surfaces may need to be processed after treatment, for example, the surface of stainless steel needs to be coated with a primer.

2. Reason analysis: raw materials of different properties, such as domestic materials and imported materials, are different in the same product.

Treatment method: test the raw materials suitable for the product.

3. Reason analysis: the difference of product gluing position, slot and plane. For example, if the flat material is processed in the groove, it will cause the surface to be uneven.

Treatment method: the raw materials in the tank and the plane are different, which can be divided into two kinds: trough material and sheet metal.

4.4.6 the nozzle keeps dripping glue after spitting.

1. Cause analysis: the plug gap between the mixing rod and the mixing cup is too large or too small, resulting in lax sealing after spitting glue.

Treatment method: adjust the size of the plug gap.

2. Cause analysis: the white head at the bottom of the mixing cup is worn or the taper of the mixing rod is damaged, resulting in lax sealing each other.

Treatment: replace the white head, after the replacement, please correspond to the size of the mixing cup hole expansion.

3. Reason analysis: the foaming time of the raw material is too fast, the foaming expansion of An and B mixture will increase the pressure inside the mixing cup and release the pressure from the nozzle.

So the glue is dripping too fast.

Treatment: please replace the raw materials with slow foaming time to ensure that the glue will not be dripped and the mixing cup will not be clogged.

4.4.7 the pressure gauges of material An and B have no pressure and cannot be adjusted.

1. Cause analysis: the filter screen is blocked, resulting in the gear pump can not supply material.

Treatment method: clean the AB material filter regularly.

1. Cause analysis: there is air retention at the gear pump, and the pressure sensor can not transmit pressure.

Treatment method: disassemble the feed pipe at one end of the gear pump, connect it after releasing air, cycle for 10 minutes, and re-adjust the pressure. 2. Cause analysis: the raw material is processed after the alarm, which leads to the empty pipe when the raw material is used up.

Treatment method: please add raw materials in time after the raw materials are prompted to report to the police.

4.4.8 No water comes out during cleaning and no air blowing after cleaning.

1. Cause analysis: the water in the cleaning bucket is emptied, so that the cleaning machine can not pump water.

How to deal with it: please check whether the water level of the cleaning bucket is enough before working every day.

2. Cause analysis: there is a rush of raw materials into the water intake cylinder, resulting in the inactivity of the thimble and the outlet hole is not opened during cleaning.

Treatment method: check whether the four intake cylinders are blocked and clean them in time.

3. Reason analysis: if there is no air blowing after cleaning, it may be the blockage of the blowing hole or the channeling of the material in the blowing valve, resulting in the inactivity of the thimble.

Treatment method: clean the blowing valve and blowing hole.

4.4.9 There is raw material exudation at the small holes in the inlet and return cylinders of An and B materials.

Cause analysis: the white diaphragm at the ejector pin in the material valve is damaged, resulting in seepage.

Treatment method: clean the material valve and replace the diaphragm in time, refer to the video in detail.

4.4.10 the visual window overflow for adjusting the plug gap under the stirring motor during cleaning.

Cause analysis: shaft seal and disk root wear in the mixing cavity.

Treatment: replace the shaft seal and packing in time.

Note: the upper end of the shaft seal is the bearing housing, bearing models 688zz, 698zz.

4.5 Operator preparation and precautions

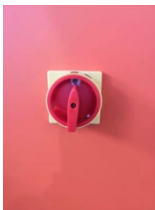
1. The machine operator must be trained before going to the machine for operation. The operator understands the machine principle and points of attention through training.
- 2, The machine needs regular maintenance and maintenance,
- 3, The rack, the work surface should be placed and fixed (foot screw can adjust the rack and workbench level)
4. The machine should be placed in a well-ventilated place to avoid excessive dust to keep the air flowing. The indoors need to be kept dry to prevent the control cabinet from getting an electric shock.
- 5, The indoor temperature should be maintained at about 25oC (the foaming effect is better)
6. Regularly check the machine parts for abnormalities.
7. All mechanical transmission components need to be greased when they are installed.
8. Vaseline should be applied at the mixing chamber and pipe interface to prevent the raw materials from sticking.
- 9, The machine pressure needs to be maintained above 6.5bar, below 8.5bar.
10. The stirring rod rotation speed is not less than 1500 rpm, and the 0.5g/s spit amount is set at about 2500 rpm.
- 11, raw material tank pressure (A needs to guarantee 1.5bar).
12. In the case of no production, it needs to be turned on every day. The key position is in the standby state to allow the machine to microcirculate to prevent the precipitation of raw materials.
13. The outlet filter of the raw material barrel needs to be removed and cleaned regularly, usually domestically (5-30) days, imported (60-180) days.
14. All parts of the mixing chamber should not be scraped with a blade or the like (metal object), and should be soaked with a cleaning agent during cleaning.

4.6 Operation procedure steps

Operators should wear protective gloves, protective shoes, protective glasses, masks and other protective equipment.

- 1, Turn on the power

The total power of the machine is controlled by a transfer switch in the control cabinet.



Machine main power switch

2, Shutdown and cleaning work

The necessary cleaning and maintenance work must be carried out after the end of the day to ensure the normal use next time.

- ① Move the mixing head to the set maintenance position by hand position, close the main power switch of the control cabinet, fix the spindle with an Allen key or a spanner wrench, and then directly unscrew the mixing cup and stir bar with your hand or special wrench. . The whole of the stirring blade was immersed in DMF solvent, and after 20 minutes, it was taken out, and the surface crust material was removed with a bamboo piece or a plastic piece.
- ② Stirring cup The DMF solvent was brushed on the inner wall of the stirring cup using a brush. After 20 minutes, the surface of the crust material was removed with a bamboo piece or a plastic piece.
- ③ The cleaning of the inner wall of the mixing chamber requires the use of a brush to draw DMF solvent on the inner wall surface or the cotton cloth with DMF solvent into the mixing chamber.
- ④ Remove the B supply valve and put the B glue at the rubber outlet. The crystals are scraped off using bamboo or plastic sheets, and the spilled B-gel crystals need to be checked before the next start-up. Never use metal products to scrape off the surface cement during the above cleaning process.
- ⑤ Close the raw material tank intake valve to discharge the compressed air in the raw material tank to prevent the humid air from entering the raw material tank and prevent the leakage of the glue due to possible pipeline damage. Then turn off the main air intake of the device.
- ⑥ Close the KW operation interface, then turn off the computer system, and finally turn off the main power switch.
- ⑦ Clean up the waste bucket and waste water tank to ensure the next use.

4.7 Operation method when adding or replacing raw materials

4.7.1 Method of adding A material

1. When the machine encounters the "A component lacking material" alarm during use, if the product is being processed, the product can be processed first and then cleaned;
2. After cleaning, first turn off the "A" power switch in the electric control cabinet, the gear pump stops circulating → release the "blue pressure valve" on the A tank → loosen

Six screws, open the barrel → pour the A material, below the return pipe mouth → re-cover the lid, tighten the screws → press down the "blue pressure valve";

3. Press the "Stir" button on the system panel to turn on the stirring → open the "Supplementary Air Valve" below the A tank, about 30-60S;

→ Open the "blue pressure valve" on the material tank → after stirring for about 15-20 minutes, turn off the stirring → press down the "blue pressure valve" → turn on the "A power supply" in the electric control cabinet, and the gear pump recirculates → circulation After 10-20 minutes, start working again.

4.7.2 Method of replacing raw material A

1. If raw materials from different manufacturers are used, the raw materials in the original barrel and pipeline must be discharged;

2. Turn off the "A power supply" in the electrical cabinet → turn off the "blue ball valve" at the front of the "Y-type filter" under the tank → remove the "elbow pipe" at one end of the gear pump Road", put into the empty bucket → open the "blue ball valve" → press down the "blue pressure valve" on the barrel, the raw materials are discharged from the pipeline, and you can empty it → reconnect the "bend pipe";

3. The raw materials in the feed pipe and return pipe at the other end of the gear pump can be removed by removing the pipe joint between the return pipe and the barrel (the blue pressure valve on the barrel

Pull up to discharge the air in the barrel) by turning on the A power supply and circulating for 5-10 minutes;

4. After emptying the barrel and the raw materials in the pipeline, re-add the raw materials of the new manufacturer. For the method, please refer to the method of adding raw materials A (new glue volume at 3 g/sec)

It takes about 3-5 minutes for the raw material to glue out).

4.7.3 Method of adding B material

1. When the machine encounters the "B component shortage" alarm during use, if the product is being processed, the product can be processed first and then cleaned;

2. Turn off the "B" power switch in the electric control cabinet, and the gear pump stops circulating → loosen the six screws on the barrel, open the lid, pour in the raw materials → close the lid, tighten the screws → open the electric control cabinet " B" the power switch, the gear pump starts to run, and the raw materials begin to circulate.

Note: Due to the small occupancy of material B, it is determined whether to fill up according to the

length of the customer's own use cycle. The normal amount can be added to half a bucket.

4.7.4 Operation method of replacing B material

1. If raw materials from different manufacturers are used, the raw materials in the barrel and pipeline must be discharged first;
2. Turn off the "B" power switch in the electric control cabinet, and the gear pump stops circulating → Close the "blue ball valve" at the back end of the "Y-type filter" of the pipe below the B tank → Remove the pipe at the front end of the "Y-type filter" → Receive it in a container, open the "blue ball valve", and discharge the raw materials → wipe clean the joints and reconnect them
3. The raw materials in the pipeline can be discharged by turning on the gear pump cycle by removing the pipe joint between the return pipe and the barrel;
4. Add new raw materials from the manufacturer again, turn on the "B" power switch after adding, the gear pump rotates, and the raw materials begin to circulate! Circulate for about 10-20 minutes.

Ready to use.

END