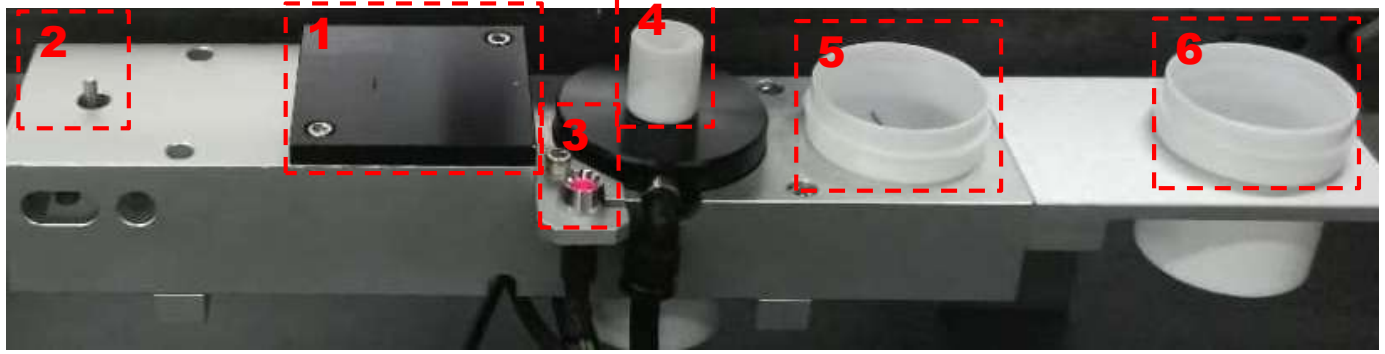


# System Setting



Hardware: 1. Calibration platform 2. Needle height calibration PIN 3. Needle height signal light  
 4. Vacuum suck cleaning needle 5. Left valve standby position plastic cup 6. Right valve standby position plastic cup

H1 is left valve calibration: M0, M1, M3, M12, M15

H2 is right valve calibration: M7, M8, M9, M13, M16

Common point calibration: M2, M4, M5, M6, M10, M11, M14

## M10\_Laser Z axis height detection base

When to use: Working position and actual position's height detection point is different

**Confirm**

REV M10 =Z laser detected base  
 Do you really want to execute?

Yes No

No	X um	Y um	Z um	D um	W um	H um	Note
M3	337965	428935	26770	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	163775	430910	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarm
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	35470	43350	2200	1000	0	0	Head_H2: CCD base view on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	212630	407165	0	0	0	0	=Z laser detected base
M11	211385	444975	0	500	0	0	CCD view: M10 Z laser detected base
M12	214700	433305	23500	0	0	0	Head_m1: cleaning position
M13	288500	428505	21720	0	0	0	Head_H2: cleaning position
M14	163775	430910	0	0	0	0	Delay waiting position when delay time > 1000ms

REV M10 =Z laser detected base

cx 105155, hx 105155, mx 212630    cy -88780, hy -103970, my 407165    hz 26770, mz 0

1. Select M10\_Laser Z axis height detection base
2. Open laser height detection interface
3. Turn on laser beam
4. Move X.Y. axis, align with customized target as right Pic. 1
5. Revise coordinate



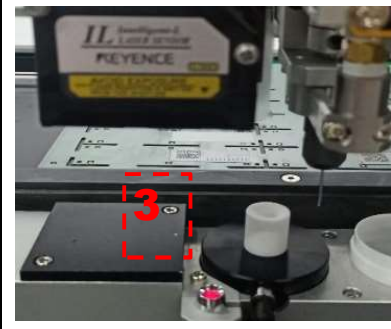
Pic. 1

## M11\_CCD alignment :M10 Laser Z axis height detection base

When to use: Working position and actual position height detection point is different, Base height detection and actual height is different

No	X um	Y um	Z um	D um	W um	H um	Note
M3	337965	428935	26770	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	-915	347230	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarmm
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	235510	449655	32380	1100	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	212630	407165	0	0	0	0	=Z laser detected base
M11	211385	444975	0	500	0	0	CCD view: M10 Z laser detected base
M12	214705	428505	29565	0	0	0	Head_H1: cleaning position
M13	288500	428505	21640	0	0	0	Head_H2: cleaning position
M14	163775	430910	0	0	0	0	Delay waiting position when delay time > 1000ms

1. Select M11\_CCD alignment:M10 Laser Z axis height detection base point
2. Turn on CCD light source
3. Move X.Y. axis, align with customized target as below Pic.1
4. Revise coordinate
5. Open Laser height detection interface
6. Perform height detection base height on M10 coordinate position and update M10 laser Z axis height detection value.
7. Red disk shows up, left key to save system file



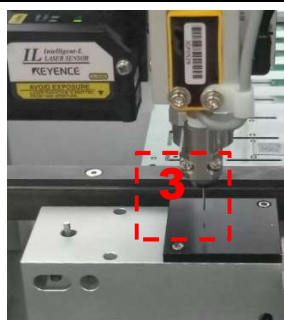
Pic. 1

# H1 valve calibration:M0\_Dispenser base

When to use: Working dispense X.Y direction is wrong has an offset, renew needle and each axis hardware

No	X um	Y um	Z um	D um	W um	H um	Note
M0	276515	429830	26770	520	0	0	Head_H1: XY base
M1	231445	445020	26770	900	0	0	Head_H1: CCD base views on M0: H1 XY base
M2	11305	384085	0	1090	0	0	XY machine jig base
M3	337965	428935	26770	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	163775	430910	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarm
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	235470	449650	32380	1600	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	212630	407165	0	0	0	0	=Z laser detected base
M11	211385	444975	0	500	0	0	CCD view: M10 Z laser detected base

1. Select M0\_Dispenser base
2. · Select H1\_valve
3. Move X.Y.Z as below Pic.1
4. Dispensing, dispense 1 drop as below Pic. 1
5. Revise coordinate



Pic. 1

# H1 valve calibration:M1\_CCD base align with M0 Dispenser base

When to use :Working dispense X.Y direction has offset, renew needle and each axis hardware

No	X um	Y um	Z um	D um	W um	H um	Note
M0	276515	429830	26770	520	0	0	Head_H1: XY base
M1	231445	445020	26770	900	0	0	Head_H1: CCD base views on M0: H1 XY base
M2	11305	384085	0	1090	0	0	XY machine jig base
M3	357965	428935	26770	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	-915	347230	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarmm
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	235510	449655	32380	1100	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	222365	407020	-137	0	0	0	=Z laser detected base
M11	211385	444975	0	500	0	0	CCD view: M10 Z laser detected base

1. Select M1\_CCD base align with M0:H1 dispenser base
2. Turn on CCD light source
3. Move X.Y axis, align with H1 dispenser glue output point as below Pic. 1
4. Revise coordinate



Pic. 1

# H1 valve calibration :M3\_Z axis base height: Touch auto searching surface

When to use :Working dispense Z height has an offset, renew needle and each axis hardware

No	X um	Y um	Z um	D um	W um	H um	Note
M0	276515	429830	26770	520	0	0	Head_H1: XY base
M1	221445	445920	26770	900	0	0	Head_H1: CCD base views on M0: H1 XY base
M2	11305	384085	0	1090	0	0	XY machine jig base
M3	337965	428935	26770	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	-915	347230	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarm
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	235510	449655	32380	1100	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	222365	407020	-137	0	0	0	=Z laser detected base
M11	211385	444975	0	500	0	0	CCD view: M10 Z laser detected base

1. Select M3\_Z axis base height :touch auto searching surfac
2. Move X.Y.Z axis, align needle with height detection PIN as right Pic.1
3. Revise coordinate

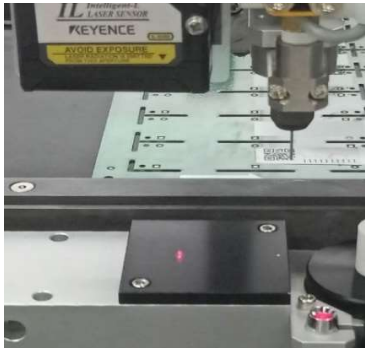


Pic. 1

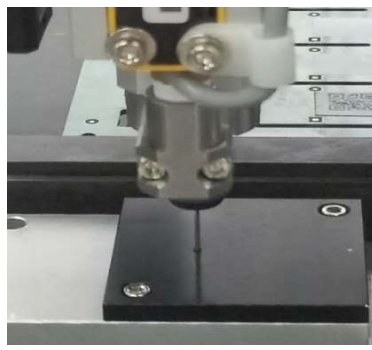
4. Select needle height and center point and below auto calibration will show up



4-1 Left needle will perform down needle height detection light off according to M3 coordinate



4-2 Detection needle height, height detection light on



4-3 System conversion, Z axis needle base height, click YES update M3\_Z axis height



4-4 Laser height detection, perform safety height detection to M0 coordinate to prevent foreign things in it

4-5 Left needle's X.Y will move to M0 coordinate, Z axis moves down to M3 new base height and perform single dispense

4-6 Dispense to calibration platform, can perform M1\_CCD adjust to align with M0 dispenser base calibration

\_Dispense\_v20161227.006, ro point.w0

The screenshot displays the machine's control software. At the top, a window titled '1,1 ro point' shows vision settings. Below it, a large window displays a camera view of a circular component on a PCB, with red dashed boxes and numbers 5, 7, 8, and 10 indicating specific areas of interest. A table at the bottom lists various machine coordinates (M0-M9) with their X, Y, Z, D, W, and H values in micrometers, along with descriptive notes for each coordinate.

No	X um	Y um	Z um	D um	W um	H um	Note
M0	276515	429830	26750	520	0	0	Head_H1: XY base
M1	231445	445020	26750	900	0	0	Head_H1: CCD base views on M0: H1 XY base
M2	11305	384085	0	1090	0	0	XY machine jig base
M3	387965	428955	23750	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	163775	430910	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarm
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	235470	449650	32380	1600	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface

5. Dispense time will view first dispense timing int teach mode as base

6. Select M1\_CCD base to align with M0 dispenser base



7. Turn on light source, move X.Y axis . CCD align 4-6 amount position
8. Adjust target size, adjust initial value to target size too
9. Revise coordinate
10. Red disk will show, left key to save system file

## H1 valve calibration:M12\_cleaning point setting

When to use : Renewing X.Y.Z axis hardware for example motor screw, cleaning position is wrong and therefore needs reset

Confirm

REV M12 Head\_H1: cleaning position  
Do you really want to execute?

Yes No

No	X um	Y um	Z um	D um	W um	H um	Note
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	235470	449650	32380	1600	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	212630	407165	0	0	0	0	=Z laser detected base
M11	201340	444955	0	500	0	0	CCD view: M10 Z laser detected base
M12	214705	428505	29565	0	0	0	Head_H1: cleaning position
M13	288500	428505	21720	0	0	0	Head_H2: cleaning position
M14	163775	430910	0	0	0	0	Delay waiting position when delay time > 1000ms
M15	163775	430910	20620	0	0	0	Head_H1: keeping wet position
M16	163775	430910	20620	0	0	0	Head_H2: keeping wet position

REV-M12 Head\_H1: cleaning position

4 10, hX 103080, mX 214705 cY -110120, hY -125310, mY 428505 3 hZ -2815, mZ 29565

Revise HeadCal. Door Verify Light CcdGo HeadGo SbyGo MaintdGo HomeGo RefGo WetGo ClnPin Z move Valve\_H1 NonStop Point ClnValve Air GlueEmptySn

1. Select M12\_H1 cleaning point setting
2. Move X.Y.Z axis, align needle with vacuum suck cleaning needle as below Pic. 1
3. Click Vacuum clean pin
4. Revise
5. Red disk will show, click left key to save system file



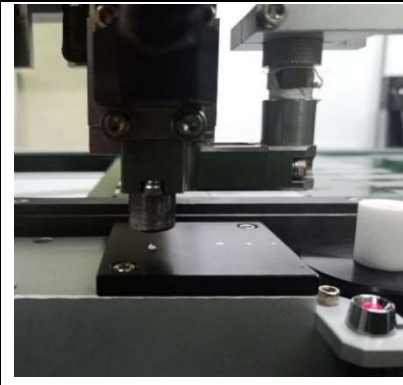
圖一

## H2(spray valve)valve calibration:M7\_Dispenser base

When to use : Working dispense X.Y direction has an offset, renew and each axis hardware

No	X um	Y um	Z um	D um	W um	H um	Note
M0	276515	429830	26770	520	0	0	Head_H1: XY base
M1	231445	445020	26770	900	0	0	Head_H1: CCD base views on M0; H1 XY base
M2	11305	384085	0	1090	0	0	XY machine jig base
M3	337965	428935	26770	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	015	247230	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarm
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	235510	449655	32380	1100	0	0	Head_H2: CCD base views on M7; H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	222365	407020	-137	0	0	0	=Z laser detected base
M11	211385	444975	0	500	0	0	CCD view: M10 Z laser detected base

1. Select M7\_Dispenser base
2. Select H2\_valve
3. Move X.Y.Z axis as below Pic.1
4. Dispenser, Dispense one amount, showed at below Pic. 1
5. Revise coordinate



Pic. 1

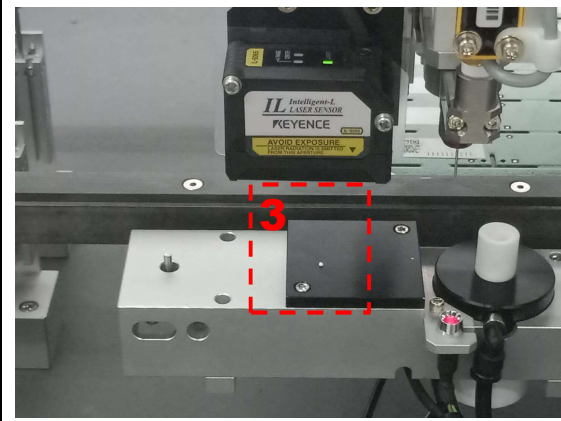
# H2(Spray valve)Valve calibration:M8\_CCD base align with M7 dispenser point

When to use :Working dispense X.Y direction has an offset, renew needle and each axis hardware

The screenshot displays the machine's control software. At the top, a window titled '1,1 ro point' shows vision settings, including 'W10000um', 'H10000um', and 'cLime'. A central window shows a camera view with a green crosshair and a white circle. A 'Confirm' dialog box is open, asking 'Do you really want to execute?' for the command 'REV M8 Head\_H2: CCD base views on M7: H2 XY base'. Below the dialog is a table of machine coordinates.

No	X um	Y um	Z um	D um	W um	H um	Note
M3	337965	428935	26770	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	-915	347230	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z > 2000um stay here for vision alarm
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	235510	449655	32380	1100	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	212630	407165	0	0	0	0	=Z laser detected base
M11	211385	444975	0	500	0	0	CCD view: M10 Z laser detected base
M12	214705	428505	29565	0	0	0	Head_H1: cleaning position
M13	288500	428505	21640	0	0	0	Head_H2: cleaning position
M14	163775	430910	0	0	0	0	Delay waiting position when delay_time > 1000ms

1. Select M8\_CCD base align with M0:H1 dispenser base
2. Turn on CCD light source
3. Move X.Y axis and align H1 glue output point as below Pic. 1
4. Revise coordinate





Pic. 1

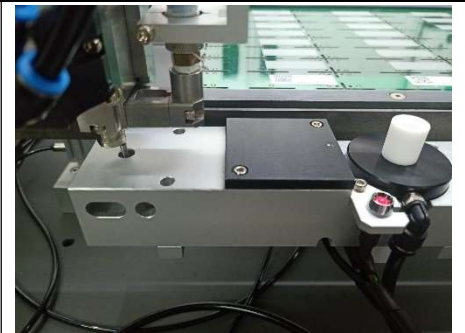
# H2(Spray valve)Valve calibration:M9\_Z axis base height:touch auto searching surface

## searching surface

When to use :Working dispense Z height has an offset, renew needle and each axis hardware. Specifies to valve calibration way

No	X um	Y um	Z um	D um	W um	H um	Note
M0	276515	429830	26770	520	0	0	Head_H1: XY base
M1	231445	445020	26770	900	0	0	Head_H1: CCD base views on M0: H1 XY base
M2	11305	384085	0	1090	0	0	XY machine jig base
M3	337965	428935	26770	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	-915	347230	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarm
M7	253005	434515	32380	0	0	0	Head_H2: XY base
M8	235510	449655	32380	1100	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	222365	407020	-137	0	0	0	=Z laser detected base
M11	1211385	444975	0	1500	0	0	CCD view: hv10 / laser detected base

1. Select M9\_Z axis base height :touch auto searching surface
2. Move X.Y.Z axis, align nut lead angle with height detection PIN as right Pic.1
3. Manually move needle until  touches light off like Pic. 4.1,  move up so that light is on as Pic. 4.2
4. Light On position is mZ31835um, move up 3000um= parameter is mZ28835um
5. Revise coordinate



Pic. 1

3-1 Right needle will perform down  
needle height detection light off  
according to M3 coordinate

3-2 Detect needle height, height  
detection light ON

No	X um	Y um	Z um	D um	W um	H um	Note
M3	337965	428935	26770	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	-915	347230	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarm
M7	352905	434515	32380	0	0	0	Head_H2: XY base
M8	415915	449655	32380	1100	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	212630	407165	0	0	0	0	=Z laser detected base
M11	211385	444975	0	500	0	0	CCD view: M10 Z laser detected base
M12	214705	428505	29565	0	0	0	Head_H1: cleaning position
M13	288500	428505	21640	0	0	0	Head_H2: cleaning position
M14	163775	430910	0	0	0	0	Delay: waiting position when delay_time > 1000ms

5. Select M7\_dispenser base, click CCD move to coordinate position
6. Select M9\_Z axis base height, click Z axis move down
7. Click dispense(Dispense time will view the first dispense time in teach mode as base.)
8. Select M8\_CCD base align with M7 dispenser base
9. Turn on light source, move X.Y axis, CCD align with glue amount position
10. Adjust target size, adjust initial value to target size too.
11. Revise coordinate

**12.** Red disk will show, click left key of mouse to save system file



## H2 Valve calibration:M13\_cleaning point setting

When to use: Renew X.Y.Z axis hardware for example motor screw, Cleaning position is wrong which needs reset

Confirm

REV M13 Head\_H2: cleaning position  
Do you really want to execute?

Yes No

No	X um	Y um	Z um	D um	W um	H um	Note
M7	353905	434515	32380	0	0	0	Head_H2: XY base
M8	235470	449650	32380	1600	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	415915	428540	32380	0	0	0	Head_H2: Z base: touch auto searching surface
M10	212630	407165	0	0	0	0	=Z laser detected base
M11	201340	444955	0	500	0	0	CCD view: M10 Z laser detected base
M12	214705	428505	29565	0	0	0	Head_H1: cleaning position
M13	288500	428505	21720	0	0	0	Head_H2: cleaning position
M14	163775	430910	0	0	0	0	Delay waiting position when delay time > 1000ms
M15	163775	430910	20620	0	0	0	Head_H1: keeping wet position
M16	163775	430910	20620	0	0	0	Head_H2: keeping wet position

REV M13 Head\_H2: cleaning position  
hX 102650, hY -125255, mY 428505  
hZ 10660, mZ 21720

1. Select M13\_H2 cleaning point setting
2. Move X.Y.Z axis, align needle with vacuum suck cleaning needle as below Pic. 1
3. Click Vacuum clean Pin
4. Revise
5. Red disk will show up, click right mouse to save system file.



Pic. 1

# M2\_machine XY Jig CCD origin

When to use: Renew X.Y hardware for example motor screw and others, Working file base position move at fixed direction, Can use M2 coordinate to revise direction, and therefore can move all working files to correct position\*\*Can only be use when all working files moving is in fixed position \*\*\*

No	X um	Y um	Z um	D um	W um	H um	Note
M0	261680	429530	26735	520	0	0	Head_H1: XY base
M1	216695	444755	26735	1580	0	0	Head_H1: CCD base views on M0: H1 XY base
M2	11305	384085	0	1090	0	0	XY machine jig base
M3	337620	429485	26735	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	163775	430910	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarmm
M7	353905	434515	32410	0	0	0	Head_H2: XY base
M8	235930	449940	32410	1600	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	445945	429540	32410	0	0	0	Head_H2: Z base: touch auto searching surface

REV M2 XY machine jig base

188360, hX -70385, mX 461275 | cY -72010, hY -87435, mY 390395 | hZ 32410, mZ 0

Revise HeadCal. Door Verify Light CcdGo HeadGo SbyGo MaintdGo HomeGo RefGo WetGo ClnPin Z move Valve\_H2 NonStop Point ClnValve Air GlueEmptySn

1. Select M2\_machine XY Jig CCD origin
2. Turn on CCD light source
3. Move X.Y axis, align CCD with jig origin, like below Pic. 1
4. Revise
5. Red disk will show up, click left key of mouse to save system file



Pic. 1



## M4\_machine repair point

When to use: This position is set at a position that is easier to repair X.Y coordinate position

## M6\_Conveyor belt standby point:Z>2000um stay here for vision alarm

When to use: After finish every piece, wait at this coordinate for next piece, set it at plastic cup to prevent dropping while waiting

## M14 delay point setting, delay time 1000ms will wait at this point

When to use: Working point is written into delay point or move to this coordinate, delay point is used when glue output is slow and needs waiting or pre-heating time waiting

The screenshot displays a CNC control software interface. At the top, a camera view shows a circular workpiece with a green crosshair. A red text overlay reads "XY hand move, Hold Shift key = screen Fiducial Mark moving". Below the camera view is a table of machine points. A dialog box titled "Confirm" is open, asking "Do you really want to execute?" with "Yes" and "No" buttons. A red box highlights the "Yes" button. The table below has a red background and contains the following data:

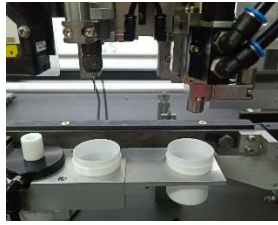
No	X um	Y um	Z um	D um	W um	H um	Note
M0	261680	429530	26735	520	0	0	Head_H1: XY base
M1	216695	444755	26735	1580	0	0	Head_H1: CCD base views on M0: H1 XY base
M2	11305	384085	0	1090	0	0	XY machine jig base
M3	337620	429485	26735	1050	0	0	Head_H1: Z base: touch auto searching surface
M4	288390	447235	0	0	0	0	Machine maintenance position
M5	163775	430910	0	0	0	0	Default teaching position
M6	163775	430910	19630	0	0	0	Machine Standby: Z>2000um stay here for vision alarm
M7	353905	434515	32410	0	0	0	Head_H2: XY base
M8	235930	449940	32410	1600	0	0	Head_H2: CCD base views on M7: H2 XY base
M9	445045	449540	32410	0	0	0	Head_H2: Z base: touch auto searching surface

At the bottom of the interface, a status bar shows "REV M4 Machine maintenance position" and coordinates: "cx -128850, hy -144275, my 447235" and "hz 32410, mz 0". A red box highlights the "REV M4 Machine maintenance position" text.

1. Select M4\_machine repair point, X.Y axis move to ideal repair position as below Pic. 1
2. Select M6\_conveyor belt standby point:Z>2000um stay here for vision alarm, move X.Y axis as below Pic. 2
3. Select M14 delay point setting, Delay time 1000ms will wait at this point. Move X.Y axis as below Pic. 2
4. Revise
5. Red disk will show up, click mouse left key to save system file.



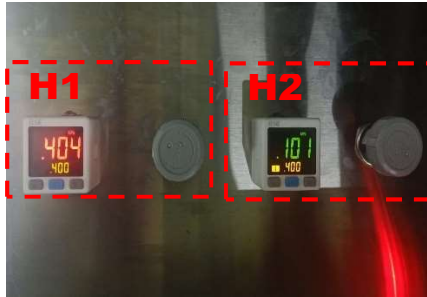
Pic. 1



Pic. 2

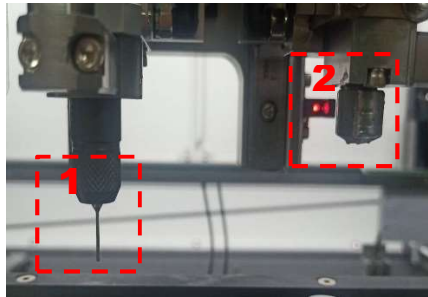
## Glue pressure adjustment hardware

When to use: Impact glue output eamount



- 1.** H1 is left valve watch, adjust knob
- 2.** H2 is right valve watch , adjust knob

Watch no signal function, used to confirm glue pressure. The larger the value. The more the glue output

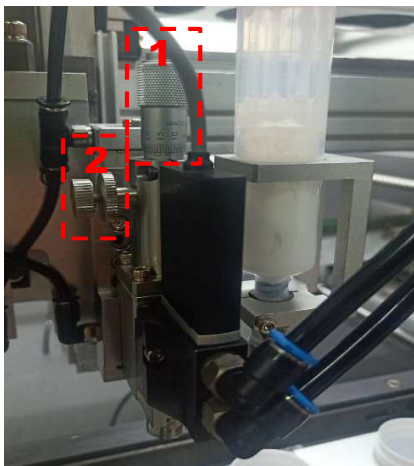


- 1.** Plastic needle size, impacts glue output amount
- 2.** Spray valve needle size, impacts glue output amount

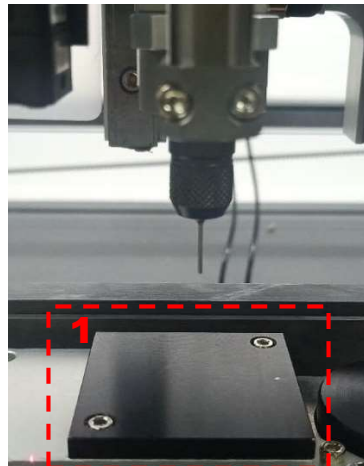


Screw control box

- 1.** Screw vale rotating speed, voltage control
- 2.** Adjust rotating speed
- 3.** Manual screw valve rotate



- 1.** Spray valve firing PIN height, if higher, more glue amount  
(Suggested: Turn off all, two circles above as base)
- 2.** Fix scratch screw, lock it tight after adjusting to prevent machine vibration and screw falls off



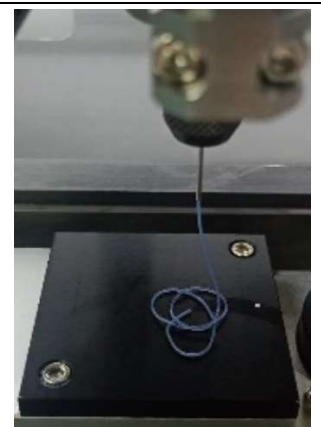
- 1.** Glue testing platform

# H1\_Glue amount test

## Step 1: Construct new program Cpk\_H1\_Point, check valve glue output

The screenshot shows the software interface for H1\_Glue amount test. A file explorer window is open, showing the file 'Cpk\_H1\_Point.w0' selected. The control panel on the right has several settings, including 'Point Time' set to 100ms and a red box around the number '8'. The main workspace is a green grid. A red dashed box highlights the 'T\_c1 r1' button in the control panel. The status bar at the bottom shows coordinates and machine parameters.

1. Right mouse key
2. Open New/Old working file
3. Construct testing point glue amount program
4. Provide glue pressure function button(No action for valve, used to adjust valve pressure)
5. Start valve on(glue pressure on action + Valve on action 作)
6. Single action dispense button(Single action on/off + glue pressure action + single action on/off valve action)
7. Continue glue output button(Continue on glue pressure action + Continue on/off valve action)
8. Left/Right valve switch
9. Set seconds(1000ms as 1 sec.) for single action glue output according to this column



(Continue glue output, cannot stop glue)

Adjust glue action procedure: Inside system needle height and center point calibration done, use needle and test that valve glue output is smooth, See Pic. 1

If glue output isn't smooth: 1. Check whether hardwares are working properly 2. Check whether there is bubbles in glue tube

3. Check if valve is clogged 4. Check if needle is clogged

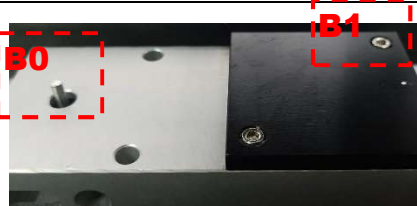


# H1\_Construct dispenser testing working file

## Step 2: Construct base B0B1 coordinate

No	X(um)	Y(um)	D(um)	W(um)	H(um)	Score	Sw(um)	Sh(um)	Note
B0	PcbBOX 0, JjgX -222905	Pcb B0Y 0, JjgY -31065	4913	0	0	50	7010	7010	B0 fiducial mark and PCB zero position
B1	B1X 0	B1Y 0	4913	0	0	50	7010	7010	B1 fiducial mark and position
B2	GpX 0	NgY 0	4920	0	0	50	7010	7010	Only PCB [GTR] Ng inspection
B3	GpX 0	GpY 0	4920	0	0	50	7010	7010	Group bypass image teaching

1. Select base
2. Turn on CCD light source
3. Open conveyor belt interface
4. Conveyor belt empty clamp
5. Open connected PCBs interface
6. CCD image move to Pic. 1 position, select B0 and B1
7. Cross size and target is the same
8. Revise
9. Close vision function



Pic. 1(Set B0 , B1 , After revising close vision functionm)

# H1\_Construct multi-dispense working point

## Step 3: Construct dispense point and array expand dispense working point

T1	Wt.0.1mg	Tid.0um	Pch.um	Head	Type	Spd.0.1ms/s	No	X.um	Y.um	Z.um	Line/Point.ms	No	Dura	WLu
N1	0.01			H1	Point			-37875	840	30			3150	0

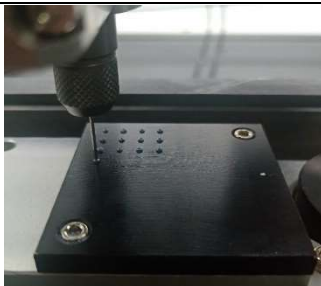
1. Conveyor belt empty clamp, Pic. 1
2. Working point column, Pic. 1
3. Select teach, Pic. 1
4. Select dispense, Pic. 1
5. Input single dispense, stop seconds(initial 30ms start testing glue), Pic. 1
6. CCD move to dispense platform's left up position, press F6 on keyboard or click new interface. Construct glue working point, Pic. 1
7. Select edit,. Pic. 2
8. Select array, Pic. 2
9. Input amount and distance, according to first dimension as position+value(can use this parameter), Pic. 2
10. Input starting point N1 working point, N1 end working point, Pic. 2
11. Expand array function button, Pic. 2
12. Select connecting PCBs, Pic. 3
13. Switch working diagram, Pic. 3
14. Blue dot is base B0, Red dot is B1, Black dot is current CCD position, Red dot is dispense workign point, Pic. 3
15. Select base, set dispense height(height will impact dispense residue amount), Pic. 4

# H1\_Auto dispense

## Step 4:Auto dispense

T16	Wt 0.16mg	Td 0um	Pch um	Head	Type	Spd 0.1ms/s, No	X um	Y um	Z um_Line/Point ms, No	D um	Wt
N1	0.01			H1	Point		-37875	840	30	3150	0
N2	0.01			H1	Point		-32875	840	30	3150	0
N3	0.01			H1	Point		-27875	840	30	3150	0
N4	0.01			H1	Point		-22875	840	30	3150	0

1. Conveyor belt empty clamp
2. Auto (Actual feed in – clamp positioning – Dispense – Output)
3. Auto Check(Dispense – Vision Confirmation – Confirm dispense position and amount)
4. Dry Run(Simulate actual route, No dispensing)
5. View(Vision simulation of actual route)
6. Run Button
7. Start cycle + Start(When in auto, perform next step when everytime Start is pressed)
8. Reset Button(Cancel auto mode)



Dispensing



Dispense Front view



Dispense Top view

Can perform dispense after this glue amount test is successful. Then adjust glue amount according to actual product need (Hardware can adjust glue output amount, Software can extend dispense time and height impact glue amount)

# H1\_Dispense Test

Save as new file, Construct dispense program, adjust glue parameter

T6	Wt 0.04mg	Td 32000um	Pch um	Head	Type, Spd 0.1ms/s, No	X um	Y um	Z um, Line/Point ms, No	D um	W um	H um	Note
N1	0.01	8000		H1	300	-26975	-305	0	3150	0	0	
N2	0.01	8000		H1	300	-26975	-305	0	3150	0	0	
N3	0.01	8000		H1	End	-26975	-8305	0	3150	0	0	
N4	0.01	8000		H1	300	-19675	-2605	0	3150	0	0	
N5	0.01	8000		H1	300	-19675	-17605	0	3150	0	0	
N6	0.00	0		H1	300	-27675	-17605	0	3150	0	0	

Pic.1

Pic.3

Pic.4

Pic.5

Dispense

1. Conveyor belt clamp, Pic. 1
2. Right mouse key to use save as new file function, Construct Cpk\_H1\_Line Pic.1 Pic.3
3. Select Edit Pic.2
4. Input Start 1 to most 16 working point Pic.2
5. Delete all working points Pic. 2
6. Select Teach, Dispense mode Pic. 1
7. Move to dispense platform left 9 position using CCD, initially write in L type, Press keyboard F6 or New interface, construct dispense working point Pic.4
8. CCD interface right mouse key, Can use X or Y axis fixed distance moving Pic.1
9. Input value um as unit, can move in fixed distance towards X or Y direction Pic. 1
10. Dispense end point needs to be revise to END, for example: Select N6, Click Revise end point, click revise, 300 revises to END, Pic.1
11. Red line is dispense route, Dotted line is add empty Run, Pic 4
12. Base Dispense height setting, the higher the value the more the glue amount. Initial set to 500. Pic.5
13. Dispense End distance, the shorter the negative value glue amount, the longer the positive value glue amount. Initial set

to 1500. Pic.5

- 14. Turn valve On delay, the shorter the negative value glue amount, the longer the positive value glue amount. Pic.5
- 15. Start valve On delay, the longer the negative value glue amount, the shorter the positive value glue amount. Pic.5

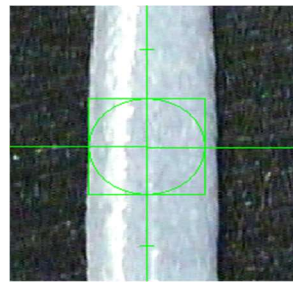
## Adjust dispense parameter

Target Size, Use needle size or dispense target setting as base

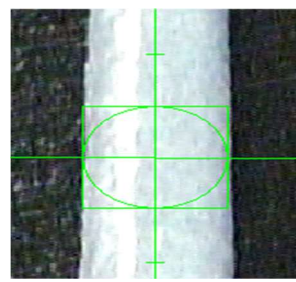
Below interface parameter is screw valve dispense, can be used at needle valve and air pressure valve



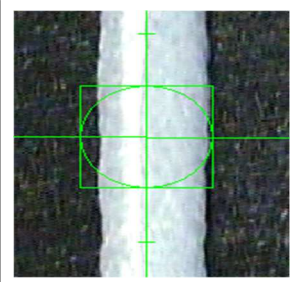
Teach.  
Dispense speed setting.  
Right Pic. is performance under different dispense speed. The lower the speed is, the more the glue amount is



Speed=130



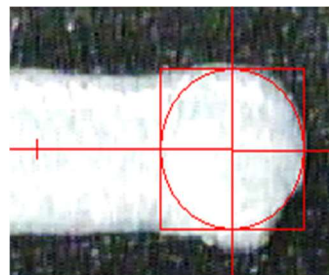
Speed=135



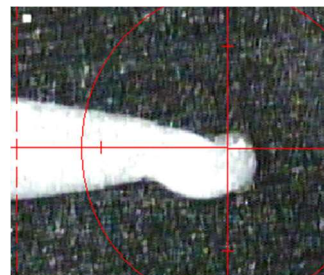
Speed=140



Base  
Start point valve On delay  
Right Pic. is performance under different delay. The lower the delay is, the more the start point glue amount is




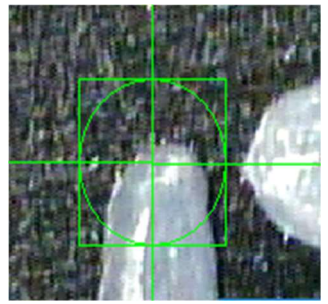
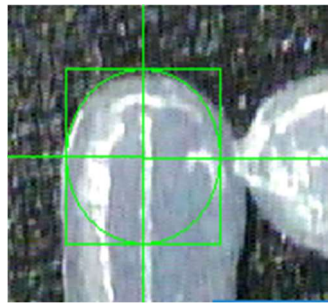
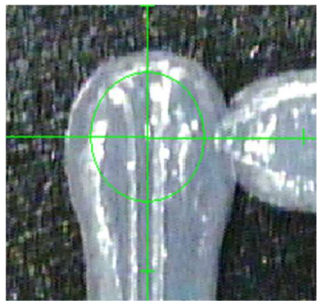
Delay=-50


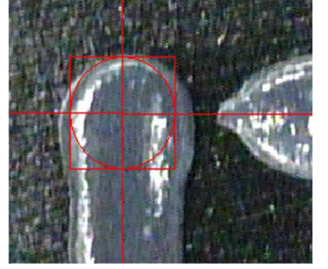
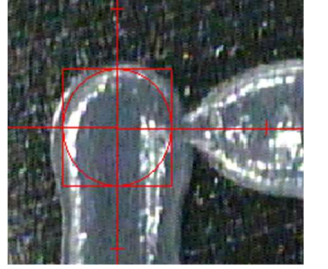
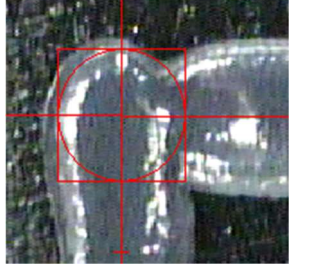



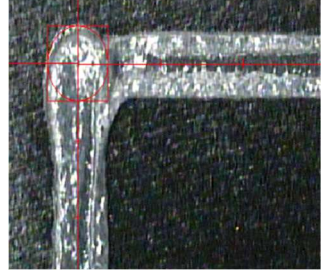
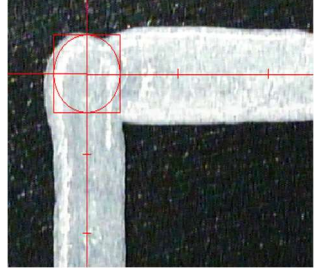

Delay=0



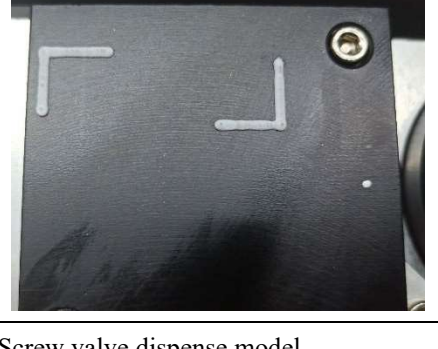
Delay=50

 <p>Turning Delay Tm 0 ms</p> <p>Base Turn Valve On delay Right Pic. is performance under different delay. The lower the delay is, the more the turn angle glue amount is</p>	 <p>100</p>	 <p>0</p>	 <p>-100</p>
--	--	---	---

 <p>End of distance 0 um</p> <p>Base Dispense End distance Right Pic. is different end glue distance. The larger the distance is, the more the end part glue amount is</p>	 <p>0</p>	 <p>500</p>	 <p>1500</p>
---	--	---	---

 <p>Line shift Zh 500 um</p> <p>Base Dispense total z height Right Pic. is different add height. The more appropriate the distance is, the better the leftover glue amount is</p>	 <p>200</p>	 <p>500</p>	 <p>1000</p>
--	---	--	--

Performance is dispense on this screw hardware parameter

		
Screw rotate speed	Screw valve air pressure parameter	Screw valve dispense model

Adjust Spray valve hardware



Valve\_DoTm(Q/0ms) W(Chk\_0Tm\_0)

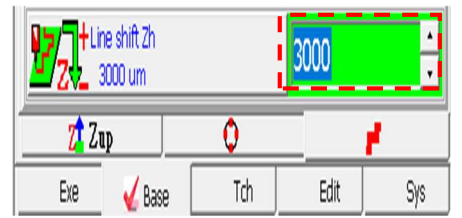
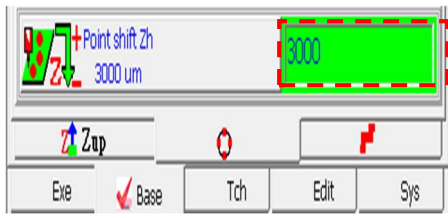
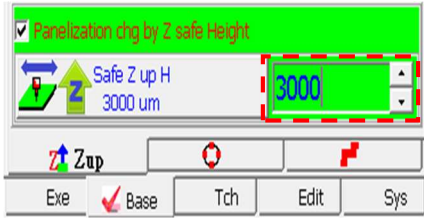
Spray Valve H2	Update WorkPar	Spray On Time 4ms	4							
Spray points 30	Std Weight 1.00 mg	Tol± 10.00 %	10.00							
Head	Selected Valve	Glue PS	Tank PS	PITm	Std mg	Get mg	Tol%	Get%	On	Volts
<input checked="" type="checkbox"/>	H1 Spray Valve	3.00	3.00	1500	1.00	1.00	10.00	0.00	4	15.0
<input checked="" type="checkbox"/>	H2 Spray Valve	3.00	3.00	30	1.00	1.00	10.00	0.00%	4	15.0
<input type="checkbox"/>	H3 None	3.00	3.00	30	1.00	1.00	10.00	0.00	4	15.0

Firing Pin rotates downward to the end, then turn back two circles as fixed base

Adjust spray valve glue pressure, will impact glue amount

Spray valve On, set time to 4ms

專屬噴射閥軟體調整

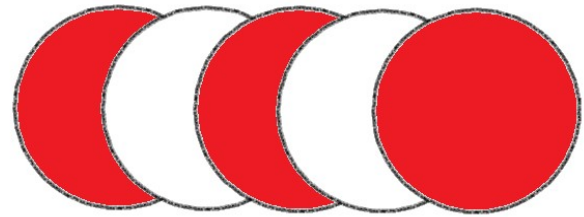
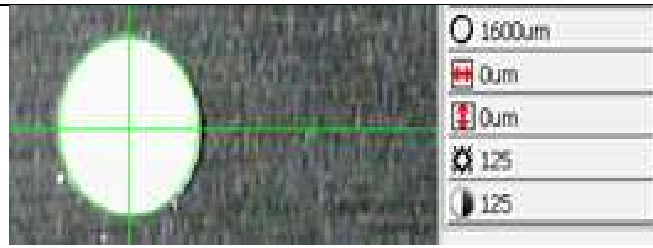


This interface function is empty run and move to next working point to add height  
 Spray valve DryRun height base fixed to 3000um  
 Click z axis height to perform connected PCB work  
 (Aware: Pcb board components should be less than 3000um, Otherwise will collide with components.)

Z axis base height: touch auto search point, after height conformation, Spray valve dispense height set to fixed 3000um

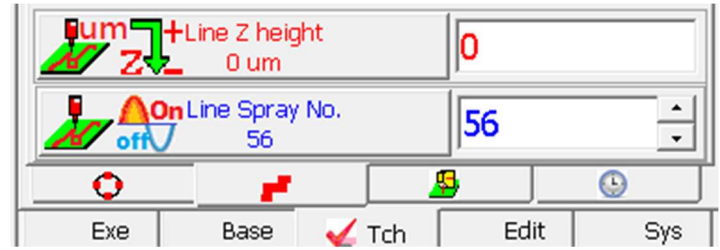
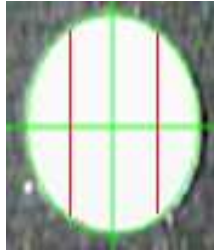
Z axis base height: touch auto search point, after height conformation, Spray valve dispense height set to fixed 3000um

## Spray valve basic parameter setting



System: From dispense base point, Size of one particle dispensed is 1600um

Spray valve dispense is counted in particles  
The dispense way is side by side and overlaps 1/3



Dispense material example 1600um  
 $1600/3=533$  is overlapping dispense distance

Dispense z depth doesn't need to set up low to 0  
Counts spray frequency base according to work distance

T2	Wt 0.17mg	Td 30000um	Pch um	Head	Type, Spd 0.1ms/s, No	X um	Y um	Z um_Line/Point ms, No	D um	W
N1	0.17	30000 2	6000	H2	5 1	3125	-11025	0	1600	0
N2				H2	End	33125	-11025	0	1600	0

1. N1 is Start point for dispensing, N2 is End point of dispense (Shows in END)

2. Adding working point will automatically calculate N1 moving N2 distance 30000um

Calculation method: Dispense Spray frequency function  $30000/533=56$  is adjusted after dispense base frequency



# EM5701N Glue weight

Hand move, Hold Shift key = screen Fiducial Mark moving

Valve DoTm (8/0ms) W(Chk) Tm (8)

Screw Valve H1 Update WorkPar. Spray On Time 4ms Screw Voltage 15.00V Needle Spec. #22=0.40

Needle On Time 1500ms Std Weight 1.00mg Tol% 10.00% Glue PS 3.00kg/cm2 Tank PS 3.00kg/cm2

Head	Selected Valve	Glue PS	Tank PS	PtTm	Std mg	Get mg	Tol%	Get%	On	Voltage	Needle	Date Time	Note
<input checked="" type="checkbox"/>	H1 Screw Valve	3.00	3.00	1500	1.00	1.00	10.00	0.00%	4	15.00	#22=0.40	2019/02/21/ 15:35:34	Default
<input checked="" type="checkbox"/>	H2 Screw Valve	3.00	3.00	1500	1.10	1.10	10.00	0.00%	4	15.00	#22=0.40	2019/02/21/ 15:37:15	Default
<input type="checkbox"/>	H3 None	3.00	3.00	30	1.00	1.00	10.00	0.00	4	15.00	#22=0.40	2018/11/09/ 13:54:58	Default

T2 Valve Typw Glue PS Tank PS PtTm Std mg Get mg Tol% Get% On Voltage Needle Date Time Note

1 Screw Valve 3.00 3.00 1500 1.00 1.10 10.00 10.00 4 15.00 #22=0.40 2019/02/21/ 15:37:15 Default

2 Screw Valve 3.00 3.00 1500 1.00 1.00 10.00 0.00 4 15.00 #22=0.40 2019/02/21/ 15:35:34 Default

Standard Data Weighing Balance Set 0 Calibration Delete Default

H1\_Clean first before autorun

Pause Reset

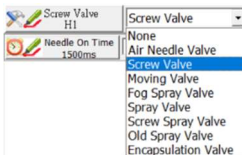
Head and Valve parameter setting

cX -655, hX 66280, mX 497005 cY 9330, hY 9330, mY 474470 hz 30000, vZ 0

Revise HeadCal. Door Verify Light CcdGo HeadGo SbyGo MaintGo HomeGo RefGo WetGo ClnPin Z move tbH: H1 NonStop Point ClnValve Air GlueEmptySn

## Button instructions:

1. Valve parameter interface
2. Valve H1: When currently using H1 valve teaching, can switch H, H2 valve setting
3. Glue weight backup parameter column
4. Use glue weight parameter for H1, H2 valve
5. Screw valve H1: Mouse right key connecting point down lock can set valve type, See below



6. Renew working parameter: Select glue weight backup parameters, Select valve H1, H2, renew parameter function button
7. Spray valve On time: For valve use, Set On time unit ms
8. Screw valve voltage: In actual, view screw rotating box as base, record screw rotating speed
9. Needle size: Record needle size
10. Valve On time: Glue output once time setting ms, used to calculate glue weight
11. Standard glue weight: Glue weight setting column, used to calculate glue weight
12. Error value: Glue weight error value setting %, minimum setting 0.01%~ maximum setting 40%
13. Valve pressure: Valve pressure value, glue output condition write into column, used for recording

- 14. Tank pressure: Tank pressure value, glue output condition write into column, used for recording
- 15. Standard glue amount selection: Select glue weight parameter, select valve H1, H2, renew parameter function button
- 16. Perform standard weighing: Construct backup parameters, will input parameter according to 5-16 column value



Input weighed value

- 17. Balance homing: Install COM4 precise balance function, if not installed, Balance function button is inverse gray
- 18. Balance calibration: Precise balance homing, if not installed, Balance function button is inverse gray
- 19. Delete: delete backup information button
- 20. Remark: Can be used to record which type of machine is used ◦
- 21. Cleaning before auto dispensing: Click to open

## Hardware instructions



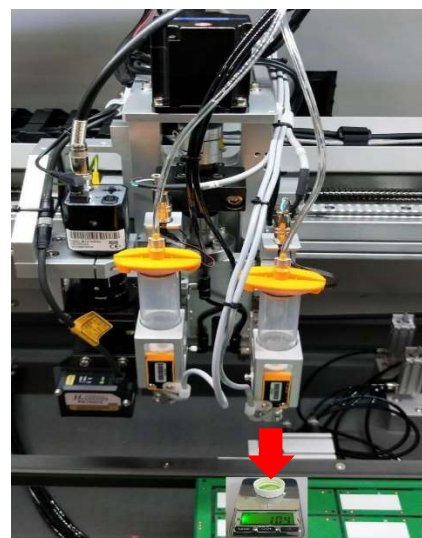
1.H1 valve, H2 valve pressure value



2.Precise Balance is modelled by above, use 0.000 as unit



3. Needle information



4. Feed out glue to balance

# Glue weight software operation

Valve\_DoTm[0/0ms] Wt[Chk\_0 Tm\_0]

Screw Valve H1 | Update WorkPar. | Spray On Time 4ms | 4 | Screw Voltage 15.00V | 15.00 | Needle Spec. #22=0.40 | #22=0.40

Needle On Time 5000ms | 5000 2 | Std Weight 1.00 mg | 1.00 3 | Tol% 10.00 % | 10.00 4 | Glue PS 3.00kg/cm2 | 3.00 | Tank PS 3.00kg/cm2 | 3.00

Head	Selected Valve	Glue PS	Tank PS	PtTm	Std mg	Get mg	Tol%	Get%	On	Voltage	Needle	Date Time	Note	
<input checked="" type="checkbox"/>	H1	Screw Valve	3.00	3.00	1500	1.00	1.10	10.00	10.00	4	15.00	#22=0.40	2019/02/21/_15:37:15	Default
<input checked="" type="checkbox"/>	H2	Air Needle V...	3.00	3.00	1500	1.00	1.00	10.00	0.00	4	15.00	#22=0.40	2019/10/18/_09:05:26	Default
<input type="checkbox"/>	H3	None	3.00	3.00	30	1.00	1.00	10.00	0.00	4	15.00	#22=0.40	2018/11/09/_13:54:58	Default

T2	Valve Typw	Glue PS	Tank PS	PtTm	Std mg	Get mg	Tol%	Get%	On	Voltage	Needle	Date Time	Note
<input checked="" type="checkbox"/>	1	Screw Valve	3.00	3.00	1500	1.10	10.00	10.00	4	15.00	#22=0.40	2019/02/21/_15:37:15	Default
<input checked="" type="checkbox"/>	2	Screw Valve	3.00	3.00	1500	1.00	10.00	0.00	4	15.00	#22=0.40	2019/02/21/_15:35:34	Default

Glue Weight Input dialog: Press button to set default= 1 mg: Min= 0.01, Max= 999. Value: 1.00 6. Buttons: Yes, Cancel.

Standard Data | Weighing 5 | Balance Set | Glue Weight Input

H1\_Clean first before autorun 10

Machine I/O busy, RESET Key to stop  
cY 483800, hY 483800, mY 0 | hZ 30000, mZ 0

io SbyGo MaintdGo HomeGo WetGo ClnPin Z move Valve: H1 NonStop Point ClnValve Air GlueEmptySn

- Place balance under valve first(Hardware 4) and record current container weight
- Set valve glue output seconds ms
- Set glue weight
- Set error value, dispense second dispense amount and set dispense weight error tolerance rate (%)
- Execute standard weighing: Original coordinate glue output, glue pressure setting(Hardware 1)will impact glue output amount, Set dispense time from step 2
- Glue output's weight – No glue's weight = value, write into column
- If passes test, will construct backup parameter (Below T3 constructs parameter NG, cannot use if not ticked)
 

T3	Valve Typw	Glue PS	Tank PS	PtTm	Std mg	Get mg	Tol%	Get%	On	Voltage	Needle	Date Time	Note	
<input checked="" type="checkbox"/>	1	Screw Valve	3.00	3.00	1500	1.00	1.10	10.00	10.00	4	15.00	#22=0.40	2019/02/21/_15:37:15	Default
<input checked="" type="checkbox"/>	2	Screw Valve	3.00	3.00	1500	1.00	1.00	10.00	0.00	4	15.00	#22=0.40	2019/02/21/_15:35:34	Default
<input type="checkbox"/>	3	Screw Valve	3.00	3.00	5000	1.00	0.70	10.00	-30.00	4	15.00	#22=0.40	2019/10/18_20:10:48	Default
- Select H1 or H2 valve renew parameter
- Select standard glue amount selection, insert parameter H1 or H2, glue amount calculation standard
- Suggested tick: Clean leftover glue before Auto to prevent error

# Working glue weight example(Glue weight setting should be after finished)

File: C:\Em5701N\Auto\text.w0

hand move, Hold Shift key = screen Fiducial Mark moving

File: C:\Em5701N\Auto\text.w0

F6\_NEW F7\_REV F\_8Rev +1 GoNext GoLast

Point Time 20 ms

Point\_20 Path\_20 LaserZh Delay

Exe Base Tch Edit Sys

Msg PCBs Cvey Code Lz Zh Valve Compal

T\_clr1 21 r1 Cycle Start Pause Reset

F3/3	Wt 0.12mg	Td 43560um	Pch um	Head	Type, Spd 0.1ms/s, No	X um	Y um	Z um_Line/Point ms, No	D um	W um	H um	Note
F1	0.05	43560		H1	534	41600	41935	0	1330	0	0	
F2				H1	End	41760	-1625	0	1330	0	0	
F3	0.01			H1	Point	41760	-1625	20	1330	0	0	

C:\Em5701N\Auto\text.w0

cX 41760, hX 124250, mX 454590 cY -1625, hY -12275, mY 485425 hZ 0, mZ 0

Revise HeadCal Door Verify Light CcdGo HeadGo SbyGo MaintGo HomeGo WetGo ChPm Z move Valve: H1 NonStop Point ChValve Air GlueEmptySn

Dispense: F3 0.01 2 H1 Point 41760 -1625 20 1 1330 0 0

1. Valve setting
2. The dot's glue weight is 0.01mg

Glueing

F3/3	Wt 0.12mg	Td 43560um	Pch um	Head	Type, Spd 0.1ms/s, No	X um	Y um	Z um_Line/Point ms, No	D um	W um	H um	Note
F1	0.05 3	43560 2		H1	534 1	41600	41935	0	1330	0	0	
F2				H1	End	41760	-1625	0	1330	0	0	

1. Glueing speed
2. Glueing distance
3. Glueing amount

Calculation: Glueing distance ÷ Glueing speed = Glueing amount

## Screw Valve Cleaning and Maintenance

Pay Attention to Dispense head dispense (Please follow the below to guarantee a stable glue amount)

Not using it for 2 days in a row :

- Method 1 : Dispense continuously for 15 seconds everyday
- Method 2 : Switch glue box into maintenance oil, then press dispense button until the leftover glue are discharged. When wants to use it again, then switch the maintenance oil with glue box again and discharge the oil

Dispense Head dispensing maintenance : (Please follow the below to guarantee a stable glue amount)

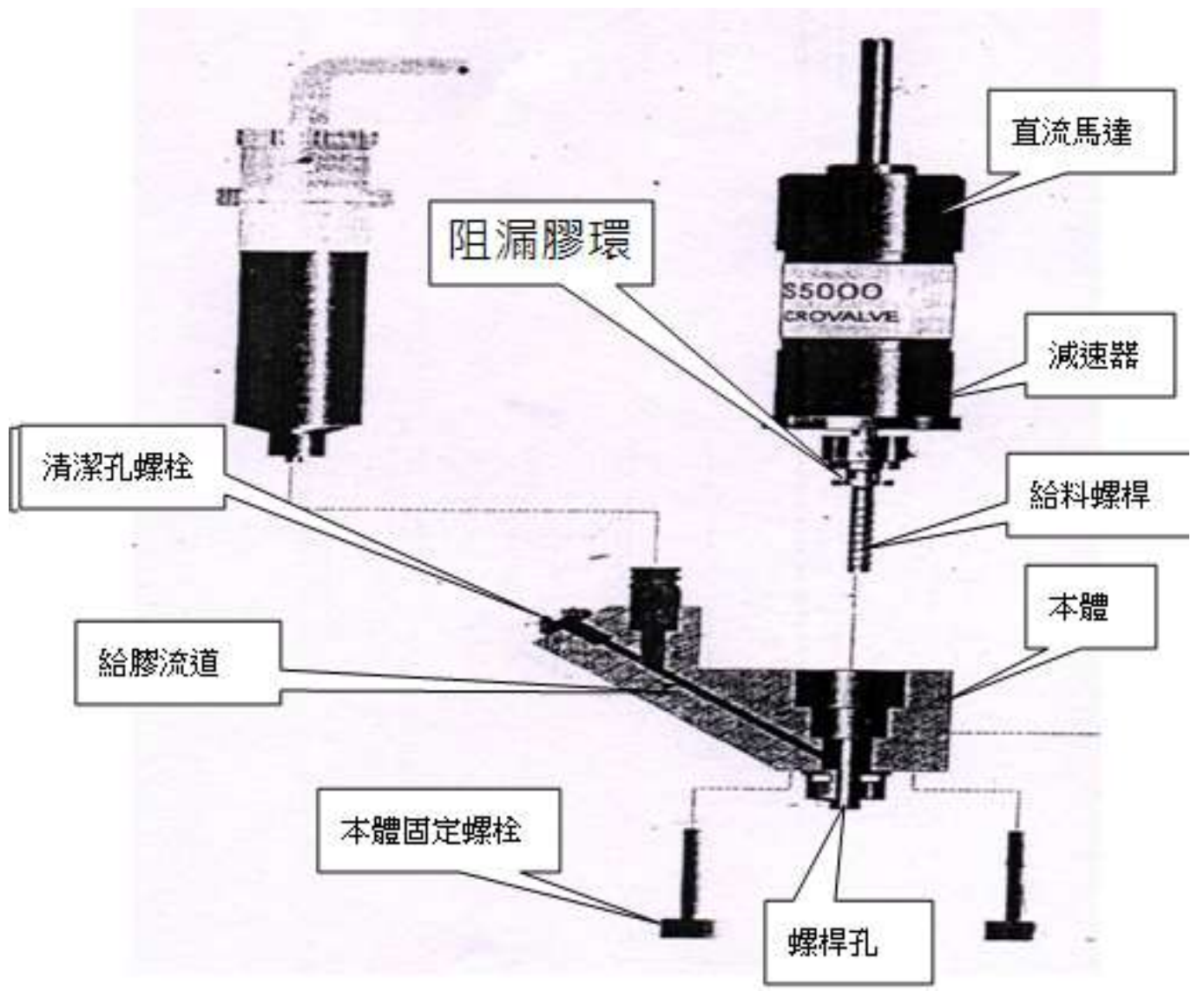
When to Maintain :

- Clean it every 2 weeks
- When dispense isn't smooth

Maintenance cleaning procedure(Refer to Dispense head TS-5000 structure image below)

- After loosening machine fixed bolt, remove the servo motor slowly
- Loosen the cleaning bolt, clean it with Toluene using a brush

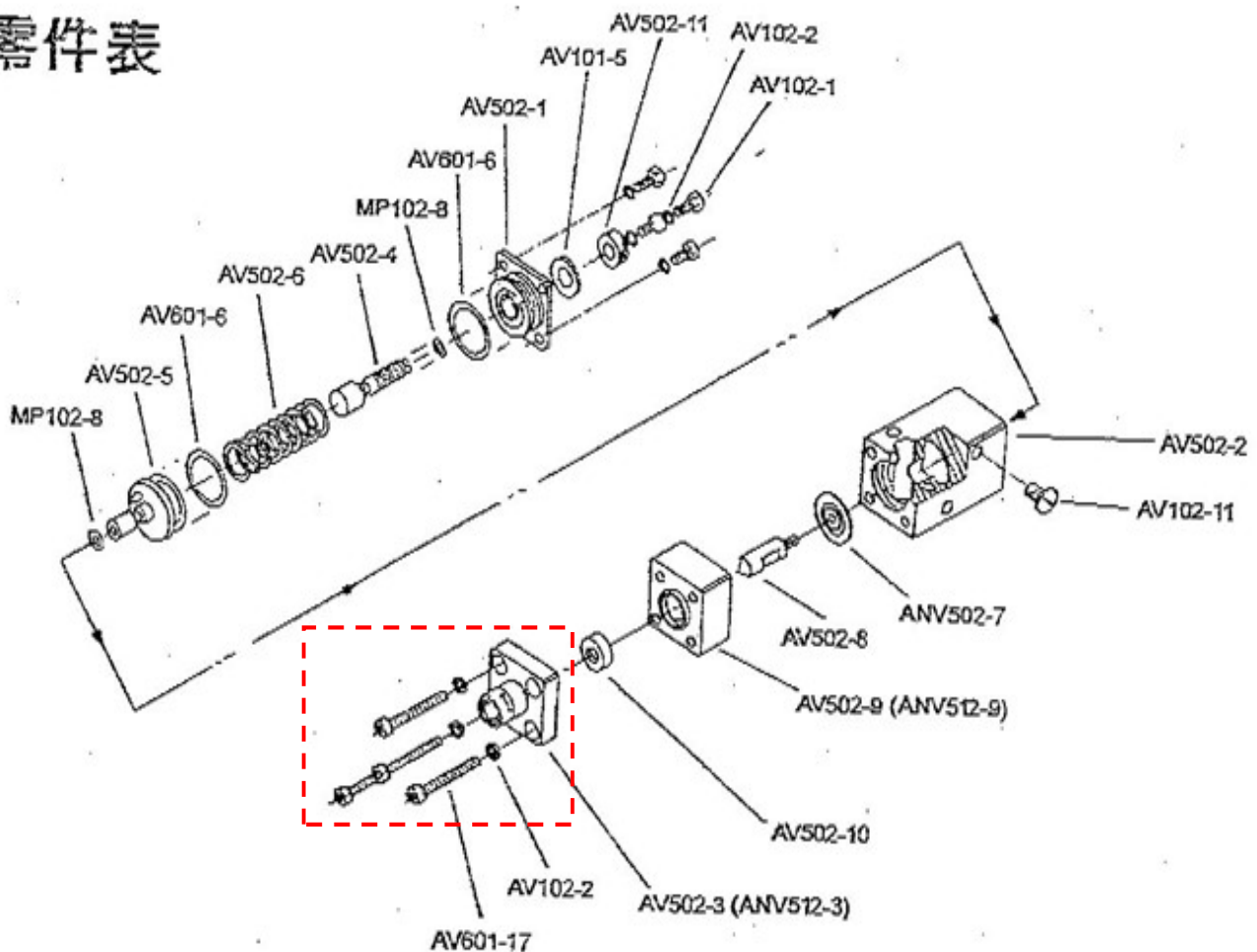
After cleaning, tighten the gleaning bolt, then insert the servo motor slowly, then tighten machine fixed bolt.



Change the Leak-Proofing ring every 3 months to prevent glue backwash and causing the valve to work improperly

## Head valve ANV502(ANV512) cleaning and maintenance

### 零件表



When cleaning and maintaining, just remove the four “AV601-17” screws, then can clean and maintain the lower half. If the glue is solidified and cannot clean, soak it with Acetone, and clean it after it is softened. Do not soak any sealed rings with Acetone or it will destroy the sealed rings.

The Upper half doesn't need maintenance in general.

### Consumption and Backup Components

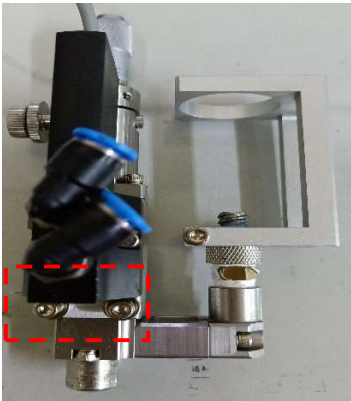
1. AV502-10 Valve base : Change it when glue keeps leaking from needle head
2. ANV502-7 diaphragm : Doesn't break easily, change it only when glue is leaking out from the upper half

## Spray valve cleaning and maintenance

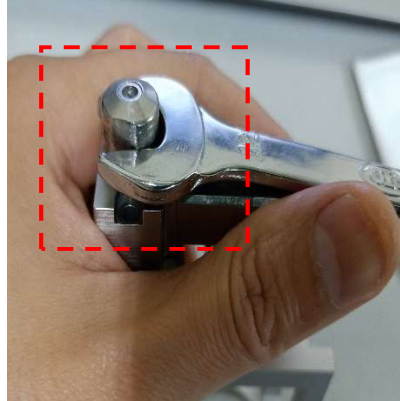


Disassemble tools

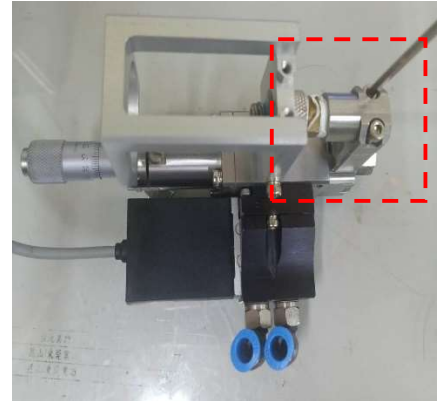
Consumption and Backup Materials



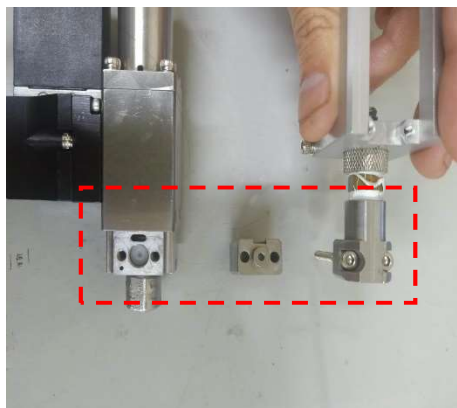
1. Remove spray valve for maintenance



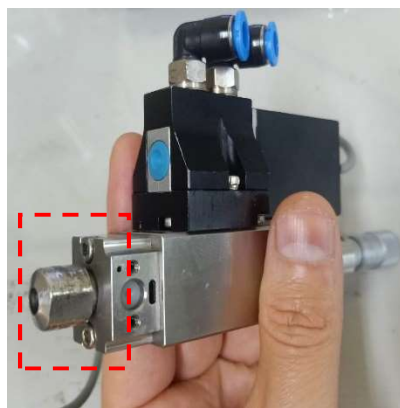
2. Loosen the nuts  
(Can loosen nuts first on the machine instead of taking them down)



3. Remove glue guiding local component screw



4. Glue guiding local component separation



5. Remove firing pin valve screw



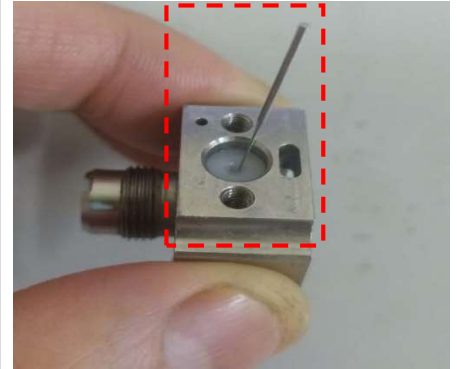
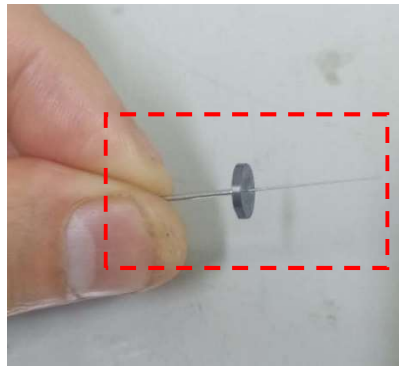
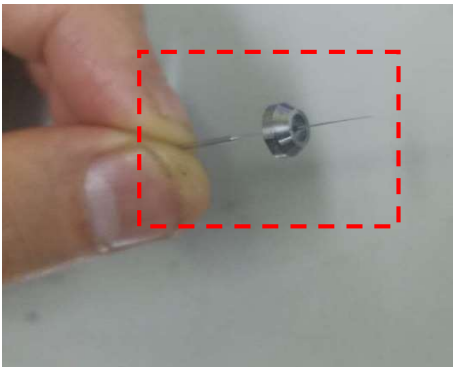
6. Remove washer



7. Eight components that will have contact with the glue

8. Soak these eight components with Acetone. Soaking time according to each glue and clean them with dust-free wiper

9. Do not touch Acetone with sealed rings to prevent destroying it and causing leaking glue



10. Clean needle head

11. Clean the Impact plate

12. Clean the leftover glues in the Teflon

### Build the Spray valve



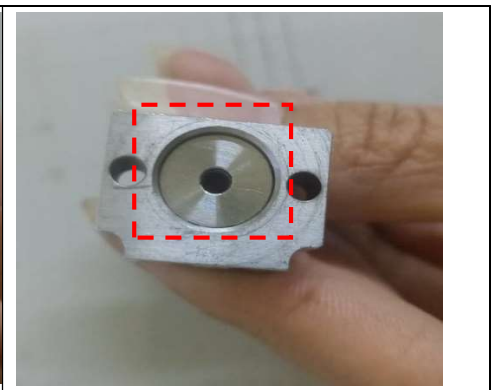

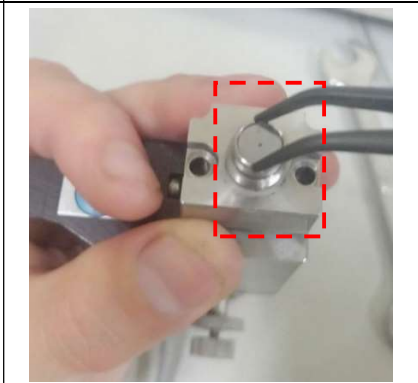

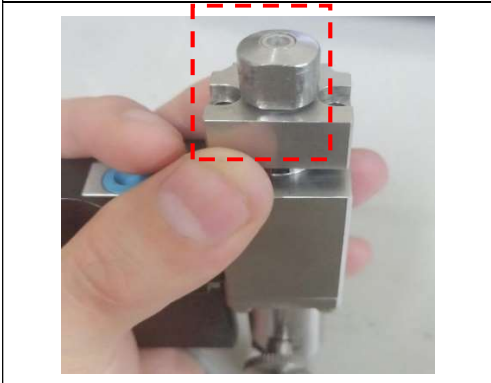
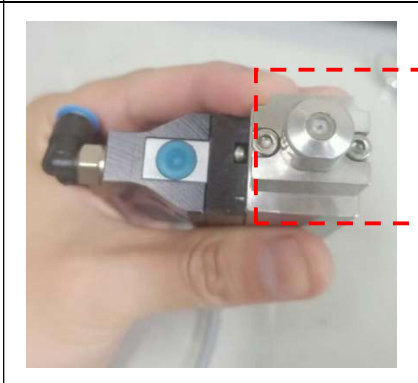
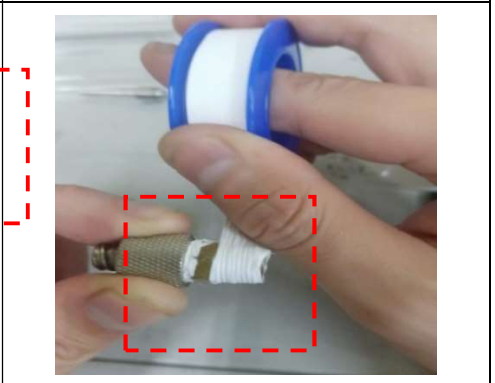

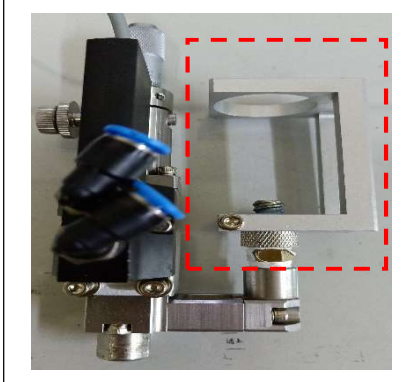
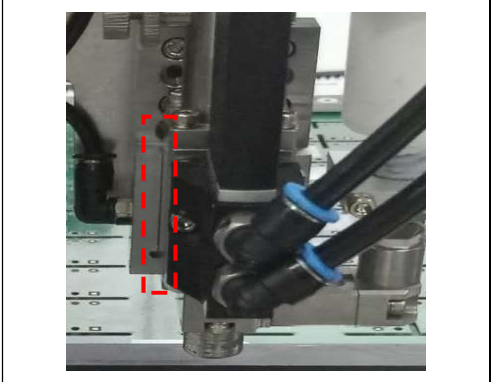


1. Place the white sealing ring on the bottom, the black one on the top. Be aware of the direction of the sealing rings

2. Put on the lid

3. Align the arc on the sealing ring



		
<p>4. Push it to the end</p>	<p>5. Sealing ring is installed</p>	<p>6. Place the washer</p>
		
<p>7. Connect the needle head base with the firing pin</p>	<p>8. Install the impact plate</p>	<p>9. Install the needle head</p>
		
<p>10. Tighten the nuts</p>	<p>11. Tighten the screws</p>	<p>12. Wrap with sealing tape</p>
		
<p>13. Tighten the screws. Be careful the gap of glue leaking platform (Glue leaking platform prevents glue to get into the valve when sealing ring is broken)</p>	<p>14. Tighten the base that prevents swinging of glue tube</p>	<p>15. Spray valve must be tightened to the side and cannot have an offset or it will impact the glue output</p>

## Removing spray valve firing pin

When to use: In general no need to remove spray valve, just remove and maintain them if there is strange sounds or when glue output isn't smooth



1. Loosen machine screws



2. Upper half of machine



3. Lower half of the machine



4. Clean the inside with alcohol and dust-free wiper



5. Sealing ring



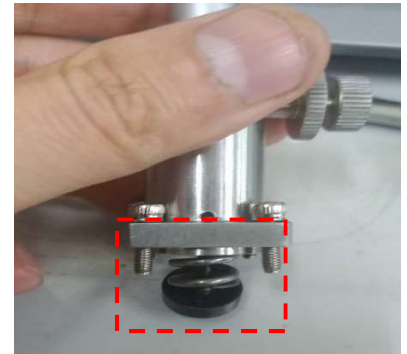
6. Be aware of the direction when installing sealing ring



7. Wipe the firing pin with high speed maintenance oil



8. Install firing pin



9. Maintain the machine and confirm if spring and pushing board is broken



10. Tighten screws



11. Maintenance done

# Plastic Needle head specifications

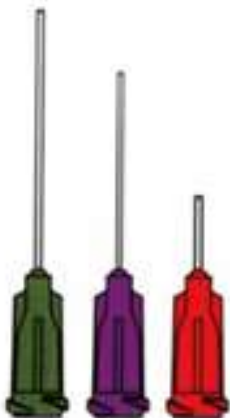
When to use: Choose needle size according to glue amount



## TE 系列針頭

TE 系列由不銹鋼針管和雙螺旋聚丙烯(P.P.)針體組成。

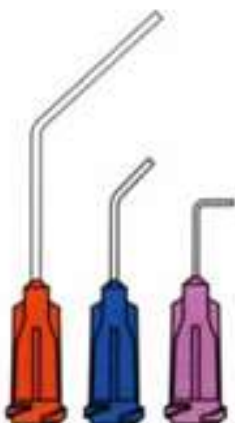
高級型的點膠針頭無毛邊，而且有電鍍研磨的針管，以使膠水流動沒有阻礙和達到一致性。除此之外，供給針頭不含矽樹脂和氟化物。以 1000 單位大包裝量供應。



規號	1/4" (6.35mm)	1/2" (12.7mm)	1" (25.4mm)	1-1/2" (38.1mm)
14		TE714050-1000	TE714100-1000	TE714150-1000
15		TE715050-1000	TE715100-1000	TE715150-1000
18	TE718025-1000	TE718050-1000	TE718100-1000	TE718150-1000
20	TE720025-1000	TE720050-1000	TE720100-1000	TE720150-1000
21	TE721025-1000	TE721050-1000	TE721100-1000	TE721150-1000
22	TE722025-1000	TE722050-1000	TE722100-1000	TE722150-1000
23	TE723025-1000	TE723050-1000	TE723100-1000	TE723150-1000
25	TE725025-1000	TE725050-1000		
27	TE727025-1000	TE727050-1000		
30	TE730025-1000	TE730050-1000		
32	TE732025-1000			

## TE 系列彎針頭

這些 TE 系列彎針頭精密彎曲成 45° 和 90°，適用於難以到達位置的液體供給。以 50 單位包裝量供應。



規號	1/2"(12.7mm)		1-1/2"(38.1mm)
	90°	45°	45°
14	TE714050B90PK	TE714050B45PK	TE714150B45PK
15	TE715050B90PK	TE715050B45PK	
18	TE718050B90PK	TE718050B45PK	TE718150B45PK
20	TE720050B90PK	TE720050B45PK	
21	TE721050B90PK	TE721050B45PK	TE721150B45PK
22	TE722050B90PK	TE722050B45PK	
23	TE723050B90PK	TE723050B45PK	
25	TE725050B90PK	TE725050B45PK	
27	TE727050B90PK	TE727050B45PK	
30	TE730050B90PK	TE730050B45PK	

## 顏色編碼和規號

用於 TE 系列和 TE 系列彎針頭

顏色	規號	I.D.(吋)	I.D.(毫米)
橄欖色	14	0.063	1.600
琥珀色	15	0.054	1.371
綠色	18	0.033	0.838
粉紅色	20	0.024	0.610
紫色	21	0.020	0.508
藍色	22	0.016	0.406
橘色	23	0.013	0.330
紅色	25	0.010	0.254
透明色	27	0.008	0.203
淡紫色	30	0.006	0.152
黃色	32	0.004	0.102