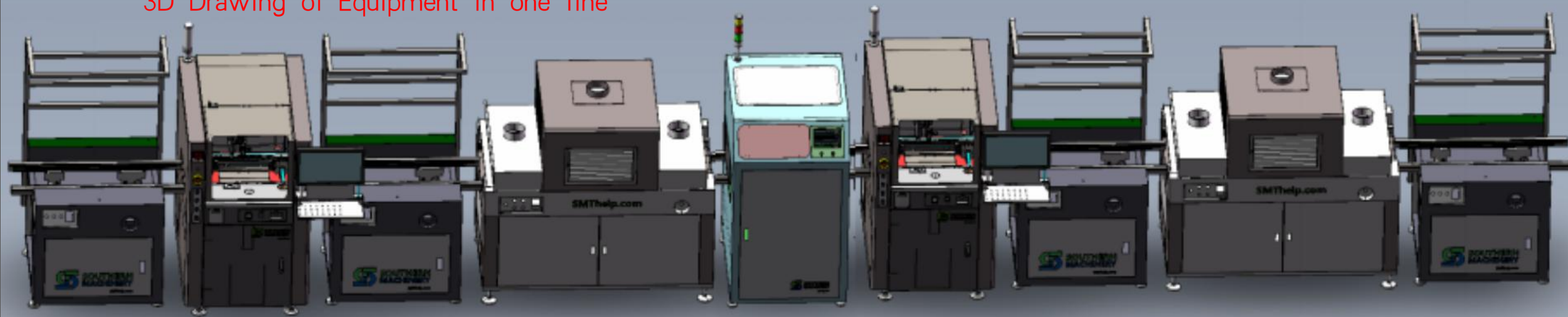


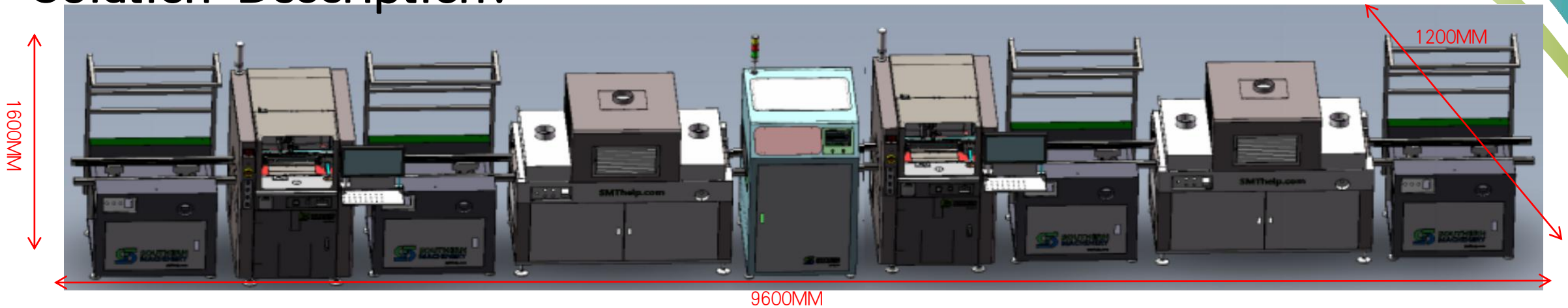
Two line of Coating Dispenser&Curing Solution

3D Drawing of Equipment in one line



To: HTSARG
 NO: HG231004
 Date: 04/10/23

Solution Description:



- This solution is a double-sided PCB coating assembly line:
- A Side of PCB: Coating Seletive Dispenser (2 valves with 1 low pressure atomizing valve and 1 needle atomizing valve), equipped with an automatic flipper to B side
- B Side of PCB: Coating Full Dispenser
- UV Curing Oven: Adopts (1-6KW) mercury-free lamp with energy-saving and high curing efficiency.
- The whole line is equipped for 1-2 person operation

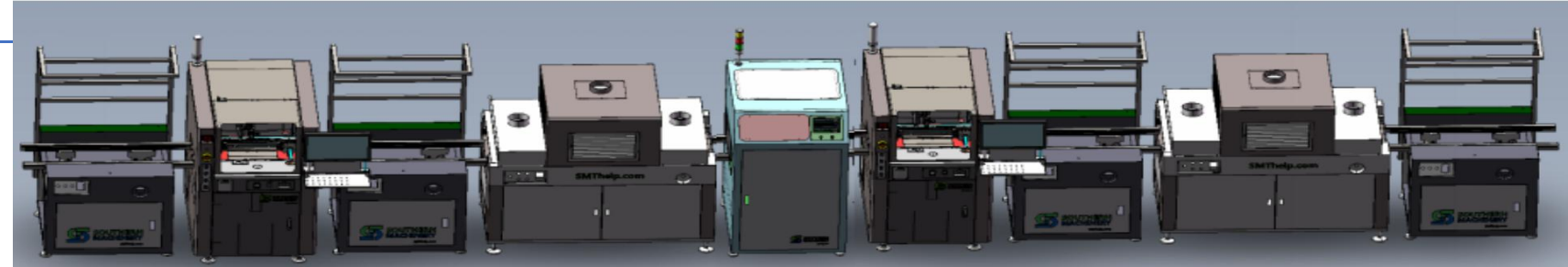
Production Capacity Demand:

- Plate Size: 210x150mm
- Demand: 100,000 plates/month

Calculate capacity demand:

$$100,000 \text{ plates} \div 22 \text{ days} \div 14 \text{ hour (2 shifts of 7 hours)} = 324.6 \text{ plates/hour}$$

Solution: **Two line with**



Estimated production capacity of Coating Full Dispenser STZF330

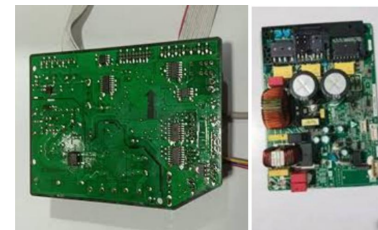
Speed of X-axis: 400mm/s. The plate width is 150mm. $150 \div 400 = 0.38s$.
 The atomization width of the valve body is adjusted to 10mm,
 the plate length is 210mm, $210 \div 10 = 21$ times
 21×0.38 , so the time required for a single plate is 7.98s

Estimated production capacity of Coating Seletive Dispenser STZS330

Because selective equipment needs to take into account factors such as trajectory avoidance components and the size of the coating area, Our engineers conservatively estimate that the efficiency of your product is around 16 to 20 seconds per plates.

Conclusion:

Estimated production capacity of One line is :
 $3600s \div (16 \sim 20) \text{ seconds/plates} = 180 \sim 225 \text{ plates/hour}$
 $180 \sim 225 \text{ plates/hour} \times 14 \text{ hours} \times 22 \text{ days} = 55k \sim 69k \text{ plates}$
 $55k \sim 69k \text{ plates} \times 2 = 110k \sim 138k > \text{Demand of } 100k$



- **Solution Advantages/Benefits:**
- One-time investment enables lifetime productivity
- – Automated process increases output (Estimated 110k~138k per Month)
- – Uniform coating thickness and volume ensures consistent high quality (Positioning Accuracy & Repeating Accuracy: $\pm 0.02\text{mm}$)
- – Selective coating is 50%+ more precise than manual
- – Saves labor (1-2 operators per line) and materials (50%+ coating savings)
- – Enclosed system with exhaust recovery is environmentally friendly

STZS330 Coating Seletive Dispenser

Item	Specification
Model	STZS330
Type	Online
Valve	2 valves 1 low pressure atomizing valve and 1 needle atomizing valve
Axes	3 axes (X Y Z)
Typical Application	Selective coating for PCBA boards
Control System	
Computer	Industrial PC + Motion control card, LCD display, Keyboard
Software	Windows 7, Southern Machinery Coating
Programming	Mouse key template
Drives	Fuji servo motors + Japanese NSK ballscrews
Motion System	
Positioning Accuracy	±0.02mm
Repeating Accuracy	±0.02mm
Max Velocity	1000mm/s (X,Y,Z)
Max Acceleration	1g (X,Y)
Conveyor System	
Conveyor Drive	Stepper motor, stainless steel chain
Rail Height	880-930mm
Number of Rails	1
Gluing Range	
Gluing Area (W×L)	450×450mm
Max Component Height	Above conveyor: 80mm, Below conveyor: 80mm
Fluid System	
Number of Valves	4
Valve Types	Needle valve, Conical jet valve

Item	Specification
Single Coating Width	2-30mm (depends on selected valve)
Coating Capacity	10L storage tank / 1L auto cleaning
Exhaust System	
Exhaust Method	Hole exhaust (built-in exhaust fan)
Exhaust Power	AC220V 380W
Exhaust Requirements	15m3/min
Factory Requirements	
Communication Interface	SMEMA interface
Power	AC220V, 50/60HZ, 10A
Air Pressure	0.4-0.6Mpa
Total Power	2.6KW
Total Weight	780KG
Dimensions (L×W×H)	1150×1200×1650mm



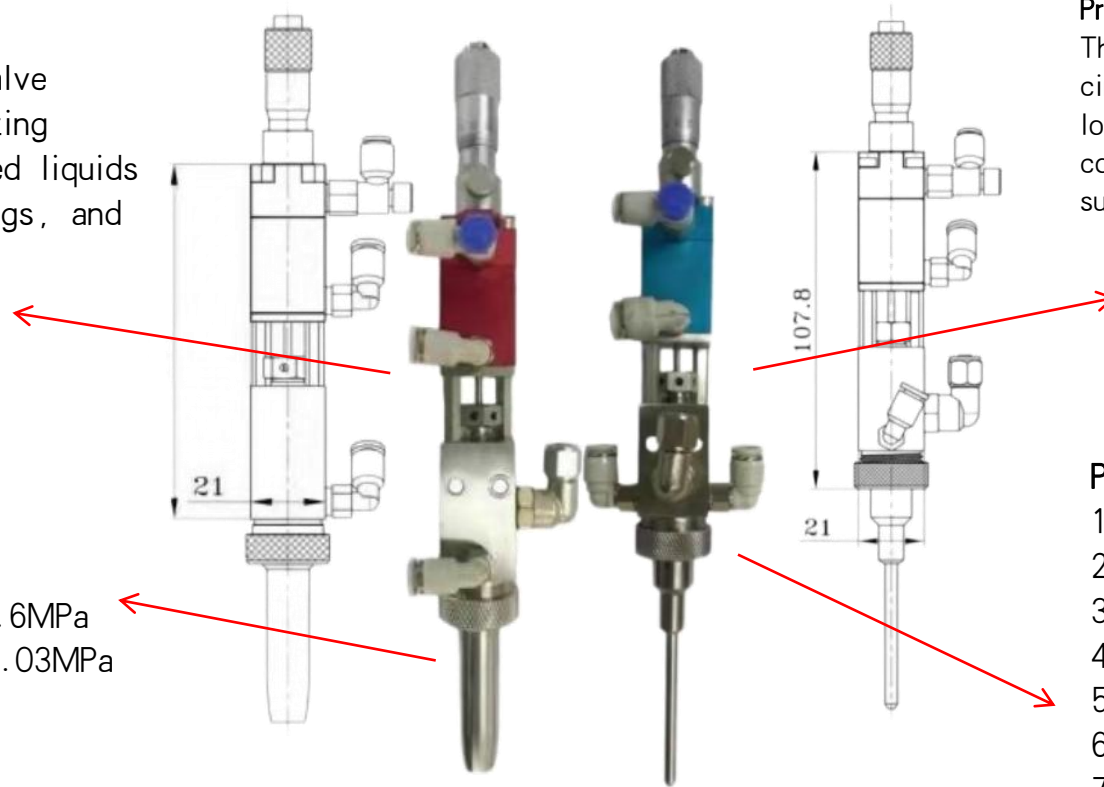
Total 2 valves: 1 low pressure atomizing valve and 1 needle atomizing valve

Product Introduction:

The precision low pressure atomizing valve provides uniform, circular atomized coating suitable for low viscosity, solvent-based liquids including conformal coatings, UV coatings, and more.

Product Specifications:

1. Drive Air Pressure: 0.4~0.6MPa
2. Fluid Delivery Pressure: 0.01~0.6MPa
3. Atomizing Air Pressure: 0.01~0.03MPa
4. Coating Width: 4~16mm
5. Coating Thickness: 50~400 μm
6. Viscosity Range: 0.001~1.5Pa · s (1~300Cps)
7. Dimensions (LXWXH): 21X21X198.8 mm
8. Weight: 310g



Product Introduction:

The needle atomizing valve provides clean, precise circular atomized coating without splatter for a variety of low viscosity, solvent-based liquids including conformal coatings, adhesives, bonding agents, solvents, and surface coatings.

Product Specifications:

1. Drive Air Pressure: 0.4~0.6MPa
2. Fluid Delivery Pressure: 0.01~0.6MPa
3. Atomizing Air Pressure: 0.1~0.3MPa
4. Minimum Atomization Gap: 3mm
5. Coating Width: 2~16mm
6. Coating Thickness: 10~400 μm
7. Viscosity Range: 0.001~0.3Pa · s (1~300Cps)
8. Dimensions (LXWXH): 21X21X219.7 mm
9. Weight: 290g

- **Features & Advantages:**

- Robust steel moving platform structure ensures stable operation.
- – Professional control cards and high quality motion systems enable high speed, high precision operation.
(Positioning Accuracy&Repeating Accuracy: $\pm 0.02\text{mm}$)
- – Simple program reduces programming time.
- – Control software is Southern Machinery Coating, developed in-house based on coating process requirements in Windows 7.
- – High speed, stable operation. (1000 MAX)
- – Flexible multi-axis control enables coating complex PCBs. (x,y,z)
- – German dispense valves provide adjustable fan spray width and thickness.
- – High precision digital pressure regulators effectively control edge cleanliness.
- – SMEMA interface for communication with other equipment.
- – Audio/visual alarms and menu display for troubleshooting.
- – Constant pressure coating material supply ensures consistency.
- – Automatic valve cleaning.
- – Optional dual supply systems for coating with two materials simultaneously.
- – Optional dual rail system eliminates waiting between boards for increased efficiency.



10L storage tank



1L cleaning tank

STZF330 Coating Full Dispenser

Item	Specification
Model	STZF330
Type	Online
Control	PLC + Touch Screen
Drive	Fuji servo motors + Ballscrew
Dimensions (L×W×H)	1100×1100×1600mm
Coating Area	L600*W400
Max Velocity	1000mm/s (X axis)
Repeatability	±0.02mm
Rail Height	880-930mm
Conveyor Speed	0~2400mm/min
Conveyor Direction	L→R (R→L optional)
Width Adjustment	Electric
Rail Load Capacity	5.8kg (incl. fixture)
PCB Size	MAX L600*W400
Valve Coating Width	3-30mm
Needle Size	0.8mm (selectable)
Exhaust System	Hole exhaust (built-in)
Coating Capacity	10L storage tank / 1L cleaning tank
Exhaust Power	AC220V 380W
Exhaust Requirements	15m ³ /min
Valve Configuration	1 atomizing valve
Typical Application	Overall coating for PCBA boards
Factory Requirements	Voltage: AC220V, 50/60HZ Air Pressure: 0.4-0.6Mpa
Total Power	1.2KW
Total Weight	580KG

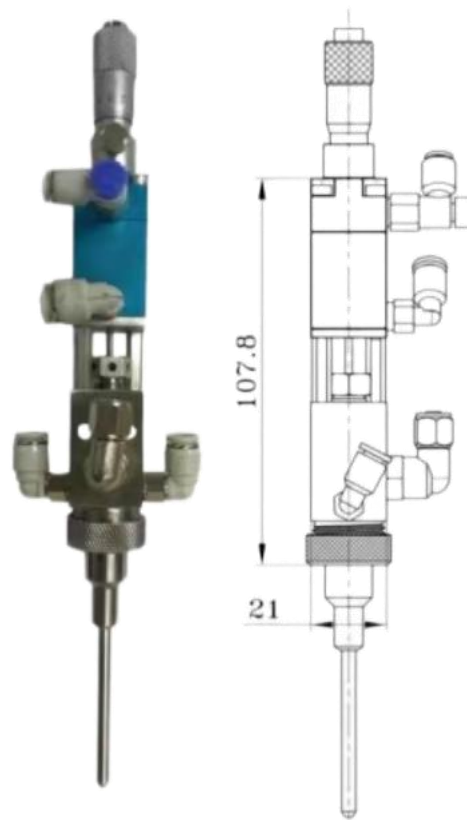


Product Introduction:

The needle atomizing valve is designed for low viscosity, solvent-based materials. It provides circular atomized coating suitable for a variety of liquids including conformal coatings, UV adhesives, bonding agents, solvents/volatile materials, cleaning fluids and other surface coating materials. The coating has no splatter and clean, precise edges.

Product Specifications:

1. Drive Air Pressure: 0.4~0.6MPa
2. Fluid Delivery Pressure: 0.01~0.6MPa
3. Atomizing Air Pressure: 0.1~0.3MPa
4. Minimum Atomization Gap: 3mm
5. Coating Width: 2~16mm
6. Coating Thickness: 10~400 μm
7. Viscosity Range: 0.001~0.3Pa · s (1~300Cps)
8. Dimensions (LXWXH): 21X21X219.7 mm
9. Weight: 290g



10L

10L storage tank



1L

1L cleaning tank

Features:

- Robust steel moving platform structure ensures stable operation.
- High precision fully sealed modules completely isolate screw and rail from mist corrosion.
- Provides stable, high precision motion control compared to stepper systems.
- Custom aluminum alloy rails and stainless steel conveyor chains.
- User-friendly interface and programming reduces programming time.
- High speed, stable operation.
- Powerful process control ensures high quality and consistency.
- Independent coating containers with exhaust vent minimize irritant gas emissions.
- German dispense valves provide adjustable fan spray width and thickness.
- High precision digital pressure regulators effectively control edge cleanliness.
- Auto priming and draining prevents valve clogs.
- SMEMA interface for communication with other equipment.
- Audio/visual alarms and menu display for troubleshooting.
- Built-in lighting system and UV inspection light for convenience.



Model	SM-UV106CM
Type	Online type
Max board width	450MM
Lamp type	Electrode less lamp(power1-6KW freely adjustable)
Glue type	UV glue, light and shadow glue (more than 98% of the glue on the market can be cured and dried)
Performance	Storage area+ solidification area+ cooling area
Control Method	Switch control (optional PLC+touch screen)
Transmission direction	L—R
Widening Range	50~450MM
Track load	5.8KG
Conveyor belt height	900 ± 20MM
Rail height	Up and down 60MM
Conveyor speed	700~2000mm/min
Heating time	2min
power supply	380V
weight	200KG
load power consumption	A group of electrode less lamps (1-6) KW
Recommended irradiation height	100~120(mm)
Cooling method	Fan cooling
Head size	About 500*200*110(mm)
Head Weight	About 5Kg/ piece
Dimensions(L×W×H)	1600 × 1000 × 1400mm

Feature & Advantages:

- The mesh belt transmission runs at a constant speed, fully closed cycle control
- High—strength guide rail design, small thermal deformation and high precision
- The width adjustment of the guide rail adopts manual width adjustment and panel control, which is convenient and easy to use



Best After-sales service

- Free Installation/ Training
- 1 day lead-time (spare parts)
- 5 days customized design
- 7x24 Worldwide Support



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