High Speed Dispensing Machine JD-450L

High Speed Dispensing Machine JD-450L Description:

- Industrial PC control, Windows 7 OS.
- X/Y axis driven by linear motor, maximum speed :2000mm/s
- Repeatable accuracy : +/-0.02mm
- Max PCB W340*D450mm
- High precison Jet valve and temperature control system .
- Automatic width adjust mechanism
- Vacuum valve nozzle cleaning device.
- High precision glue weighing system (option).
- Laser height detecting system (option).

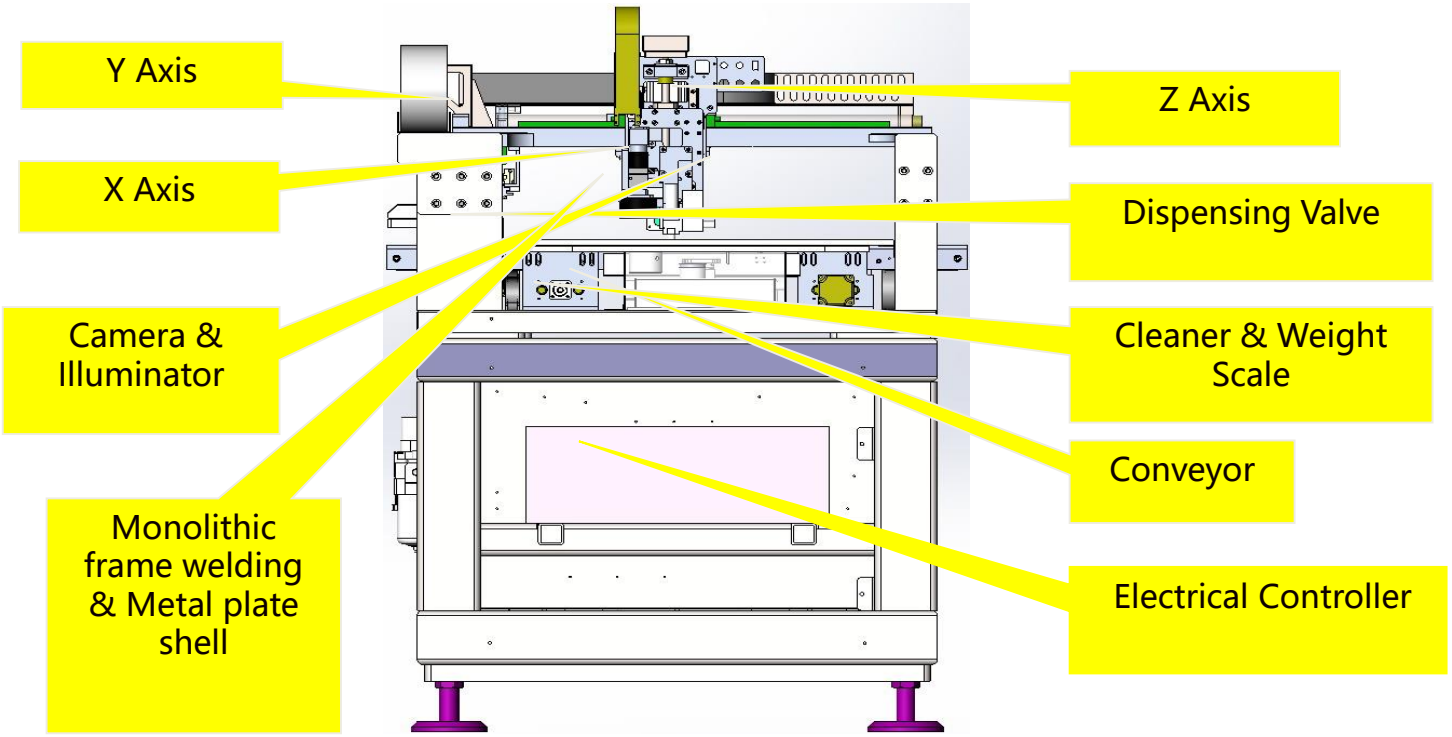
High Speed Dispensing Machine JD-450L specification :

Model	JD-450L
Overall size	920 mm（W)×1230 mm（D)×1550 mm（H)
Control method	Industrial PC ,full English software based on Windows 7 OS
Visual System	5 million pixels CCD ,fiducial mark recognition and automatic correct coordinate offset
Conveyor	One section conveying , conveying height : 900+/- 20mm , left to right only.
Width adjustment	Single Lane: 80～450mm , automatic width adjustment
X/Y axis Drive Model	Linear Motor With Linear Encoders
Z Axis Drive Mode	Servo Motor
Maximum Speed	X/Y : 2000mm/S
Repeatable Accuracy	0.02mm
Dispensing Area	X=340mm ,Y=450mm
Dispensing valve quantity	1 Jet valve（2 valve is Optional）
Valve Heating	Room Temperature～80℃±3℃
Material Volume	30CC Or 50CC
Material Detection	Automatically Inspect glue dispensing width.
Nozzle Cleaner	Vacuum Cleaning System
Communication Connector	SMEMA
Program Method	CAD file load , Manual Teaching， offline programming
Power Supply	1P,220V 50～60HZ
Air Pressure	6kg/cm^2
Power	Max 3.5KW
Machine Weight	1200 kg
Certificate	CE

High Speed Dispensing Machine JD-450L Sturcture :

Overall mechanism

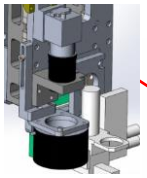
Modular design, quality structure, and easy maintenance .



High Speed Dispensing Machine JD-450L Structure :

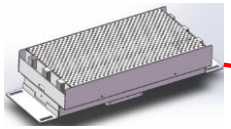
Modular mechanism

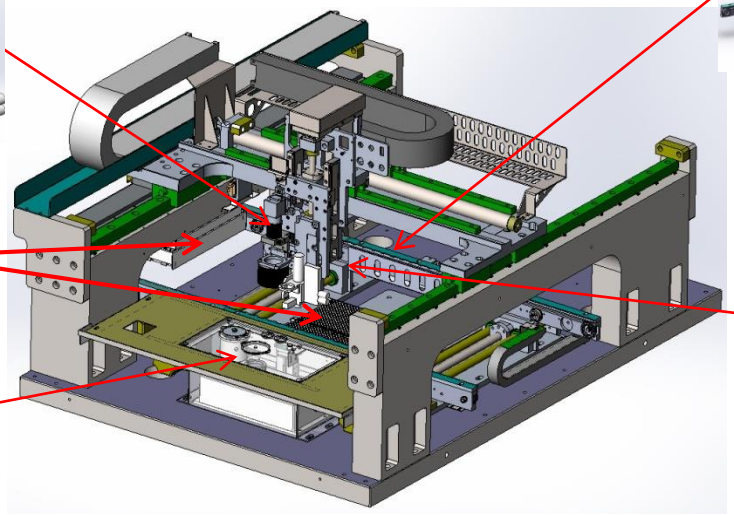
Camera



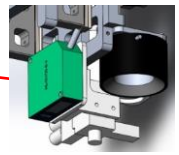
Conveyor

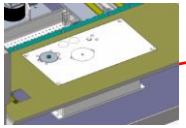
Heater





Laser Height detection sensor



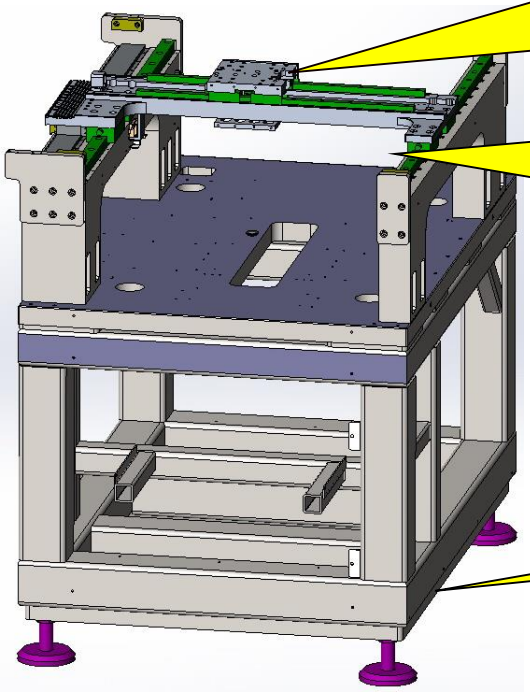


Weight & Vacuum nozzle cleaner

Advantages :

1, Convenient assembly and easy maintenance.
2, Easy to expand. Customers can add or reduce functions according to their requirement. No need for additional design
3, Standard modular parts ensures stable running of machine.

High Speed Dispensing Machine JD-450L Sturcture :



1）Aviation aluminum to process X-Axis and key parts , ensures the motion parts are light weight, and strong.
To satisfy high speed and accuracy motion

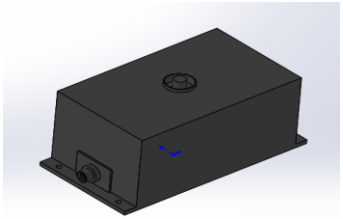
2）Platform and support frame are made of finished-milled steel, grinding process, machine weights 1.2 tons . Guarantees its stability when it is running in a high speed

3） High rigid welding rack, Assembly surface uses a gantry milling process . Guarantees the strength and accuracy of surface installation

The Gantry accuracy is 0.015/1000mm, Guarantee the assembly accuracy.

High Speed Dispensing Machine JD-450L Key parts:

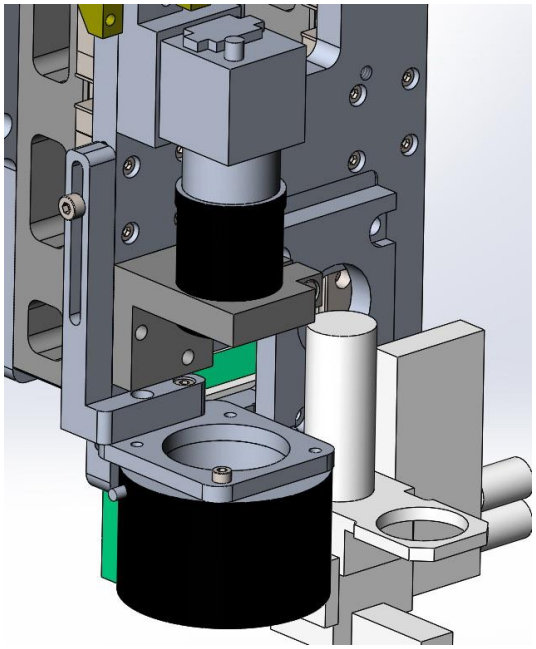
Key Parts

Linear Motor	Grating Ruler Location	Precision Linear Rail	High Precision Weight Scale
			
MSA	RENISHAW	THK	METTLER-TOLEDO
Israeli technology, professional brand	British international leading brand	Japanese international leading brand	Mettler international leading brand

Key parts use international leading brands, which guarantees the machine will run reliably and accurately.

High Speed Dispensing Machine JD-450L Visual system:

Vision System



1 Danish JAI CMOS high-speed camera of 5 mega-pixel
On-the-fly mark recognition technology.

2 5 mega-pixel high resolution Ricoh lenses made in Japan
achieve a 5MM depth of field: Anti warpage FOV ensures the image remain clear even if the substrate fluctuates by 5MM.

3 Illumination: Utilizing annular blue shadowless light source, It can eliminate glare and reflection caused by LED efficiently,
Side glowing LED will have good uniformity through Flat light material's diffusion, which can cover larger area.

4 Image processing : Cooperation with leading image processing company CK Vision. Capable of inspecting fast and accurately. Repeated detection for the mark within 0.005mm.

5 Detection mode: Mark and bad mark detections can be achieved if the images within 20MM x 20MM

6 Accurately detect the glue width when running.

7 Bar code reading function (Option)

High Speed Dispensing Machine JD-450L Software:

1、Full english interface ,software based on Windows 7 OS, easy to operate , It can realize Laser location, dot , line ,circle, arc instruction .

2、Search function: Simply edit one dispense location when substrate has many of the same components, the others can be identified automatically and then use the same dispense program to edit them

3、Capable of locating fast through the images . Camera will locate the relevant position when you click the image at the same time . It is very convenient to find the components.

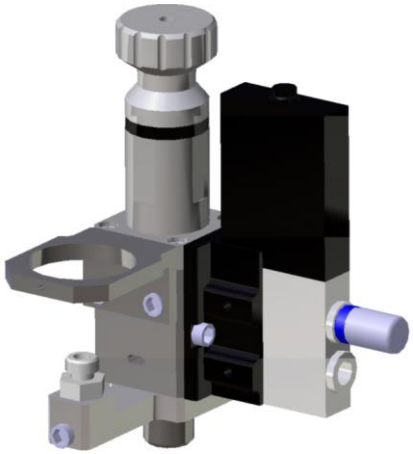
4、Whole Panel Function : The unique whole panel program function, it takes images of productions firstly, then dispense model will create corresponding images, and set up glue width according to the glue dot size which shows in images.

5、Software can load CAD, CSV file etc. directly . Use double positioning guarantees the input files are accurate and complete .

6、Supports offline programming.

High Speed Dispensing Machine JD-450L Valve:

Jet valve JET-6000 Features



1.Easey maintenance, to clean 3 parts in 10 mins.

2. Independent development and manufacturing . Low cost of consumable items.

3.Customers have many types of nozzle and pistons to choose, from ensuring it is convenient to upgrade in the future.

Jet Valve JET-6000 Specifications	
Air Pressure (Min)	70Psi
Dispensing freqency RPM(Max)	200 times /S
Best Feed Pressure	0～0．3Mpa
Dot Diameter(Min)	0.2mm
Dot Weight(Min)	0.015mg
Best Viscosity Range	3000～1300000Cps
Shape Size	63mm X 67mm X 114mm
Weight	350g
Available Syringe Size	10cc、30cc、50cc
Valve Body	Magnalium + Stainless Steel
Fluid Cavity	Stainless Steel
Piston Part	Tungsten steel + Stainless Streel
Nozzle Part	Tungsten steel
Fluid Seal	PTFE+SUS303
Air Seal	PU
Other O-Rings	Silica Gel
Heater	AL6061
Heat Temp.(Max)	80℃
Air hoseSize	6mm

High Speed Dispensing Machine JD-450L configuration:

Standard configuration:

- Dispensing platform with X/Y axis Linear motor , Z Axis servo motor .
- Industrial PC ,monitor, Keyboard,mouse .
- 1 section conveyor controlled by step motor with automatic adjustment .
- 3 color alarm lamp .
- CCD visual system.
- Nozzle vaccum cleaning device
- Nozzle heating
- SMEMA communicaiton port
- 1 year parts warranty

Optional configuration:

- Laser height detecting system (detect and correct height when PCB is warped) .
- High precision glue weighing system (0.1mg) ,(detect and control the glue weight to ensure uniform dispensing).
- Rail Heating system (enhance the flowability of glue at underfill process).
- Jet valve JET-6000.
- VERMES jet valve MDV 3200A-HS .
- 2 section conveyor instead of one section conveyor
- Barcode reading software .
- Offline programming software.

THANK YOU

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