DS3000 Offline X Ray Counter Machine 800W AC 220V Offline Inspection

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: WDS
- Certification: CE
- Model Number: DS3000
- Minimum Order Quantity: 1 UNIT
- Packaging Details: Wooden case
- Delivery Time: 8-15 working days
- Payment Terms: T/T, Western Union, MoneyGram
- Supply Ability: 50 UNITS PER MONTH

Product Specification

- Power Consumption: 800W
- Detector Size: 470*470*35mm
- Power Supply: AC 220V/50-60Hz
- Application: Offline Inspection
- Detector Type: Amorphous Silicon
- X-Ray Tube Voltage: 80kV
- Type: X-ray Counter
- X-Ray Tube Current: 100-800uA
- Inspection Speed: 4-8S
- Model: S-3000
- Highlight: **DS3000 X Ray Counter Machine**, **AC 220V X Ray Counter Machine**, **AC 220V Xray Parts Counter**

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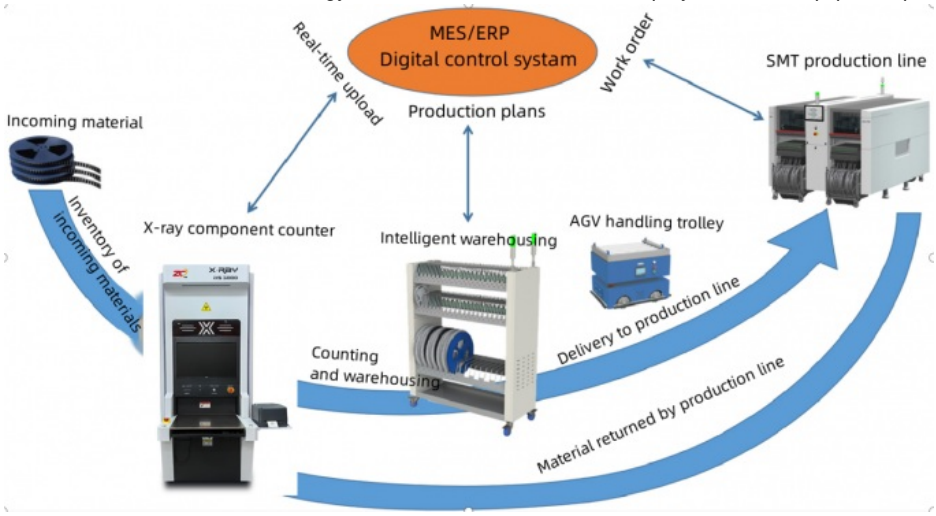
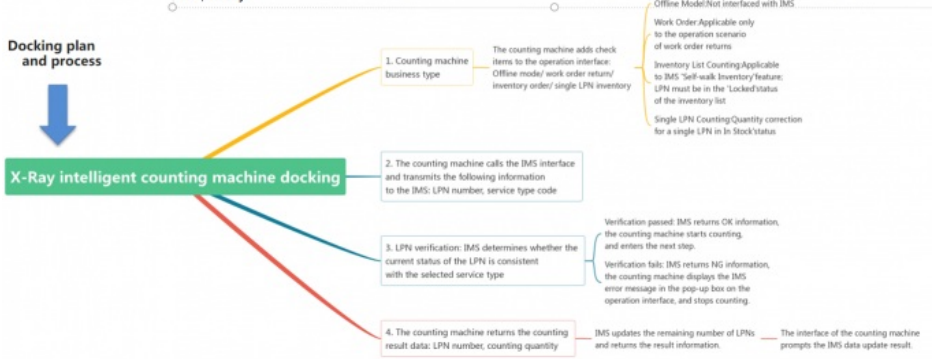
Product Description

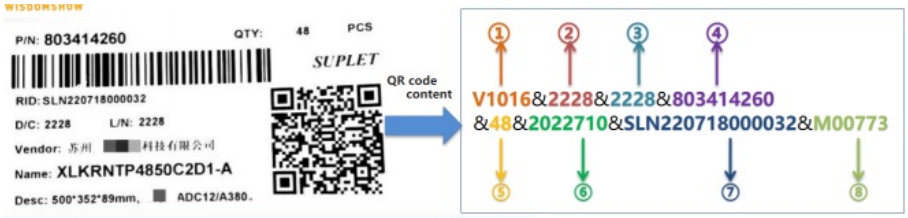
1. High detection accuracy:
Based on the AI intelligent recognition algorithm, the detection accuracy is excellent. The calculation accuracy of conventional devices reaches more than 99.99%. It uses high-definition cameras and self-developed intelligent algorithms to achieve high code scanning recognition rate.
2. Strong detection adaptability:
Suitable for various types of chip components, SMD devices; high product compatibility, can quickly and accurately detect materials such as 7-15-inch trays (can be upgraded to 17-inch YJedec Tray/IC moisture-sensitive packages; material label error-proofing mechanism, Material tray induction recognition, real-time docking with the printer, pick up any tray of materials and print the tray material information.
3. The detection is easy to use:
Automatic statistical output of ordering data supports docking with ERP, MES and NMS systems; the design is based on ergonomic mechanics and can be operated in a sitting position. The monitor is kept at the same height as the human eye, protecting the cervical spine, occupying a small space and reducing working space; the software operation is user-friendly, Guided menu structure makes it easy for employees to operate.
4. High detection efficiency:
The detection speed is 8-10 seconds/single plate, which is highly efficient and can save multiple labors, truly reducing manpower and increasing efficiency.
5. Equipment related qualifications:
This product has obtained an exemption certificate, and radiation safety is guaranteed. At the same time, users can be exempted from occupational health examinations for operators, participation in the "Radiation Safety and Protection Assessment of Nuclear Technology Utilization" certification and employment, and equipment placement in specific areas.



Usage requirements and application scenarios

1. After the X-ray intelligent counting machine completes direct counting, the result data of the counting will be uploaded to the digital control system for update.
2. Main application scenarios: ①Work order return; ②Single LPN inventory; ③ Initial inventory / Re-inventory.





line number	field name	Field type	paragraph separator
①	Supplier Code	character	&
②	D/C	character	&
③	Production Batch	character	&
④	Material Code	character	&
⑤	Reel ID Count	character	&
⑥	Production Date	character	&
⑦	ReeL ID	character	&
⑧	Manufacturer Code	character	&

Analysis details

1. The equipment can be used without connecting to the digital control system to achieve direct counting in offline mode.

2. Offline mode can realize fully automatic counting, automatic label printing, and automatic generation of point reports.

Offline mode label printing rules

Offline mode label content

Serial number	Tag meaning	Description
①	barcode	material quantity
②	quantity	counting quantity
③	number	the station of the tray
④	time	counting time

DS-3000 Intelligent Counting Machine

X-ray source

Tube voltage	80KV
Tube current	0.2mA
Cooling method	air cooling
Focus size	35μm
X-ray radiation angle	30°
radiation safety	< 1uSv/hr (international standards)

Flat panel detector

Detector category	Non-silicon 17-inch tablet
Pixel matrix	3072*3072pixels
Pixel size	140μm
Image size	430mm*430mm
Detector size	470mm*470mm*35mm
Drawing time	1s

Counting parameters

Maximum size of tray	15inch
Maximum thickness	85mm
Compatible mini component size	Imperial 01005
Counting speed	About 6-8s/4trays (7inchs)
Counting accuracy	99.99% (01005 example)
Table size	430mm*430mm
Table load bearing	10KG

Equipment Specifications

Total power	800W
Equipment size	908mm*1335mm*1968mm
Equipment weight	About 800KG
Supply voltage	220V 50-60Hz

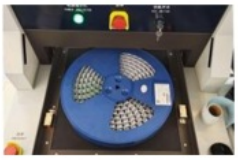
Order 4 plates at a time.

Four cameras automatically scan codes and automatically upload to MES/ERP and other systems.

To be fool-proof, label which plate you take.

7 inch tray | 13/17 inch tray | Automatic code scanning | Manual complement | label printing

Counting one plate at a time

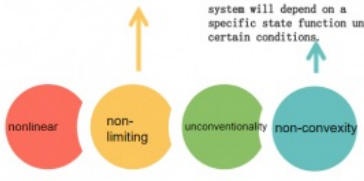


For labels that are damaged or unclear

1. Software Neuron Algorithm

A neural network is usually composed of multiple neurons that are widely connected. The overall behavior of a system not only depends on the characteristics of a single neuron, but may also be mainly determined by the interactions and interconnections between units.

The evolution direction of a system will depend on a specific state function under certain conditions.



Nonlinear relationships are a common feature of nature. The intelligence of the brain is a nonlinear phenomenon. Artificial neurons are in two different states: activation or inhibition. This behavior is mathematically expressed as a nonlinear artificial neural network relationship.

Artificial neural networks have adaptive, self-organizing, and self-learning capabilities.

2. Artificial Intelligence Deep Learning Algorithm

1. The ordering software adopts artificial intelligence deep learning algorithm.
2. There is no need to bind components and algorithms.
3. Instead, use AI to automatically identify components and automatically apply algorithms.
4. The algorithm can learn the clicked component data.

like:

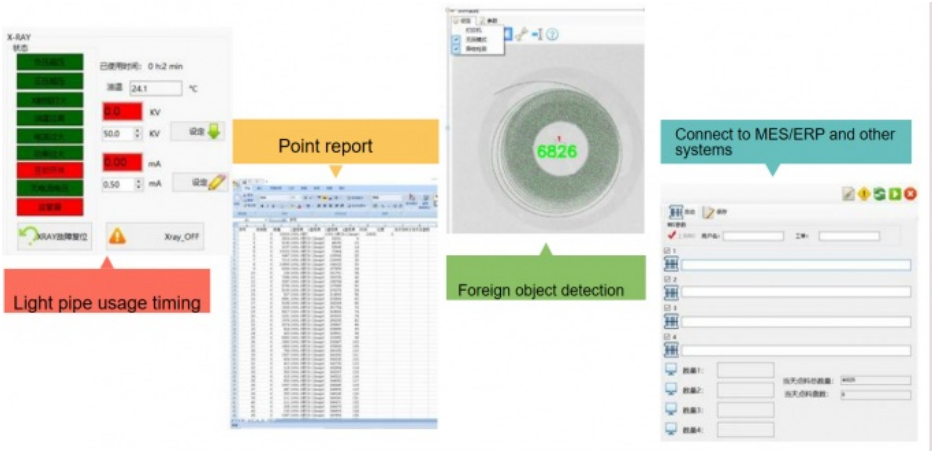
①Length-to-width ratio;
② The angle of each corner of the component;
③ The slope from inside to outside components;
④ The deformation rules of component images from inside to outside, etc.

As components are counted more and more times, the results of counting materials become more and more accurate.

When encountering similar components and larger material trays, we can easily handle them.

3. Intelligent database

1. The equipment software adopts machine automatic learning algorithm.
2. Analyze a large number of data records and automatically update and tune them to the database.
3. Over time, the accuracy of equipment ordering will become closer and closer to 100%.
4. The coverage of component types will also become wider and wider.



3-3 Speed and accuracy

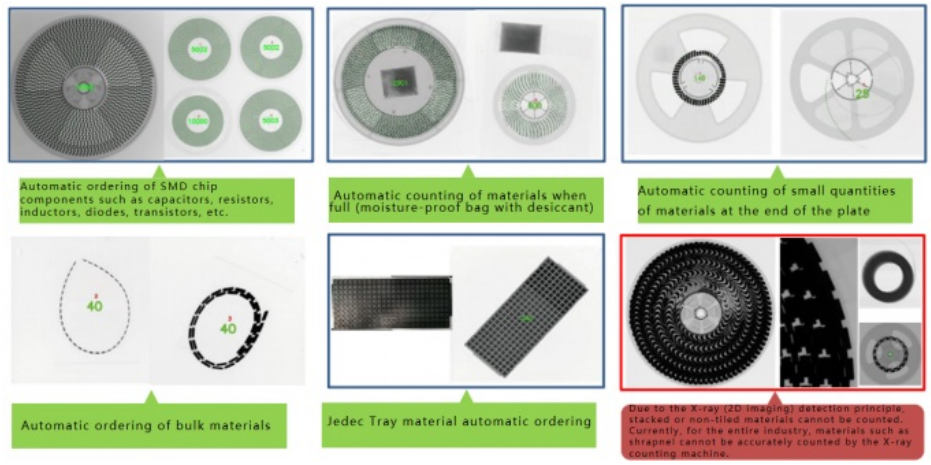
1. The X-RAY intelligent counting machine can cooperate with SMT tail material counting and improve intelligent warehousing;
2. It can count four trays of materials at the same time, and it only takes 8S at the fastest. A single device can save 5-7 people in labor;
3. Make tailings counting and material warehousing more efficient, more secure, and more digitally managed;
4. For unconventional materials that cannot be accurately identified, model algorithm optimization updates will be provided, and optimization can be completed within 24 hours.
5. Up to now, the ordering time and accuracy of materials of various sizes are as follows:

Name	Material Dimensions	Accuracy
Resistor	01005	99.95%
	0201	99.99%
	0402	100.00%
	0603	100.00%
	0805	100.00%
	1206	100.00%
	1210	99.99%
	1812	99.99%
	2010	99.99%
	2512	99.99%
Tantalum Capacitor	TANT 4525	100.00%
	TANT 6640	100.00%
	TATN 7343	100.00%

Name	Material Dimensions	Accuracy
Capacitor	01005	99.99%
	0201	99.99%
	0402	100.00%
	0603	100.00%
	0805	100.00%
	1206	100.00%
	1210	100.00%
	1608	100.00%
	2125	100.00%
	3612	100.00%
Transistor	SOT 23	100.00%
	SOT 89	100.00%
	SOT 363	100.00%

Name	Material Dimensions	Accuracy
Inductor	CD32	99.99%
	CD43	99.99%
	CD52	100.00%
	CD54	100.00%
	CD73	100.00%
	CD75	100.00%
	CD104	100.00%
	CD105	100.00%
Diode	M1	100.00%
	M2	100.00%
	M4	100.00%
	M5	100.00%
	4148	100.00%

Name	Material Dimensions	Accuracy
MOS	2N7000	100.00%
	2N7002	100.00%
	2N7004	100.00%
IC	BGA	100.00%
	QFN	100.00%
	QFP	100.00%
Crystal Oscillator	4025B	100.00%
	2016B	100.00%
	1612B	99.99%
	HC -49	99.99%
Optocoupler		99.99%
Switch		99.99%
Terminal Block	TATN 7343	100.00%



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