Vanstron

PCB assembly & traceability

www.vanstron.com | SHENZHEN . CHINA







2024 – SHENZHEN.CHINA

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Operating manufacturing since from **2016** for **PCB handling machines**

Complete CE design for all products in **2018**

Released the first generation **laser marking machine & vertical curing oven** in **2019**

Full devoting into the Europe market and setup the demo center in UK, Germany in **2021**

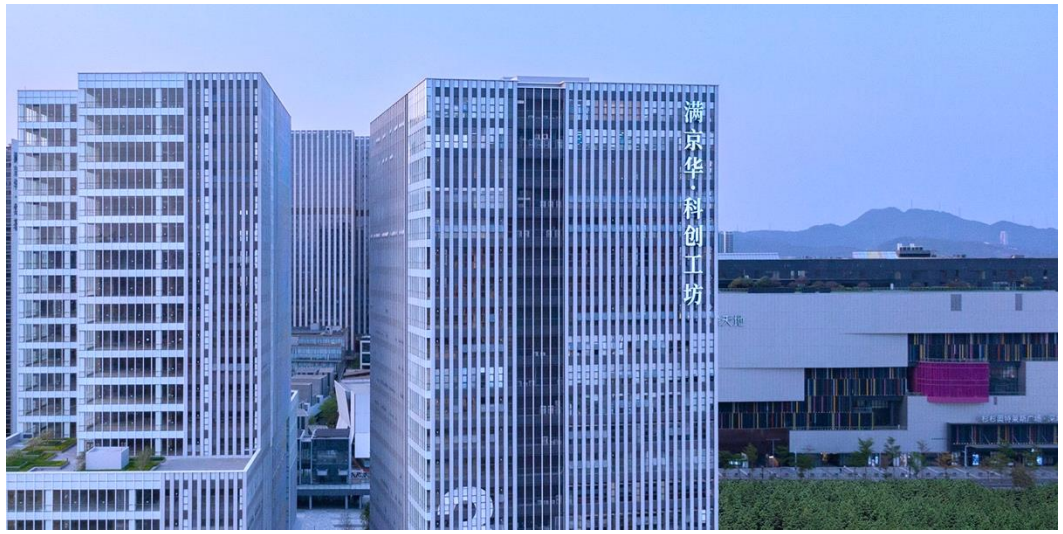
Taking 60% shares of boards handling machine in Nordic market in **2022**

Installed the first smart boards handling machine line with IPC Hermes 9852 protocol in Germany in **2023**

new products, **inline plasma treatment** equipment for the SMT industrial in **2024**



Background





China advanced high-industrial park headquarter in Shenzhen

- Factory space: **3200 square meters**
- Total employee for manufacturing : **45 people**
- Total R&D employee : **12 people**





Demo center

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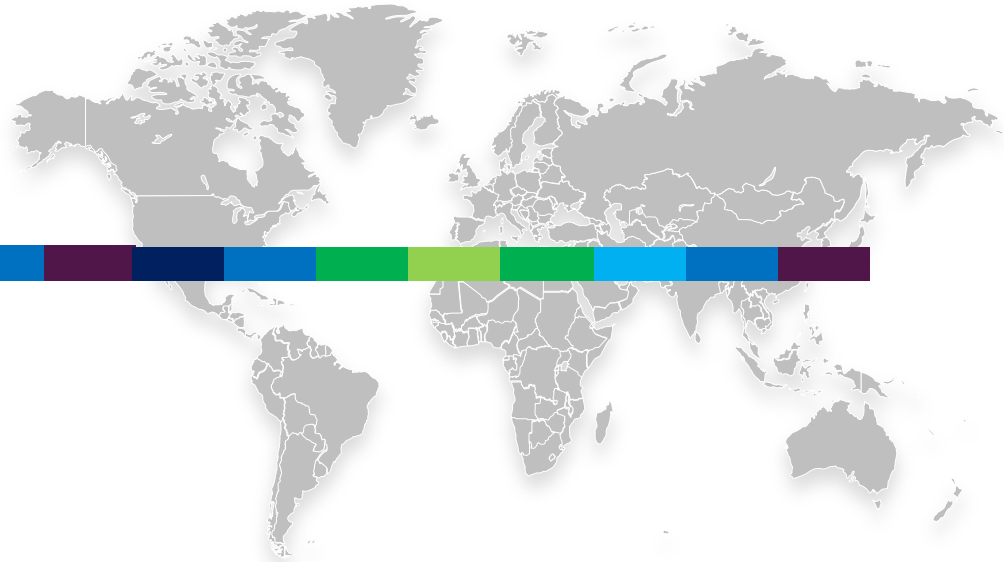
Hungary demo center



UK demo center

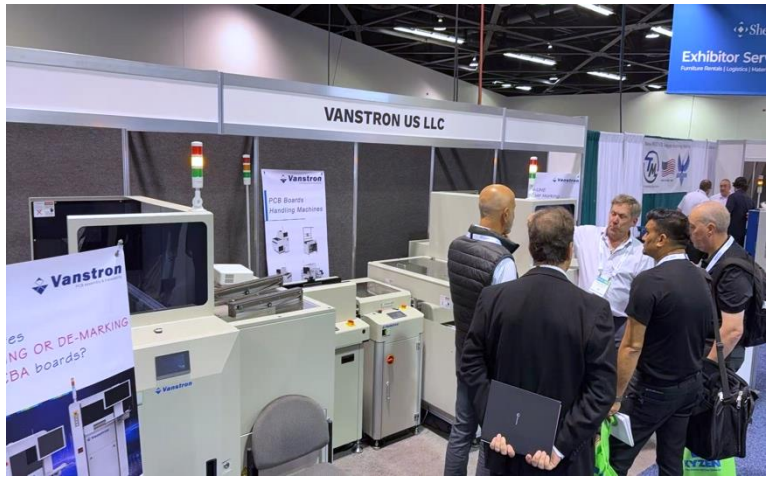


France demo center



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Exhibition pictures













Our Mission and Vision

keep focusing on our expertise...

“To empower global electronics manufacturers with cutting-edge, reliable, and cost-effective SMT automation solutions, driving efficiency, innovation, and sustainable growth.”

End user first,

Employee first,

Innovation first, ***Be different,***

Quality first

Our markets

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Europe,US,Mexico,Brazil, Australia, Southeast Asia.

(Except China)

Foxconn, Jabil, Sanmina, USI, Celestica, Foriva Thailand , Plexus,, Fabrinet,, Visteon, NOTE, EOLANE, Lacroix, LEAB, EATON, Nidec, Salcomp, Legrand, DEXTRA, and Multilaser.

20% **of Top 50 EMS manufacturing are using Vanstron boards handling machines .**

60% **of Nordic market share are taken by Vanstron in the boards handling machine products.**

Annual sales: **40-45 million CNY**

TOTAL : Over 33 agents in oversea market

Our products and sales

keep focusing on our expertise…

- **SMT Boards Handling Machines**

(Loaders, unloaders, conveyors, flippers, buffers, and turning conveyors for PCB transportation…)



50% sales

- **Inline Laser Marker Machines**



40% sales

- **Vertical Heating (Curing) Ovens**



10% sales

Installation

keep focusing on our expertise…












Installation

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Products features

Quality

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> Not only for the machines safety operation,
> but also,
> for the **protection** on the customer products

No.1 Safety Machine in CHINA

- Machinery Directive (2006/42/EC)
- Low Voltage Directive (2014/35/EU)
- Electromagnetic Compatibility Directive (2014/30/EU)
- RoHS Directive (2011/65/EU)
- Laser safety standard EN 60825-1)
- Pressure Equipment Directive (2014/68/EU)

For laser marking machines approved by TUV CE in Germany

Machine design ideas

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Double safety emergency stop circuit

ESD belts for magazine transportation





ESD Cover

ESD paint



Interlock switch for the doors

- Use protective covers, doors or **interlocks** to prevent people from coming into contact with moving parts.

- Emergency Stop, which is easily accessible and responsive.

- Double safety relay to enhance the CE quality.

Machine design ideas

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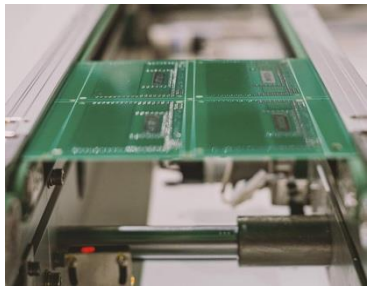
Double safety emergency stop circuit

ESD cover with interlock switch

ESD safety cover



ESD Belts



ESD paint

ESD cover with interlock switch



Machine design ideas

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THK
Ball screws and slider

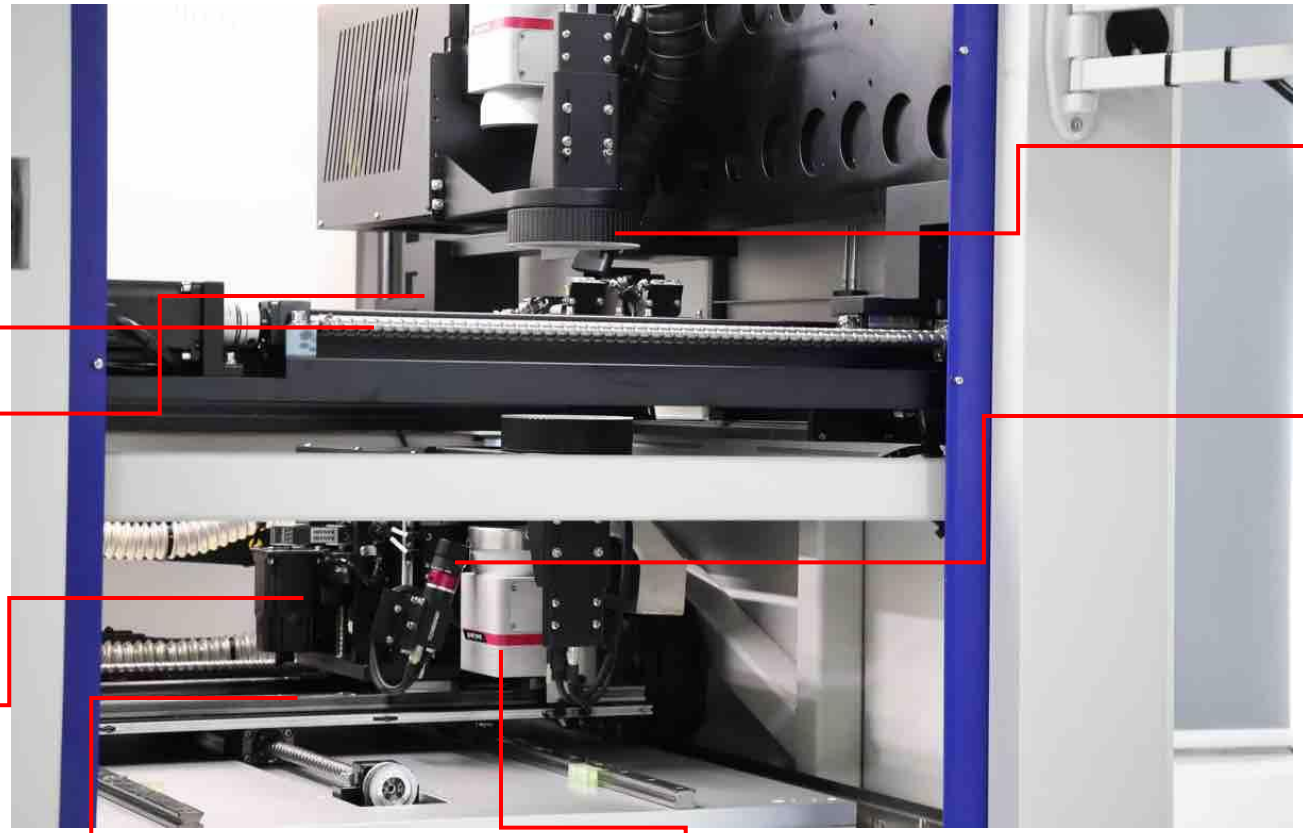
THK

Panasonic
Sensors

Laser source

SYNRAD
A Novanta Company
Advanced Optowave
KEYENCE
IPG PHOTONICS

Driving system
DELTA



OPT Machine Vision
RGB light source





iDS
HIKROBOT

Scanner

SCANLAB innovators for industry
RAYLASE THE POWER OF WE

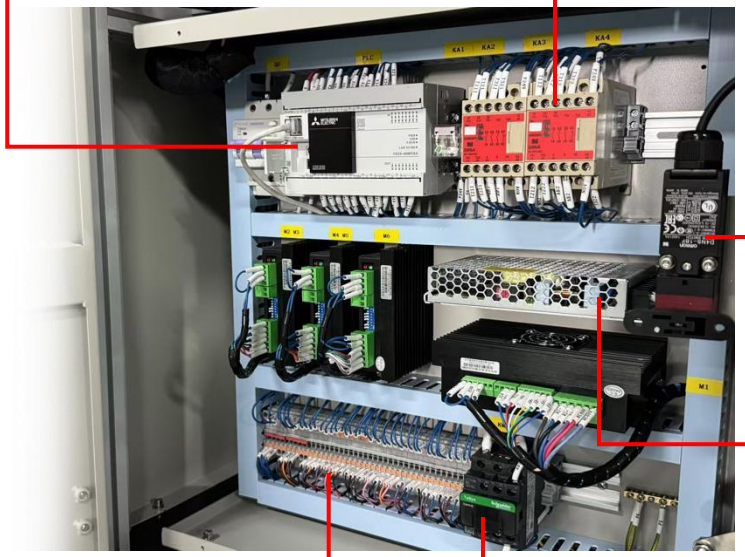
Machine design ideas

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Mitsubishi PLC

Omron safety relay



Omron
interlock
switch

95%
electrical parts with international brands.

5%
Chinese brand but offering 5 years quality warranties

Taiwan HW
Power supply

Finder
screw terminal socket

Schneider main switch

MITSUBISHI ELECTRIC
OMRON
Schneider Electric
finder
AirTAC
MEAN WELL
SMC
Panasonic
Samkoon

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Innovative

Intelligent control on product

Intelligent control

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Automatic Width adjustment for Boards handling machines



Optional #1	RS-485 communications options (automatic width adjustment – follow-me)
Optional #2	Motorized width adjustment
Optional #3	Center master software options with Ethernet communication (automatic width adjustment)
Optional #4	IPC Hermes 9852 communication (automatic width adjustment)
Optional #5	Ethernet TCP/IP communicate (automatic width adjustment)

Intelligent control

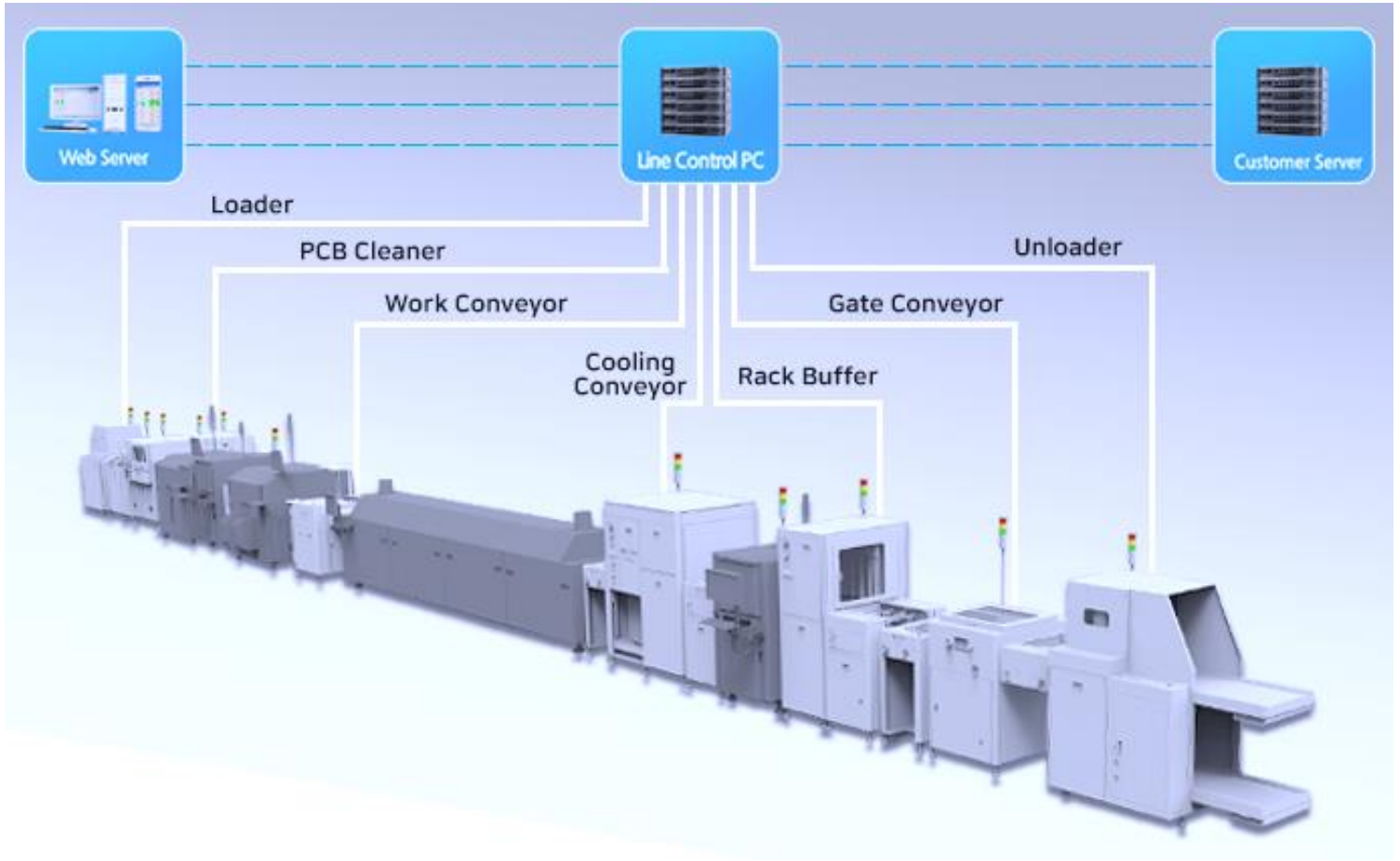
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Optional #2 Center master software

options with Ethernet communication (automatic width adjustment)





Intelligent control

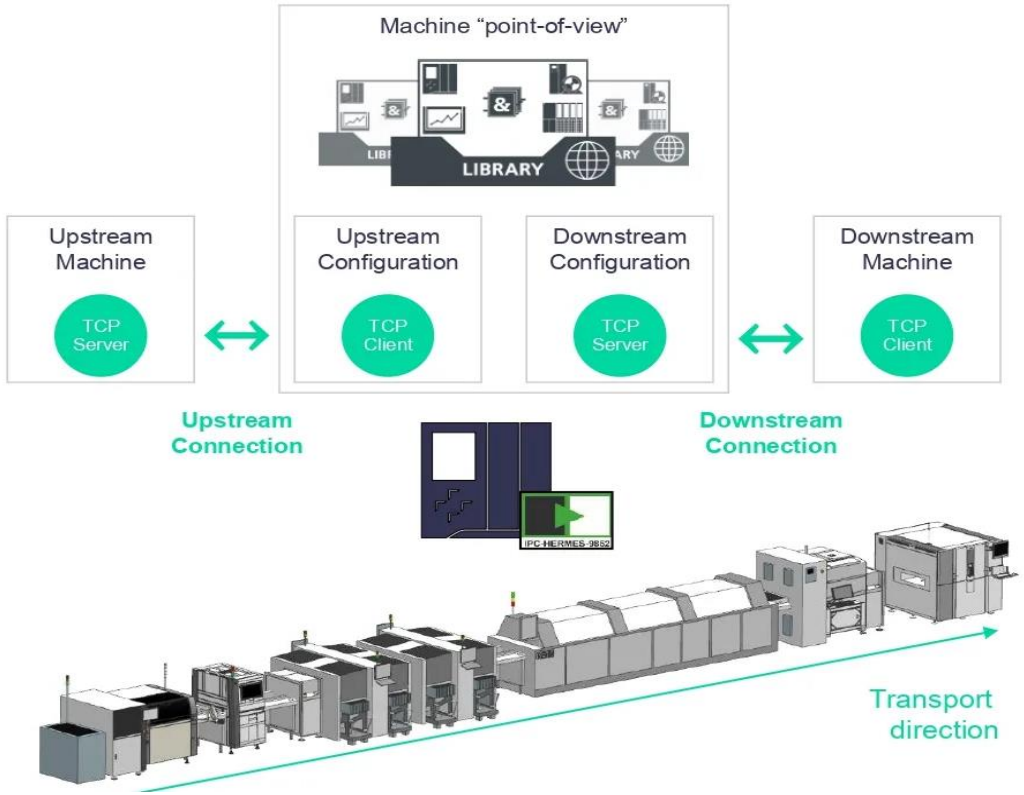
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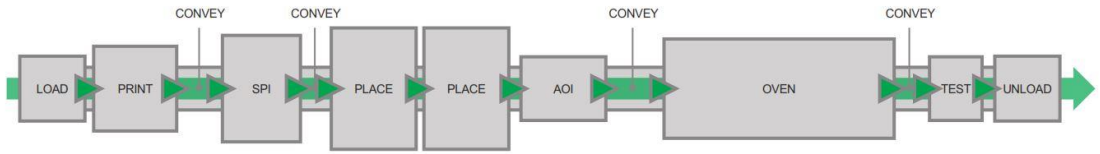
Optional #3 :

IPC Hermes 9852 communication (automatic width adjustment)

IPC-HERMES-9852







The Hermes Standard (IPC-HERMES-9852): Full board data availability, maximum line throughput and traceability

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Flexible customized solution

Flexible customized

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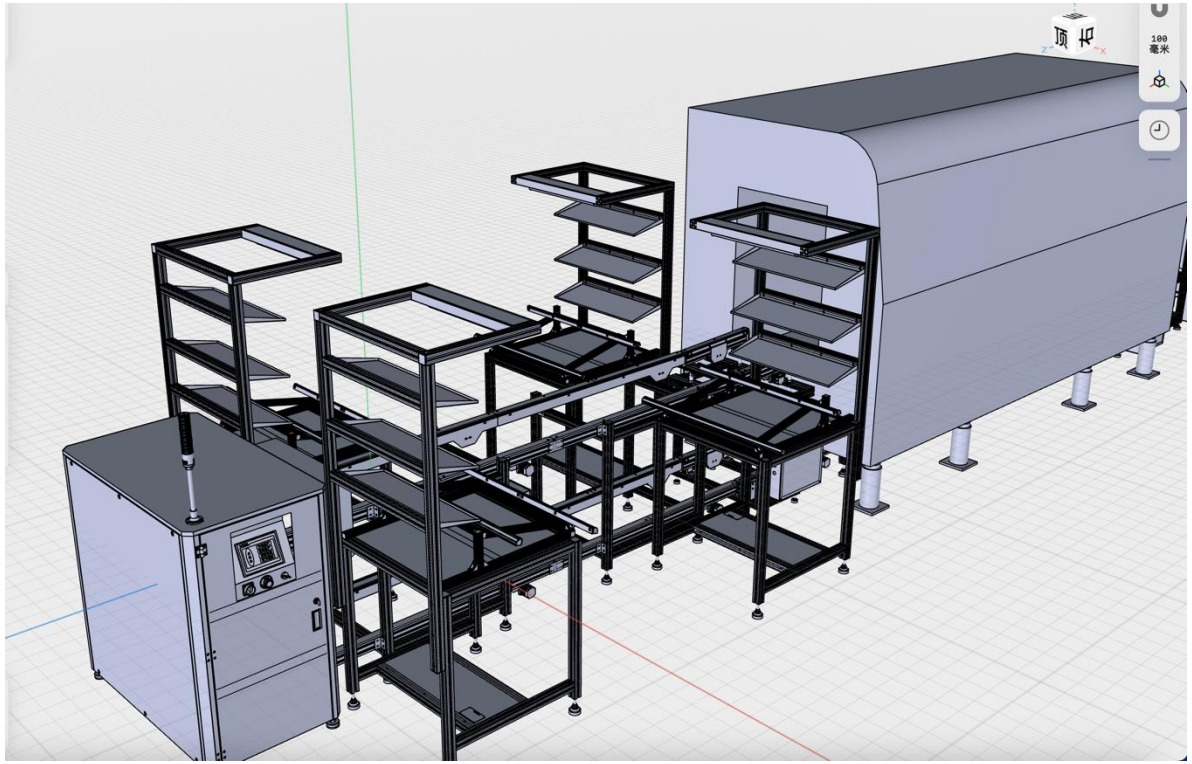
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- **Advanced Customization:**

Highly adaptable machinery designed to your precise specifications.

Understanding the SMT/ THT/ coating / dispensing process knowledge,

which allows us to design any kinds of boards handling machine for our valuable customer, and enhance the customer line production efficiency.



Flexible customized

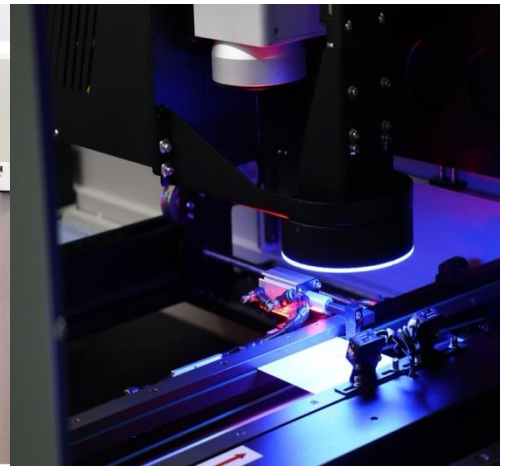
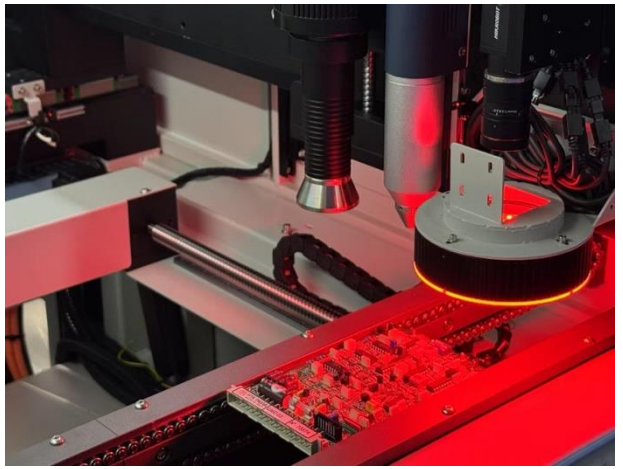
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Why Choose Vanstron for Custom Solutions?

- **Innovative Vision Technology**: Proprietary vision algorithms for accurate and efficient production processes.

Our state-of-the-art vision systems accurately detect, align, and mark components, even in complex production environments. We consistently achieve industry-leading accuracy through proprietary algorithms, ensuring your production line maintains the highest quality standards and efficiency.


Expertise in Advanced Vision Algorithms

Flexible customized

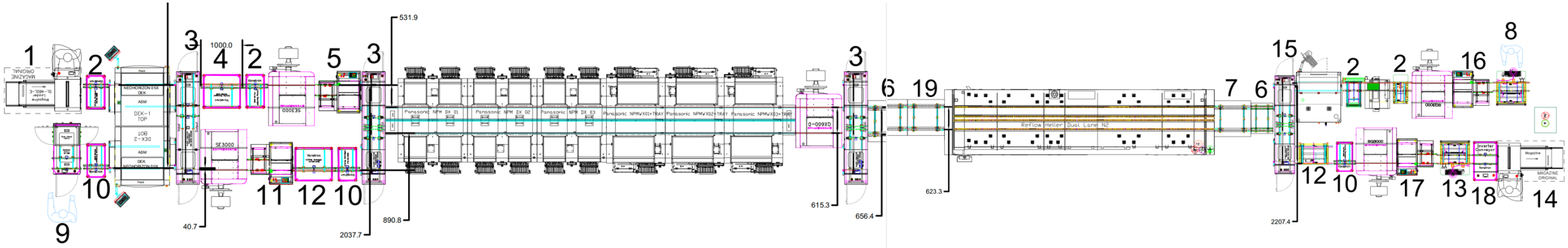
keep focusing on our expertise...

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Universal Connectivity: Capable of integrating into any automation environment through global standard protocols.



Customized dual lane SMT line solution to help the end users save the factory space but without impact on the line production efficiency.



Flexible customized

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Vanstron focus on development

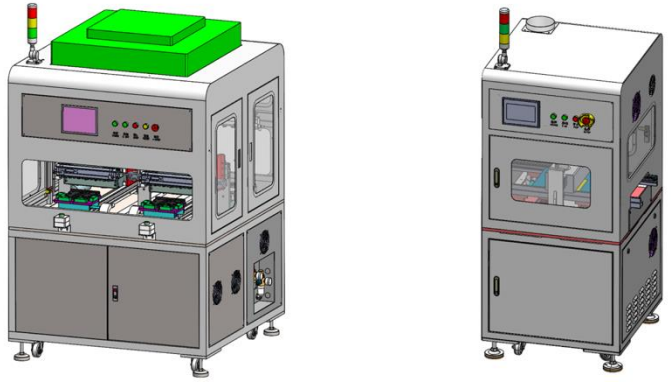
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Inline plasm cleaning machine



Vertical curing oven
(Hot air convection type)



Touch –less PCB cleaner machine

Inline plasma cleaning machine

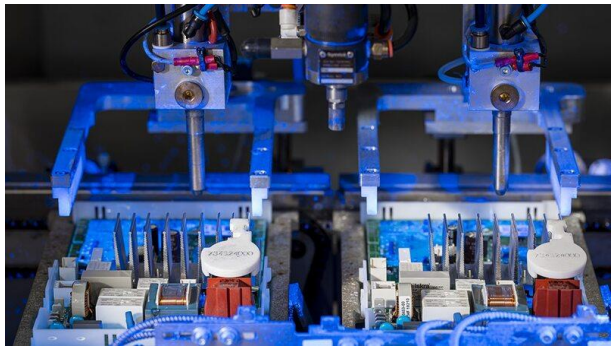


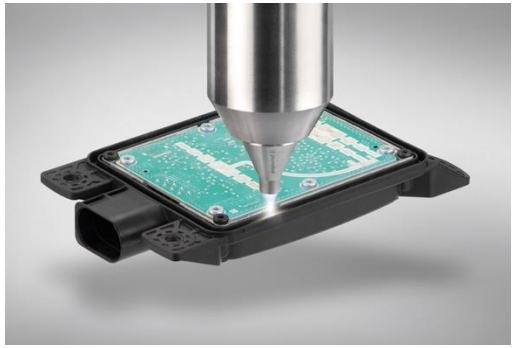
Inline Plasma treatment (cleaning) machine,

designed by Vanstron is used for **direct dry plasma cleaning with atmospheric plasma on PCBAs which is for the PCBAs cleaning before coating.**

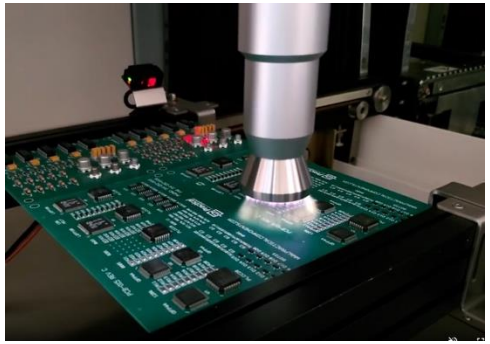
The plasma head is mounted on the Z axis above the transport system on a linear X/Y axis. The The PCB to be cleaning is taken over onto the transport system and transported into the cleaning position, and by advanced automation control technology, the operator is allowed to select the position of cleaning at the any corner on the surface of the boards.

- **Environmentally Friendly**: zero chemicals are used and no harmful substances are produced.
- **Cleaning**: remove fine dust, oil, grease, organic, inorganic and microbial contaminants.
- **Activation:** Increase surface energy to promote wetting and adhesion





Plasma Treatment



Rotary Nozzle

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End users:

SANMINA

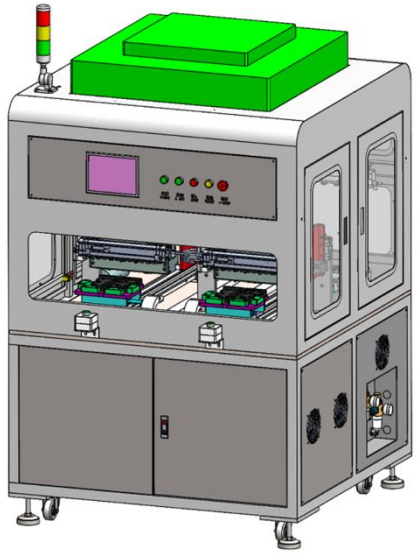
LEAB mobile energy

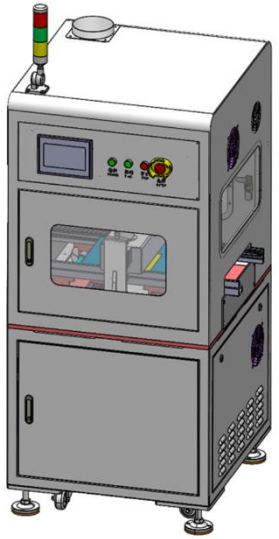
ŌURA

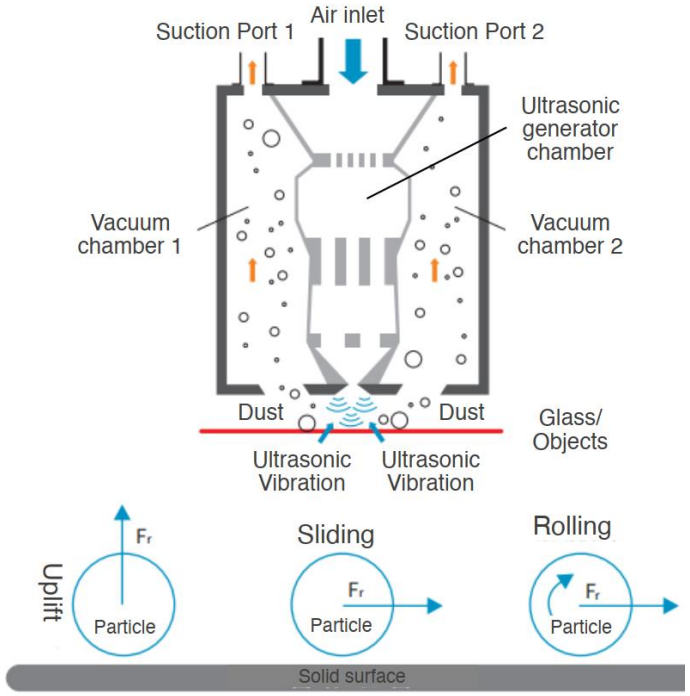
Inline vertical heating oven

In-line, vertical automation of the coating /dispensing /potting cure process produces immediate, significant benefits in three areas:

1.In-line automation **increases productivity but save the factory space.**
2. Good for Back End Semiconductor, automotive electronics, and PCB curing an underfill process;
3.Temperature range reached **to max. 200°C**







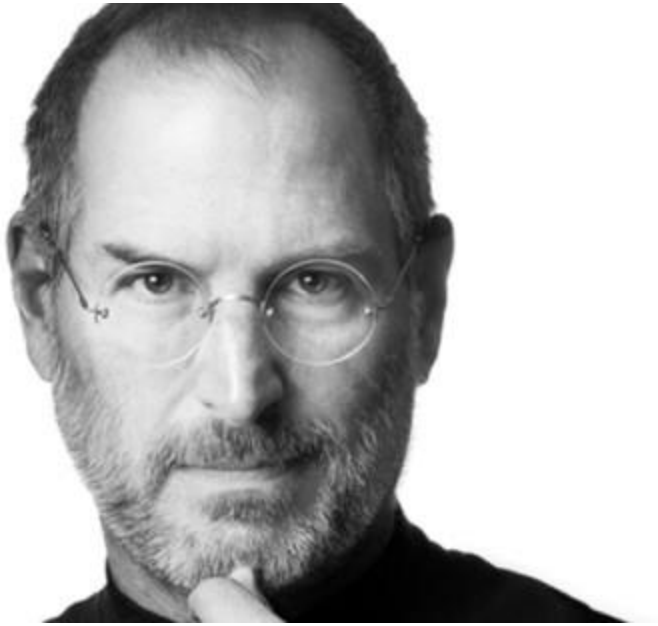
Touch –less PCB cleaner machine

Utilizing ultrasonic high-frequency vibrations to rapidly dislodge dust and particles from PCB surfaces, combined with a vacuum suction system that instantly removes suspended contaminants, achieving efficient, contactless PCB cleaning.

Vanstron
We, flexible as always!

Technical Advantages and Innovation

“Stay Hungry, Stay Foolish”



Steve Jobs

Vanstron
We, flexible as always!

The end.

Thank You
Appreciation for attendance and interest.