

High-speed Pin-insertion machines.



IT'S TIME FOR A CHANGE

It's an evolution, it's a revolution.
Industry evolves with The Internet of Things,
the Industrie 4.0 and the Smart Production,...
And even if the name varies internationally,
the main idea stays the same.

Focused to be the best business partner and to
add value to any production line, Lazpiur sets
the path in terms of design, productivity, control,
user friendly and digital interaction concepts —
embracing digital transformation and the rise
of artificial intelligence as part of tomorrow's industry.

SMART



Featuring a single double
head capable of inserting
two different components
– designed for less com-
plex projects that demand
high precision.

LZ



High versatility, capable
of inserting any
component – a machine
with over 20 years of
proven performance
in the market.

H4



Combining production
perfect balance capacity
with flexibility, it offers the
perfect balance for
manufacturers seeking
efficiency and adaptability.

H2²



Built for high-volume
production, offering
the ability to insert
up to four different
terminals – the top
-of-the-line model.

SMART INSERTION MACHINES



Featuring a single double head of inserting two different components – designed for less complex projects that demand high precision.

PERFORMANCE

Operates at 300 strokes per minute with the capacity of inserting 3 pins per stroke. Designed to handle up to 2 terminals with 1 double head and a 360° insertion angle.

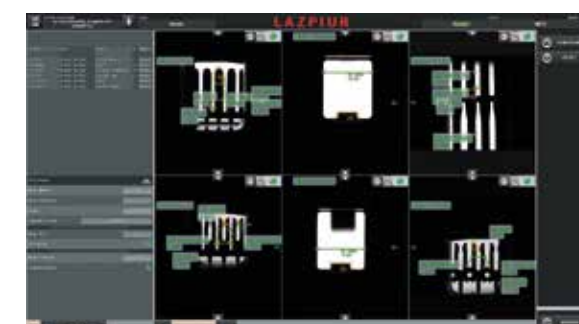
QUALITY CONTROL

Vision inspection for both early detection of geometric material deviation and terminal symmetric cut-line inspection.



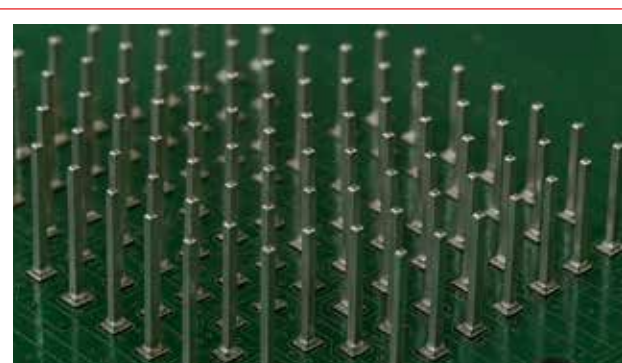
ACCESSIBLE AUTOMATION SOLUTION

With a compact and modular design, it is a user-friendly machine that offers the most accessible solution to automate the press-fit insertion process and achieve a fast ROI.



CONVERSION KIT

Equipped with the quick-change system philosophy of the conversion kit compatible with the H2² model.



LZ
INSERTION
MACHINES



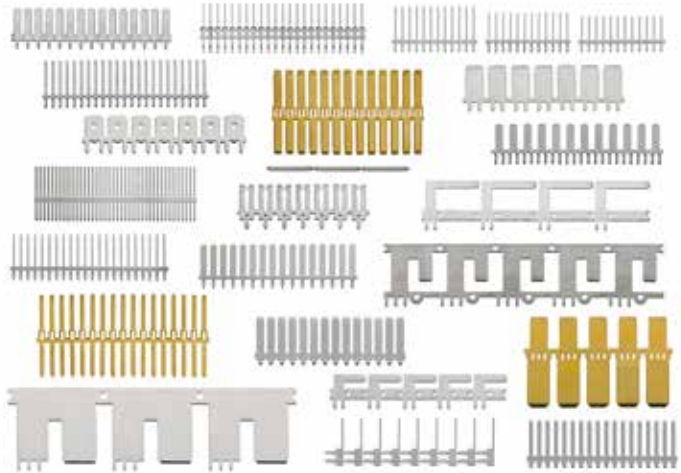
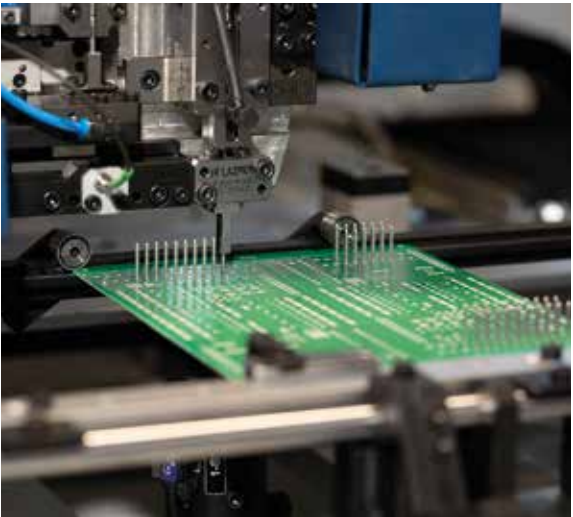
High versatility, capable of inserting any component – a machine with 20 years of over proven performance in the market.

SPEED

Operates at 240 strokes per minute with the capacity of inserting 3 pins per stroke.

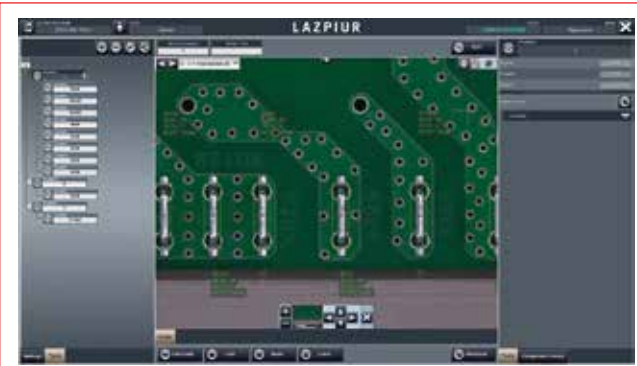
FLEXIBLE TERMINAL INSERTION

This machine supports a maximum insertion area of 350 mm X and 340 mm Y, allowing the precise insertion of complex terminals such as bridges, forks, and L-Shaped types and others.

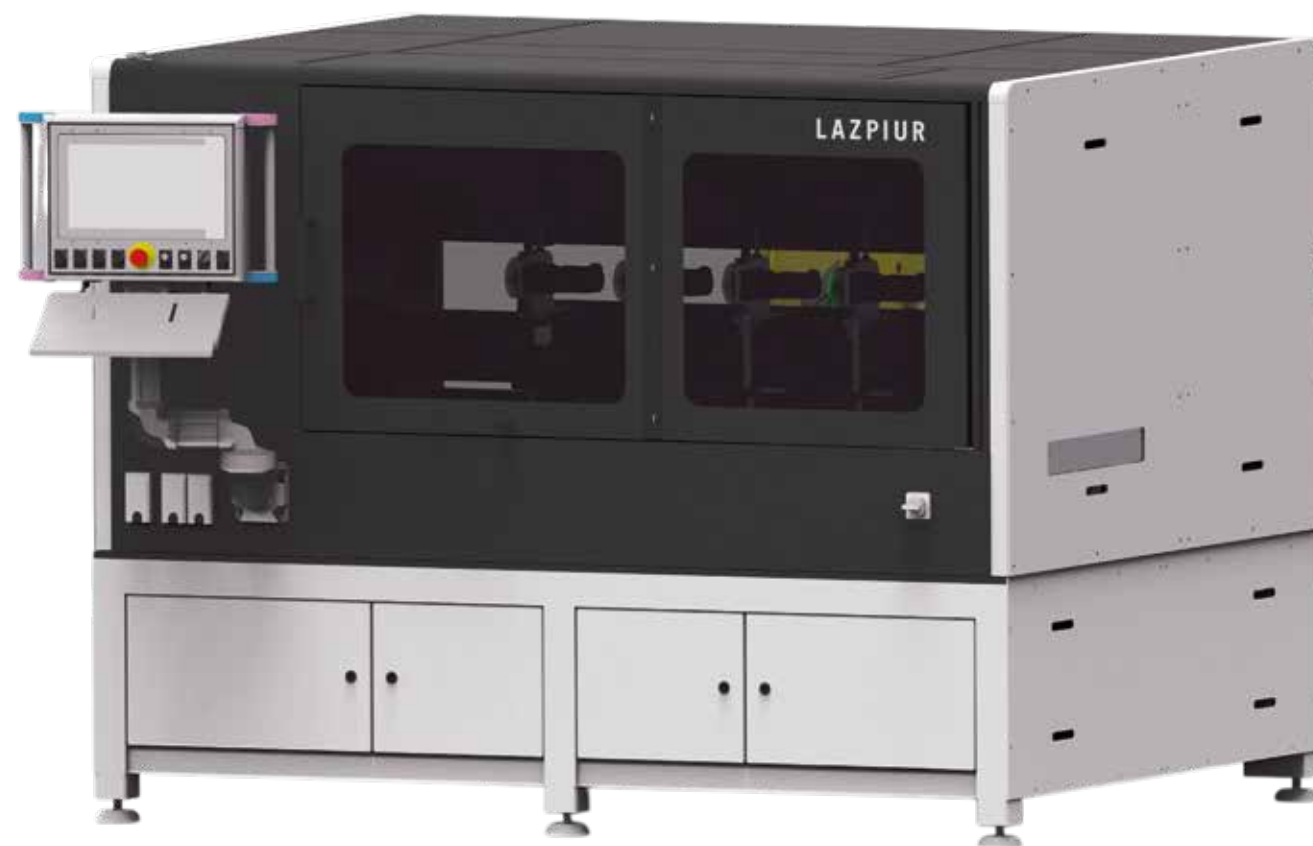


FAST, SIMPLE AND RELIABLE

Features a quick-change system with of 2 complete heads. Designed to be simple, durable, compact, and fully integrated for efficient and reliable operation.



H4 INSERTION MACHINES



Combining production capacity with flexibility, it offers the perfect balance for manufacturers seeking efficiency and adaptability.

SPEED

Operates at 300 strokes per minute with the capacity of inserting 3 pins per stroke. Equipped with the quick-change system philosophy of the conversion kit.

TERMINAL INSERTION AREA

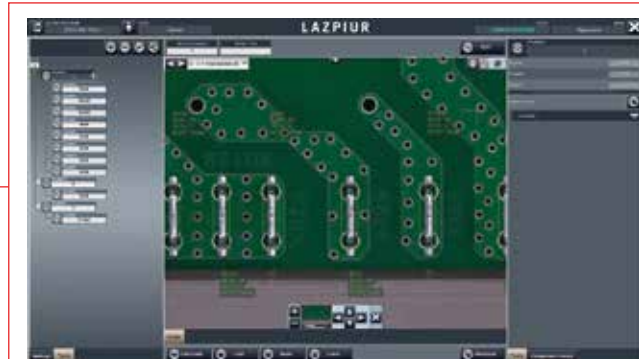
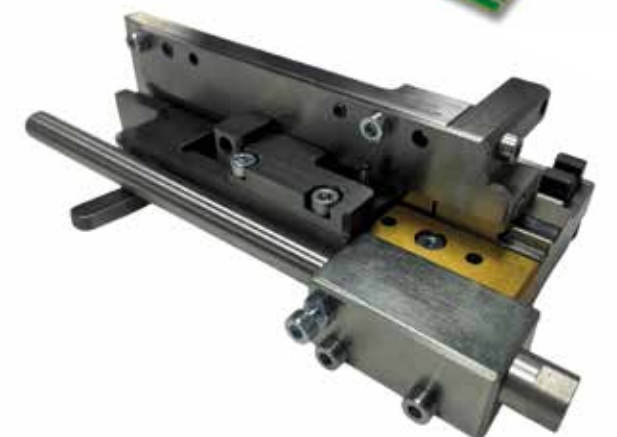
This machine supports a maximum insertion area of 380 mm X- and 380-mm Y, complemented with a force cell in the insertion axis and capability to insert at 360° with servo activated table.

EFFICIENT BY DESIGN

This machine provides simple terminal guiding between feeders and the head, embracing a 'less is more' philosophy while remaining economical and highly efficient for everyday operations.

CONVERSION KIT

Equipped with the quick-change system philosophy of the conversion kit. You will be able to change the head to one terminal to the other in less than 5 minutes.



H2² INSERTION MACHINES



Built for high-volume production, offering the ability to insert up to four different terminals – the top-of-the-line model.

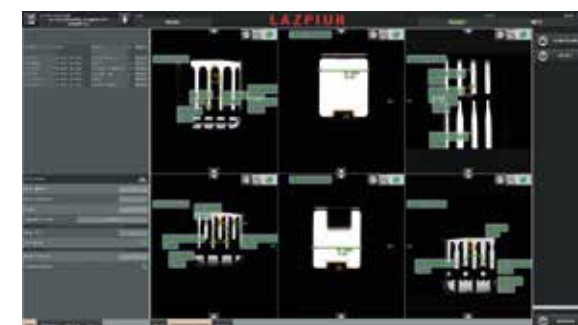
PERFORMANCE

Operates at 300 strokes per minute with the capacity of inserting 3 pins per stroke. Designed to handle up to 4 terminals with 2 double heads and a 360° insertion angle.



QUALITY CONTROL

Vision inspection for both early detection of geometric material deviation and terminal symmetric cut-line inspection.



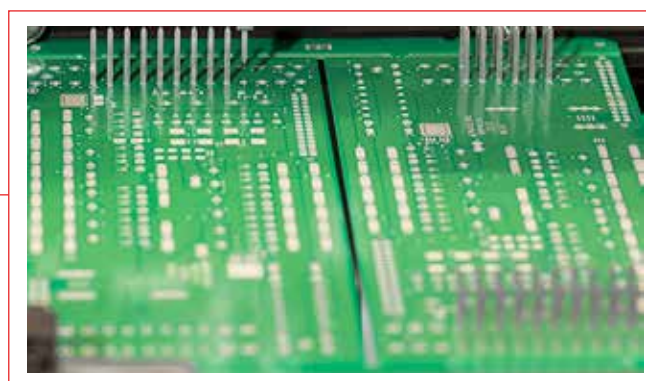
OPERATION

With an integrated design, it is a user-friendly machine that offers multiple working modes including rework, retry, batch and test panel



CONVERSION KIT

Equipped with the quick-change system philosophy of the conversion kit compatible with the SMART model.

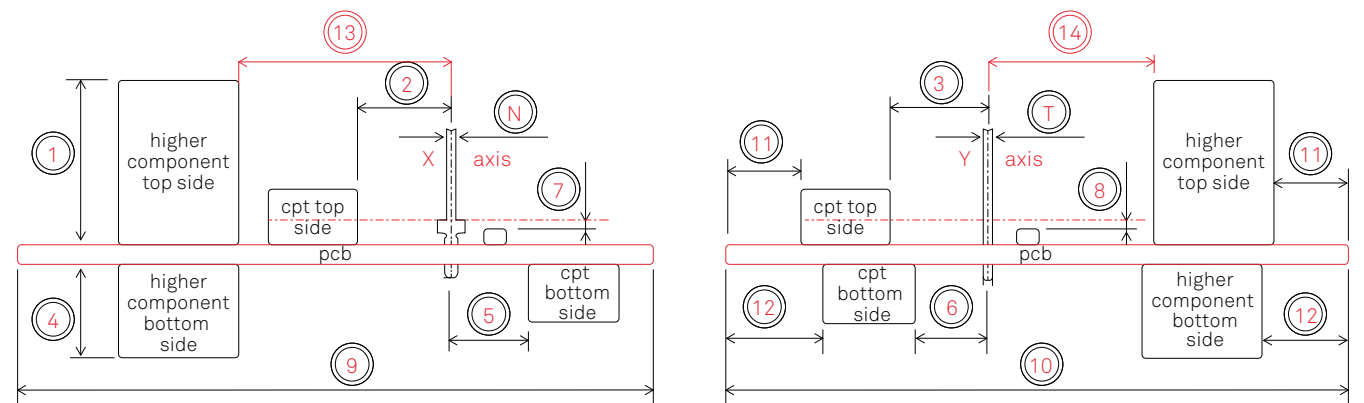


MACHINE SPECIFICATION



Group Info	Parameter	Description/Units	SMART	LZ	H4	H2²
PCB	Cmk	mm	>=2 ± 0,025	>=2 ± 0,025	>=2 ± 0,025	>=2 ± 0,025
	PCB MAX. size X	mm	380	350	420	360
	PCB MAX. size y	mm	365	350	400	350
	PCB MIN. size X	mm	50	70	70	70
	PCB MIN. size y	mm	80	60	60	60
Machine size	Length	mm	1400	2450	2400	2500
	Width	mm	1400 + reel feeder	1800	1800 + reel feeder	1800
	Height	mm	1955	2095	1785	2105
	Reel feeder MAX. Size	mm	800	800	800	600
Machine weight	Total weight (Gross/net)	kg	1100	2200	2500	2900
Machine	PCB Flow Upline/Downline Interface SMEMA	Standard	Standard	Standard	Standard	Standard
Machine performance	Insertion angle	º	0º-360º	0º, 45º, 90º, 135º, 180º, 225º, 270º, 315º	0º - 360º	0º - 360º
	Anvil	-	1	3	4	1
	Anvil	Type	Active anvil for PCB support	Active anvil for PCB support	Active anvil for PCB support	Active anvil for PCB support
	PCB thickness measurement	Yes / No	Yes	Yes	Yes	Yes
	Insertion Heads	-	1	3	4	2
	Insertion Mode	pin/stroke	1, 2 or 3	1, 2 or 3	1, 2 or 3	1, 2 or 3
	Max. Insertion Force	N	1200	1200	1000	1200
	Max. Insertion Rate	stroke/min	300	240	300	300
Terminals	MAX. Insertion area X	mm	356	350	380	350
	MAX Insertion area Y	mm	352	340	380	340
	Different terminals	MAX. Different terminals to insert	2	3	4	4
Machine characteristics	Quick Change System Philosophy	Yes / No	Yes	No	Yes	Yes
	PCB Handling	Conveyor	Conveyor	Conveyor	Conveyor	Conveyor
	Conveyor and table width adjustment	Automatic / manual	Automatic	Manual	Automatic	Automatic
Quality	Force monitoring and Force vs distance monitoring	Monitoring	Optional	Optional	Optional	Optional
	Pin height measuring protrusion	Type of control	Optional	Optional	Optional	Optional
Vision characteristics	Vision Inspection for early detection of geometric material desviation	Optional / No	Optional	Optional	No	Optional
	Vision Inspection for terminal symmetric cut line inspection	Optional / No	Optional	Optional	No	Optional
Other characteristics	User friendly and intuitive	Yes / No	Yes	Yes	Yes	Yes
	Downward looking vision system for automatic board position correction	Optional / No	Optional	Optional	Optional	Optional
	Data provision for customer´s data management system	Yes / No	Yes	Yes	Yes	Yes
	Accessible and ESD proofed guards	Yes / No	Yes	Yes	Yes	Yes
Power suply	Pressure	Bar	6-8 Bar	6-8 Bar	6-8 Bar	6-8 Bar
	Voltage	V	3 x 400V+N	3 x 400V+N	3 x 400V+N	3 x 400V+N
	Frecuency	HZ	50-60	50-60	50-60	50-60
Service	Official warranty	Months	12	12	12	12
	Extra optional warranty	Months	24 or 36	24 or 36	24 or 36	24 or 36
	Remote Trouble Shooting Support	-	Optional	Optional	Optional	Optional
Machine box size	Length	mm	1700	2750	2700	2800
	Width	mm	1700 + reel feeder	2100	2100 + reel feeder	2100
	Height	mm	2255	2395	2085	2405
Machine Environment Conditions	Operating Temperature	ºC	15-30	15-30	15-30	15-30
	Relative Humidity (non-condensing)	%	10 ≤ 60	10 ≤ 60	10 ≤ 60	10 ≤ 60
Machine HMI/PC/Control System	Configurable User Levels	-	3	3	3	3

DESIGN RULES

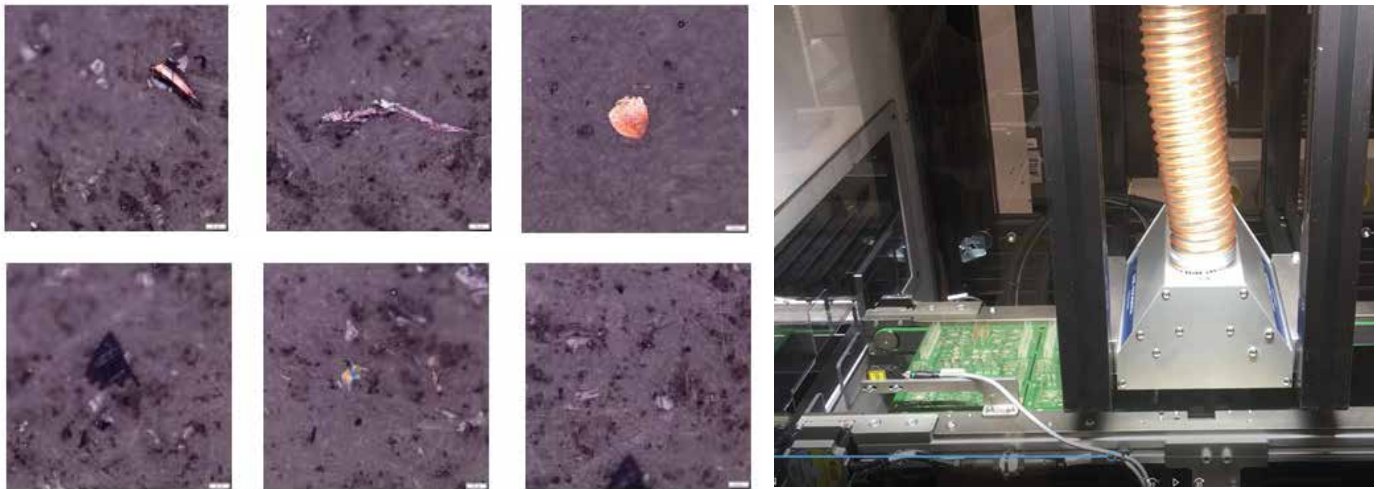


Item No.	Limitations	SMART	LZ	H4	H2/H1
1	Maximum component height acceptable on the top side of the pcb	30 mm	30 mm	35 mm	30 mm
2	Minimum distance between the pins and cpts higher than the height of the pins shoulders - for X axis	1.8 mm	1.8 mm	C=WID-TH+2·PITCH	1.8 mm
3	Minimum distance between the pins and cpts higher than the height of the pins shoulders - for Y axis	1.8 mm	1.8 mm	3.5 mm	1.8 mm
4	Maximum component height acceptable on the bottom side of the pcb	30 mm	30 mm	30 mm	30 mm
5	Minimum distance between the pins and components on the bottom side - for X axis	2 mm	2 mm	3 mm	2 mm
6	Minimum distance between the pins and components on the bottom side - for Y axis	2.5 mm	2.5 mm	2.5 mm	2.5 mm
7	Minimum clearance between the smd cpt height and the pins shoulders height (X axis) for smd cpts close to the pins	0.5 mm	0.5 mm	1 mm	0.5 mm
8	Minimum clearance between the smd cpt height and the pins shoulders height (Y axis)) for smd cpts close to the pins	0.5 mm	0.5 mm	1 mm	0.5 mm
9	Maximum length of the panel	380 mm	350/500 mm	420 mm	360 mm
10	Maximum width of the panel	365 mm	350/300 mm	400 mm	350 mm
11	Minimum distance between the components and the edges of the panel, top side.	7 mm	6 mm	5 mm	6 mm
12	Minimum distance between the components and the edges of the panel, bottom side	10 mm	6 mm	5 mm	6 mm
13	Minimum distance between the pins and cpts higher than the height of the pin tip - for X axis	22 mm	22 mm	9.5 mm	22 mm
14	Minimum distance between the pins and cpts higher than the height of the pin tip - for Y axis	22 mm	22 mm	6.5 mm	22 mm
15	Minimum distance from PCB hole edge (for pin) to PCB edge	6 mm	6 mm	5 mm	6 mm

OTHER MACHINES

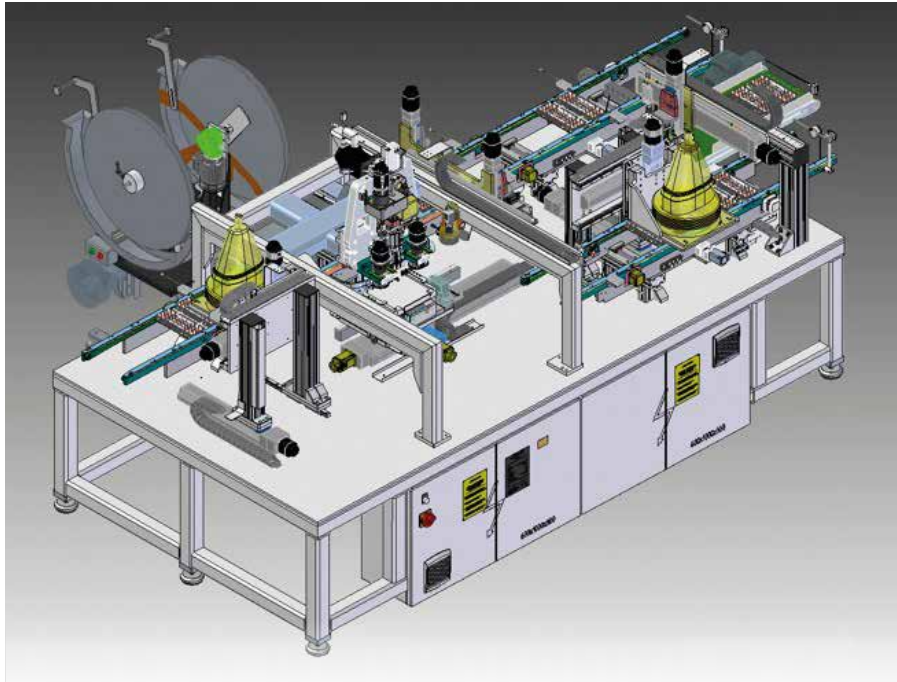
CLEANING MACHINE

Cleaning of PCB assemblies after the insertion process significantly improves the reliability of electronics devices. We design our automatic cleaning machine based on typhoon technology to cleanany size, shape and complexity of electronic circuit boards under fully controlled cleaning conditions.



IGBT

Thanks to our expertise in manufacturing insertion machines, Lazpiur also offers turnkey projects for carrying out terminal insertion on IGBTs.



LAZPIUR

WHAT DOES LAZPIUR OFFER TO THE CUSTOMER?

At Lazpiur, we work to ensure the highest reliability, productivity and durability of our solutions.

Our after-sales service is designed to support the customer throughout the entire lifecycle of the equipment, offering specialized support, customized maintenance and close, efficient assistance.

WARRANTY

We offer an **extended warranty of 2 additional years**, subject to the contracting of a **periodic maintenance plan** with Lazpiur. An option that strengthens security and confidence in every piece of equipment.

SPECIALIZED TECHNICAL SUPPORT

We manage **daily incidents** quickly and efficiently, offering:

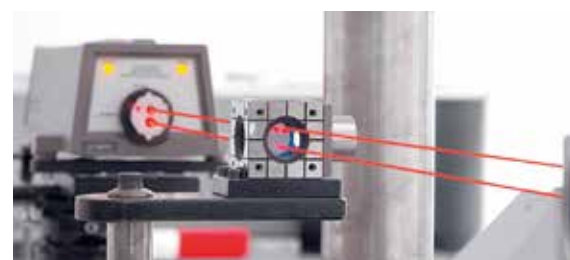
- Diagnosis and problem resolution.
- **Remote and on-site assistance** according to customer needs.

Our goal is to provide fast and effective support in any situation.

PREVENTIVE AND CORRECTIVE MAINTENANCE

We develop **maintenance programs tailored to each customer**, formalized through specific service contracts. These programs allow:

- **Reduction of downtime.**
- **Extension of the useful life** of equipment or solutions.
- **Maintenance and performance reports** that promote continuous improvement.



CERTIFIED CALIBRATIONS

We offer **periodic calibration programs** to ensure accuracy and regulatory compliance.

They include:

- **Equipment calibration** performed by qualified technicians.
- **Traceable certificates** that guarantee process reliability.

SPARE PARTS MANAGEMENT

We provide the **supply of original Lazpiur spare parts**, ensuring full compatibility, performance, and durability for each component.

TRAINING AND QUALIFICATION

We offer **technical training** tailored to machine users, both in **production** and **maintenance**, including:

- **Training certificates.**
- Programs designed to optimize the use and efficiency of our equipment.

OUR COMMITMENT

- **Proximity:** We are close to our customers, understanding their context and needs.
- **Rapidity:** We respond with agility and efficiency.
- **Quality:** Every intervention seeks excellence.
- **Trust:** We build long-term relationships based on results.



CONTACT.

Customer service and international operations have been key on the strategy of the company.

Today Lazpiur is a world wide service company providing the best solutions anywhere in the world.

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● Sales and Technical Partners

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U.S.A.
Mexico
Brazil
France
Italy
Portugal
North Africa
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● Sales

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Sweden	Korea
Hungary	India
Czech Republic	Bulgaria
Poland	Chile
Romania	Tunisia
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