

YOUR SMART ROBOTIC FINISHING







#### INDEX

	What we mean by <b>self-learning robots</b>		
	Robot		
	Lesta LEBOT MV A6		
	Lesta LEBOT MV A5		
	Lesta LEBOT I A6		
	Lesta LEBOT WPLesta LEBOT C5		
NEV	Lesta SAMPLE MAKER		
	Control cabinet		
	Lesta LECROB Robot Controller / I Controller	Pag	12
	Lesta LECROB Robot Manager / K Manager		
	Plug-ins		
	Intermetal accessories		
NEV	Integrated accessories  Easy prog PORTAL	Pan	15
_	Easy prog 2D		
	Easy prog 3D scan		
	Image match 2D		
	Image match 3D pro		
	Suction and blow off tools		
	Anticollision	.Pag.	21
	Integrated / stand alone accessories		
NEV	Lesta CLEANING STATION	.Pag.	23
_	Lesta RECIPE MANAGER		
	Lesta ROTATION UNIT RA / RT / RHT		
NEV	Lesta PAINT STUDIO 3.0		
	Lesta PRODUCTION MANAGER TAG WEB	. Pag.	2/
NEV	National Lesta joystick C2	. Pag.	29
	Lesta joystick W1		
	CE declaration of conformity for a machine	. Pag.	30
	Declaration of incorporation of partly completed machinery		
	ATEX (EU)	. Pag.	30
	HAZLÒC (UL)	. Pag.	30
	Lesta in the world	. Pag.	31



WHAT WE MEAN BY

### **SELF-LEARNING ROBOTS**

The self-learning concept is based on the "teach" function. The robot, during the learning phase records real time movements of the axes piloted by the operator. The operator uses the handle attached to the robot's arm during the teaching phase. When the teaching phase is completed, the robot can reproduce the same movements in "auto play" mode.

The "teach" process consists of 4 phases:

01

#### **NAMING**

Each course must have a unique name. The teachings can be aggregated into "programs" so that they can be carried out in sequence.

02

#### "CONFIRM "READY" AND "GO OFF THE HOOK"

The robot needs a confirmation to proceed and to release its arm so that the operator can move it without any effort.

03

#### **TEACHING**

The paint gun is connected to the robot's wrist and is used to paint a sample piece allowing the robot to record the movements.

04

#### SAVING

The teaching can be saved or aggregated with other teachings to create one program, it can be deleted or immediately reproduced.

BENEFITS OF A **SELF-LEARNING** ROBOT



PROGRAMMING TIME EQUAL TO THE TIME OF THE FIRST PAINTING

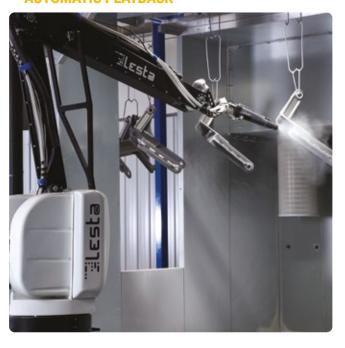


USER-FRIENDLY SOFTWARE EASY TO USE

#### **TEACHING**



#### **AUTOMATIC PLAYBACK**





WHAT WE MEAN BY

# **INDUSTRIAL** ROBOTS

For each use, where a robot does not have to learn the program through a "self-learning method", Lesta integrates industrial robots into its own advanced systems. The purpose of this integration is to simplify the use of the industrial robot and the controller through Lesta's innovative software.

Unlike Lesta's self-learning robots, industrial robots have very heavy arms that cannot be 'unlocked' and moved directly by manipulating the spray gun.



Official System
Partner

#### BENEFITS OF A INDUSTRIAL ROBOT



LARGE ACCESSIBILITY OF THE WORKING AREA



MORE CAPACITY ON THE WRIST



MORE ACCURACY (REPEATABILTY)

### INDUSTRIAL ROBOTS IN SELF-LEARNING

Some industrial robots commonly known as "collaborative" can be moved by the operator (with the motors always switched on) to record programs through self-learning method.

However, this does not register painting in real time as it happens with the self-learning Lesta models.

Industrial robots are therefore generally integrated by Lesta with 2D / 3D vision systems and automation generating painting paths.

Lesta's software can also be integrated with other industrial robots for processes such as:



**SANDBLASTING** 



**PICK AND PLACE** 





# Lesta LEBOT MV A6



6-axis anthropomorphic robot for self-learning finishing

Protection class: ATEX zone 2/22 Cat. 3G

Arm material: **Aluminum** Wrist payload: **4 Kg** Total weight: **380 Kg** 

Repeatability: ±3 mm at the wrist

Full speed: 1000 mm/s

Possible configurations: Upside down, floor, carriage, carousel

Power supply: 3x400 VAC

Programming: Self-learning, Point to point lite, offline,

2D and 3D vision systems







Lesta LEBOT MV A6 on chariot LIOUID APPLICATION FOR METAL





Lesta LEBOT MV A6 on carousel with Easy prog 2D LIQUID OR POWDER APPLICATION FOR SMALL PLASTIC AND METAL COMPONENTS





A system with Lesta LEBOT MV A6 on carousel with 2 variable geometry arms for painting fashion accessories.



# Lesta LEBOT MV A5



5-axis anthropomorphic robot for self-learning finishing

Protection class: ATEX zone 2/22 Cat. 3G

Arm material: **Aluminum** Wrist payload: **4 Kg** Total weight: **320 Kg** 

Repeatability: ±3 mm at the wrist

Full speed: 1000 mm/s

Possible configurations: Upside down, floor, carriage, carousel

Power supply: 3x400 VAC

Programming: Self-learning, Point to point lite, offline,

2D and 3D vision systems







ATEX environment compatible

### Lesta LEBOT MV A5 on a carousel LIQUID APPLICATION FOR WOODEN CHAIRS













# Lesta LEBOT I A6



Industrial-type 6-axes anthropomorphic robot

Protection class: IP65

Arm material: **Casting of light alloys** Repeatability: **±0,05 mm at the wrist** 

Full speed: 1500 mm/s

Possible configurations: Upside down, floor, carriage, carousel

Power supply: **3x400 VAC** 

Programming: Lesta PAINT STUDIO, 2D and 3D vision systems







Lesta LEBOT I A6 on carousel with Easy prog 3D scan LIQUID APPLICATION FOR WOOD









# Lesta LEBOT WP



Small 3-axis robot, minimum footprint and minimum investment

Number of axles: 3

Protection class: ATEX zona 2/22 Cat. 3G

Arm material: **Aluminum** Wrist payload: 2 Kg Total weight: 72 Kg

Repeatability: ±1,5 mm at the wrist

Full speed: 600 mm/s

Possible configurations: Upside down, floor, carriage, carousel

Power supply: 3x400 VAC

Programming: Offline, Point to point lite





ATEX environment compatible



#### **COMPACT**

it takes relatively small space



#### **ECONOMIC**

It is the cheapest investment from the entire Lesta line



#### **2 FUNCTIONS**

It can be used as a positioner or it can repeat painting paths with its 3 axes

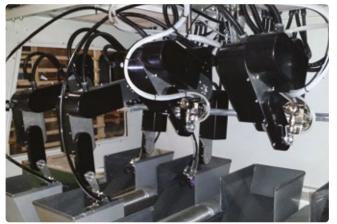
# Lesta LEBOT WP mobile conveyor LIQUID APPLICATION FOR PLASTIC HELMETS



Plant with Lesta LEBOT WP mounted on a small mobile conveyor with integrated panel. The robot is configurated to repeat a continuous movement



#### Lesta LEBOT WP AS A SPRAY GUN POSITIONER





# Lesta LEBOT C



5-axis cartesian robot

Protection class: ATEX zona 2/22 Cat. 3G

Wrist payload: 4 Kg

Repeatability: ±3 mm at the wrist

Full speed: **700 mm/s**Power supply: **3x400 VAC** 

Programming: Offline, 2D and 3D vision systems





ATEX environment compatible

#### Maximum window sizes and bespoke options

The structure, as illustrated, can paint windows up to **5 meters wide and 3 meters high**. The structure also requires our technical team to adapt the system.

#### Lesta LEBOT C for classic windows

#### LIQUID APPLICATION FOR WOODEN WINDOW FRAMES





#### USE

Commonly for painting windows and frames



#### **SOLIDITY**

**Chain** is used to handle the wagon



#### **SPEED**

The wrist is applied to a **linear belt guide** 



#### **ADAPTABILITY**

**Length**, **height** and **depth** of the structure **can be customized** 



**FULL SYSTEM** 

# Lesta SAMPLE MAKER



Complete system for painting with small quantities of paint, ideal for the processing of paint samples and test objects, or for conducting tests with specific painting parameters. Once optimised, these parameters can also be applied to large-scale production.

Dimensions of the robotic island: Standard height: **2600 mm** Standard width: **2800 mm** Standard depth: **2000 mm** 

These dimensions can be customised.





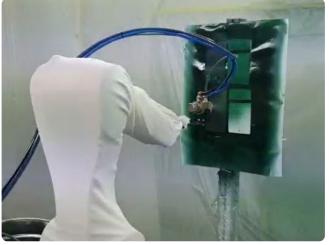




Includes a cleaning station for automatic cleaning of the spray gun nozzle and cup attachment

#### LIQUID APPLICATION FOR COLOUR SAMPLES











CONTROL CABINET

# Lesta LECROB Robot Controller

Robot interface and control pulpit equipped with 15" touchscreen and **Lesta LECROB Robot Manager** management software.



CONTROL CABINET SOFTWARE

# Lesta LECROB Robot Manager

**Lesta LECROB Robot Manager** is software for the control and management of **MV series robots**. In addition to the standard management of a self-learning robot for painting, it provides the following functions



#### MODULAR ROBOT SPEED

With perfect reproduction, 70% to 130% of teaching speed



#### **ARCHIVING OF PROGRAMS**

On local memory, on USB key or on a network path



#### **PICTURES AND NOTES FOR THE PROGRAMS**

Each program can be associated with an image and/or a "various annotations" file



#### **5 LEVELS OF ACCESS AND USE**

Access to specific machine functions, only for authorized personnel



#### MAINTENANCE STATISTICS

Graphic indicators divided by activity (lubrication, greasing, routine maintenance, chain change)



#### ROBOT CALIBRATION

Quick and easy verification of machine zeros (encoder zeros) and with guided and intuitive encoder calibration



#### **CUT OF DOWNTIME**

The time in which the robot is not moved and the gun does not dispense paint can be eliminated through an optimization



#### **ARCHIVING OF PRODUCTION DATA**

Microsoft Excel .csv files or MySQL database



#### **REMOTE UPDATES**

Remotely upgradeable software

CONTROL CABINET

# Lesta LECROB I Controller

Robot interface and control console equipped with a 15" touchscreen and management software **Lesta LECROB I Manager** 



CONTROL CABINET SOFTWARE

# Lesta LECROB I Manager

This is the dedicated software for controlling the **Lesta LEBOT I A6** series robots. It also provides the following features:



#### SIMPLIFIED INTERFACE

Interface with aggregated and simplified functions



#### SIMPLIFIED ACCESSORY MANAGEMENT

Each accessory has a direct interface connection with a minimum number of interaction buttons



#### SIMPLIFIED MAINTENANCE

Direct access to 'special' positions dedicated to maintenance



#### **REMOTE UPDATES**

Software can be updated remotely (via internet connection)



#### Lesta LECROB ROBOT MANAGER

# Plug-in

#### POINT TO POINT LITE

This plug-in optional feature allows the generation and processing of a virtual painting path by physically directing the spray gun to the desired points and confirming chosen locations with a click on the joystick. Through the plug-in interface, available with the Lesta LECROB Robot Controller, it is possible to use selected points and generate the path via software. This is done by setting different parameters such as speed, acceleration, distance from the piece, gun parameters (atomization, flow rate and fan), and more.

which they will be executed. The operator can always step in and control programs by setting the order on the screen of the Lesta LECROB Robot Controller.

This plug-in is widely used in configurations with a carousel



#### VIRTUAL START CYCLE

Where systems have a conveyor, **the cycle start sensor** is mounted to allow the start of the painting program. When it is not possible to install the cycle sensor in the cabin due to dirt, ATEX or other reasons, it is fitted outside the cabin along the conveyor and the **virtual limit switch plug-in** will calculate the exact moment for the robot to start reproducing the program.



#### INTERNAL QUEUE

This plug-in optional feature allows you to define, from a list of programs, the order in

#### QUICK START

This plug-in allows you to record a program and, as soon as the recording is finished, to start the automatic cycle with 1 click. This plug-in is widely used on solid lines



#### **FOLLOW ME**

Is a systems where the robot is mounted on a carriage. When the operator has to perform movements that are larger than the usual working area of the robot, the carriage will allow the robot to reach larger spaces without the need of using the external pushbutton The robot will physically move on the

cart independently following the movements of the operator. All these movements, in the "teaching" stage, will be recorded and will be repeated in the "automatic repeat" stage

#### ADVANCED EDITING PAINTING PARAMETERS

Allows you to modify the 3 main paint dispensing parameters:



2. ATOMIZATION

3. FAN

for time intervals chosen within a program after it has been created.

The gun that is mounted on the robot's arm must be equipped with a predisposition for this function.

#### **POWDER PACK**

Software option dedicated to powder systems:

#### 1. SAVE PAINT

The powder is dosed only when the element reaches the operator and the registration of movements begins

#### 2. CLEANING FROM THE OUTSIDE

It allows you to start and manage washing activities from extérnal devices

#### 3. MANAGEMENT OF THE ELECTROSTATIC GUN

A special holder is installed which isolates the spray gun.

#### LIQUID PACK

Software options dedicated to liquid systems:

- 1. MANAGEMENT INTERFACE WITH EXTERNAL **COLOR CHANGING SYSTEMS**
- 2. AUTOMATIC CLEANING
- 3. MANAGEMENT OF THE ELECTROSTATIC GUN



#### FIBERGLASS PACK

Software options dedicated to fiberglass, gelcoat, and resin systems:

- 1. AUTOMATIC WASHING POSITION AFTER **EACH CYCLE**
- 2. GLASS FIBER DISPENSING DOSAGE BY MANAGING THE CHOPPER
- 3. MANAGEMENT OF GELCOAT AND RESIN VALVES

#### EXTERNAL PROGRAM SELECTION

This plug-in enables the selection and launch of paint programs by an external system, e.g. a PLC controller

The robot can receive program code via hardware signals or different fieldbuses.



#### INDUSTRY CONNECTOR

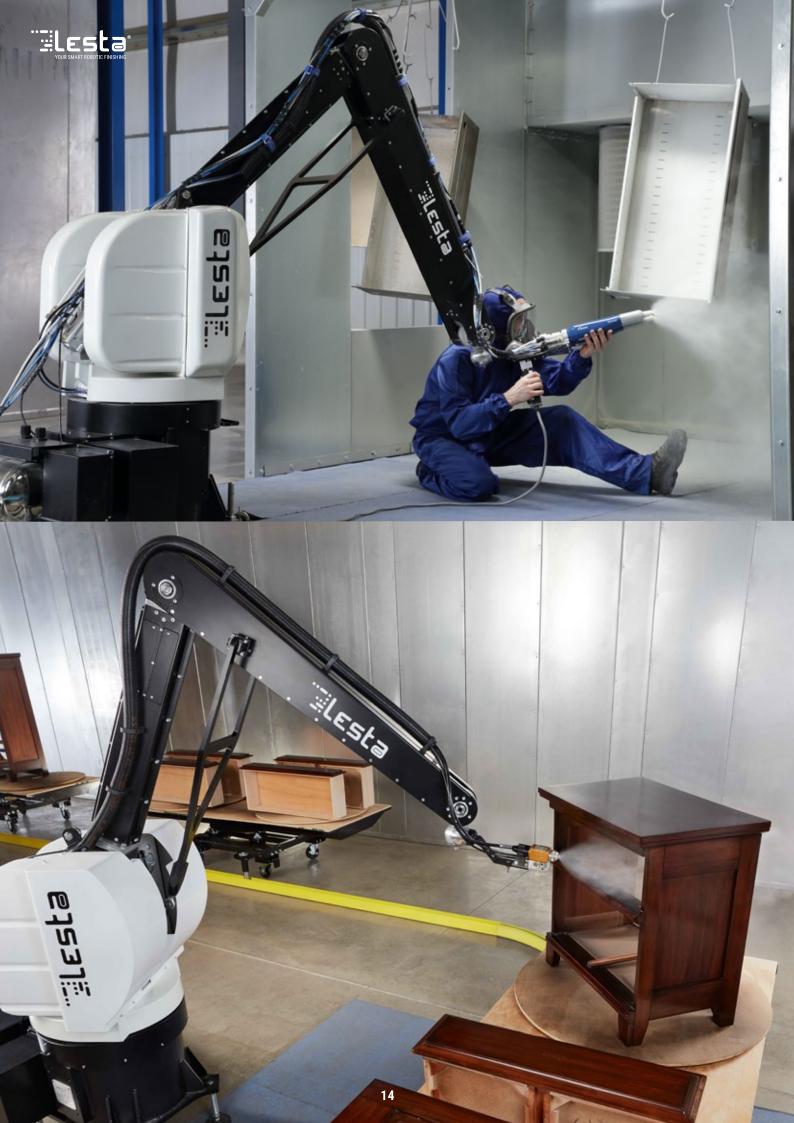
Connects the robot to factory computer systems for the exchange of production data.



#### **SMART APP**

The **smart app** plug-in allows you to monitor the status of Lesta robots on any device (PC, tablet, smartphone)







# Easy prog PORTAL



SCANNER NOT compatible with ATEX environments. Installable outside the cabin

#### **AUTOMATIC PROGRAM GENERATION**

Easy prog PORTAL is a system composed of a portal equipped with photoelectric barriers and software capable of autonomously generating the painting path.

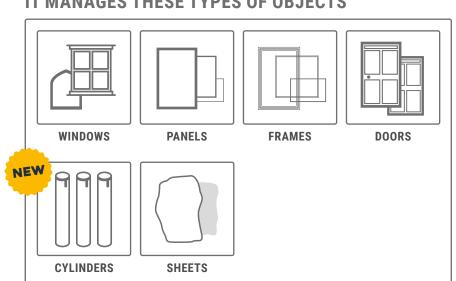
It is primarily dedicated to the recognition of windows, frames, panels, doors, as well as cylinders or similar objects. It only requires the creation of painting recipes, supply, and unloading. Specific recipes for each type of product to be painted can be created directly from the Robot Controller screen and can be recalled via barcode scanning or directly from the touchscreen.

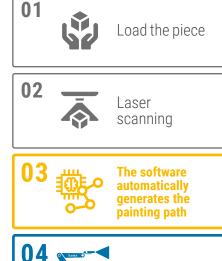




#### **HOW IT WORKS**









# Easy prog 2D



AUTOMATIC PROGRAM GENERATION

Easy prog 2D is software capable of autonomously generating the painting path for panels, boxes, and drawers. It only requires the creation of painting recipes, supply, and unloading.

Specific recipes for each type of product to be painted can be created directly from the Robot Controller screen and can be recalled via barcode scanning or directly from the touchscreen.

The system requires the positioning of pieces according to the direction specified in the recipe.





Compatible with ATEX environments

#### LASER CENTRING OPTIONAL

Easy prog 2D can be equipped with a pair of laser pointers that can automatically compensate for any centring errors of the piece during positioning at loading.





Laser NOT compatible with ATEX environments. Installable outside ATEX zone

#### IT MANAGES THESE TYPES OF OBJECTS





PANELS BOXE

#### **HOW IT WORKS**

01



Load the piece

02



Select a recipe via barcode scanning

03



The software automatically generates the painting path

04





# Easy prog 3D Scan



AUTOMATIC PROGRAM
GENERATION

Easy prog 3D Scan is a software system equipped with a 3D scanner used on a carousel, capable of identifying the surface area of three-dimensional objects and autonomously generating the painting path.

Specific recipes for each type of product to be painted can be created directly from the Robot Controller screen and recalled via barcode scanning or directly from the touchscreen.





Compatible with ATEX environments

#### **HOW IT WORKS**

01



Load the piece

02



Laser scanning

#### IT MANAGES THESE TYPES OF OBJECTS







the pieces in a specific direction

The system recognises the actual position of

the objects, making it unnecessary to position

PANELS CURVED PANELS

**BOXES** 



The software automatically generates the painting path

04





# Image match 2D

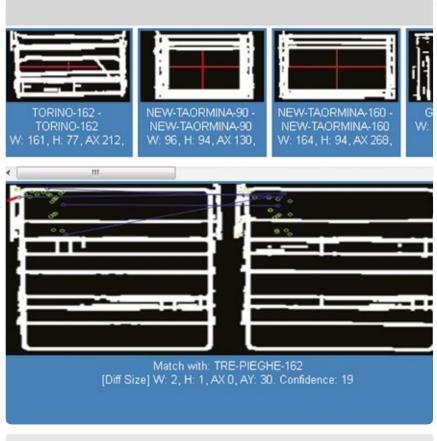
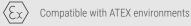


Image match 2D is a system composed of dedicated software and specific vision hardware capable of identifying the 2D surfaces of pieces and associating them with the corresponding painting program.

In the initial phase of the work, 'teaching' (painting instructions with self-learning) is carried out for each type of piece. After this, it is simply necessary to load the supply line with the pieces to be painted. Image match 2D will take care of recognising the pieces, associating them with the corresponding teachings, and painting them.





#### **HOW IT WORKS**

01

Record the teachings for each piece

02



Scanning

03 1



04



	2D	3D
It can distinguish objects of different thicknesses	×	~
It recognises the actual position and adjusts the painting path accordingly	×	~
It can automatically generate painting paths	×	×



# Image match 3D pro



02 . Painting



Image match 3D pro is a system composed of management software and one or more 3D scanners mounted on a line, capable of recognising the dimensions of three-dimensional objects and associating them with the corresponding painting program.

In the initial phase of work, programs are created for each type of piece. After this, it is simply necessary to load the supply line with the pieces to be painted. **Image match 3D pro** will recognise the pieces using its 3D scanners and apply the corresponding painting program.





Compatible with ATEX environments



Laser NOT compatible with ATEX environments. **Installable outside ATEX zone** 

**Image match 3D pro** recognises the inclination and position of the pieces and **automatically adjusts the painting path**.

**Taught** position



**Detected** position



	2D	3D
It can distinguish objects of different thicknesses	×	<b>&gt;</b>
It recognises the actual position and adjusts the painting path accordingly	×	~
It can automatically generate painting paths	×	×

#### **HOW IT WORKS**

01 Steats

Record the teachings for each piece

02



Scanning

03

The software applies the corresponding teachings



# **Suction and blow-off tools**



This accessory consists of a special gun capable of blowing air or suctioning water from the surface of the piece after the washing and drying tunnel.



**IT PREVENTS THE** FORMATION OF WATER POCKETS AFTER THE **PAINT APPLICATION** 



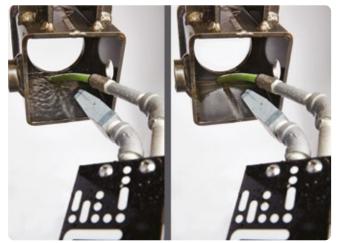
**IT ALLOWS FOR MAINTAINING LOWER TEMPERATURES INSIDE** THE OVEN.





 $\langle \xi_{\chi} \rangle$  Compatible with ATEX environments

#### **SUCTION**



#### **BLOW-OFF**





# **Anticollision**



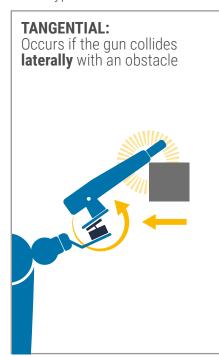
The Lesta anti-collision system is a special pneumatic device mounted between the gun holder and the gun itself, which protects both from overloads caused by impacts.

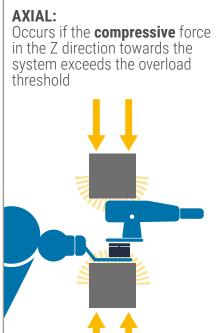
In the event of the gun colliding with objects, a mechanical overload is generated, leading to a displacement of the sensor with the release of pressurised air. The pressure drop is detected, and the system sends a signal to the control PLC, which stops the robot.

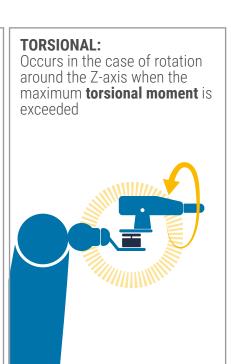




Three types of overload can occur:











### Lesta CLEANING STATION



**Lesta CLEANING STATION** is a gun cleaning station that integrates into paint booths, developed for the automatic cleaning of spray nozzles.

Lesta CLEANING STATION is entirely operated by pneumatic valves







# Lesta CLEANING STATION RS



**Lesta CLEANING STATION RS** is the most advanced version of the gun cleaning station, equipped with a solvent recirculation system, developed for even more efficient automatic cleaning of spray nozzles



# Lesta CLEANING STATION powder



**Lesta CLEANING STATION** powder is the gun cleaning station that integrates into paint booths, developed for the automatic cleaning of powder guns.

Lesta ČLEANING ŠTATION powder is entirely operated by pneumatic valves





INTEGRATED / STAND-ALONE ACCESSORIES

### Lesta RECIPE MANAGER



**Lesta RECIPE MANAGER** is a system for **managing painting parameters**, organised into recipes and easily retrievable. It interfaces with any painting system using guns or reciprocators.

The mounted gun must be equipped with a feature for this functionality.

 $\langle \mathcal{E}_{x} \rangle$  Compatible with ATEX environments

The parameters that Lesta RECIPE MANAGER can manage are:



**FLOW RATE** 



**FAN PATTERN** 



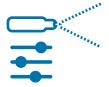
**CYCLE TIME** 



**ATOMISATION** 



OPENING DELAY AND ADVANCE



**Lesta RECIPE MANAGER** can be integrated with all Lesta robots without the need for a dedicated screen and software panel.

The user interface is integrated into the **Lesta LECROB Robot Manager** software.



### Lesta ROTATION UNIT RA



**Lesta ROTATION UNIT RA** is a device that allows the rotation of parts arriving from an overhead conveyor.

On a step conveyor,

it can operate with two different steps on the same system.



### Lesta ROTATION UNIT RT



**Lesta ROTATION UNIT RT** is a ground-based device that allows parts to be attached and **rotated perpendicularly to the floor** for painting.

On a step conveyor,

it can operate with two different steps on the same system.



It can be integrated

with carousel arms or a conveyor.





### Lesta ROTATION UNIT RHT



**Lesta ROTATION UNIT RHT** is a ground-based device that allows parts to be attached and **rotated parallel to the floor** for painting.



It can be integrated

with carousel arms or a conveyor.



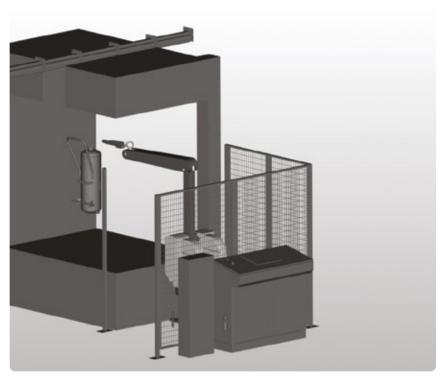




INTEGRATED / STAND-ALONE ACCESSORIES

### Lesta PAINT STUDIO 3.0





**Lesta PAINT STUDIO 3.0** is the software for programming Lesta robots and creating offline painting paths.

Every painting path created directly from the software or through self-learning can be modified.

It is also possible to adjust various parameters including:

- Speed
- Acceleration
- Distance from the piece
- Gun parameters
- Painting angle



#### **Methods for importing parts:**



IMPORTING 3D MODELS OF OBJECTS AND THE BOOTH



CAPTURING KEY POINTS USING THE ROBOT OR CREATING THEM IN THE SOFTWARE



CONSTRUCTING GEOMETRIES WITHIN THE SOFTWARE



#### **ToolPath Editor**

This newly introduced feature allows the modification of painting trajectories previously generated through self-learning.





Import of 3D models in STL and STEP formats



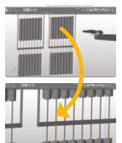
Automatic grid creation on surfaces to facilitate path generation



Simulation of the robot's cycle, with verification of reachability limits and cycle times



360° view of the robot's surrounding environment even during the simulation

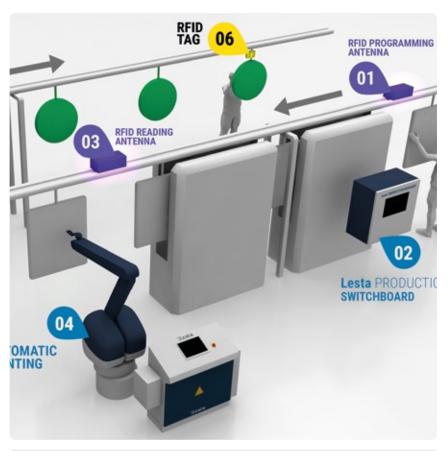


Possibility of automatic or manual generation of connections between different paths



INTEGRATED / STAND-ALONE ACCESSORIES

# Lesta PRODUCTION MANAGER TAG WEB



**Lesta PRODUCTION MANAGER** is a production queue management system that allows a specific programme to be associated with a specific part or batch. It consists of a management panel (\*02), tags (\*05 \*06), and antennas (\*01 \*03) capable of receiving information and transferring it to the robots.

It is generally used on inline systems when there is a need to paint a large number of different models, each associated with a different painting programme.





It has 3 possible configurations:

**Lesta PRODUCTION MANAGER**: programmes are transmitted to the robots by reading barcodes with a scanner gun operated by an operator. It does not require tags and antennas.

**Lesta PRODUCTION MANAGER TAG**: 2 antennas and a variable number of tags are installed on the hangers. The first antenna will associate a specific painting programme with each tag. The second antenna will be positioned near the painting booth and, upon the piece's arrival, will communicate the corresponding programme to the robot.

**Lesta PRODUCTION MANAGER TAG WEB**: the system, already equipped with tags and antennas, can be managed remotely.

### THE PROCESS CAN PROVIDE THESE PARAMETERS:

- Position of the piece in the line
- Oven temperature setting
- In the case of reciprocators, washing cycle and recipes
- Total cycle time
- Ability to catalogue all products by code, object, or macro-family

### SUGGESTION SCREENS 15" 4:3 TOUCH SCREEN:

Optionally, the system can integrate screens, generally positioned at loading and unloading stations, that provide operators with important details about the tasks to be performed, images, or specific characteristics of the piece.





# Lesta JOYSTICK C2



**Lesta JOYSTICK C2** is the Lesta device for moving and controlling robots in self-learning mode, equipped with a cable. It has been renewed in terms of ergonomics, enhancing its ease of use.

# Lesta JOYSTICK W1



**Lesta JOYSTICK W1** is the wireless version of the Lesta joystick for moving and controlling robots in self-learning mode. It offers increased usability thanks to the freedom from the cable constraint.



**CERTIFICATIONS** 

# EC declaration of conformity of the machinery

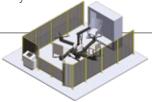
according to Annex II.1.A of Directive 2006/42 / EC

Equipment, including safety devices, once assembled/installed according to the manufacturer's instructions can be used safely.

### Ex. The robot, including safety barriers and commands related to the robot controller

The following documentation is provided:

- CE marking on the machine (plate)
- Use and maintenance manual
- EU declaration of conformity



**CERTIFICATIONS** 

# **Declaration of incorporation of partly completed machinery**

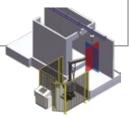
according to Annex II.1.B of Directive 2006/42 / EC

Equipment, in order to be used safely, must be completed or assembled with other machinery or partly completed machinery.

Ex. The robot, to be used safely, must be protected by safety barriers and by commands related to the robot controller

The following material is provided:

- Integration manual
- EU declaration of conformity



SET-UP

# ATEX (EU)

If the area where the robot is to be installed is categorized as ATEX, it will be our duty to provide customers with ATEX equipment.

There are 3 characteristics that make an ATEX system:



The robot must be built in an explosion-proof version.



The robot must be delivered with all pressurized electrical parts in the machine as well as with the covers for the connections between the panel and the robot.



The pressure system is controlled by a safe PLC that stops the machine from running by cutting all voltages in cases where:

- The initial wash cycle is not completed correctly
- There is a loss of pressure in the crankcases



SET-UP

# **HAZLOC (UL)**

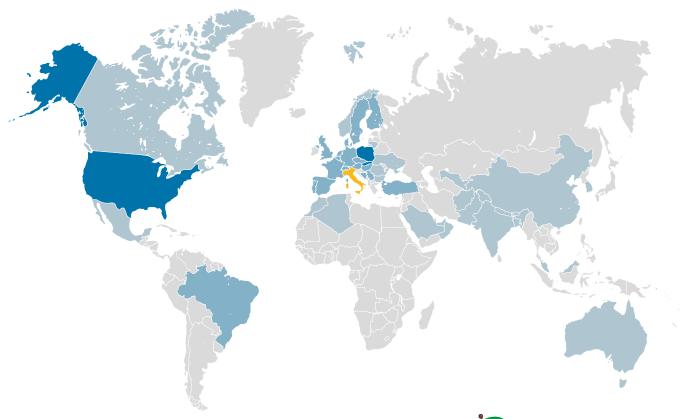
Preparation necessary for the US market.

A dedicated pressure unit and specific components are implemented for the American market



LESTA SRL

### Lesta IN THE WORLD



#### LOCATIONS

#### **ITALIA** . headquarters

Lesta srl Via D.Chiesa, 42 20036 Dairago (Milano) +39 0331 430817 info@Lesta.it www.Lesta.it

#### **USA**

LestaUSA 27191 470th Avenue Tea, SD 57064 1-888-546-2800 robotics@Lestausa.com www.Lestausa.com

**Workshop for Central/North Europe** Jamnik, Slovakia 053-22



Lesta has totally European quality in both design and production.

**The headquarters** is spread over an industrial site of about 1600 square meters, divided into offices, laboratories, workshops, and warehouses, and **is located near Milan, an area of excellence for the industry**.

This feature, together with the strong will of the company's ownership to bring Italian excellence to the world, has allowed Lesta to obtain 100% Made In Italy certification (Registration No. R.N.P.I. IT01.IT/2380.051.V.

















+39 0331 430817



sales@Lesta.it



www.Lesta.it







#### Lesta IS A CARBON-NEUTRAL COMPANY WITH ZERO IMPACT



From the latter months of 2023, Lesta initiated a project to offset the CO<sup>2</sup> emissions released into the atmosphere.

We have calculated our emissions, including those from employee vehicles, and have committed to a 100% offsetting program through the procurement of carbon credits from Treebu (treebu.io), a company based in Northern Italy. The carbon dioxide is absorbed by algaeequipped tanks in the Venetian lagoon and certified.

Thanks to this project, we can proudly assert that Lesta is a CARBON-NEUTRAL COMPANY with ZERO IMPACT.

The future of the planet we will leave to our children is determined by our choices today.

**Lesta promises to** make a difference.

