



**EVERYWHERE** was born out of a continuous and growing need for control in the internal production process **NURSERY 4.0**

Product **traceability** and **real production cost control**

Each phase is **constantly monitored** and coordinated

**Communication** between departments is ensured and each step is **"guided"** to minimise human error

Inventory of warehouses of **raw materials**, packaging, **real-time** products

Continuous communication with **company management** and production managers

Software **that can be implemented** with production requirements

**CUSTOMISATION AVAILABLE TO PRODUCTION**

**EVERYWHERE 4.0**  
PROCESS CONTROL SOFTWARE

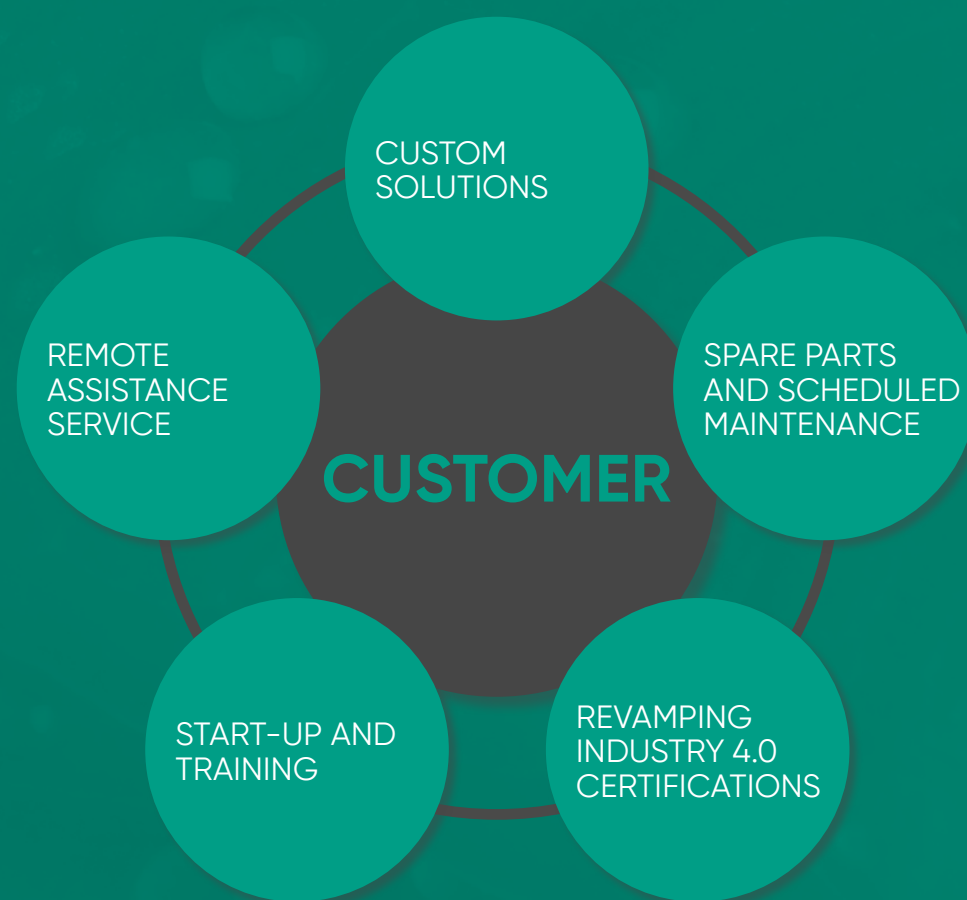
SERVICES AND ASSISTANCE

**4.0**

FLEXIBLE AND DYNAMIC TECHNICAL ASSISTANCE SERVICE

HIGHLY QUALIFIED TECHNICIANS

RAPID INTERVENTION TO ENSURE CONTINUITY OF PRODUCTION



**SAIEM s.r.l.**  
Via del Crociale,56  
41042 Fiorano (MO)  
tel. **0536 804696**  
C.F./P.iva 03283820367  
**www.saiem.net**  
e-mail: info@saiem.net  
**commerciale@saiem.net**  
PEC: saiem srl@pec.saiem.net

**SAIEM**  
NURSERY AUTOMATIONS

DESIGN  
INSTALLATION  
SERVICE  
SYSTEMS  
FOR THE

**NURSERY SECTOR**



- EXTERNAL SOIL STORAGE PORTAL
- MIXING LINES
- POT / SOIL CONVEYOR BELTS
- POTTING MACHINE SALE AND SERVICE
- FERTILIZING MACHINES
- WETTERS
- MANUAL AND AUTOMATIC TRIMMING MACHINES
- ACCUMULATING CARPETS
- ROBOTICS
- 4.0 SYSTEMS SOFTWARE



**SAIEM**  
NURSERY AUTOMATIONS

A CONSTANTLY EVOLVING COMPANY

**SAIEM was set up in 1979 in Sassuolo**, in the province of Modena, to work in the field of industrial systems for ceramics: initially the company had 5 craftsmen and operated as a provider of labour, but always with the aim of building a solid and independent reality.

**In 1985, the first building was purchased**, which allowed the still small company to move its operations inside, focusing on the wiring of electrical panels.

**A further evolution occurred in the early 1990s**, when the company began to focus on the construction of electrical systems controlled by PLCs: the electrical diagrams, previously assembled by hand, are now built using special software.

**Since then, forty years of activity** during which SAIEM has been able to grow more and more, until it has become the solid and well-established reality it is today. In the meantime, a constant path of growth and evolution has led a small artisan company to become a real point of reference in all the sectors in which it operates. Today, the company offers its increasingly international clientele a broad spectrum of services, ranging from the design and creation of PC and PLC software to the development and wiring of electrical panels for industrial machinery, operating in the Food, Ceramic, Concrete, Bitumen, Wood, Agriculture and Nursery sectors.

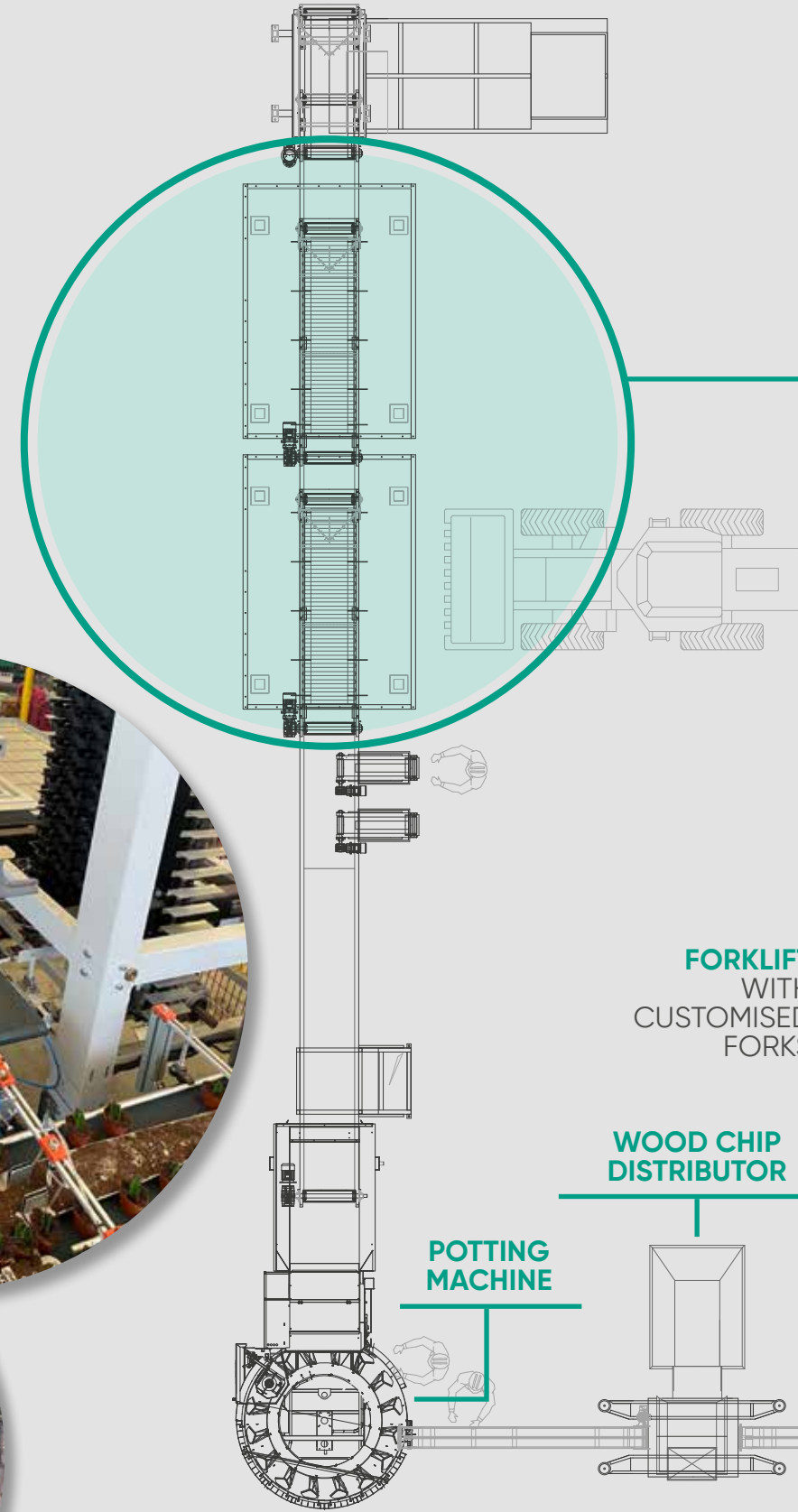
**Today SAIEM employs more than 50 people**, including employees and external collaborators, and our Mechanical-Electrical-Programmers, who are continuously trained and updated, can work on many types of machines, dealing with the assembly, installation and start-up of new projects, as well as updating and/or modifying existing machinery, adapting them to current regulations and **Industry 4.0**

*"A small business, which in forty years of activity has grown day by day, acquiring more and more solid and diversified skills, until it has become a large company and above all a real point of reference in all the sectors in which it operates. The path followed by Saiem since it was founded in 1979 is emblematic of how successful businesses can be when they work with passion, skill and prudence".*  
Il Corriere della Sera, 28/06/2019





**ROBOTISED ISLANDS**  
FOR HANDLING POTS



**SOIL MIXING LINE SOIL MIX**



It is possible to create 99 mixing recipes with different components:

- peats of different grain sizes
- aggregates, such as Pumice, Lapilli, Leca, Agriperlite, etc.
- granular or powder fertilisers
- correctors, carbonate, etc.

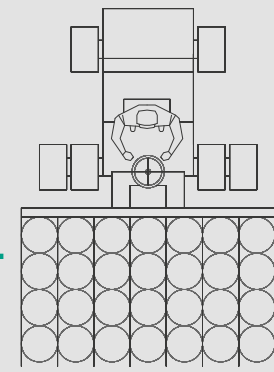
Automatic preparation to serve potting machines or production of mixtures for storage, or truck loading.

Working capacity from 0.50 to 12 m<sup>3</sup>/hour.



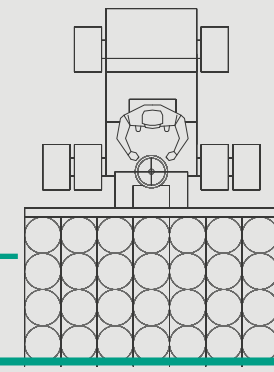
**PUSH ROBOT**

The push robot is the accessory that allows spacing between pots. This operation is enabled by electronic control through a PLC. At set intervals, it operates the pushing system and allows the pots to pass from the conveyor belt, coming from the processing area, to the Loading Carpet. The push robot is positioned on the inlet side of the pots.



**EXTRACTION ROBOT**

The extraction robot is the accessory that allows the pots to be removed from the Drain Carpet. This operation is enabled by electronic control through a PLC. At set intervals it drives the extraction system and allows the pots to pass from the Drain Carpet to processing belts that connect the entire plant. The extraction robot is positioned on the outlet side of the pots.



**ACCUMULATING CARPETS**

**Double Carpet System**

This automation allows the handling of plants from the nursery to the processing area and vice versa. This is achieved by using only a forklift equipped with special forks and drastically reduces production time and heavy manual handling.



**MANUAL AND AUTOMATIC RAP TRIMMING MACHINES**

**RAP 10E**

BATTERY-OPERATED ELECTRIC HAND TRIMMING MACHINE

Lightweight and handy overswing trimming machine, allows pruning of spherical shapes on the ground with great precision and cutting speed. The machine is pushed by the operator and the rotation of the head and blades is driven by an electric motor positioned directly on the cutting system powered by rechargeable batteries. The rotation speed of the head can be adjusted by an inverter for optimum cutting quality. Manually height- and width-adjustable frame for overswinging several rows.



<b>Adjustable frame</b>	Width from 40 to 120 cm. Cutting height from 15 to 60 cm
<b>Spherical cutting unit</b>	Adjustable unit from dia. 15 cm to dia. 45 cm extendable from 3 to 5 cutting elements
<b>Motor</b>	Makita motor, 18 V 5 Ah lithium battery, 220 V dual charger
<b>Productivity</b>	Up to 400 cycles/hour

**RAP 206**

SELF-PROPELLED HYDRAULIC TRIMMING MACHINE

Overswing trimming machine. Machine movement by hydraulic drive, hydraulic cutting system drive, hydraulic power unit supply by internal combustion engine. Strong and resistant, versatile, accurate and handy, allows pruning of spherical or conical shapes with great precision and cutting speed. Possibility to exchange the blade for both spherical and conical pruning.



<b>Adjustable frame</b>	Width from 120 to 220 cm. Cutting height from 0 to 110 cm
<b>Spherical cutting unit</b>	Adjustable unit from dia. 30 cm to dia. 70 cm extendable from 5 to 7 cutting elements
<b>Conical cutting unit</b>	Adjustable unit from dia. 40 cm to dia. 90 cm extendable from 5 to 7 cutting elements
<b>Hydraulic centering</b>	Possibility of mounting hydraulic centering/locking pliers
<b>Motor</b>	Hydraulic on the wheels and cutting unit to improve manoeuvrability and cutting management. Honda 4-stroke combustion engine for hydraulic power management
<b>Productivity</b>	Up to 400 cycles/hour

**RAP 300**

ELECTRIC AUTOMATIC TRIMMING MACHINE

Trimming machine suitable for potted and bushy plants. It is easy to use, requires little maintenance and is capable of high production. A fundamental characteristic is that the plant is clamped and centered, and the blade rotates, ensuring an excellent cut quality. The speed and number of blade rotations are electronically programmable; the curvature and length of the arc are mechanically adjustable. **IMPORTANT: the blades are suitable for pruning young plants.**



<b>Machine dimensions</b>	2400x1100 mm H. 1800 mm
<b>Weight</b>	200 kg
<b>Cutting height</b>	Manually adjustable from 0 to 50 cm
<b>Spherical cutting unit</b>	Manually adjustable unit from dia. 15 cm to dia. 45 cm extendable from 3 to 5 cutting elements
<b>Conical cutting unit</b>	Manually adjustable unit from dia. 15 cm to dia. 60 cm extendable from 3 to 5 cutting elements
<b>Motor</b>	Electric, inverter-controlled
<b>Productivity</b>	Up to 1100 cycles/hour

**RAP 310**

ELECTRIC AUTOMATIC TRIMMING MACHINE SPECIAL FOR BUSHES AND SAPLINGS

Machine designed for plants with large vegetation. A fundamental characteristic is that the plant is not rotated on itself, the pot is positioned by means of automatic arms in the cutting position, drastically reducing the danger of jamming and allowing perfect centering of the blade with respect to the foliage, and the blade rotates guaranteeing excellent cutting quality. The speed and number of blade rotations are electronically programmable; the curvature and length of the arc are mechanically adjustable. **IMPORTANT: the blades are suitable for pruning young plants.**



<b>Machine dimensions</b>	2400x1100 mm H. 2100 mm
<b>Weight</b>	200 kg
<b>Cutting height</b>	Manually adjustable from 0 to 100 cm
<b>Spherical cutting unit</b>	Manually adjustable unit from dia. 15 cm to dia. 45 cm extendable from 3 to 5 cutting elements
<b>Conical cutting unit</b>	Manually adjustable unit from dia. 15 cm to dia. 60 cm extendable from 3 to 5 cutting elements
<b>Motor</b>	Electric, inverter-controlled
<b>Productivity</b>	Up to 1100 cycles/hour

**RAP 3000 CONTINUA**

SPECIAL ELECTRIC AUTOMATIC TRIMMING MACHINES FOR SYSTEMS

Automatic machine for in-line cutting of small and medium-sized bushy potted plants. Continuous fast cutting system suitable for high production. Continuous pot transport system without blockages and without downtime. Individually motorized blades. Conveyor belts and pot rotation are controlled by inverters. **IMPORTANT: the blades are suitable for pruning young plants.**



<b>Machine dimensions</b>	2400x1100 mm H. 1800 mm
<b>Weight</b>	350 kg
<b>Cutting height</b>	Manually adjustable from 0 to 50 cm
<b>Spherical cutting unit</b>	Manually adjustable unit from dia. 10 cm to dia. 30 cm extendable from 3 to 5 cutting elements
<b>Motor</b>	Electric, inverter-controlled
<b>Productivity</b>	Up to 4000 cycles/hour

**RAP CAROSEL**

ELECTRIC AUTOMATIC PLATE TRIMMING MACHINE

By using the system of pot handling on a plate, it allows a fast pruning guaranteeing stability to the pot with great cutting precision. The machine is transported directly to the pruning area, allowing easy loading and unloading of the pruning area. The position of the wheels allows easy loading with hydraulic lift. PLC programmable logic allows customisation and remote maintenance. **IMPORTANT: the blades are suitable for pruning young plants.**



<b>Machine dimensions</b>	3000x1100 mm H. 1800 mm
<b>Weight</b>	250 kg
<b>Cutting height</b>	Manually adjustable from 0 to 50 cm
<b>Pot diameter</b>	Min. dia. 90 mm Max. dia. 200 mm
<b>Spherical cutting unit</b>	Manually adjustable unit from dia. 15 cm to dia. 45 cm extendable from 3 to 5 cutting elements
<b>Motor</b>	Electric, inverter-controlled
<b>Productivity</b>	Up to 3000 cycles/hour





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Product **traceability** and **real production cost control**

Each phase is **constantly monitored** and coordinated

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Inventory of warehouses of **raw materials**,  
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**CUSTOMISATION AVAILABLE TO PRODUCTION**

# EVERYWHERE 4.0

PROCESS CONTROL SOFTWARE

# SERVICES AND ASSISTANCE

# 4.0

**FLEXIBLE AND  
DYNAMIC  
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ASSISTANCE  
SERVICE**

**HIGHLY QUALIFIED  
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**RAPID  
INTERVENTION TO  
ENSURE CONTINUITY  
OF PRODUCTION**

REMOTE  
ASSISTANCE  
SERVICE

CUSTOM  
SOLUTIONS

SPARE PARTS  
AND SCHEDULED  
MAINTENANCE

**CUSTOMER**

START-UP AND  
TRAINING

REVAMPING  
INDUSTRY 4.0  
CERTIFICATIONS



**SAIEM s.r.l.**

Via del Crociale,56  
41042 Fiorano (MO)

**tel. 0536 804696**

C.F./P.iva 03283820367

**www.saiem.net**

e-mail: info@saiem.net

**commerciale@saiem.net**

PEC: saiemsrl@pec.saiem.net

# SAIEM

NURSERY AUTOMATIONS

DESIGN  
INSTALLATION  
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## NURSERY SECTOR



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# A CONSTANTLY EVOLVING COMPANY

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**In 1985, the first building was purchased**, which allowed the still small company to move its operations inside, focusing on the wiring of electrical panels.

**A further evolution occurred in the early 1990s**, when the company began to focus on the construction of electrical systems controlled by PLCs: the electrical diagrams, previously assembled by hand, are now built using special software.

**Since then, forty years of activity** during which SAIEM has been able to grow more and more, until it has become the solid and well-established reality it is today. In the meantime, a constant path of growth and evolution has led a small artisan company to become a real point of reference in all the sectors in which it operates. Today, the company offers its increasingly international clientele a broad spectrum of services, ranging from the design and creation of PC and PLC software to the development and wiring of electrical panels for industrial machinery, operating in the Food, Ceramic, Concrete, Bitumen, Wood, Agriculture and Nursery sectors.

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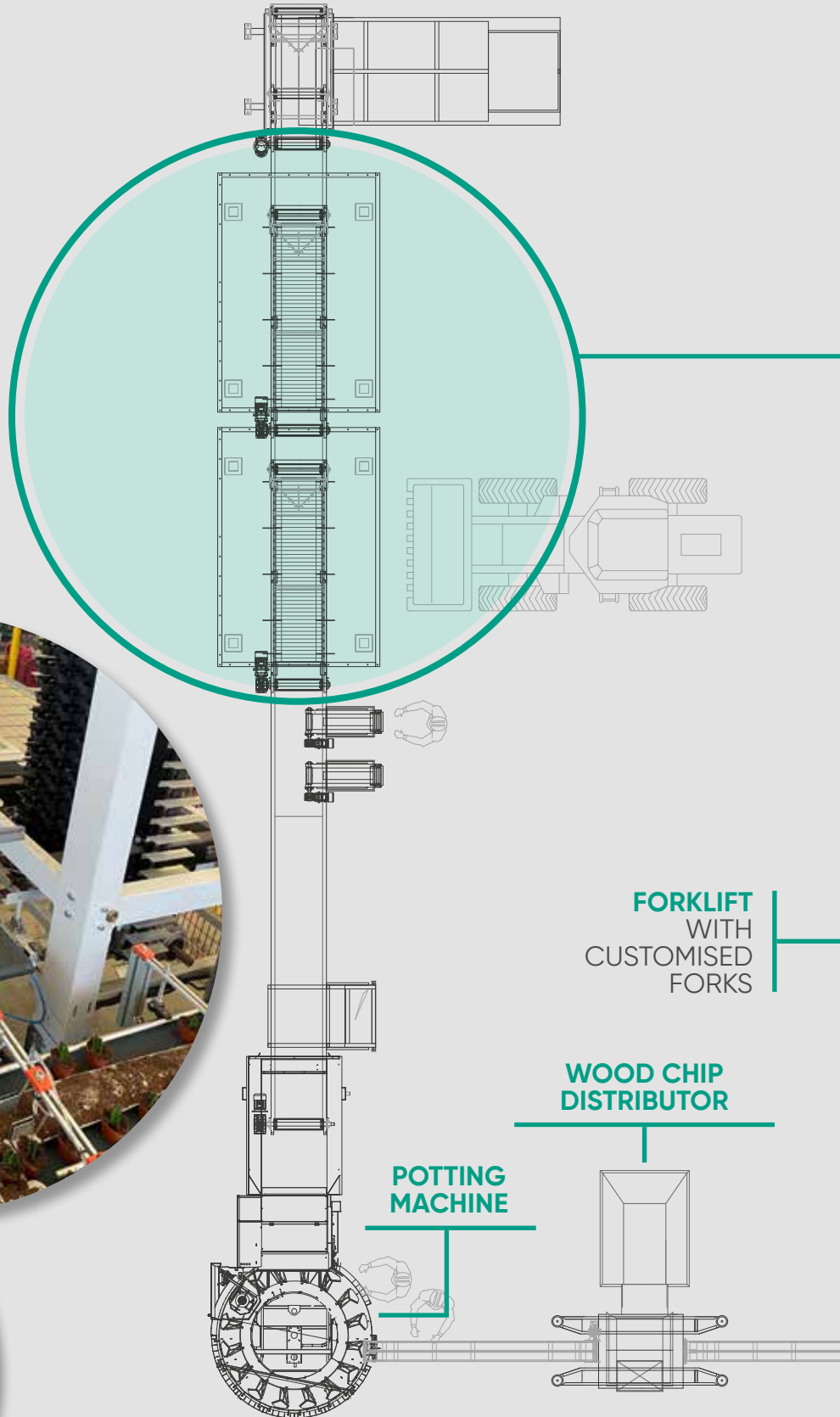
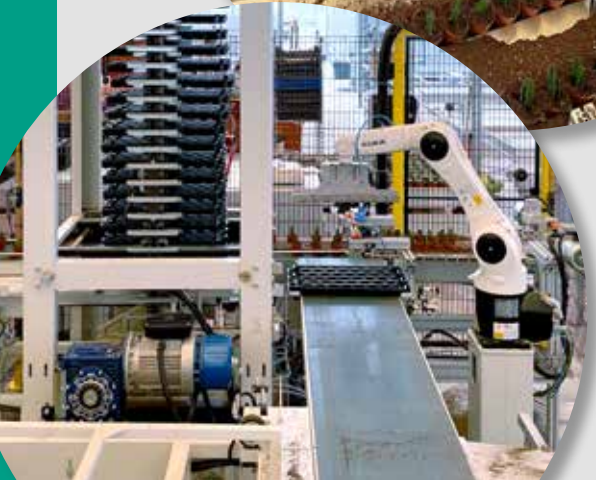
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*Il Corriere della Sera, 28/06/2019*





## ROBOTISED ISLANDS FOR HANDLING POTS



**FORKLIFT**  
WITH  
CUSTOMISED  
FORKS

**WOOD CHIP  
DISTRIBUTOR**

**POTTING  
MACHINE**

# S WITH "ONE REFERENCE CONTACT ONLY"

## SOIL MIXING LINE **SOIL MIX**



It is possible to create 99 mixing recipes with different components:

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- granular or powder fertilisers
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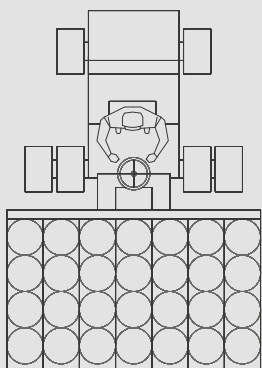
Automatic preparation to serve potting machines or production of mixtures for storage, or truck loading.

Working capacity from 0.50 to 12 m<sup>3</sup>/hour.



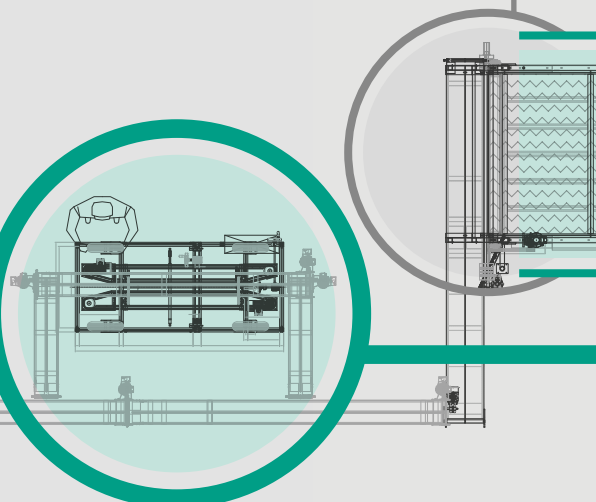
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**WETTER**



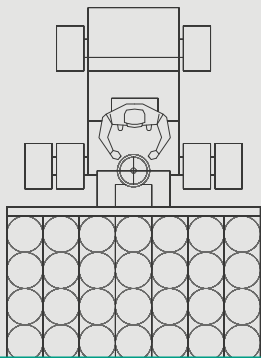


## ACCUMULATING CARPETS

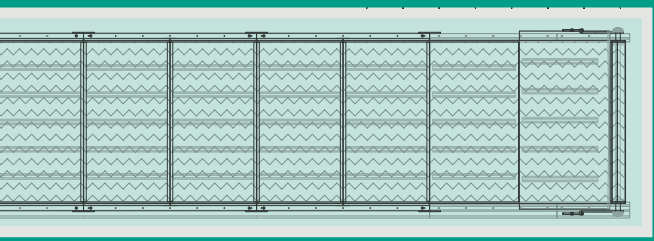


### Double Carpet System

This automation allows the handling of plants from the nursery to the processing area and vice versa. This is achieved by using only a forklift equipped with special forks and drastically reduces production time and heavy manual handling.



**FORKLIFT WITH CUSTOMISED FORKS**



# MANUAL AND AUTOMATIC RAP TRIMMING MACHINES

## RAP 10E

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<b>Adjustable frame</b>	Width from 40 to 120 cm. Cutting height from 15 to 60 cm
<b>Spherical cutting unit</b>	Adjustable unit from dia. 15 cm to dia. 45 cm extendable from 3 to 5 cutting elements
<b>Motor</b>	Makita motor, 18 V 5 Ah lithium battery, 220 V dual charger
<b>Productivity</b>	Up to 400 cycles/hour

## RAP 206

SELF-PROPELLED HYDRAULIC TRIMMING MACHINE

**Overswing trimming machine**. Machine movement by hydraulic drive, hydraulic cutting system drive, hydraulic power unit supply by internal combustion engine. Strong and resistant, versatile, accurate and handy, allows pruning of spherical or conical shapes with great precision and cutting speed. Possibility to exchange the blade for both spherical and conical pruning.

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<b>Spherical cutting unit</b>	Adjustable unit from dia. 30 cm to dia. 70 cm extendable
<b>Conical cutting unit</b>	Adjustable unit from dia. 40 cm to dia. 90 cm extendable
<b>Hydraulic centering</b>	Possibility of mounting hydraulic centering/locking pliers
<b>Motor</b>	Hydraulic on the wheels and cutting unit to improve man management. Honda 4-stroke combustion engine for hydraulic
<b>Productivity</b>	Up to 400 cycles/hour

## RAP 300

ELECTRIC AUTOMATIC TRIMMING MACHINE

**Trimming machine suitable for potted and bushy plants.**

It is easy to use, requires little maintenance and is capable of high production. A fundamental characteristic is that the plant is clamped and centered, and the blade rotates, ensuring an excellent cut quality. The speed and number of blade rotations are electronically programmable; the curvature and length of the arc are mechanically adjustable.

**IMPORTANT: the blades are suitable for pruning young plants.**

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<b>Motor</b>	Electric, inverter-controlled
<b>Productivity</b>	Up to 1100 cycles/hour



# RAP 310

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SPECIAL FOR BUSHES AND SAPPLINGS

**Machine designed for plants with large vegetation.**

A fundamental characteristic is that the plant is not rotated on itself, the pot is positioned by means of automatic arms in the cutting position, drastically reducing the danger of jamming and allowing perfect centering of the blade with respect to the foliage, and the blade rotates guaranteeing excellent cutting quality. The speed and number of blade rotations are electronically programmable; the curvature and length of the arc are mechanically adjustable.

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<b>Motor</b>	Electric, inverter-controlled
<b>Productivity</b>	Up to 1100 cycles/hour

# RAP 3000 CONTINUA

SPECIAL ELECTRIC AUTOMATIC TRIMMING  
MACHINES FOR SYSTEMS

**Automatic machine for in-line cutting of small and medium-sized bushy potted plants.**

Continuous fast cutting system suitable for high production. Continuous pot transport system without blockages and without downtime. Individually motorized blades. Conveyor belts and pot rotation are controlled by inverters.

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<b>Motor</b>	Electric, inverter-controlled
<b>Productivity</b>	Up to 4000 cycles/hour

# RAP CAROSEL

ELECTRIC AUTOMATIC PLATE TRIMMING MACHINE

By using the system of pot handling on a plate, it allows a fast pruning guaranteeing stability to the pot with great cutting precision. The machine is transported directly to the pruning area, allowing easy loading and unloading of the pruning area. The position of the wheels allows easy loading with hydraulic lift. PLC programmable logic allows customisation and remote maintenance.

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<b>Productivity</b>	Up to 3000 cycles/hour

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from 5 to 7 cutting elements

from 5 to 7 cutting elements

oeuvreability and cutting  
draulic power management



able from 3 to 5 cutting elements

able from 3 to 5 cutting elements