





# PENTA AUTOMAZIONI INDUSTRIALI S.R.L.

ITALY

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## PENTA US INC.

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Penta Automazioni Industriali S.r.l.



# COMPANY



Penta Automazioni Industriali S.r.l. was **founded in 1991** by the President Mr. Selvino Simoni with the aim of offering solutions to automate the production of paper, aluminum, ceramics, natural stone and concrete products. At the beginning, our business embraced five different manufacturing sectors (hence the name "Penta", from the ancient Greek word meaning "five") but later we have specialized on concrete and natural stone industry needs, and this has become our field of activity.

Nowadays the company is a leading equipment manufacturer based in Italy, highly **specialized in the concrete and natural stone industry**, with plants running all over the world.

Starting from a small production company located in Molinella, in the province of Bologna, we have extended our network worldwide, thanks to our constant commitment to use high quality products and our **ability to provide individual solutions** and services for concrete and natural stone industry.

From the beginning we have focused on the **extreme flexibility of our plants**. Every plant has been designed and built according to the **different needs of each customer**, like a **tailor-made suit**. That's why every installation is a unique example.

The flexibility of our handling, secondary processes, stacking and packaging plants for concrete and natural stone products is completed by a wide range of customized services that enable us to follow our customers before, during and after the installation of the required plant.

The mechanical, electrical and software realization are carried out in-house by our engineers and skilled technicians.

This has always been the lead value and the key to success for Penta, and in this way we have gained the pleasure and trust of all our customers. Built in our factory in Molinella, our systems represent the **true essence of "Made in Italy": unique design and high quality, attention to detail, innovation in connection with tradition.** 

## PENTA US INC.



Penta thus strengthens its presence and its activities in the United States with the ambition of assist more and more customers.

Penta will be able to do that thanks to the newly established *Penta Us Inc.*, based in New York City, and to the new domestically located spare parts warehouse, *Swift River Machine Inc.* 





## Vision and Mission

"Think outside the box" is our value.

# VISION and MISSION

#### Our vision

Our goal is to become worldwide leaders of concrete and natural stone industrial automation through the customization of the solutions we offer.

#### Our mission

Our mission is to provide customized technical solutions tailored to customers specific needs:

- By increasing our range of services and products in order to develop innovative and highly personalized solutions from handling, to aging, to secondary processes installations;
- By confronting enthusiastically every new challenge to get the highest satisfaction from our customers;
- By investing in quality, safety and customer care;
- By consolidating our presence in Italy, Europe and all over the world;

• By creating a safe and stimulating work environment where the qualities and skills of each employee are valued as a mean of growing together every day.



Pre-sales and installation

Services At your service since 1991

#### Consultation

We will visit your factory to study, research and design the machines to find the best solution according to your production, aging, splitting, handling needs and spaces available and we will modify and adjust the project until your expectations have been achieved.

#### Software

Each plant's software is designed in-house by our software technicians considering the needs and requests of the customer, so our plants are intuitive and easy to use.

#### Pre-assembling

We will assemble, pre-wire and test your plant at Penta's, in order to verify and control its functioning before the shipment. This will allow to reduce the duration of the installation at your site.

#### Assembling and commissioning

Once your plant has been tested at Penta's, we will dismantle and load it on suitable means of transport. When it arrives at your building our skilled and qualified technicians will carry out the installation and the commissioning.duration of the installation at your site.

#### Training of your technicians

From the very beginning of the installation and commissioning your technicians will join our qualified team and will be trained to work with the machine in full autonomy.

# Services

#### At your service since 1991 **Maintenance**

A proper maintenance is fundamental for the safety of your staff and for the efficiency of your plant. Penta also makes available routine and extraordinary maintenance service to its plants. Trust Penta to take care of your plant and plan its mechanical and electrical maintenance and the software upgrade in order to keep the plant up-to-date.

## Remote Assistance and On-Site Support

Our technicians are at your disposal to plan and carry out interventions for software updates, tuning and modifications of your system functions both at your site and by internet connection. Our technicians are always available also to assist you and to solve any possible anomaly or error of your plant.plants are intuitive and easy to use.

#### Retrofit

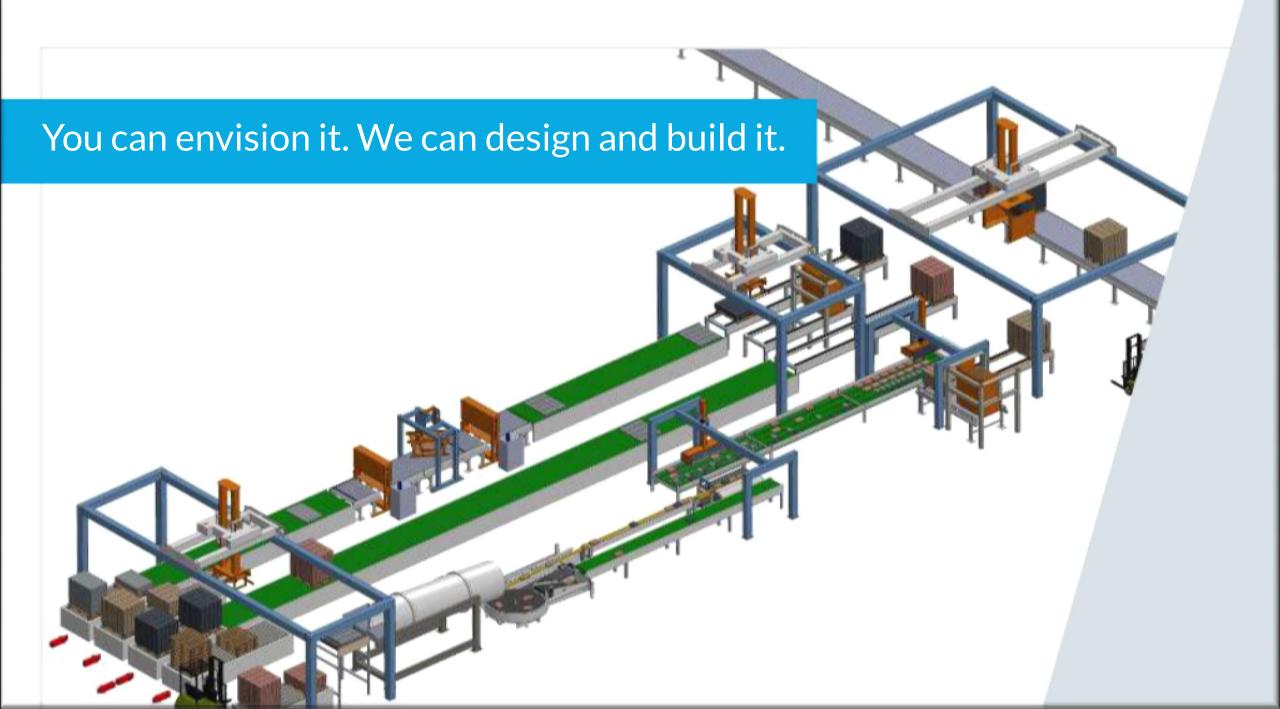
We can study your existing plants to analyse where we should operate and where we should adjust or add some new equipments in order to extend the life of your installation.



#### Spare parts

We know that spare parts are necessary to maintain plant always efficient and performing and having a kit of them always available prevent from downtime in the production. For this reason Penta provides its customers quickly and efficiently with the spare parts they need.





## **Treatement Specialized Products**

Penta can offer its customers the full range of machines for the secondary treatments.

### AGEING TREATEMENT

#### CALEIDOS

Rumbling plant with cylinder for concrete blocks pavers and natural stone products



- Automatic tumbling processPossible to age mono size
- and multi size pavers
- Several different solutions to introduce the products inside the cylinder (i.e. hoppers, tippers, de-stacking grippers, etc)
- Quantity of pavers inside the cylinder can be regulated and programmed
- Best ageing effect ever









- Blocks introduced into the centrifuge, the rotating table that can align the aged stones in one straight line
- Quality control system for rumbled products
- Extremely precise scanner equipped with laser sensors detecting several informations

#### CALEIDOS

Rumbling plant with cylinder for concrete blocks pavers and natural stone products







### Caleidos Plant with

### quality control and sorting gripper





Thanks to the scanning system, we can detect the following informations:

- $\rightarrow$  dimension of each product;
- $\rightarrow$  the position of every stone in the row;
- $\rightarrow$  possible breakages;
- $\rightarrow$  broken edges on both surfaces;
- $\rightarrow$  identification of the face mix;

#### **OTHERS SECONDARY TREATEMENTS:**

Splitting, pitching, distressing, washing, shotblasting, brushing, coating

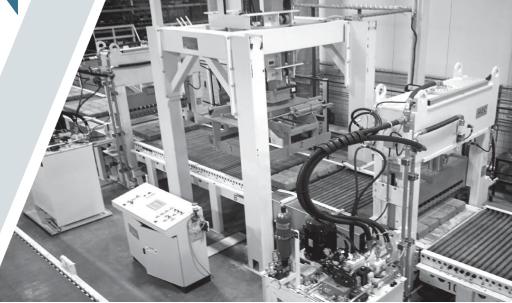


#### **Splitting Plants**

Splitting plant for concrete and natural stone blocks

Single splitting line and
double lines for splitting
the blocks in both
directions (if required)
Possible to be combined
to rumbling plants
Customizable solutions







### Automatic Splitting Plant



### Western Interlock splitting plant







### Nippy Machine

Pitching machine for concrete and natural stone blocks

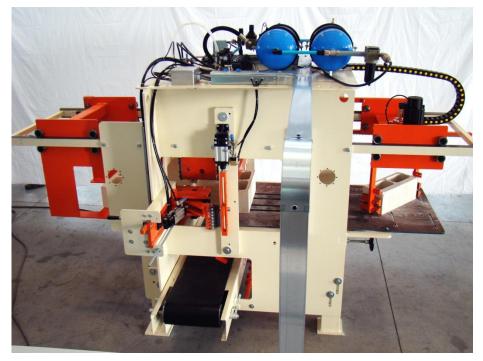
- > Totally automatic machine
- ➢ Compact design
- To be installed after splitting machine or as a stand-alone machine
- > Elegant and natural effect



### Automatic Nippy Machine = Pitching Process







### **DISTRESSING MACHINE: IN-LINE**

In line aging machine for concrete pavers, blocks and slabs



- Fully automatic machine
- It can be installed on the dry line, between lowerator and cubing station
- Creation of different and various aging effects
- Able to suit all the different markets and trends
- Provided with patented aging rollers
- Able to round the corners of the stones and to age the surfaces as well
- Cycle time: around 13 seconds





- It can be supplied as stand-alone machinery
- Possible to be connected to other treatments machines
- For all customers that don't have enough space
- It can introduce the stones by working on two levels (above or parallel to the dry line)
- Unique and Flexible Machine



#### DISTRESSING MACHINE: OFF-LINE

Off line aging machine for concrete pavers, blocks and slabs



#### In-line



#### Off-line



#### **Shot blasting Plants**

Shot blasting plants for blocks, pavers, slabs and kerbs



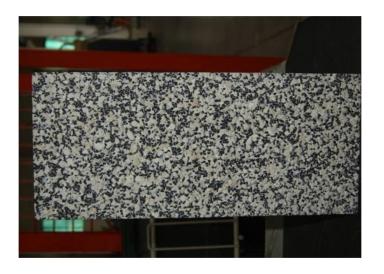
### Washing systems

Washing system for pavers, slabs and kerbs





- ➤ To wash the fresh pavers coming from the block machine > To wash slabs just after their extraction from the press
- $\succ$  High and low pressure adjustable nozzles



## Brushing







Coating

### Penta special projects

Penta can also offer systems to introduce polystyrene inserts inside blocks



#### Insert Blocks



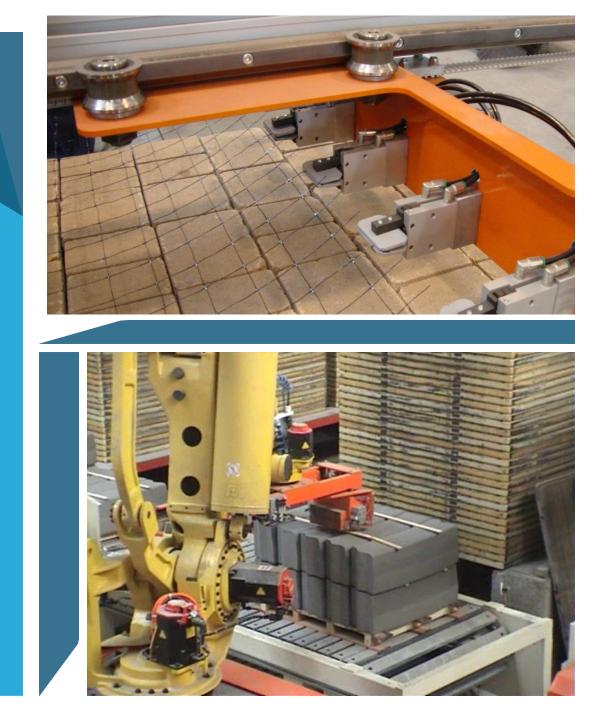
### Ageing system for blocks



### Surface protection

Penta can also offer handling systems to put protection devices (such as diaphragmes, correx, paper or plastic sheets) between product's layers.





#### TURN-KEY SOLUTIONS

Penta is glad to offer its customers turn-key plants and we will look after all the steps from the design up to the commissioning mechanical, electrical and software design, through the mounting and commissioning up to the after- sales services.

#### INSTALLATION AND SAFETY

Penta pays attention especially for the safety of its plants and provides all the safety equipments needed to protect the plant and to avoid any risks for the technicians in charge.

Just after the installation and start up of all the safety equipments, Penta staff can start up the entire plant. All Penta installations comply with applicable regulations and legislations for the different Countries.

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#### For further information please visit:

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