



By Victrix-Group

FLORENTIA



Made in Italy, with pride.

Internationally patented

Mosaic production system

The Pack4tech, Machinery Division of Victrix-Group was created to fulfill the special automation needs for the most varied industrial sectors.

Specifically, for the mosaic tile industry, we propose the FLORENTIA system which is able to automate the whole production process of graphic projects and / or random mosaic projects.

Thanks to the I.D.S software which breaks down the images into pixels, the assembling area M.I.G and the quality control which is controlled by an artificial vision system.

Most importantly is the short amount of time that it takes to produce and finish a mosaic project, which in turn will cut costs drastically and help save a considerable amount of time and money.

FLORENTIA is the only assembly machine that is automated in both the assembling of the mosaic tiles and the quality control of each mosaic tile.

This innovative feature is available for all mosaic tiles regardless of the tiles shape, dimension, or material, even the smallest or most irregular shaped tiles are not a problem.

This whole automated process requires only (1) operator.

Thanks to the FLORENTIA system the assembled mosaic sheets will have ZERO defects, guaranteeing a consistent level of quality.

We are proud to affirm that our creation represents the only alternative in significantly reducing costs, while exponentially increasing productivity.

Our mission statement to you is:

"Supplying technologically innovative machinery in order to help all of our clients in their production, while reducing costs."



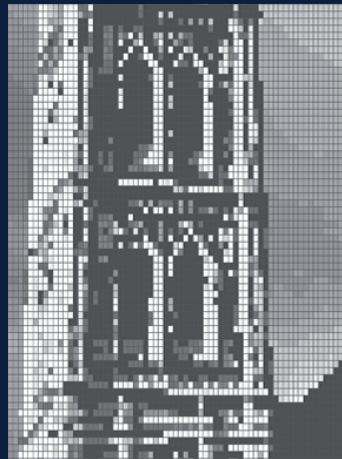
I.D.S image recognition software

Thanks to the unique electronic system , entirely developed by our Machinery Division, the I.D.S software recognizes and breaks down graphic images, and photographs of mosaics and creates a mosaic image to satisfy the need of any customer that is looking for a unique and original wall or floor covering.

Once the mosaic tile colors are inserted in the database by a special camera, the electronic device will be able to display the image in the number of colors that have been entered

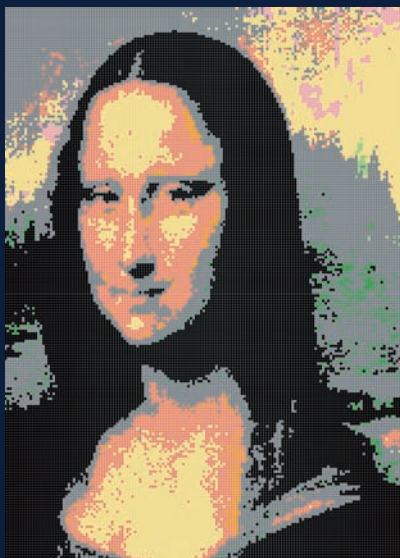


Mosaics composed of 8 colors

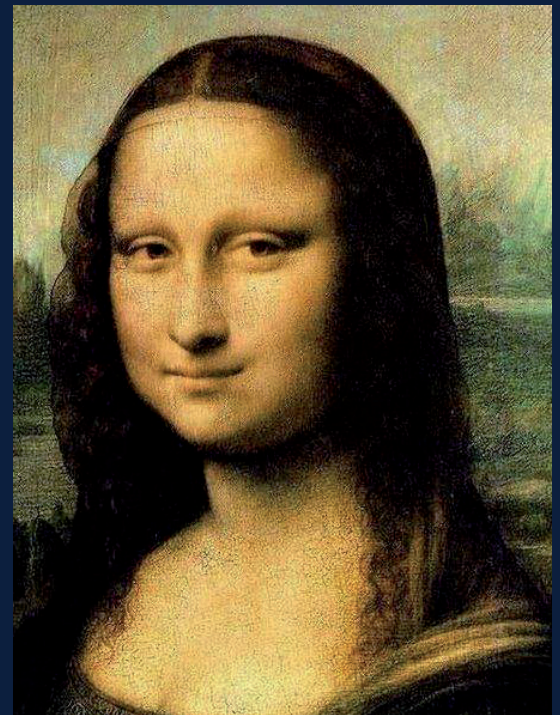
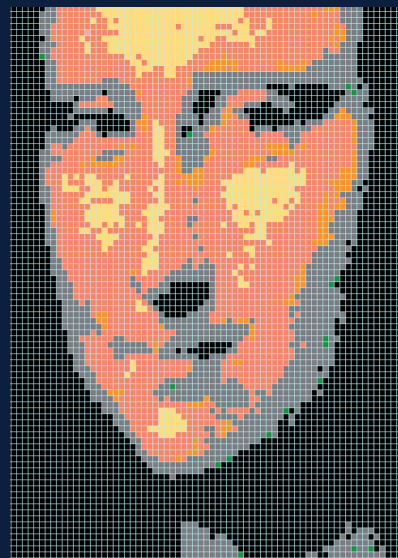


Steps to obtaining an electronic image of the mosaics is simple:

- Insert the dimensions of the mosaic tiles and the size of the mosaic sheets.
- Dimensions of the grout.
- Height and width of the surface that needs to be covered.
- Eventual modifications of the image as proposed by the software on each pixel.
- Acceptance of the image and the transformation of the electric file which will then be elaborated on the mosaic assembling machine FLORENTIA.



Mosaics composed of 8 colors



FLORENTIA ROTARY Technical Description

Phase A:

First Step: Pick, line-up and group

Phase A of this innovative machine begins with picking up the small tiles from a tile container, lining up and grouping them to be inserted into their respective injection channels. This process is due to a unique and patented device developed specifically for the FLORENTIA. After this process is complete, it is time for the FLORENTIA ROTARY to be engaged

Phase B:

First Step: Tile Assembly and Mosaic Project Creation

The FLORENTIA ROTARY is made of a 10 sided revolving platform with 8 of the sides facing each Injection Head (or color module), while the other two sides are occupied by the feeding conveyers, as the in-coming and out-going trays, thus completing a conveyer belt loop. Each injection head is equipped with Injection Teeth designed to insert all of the small tiles perfectly into the tray cells according to the mosaic project layout, previously created by the FLORENTIA software (I.D.S. Image Decomposition Software able to decompose and recreate graphic images.)

Second Step: Small Tile Injection

The tile injection process has a deposit system that allows each small tile to be swiftly and accurately placed into a corresponding cell onto the tray. The assembling operation has a speed of 1 horizontal line of the tray per second, regardless of the tile size. After all of the lines on the tray are filled by the Injection Head #1, the tray is transported to Injection Head #2, and the next empty tray is moved into the Injection Head #1 position.

All of the 8 injection Heads work simultaneously, with all of the 8 trays present on the rotary during the assembling operation. This is repeated as many times as the number of injection heads being used.

Third Step: Mosaic Project or Random Mosaic Tile Assembling

In the case of a pre-defined mosaic project, you can guarantee the number of colors you want to use by the number of injection heads that are engaged in the process. When creating a random mosaic design, the more Injection Heads used in this process the larger the capacity for more random designs, although one injection head can work on its own creating a unique mosaic pattern. One of the most noted advantages of having the Florentia Rotary is to give the operator the possibility to work with as many colors (in this example 8) needed to create an original mosaic or as many single assembling modules needed during a random mosaic production.

Phase C:

First Step: T.S.M. (Tilting, substituting and moving) Quality Control and Selection

After each Injection head has finished the assembling operation, each tray is transported to the T.S.M. area.

This highly technological 5 axel machine is equipped with 2 artificial vision system cameras and 2 and/or 3 "pick and place" arms. Each tile is scanned by the first camera on the T.S.M. in order to control the position of the tiles (face up or face down) on each mosaic sheet. Then the "pick and place" arm will tilt 180° to replace all facing down tiles by placing them face side up. Also, during this quality control process, the T.S.M. can substitute automatically any damaged tiles or any cells that contain the wrong color. This is all done at the exact speed as the assembling of the mosaic. After each tray leaves the T.S.M. it is 100% quality controlled with zero defects. After leaving the T.S.M. Quality control, the completed mosaic will go through the PZ005 press, a revolutionary machine that applies Mosaicfilm.com's Clearview, to the face of the mosaic tiles. Therefore, completely protecting the face of the tiles, the sheets are ready to be packaged and shipped, and they are prepared for easy installation.

Phase D:

First Step: Tray retrieving conveyor belt

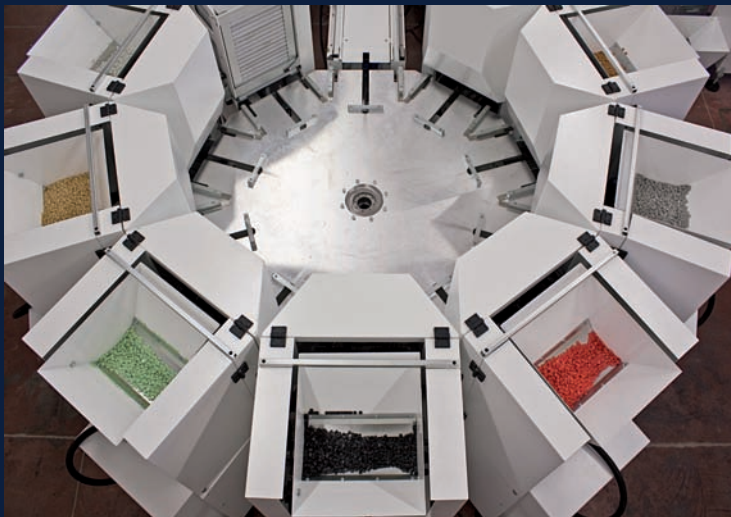
Underneath the FLORENTIA the transportation belt will run in the opposite direction of the FLORENTIA transportation belt in order to save space and have the continual flow of trays from Phase D to Phase A.

After the tray returns to the ROTARY area of Phase A it will begin the mosaic assembling process again.

FACTS: The mosaic tile assembly speed of the FLORENTIA ROTARY is 1 horizontal line per second, regardless of the tile dimensions or shape! The flexibility of the FLORENTIA ROTARY is noteworthy. Each Injection Head is a single assembling module that can be dedicated to running a random mosaic production. Each module can be implemented with other Injection Heads, and can be modified over time to complete the mosaic production line outlined above with the capabilities of working with as many colors according to customer requests. Please refer to the layout located on the following page.



FLORENTIA M.I.G. 8



Internationally patented



Pack4tech

The Pack4tech machinery division of Victrix-Group was born in order to develop automated machinery for use in many different industries.

Our main characteristics are: Flexibility and professionalism.

Pack4tech is an ideal partner for those that want to develop innovative projects and industrialize that process with our highly precise automated machinery.

Project division:

Thanks to 20 years of experience our highly skilled Pack4tech. team are able to create all kinds of solutions for any kind of problem that may arise in the industry.

Creation:

All our project are created with extreme care and attention, from choosing the material, the mechanical components, and assembly.

Our main priority is to furnish automated machines that are reliable as well as providing impeccable customer service which includes:

- Installation / Testing
- Training
- Technical Support

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Courtesy & Professionalism

The quality of our company does not stop
At our product but is also illustrated by
Our well trained and highly professional
Customer Service team. Our knowledgeable
Sales Department is available to assist you
No matter how large or small your request is.
We take pride in only offering you the best
And the most reliable products and services.



Customer Service

We invite you to contact the closest
company to
your location and a professional
sales representative
will be happy to help you.

Another successful product:

mosaicfilm.comTM
clear view

mosaicfilm.com

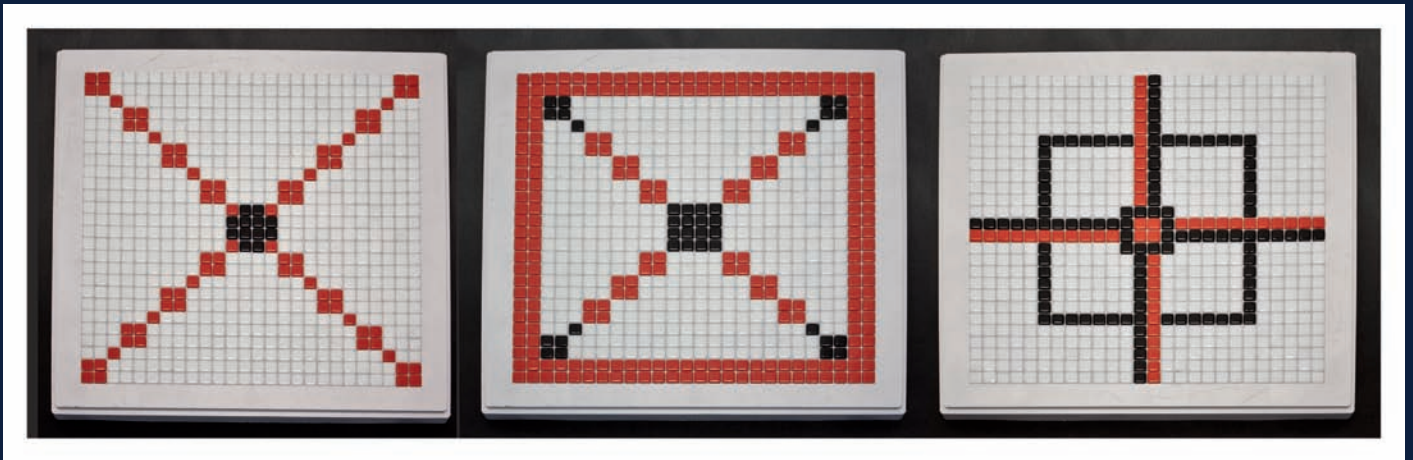


A FEW EXAMPLES RELATED TO 1 INJECTION HEAD PRODUCTION:

Little tile dimensions: 10 x 10 mm
Tray dimensions: +/- 300 x 300 mm (28 x 28 tiles)
Production for 1 shift (in 7 hours): 62 m²

Little tile dimensions: 15 x 15 mm
Tray dimensions: +/- 300 x 300 mm (18 x 18 tiles)
Production for 1 shift (in 7 hours): 92 m²

Little tile dimensions: 20 x 20 mm
Tray dimensions: +/- 300 x 300 mm (14 x 14 tiles)
Production for 1 shift (in 7 hours): 132 m²



The innovative operational system of the Florentia Rotary and the face/defect recognition of the T.S.M., it is possible to adjust any tile regardless of dimension, shape, texture, and even with height greater than the base side dimension.

THE DATA CONTAINED IN THIS BROCHURE IS GUARANTEED TO BE ACCURATE AND SUPPORTED BY EXTENSIVE TESTING



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