

Penta Automazioni Industriali SRL, 40062 Molinella (Bologna), Italy

Another milestone in the United States

Penta's main focus has always been the satisfaction of its customers. To achieve this goal, the company is using its know-how to design solutions that address production problems with the aim of improving processes and reducing labour costs. Its skills and technical knowledge combined with more than thirty years of experience in industrial automation allow Penta to be able to integrate new solutions or devices into existing systems. Based on these assumptions, collaboration between Penta and Nicolock Paving Stones was born.

Nicolock is a family-owned company and a market leader in the manufacture of concrete elements such as pavers, retaining walls, blocks and other products for urban furniture. Nicolock has always invested in technologically advanced manufacturing equipment to produce hardscape products that by far exceed regular standards of the industry. Collaboration between the two companies began in 2017 when Nicolock had just bought a new factory in New Jersey and wanted to renew and improve this plant by improving the handling of its blocks and walls on two splitting lines to be able to stack the products in a most suitable way.

One of the most important key factors for the joint success story of the two companies is certainly the relationship between its people. In Penta, Nicolock found a company that

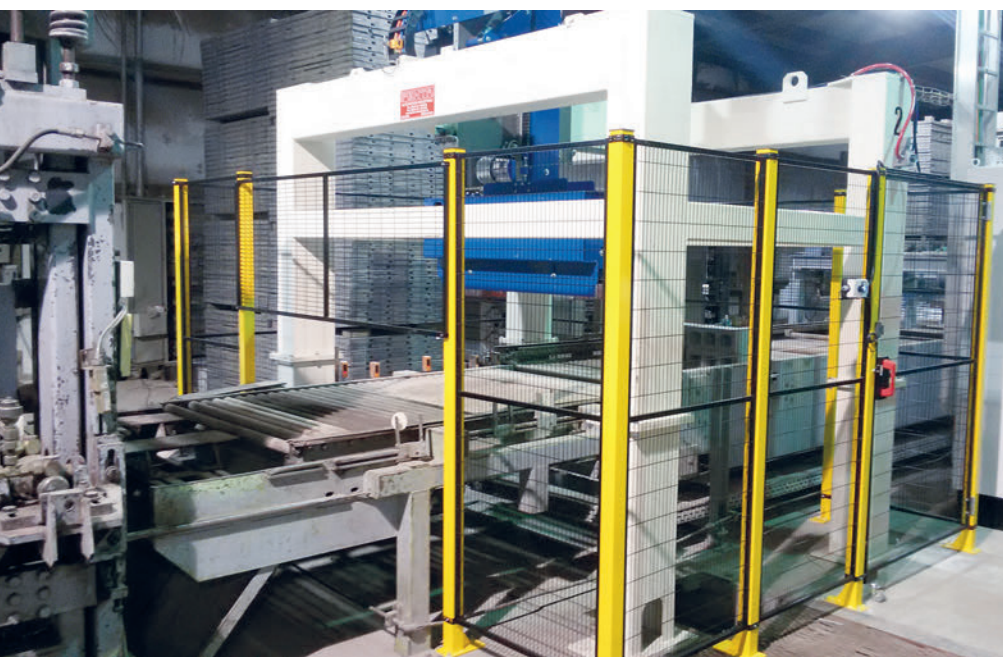
was able to develop and implement its ideas and projects. On the other hand, Penta met a leader of the industry that always proved to be stimulating and cooperative.

The satisfactory outcome of the first project motivated Nicolock to entrust Penta with another job in its pipeline. The basic idea leading to this project was nothing but a stroke of genius of company owner Roberto Nicolio and turned out to be a big challenge for Penta.

The facility to be upgraded in this case was located in a hilly area with production activities and the stockyard on two different landscape levels, making management and handling of the packages rather hard.

The revolutionary idea to address this problem was to build a tunnel that would link production and stockyard in a better way, thus allowing the transportation of packages to the desired locations, reducing the number of forklifts needed, and making remaining forklift traffic and equipment movements safer. Hence, Nicolock made its two production lines converge in a single area. Thereafter, Penta took care of the rest in the following manner:

A first lowerator equipped with a rotating roller conveyor receives one package, made up of cobblestones or walls,



Turnover unit



Lowerator



Drawbridge rollerline

at the same time. Packages arrive at the lowerator from two different directions. Once a package enters the lowerator, it descends to an intermediate level inside the tunnel leading to the stockyard.

The package is then transferred along the entire tunnel length until it reaches a second lowerator which will descend to subsequently have the package transferred to its final destination.

The rotating roller conveyor of the first lowerator not only allows for the reception of packages from two different lines. If necessary, it also permits the unloading of packages at production plant level (upper level of building site).

Another particular element of this plant is its "drawbridge rollerline". Since it was necessary to prevent any access to the plant when packages are conveyed to the lowerator, Penta decided to allow a section (2.5 meters) of this conveyor to be completely liftable. This device therefore allows all forklift

transit from the outside to the inside of the plant in a completely safe way.

After this second job, Nicolock decided to invite Penta to visit their headquarters located in Lindenhurst, NY, to discuss further solutions for improving their production facilities.

"PLANT 1" is the first facility that Nicolock built in Long Island and basically a fully automatic production site. However, Nicolock soon realized that some equipment was still missing. For example, the lack of a board buffer meant that the green and the dry side cycles could not be operated separately. Hence, Nicolock decided to entrust Penta with a solution to this problem.

This was very good news for Penta, because ever since the beginning of its activities in designing handling plants and devices have always been one of its core businesses. In this case, however, Nicolock's outdoor activities and further necessary technical modifications made this job somewhat complicated.

Despite a number of difficulties, the strong collaboration between the two companies once again made this project a success story. The Nicolock team did an excellent job by quickly carrying out the mechanical installation jobs and supporting Penta's staff during wiring and commissioning activities.

For Nicolock, this upgrade meant a significant growth in its production capacities by disconnecting the wet and dry cycles and thus preventing major production downtimes during mould changes or possible maintenance activities to be carried out on individual lines.

After five years of collaboration and upgrades on the Nicolock production equipment, these two companies were sure to continue their partnership on the basis of mutual trust and harmony.



Board buffer unit



Layer doubler

As a result, last year Nicolock once again entrusted Penta with two jobs in order to improve its output figures. The first job was a layer doubler to be installed on an existing dry line.

The second was a new splitting line equipped with a 1,300 mm wide splitter (with new and more precise blades) to be integrated in an existing production plant especially used for the production of corner walls.

This way, Nicolock is regularly updating and improving its production on a step-by-step basis while Penta is increasingly strengthening its presence on the North American market. All this goes to show that close collaboration and active interaction between people is the key for successful business. ■

FURTHER INFORMATION



Nicolock Paving Stones
612 Muncy Avenue, Lindenhurst, NY 11757, USA
nicolock.com



Penta US INC.
509 Madison Avenue, Suite 1510
10022 New York City, NY, USA
T (470) 350 4777 / +39 3357621971
sales@penta.us, www.penta.us

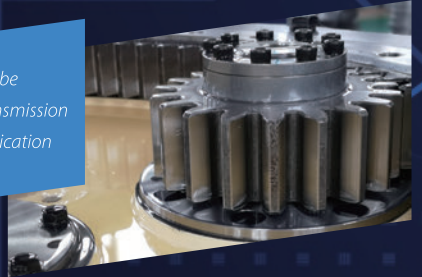
Penta Automazioni Industriali SRL
Via Aldo Moro, 32, 40062 Molinella (Bologna), Italy
T +39 051 880550, F +39 051 881386
sales@penta-automazioni.it, www.penta-automazioni.it



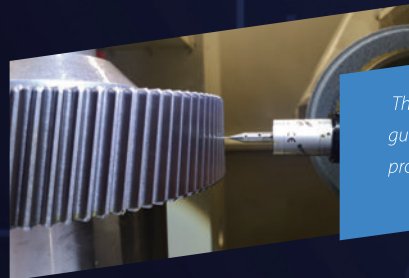
Ultra High Performance Planetary Gearbox for Concrete Mixer

GSL series gearbox from GSL50 to GSL5000

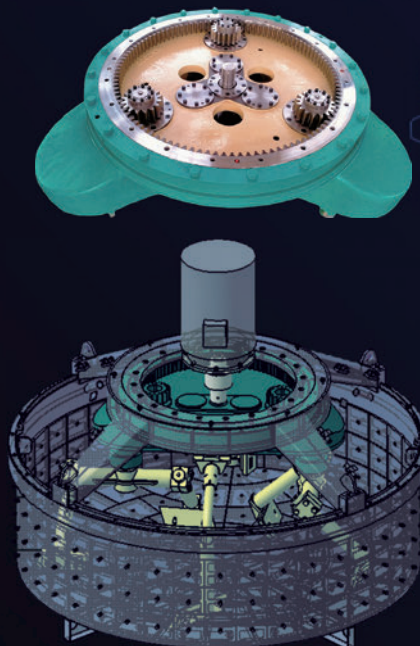
All the gears and shaft will be immersed in oil during transmission which means no extra lubrication system is necessary.



The accuracy of gear is guaranteed by testing during production line.

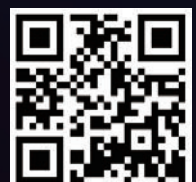


9 years of engineering for your success.



Konic Gearbox (Dalian) Co., Ltd.

Yingchengzi Town, 116036,
Ganjinsi District, Dalian city,
Liaoning Province, China
Phone: +86-0411-86715816
Fax: +86-0411-86715956
sales@konic-gearbox.com
www.konic-gearbox.com



Made in China