

“Production lines, internal transport systems and packaging are increasingly being merged into a single project”

Dear reader,

This ninth edition of Fraxinews marks the end of another year. We can once again look back with gratitude on a variety of challenging projects both at home and abroad.

We are increasingly crossing our national borders to follow our many customers who are expanding internationally and setting up local production units abroad. This trend has various reasons: find out more on p. 10.

In this edition, however, you will discover projects we completed at home for customers known the world over. The revolutionary project of TVH on p. 12 and the logistics solution for Unilin Panels on p. 14 show how internal transport systems and packaging lines are increasingly being merged into a single project. The same applies to the wrapping system for Distrilogistique on p. 6 and the cube stacker for Holvoet - LSC on p. 4.

Each and every one of these projects is unique and provides us with new expertise. Moreover, these challenging projects, which are the result of strong partnerships, motivate our team day in, day out.

Take a look at our brand-new website www.fraxinus.be and get inspired for your own automation project there too.

Towards a groundbreaking future!

Hans Van Essche
CEO of Fraxinus

LET'S GO THE EXTRA MILE

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A NEW WAREHOUSE FOR JOLIPA

Semi-automatic picking and transport via a lift installation

For more than 40 years, the family business Jolipa has been importing decoration and home furnishing items, which are then distributed worldwide from the headquarters in Tournai. After a while, the warehouse was bursting at the seams and stock was stored in a range of different locations. It was high time for expansion and an efficiency boost in order picking: two challenges in one fell swoop for Fraxinus. We stopped by for a chat with CEO Dick Sabbe and Technical Manager Patrick Stockman.

J-LINE
PLEASURE OF LIVING

FACTS & FIGURES

The company was founded in 1978 in Wevelgem by Johan Heytens, Liliane Langedock, Patrick Donckels and Christiane Langedock. Today, with Pat & Christophe Donckels, Tanguy & Etoile Heytens and Dick Sabbe, the second generation is at the helm.

LOCATION

Doornik, with a 6,000 m² showroom and a 32,000 m² warehouse

STAFF

110 employees and 70 agents

CUSTOMERS

10,000 customers

STOCK

12,000 items in stock

PRODUCT RANGE

2,500 new items offered every 6 months

→ For more information go to www.j-line.be



Keen to find out more about this case?
Scan the QR code!

"When we decided to build on the site next to the existing warehouse, we had to take into account the high-voltage cable across our site. In order to stay far enough from the cable, the best solution turned out to be putting the warehouse one floor below ground level. This required the installation of a lift that could transport the goods from the old to the new warehouse. The consultancy agency Logflow helped us come up with the design (more info on p. 16). Fraxinus poured that design into the final result you see today," says Dick.

"We approached five potential partners. With Fraxinus, we instantly had good chemistry. We were convinced by their projects at TVH and Lecot, among others. Once the lift project had been completed, we discussed the optimisation possibilities for our picking area with them", Patrick adds.

Semi-automated warehouse

We got started with the reorganisation of the picking process in the existing warehouse. Ideally, you would let the goods flow to the operator, but due to the variety of items and the constant renewal of our product range, this was not feasible. The latest study by Logflow offered a good interim solution.

Dick explains, "In the past, one operator used to prepare a complete order, which meant that he travelled up to 30 kilometres in the warehouse every day and prepared 10 orders. Now, the orders are picked by several operators and a large part of the route is covered by a continuously rolling conveyor belt, where the picker deposits the collected goods. The conveyor belt brings the goods to the picking zone via a spiral. There, the goods are pushed out on the antennae. The orders are then completed and palletised."

The installation also caters for e-commerce. "A third of our turnover are orders from distributors that we deliver directly to the

end customer. That is why we have planned the lay-out of some roller conveyors to be connected to a packing table," Dick continues.

"It saves us a lot of time because the pickers only have to travel a fraction of the distance in the warehouse now."

- Dick Sabbe, CEO of Jolipa

Lift installation for basement warehouse

Once the boxes have been scanned and palletised, the pallets can be taken to the new warehouse via a lift installation. "While studying the flow of goods, we also connected a wrapping unit to the line. That way, the pallet is immediately prepared for transport," says Patrick. Then the pallet goes through to the lift shaft, where a scanner detects which floor the pallet has to go to.

"The main flow of goods goes down and is dispatched for transport, but orders that have to be delivered later can also be stored on two mezzanine floors. When it is ready for transport, any given pallet is retrieved via the software."

A constructive cooperation with a big WOW factor

When Dick is asked about the collaboration, he is brief and to the point:

"We received clear quotations and drawings, and we had well-founded discussions. In this process we felt that Fraxinus is backed by strong partners." For Patrick, the installation

of the lift was the big WOW factor of the entire project: "In an hour and a half, a 14-metre, 8-tonne lift was positioned in the warehouse via the roof with extreme precision. That's pure craftsmanship."

Behind the scenes of the project

WITH HANNES DEKEYZER
Sales Engineer at Fraxinus

Our experience with complex goods flows and our focus on the best possible solution for our customer also come together in this project. A few facts:

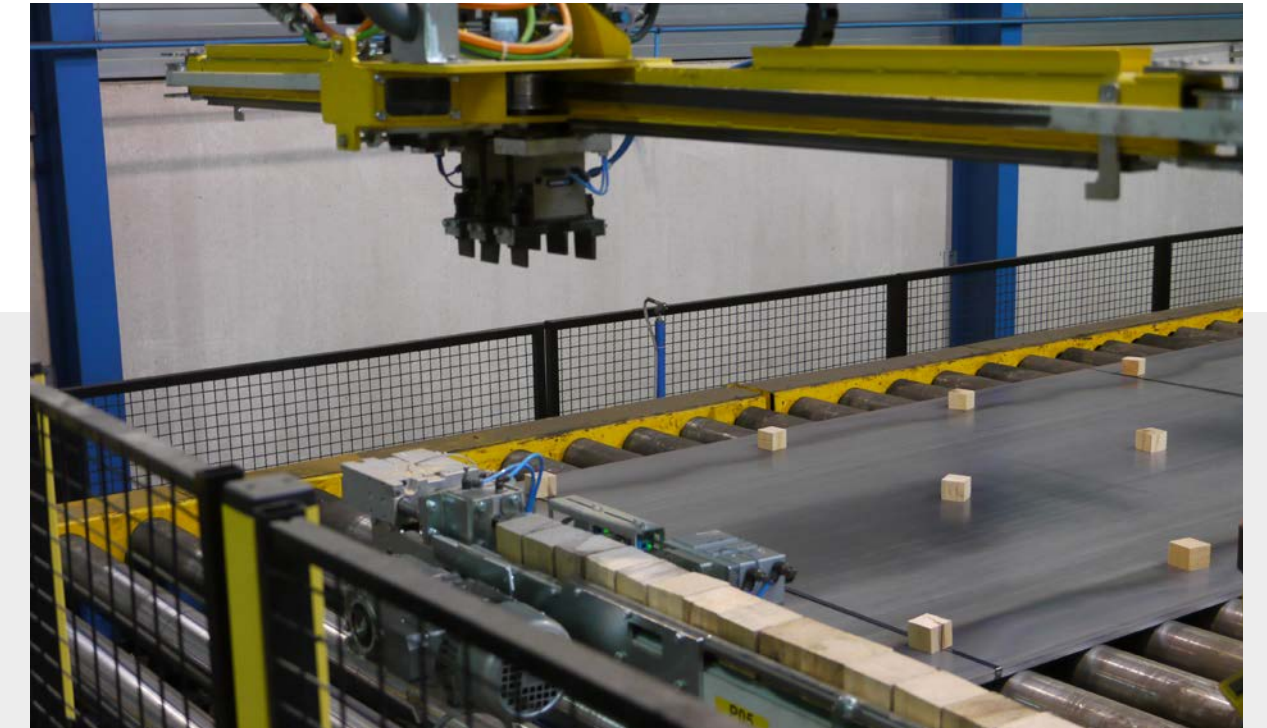
- › We used different transport systems on the long route from the warehouse to the sluice stations. Long conveyors are alternated with curve conveyors, a spiral tower, ascending conveyors and push-out systems to get the box to the final station.
- › At the end of the route, the box or carrier box is scanned in order for it to be pushed out at the right sluice station.
- › The newly built warehouse can be completely closed off from the existing building in case of a fire. The fire doors were therefore placed in the middle of our installation and we take this into account in the event of a fire alarm. Together with the client, we also determined where the fire wall would be placed in relation to the installation, in order to limit the number of fire doors we would need to install on the four different levels.
- › On each floor there is an access and an exit route to and from the lift. This allows us to get the best possible interaction of pallets between the different floors.

HOLVOET - LSC INTEGRATES
AUTOMATION INTO ITS DECOILING ACTIVITIES

Cube stacker for bulk storage of steel sheets

“Every year we place about 850,000 separator cubes between our sheets: this is now done by machine instead of manually.”

— Edwin Cramer, Plant Manager



Holvoet, with its three steel service centres, is a leader in the Belgian steel sector. Subsidiary LSC in Bree specialises in decoiling and cutting ultra-high-strength steel coils into custom sheets for steel processing companies. Fraxinus built a handy tool for the bulk storage of these sheets. Plant Manager Edwin Cramer is happy to tell us all about it.

FACTS & FIGURES

Limburgs Staalservice Center (LSC) has been part of the Holvoet nv holding company since 2016, which also operates steel centres in Ghent and Courtrai. LSC specialises in the decoiling of ultra-high-strength steel coils with a thickness of 0.7 to 25 mm, as well as cold-rolled coils.

LOCATION
Bree

STAFF
28 labourers, 7 administrative staff

FOUNDED IN
2007

DAILY PRODUCTION CAPACITY
25 to 50 trucks filled with steel sheets

STEEL PROCESSED ANNUALLY
200,000 tonnes

MARKET
Active in Belgium

→ for more information go to
www.lsc-belgium.com

What is the cube stacker used for in your warehouse?

“We use two decoiling machines to unroll and cut steel coils. Once cut, the steel sheets end up on an exit roller conveyor and subsequently, the new robot places wooden cubes on top of them. Thanks to these separator cubes, the sheets can be stacked with enough space between them to be easily picked up by forklift trucks and an overhead crane with a sheet clamp.”

How does the installation work exactly?

“The cubes are delivered by a large tipper and first pass through a cleaning system that removes any excess splinters. They then enter the vibrating unit, which ensures that the cubes are correctly oriented and aligned. Via a transport system they are then transported to the stacking robot. Depending on the sheet width, the robot grabs 2 or 3 cubes at a time and places them in a pattern on the steel sheets with the help of line tracking: the system automatically measures the supplied stack and knows exactly where and when to place the cubes.”

How has this automation improved your production process?

“First of all, we save on a very labour-intensive activity. In the past, three operators worked on the line to supply the sheets with cubes from the storage crates and to remove the sheets at the end of the line. Due to the high production rate, this method gradually proved to be no longer feasible: in 2020, we placed no

fewer than 850,000 cubes manually. Thanks to the cube stacker, we can work much more efficiently and only two workers are needed to coordinate the entire process. Our decoiling machine can now also run non-stop.”

The switch to such a new system does not happen overnight. How do you look back on the entire project?

“We instantly knew that we were in good hands with Fraxinus, which would supply the best possible technical solution. The first proposal not only took our current requirements into account, but also our future needs: for example, switching from cubes to bars in the long term is perfectly possible. The engineering team built a test set-up that we could assess on site, before the machine was installed in our warehouse. During the run-in period, a number of minor adjustments were needed to ensure a smoother flow.

The cooperation with the programmers also went very smoothly. We can always call on Tim's help, who can log into the system remotely to set new parameters if necessary. This way, we are always reassured that technical problems can be solved quickly. Fraxinus is highly recommended if you are considering logistics automation!”



Keen to find out more
about this case?
[Scan the QR code!](#)



From left to right: Hans Van Essche, Edwin Cramer

DISTRIOLOGISTIQUE'S FIRST AUTOMATION EFFORTS

Smart pallet wrapper gets even the most unusual goods ready for transport

Over the past five years, retail chain Extra has opened an average of six shops per year in Wallonia. This growth pushed the company to automate their central distribution warehouse in Zwevegem. We asked Pavel Campens and Michiel Bellemans of Distrilogistique how their collaboration with Fraxinus came about for the design of an automatic conveyor belt for the safe and fast transport and packaging of pallets.



From left to right: Pavel Campens, Hans Van Essche, Mathias Desnouck, Michiel Bellemans

Why was automation the best solution for you?

Michiel explains, "We specialise in cleaning and maintenance products and buy large lots, which we prefer to process in-house. However, with the scale-up of the Extra shops, this was no longer logistically feasible. So we went in search of a solution to optimise our internal operations. And that solution was obvious: we needed to wrap the pallets faster in order to reduce our pickers' waiting times." Pavel adds, "Until 2017 we wrapped all pallets manually. Then we invested in a stand-alone arm stretch wrapper. With that machine, full wrapping still took two minutes, which adds up when you wrap two hundred pallets every day. An automatic system allowed us to halve that time."

What was the biggest challenge in implementing this system?

"Our products are not all uniform: a pallet can be filled with different shapes of boxes, bags, products and even loose furniture. So the wrapper had to be flexible and protect the entire load well. The system therefore includes a top sheet dispenser, which covers the top of the pallet with a layer of film that automatically drapes nicely over the goods," says Pavel.

What else does the wrapping flow entail?

"The pallets to be wrapped are placed on the attachment roller track at a height of 80 mm using a forklift. Then a lift system brings the pallets to a height of 500 mm. Once wrapped - and possibly labelled - the pallets move to the exit buffer zone, where they can be taken down again at a height of 80 mm. A simple control panel allows the operator to choose whether the pallet should be wrapped with or without a top sheet, and whether it should be wrapped tightly or loosely, depending on the type of

load. Through data tracking, the system keeps track of each pallet," Pavel continues.

Why did you decide to join forces with Fraxinus?

Michiel explains, "We were looking for a partner who could help us in the long term. Hans and Mathias understood what we wanted and brainstormed along with us, keeping in mind our current infrastructure. We have now started with a basic system that we can build on in the future. An expansion of the scanning system and fully automatic labelling can be integrated as soon as we need them. In addition, the system is designed to integrate a lift at a later stage, which can take the pallets directly to the loading dock."

You've clearly been bitten by the automation bug. What has been the greatest impact on your internal processes?

Michiel explains, "Fraxinus focused strongly on safety, so the working area and the material are better protected than before. Our pickers' waiting times have also been considerably reduced as the new wrapper can handle up to 60 pallets per hour and they can carry out other tasks in the meantime. In addition, the wrapping is of better quality: we use thicker film and both the top and the pallet itself are wrapped automatically. The Christmas period will be our biggest test. At that time, the wrapper will have to process around 350 pallets a day. At such peak times we will probably be even more grateful that we took the leap."



Keen to find out more about this case?
Scan the QR code!



FACTS & FIGURES

Distrilogistique is the logistics division of Extra, a Belgian chain founded by Stephan Lesage and his wife Greet Huysenruyt. All 45 Extra shops are located in Wallonia and sell mainly cleaning and maintenance products, beauty products, decoration and seasonal items.

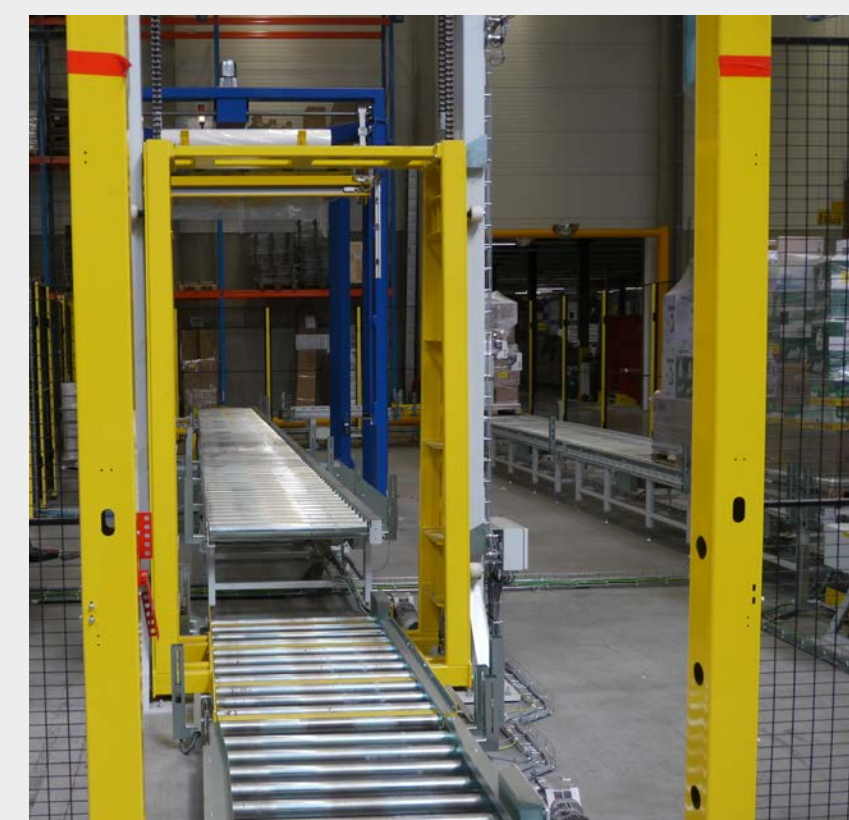
LOCATION
Zwevegem

STAFF
25

DAILY PRODUCTION CAPACITY
200 to 250 pallets

MARKET
Exclusively its own shops in Wallonia

→ for more information go to
www.extrashop.be



BEHIND THE SCENES AT FRAXINUS

Three faithful Fraxinus ambassadors

This year, three employees are celebrating a milestone at Fraxinus: Project Engineer Wesley Poissonnier has been working at Fraxinus for 10 years, and Installer Johan Valcke and Project Engineer Bart Barbier are already blowing out 15 candles. Let's see what they have to say about these career highlights.

From left to right: Johan Valcke, Bart Barbier, Wesley Poissonnier

How have you seen Fraxinus evolve in recent years?

Johan: "I have been at Fraxinus since we were a team of only five. Today, it is no longer comparable in terms of size and type of projects, but the management is still characterised by that same direct style."

Bart: "Fraxinus continues to do well because we can count on the commitment of all employees day in, day out. We come up with a concept together and then implement it, we bring our individual knowledge together to form a unique solution and we all pull the same rope."

Wesley: "And not only that. Despite its rapid growth, Fraxinus remains a well-oiled machine that works in a very structured way. I am truly proud to be a part of this."

The projects have also evolved tremendously.

Bart: "In essence, the work has remained the same but since we now have fifteen years of experience, the approach is completely different. We take on much larger projects that are often part of broader business plans compared to the past."

Wesley: "Indeed. The technical challenges have become much more complex. We are now concentrating on installations with the greatest flexibility possible."

Johan: "The installations are also larger and each one requires a unique approach. For me, this variety ensures that the job remains exciting."



What still keeps you motivated after all these years?

Wesley: "Apart from my colleagues and the technical challenges, it is really nice that many of our customers keep coming back and we can build a great bond with them. That gives the job an extra dimension."

Bart: "That's right. I also have that feeling with our regular partners and suppliers. The combination of the type of work and the friendly contact with customers and partners ensures that I am happy to stay for another 15 years!"

Johan: "And I am going to stay motivated for 6 more years, until I retire!"

**Thank you for your loyalty.
Cheers to many more years!**

FRAXINUS WELCOMES



AARON LANNEAU
Project Engineer

"After having gained a few years of experience in the design of electric vans, I joined Fraxinus in January. At first, I spent six months in the workshop, where I was introduced to many aspects of the installation and I had the opportunity to assemble several projects. Thanks to my colleagues' helpfulness and willingness to share knowledge I can now fully immerse myself in engineering."



DAVID VERHULST
Sales Engineer

"I have known Fraxinus for more than 10 years and their beautiful, high-quality solutions always stuck with me. Their direct, no-nonsense style suits me perfectly, so when I was looking for a new challenge, I took my chance here. Since July, I have been immersing myself in all aspects of the company's operations and building up customer contacts. The many conversations with customers are very enriching, so I am looking forward to gradually taking on my commercial role."



SIMON VAN ESSCHE
Project Engineer

"Before I joined Fraxinus as a permanent employee, I had been working here for years as a student. I am now learning the tricks of the trade in the assembly of our projects, both at home and abroad, in preparation for the engineering and project work I will soon be responsible for."



JONAS STUBBE
Installer

"For the past two years, I have been studying electromechanical engineering, which I combined with an internship at Fraxinus through the dual learning programme. At the end of the internship, I was instantly offered a job and I was soon able to work independently. Recently I started working in the assembly department, which is a nice challenge!"



ARNE LAMBERT
Installer

"During my electromechanical engineering degree, I did a one-and-a-half-year internship here with Jonas and got the chance to discover interesting companies and impressive machines. The training approach also taught me a lot: first you consult with your colleagues and then you can tackle the case independently. That is the best way to learn. Now I work here on a permanent basis and I am increasingly doing assembly work at the customers' premises."

"NONE OF US IS AS SMART AS ALL OF US"

— Ken Blanchard

A CHAT WITH HANS VAN ESSCHE

“The local production trend leads Fraxinus to internationalisation”

“Today, we are working more internationally and we are being entrusted with increasingly large projects.” This, in a nutshell, best describes the evolution of Fraxinus over the past few years. CEO Hans Van Essche will explain the what and the how, but we can already reveal that the focus will be on the consolidation of companies and the solid basis Fraxinus has managed to develop.

“From the very start, Fraxinus has been entrusted with complex assignments. This has pushed us to think outside the box from day one and to operate at a high level. As a result, we had a good start 17 years ago and never ran the risk of stagnated growth,” says Hans.

In recent years, you have increasingly crossed national and even continental borders.

“Yes, we already have installations in our neighbouring countries, but also in (South) America, Scandinavia, the United Arab Emirates, India, Malaysia and beyond. There are various reasons for this. Our own network is expanding, bringing us into contact with large companies that have production units all over the world. The consolidation of companies is also continuing and when customers join an international group, we too go international. The most remarkable evolution, however, is that companies which turn into multinationals are increasingly choosing to produce locally for a given market, thus setting up different production sites.”

To avoid high transport costs?

“That is one of the reasons, but the difference in labour costs between the different continents is also becoming less significant, which makes it more interesting to organise production locally in Europe and America as well. Companies also want to become less dependent on global factors such as the ever-increasing import duties and the insane price fluctuations for container transport.

But there is also a desire to serve markets locally as local prosperity levels are rising. As a result, we see international companies setting up high-tech plants in line with European standards everywhere, which benefits the local working conditions.”

Producing locally for the local market also has an ecological impact.

“Here, too, we see an increasing awareness among our customers, and especially in recent years, energy consumption has become a key factor in itself in every project. The customer - but the market too - asks for every installation to be built as sustainably as possible.

As a result, today we work with energy-efficient motors and also take into account an energy-efficient flow in our programming activities. This makes the total cost of ownership for the customer more manageable: the components of the installation are slightly more expensive but the energy consumption is much lower and the ecological footprint much smaller.”

Have you also seen an evolution in the types of projects?

“Overall, we see that logistics projects are a booming business. This is linked to a reorientation in the way products are sold. E-commerce is growing in importance and intermediate hubs are being eliminated. As a result, production sites are also investing more and more in storage space for all their products,



and we are seeing an increase in the number of logistics projects.

In addition, it is nice to see that the trust in our company is increasing and we are also being entrusted with very large projects. We have built up a very good expertise that allows us to manage such large projects both from a financial and an organisational point of view. Our customers therefore trust that we will be able to handle their projects. The controlled growth of our organisation now brings a controlled growth in the type of projects, and that not only gives me satisfaction but also brings lasting variety and challenge to our team.”

FRAXINUS IN A NUTSHELL

Fraxinus specialises in optimising and automating production and logistics processes with added value, from engineering to assembly. The company was founded in 2004 by Hans Van Essche in Izegem.

Since early 2020, the continuous growth and diversification of Fraxinus has been supported through the participation in partner company Stumaco, a well-known specialist in the development, construction and assembly of hygienic production lines for the food industry. The synergy of the specific know-how of both companies has already resulted in several state-of-the-art projects.

NUMBER OF CURRENT PROJECTS

approx. 20, from design to implementation

MARKETS

Europe, America, Asia



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REVOLUTIONARY LOGISTICS PROJECT 'ROPA', SHORT FOR ROBOT PALLETISING

Automatic stacking of small shipping boxes at TVH

Two editions ago we introduced TVH's revolutionary new distribution centre in Waregem, for which we developed an automatic stacking system for small shipping boxes in 3 sizes. At that time, the construction of the installation had just started and it is now operational. Time for an update with Bart Reyntjens, Automation Engineering Architect and Erik Deceuninck, Director Automation.

Let's rewind for a second: how did the idea for this distribution centre and the automation project come about?

"TVH is growing steadily and our logistics department was becoming too small. That is why we decided to build a new building next to our main building.

Initially, we were going to load the boxes directly into the trucks using a telescopic conveyor, but that proved to be unfeasible: with a processing target of 2,500 boxes per hour - and in the second phase 5,000 boxes - it would have been irresponsible from an ergonomic point of view. So we joined forces with Fraxinus to automate the handling process", says Erik.

And that turned out to be a particularly challenging task, partly because of the different box sizes.

"We have three sizes, ranging from 200x300 mm to 400x600 mm with a variable height of 30 to 300 mm. The weight varies from 0 to 20 kg.

In other words, stacking the boxes on the pallets in an efficient and stable manner, with a minimal loss of space, required a lot of technical calculations and engineering. We eventually designed a stacking system which allows us to stack boxes up to 2 metres high in a steel cage, to prevent them from falling over during the stacking process.

Fraxinus also suggested tilting the pallet slightly so that the boxes are pushed to a single point and do not fall apart like a palm tree during the stacking process. A clever move", Bart says.

The boxes are stacked with a gantry robot, but this also required a great deal of thought.

Bart: "That's right. To ensure that we were not stacking like an accordion, we integrated software that continuously calculates the current height of the stack and indicates where we can replenish it without exceeding the tower behind. We also chose to place two gripper arms in one cell, so that the robot could cope with the fast supply of boxes."

Two years ago we started assembling the logistics loop for the transport of the boxes to the cells and the stacking installation itself. How do you look back on that moment and where are you today?

"The plans for the new building were ready, so we had to adapt the installation itself and its assembly to the building. In order to bring the stacking installation inside, we created access points in the roof that can be opened and closed, which will also be useful when building the second phase of the project," says Bart. "But meanwhile, the first phase of the installation has been completed. It is fully wired, the wrapping cell is operational and the picking procedure has started," Erik continues.

What's next?

Bart: "The installation is now running six hours a day, and we have recently effectively stacked and shipped 2,500 boxes automatically in one day but we are gradually upgrading everything and manual stacking is decreasing. Our software is fully programmed, with the exception of the labelling. That is still done manually at the moment, in anticipation of the TVH programming of the scanners that have already been installed by Fraxinus."

FACTS & FIGURES

• The distribution centre covers 12,000 m², spread over four floors with a total of 25 metres of usable height.

• Orders are delivered within 24 hours in Europe and within 48 hours worldwide.

• The installation can handle 2,500 boxes per hour in phase 1. In phase 2 it will be able to handle 5,000 boxes per hour.

→ for more information go to www.tvh.com



From left to right: Hannes Dekeyzer, Erik Deceuninck, Bart Reyntjens

Packages leave the door within 24 hours of ordering. This was another important parameter we had to take into account.

Erik: "If you have half a container of small and medium-sized boxes right before the orders are closed, then the cell can fill a container completely with small boxes on top of medium-sized boxes or medium-sized boxes on top of large boxes, so that by the time the orders are closed we have a fully filled container and we will not be transporting air. The box sizes have been specifically designed to fit together. We also have to take into account that in the late afternoon we cannot stack the pallets the full 2 metres, because the last orders leave by van."

These are just a few examples of the many challenges this revolutionary project poses.

Bart: "That's right. That is why the extensive test phase before the implementation played such a crucial role in the success of this project. For two years, extensive tests were carried out at Fraxinus and adjustments were made until we achieved a result that raised the efficiency of the installation to a very high level."

How do you look back on the entire project today?

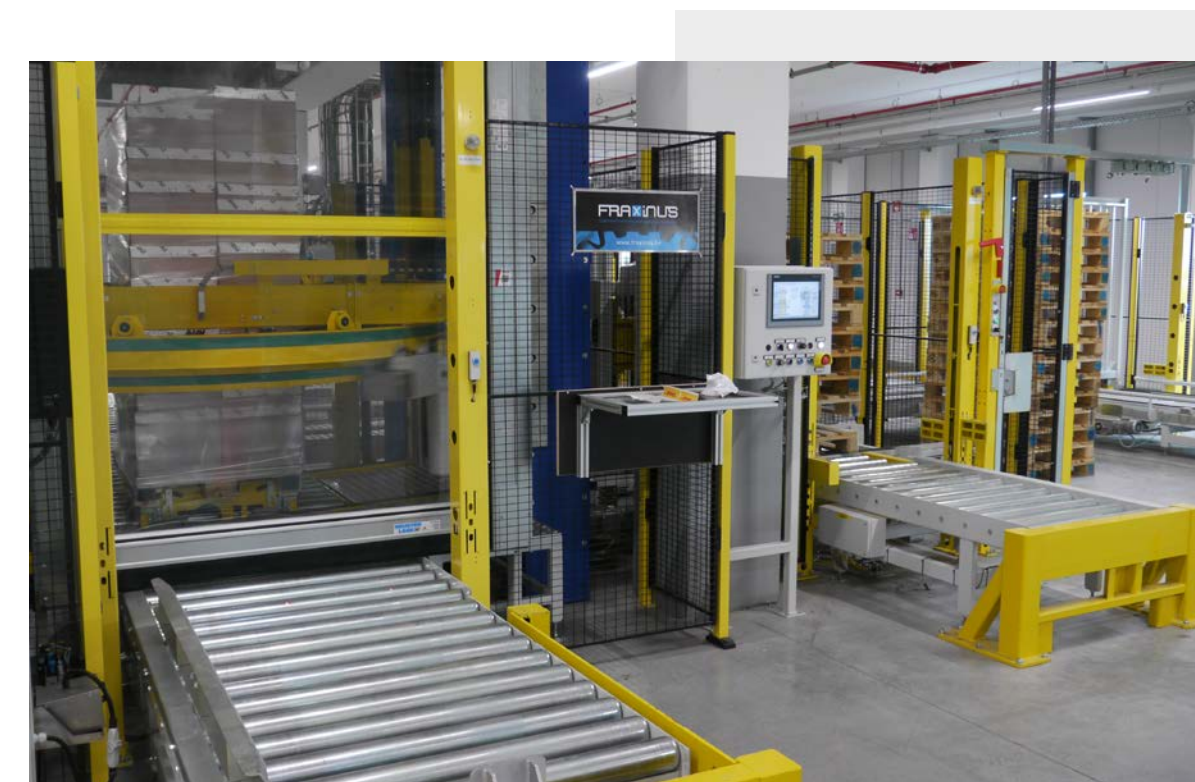
"We are satisfied with the concept. A project of this size requires a lot of patience, both from our end and from Fraxinus. You are married to each other, so to speak: you both enter into a major commitment where you both take risks

and make serious efforts to continue working together. But the solution-oriented approach of Fraxinus and the close involvement of the team ensures that there is a great deal of understanding for all the steps required in the process," Erik concludes.



Keen to find out more about this case?
[Scan the QR code!](#)

A fine example of a customer-supplier relationship evolving into a true partnership. We wish you every success with the further roll-out of the installation!



From online order to truck

WITH HANNES DEKEYZER
Sales Engineer at Fraxinus

"The new distribution warehouse has 32 picking stations, spread over two floors, where goods at the end of the line are put into the transport box by the picker. The transport box comes in three sizes with variable height, depending on the content. These boxes are transported via two spirals to the fourth floor, where they end up on the conveyor belt.

The boxes are scanned and distributed via data tracking to the right belt on one of the four portals. The box is then picked up via suction cups and deposited in one of the pallet cage combinations. Each gantry robot has a gantry on the left and on the right, a telescopic system that picks up and deposits the box.

Once the pallet has been filled, it goes to the second installation, where the cage is raised during the wrapping process. In this way, we maintain a stable wrapped load. The pallet moves to the turntable with the label applicator, where we apply the correct label on all four sides. The empty cage is once again equipped with an empty bottom pallet and it is taken back to the gantry robots."

UNILIN PANELS ONCE AGAIN TURNS TO FRAXINUS

Packaging line for the expansion of the particle board production department



Unilin creates smart solutions for floor coverings, panels, insulation and technologies for floor companies. Fraxinus has been building installations for this global player for 15 years, and since its early beginnings, it has almost always been working on one project or another for the group. Just before this edition went to press, we installed a packaging line at **Unilin Panels** - located at the former Spano site in Oostrozebeke - for stacking and strapping **finished particle boards**. Christ Feijtraij, Project Manager at Unilin, tells us all about it.

"We have just installed a new pressing line to expand our production. On our existing line, the packaging is done semi-automatically, but the new line has a much higher output, so a fully automatic packaging line was a must to guarantee the production speed."

Totally our cup of tea, but not without the necessary challenges, is that right?

"Equipping our panel packs with a bottom and top sheet in just 60 seconds and strapping them every 20 seconds in a safe manner requires a considerable amount of engineering. Moreover, we had to work in a compact space and integrate all functionalities in one machine in order to organise the packaging in an efficient and logical way in our existing building. Once again, the synergy between our in-house knowledge and Fraxinus' expertise worked its magic."

What are the most important features of this packaging line?

"In a nutshell: from the cover panel station, cover panels are brought in and the manipulator uses suction cups to take a panel and place it on one of the four lanes, depending on the size. A trolley then collects the panel and transports it to the stacker. Once a stack has been completed, the same trolley transports it on the central line to the packaging installation. An aligned top sheet is placed on top as it passes through the installation. Manual intervention for labelling

or for applying cardboard is possible. Then the stack goes to the cube and slat warehouses, where a manipulator lays top cubes or slats of the same length as the width of the packed panels.

Top and bottom cubes are placed simultaneously. For this purpose, we have built a cube and a slat warehouse with ten positions, where ten types of slats and top cubes are available. Finally, the pack goes to the strapper. All this is done at a Takt time of 100 seconds per stack."

The installation will run 24/7. That, too, requires particular attention.

"The uptime must be very high indeed. We can carry out major maintenance no more than twice a year. Easy maintenance and reliability are very important in an installation like this: it runs continuously, at high speed and with heavy materials.

We can only carry out minor maintenance on the lines, focusing on varying issues, every 14 days so as to maintain our production speed. It was therefore important that the installation was solid and built to last."

A lot of attention was also paid to communication between the different steps in the entire production flow.

"The installation communicates with Shop Floor software: this controls the entire schedule and informs the packaging installation on how the panels must be packed. Useful information is displayed to the operator.

We also work across installations when it comes to safety: the safety zone of the packaging installation was integrated into an existing safety zone. The cabling was also done by Fraxinus."

The final project was preceded by several brainstorming sessions. How did you experience this in this project?

"We started from the premise that we could recover existing roller conveyors and integrate

The four pillars of this installation

BY BART BARBIER
Project Engineer at Fraxinus

AN ALL-IN-ONE, COMPACT AND EFFICIENT INSTALLATION

"In order to keep the installation as compact as possible, we chose to integrate all operations into a single machine. That way, we retain space to buffer extra packs. This increases the packaging possibilities, making it more interesting for Unilin. In addition, the panel is picked up simultaneously with the alignment, which is also time-efficient. Finally, the cube and slat warehouses can be replenished manually while the installation is running, so we don't lose any time there either."

FLEXIBILITY

"Both the cube and slat warehouse have ten positions with different sizes of slats and cubes. Packing can be done with or without bottom cubes. This allows the company to respond flexibly to the customers' wishes."

SPEED

"Given the high output of the production line, the speed of the packing line is crucial. Each operation was engineered so that within the 60-second slot, a panel can be prepared to be used as a bottom panel and a top panel can be aligned onto the pack. In addition, the line can do one binding every 20 seconds. Concretely, the installation can handle 30 small stacks or 15 large stacks per hour."

INTEGRATION INTO THE EXISTING BUILDING

"Last but not least, a large discharge pipe and the limited height at certain points in the building required some extra thought and creativity to get everything in logically and efficiently."

a manipulator for automatic packaging. The final installation is the result of many technical discussions with Fraxinus. What we appreciate about them is that the commercial team also have a solid technical background, that they can challenge us and come up with technical ideas. The word 'co-engineering' is certainly appropriate here."

You are very much looking forward to the effective start-up.

"Certainly, we are now up against our capacity limits with the existing line, so a timely start-up is essential. Fraxinus knows how important this project is and they are all set to start up the machine as soon as possible. Our many years of cooperation ensure that we know each other through and through. Fraxinus knows we set the bar high and responds accordingly."

And that's pushing boundaries for us, too. Thank you!

UNILIN PANELS

LOCATIONS

10 production sites in Belgium, The Netherlands and France

INCREASE IN PRODUCTION CAPACITY

700,000 > 2,200,000 single presses

LENGTH OF THE FULL PRODUCTION AND PACKAGING LINE

217 metres

→ for more information go to www.unilinpanels.com



Keen to find out more about this case?
Scan the QR code!

LOGFLOW'S VISION

“First think, then act”

A successful project is usually the result of good cooperation between different partners who bring their expertise together and lift each other's work to a higher level. Logflow from Oostkamp, which specialises in the creation of an efficient logistics flow, knows this only too well. CEO Eric Vandenbussche tells us more about their approach, and their view on partnerships, and he gives us a glimpse of their plans for the future.

Logflow recently moved into an impressive office building at the new O'Forty business park in Oostkamp. “We integrated our own views into the lay-out of our new building. In just three years, our staff base has grown from 23 to 55 employees. We therefore needed to move to support our growth plans. How are we going to start, what will happen to our company in the next few years and how will we evolve in the long term, in terms of both capacity and services? We asked ourselves these questions and that is exactly how we start off when working with customers who want to expand their warehouse or production, or optimise their logistics flow.”

In a nutshell, first think, then act.

“That's right. We don't automate for the sake of automating. We look at the lay-out of the building and help the customer be as lean as possible. There are so many techniques and technologies available, so first we advise the customer, then we thoroughly analyse all the processes and we carry out lay-out studies. Only then do we look at what applications are needed, such as robots, AGVs, etc. We like to be involved from the very beginning: first, we draw up the logistics process and then, together with the architect, we look at how we can place the building around it. That is the most efficient approach. We also remain closely involved during the execution in order to properly monitor the project's targets. That way, we can finish as we had planned.”

So strong partnerships are also crucial for you.

“Definitely. Once we have our plan, we discuss with the architect and suppliers how we can further improve the project together.

These different insights ensure that we think outside the box, together. In this way, we can present the customer with an innovative and creative idea to boost their competitiveness and give them an edge in the market.”

What is your secret to a successful project?

“We insist on our independence. We are not tied to any supplier because we want to retain

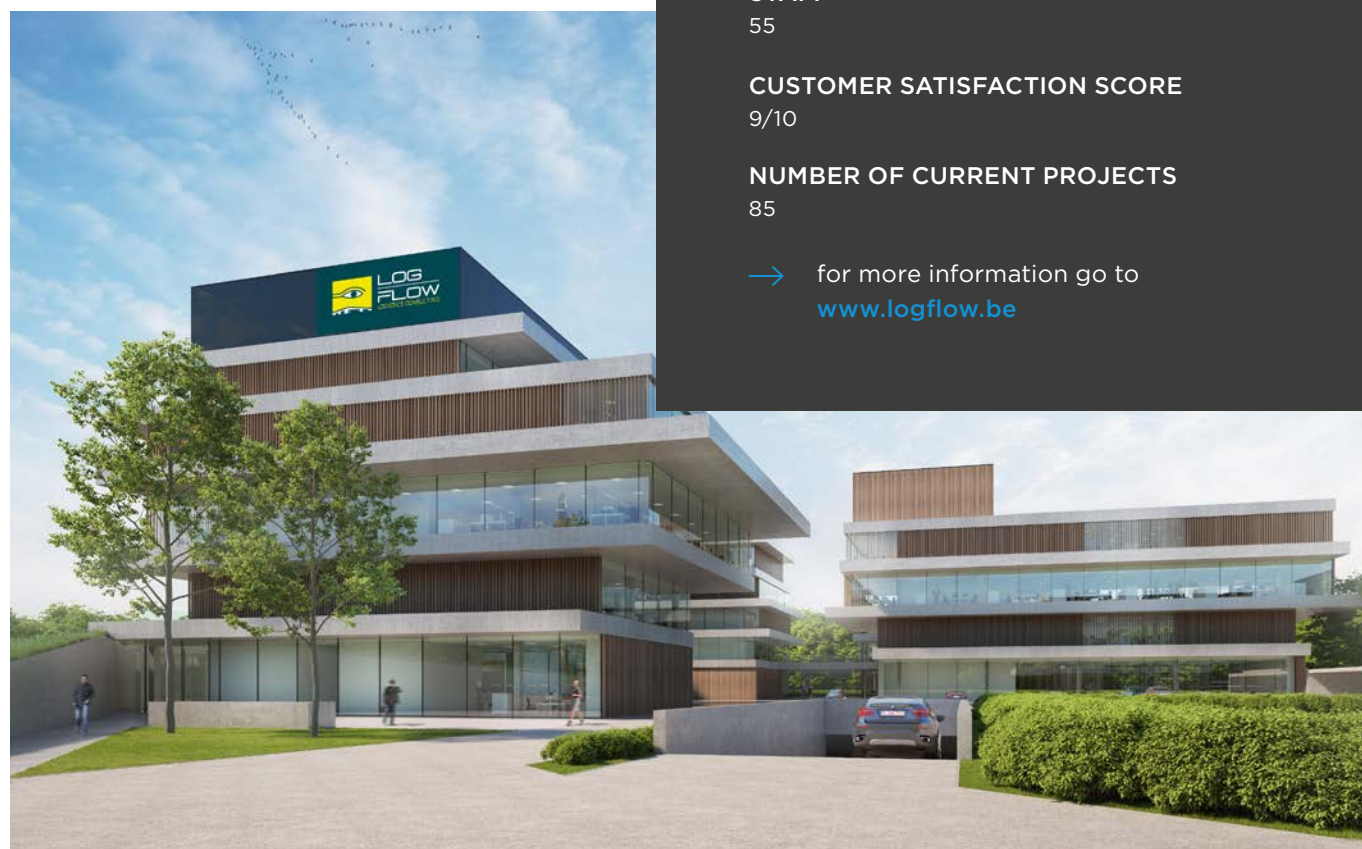
our freedom to offer the best solution to the customer.

Depending on the project, we always look at which partners we need. In those partners, we look for competent, reliable and stable companies that do not focus on marketing chit chat but communicate to the point, with a focus on the end goal: delivering a high-quality project.”

We've already experienced that ourselves and we totally agree. What does the future hold for Logflow?

“In the next five years we want to create digital twins. We want to show our customers their project in virtual reality and simulate any changes later in real time. Then we want to follow our customers remotely so that we can respond proactively to changes in their logistics flow. A long R&D process!”

That sounds promising! Good luck!



Eric Vandenbussche



FACTS & FIGURES

FOUNDED IN
2000

STAFF
55

CUSTOMER SATISFACTION SCORE
9/10

NUMBER OF CURRENT PROJECTS
85

→ for more information go to
www.logflow.be