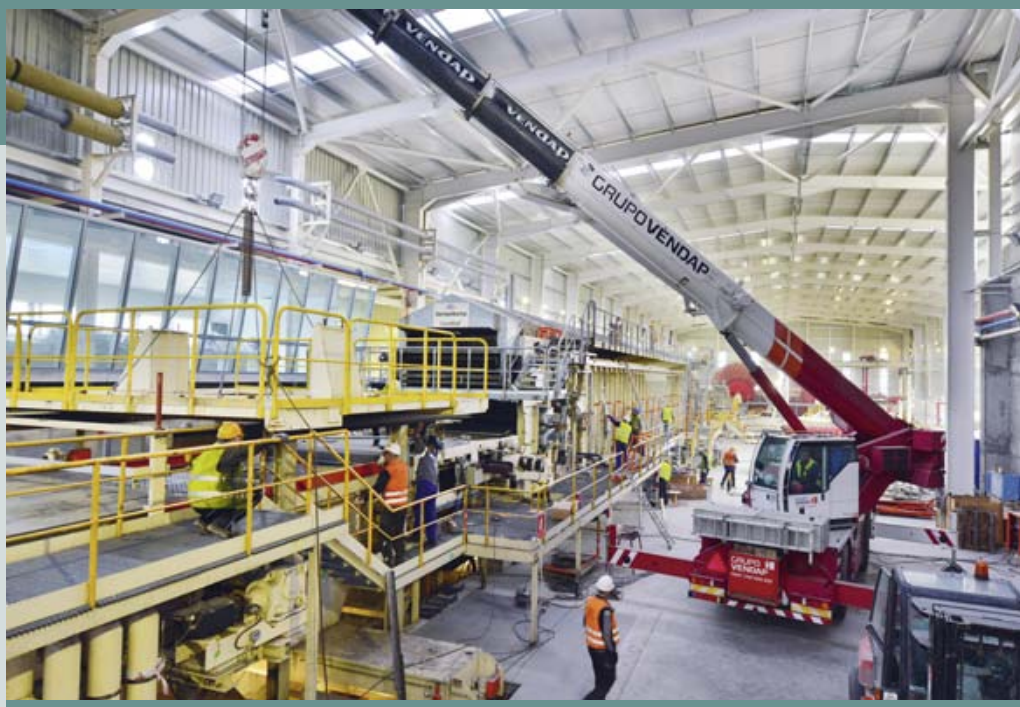
SLS service orders for Finsa, Spain

Servicio integral – Full service

In the tranquil municipality of Nelas in Portugal with its 5.000 inhabitants all preparations towards the production of the ‚First Board' are in full swing. One of Europe's leading companies in the wood-based products industry, the Spanish company Finsa, will start manufacturing particleboard and "superPan" utilizing an existing Siempelkamp plant which Finsa has owned since 1998. This was made possible with the help of Siempelkamp Logistics & Service GmbH (SLS), which not only retrofitted the press for the new product but also helped the customer move the plant from Cella, Spain to Portugal. In addition to this retrofit SLS received five more orders from the Spanish board manufacturer and continues to provide its largest customer with "Servicio integral" (English: full service).

By Michael Willemen, Wolfgang Beck and Armin Lingen



Press line

In April 2014 SLS received from Finsa the order to retrofit the customer's field-proven Siempelkamp particleboard plant. Objective of the endeavor: The economical production of superPan, an innovative wood-based board with MDF surface layers and a particleboard core. The first point on the agenda was to move the plant, which had been shut down several years ago, from Cella in Spain to the 700 km distant Nelas in Portugal. Due to the global economic crisis in 2008/2009, Finsa was forced to discontinue the operation of its press in Cella which had primarily manufactured particleboard for the furniture industry and for further in-house processing. With the revival of the wood-based products market in Spain, Finsa's business picked up again. In 2014 the customer decided that by retrofitting and moving its proven particleboard plant from Spain to Portugal, it could produce the innovative product superPan more economically and consequently, more competitively.

Retrofitting to a new product

To modify the plant for the production of the new product, SLS extended the press by 6 m. This upgrade resulted in an increase in plant capacity to 1,200 m³/day. The pre-press of the plant was equipped with an additional de-aeration zone for improved pre-compacting of MDF surface layers. SLS also upgraded the chain guides, belt tracking cages and reversing rollers for the ContiRoll® and supplied the required spare and wear parts. Additionally, SLS carried out several different modifications in the

area of cooling and stacking. In the area of control system technology, SLS replaced the FerroControl control system of the double-diagonal saw and the SPC press control system. SLS also installed a new visualization system.

Furthermore, the hotplatens of the press were overhauled. To do so they had to be taken to Siempelkamp's machine factory in Krefeld. Here, they had to undergo a manual cleaning, a visual inspection and finally, a repair. Next, the smoothness of the hotplatens was checked with the help of a portal milling machine and the top and bottom surfaces were reconditioned. Afterwards, on-site experts checked all fixing threads and the exact fit of all connection brackets, installed different accessory parts and painted and preserved the surface areas. Safely packaged, the hotplatens were finally shipped to Nelas, Portugal.

superPan – an exclusive Finsa product

superPan is a wood-based board which consists of two external MDF surfaces and a core of particleboard. It combines the positive properties of MDF, a surface that can be directly laminated or painted, with a light core of particleboard. Compared to traditional particleboard or MDF production, the preparation of the wood for superPan production is more complex because fibers as well as chips have to be prepared and fed through different mat-forming machines. Few wood-based products manufacturers combine both preparation processes and only one, that is the Spanish manufacturer Finsa, feeds the prepared chips and fibers to a single ContiRoll® press.

The company is manufacturing superPan exclusively and holds the patent for this innovative product. Due to its smooth and highly dense surfaces, superPan is especially suited for a number of decorative finishes, such as paint, print, lamination, oil-finish and digital print. It is typically predestined for furniture and door production.

Installation of mat former bunker

The new part

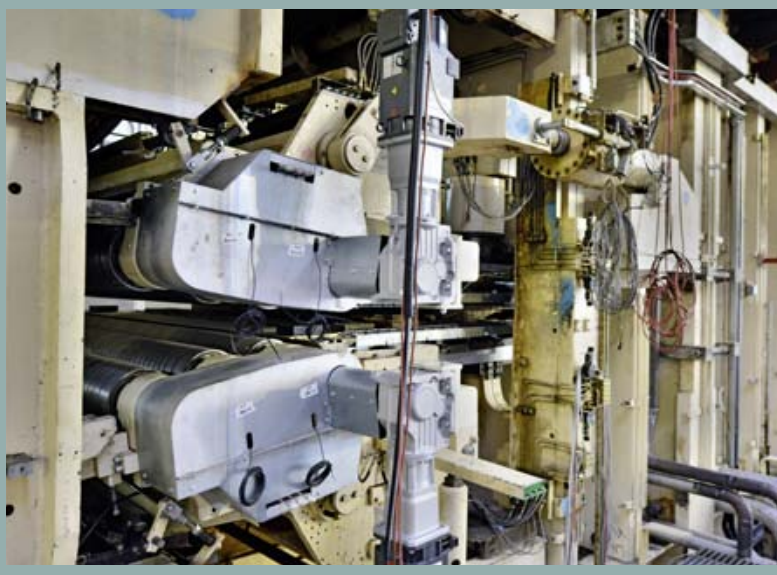
Dieter Kleine and José Pichel from Finsa

The upgrade allows for the production of thicker boards

Next to the modification of the forming and press line in Nelas, SLS received, in December 2014, another order from Finsa for the modification of an MDF line for the production of thicker boards. The forming and press line in Ourense, Spain will be modified in such a way that it will be able to manufacture boards with a thickness of 50 mm instead of the 40 mm boards to date. As part of the modification the press infeed area will be equipped with a power infeed hotplaten and the associated additional secondary heating circuit for the thermal oil supply. Furthermore, a state-of-the-art mat scale, a new metal detector, and the retrofit of the mat trimming unit are part of the scope of supply for Finsa. As part of the modification to achieve thicker boards, the pre-press will be equipped with a longer de-aeration zone in order to pre-compact the higher fiber mat.

Extension of ContiRoll®

New flexible infeed head



Finsa – Siempelkamp customer by tradition

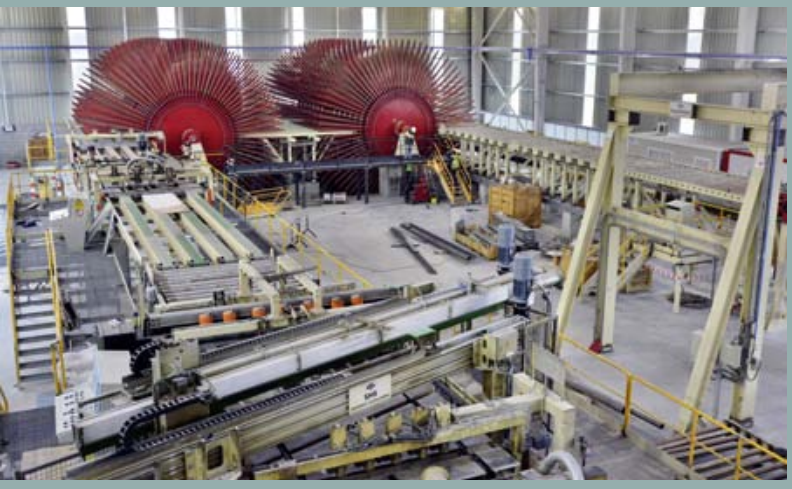
Finsa's company history began in 1931 as a saw mill – today the Spanish company, headquartered in Santiago de Compostella, with 3,015 employees manufactures a wide variety of panel-type wood-based products. From particleboard to MDF to laminated boards and special products to the further processing of finished boards, Finsa offers a comprehensive portfolio. In this context the company attaches an increasing importance to international presence.

For SLS Finsa has been the biggest customer in the last two years which has made extensive use of Siempelkamp's service and upgrading expertise. Finsa has also been a long-term customer of Siempelkamp Maschinen- und Anlagenbau GmbH that has acquired many new wood-based material production plants over the years. In 1988 Finsa bought its first Siempelkamp press which manufactures particleboard in Ourense, Spain.

Partially rebuilt hydraulics

With this line the customer will manufacture thicker MDF used primarily in door production. The modification work is scheduled to begin in August 2015.

The plant from above



Cooling and stacking line during installation

Electrical system upgrade

Two new short-cycle presses, one electrical system upgrade

In addition to the two orders for retrofits in Nelas, Portugal and Ourense, Spain, Finsa placed other orders with SLS. SLS is supplying a short-cycle press each with a pressing force of 500 N/cm^2 to the Spanish Finsa locations Santiago de Compostella and Rabade.

Concerning electrical system upgrades Finsa placed an additional order with SLS. In May 2015 the successful acceptance of an electrical system upgrade for a Siempelkamp short-cycle press took place in Nelas, Portugal. First, the short-cycle press was moved from Bilbao, Spain to Portugal where it was then, together with the paper layup system and the board handling system from a Siempelkamp short-cycle press in Valencia, Spain, integrated into a complete line. For this project SLS engineered the electrical system for the press based on the existing electrical components at the site to meet the customer's needs. Discontinued components were replaced with new ones. Furthermore, SLS was responsible for the integration of the individual plant components and for their startup.

Why Finsa entrusts Siempelkamp with its upgrading endeavors and what complete concept stands behind the numerous Finsa locations and plants is explained by Vincente Almanocid, Project manager at Finsa, in an interview with Bulletin.

The plant from above

The steam injection press from 1988 in good condition

Interview with Vicente Almonacid

1. What can you tell us about the development of the Nelas location?

Vicente Almonacid: Finsa has been operating a Siempelkamp Single daylight steam injection press for MDF since 1988. This press manufactures MDF with a thickness of up to 100 mm which is processed, for example, into furniture components and panels. In 1996 Finsa started up a multi-daylight press which manufactured particleboard until 2009. The global economic crisis in 2008 / 2009 had a negative impact on the demand for furniture on the Spanish/Portuguese peninsula and consequently, also on the demand for wood-based material panels.

Finsa responded to this with the shutdown of four production units including three ContiRoll® presses. Among those shut down was the press in Cella, Spain, which was used to produce particleboard. The economic situation has significantly improved since 2014 and Finsa decided to strengthen the Nelas location in Portugal. The ContiRoll® line from Cella, which had not been used since 2009, was dismantled in 2014 and transported to Nelas. There, the press replaces the older multi-daylight press. The production of particleboard and superPan will start mid-2015.

The Nelas location is also home to two Siempelkamp short-cycle presses. One short cycle is Pagnoni and the last is Siempelkamp. With the startup of the continuous press, we also need additional capacity for surface lamination.

2. How many active production units does Finsa currently have?

Vicente Almonacid: Including Nelas we produce particleboard, MDF and superPan at eight locations in Spain, France, and Portugal. Furthermore, we operate glue factories and a printing plant for decor papers. At practically all locations we own production units for the lamination of unfinished boards.

The majority of our production units are equipped with continuous presses made by Siempelkamp. We operate six ContiRoll® presses. The first ContiRoll® started production in Ourense, Spain, in 1988. This press is still running today and manufactures top-quality boards.

3. Which products will be manufactured in Nelas?

Vicente Almonacid: The newly installed plant with the ContiRoll® press will manufacture particleboard as well as superPan. superPan is a product exclusively manufactured by Finsa. It consists of a core layer of particleboard and two MDF surface layers. Furthermore, we will produce MDF with the Single daylight steam injection press. The majority of the unfinished boards will be laminated with the help of two short-cycle presses.

4. What is special about superPan?

Vicente Almonacid: Well, it is a super product: It is lightweight due to its particleboard core and due to its fiber cover layers it features smooth closed surfaces which can be painted, foil-coated or melamine-coated. The physical and mechanical properties of superPan are excellent and support the use in diverse applications.

We also manufacture several derivatives of superPan, for example, superPan Plus for post-forming and superPan Star. These boards feature a 20 % weight reduction due to added polymers.

All in all it is a very good product which requires a sophisticated production process. Just think of the simultaneous preparation of chips and fibers. This part makes the front-end processes of the production very complex. Furthermore, the forming of chips and fibers into one board requires perfect handling.

5. How is the superPan production in Nelas now structured?

Vicente Almonacid: As mentioned above, we have moved the forming and press line for particleboard production from Cella, Spain, to this location. There was one special feature: The mat-forming machines were originally supplied by Metso, the press line with ContiRoll® by Siempelkamp. For that reason we had to commission two teams for the new installation. Dieffenbacher upgraded the mat-forming machines with new forming heads. Siempelkamp upgraded the press line with a revised pre-press and extended the ContiRoll® by 6.6 m. The press was upgraded with the new flexible infeed. The cooling and stacking line with stack storage system for jumbo stacks is also modernized by Siempelkamp. The complete front-end area remains the same. With this technical equipment we are able to produce particleboard as well as superPan according to market conditions.

6. Which raw material do you use?

Vicente Almonacid: The wood for our production is obtained from within a range of 300 kms. There is plenty of wood growing in the area, especially maritime pine. We also use a certain percentage of recycled wood which we process into chips. Furthermore, we use the waste material from sawmills. The resin for the production process comes from our own plants.

7. How many jobs will be created?

Vicente Almonacid: At the location we currently have 160 employees. With the startup of the new line we will hire an additional 50 people. We are very happy with our Portuguese employees. They are reliable and involved employees.

8. How did the installation progress?

Vicente Almonacid: To move an existing plant to a new location presents an endeavor with many surprises. Initially, we had planned to place the forming and press line in the same place where the multi-daylight press used to be. Due to the height and length of the hall this was not possible. That's why we had to build a complete new hall. In the end, we at Finsa were able to coordinate everything effectively and integrate the various subsections technically and according to schedule. We have known Siempelkamp for a long time. We appreciate the Siempelkamp employees and Siempelkamp technology. Once again, everything was completed to our utmost satisfaction.

9. When will the line start production?

Vicente Almonacid: The heavy installation will be completed soon and at the end of May 2015 we will manufacture the ‚First Board'. Afterwards, we want to ramp up production as quickly as possible because our customers need boards.

Mr. Almonacid, thank you very much for this interview.

The interview was conducted for Bulletin by Ralf Griesche