

# THE NAVIGATOR COMPANY REAPS THE FRUIT OF SUCCESS

AT VILA VELHA DE RÓDÃO MILL.

The Navigator Company is a leading producer of forestry, pulp & paper, tissue and energy. In 2015, it acquired AMS-BR Star Paper, S.A., an established tissue producer that owned two Toscotec AHEAD-2.0S tissue machines at its Vila Velha De Ródão mill: PM1, started up in 2009, 110 t/d capacity, 1,900 m/min operating speed, and PM2, in operation since 2015, 115 t/d capacity and 2,000 m/min operating speed.

Joaquim Belfo, Mill Manager BU Tissue VVR and Pedro Antunes, Tissue Production Manager, shared their views on the efficiently integrated industrial unit at Vila Velha De Ródão and the cooperation with Toscotec, the mill's tissue manufacturing turnkey supplier.

**Who is The Navigator Company?**

**What are your main products and how are you positioned in terms of market share?**

**Joaquim Belfo:** In 2009, we started up the second paper mill of Setubal industrial complex - which includes a pulp mill and two paper mills – and we called it “About the Future”. This undertaking decisively boosted Portugal’s industrial capacity and it positioned the Navigator Company as Europe’s leading manufacturer of uncoated woodfree paper (UWF) and the sixth largest manufacturer worldwide. Secondly, we are one of

the largest producers of bleached eucalyptus kraft pulp (BEKP) in the world, for which we rank first in Europe. We currently have an installed capacity of 1.6 million tonnes of pulp - of which 1.1 million integrated with paper production - and 1.6 million tonnes of paper.

We also diversified into the tissue sector and we are presently the third largest tissue producer in the Iberian Peninsula, with a production capacity of 130,000 t/y of tissue reels and a converting capacity 120,000 t/y.

Apart from pulp & paper, we also manage over 110,000 hectares of forest and the largest certified nursery in Europe, with 12 million plants capacity per year.

Finally, we are Portugal's largest producer of renewable energy from forestry biomass, generating 2.5 TWh of electricity per year.

#### **What is your ownership structure?**

**Joaquim Belfo:** We are a public limited company, issued in Euronext Lisbon stock exchange. In 2004, Semapa acquired a majority share in the Navigator Company, and it currently owns 69% of the total share capital. Semapa is one the largest industrial groups in Portugal, headquartered in Lisbon and operating globally in the areas of pulp & paper, cement and building materials and the environment. Public investors own

29% of the company's shares and Zoom Investment holds the remaining 2%.

#### **What can you tell us about your first cooperation with Toscotec in 2009, PM1 at Vila Velha De Ródão mill? 10 years on, how is PM1 performing?**

**Pedro Antunes:** Thanks to the very good partnership between AMS - at the time - and Toscotec, PM1 project was a success. We worked as one united team and figured out the best solutions to the challenges we encountered. After 10 years of operation, PM1 is still producing high quality paper, at an efficiency of more than 90%.

#### **Let's focus on Vila Velha De Ródão mill's second line in 2015. What were the reasons for the expansion and for your choice of technology?**

**Pedro Antunes:** In 2015, given the growing demand for tissue in the market, we decided to increase our production capacity. Vila Velha De Ródão has been designed as a vertically integrated mill, which gave us an advantage, compared to our competitors. We selected Toscotec, because we were pleased with the outcome of PM1 project. In addition, we chose to install their shoe press technology TT NextPress, because it guaranteed higher paper quality - in particular for bulk, softness and moisture profile. There was also a reduction of our production costs, in terms of drying energy consumption.

The biggest challenge on the PM2 project was to define the stock preparation layout, considered that we were faced with the issue of limited available space. Toscotec managed to

install all the equipment according to schedule, start up the machine at the target date, and produce sellable paper from day one.

**Why did you choose a turnkey supply on PM2? Why Toscotec as turnkey supplier?**

**Pedro Antunes:** The turnkey format gave us considerable advantages,



in the sense that we only had one supplier to deal with and delegated to Toscotec the detailed management and coordination of the project, including the selection, negotiation and management of a large number of sub-suppliers. This made things much easier for us. We could be very fast in solving problems and had the flexibility to make modifications as we went along.

As for the reasons for choosing Toscotec, first we were happy with Toscotec's work on PM1, which had also been a turnkey project. Toscotec managed to complete the installation from greenfield to paper on reel in record time. They also provided extensive training programs to the staff of the mill, sharing their experience and expertise with our new team. On PM2, they showed us the 3D design of the plant and we could immediately see the careful optimization of the available space. The layout of the manufacturing area implemented in 2008 - including the cellulose handling system, stock preparation, tissue machine and rewinder - had been made in line, in order to maximize the mill's manufacturing and efficiency levels. In 2015, when we added the second tissue line, Toscotec adapted the layout of the new machine to the available space, figuring out a smart way to optimize the auxiliary systems, such as the boiler, the cellulose storage, the air compressor and the rewinder, so that they could be used in common by the two tissue machines.

**What results did you get on machine efficiency & product quality? What about TT NextPress performance in particular?**

**Pedro Antunes:** After three years of production, we are running stable at 90% efficiency on PM2. This machine is mainly dedicated to low basis weight tissue and premium quality toilet paper. TT NextPress turned out to be a precious additional tool to manage the process. It allows us to achieve better basis weight and moisture profiles. We are very happy with the uniformity of

the profiles on PM2. This translates into better quality of the final product. Another advantage of TT NextPress is that it allows us to reach better machine performance when producing low basis weight tissue. Finally, we can definitely say that PM2, thanks to TT NextPress, is more efficient than PM1 that installs a jumbo suction press roll, in terms of drying energy consumption.

**How would you describe the cooperation with Toscotec? Overall, what has Toscotec done for you?**

**Pedro Antunes:** we have a close cooperation with Toscotec. They respond timely and competently to the issues we face. Toscotec's team has very strong problem solving skills. In terms of goods delivery, they meet the delivery time we agreed. Moreover, the training programs that Toscotec delivered onsite at the mill really made us start on the right foot. Our new team at the time had limited experience of modern tissue machines running at 2,000 mpm, and the detailed knowledge that Toscotec's team managed to share with them made all the difference. In general, Toscotec's support to us is not simply about solving problems. They are often proactive in proposing upgrades and improvements on their machines, in order to allow us to benefit from the progress that they make with their technology.



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