



There has been a long and fruitful collaboration between **Cartiere di Trevi**, a paper mill with a long history and tradition, specialized in high quality cardboard products, and **De Iuliis C.& A.**, manufacturer of machines and systems for the paper industry that has been operating in the sector for more than 66 years, with a very loyal clientele, both in Italy and abroad.

Cartiere di Trevi manufactures paper with a basis weight from 140 up to 600 gsm, with a working width of 2300 mm and a design speed of 600 m/min for the production of corrugating paper, honeycomb paper, recycled medium coloured paper and coreboard; made using 100% waste paper as raw material - all in a perfect closed-loop system.

Trevi's young and active management has made several investments in recent years to achieve better paper quality and higher production capacity.

In the fourth quarter of 2020, **De Iuliis** carried out a press section rebuild to overcome previous production limits. **De Iuliis's** design goal was to increase the paper width at the reel, to improve the paper's mechanical characteristics and the paper machine runnability, with a contractual guarantee on the improved dryness.

A re-design of the press section was made in order to fit wider press rolls in the narrow space of the existing machine, modifying the roll positioning and arrangement to optimize the spacing according to modern concepts. The open draw between the presses was shortened to reduce the stress on the paper and thus to improve the paper's mechanical characteristics and to have better runnability throughout the machine.

Great importance was given to the choice of specific covers for the new press rolls. After a long and extensive analysis based on the entire Cartiere di Trevi production range, the best covers were identified and applied. The result was an improvement of the press section Nip with an increase in the paper width and an important qualitative and economic advantage due to the higher dryness after the press section.

The fourdrinier wire geometry was also modified with the aim of introducing a new vacuum cylinder which guarantees higher water removal in the wire section with improved dryness before the press section and enhanced paper machine runnability.



Last, but not least, a higher bulk has been achieved. Compaction of the sheet causes a reduction of its thickness; the ratio between the thickness and grammage of the sheet, called bulk, is an important characteristic for both printing papers and boards, because, with the same grammage, a thicker sheet has greater rigidity and thus better mechanical characteristics. Increasing bulk is one of the most important goals for every paper mill.

The modernisation of the paper machine was a total turn-key project and also included the engineering and the supply of the vacuum system for the wire and press section modifications, complete with erection assistance, commissioning and start-up.

=====

Paper Mill manager, Mr. Franco Graziosi shares his views on the collaboration with De Iuliis:

Why did you choose De Iuliis for this work?

De Iuliis has been assisting us for many years, not only as a supplier of plant and machinery, but as an indispensable partner to support our search for engineering solutions to improve the performance of our plants. In this case, it seemed natural to us to trust them with this project which, 7 months after its start-up, has far exceeded the expected targets.

What have you achieved with this rebuild?

We expected improvements in dryness exiting the first dryer, an optimization of the manufacturing at higher weights with a better profile and in particular the control of the drainage at the nip. The results have been satisfactory from day one and the characteristics of the paper have also improved.

How would you describe your cooperation with De Iuliis?

We are very satisfied with the results just reached after this modification and, to confirm this, the end of the continuous machine line (winder) is to be updated by the end of the year.

=====