

## SAICA PM 10 – another complete production line for the Spanish packaging paper manufacturer



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**Never change a winning team! True to this motto, the Spanish paper manufacturer SAICA (Sociedad Anónima Industrias Celulosa Aragonesa) again decided with its new production line in favour of the reliable Voith technology and trusted cooperation when it placed the order for the supply of the new PM 10 line with Voith in May 2004.**

After the throughout positive experience with the PM 9 that went into operation in 2000, there was a wide range of reasons for continuing the successful cooperation. On the one hand, the One Platform Concept has been more than proven at SAICA, reflected in the fact that the existing PM 9 has been running at the highest level of productivity since its start-up and is actually the world's most productive line for the production of corrugating medium. Furthermore, SAICA is again relying on the exceptionally good cooperation with Voith that was demonstrated in particular during the optimisation of this world-class line.

For the new PM 10, that will go into production in May 2006, Voith will supply the stock preparation system and the paper machine, including an automation package, and hence practically the whole process technology. The paper machine is laid out for a wire width of 8,550 mm

and a design speed of 1,800 m/min. The operating speed is 1,500 m/min. With basis weights between 75 and 145 g/m<sup>2</sup>, up to 400,000 tonnes of high-quality corrugating medium and testliner can be produced per year from 100% recovered paper.

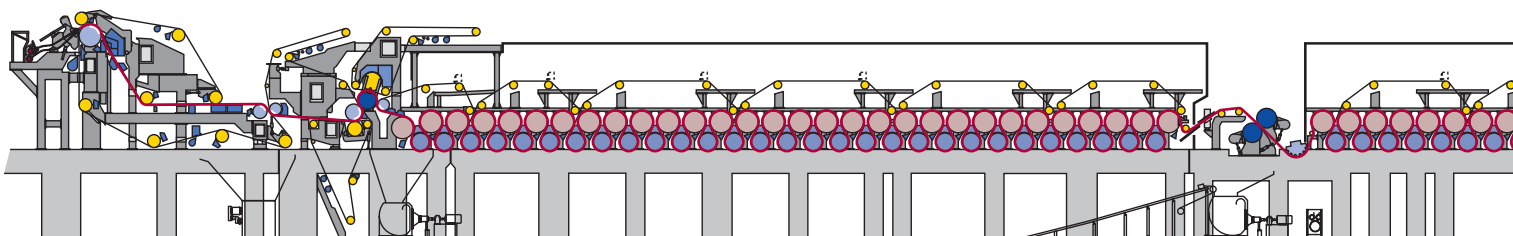
### Stock preparation

The new stock preparation system has a capacity of 1,440 t/24 h. Its design is essentially based on the successful concept of the line supplied for PM 9, where record efficiencies are being achieved today. Voith's scope of supply for the new line includes:

- Virtually all the process machines for
  - recovered paper preparation
  - the Advanced Wet End Process (WEP) including suspension deaeration
  - broke pulping and preparation
- Basic engineering

**Fig. 1:** Schematic of PM 10.

**Fig. 2:** Only positive experience with the PM 9 that went into operation in 2000.



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- Erection and erection supervision
- Start-up support.

The process modules for the recovered paper preparation technology ordered from Voith are:

- Pulping in two continuous LC pulpers, each with a TwinPulp III discharge system for removing the majority of contaminants from the process at the earliest possible stage, minimizing at the same time fibre losses
- 2-stage HC cleaning with the Protector system
- Hole screening with deflaking-action disc screens. Combisorters are installed in the final stage for removing the high concentration of contaminants at a high dry content
- Double fractionation using 0.15 mm slotted C-bar screen baskets for an extremely clean short fibre fraction and a high long fibre concentration in the long fibre fraction
- LC heavy-particle cleaning of long and short fibres with EcoMizer cleaners for high separation efficiencies at higher than usual stock consistencies
- LC slotted fine screening in the long fibre line using C-bar screen baskets. This provides gentle screening, especially for the efficient removal of

stickies that have built up here, thus contributing to a high paper machine runnability

- Long fibre refining with two TwinFlo double disc refiners for increasing strength characteristics
- Long and short fibre thickening, each with Thune Bagless disc filter technology.

### Paper Machine

In the former section, a MasterJet M2 two-layer headbox with ModuleJet dilution-water control system and the proven gapformer DuoFormer Base ensure optimum CD profiles and strength values and economical use of raw materials.

High dryness while simultaneously saving bulk of the paper web are achieved with the DuoCentri-NipcoFlex press. A closed web run ensures high operational reliability.

The TopDuoRun dryer section uses the single-tier concept in both the pre-dryer and the after-dryer section. This configuration together with ProRelease boxes, DuoStabilizers and the ropeless threading system ensures optimum runnability. A Speed-Sizer will be used for uniform starch application on both sides. The scope of supply also includes a ModulePro P for moisture profile control in the after-dryer section.

In addition to the basic engineering for the control system Voith Paper Automation will deliver the hydraulic and pneumatic control systems for the paper machine and the CD profile control system:

**Francisco Carilla**

**Project Manager SAICA 4**



*"We chose Voith as the main supplier of the PM 10 production line, because we think its technology is more adapted and proven for our grades and furnish. The PM 10 configuration comes very close to our existing PM 9, which was also delivered by Voith four years ago.*

*Besides, since the PM 9 project, we have established a very high cooperation level between Saica and Voith, with a high and open commitment of the two technical teams. This makes us trust that for the next steps taken both on PM 9 and PM 10, we will have a solid basis to achieve our goals."*

- Profilmatic M on the ModuleJet M2 headbox
- Profilmatic S for the ModuleSteam blow box in the press section
- Profilmatic MP for the ModulePro P-50 nozzle humidifier in the after-dryer section.

At the end of the paper production line, the paper web is wound up on a Sirius reel, which allows maximum roll diameters of 4,000 mm with optimum winding quality. A Rollmaster will be used at the Sirius reel for optimisation and analysis of the wind-up process.

