



# SPANISH SPLICING!

When Calahorra, Spain based Cartonajes Santorromán wanted to optimise corrugator production and efficiency, the company turned to Navarra based M Torres Diseños Industriales SA for the solution. **A REPORT BY DANIEL BRUNTON**



**F**ounded in 1903 by Leopoldo Ramón Santorromán, this family owned company started life as a supplier of solidboard boxes to the shoe industry. The company moved with its customer base over the years until 1933 when it settled in the town of Calahorra. The family owned business continued to grow, even through the Civil War and in 1963 moved to its current location. It was then that the company switched to corrugated boxmaking — starting off as a sheet plant under the guidance of the third generation. A corrugator was added in the early 1970's.

With the majority of its clients within a radius of 250km, this fourth generation family business also serves customers as far afield as France and Portugal. Based in north eastern Spain in the heart of the Rioja region, it may come as no surprise to find that of the industries served, wine and food products are among the largest. Another significant market sector is the local shoe and furnisher producers, with local fruit and vegetable

growers also being important. The facility operates on a double shift, five days a week and produces in excess of 50 million sqm of corrugated board per annum. The majority of the 190 people employed are from the vicinity and are trained in-house.

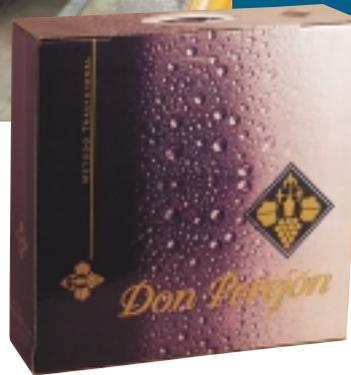
The company works hard to ensure customers receive deliveries on time and when they want them. It operates its own fleet of transport, allowing flexibility to meet tight delivery schedules — and with efficient job scheduling, the company has no need to hold stock. Individual jobs are ordered, scheduled,

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Above: The new M. Torres splicer — MTS 610. Right: A sample of work.



produced and despatched in a matter of hours. To ensure this principal is maintained, Mr Carlos Santorromán Saldaña, Production Director, explained how important it was to keep the corrugator running with minimum down time: "It is a well known fact that a modern corrugator is perfectly capable of running at speeds of over 300m/min. The problem comes during flute changes, reel change or paper breaks. We established that over 80 per cent of our stoppages were due to paper breaks for whatever reason. Flute and reel change has to be done, so to increase productivity, we had to reduce down time due to paper breaks."

Having operated more than five Torres splicers at the plant since 1986, Cartonajes Santorromán had no hesitation about contacting them again. Mr Santorromán continues: "We have run five CTS splicers on our corrugator for over 15 years and have been delighted with the way they have run. When we upgraded to a BHS Modul Facer in 2001, we replaced one of the splicers with an LTS 590 unit. With our aim of ensuring that we could run our machine at an average speed of 260m/min consistently without stoppage, we have subsequently invested in 'leading edge' splicer technology and opted for the new Torres MTS610."

### A NEW MODEL

Two of the latest splicers from M Torres have been installed – the first in February and the second in March of this year.

Both units replaced the older model CTS Series splicers (that incidentally were sold and are still running efficiently at another Spanish board plant!). One of the key developments of this new splicer is its ability to maintain a constant web tension, even during acceleration or deceleration during the splice cycle. It is capable of operating at over 600m/min, more than sufficient to work with any modern corrugator, and has a maximum splicing speed of 400m/min. All grades of casemaking raw materials from recycled, semi-chem to kraftliner can be handled, from 70gsm to 440gsm. It is capable of splicing in either overlapped zero tail or as a butt splice.

The MTS 610 is fitted with a touch screen unit for the operator. It utilises an easy to use menu system that allows the operator to monitor:

- Paper roll parameters — roll data can be input to allow better performance of the splicer.
- Meter counter — shows the working parameters of the reel and allows the

operator to set reel changes based on either metres or diameter left on the reel. This is achieved by using a photocell monitor.

- Brake control — tension for the new reel can be pre-set.
- Machine settings — operating parameters can be entered for the best working results of the splicer.
- Maintenance — at all times, the monitor displays the hours worked against recommended usage and the time of next service.

"We worked closely with Torres during the development of this new splicer," explains Mr Santorromán. The two splicers at the plant are the first such machines in operation worldwide. "The results speak for themselves – we have saved over 90 minutes of downtime per day due to the units' ability to instantly splice."

### NOT JUST THE CORRUGATOR

As well as undertaking considerable investment on its 2.5m BHS/Interfic/Marquip corrugator, the company has invested heavily

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over the last six years in other areas of the business. A landmark year was 1997 when installations of a six-colour Masterflex printer, EMBA 245 Quickset and a Cavifes printer slotter all took place. "Having already operated an EMBA 244 for some years, we decided that 1997 should be the year to take our printing capabilities to the next level," explains Mr Santorromán. "Our investment in printing technology, fitted with drying and UV varnish

take-off right through to finished goods warehousing, was installed by Italy-based NE Engineering.

It was decided to split the installation of this equipment in four stages. So far three have been completed. The first stage was to take all the



Above: Pallet strapper from Emmepi



in-line, made us the first in Spain to operate such printing machines." With more and more work being printed on coated liners, much of which is supplied from Rieger and Kemi, the investment in printing technology enables the company to produce some stunning work.

Plate washing is taken care of efficiently and economically by the Pal 33/G 25 innovative and ecologically friendly system supplied by Newtec Grupo, based in Valencia. Results of recent research carried out by AIDIMA, the Technology Institute for Packaging, reveal that unlike other photopolymer cleaning liquids tested, G 25 does not damage printing plates. As a result, noticeable improvement in final print quality in addition to significant cost reductions can be achieved. Cost savings are maximised by the Pal 33 automatic washing machine which has four different wash programmes and a plate detection system designed specifically to minimise labour and water costs.

Investment continued in 1999 with the installation of a Jagenberg folder gluer and 12 months later, a complete materials handling system, from the corrugator

piles from the corrugator and automatically deliver them to the heads of the old conveyors in the work in progress section and to the die-cutting section. A fully automatic accumulating line for sheets, which runs parallel to the corrugator (NEE's patented Rabbit system) was included, as well as a transfer truck to feed the converting machines from the old manual lines.

The second stage was to install an automatic transfer truck coming from the converting machines, which feeds the new fully automatic strapping, palletising and Octopus film wrap line. NEE supplied all the units and conveyors except for the strappers and the film wrap system. The NEE's automatic pallet inserter was designed to take five different types of pallets - either wooden, or the patent pallets manufactured from corrugated board.

The third stage was an automatic Rabbit accumulation line, down the whole length of the die-cutting bay, together with small transfer units. When the fourth stage is completed, the materials handling system will be fully automatic.

## PATENTS A PLENTY

Over the years, the company has developed many innovative box styles. In its pursuit of development, Cartonajes Santorromán has invested significant resources in its Technical Department. The company has a well equipped design centre as well as the facilities to manufacture its own printing plates and flat-bed dies. As a result of this investment and the combined skills of the 14 people who work in the department, the company has developed many new packaging concepts over the years. One of the most recent, which is already patented worldwide, is a one-piece 'wraparound' corrugated case incorporating a tearstrip opening. Interestingly, the company is also the only manufacturer in Spain of the UNIPAL corrugated pallet. In producing specific boxes for the shoe industry, the company has developed its own box erecting system and shoe inserter. This machine is available to customers that require an integrated system.

## 100 YEARS OLD

Entering its 100th year, the fourth generation of this successful Spanish company has much to look forward to. Plans are already under way for the installation of a second corrugator at the company's additional factory unit. "We feel that the investment at the plant over the last few years sets us up well for our future growth and further development," concludes Mr Santorromán. "The secret to our continued success is the ability to keep the corrugator running at constant speeds and reducing down time. Our investment in the latest splicing technology from M Torres will certainly help us achieve this."