



BY BIGNARDI

Bignardi started its new recycled paper machine in October 2008

On the way to growth

Medium-sized companies in the sector are investing in production technology and quality to gain volume and compete in Brazil and abroad

By Marina Faleiros

As the natural law of life says that an individual who is born must undergo a growth and development process, in the industrial world companies also aim to become bigger and have more market presence. Reaching a new level, however, is no easy task for Brazilian companies that have to live with high interest rates and infrastructure problems. "Many times, to make a competitive leap one needs to be bold, but always in a responsible manner", says Antônio Cipolla, Director of the Federation of Industries of the State of São Paulo's (FIESP) Mi-

cro, Small and Medium-Sized Industries Department.

It was this boldness that led Ibema, a folding board maker in the state of Paraná, to invest R\$ 110 million and expand production. With the money, which at the time amounted to practically the company's total capital, it purchased a new paper machine capable of producing 30 thousand tons annually, which started up in 2003. "A shot of courage was necessary to get the company's shareholders to bet into this new market level we wanted to achieve", says Paulo Roberto Ivanski, Ibema's Industrial Director.

According to him, since 1995 the company was discussing ways for growing, since production was very limited and the Brazilian market had conditions to absorb more packaging paper. "Had we not invested, the trend would have been for us to have dropped further down, since the added value of the product for the equipment the company had became limited. The company needed to gain scale", he said.

According to Cipolla at FIESP, there exists a combination of factors that determine the success of a company, such as innovation, credit opportunity and available

market. "A company looking to move up a level must have an efficient management process and focus on the business, as well as keep an eye on costs."

Considering the focus of its market, São Paulo-based company Bignardi also decided to invest. Last year it installed a brand new machine in its Jundiá (SP) mill, capable of producing 48 thousand tons of recycled paper. The investment totaled R\$ 65 million. "Our main product is recycled paper and we have projects for establishing strong brands, for making our company recognized as an alternative for consumers, offering reliable products with socio-environmental responsibility", says Alexandre Duckur, Bignardi's Commercial Director.

One of the challenges for medium-sized companies, says Bignardi's director, is the fact that companies need to be much more tuned in to the day-to-day of things than focused on the annual plan. "Companies need to always conform and adapt to the reality of the moment", he said. This is why the new machine installed is quite flexible, so that production can be altered pursuant to market demand. "As a medium-sized company, we would never be able to plan a machine for a single segment, because the paper business is very dynamic. A sudden change may occur and the machine becomes idle", explains the executive.

Penha Papéis, with units in three states, is another company that has not stopped investing in order to gain more market in the corrugated paperboard niche. According to Maurício Ferreira de Andrade, Industrial Director Advisor at Penha Papéis, there exist various challenges for small and medium sized companies in the pulp and paper sector. "They must remain well-positioned, with costs under control, make the investments necessary and, most importantly, establish partnerships with clients and suppliers in the global financial crisis scenario", he said.

HEADED TO THE TOP POSITIONS

Just a few years ago, if you wanted to visit the Ibema unit in the city of Turvo (PR), it was necessary to take a long dirt road to get there, which is now paved thanks to a partnership between the company and the local government. The company is also responsible for contributing R\$ 10 million annually in taxes and fees, demonstrating some of the advantages that Ibema's growth has brought to the region.

The company, which now possesses a complete production cycle, as well as 8,000 hectares of forest, is looking to fly even higher and is already contemplating an IPO (Initial Public Offering). "This is a real possibility, for we have potential, wood, energy, two small hydroelectric plants and equipment that is just waiting for a market opportunity to begin operating again", says Ivanski.

Ibema owns two production units, the largest one being located in Turvo, where it produces paperboard on a 627 hectare-property. O Papel magazine visited this unit, which currently has an installed capacity of 108 thousand tons/year. Surrounded by pine forests and natural reserves that amount to 20% of its plantations, the Turvo mill also includes a residential complex for employees with a convenience center and other essential services. The unit has three paper machines, two of which are operating – including the new MP3, installed back in 2003 – and a smaller older one that remains on standby, but can be started up at any time according to market demand. The company's other unit is located in the city of Ibema (PR) and has a 10 thousand tons annual capacity for producing specialty papers for printing and writing.

In the forestry area, technical assistant Edson Luiz Serp explains that a lot has changed since 1994. For starters, the species planted changed from *Pinus elliottii* to *Pinus taeda*. "As a result, productivity jumped from 25 m³ to 32 m³/hectares/year", he said. Planting today involves

a tilling (subsoiling) process aimed at loosening up the soil, the spacing defined is 2.5 m by 2.5 m, and cutting is done when reaching 14 years, whereas in the past trees suffered trimmings throughout their growth. "This all changed in order to achieve fiber uniformity", explained the engineer. The harvesting system is partially mechanized, where trees are cut using chainsaws and dragged using self loading log truck.

Additionally, Serp explains that everything in the company is done with utmost care, since it is in the process of obtaining its FSC (Forest Stewardship Council) seal, which will open up the international market even more for Ibema's products. "Various stages of our action plan have already been concluded, we've completed the company policy and the policy for purchasing and selling products, as well as details of the wood to paper and industrial conversion processes", he said. The company expects to finalize the project and obtain certification in June 2009.

With the new paper machine operation, the company introduced in 2004 its triplex paperboard, representing an alternative in the market to competing company products. "Clients also saw a major opportunity in us, for we offer products with important physical characteristics, especially with regards to rigidity and substituting higher basis weight for lower basis weight", he said. He also said that the Ibema product needed to be 250 g/m² for a given resistance and now offers a 225 g/m² alternative, constituting a good option for buyers in all sectors, from hygiene product makers to autopart and pharmaceutical companies. "One of the factors that sustain low prices on supermarket shelves is the savings in packaging material, that's why we are continuously adding technology", said Ivanski.

Today, five years after installing the new machine, Ivanski says that Ibema's unit continues up-to-date and at par with the best there is in the market. "From the



Ibema invested in machinery to be one of the biggest carton board producers in Brazil

time it started up to today, we maintain continuous investment and software update plans regarding everything that's associated to product quality and continuity."

The company continuously invests in its employees, which currently amount to 700 in Turvo and another 130 in Ibema. "We can't afford not to invest in people, for they ensure the quality of processes." For the future, says Ivanski, the company already projects new improvements, such as expansion of the MP3 and all its auxiliaries equipments, as well as alternative products to paperboards so as to get the MP1 back in operation.

RECOGNITION IN RECYCLED

Business flexibility and diversity are two words that define Bignardi's success, a company that came about from the merger in 2002 of Jandaia and Gordinho Braune. Today, the company does business in three areas: printing paper, paper

artifacts and school material—for which the latter includes a wholesale network. "On account of our profile, we are printing and writing paper manufacturers, in addition to also being a major client of the sector given the large volume we purchase of bleached pulp and finished paper, says Duckur.

In paper production, the company underwent its major expansion last year, having substituted one of its paper lines with a more modern machine. "The volume, after the project maturation, is of 48 thousand tons/year; the design focusing on Brazilian-standard recycled paper", says the executive. Now the company can produce up to 72 thousand tons/year of paper with varying thicknesses, as well as colored, special and filigrane papers. One coating unit still produces chemical and selfcopying paper.

The new machine started up on October 16th of last year, whereby its installation completely altered the unit's

routine. According to Duckur, it was necessary to put up a new building to house the machine, but since the other machine continued operating during the installation process, the new building was erected over the old building, in order to then bring the existing one down. "The industrial plant was redone to install the machine and the total investment amounted to R\$ 65 million, auxiliaries included", he said.

The new machine is 2.2 meters wide and can produce 700 meters of paper per minute. Its design is traditional, with a headbox, a wire part (fourdrinier) and also a speed sizer. "It can operate with basis weights that vary from 40 to 240 g/m², since flexibility is a top priority for the survival of medium-sized companies", he said. The company's recycled production process does not undergo deinking, so as to minimize residues generation. On account of this, the machine requires a special pulp preparation process for de-

contamination. "Our line for stock preparation focuses on removing contaminants since the pulper and through a screening system", he comments.

Furthermore, in order to ensure better runnability, he explains that it is necessary to rely on various cleaning equipments, since the system may suffer from the so-called stickies (adhesives) that can make it into the process even after screenings. "The approach flow includes centricleaners able to remove heavy elements and pressure screens with 0.15 millimeter slots."

The company exports a small amount of its production, totaling around 10% now, that the exchange rate has improved for competing in the external market. With an eye on expanding its market abroad and the growing demand of Brazilian consumers, the company is working to obtain the FSC seal for all its processes. "Some parts of the group are already certified, but we look for everything to be certified since, today, this is a consumer requirement and we want to demonstrate that our production processes are environment friendly", he points out.

PRESENT IN SEVERAL REGIONS

With units in the states of Paraná, São Paulo and Bahia, corrugated board manufacturer Penha Papéis wishes to be deemed a reference in this market. The company was founded in 1948 in Itapira (SP) where it still runs two production units. According to information provided by the company, the group can produce more than 14 thousand tons/month and generates 650 direct jobs.

The company's arrival in Bahia occurred in 2005, with the acquisition of the former Indústria de Papéis da Bahia (IPB) in the city of Santo Amaro. In 2006, it also installed its unit for converting paper into corrugated board packaging. "Said implementation took place upon arrival of a new machine and the hiring of more employees, which helped grow

and develop the city of Santo Amaro", says Andrade, Penha Papéis' Industrial Director Advisor.

Over the past three years, the company has invested to improve the quality of its products and significantly increase its production volume. "Pursuant to these two premises, we focused investments on state-of-the-art pulping and screening equipments, as well as on automation in pulp preparation, which resulted in one of the most modern control loops for stock preparation in Brazil's recycled segment", states Andrade.

In the process line, there was the acquisition of cleaners, screens with slotted baskets, high yield screens, thickeners,

high consistency separators, consistency and flow control loops, as well as a control room for the entire stock preparation system. "For the paper machine we purchased a new headbox and wire part (fourdrinier), having also been retrofitted the winder and purchased vacuum boxes."

The investment in internal and external training was also considerable and aimed to train all production employees involved in this technological advancement. "The result was a reduction in process losses and the feasibility for making testliner paper, because until then we only produced recycled fluting and liner papers." 

SUPPLIERS

Know, herewith, the main suppliers and related equipments/services selected for the projects implemented at Bignardi, Ibema and Penha Papéis.

Bignardi	Ibema	Penha Papéis
CBTI – drainage elements of the wire part (fourdrinier), doctors and showers, drying wood, equipments for fibers recovery and waters treatment, part of the stock preparation equipments	ABB - drives	ABB - drives
CFF – forming section (fourdrinier), dryer section, pope reel	Bremer - boiler	Atlas Copco – air compressor
Siemens – supervisories systems, motors, paper machine drives, power controls equipments	Emerson – supervisories systems	Dujua – wood chips feeding system
Voith – headbox, wet press section, speed sizer, stock preparation and screening equipments, calender, winder	Voith – stock preparation, paper machine	Foxboro – stock preparation control room
		Bremer - boiler
		Hergen – high consistency cleaners, headbox, wire part (fourdrinier)
		Hergen and Ippel – pressure screens with slotted basket
		Invensys – automation and control loops
		Ippel – centricleaners, stock thickeners
		Metso – high yield screens
		Voith – winder retrofit

Source: Names of suppliers and equipments have been informed by the contracting companies