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# COMPETITIVENESS OF THE PACKAGING PAPER SECTOR IN BRAZIL

**E**volution of Brazil's packaging paper sector is intrinsically linked to the dilution of the total production cost. This necessarily means expanding investments in the adoption of high performance technology.

The justification for this information resides in a very simple calculation: total production cost is the sum of fixed costs plus variable costs. So, if by fixed costs we mainly understand labor, then the possibilities of reduction center on optimizing variable items, such as fiber, fuel and electricity, which together account for roughly 65% of the total cost, or more than 80% of the variable costs.

Equipment used in Brazil consists of simple width machines, with low technology and grammage range from 100 to 200 g/m<sup>2</sup>. These machines operate at an average speed of 600 m/min, with a finished paper width of 2,500 mm. Therefore, daily production amounts to roughly 250 t/day, or, approximately, 80 thousand t/year.

The idea, here, is not to belittle our packaging sector, however, when comparing the local scenario with that of Europe and Asia, we are operating with a technological lag of around 15 years. These regions utilize machines with triple width, high technology, producing more sophisticated papers, with a grammage range between 75 and 140 g/m<sup>2</sup> and, therefore, higher value-added. Operating speed reaches up to 1,400 m/min. For sheets with a 7,500 mm width, daily production increases to 1,350 tons, totaling 450 thousand t/year. This volume represents more than five times the average of our mills with a single machine!

Returning to the total production cost analysis, the specific production per width in Brazil amounts to 100 t/day per meter, while in Europe and Asia it reaches 180 t/day per meter. As such, steam consumption of our machines varies between 1.9 and 2.2 kg of steam/kg of paper, while abroad it varies between 1.4 and 1.5. Specific consumption of energy in Brazil varies between 500 and 600 KWh/ton of paper, versus 340–380 with high technology machines.

In view of this, it is not difficult to conclude that investing in high-performance technology will help us dilute the fixed cost per ton produced (since the

production of a triple width machine equals 4 to 5 single width machines in our market) and, most importantly, will give us some breathing room in terms of variable costs, with low energy and steam consumption, as well as a reduced utilization of fibers, with lower grammages substituting higher grammages, maintaining physical tests. We are not even going into the sustainability aspect, which today is highly strategic for companies, particularly in the paper segment.

High performance technology is available and accessible to companies, since Brazil is a benchmark in this area. We need, however, to count on management decisions that assume the need of expanding investments, so that the country can definitively pursue innovation and recover this lost time as fast as possible. There has always existed growth in the packaging market and also, in the case of gaining competitiveness through production scale, the possibility of increasing market share. In times of highly available credit and falling interest rates, this doesn't seem like a decision that involves a high degree of risk. ■

**Table 1: Comparative figures**

	Brazil	Europe/Asia	
	Simple width low technology machine	Triple width high technology machine	Units
Product	Testliner/Fluting	Testliner/Fluting	
Grammage range	110 – 200	75 – 140	g/m <sup>2</sup>
Finished paper width	2,500	7,500	mm
Average operating speed	600	1,400	m/min
Average daily production	250	1,350	t/day
Average annual production	80.000	450,000	t/year
Specific production per width	100	180	t/day/m
Specific consumption of steam	1.9 – 2.2	1.4 – 1.5	kg of steam/kg of paper
Specific consumption of electricity	500 – 600	340 – 380	KWh/t of paper

Source: Voith Paper