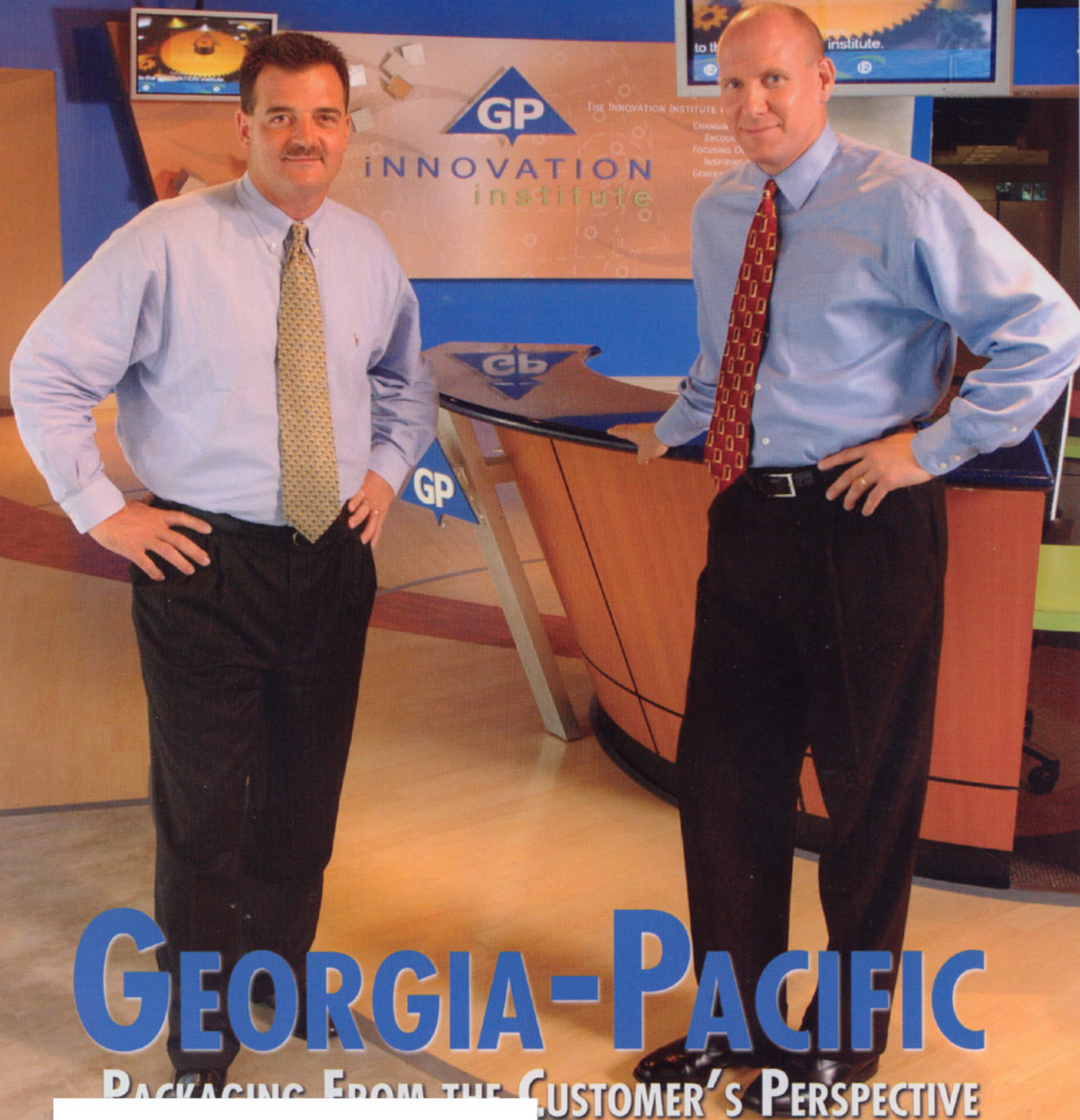


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PACKAGING FROM THE CUSTOMER'S PERSPECTIVE

STEVE KLINGER AND DOUG KEIM OF G-P'S PACKAGING BUSINESS

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Quebec City producer of newsprint and directory grades installs electronic slitter positioning systems on three winders to improve its winder operations

Papiers Stadacona Newsprint Mill Gains Speed, Flexibility with Finishing Retrofit

By KASEY STRATTON

The Papiers Stadacona paper mill, located in Quebec City, was built in 1927 and has since been owned by four different international companies, including Anglo-Canadian (1927-1975), Reed PLC (1975-1988), Daishowa (1988-2001), and Enron (2001-present). Though located in Canada, this mill has never been owned by a Canadian investor. Local maritime, rail, and trucking transportation outlets allow Papier Stadacona to supply 500,000 mtpy of high-quality newsprint and directory paper to loyal customers as far away as Australia and Colombia.

To remain competitive, Papiers Stadacona consistently invests significant amounts in equipment and process upgrades. The result is a well-organized, highly efficient production process that can be monitored from remote locations such as the mill manager's desk, by which production standards such as capacity, production, and order status are recorded and tracked. This enables technical sales, sales teams, and inside customer service employees to maintain close

communication, ensuring customer satisfaction and keeping Papiers Stadacona profitable.

Investments in mill operations must prove a sufficient level of return on investment (ROI) through improved production capacity and/or global responsibility. As an example, ongoing efforts to increase the efficiency of the deinking process have allowed an increase in newsprint production from 300 tpd in 1992 to 450 tpd in 2002.

With its last major investment, the mill is currently producing a total of 600 tpd. In addition, by reducing the amount of wood chips needed, Stadacona's production of paper with increased recycled content allows them to maintain an environmentally conscious process.

FINISHING FOCUS. Stadacona's efforts to increase efficiency are also focused on the finishing process. Papiers Stadacona initiated a program to upgrade the slitting section on four paper machine winders. Retrofits of the slitting sections were initiated to elim-

The electronic slitter positioning system added speed and flexibility to Stadacona's operations.



TABLE 1. Stadacona's electronic slitter positioning installation schedule and ROI timetable

Paper Machine Winder/Number	Date of Slitter Retrofit to ESP	ROI Achieved
Jagenberg – No. 2	1998	1999
Jagenberg – No. 1	2000	2001
Dominion – No. 4	2003	Estimated 2004
Dominion – No. 3	Forecast 2005	-

inate bottlenecks in the finishing section and increase paper machine speed.

After a careful selection process, the mill chose to invest in an electronic slitter positioning system (ESP) manufactured by Tidland Corp. An extensive list of references provided by Tidland helped secure their selection for the long-term investment.

The process of upgrading the slitter section on an existing machine requires removal of the original equipment and the retrofit of the ESP into the existing winder frame. A Tidland engineer was onsite to oversee the installation and startup of each system. Installations usually take 48 hours at a cost of less than 10% of the equipment cost. The first installation took place in 1998 on a Jagenberg paper machine winder, originally installed in 1982. The second installation was also on a Jagenberg winder, originally installed in 1975. Both system retrofits were running successfully after 48 hours of scheduled installation downtime.

Papiers Stadacona chose the Tidland ESP for the No. 1 and No. 2 paper machine winders for an expected 6% speed increase and more production scheduling flexibility. Increased output has provided a proven ROI for both systems. Line speed on the paper machine increased from 1,010 mpm to 1,060 mpm. In the case of both systems, ROI was achieved in a single year.

NO. 4 MACHINE UPGRADE. Recently, Stadacona Paper upgraded the slitting section on its No. 4 paper machine winder, becoming the third slitting system acquired in the last five years (Table 1). Based on the goals and feature requirements set forth from the mill's decision-making team, the ESP was the logical choice, providing faster slitter positioning and higher critical speeds to increase productivity.

Low scheduled maintenance also played a key role in the selection of the ESP system. The typical ESP system requires very low maintenance, and the amount of spare parts needed is considerably less than competitive systems. Tidland provided information supporting the fact that the annual cost of spare parts needed to maintain the system running is on the average between 1% and 2% of the total purchase price of the ESP system.

Rejean LaPierre, project engineer for Stadacona, describes the process: "All installations have gone very well, we've been able to schedule installations so that downtime would have minimal impact on production." LaPierre and Tidland engineer Gene Kohout have worked together throughout the selection and installation processes of all three systems. Kohout attributes extensive documentation and clear lines of communication to their accomplishments.

While other slitter positioning systems were considered by the mill's decision-making team, the reliability, performance, and operator acceptance of the

two existing systems made Tidland a definite choice. By controlling the knives from a remote location, the mill is able to eliminate the potential risk of injuries to an operator during the slitter positioning process, reduce downtime, and increase efficiency.

"We carefully evaluate every capital investment," says Garry Gagnon, assistant general manager for the Stadacona mill. "The decision to purchase the ESP rested in our ability to optimize throughput, have a better-quality product for our customer, and maintain lower operating costs."

Minor improvements in technology have made minimal updates to previous systems easy to accomplish. The most recent ESP system is built with identical components to the first two installations. This simplifies the installation process and personnel training even further, while continuing to minimize spare part purchases. The ease of retrofit to the Dominion winders has allowed a further reduction in planned downtime for the installation to just 36 hours.

Operators at Papiers Stadacona thread one of the mill's winders for the next roll set.



Making the most of existing equipment through thorough research and sound investments is a strategy that has worked for Stadacona, helping them to stay competitive against mills with higher-capacity equipment. Through economic downturns and unstable conditions in the marketplace, the mill has managed to consistently deliver high-quality paper products in a timely manner. ■

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