Daishowa's Yoshinaga mill

DONALD G. MEADOWS

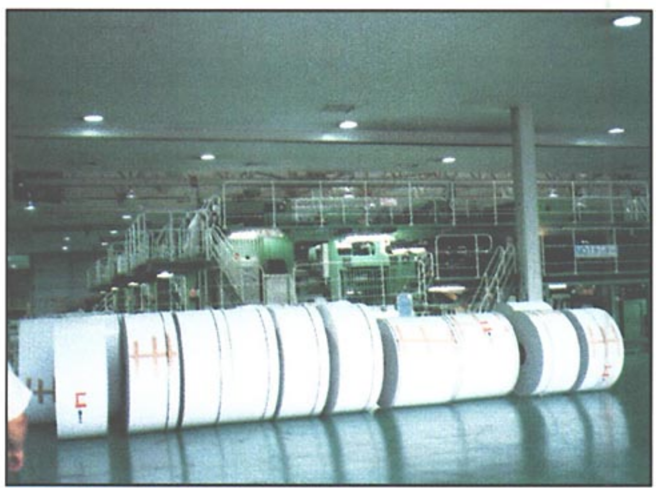
Daishowa Paper Manufacturing Co., Ltd., based in Fuji City, Japan, was established in 1938 through the merger of five companies. The company has grown steadily to become a major international producer of varied paper and paperboard products. It makes roughly 10% of the paper produced in Japan. It operates a chip mill in Australia and pulp and paper mills in Canada and the United States.

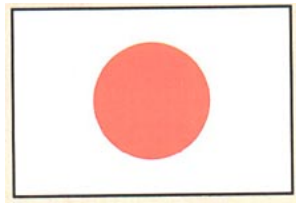
The Yoshinaga mill is the oldest of the company's mills in Japan. Paperboard accounts for 80% of the mill's 57,000 tons per month production. About 60% of the furnish is recycled material; linerboard container is 80% recycled material. In 1969, the mill was the first in Japan to install a Vertiformer paper machine. In 1984, it installed a 500 tons/day bleaching plant.

In June 1992 the mill brought its newest paperboard machine on line, No. 51, paired alongside the No. 50 machine. Both were built by Kobayashi. A 12-person-plus-one-supervisor crew operates the two machines and coaters each shift. The 210-m No. 50 machine is equipped with a high-speed ultra former. The 5-year-old machine is used to make duplex and standard paperboard.

The No. 51 machine has a high-speed twin former. It's used to produce double-coated and high-quality specialty board, particularly the company's "F-1 Ivory" and "F-1 Card." Mill officials report its maximum tonnage at 285 tons/day. Operating speeds range from 140–450 m/min, with basis weights ranging from 130–400 g/m². Wire width is 3900 mm, finished width is 3400 mm.

Clockwise from top left: Hosts and visitors at the Daishowa Yoshinaga mill, the control room for the No. 50 and No. 51 paper machines, finished rolls





Promoting trade with Japan

To find markets for their products abroad, Japanese pulp and paper companies are represented through their own subsidiaries, and through trading companies such as the Japan Pulp and Paper Company Ltd. Commerce with Japan is also promoted through the Japan External Trade Association (JETRO).

Japan Pulp and Paper (JPP) has been marketing Japanese paper since 1845. It has steadily expanded to become the world's largest pulp and paper trading company. The company has ties with more than 1000 suppliers, including major Japanese manufacturers such as Oji Paper and Jujo Paper.

Among the main products handled by JPP are newsprint, publication papers, paperboard, pulp, wastepaper, plastics, communication papers, construction materials, and printing machinery. JPP is expanding to other areas, as well, such as paper processing and communications equipment and construction projects.

JETRO is "a non-profit, government-supported organization dedicated to the promotion of mutually beneficial trade between Japan and other nations." Its offices in 57 countries provide information on business and economic relations between Japan and those countries.

"The major focus of JETRO's current activities in North America, Western Europe and Oceania is assisting companies in expanding their exports to Japan," the organization states.

Among the services JETRO offers is access to databases listing Japanese companies interested in importing merchandise and foreign companies interested in exporting to Japan. JETRO also offers import and export advice and publishes information on Japanese market trends.

For the fiscal years 1990 through 1992, Japan initiated tax incentives to encourage imports. Paper and sanitary goods were among products eligible. Tariffs were also reduced or eliminated for such products as newspaper and wallpaper.

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Mill managers note that the No. 51 machine uses an endless belt, with a useful life of 4–5 months. Hot soft calendering on the No. 51 machine is designed to 200°C, but is set at 180°C.

In the last five years, the mill has shut down five of its smaller machines as it brought the larger machines on line. Six other paper machines are in operation at the mill.

The mill generates about 80% of the power it uses, more during the day, less at night when commercial rates are lower. Some CTMP is used. Virgin fiber includes eucalyptus and some softwood. About 800 people work at the Yoshinaga mill. TJ

Editor's note: A small group of attendees from the 1992 Pan-Pacific Pulp & Paper Technology Conference took part in a tour of the old capitals of Japan—Nara and Kyoto—and visited both Daishowa's Yoshinaga mill and Oji's Kasugai mill. Participants included Ted E. Goodwin, thermal technical development manager, Appleton Papers Inc.; Gene Sullivan, corporate sales manager, Anthony-Ross Company; R.S. (Raj) Seth, head of Paprican's fiber and product quality section; Ernst L. Back, professor, feedback consulting E&E Back KB; Sei Woung Park, mill manager and managing director, Hong Won Paper Co., Ltd.; Lachlan McLean, mill manager, Australian Paper Manufacturers Container Materials Group; Peter G. Bennett, manager of packaging research, Amcor Research & Technology; Bandula K. Welungoda, sales manager, Andritz Sprout-Bauer; Hideoh Gotoh, executive director, Japan TAPPI, and Don Meadows, editor, *Tappi Journal.*

Meadows is editor of **Tappi Journal.**