VISY'S COOLAROO MILL SERVES CORRUGATED NEEDS IN AUSTRALIA

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MILL COMPLEX NEAR MELBOURNE IS PRATT INDUSTRIES' LARGEST PRODUCER OF RECYCLED MEDIUM AND LINER IN AUSTRALIA.

PRATT INDUSTRIES HAS BECOME one of the leading players in the Australian corrugated containers industry. A rapid investment in greenfield recycling mills—in Australia and North America—has meant the company has some of the most modern equipment in the world.

Internationally, the family owned company chaired by Richard Pratt has been building new mills at an increasingly rapid rate. The newest machine,at Gibson Island, Brisbane, has a capacity of about 135,000 metric tons/year. It started up this February, hardly more than a year after the 220,000 metric tons/year Conyers,GA,mill started up in the United States (see *Tappi Journal*, July 1995, p.59).



The main entrance to the Visy Coolaroo mill

The startup of the Brisbane mill will allow Visy to be totally self-sufficient for its medium and liner needs,said Ron Dawson, Visy Paper's group R & D manager.

In Australia, Visy Paper's six paper machines have a listed combined total capacity of 545,000 metric tons/year of recycled corrugating medium and liner, though the company expects to produce about 585,000 metric tons this year. The two machines at Coolaroo (VP 4 and VP 5) have a combined design capacity of approximately 180,000 metric tons/year.

Paper recycled at the mills is collected by Visy Recycling from supermarkets, factories, offices, and curbside. Dawson estimated that Visy would recycle about 650,000 metric tons of collected paper this year.

The company's first recycled paper machine started operation in 1980. It was closed and sold several years ago. The next was built at Reservoir in Melbourne in 1983,and the third was installed at Smithfield in Sydney in 1986.

The Coolaroo facility, just north of Melbourne, dates back to 1988. Three of Pratt Industries' operating divi-



Ron Dawson, group R & D manager



A front-end loader scoops up OCC for recycling.

sions—Visy Recycling, Visy Paper, and Visy Board—are represented at the site.Its first machine was inaugurated in 1989,its second in 1992.

The older of the two machines,VP 5, is a twin-wire fourdrinier from Toschi.It has a trim width of 2.8 m and operates at up to 700 m/min.It's used to produce corrugating medium and test liner ranging from 115 g/m^2 to 150 g/m^2. Actual production on the machine is now about 95,000 metric tons/year, Dawson said.That's up a bit from its listed capacity of 80,000 metric tons/year. About 80% of the production is converted on site, he said.

The other machine,VP 4,is a Voith-Toschi three-wire machine designed to produce 100,000 metric tons/year. It now produces about 120,000 metric tons of corrugating medium and test liner ranging from 112 g/m^2 to 260 g/m^2, Dawson said.White-top grades are mainly 150 g/m^2 and 200 g/m^2, while coating bases range from 105 g/m^2 to 340 g/m^2, he said.The machine trims at 2.5 m and has a top speed of 700 m/min.A 35,000 metric ton/year Voith flotation deinking line gives VP 4 the capability to produce white-top liner using recycled office and magazine papers. About 30% of this machine's production is converted on site,according to Dawson.

"There's probably no other machine in the world like it, in terms of everything it has," Dawson said of VP 4. It has, for example, a consistency controlled flowbox, an extended nip press,a size press and speed-sizer, and soft-nip calender.VP 4 is equipped with an Accuray system for consistency control and to measure moisture and grammage.



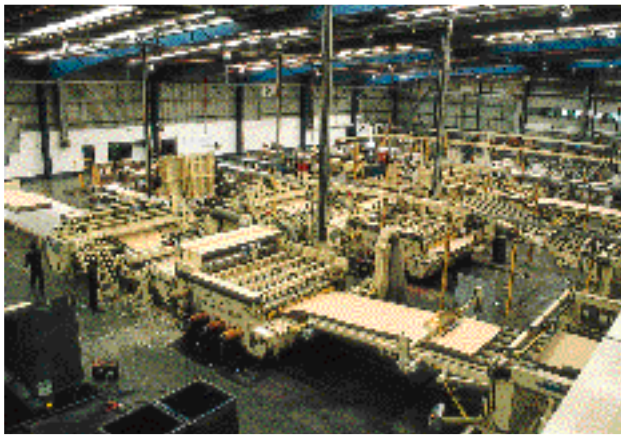
Into the repulper



Deinking and cleaning



One of Coolaroo's two paper machines



The die-cutting area

The mill uses a three-stock system with three Hydropulpers for stock preparation. An alignment of six primary and two secondary Voith flotation cells deink the pulp. For thickening, the mill uses an old fourdrinier table. Twin-wire presses dewater rejects from the flotation cells. An ALGAS drum filter handles water clarification and fiber recovery.

From 4–5 g of coating may be applied to liner. Coating base stock goes to a 2.8-m off-line coater equipped with two rods and an air knife. The coating area also includes a heated gloss calender.

In the converting area, Coolaroo's 108-in. BHS corrugator held the record for fastest production in an eight-hour period for square meters and tonnage produced until the end of last year, Dawson noted. A new BHS machine at Visy's Adelaide corrugating plant now holds the record,he said.The plant mainly produces B- and C-flute board.

Up to eight colors, plus varnish, can be applied to liner in Coolaroo's preprinting area. Its four flexo printers are kept especially busy printing liner for wine and beer packaging. A fifth press—a Cobden Chadwick—was on order earlier this year. **TJ**

Meadows is editor of TAPPI JOURNAL.



Printing presses for liner apply up to eight colors, plus varnish.



Shipping warehouse for the converting area