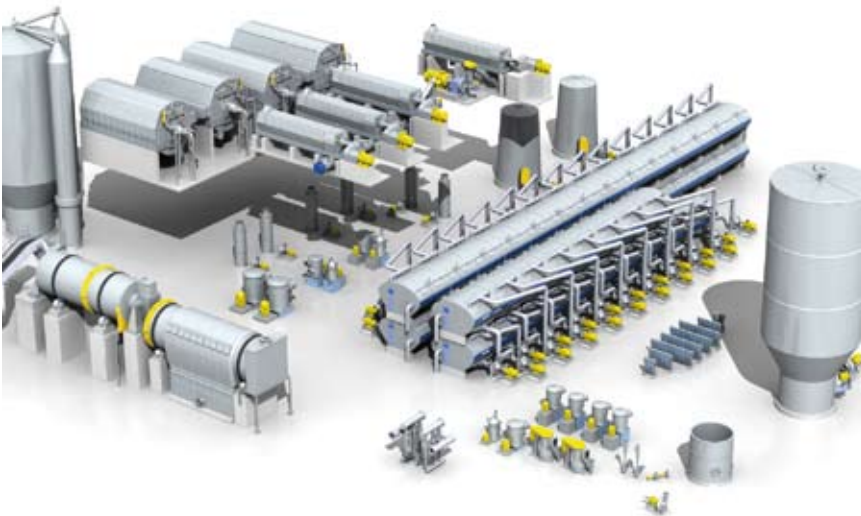


New paper mill in England featuring the world's largest drumpulper

Largest and most up-to-date deinking plant in the world

Voith Paper is currently building a new paper mill for the papermaker Palm. Starting Autumn 2009, newsprint paper will be produced at the mill in King's Lynn, England. With its pulping capacity of 2,000 bdt/d (bone dry tons per day), recovered paper will be the world's largest deinking line.



Schematic diagram of Lynn PM 7 deinking line.

In Britain the recovered paper situation differs to that in Germany: there is a surplus of recovered paper that is exported in large quantities. At the same time there is a deficit of newsprint paper, which has to be imported from North America, Scandinavia and Central and Eastern Europe. For Palm the British market is very promising. The new paper machine Lynn PM 7, designed for a maximum annual tonnage of 400,000 t, will be the largest paper machine for newsprint paper in Europe.

Voith Paper's TwinDrum pulping technology will be used in stock preparation. In future it will be able to process 2,000 bdt/d recovered paper, giving it the highest pulping capacity

in the world. Following pulping, the recovered paper is screened in several steps to remove coarse and fine contaminants.

The screening is followed by the flotation, the key to every deinking system. At 70 m, Voith Paper's EcoCell flotation machine will be the longest flotation line in the world. In the flotation machine the air entrained into the stock with the EcoCell diffuser removes the printing inks that have separated during the pulping of the recovered paper.

At 5 to 500 micrometers, printing ink particles are so fine that mechanical screening is impossible. They accumulate on the air bubbles and are discharged as foam.

The flotation deinking process was developed in stock preparation at Voith Paper as far back as the late 1950s. Voith supplied the first flotation machine for the production of tissue-crêpe paper in July 1959. Since then Voith has delivered more than 1,000 flotation machines all over the world. The deinking process step has become part and parcel of recovered paper treatment for high-quality writing and printing papers.

The use of recovered paper places high demands on the recycling of residual material, as 500 t of waste are produced in Lynn from a furnish of 2,000 bdt/d recovered paper. After the flotation and circuit-water cleaning stages about 400 t of it occur in the form of sludge. Residual material represents a valuable energy and material source. While screened coarse rejects such as iron and metal parts can be re-used directly, combustible residues are transferred for energy recovery or the generation of power. This results in profitable utilization instead of expensive waste disposal.

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