

Paper Board, Pulp & Paper

Paper & Packaging Effluent Treatment and Recovery Plant

Installation of water recovery systems either within the mill or incorporated into the existing effluent treatment plant can substantially reduce water requirement and disposal costs.

Applications

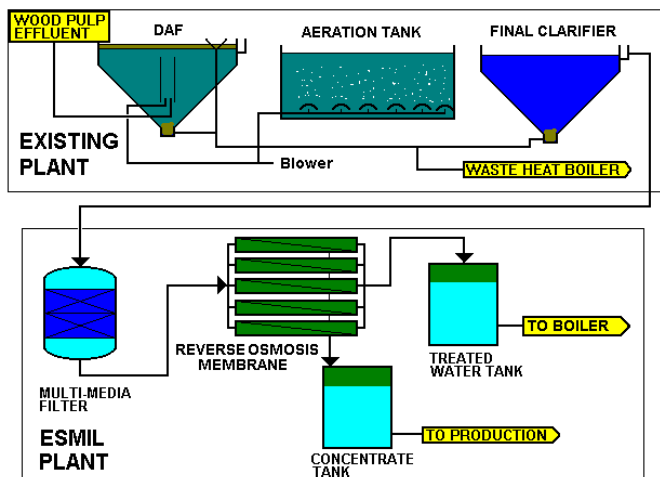
The system developed by ESMIL PROCESS SYSTEMS is suitable for a wide range of applications within paper and packaging mills.

- *Recovery of wire water* by the removal of suspended solids down to 1 micron
- *Removal of heavy metals* from De Inking lines
- *Recovery of white water* by the removal of residual organics and hardness
- *Recovery of final effluent* by the removal of residual organics and hardness

The "Zero Discharge" Paper & Packaging Effluent Plant

The Esmil "Zero Discharge" Wood Pulp Effluent Plant combines the advantages of conventional physico-chemical processes with proven membrane technology. **All solid and liquid phase outputs may be recoverable thereby resulting in a "zero discharge" plant.**

EXAMPLE : INCORPORATION INTO EXISTING TREATMENT PLANT



Permeate for use as general site process water

Concentrate for use as chemical make-up water

Sludge for use in waste heat boiler

The plant can be substantially automated and an operator can be fully trained within a matter of weeks.

INNOVATION THROUGH DEVELOPMENT

In 1999, ESMIL PROCESS SYSTEMS was awarded *the Queens Award for Environmental Achievement* for the development of "State of the Art" treatment and recovery plants.

References: 2000 - Binder, Hallein, Austria – currently under construction

SPECIALISTS IN THE TREATMENT OF CHALLENGING INDUSTRIAL EFFLUENTS

Benefit Summary

Competitive Advantages of Esmil Plant	
Application	Recovery of Wire Water by the removal of suspended solids down to 1 micron Removal of Heavy Metals from De-Inking lines Recovery of White Water by the removal of residual organics and hardness Recovery of Final Effluent by the removal of residual organics and hardness
Rapid Investment Pay back	Reduced effluent disposal costs Reduced towns water / natural water take requirement Reduced manpower requirement No generation of by-product such as waste sludge
Product/Resource Recovery Effluent Reduction, Recycle & Re-use	Non destructive treatment process Excellent final effluent quality Process water recovery for general re-use RO concentrate recovery for reuse as chemical make up water Solids recovery for on site incineration
Confidence of Environmental Compliance	Robust treatment process that is not affected by toxins, overloading or adverse temperature Fixed physical barrier thereby guaranteeing compliance No emission of odours or green house gasses State of the Art Technology
Modular System	Discrete process units for incremental upgrading

Esmil Process Systems Limited
Westfields, London Road, High Wycombe, HP11 1HA
Tel +44 (0)1494 526 155 Fax +44 (0)1494 474 515
Email: info@esmil.co.uk Web Site: www.esmil.co.uk