



# Drying of de-inking sludge

## SCA Edet Mill, Lilla Edet, Sweden

### This project

The SCA Edet Mill produces tissue from recycled paper. When the mill in 2002 built a new biomass boiler they saw several objectives; e.g. reducing oil consumption and increased power generation. Equally important was to improve the possibilities to incinerate the sludge generated in the paper recycling process and to supply district heat to the municipality. The de-inking sludge is relatively easy to dewater and rich in fiber, but with a high ash content. Hence, to increase the specific heat of the sludge our indirect steam dryer technology was selected. The dryer was a part of the boiler delivery from Fortum.

### YEAR OF DELIVERY:

2002

### TECHNOLOGY:

Indirect tubular drum dryer without recirculation of dried material – Bojner systems.

### TREATED MATERIAL:

Fibre rich de-inking sludge from paper recycling

### EVAPORATION CAPACITY:

approx. 1,5-2 t/h

### DRYNESS IN/OUT (w%):

approx. 50 / 70

### HEAT SOURCE:

10 bar steam from biofuel boiler

### HEAT RECOVERY:

A condenser produces district heat

### GAS / DUST CLEANING:

Cyclone, scrubber, incineration – all off-gases have been scrubbed and combusted in the biofuel furnace

### SCOPE OF DELIVERY:

Material input and discharge, dryer, ventilation system incl condenser, scrubber and heat exchangers, steam supply system

### Alternative solutions

We offer tailor-made systems for drying of all types of sludges. Heat source: hot gases, steam, hot water/oil. With sticky sludges material recirculation would be applied. Many types of sludges generate a dried, granulated product with our technology. Please get in touch with us and explain your situation!

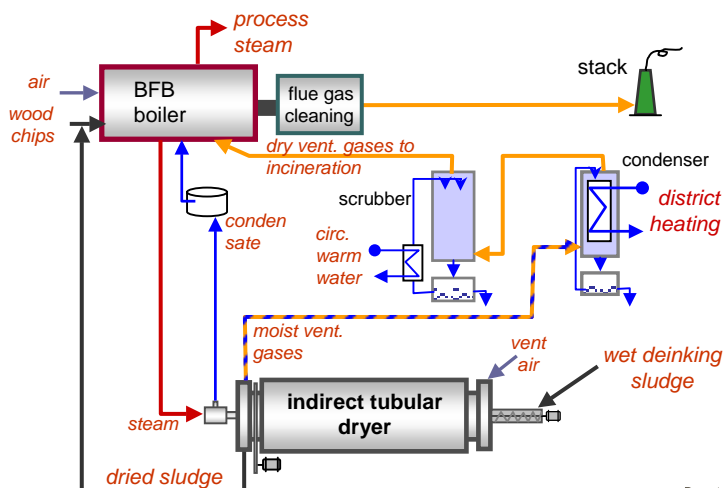


The sludge has proven to be easily dried and well suited for our tubular drier. Despite occasionally extremely low inlet dryness, the dryer has always been able to deliver a conveyable product. The mechanical dewatering, has generated certain operational disturbances, due to the composition of the sludge.

The challenge is mainly the fine dust leaving the dried product. After minor process changes and trimming we have reached satisfactory operation.

The heat recovery in two steps is very efficient. The dryer ventilation gases are after cleaning fed to the boiler furnace – avoiding emissions to the atmosphere. Fire incidents have not been reported – the moderate temperatures and the selected drying principle result in low risk operation.

The dried sludge is directly burnt in the new BFB boiler. According to operational staff, the dryer play an important role when optimising combustion and minimising the use of external biofuel.



**AB TORKAPPARATER**  
THERMAL PROCESSING EQUIPMENT

Box 14207  
SE-104 40 Stockholm, Sweden  
Visiting address: Riddargatan 17  
Tel +46 (0)8 660 20 60  
Fax +46 (0)8 661 11 12  
info@torkapparater.se  
www.torkapparater.se