

PULP & PAPER

Quick STUDY

Hydra-Cell®
Seal-less Pumps

www.Hydra-Cell.com

Location:	Sweden
Application:	Fuelling furnaces
Media:	• Bio oil
Model No.:	D35EKSJHFEMH
Flow Rate:	Up to 37 gpm (140 l/min)
Pressure:	Up to 1200 psi (83 bar)
Hydra-Cell Advantages:	• Seal-less design • Ability to handle non-lubricating fluids • Ability to run dry without damage • Proven long-term reliability



Containerboard Mill Converts to Bio Fuel for 70% Emissions Drop

The containerboard mill of a major packaging producer in northern Sweden has reduced carbon dioxide emissions by 70% since 2006 - mainly through a project to use environmentally-friendly bio oil instead of fossil fuel oils in the furnaces and recovery boiler. Hydra-Cell seal-less pump technology has played a part in this.

Heating oils are vital for use in circumstances where the main fuel (fine sawdust) cannot be used, and previously heavy oil consumption was as high as 130,664 ft³/yr. (3700m³/yr.). It was essential to convert to bio oil, but the project was hampered by pumping difficulties.

To feed the burner nozzles, the old system used a conventional pump with dynamic seals, reliant on the lubricant properties of the fossil oils but exposed to wear when handling non-lubricants such as bio oil and the pitch oil from which it is derived. That led to seal problems and prevented connection to the boilers.

The Hydra-Cell distributor recommended and supplied two D35 pumps - duty and standby. Reports from the mill indicate that the seal-less pump solution is working effectively and additional pumps have been put into service. It is expected that bio oil will totally replace fossil oils except when using light oil for start-up, in an emergency or after annual maintenance shutdown.



Characteristics of Fluid Pumped:

☐ Contains Abrasives ☐ Corrosive ☐ Solids in Suspension ☐ High-temp. (>158°F/70°C) ☒ Non-lubricating ☐ High-viscosity (>500 cPs)