

Significant energy savings with oil viscosity upgrade

Valmet deflection-compensated roll upgrade oil viscosity

Energy savings and increasing production efficiency are always topical issues in the paper industry. A Valmet deflection-compensated roll upgrade oil viscosity offers a solution for both. An oil viscosity change is a solution when looking for energy savings or increasing roll speed.

Benefits

- Energy savings due to reduced internal power consumption
- Improved oil cooling
- Longer belt lifetime



Reduced internal power consumption

The most significant effect of changing oil viscosity is to reduce internal power consumption by 7–10%. If we have a Valmet SymZLC Shoe Press Roll with an internal power consumption of 720 kW at full load and speed, then savings of about 70 kW can be achieved. Using 68 cSt oil has also other benefits, such as easier deaeration and heat dissipation from the oil, which enables using about 7% less cooling water.

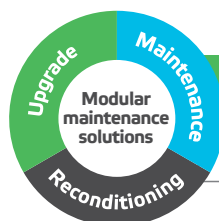
Some changes to rolls are required for an oil viscosity change. Oil viscosity upgrade requires existing hydraulic unit verification for possible modification needs and some changes to roll internals like replacing all capillary tubes and lubrication line add-ons.

Example of savings

with 68 cSt compared to 100 cSt

(Valmet SymZLC Shoe Press Roll + Valmet SymBelt Shoe Press Roll)

Speed	2,000 m/min
Linear load	1,200 kN/m
Power saving, SymZLC + SymBelt	71 + 71 kW
Annual operating time	8,000 hours
Electricity price	100 EUR/MWh
Saving	EUR 113,600



Upgrade Improved performance

Offering upgrades on existing components with modern features based on customer needs to enhance performance and productivity.

For more information, contact your local Valmet office.

valmet.com/solutionfinder, e-mail: paper.service@valmet.com

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