

VIB GlossTech

Super Calender Steamshower for SC and LWC

Paper mills manufacturing high-gloss paper require a specific level of gloss and smoothness after surface treatment in the super calender. Today, superior grades in gloss, surface roughness and smoothness can be achieved using the VIB GlossTech and its unique steam application technology. The VIB GlossTech is a minimum size type of steamshower for super calenders and off-line multnip calenders. Our advanced technology enables VIB Systems to provide a reliable, high-performance steam actuator with zone spacing down to 75 mm. This, coupled with our reliable and durable pneumatic actuators, provides superior benefits for today's papermakers.



Finest zone arrangements and exact steam control are essential for profile correction and a consistent gloss- easy for the compact VIB profiler.

Advanced Actuator Control Systems

VIB GlossTech Description

The most important characteristics of a calender steamshower are its capability and its ability to raise sheet gloss level without delamination and sticking on the calender rolls. These characteristics improve the sheet's cross-directional gloss profile and optimize the level, two-sidedness and runability. Using the VIB GlossTech in the calender, makes it possible to control gloss profile and gloss target simultaneously.

The compromise between quality increases and profiling capability has been eliminated by increasing the velocity of the steam jets onto the web.

The VIB GlossTech has a cross-directional header to make the profiler absolutely drip free. The steam header collects all condensate which might arise from the steam supply and assures that only dry steam reaches the profiling valves.

The profiling zone is fully compartmentalized, supplying high-velocity steam to each cross-direction compartment via a separate, uniquely designed actuation valve that allows optimum zone definition and precise control. The spring-loaded profile valves assure immediate steam shut-off at sheetbreak. These proprietary control valves assure finest control of steam amount to prevent delamination on coated grades. The patented VIB integrated control technology assures sophisticated calender control with limits for different grades. The VIB GlossTech heating system assures that the steam shower is always hot and immediately ready for steam application.

Primary material for VIB GlossTech is 1.4571 (316 Ti) stainless steel. Special materials in the diffuser plate assure complete heating even during longer sheetbreaks.

Control Station^{ECS} is an electronic control station that governs the pneumatic actuators. Each actuator is controlled by an I/P-converter with a control signal of 0.8 to 4 bar (12 - 60 psi). Setpoints are sent from the VIB Control Station^{IPS} using measurement system data.

Control Station^{IPS} is an integrated process station that serves as the central process point for the system. It contains the integrated MD/CD control, the operator visualization package, PLC functions and the intelligence to control the entire actuator control system.

Benefits for the Paper Industry

- Increased gloss for improved new grades.
- Flatter gloss profiles and caliper profile can be achieved simultaneously.
- Control of two-sidedness by using VIB GlossTech on top and underside.
- Narrow spacing of the actuator can be adjusted to produce the desired profiling effect.
- Optional feedback of the actuator position ensures reliable functioning of the VIB GlossTech Actuator.
- Better edge performance for improved reel building.
- Gloss increase for LWC grades from 5 - 10%.
- Gloss increase for SC grades from 6 - 12%.
- CD gloss 2-sigma improvement of 60%.
- 3 - 4% increase in efficiency of the total production line with integrated gloss control.

Technical Features

- Steam dryer header in cross direction.
- Steam heating system.
- Diffuser plate of special material.
- Integrated CD and MD control including PLC functionalities (interlocks, loops).
- Profiling zone spacing down to 75 mm gives high profiling capability.
- Rigid construction, 316 Ti stainless steel.
- LAN or Serial Link protocol for connection to the measurement system. Activated by mouse click.

PSF® - Precision Steam Finishing

VIB SteamTech^{FF} – Fourdrinier Flat Steamshower

VIB SteamTech^{TAD} – Through-Air Drying Steamshower

VIB SteamTech^{TC} – Tissue Steamshower

VIB SteamTech^{SC} – Press Section Steamshower

VIB SteamTech^{TFF} – Teflon Flat Felt Heating Steamshower



Every point of gloss increases the quality and thus the value of paper, which guarantees a quick return on your VIB GlossTech systems investment.

Technical Specifications

Pneumatic Actuator

Body material 1.4404

Control signal 0.8 - 4 bar (12 - 60 psi)

Position indicator

Closed in the absence of a control signal

Stainless Steel

Primary 1.4571 (316 Ti)

Options

- Pneumatic retraction
- Hydraulic retraction
- Steam supply engineering
- PosiTrak position feedback
- Turnkey installation



A VIB GlossTech appliance in the off-line supercalender for SC paper. The gloss is clear to see.