PlattenMAC
Measure | Analyse | Control
Packages for Heating and Cooling Presses

Plywood Making Process

The process for making plywood involves bonding of the composed layers by glue. This is done under pressure and by heating the composition to achieve proper bonding. This is a key process influencing the quality of ply made. Depending on the quality of ply being made, typical presses deploy either only heating cycles or both heating and cooling cycles. Maintaining the right temperature profile is of utmost importance and operator skill is key to the conventional process in use.

Problems faced

Temperature overshoots as process is operator dependent

Formation of pockets due to high heating temperatures and improper cooling

Bending of sheets at high temperatures

Bypassing of traps leading to huge live steam loss

Rejection due to uneven heating in case of water logging of press

Blowing of steam and condensate in the beginning of heating cycle (typically 80 to 200 kg of steam is lost every batch)

Mixing of cooling water and condensate streams as isolation valves are operated manually

Benefits

Improved consistency of throughput

Improved quality

Reduced batch times

Reduced steam consumption
System Schematic

Complete process control from control room
- decreased batch time
- more batches in a day

Precise temperature control with help of PID based TCV
- reduced steam consumption
- reduction in rejection as no temperature overshoots

Efficient, reliable, safe and systematic control
- Smooth operation of press

FM Control

Forbes Marshall steam inlet control valve
Continuous and precise press temperature control

Forbes Marshall cooling water inlet control valve
Continuous and precise press temperature control

Forbes Marshall cooling water outlet valve

Forbes Marshall condensate outlet valve

Forbes Marshall trapping system
Complete condensate evacuation - no water logging in the press

Forbes Marshall operator interface
Easy control and monitoring

Forbes Marshall temperature transmitters
Press temperature and outlet header temperature monitoring

Huge steam savings
- Efficient condensate evacuation with Forbes Marshall trapping system
- Efficient condensate recovery

No live steam loss to cooling tower via cooling side valve
- decreased load on cooling tower
- less make-up water required

Proper condensate and cooling water segregation
- No need to open bypass valve

System Components

Successfully in operation at
Laxmi Doors
B P Plywood
Arvee Component
Ganesh Plywood
Radhakrishna Plywood

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