The chemicals delivery systems of the future

ABB France - Cellier Activity has been developing chemicals delivery systems for the pulp, paper and packaging industries for more than 60 years. Its vast experience and expertise extend to other formulation industries such as paint, resins, specialty chemicals as well as lubricants and grease. Development of innovative solutions is in our DNA and is driven by our customers which are under the constant pressure to meet niche markets demands, to increase their productivity, to improve quality and variety, all while maintaining sustainability commitments. This means they need to constantly adapt their processes and optimize every aspects of production to increase efficiency.

In this context Cellier Activity is more a partner than a supplier, understanding the customers targets and offering innovative solutions optimizing all aspects of production including dosing, mixing, transfer, process control and digitalization of their systems. Cellier Activity is located in Aix-Les-Bains, France, and is ABB Center Of Excellence developing innovative processes and equipment for the pulp and paper industry.

**PERFECTING THE CONTINUOUS PROCESS OF COATING COLOUR PREPARATION**

Mainly adapted to special papers, monotype coatings or pigmented coatings, the continuous coating color preparation system supplied and
slurries are tailor-made with specific dry matter content and viscosity according to the required paper grade. With a high production capacity and the possibility of several lines working in parallel, the throughput is controlled according to the paper machine requirements. Starch converting units are fully automated and can be supplied as skid units, working as stand-alone equipment or managed by every DCS or production control system.

MAXIMISING RELIABILITY AND PREVENTING DOWNTIME

Production downtimes have a major impact. With Papcel™ control system, specially developed by Cellier Activity for the pulp and paper industry in order to manage formulation and recipes, the equipment lifetime becomes predictable and proactive maintenance operations can be scheduled. Integrating a CMMS (Computerized Maintenance Management System), Papcel™ enables efficient maintenance activities, by managing maintenance operations (scheduling of work orders, planning of spare parts, service contracts, etc.) and includes technical documentations for a quick access to instruction manuals and easy diagnosis and corrective actions. Consequently, Papcel™ improves plant availability and reduces downtime risks and costs.

optimized by the engineers of Cellier Activity is the perfect reply to the needs of paper manufacturers in terms of production flexibility, reduction of operational costs and effluents. Associated with an online quality control system, this process guarantees with accuracy the required characteristics of coating colors, such as concentration, viscosity, pH and temperature.

A MILL TRULY SUSTAINABLE WITH COATING EFFLUENT CENTRIFUGATION

Sustainable technologies are now crucial to growth. Cellier Activity helps to address all aspects of sustainability such as increasing traceability, reducing consumptions and waste. With the aim of reducing the production costs and reusing raw materials, Cellier Activity has developed a continuous treatment system for coating effluents. Based on the centrifugation of the effluents, this technology enables the recovery of high value chemicals (carbonate, latex, etc.) to be reused into the manufacturing process of coated paper.

PREVENTING WASTAGE WITH THE PIGGING TECHNOLOGY

Considering that paper manufacturing could benefit from this technology in terms of production flexibility as well as reduction of operational costs and effluents, Cellier Activity now enhances its offer of chemicals delivery systems with the pigging technology as a standard for the transfer of liquid raw materials, slurries and coating color over short or long distances. The technology enables improved operation efficiency by a modular and easy layout, automated and safe operations, minimised maintenance and efficient pipe flushing by recovering 100% of the transferred product, avoiding cross-contamination and reducing the quantity of effluents and flushing water.

FULLY AUTOMATED STARCH CONVERTING UNITS

Cellier Activity has developed a in-line steam heater to cook slurries of starches for wet-end, sizing and coating applications. Using an innovative patented in-line steam heater to obtain an optimal quality by uniform heating, starch slurries are tailor-made with specific dry matter content and viscosity according to the required paper grade. With a high production capacity and the possibility of several lines working in parallel, the throughput is controlled according to the paper machine requirements. Starch converting units are fully automated and can be supplied as skid units, working as stand-alone equipment or managed by every DCS or production control system.

2. Skid starch converting unit
CHEMICALS DELIVERY SYSTEMS THAT TALK TO YOU

As pioneering technology leader in digital solutions, ABB is uniquely positioned to support to support your digital transformation. ABB Ability™ platform extends from device to cloud, enabling a remote monitoring and mill optimisation. Chemicals delivery systems supplied by Cellier Activity can connect to everything for an end-to-end process optimisation and with ABB Ability™ Papcel, you can have a greater visibility and traceability. Papcel™ and its graphic module Syncel already collect the production data relative to each coating preparation and provide valuable and precise reports. Results of each individual operation are reported and stored. Data can be retrieved so as to be processed or exported to statistical tools and their analysis enables to optimize the production. Papcel™ provides also powerful analytical tools to identify and analyse the production stages which need productivity improvements. ABB Ability™ Papcel includes digital tools for Process Improvement and Reporting and will help customers to control the production efficiency, reduce the production cost (OPEX), take decisions like process modifications in order to improve productivity, quality, performance and also efficiency. It is an application which allows easy access to all real time or archived data, metrics and KPIs issued from production site, according to user profiles, using dashboards or consulting requests.

With the digital transformation, manufacturers will not only have to improve their manufacturing processes with digital tools but also will have to collaborate with suppliers and customers to get the most value from data, analytics and advanced technologies. Our expertise in the paper industry, our consultative approach, our engineering capabilities, our chemicals delivery and control systems as well as our extensive portfolio of solutions and services, our automation and digital offerings position us as the perfect partner to help pulp, paper and packaging manufacturers reach their production goals and tackle the challenges of tomorrow.
ABB Chemical Delivery Systems
Deliver high quality more efficiently

The continuous starch cooking unit engineered and supplied by Cellier Activity of ABB France is a highly efficient process solution designed to produce high quality starch by enzymatic conversion. Compact and fully automated, it provides accurate dosing of chemicals, cooking control, process parameters optimisation as well as noticeable raw materials and energy savings. Improving the balance between performance, cost, sustainability and quality, the continuous starch cooking unit can be implemented for new projects or for the modernization of existing machines, for all kinds of boards or papers where starch is needed.
For more information, visit abb.com/pulpandpaper

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