

# Consulting service in paper formulation processes

## Chemical delivery systems (de-inking, wet end, sizing and coating)

In the current economy climate of low growth, fierce competition and eroding margins, ABB can help mill managers earn more from their investment by conducting a process improvement survey. This consulting service provides them with unbiased information and advice necessary to maintain and improve their competitive position and equipment life cycle.

Cellier Activity of ABB France offers an audit and consulting service in paper formulation processes aiming at improving the performance of chemical delivery systems. Backed by a world renowned expertise in the preparation of chemicals and mineral additives (de-inking, wet end) as well as sizes and coating colours, Cellier Activity will carry out a comprehensive survey covering every aspect of the process, from the raw materials receipt to the storage and delivery of finished products. This audit can either deal with existing plant and equipment or with a conceptual design.

## Technical and economic survey

The objective of the technical and economic survey is to identify existing problems and subsequently offer solutions. It will give an objective view of the present operating conditions. It will also point out potential trouble spots and give recommendations as how to best make corrections to prevent from equipment failures and shutdowns.

The economic appraisal is vital to decide whether to modernise or make an addition or modification to the existing equipment. Dealing specifically with the financial aspect of the project, it enables to determine the estimated cost of the entire project, the approximate payback time and eventual money saved or earned from improvements.



ABB consultants will work closely with the plant's operation and maintenance personnel to review every aspect of your process. They feature:

- direct link to ABB engineering and process services,
- knowledge in existing process systems and equipment,
- more than 50 year's experience in the paper industry.

## Benefits

- Benefit from specialist advice.
- Maximise process efficiency.
- Optimise equipment life cycle and availability.
- Enhance production.
- Improve product quality.
- Maximise maintenance efficiency.
- Reduce maintenance costs.
- Minimise product losses and waste.
- Ensure that the plant is adapted to your needs.
- Reduce costs due to a production change/conversion.
- Reduce unplanned shuts and downtimes. .
- Comply with environmental, health and safety regulations.
- Project economic payback time.
- Project money saved or earned from improvements.
- Project step-by-step investment.

# Methodology

## Audit of equipment and process

Our consultant will review and collect data on the existing systems including capacity and performance of mixing, pumping, filtration, transfer equipment, piping, instrumentation and control systems as well as key details relating to current operation (e.g. order of addition of ingredients, changes in agitation intensity during the process, etc.).

Commonly, this stage is covered by a site visit allowing our consultant to carry out detailed measurements and to meet:

- operation staff to discuss standard operation procedures and process details with regard to the regularly encountered production problems as well as their expectations,
- maintenance staff to discuss and review the maintenance schedules and also any equipment that requires particular attention .

Collected data are processed and organised (eventually amended by in-house data).

## Identification of potential improvements

From the audit, current process limits are identified and their effect on, for example, process safety, product quality, productivity and operational costs are quantified. Solutions for overcoming these limits are identified.

Often, at this stage a meeting to discuss preliminary findings and potential for future modification.

## Assessment of improvement effects and ROI

The likely effects of modifications to the equipment design and operation are quantified according to ABB's assessment methods and experience.

## Report

Our consultant will deliver a written report on the findings, with clear recommendations for improvements and corrective actions.

Traditionally, a review meeting is held with the client to comment findings and recommendations.

For more information, please contact :

ABB France  
Division Process Automation  
Activité Cellier  
700 bd. Jean-Jules Herbert  
P.A. des Combaruches  
73100 Aix-Les-Bains, France  
Phone: +33 479 35 05 65  
Fax: +33 479 88 37 71  
E-Mail: [info.cellier@fr.abb.com](mailto:info.cellier@fr.abb.com)  
[www.abb.com/pulpandpaper](http://www.abb.com/pulpandpaper)