

## ULMA Controls Tissue Production at Fripa Papierfabrik



PM 5 at Fripa Papierfabrik.

Fripa Papierfabrik Albert Friedrich at Miltenberg is one of the leading tissue producers in Germany. With its two paper machines the mill produces crepe paper, crepe tissue, crepe toweling, creping tissue, recycled paper, tissue, toweling and wet strength tissue totaling 40,000 tons per year.

ABB supplied a ULMA Web Inspection System for Fripa's tissue machine in 1994. According to the mill management, the experiences with ULMA have been extremely positive.

### Proven Experience

The ULMA System has enabled Fripa Papierfabrik to achieve, and maintain, a high level of customer satisfaction through the delivery of defect free paper. Full utilization of ULMA's defect data has considerably increased production line efficiency.

Although the web inspection system at Fripa Papierfabrik was the first ULMA application for tissue paper, it should be noted that ABB has already supplied nearly 850 ULMA Web Inspection Systems for various paper grades.

The ULMA system is designed to operate 365 days per year, 24 hours per day for the accurate detection and location of defects, as well as analyzing and categorizing them by type and size.

## ULMA - an Essential Tool for Tissue

After five years of ULMA operation, Mr. **Wilbert Schwarz**, Technical Manager of Fripa Papierfabrik, praises the system performance on tissue production:

“The ULMA Web Inspection System has provided us with the quality data for each reel produced. This has enabled us to substantially improve our tissue quality on the paper machine, as well as to minimize the downtime caused by defects on the mother roll on our converting line.”

“The detection performance, reliability and minimum maintenance requirement of the ULMA system have surpassed all our expectations. ULMA has also improved our competitive position as a tissue converter” he continues.

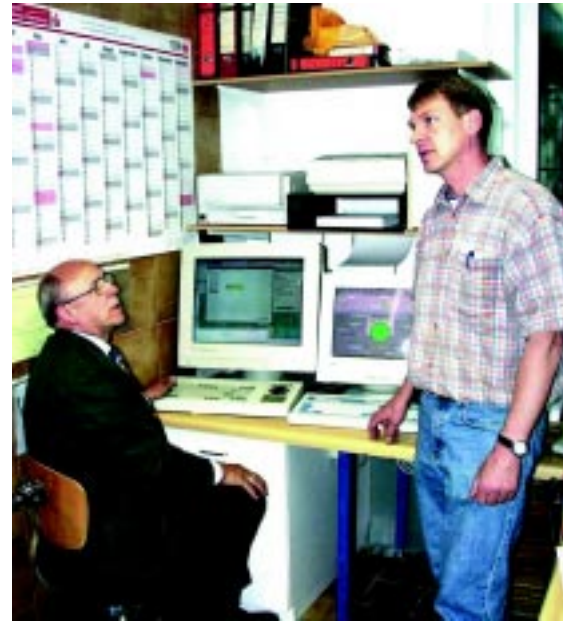
According to Mr. **Jaakko Heinonen**, Area Manager for ABB Industry Oy, the transparent and very lightweight (15 - 40 g/m<sup>2</sup>) tissue paper, as well as the environment of the tissue machine itself, demand a high level of performance from the web inspection system. “We are very happy to have been able to adapt our ULMA for the high requirements of the tissue production in very close co-operation with Fripa Papierfabrik”, Mr. Heinonen adds.



## Detecting Defects in Tissue Paper

Defects such as holes, spots and edge cracks are detected, reported and marked on the reel edge on the paper machine.

Holes, cracks and dirty spots on one-ply tissue cause problems in the converting process. That is why converting line customers set very high quality requirements for raw material and insist on having defect-free paper for their converters. With the ULMA Web Inspection System it is easy to meet these quality requirements. It is especially important that holes over a certain size can be culled.



“The ULMA reporting makes it very easy to pick out faulty reels”: states Wilbert Schwarz, Fripa Mill’s Technical Manager (left) and Jurgen Weis, Project Manager.

ULMA reports show exact details of each defect on the web: defect type, size and location. It is easy for the operators to make a decision to cut at the position of the defect on the winder. Thus, rolls with defects not meeting quality specifications can easily be rejected.

Reel defect marking on the reel end.

## Improving Runnability and Efficiency

In addition to detecting defects on the paper web, ULMA has other very valuable benefits. It also improves runnability and efficiency in the converting process of Fripa's toilet and kitchen roll production. With ULMA, Fripa has achieved remarkable savings by reducing costly breaks in the converting line.

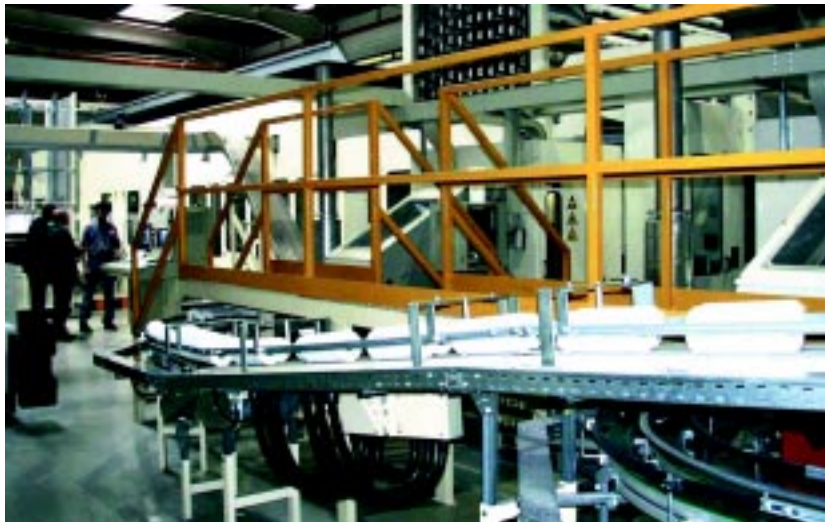
Especially on a modern type of former (a Crescent former), edge control is of utmost importance. Edge cracks and holes over a certain size cause web breaks in the converting process and require cleaning and washing operations.



Breaks can be practically eliminated by slowing down the machine speed at critical MD locations.



Each defect type such as holes, edge cracks and dirty spots are marked on the reel edge.



Kitchen roll production runs smoothly at Fripa.

By detecting the defects on the paper machine and by marking them on the reel edge, the breaks in the converting line can effectively be eliminated by slowing down the process at critical MD (machine direction) locations. It is very easy to achieve this with the help of ULMA's color marking method.

## Process Monitoring Tool

ULMA is also used as a process monitoring tool. At a very early stage, ULMA reports on damaged machine parts or when the critical parts of the machine like the wire, felt etc. have to be cleaned. It gives an immediate alarm on blade problems, too.



Mr. Schwarz examining the ULMA system at PM 5.



**Argentina** Asea Brown Boveri S.A. *Buenos Aires*. **Australia** ABB Industry Pty. *Melbourne*. **Austria** ABB Industrie Gesellschaft *Vienna*. **Belgium** Asea Brown Boveri S.A. *Brussels*. **Brazil** Asea Brown Boveri Ltda. *Sao Paulo*. **Canada** Asea Brown Boveri Inc. *Toronto*. **China** Asea Brown Boveri China Ltd. *Beijing*. **Denmark** ABB Industri A/S *Ballerup*. **Finland** ABB Industry Oy *Helsinki*. **France** ABB Industrie *Décines Charpieu*. **Germany** ABB Industrietechnik A.G. *Mannheim*. **India** Asea Brown Boveri Ltd. *Bangalore*. **Indonesia** PT Asea Brown Boveri Sakti Industri *Jakarta*. **Italy** ABB Industria S.p.A. *Milan*. **Japan** Yamatake Engineering Co. Ltd. *Tokyo*. **Korea** ABB Woojin Co. Ltd. *Seoul*. **Malaysia** ABB Industry & Offshore *Kuala Lumpur*. **Mexico** ABB Equipos Y Sistemas *Estado de Mexico*. **The Netherlands** ABB Industrie B.V. *Rotterdam*. **New Zealand** Asea Brown Boveri *Auckland*. **Norway** ABB Industri AS *Oslo*. **Poland** ABB Industry Ltd. *Warsaw*. **Portugal** Asea Brown Boveri Lda. *Lisbon*. **Russia** ABB Industry Ltd. *Moscow*. **Singapore** ABB Process Automation East Asia Pte. Ltd. **South Africa** ABB Industry (Pty) Ltd. *Johannesburg*. **Spain** ABB Industria S.A. *Madrid*. **Sweden** ABB Industrial Systems AB *Västerås*. **Switzerland** ABB Industry Ltd. *Baden, Dättwil*. **Taiwan** Asea Brown Boveri Ltd *Taipei*. **Thailand** Asea Brown Boveri Ltd. *Bangkok*. **United Kingdom** ABB Industrial Systems Ltd. *Stevenage*. **U.S.A.** ABB Industrial Systems Inc. *Columbus, Ohio*. **Venezuela** Asea Brown Boveri S.A. *Caracas*.