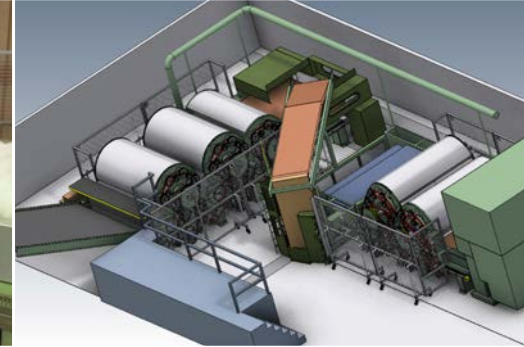




## RETROFIT OF A CARDING MACHINE

Complete technical plant overhaul and optimization of an existing plant.



### Task

The goal was the complete modernization of an existing plant producing woven felts for use in the paper industry. The machine consisting of shredder, box feeder, coarse and fine card, and a cross lapper came from the 80s. The lifetime of all components was exceeded and the system had to be brought up to the state of the art.

### Mechanical modernization

The machine was disassembled into all individual parts and all wearing parts of the system were replaced. Previously chain-linked movements were decoupled by using single-servo drives. The numerous new engines and gearboxes had to be adapted to the existing plant. All transmissions were rebuilt on timing belts.

### Electrical modernization

It was necessary to replace the complete electrical machine installation, including the control cabinet and operating level. All safety functions were implemented by using a safety control and corresponding drive controllers.

### Process optimization and visualization

By means of a visualization specially tailored to the plant, a user-controlled control system as well as an optimal process monitoring of all plant conditions could be realized. By separating the drive technology into 30 synchronously operated servo drives, the flexibility and dynamics of the system has been increased.

### Documentation

The existing operating instructions of the system have been added. New CAD drawings of the plant were created. It was necessary to prepare a risk assessment in accordance with the Machinery Directive.

### Safety

The numerous measures resulting from the assessment and additional protection devices had to be implemented mechanically and electrically. This increased the safety of the system many times over.

## OUR PHILOSOPHY



Only if our systems are integrated at the customer completely they develop their entire performance potential. Therefore it is important for us that our customers are integrated in the process from the very first day of the project carry out. Communication is about it the most important connecting part between us and our customers.

## CUSTOMER TARGETS

- Maximum production efficiency and quality
- Stable industrial processes
- Well trained personal
- Low service costs
- Most favorable conditions



### Christian Fransen, Prokurist

Working for QA since 2010 as a electrical designer. Focus on: manufacturing, machinery safety, project leadership

Quality Automation GmbH  
Konrad-Adenauer-Straße 156  
52223 Stolberg,  
Deutschland / Germany

☎ +49 (0) 2402 865 888  
☎ +49 (0) 2402 865 889  
✉ info@quality-automation.de  
🌐 http://quality-automation.de