

MARTIN LOHSE GmbH · Maschinenbau Lohse GmbH

# Optimisation in the area of pulp preparation



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We now offer complete concepts for optimisation of existing pulp preparation systems.

## *Process optimisation*

We specialise in optimisation of the following processes for the pulp preparation of white and brown papers: **pulping, sorting, cleaning, refining and bleaching**. We offer you customised solutions in order to increase the efficiency of the single processes that make up your equipment and systems..



The particular goals are:

- **Decreased costs** per ton by reducing water consumption and energy through mechanical modifications.
- **Optimisation of the process control systems.**
- Analysis of the current situation, including detailed potentials for **saving energy**.

## *Feasibility analysis*

To determine the potential for increased efficiency it is crucial to first analyse the feasibility accordingly. For this purpose we offer a **pre-engineering** study, including a **price calculation**.

The pre-engineering process is based on a recording of dimensional data at your facilities using modern laser measurement devices and/or based on existing installation plans. A 3D drawing program is used to record and analyse the data, on the basis of which a budget price is determined.

Of course, we also offer these engineering services for planned implementations of equipment and machines, as well as for increasing the performance of existing systems.

*Implementation and execution*

If you decide to implement the project, the pre-engineering is followed by detailed engineering, with the delivery of the corresponding system components.

The detailed engineering includes:

- machine and system design,
- foundation plans,
- installation plans,
- R+I diagrams.

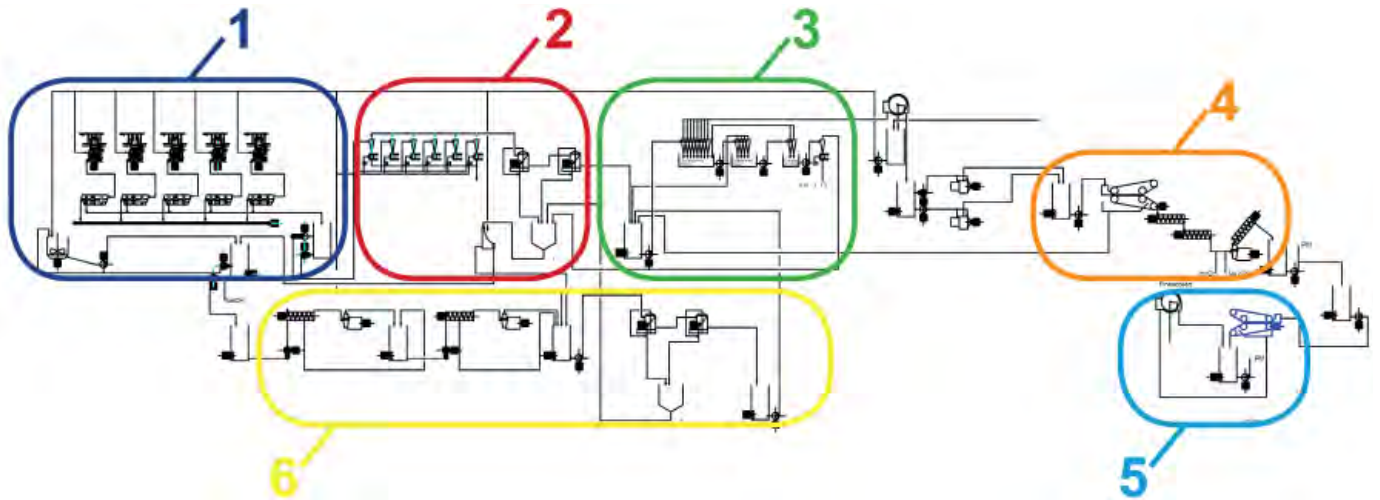


Diagram of a wood treatment plant for the manufacture of graphic papers  
 1.) Grinding shop 2.) Sorting 3.) Cleaning, 4.) Bleaching 5.) Washing and fine particle recovery 6.) Reject processing

## Example of successful optimisation

### Reconditioning of pulper

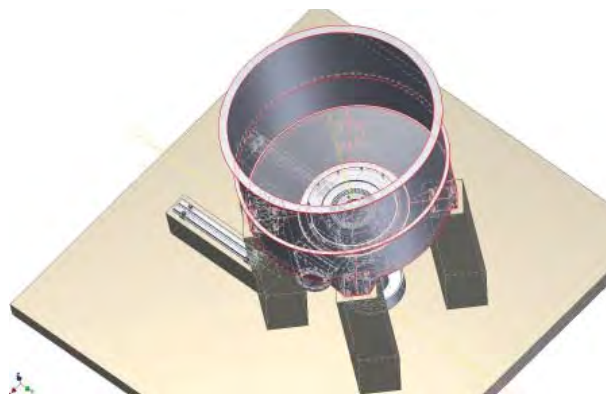
One example of the successful implementation is the reconditioning of a used pulper in Italy, including the entire engineering, assembly, commissioning and integration in the existing process control system.

The point of departure for this project was the sauerkraut produced in the grinding shop and returned to the grinder for sorting and disposal of brush.

The goal was to return both components to the process via a separate machine and to reduce raw material costs.

After installation and commissioning, **production was increased by 5%** without additional energy consumption. The output at the pulper was compensated by substantially smoother operation of the grinders.

3D drawing of pulper



## Optimisation and modification of a double screening machine

Another challenge was the modification of a double screening machine. The requirement in this case was increased availability with simultaneous reduction of maintenance costs. The main problem with the machine was uncontrollable wire runoff, resulting in high wear of the wire as well as mechanical damage to the press rollers. The first step in the project was to analyse the problem and offer recommendations for a solution. This resulted in the following project steps: inspection of the customer's system, creation of construction documents, manufacture of the new components and modification of existing machine elements, including assembly and commissioning.

After successful modification of the system, the **throughput was 40% higher** with the same consistency at the scraper blade and only 10% higher power consumption. The **wire life was increased by 50%**.



Double screening machine  
after optimisation

## Have we aroused your interest?

Please contact our sales staff



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