Wood Manufacturing 2005

- Automated of wood manufacturing processes
- Cross-cutting
- Automated stacking,
- Sorting and grading to improve productivity

System TM’s History

System TM is a Danish family business founded in 1977 by the present owner and general manager, Mr Poul Thøgersen. Since the foundation of the company, we have enjoyed continuous progress and today System TM is a modern international company with 90 highly qualified and very committed employees with the right mix of qualifications to construct optimal solutions for our customers.

We specialise in customised system solutions. Our principal products have always been our mechanical handling and automated stacking modules which we have developed and improved since the formation of the company.

By the end of the eighties, we widened our product range to include cross-cut saws as well. Our concept solutions are constructed of cross-cut saws combined with our highly developed mechanical handling and automatization modules. By optimising the utilisation of raw materials and human resources, we ensure our customers increased productivity and the lowest cost per produced item.
Cross-cutting

• How many companies here today cross cut timber in their operation?

• What is your waste factor?

• How many operators do you require?

• Do you defect for finger jointing?

Multiple Cross-cutting

<table>
<thead>
<tr>
<th>Capacity example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layer width:</td>
</tr>
<tr>
<td>Dimension:</td>
</tr>
<tr>
<td>Boards in each layer:</td>
</tr>
<tr>
<td>Efficient working time:</td>
</tr>
<tr>
<td>Capacity in layers:</td>
</tr>
<tr>
<td>Number of incoming boards:</td>
</tr>
<tr>
<td>To the line per shift:</td>
</tr>
</tbody>
</table>
Multiple Cross-cutting

Video from Sawmill in Ireland  production per shift approx. 200 m3

Optimising Cross-cutting

• Timber has defects, to cut out
• Timber has different qualities to grade
• The lengths have to be used in the optimum way

The solution: Best result with optimisation programme
Optimising Cross-cutting

To get the most out of your cross-cut saw, you need to ensure timber is:

• Available to be cut
• Replace the operator if possible
• Can be collated and stacked efficiently

The solution: Mechanical handling systems

Examples of solutions for optimising saws
Optimising Cross-cutting

Examples of solutions for optimising saws

Produktions data per shift with one optimising saw
• 8 hours shift 8 cuts per board 4 m long 22,000 Lm out of the line
• Personal on the line 2 man

Produktions data per shift with two optimising saws
• 8 hours shift 8 cuts per board 4 m long 44,000 Lm out of the line
• Personal on the line 2 man

Optimising Cross-cutting systems

Wood Manufacturing 2005

OPTI-KAP
Optimising Cross-cutting systems
Video from a furniture manufacturer

High speed handling systems

• Increase machine productivity
• Reduce manpower
• No manual handling or heavy lifting

The solution: Mechanical handling systems
Result:
• A higher grade of utilisation
• A careful handling of expensive material
High speed handling systems
180 pieces per minute at 400 mm long
Optimisation with mechanical handling systems for long timber

Optimisation with mechanical handling

Video of band resawline
Intelligent Stacking, Destacking and Grading line

Video of grading line in UK
After Sale Service - TPM

Why TPM - Total Productive Maintenance?

Well-recognized systematic maintenance programme contributing to:

- increase productivity;
- involve everyone and create ownership;
- ensure continued improvement and optimization of the system;
- ensure a good working environment;
- increase staff qualifications;
- document implemented improvements.
- Basically, many of the parameters required to create a sound future for the company!

TPM’s main objectives

- Zero production errors
- Zero machine breakdowns
- Zero downtime
- Zero environmental pollution
- Zero work accidents

In order to make it possible to plan production with timely delivery at the right price - and with a high quality. Builds on common sense, a systematic approach, perseverance and commitment.
End of presentation

Questions?