COMMITTED TO PERFORMANCE

DEMUTH

Woodhandling
Improving Woodchip Quality

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Director

International Woodfiber Resource and Trade Conference
10th International Woodfiber Resources & Trade Conference
Durban, South Africa, September, 2018

DEMUTH Woodhandling
Main Products:

- Chipping Lines
- Disc Chippers
- Oscillating Screens
- Debarkers
- Air Belt Conveyors
- Chip Silos
- Bark Chippers
1. FEEDING
   - Automatic Constant Feeding
2. DEBARKING
   - Reduce Wood Losses
   - Reduce Bark on Chips
3. CHIPPING
   - High amount of accepts chips
1. FEEDING PROCESS

Automatic Constant Feeding
1) **Feeding Tables:** DEMUTH MASTER FEED

Elements to reach PRODUCTION with CHIP QUALITY:

- Distribution of the logs in the table,
- Constant and regular flow in the chipping line,
- Logs to be cutting in the correct point of the chipper.
- **AUTOMATIC WOOD FEEDING CONTROL.**
AUTOMATION – FEEDING CONTROL

NO EMPTY SPACES
GREAT LOGS DISTRIBUTION
Constant and regular log flow to the chipper
UNIFORM LOGS DISTRIBUTION
ROLLER DEBARKER
Better Performance
2) **DEMUTH Roller Debarker:**

Elements to reach **LOW WOOD LOSSES** and good **BARK REMOVAL**

- Controlled log speed in the machine,
- High performance abraders,
- Smooth debarking.
High efficiency debarking solution
Machine construction concept generates a Smooth Debarking process
Abraders distribution and rolls design to reach better debarking
ABRADERS PROFILE

CONIC PROFILE

PARALLEL PROFILE
Smooth debarking to avoid breakage of the logs even operating with

**Thin logs - Small logs – Long logs**
Cases with less than 0,5% of Residual bark on chips
Cases with less than 0.7% Wood Losses
3. **DISC CHIPPERS**

High Quality Chips
3) DEMUTH Disc Chippers:

Elements to reach a good CHIP QUALITY

- Monoblock frame,
- Heavy duty rotors,
- High precision machine,
- Cutting Dynamics,
- Logs stability during the cutting process.
MONOBLOCK FRAME
MONOBLOCK FRAME

WEAR PLATES

PRECISION MILLING

BETTER LOAD DISTRIBUTION
HEAVY DUTY – ROTOR DISC

06 YEARS GUARANTEE
Project applies concept and studies with detailed cutting dynamics

\[ \lambda = \text{Complementary angle} \]
\[ \beta = \text{Knife angle} \]
\[ \xi = \text{Pull-in angle} \]
\[ \varepsilon = \text{Feed angle} \]
\[ c = \text{Knife clearance} \]
\[ u = \text{Knife distance from disc} \]
1 – Low speed zone
2 – Medium speed zone
3 – High speed zone

Generation of oversized and overthickness
Generation of higher amount of accept chips
Generation of fines

KNIFE
Logs
BED KNIFE

DISC CENTER
Case Study: Comparison table between design concepts

Before…with old design chipper

<table>
<thead>
<tr>
<th>Oversizes</th>
<th>Overthick</th>
<th>Accepts</th>
<th>Pins</th>
<th>Fines</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,10%</td>
<td>6,80%</td>
<td>87,20%</td>
<td>4,50%</td>
<td>1,40%</td>
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OLD DESIGN

87.20%
Case Study: Comparison table between design concepts

Now...Using new concept chipper

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NEW CONCEPT 92,90%
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Your demand! It’s our target!

High Quality Chips!
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