CENTER OF EXCELLENCE LIQUID PACKAGING BOARD
BillerudKorsnäs Gävle

2013-11-15 | Ulf Eliasson, Mill Director BillerudKorsnäs Gävle
WE CHALLENGE CONVENTIONAL PACKAGING FOR A SUSTAINABLE FUTURE
Liquid packaging board the dominating product
The largest production unit globally for aseptic portion liquid pack
White top liner also produced
The largest production unit in BillerudKorsnäs
  700 kton of annual production capacity
730 employees
EVERY 24H BOARD TO ~200 MILLION PORTION PACKS PRODUCED
VALUE CHAIN LIQUID PACKAGING BOARD

Packaging manufacturers

Dairy, beverage & food companies

Retailers

Consumers
VERY HIGH DEMANDS ON LIQUID PACKAGING BOARD

EXAMPLE OF DEMANDS

Consumers
- Product safety
- Environmental profile
- Recyclable
- Grip stiffness
- No leakages
- Attractive print

Retailers
- Printability – attractive package
- Efficient handling

Dairy, beverage & food companies
- Runability in filling machines at high speed
- Formability
- Resistance to various liquids

Packaging manufacturers
- Printability
- PE-adhesion
- Creaseability
WE MEET EXTENSIVE QUALITY REQUIREMENTS…

- 35 quality parameters measured off-line
- Extensive on-line measurements of basic quality parameters
- Surface defects are measured on-line
  - CCD-cameras analysis the paper web for defects down to size of 1 mm²
- Extensive visual inspections
- Demanding microbiology standards
… AND HIGHER REQUIREMENTS FROM CUSTOMERS

- Improved board surface roughness
- Increased package filling machine speed
PORTION PACKS EXPECTED TO GROW BY 6%

Global aseptic liquid packaging board market

Portion packs annual growth (2012-2016)

Source: BillerudKorsnäs, Zenith&Warrick.
OUR MACHINES ARE WELL POSITIONED FOR PORTION PACKS

- Both machines in Gävle are designed to produce portion packs with high productivity
- PM4 – two ply concept for packages from 100ml to 500ml
- PM5 – three ply concept for packages from 250ml to 500ml
  - Also production of board for packages from 500ml to 1000ml
DEBOTTLENECKING INCREASING CAPACITY
SHORT-TERM
2015 VS 2011

- +70 ktonne to 660 ktonne (annual)
- PM5 investment in 2012 (MSEK ~270)
- PM4 investment in 2014 (MSEK ~220)
- Continuous capacity improvements

- Improved quality (mainly print surface)

+12% in annual production capacity (2015 vs 2011)
OUR COMPETITIVE ADVANTAGES

- Long term and excellent relationship with liquid packaging board customers
- Deep market, production and development competences within liquid packaging board area
- Attractive product portfolio
- High asset quality with well invested board machines
  - Highly efficient board production
  - Cost competitiveness through high degree of integrated chemical pulp production
  - Swap ability between machines
BKOM *(BILLERUDKORSNÄS OPERATIONAL MANAGEMENT)*
A STRUCTURED AND CONTINUOUS APPROACH TO ERADICATE BUSINESS LOSSES AND MAXIMIZE PERFORMANCE

**Improvement Team:**
Reduction in pulley breakdowns

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**The Route for breakdown reduction: the activities**

1. **Define preventive maintenance plans**
   1. Summarize causes & countermeasures from breakdown analysis
   2. Implement actions and countermeasures
   3. Set the improved maintenance system
   4. Set the Machine Board

2. **Highlight the causes of sporadic breakdowns**
   1. Introduce a new breakdown definition
   2. Introduce the breakdown analysis
   3. Define the system to support it
   4. Train all the relevant operators and maintenance technicians
   5. Implement the system & continue follow-up analyses and results

3. **Attack repetitive breakdowns**
   1. Define the failure modes in important areas
   2. Carry out FMECA analysis on failure modes
   3. Define countermeasures
   4. Implement countermeasures
   5. Establish a monitoring system for reoccurrences

4. **Restore basic condition in critical areas and set standards**
   1. Identify critical areas
   2. Perform Initial Cleaning and Tagging
   3. Manage the Tags
   4. Define and Implement Cleaning, Inspection, and Lubrication Standards
   5. Restore all the Operating Standards

5. **Identify breakdown types**
   1. Set up a data collection system
   2. Analyze historical data & set performance indicators
   3. Deploy breakdowns and carry out a Pareto Analysis
EXPANDING FOOTPRINT IN CONSUMER PACKAGING
LIQUID PACKAGING BOARD

✓ Challenging and complex product
✓ Attractive growth opportunities
✓ BillerudKorsnäs well positioned to capture growth

Pictures in presentation from BillerudKorsnäs and Tetra Pak.