



Bizzypack GmbH

Innovative packaging materials & machines

Soft drink producer / bottling

Netherlands

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Situation

- Current film used:
 - AFP Katan-Ex 23 my
- Machine:
 - Matco rotary arm – ca. 20 years old
 - Ca. 250% fixed prestretch
 - variable secondary tension

(Programm 1 55% bottom-mid-top of pallet)

Oude instellingen waren gedocumenteerd. Deze heeft

Matco had reduced secondary tension in the past, as film

was tearing at pallet edges. Despite secondary tension

applied, holding force is relatively slow. Pallets show

instability.





Situation

- Packed goods
 - Combined pallets – multiple layers with pallets in between
 - 12 x 0,5 liter bottle in a shrink pack
 - Weight varies between 400 and 1300 kg
 - Irregular pallets. Large edges from pallets. Gaps between layer of bottles to next pallet. Quite a challenge for any film.
 - Machines are rather old. Prestretch is not achieved due to old rollers, which are letting the film slip through. Softer films will be “easier“ for the film to prestretch and will reduce consumption considerably.
 - Lack of prestretch performance is compensated by higher secondary tension. This is technically not optimal. Films are designed for prestretch, not for tensioning by resistance. A typical customer reaction is to ask for thicker films, preventing tearing at sharp edges instead of improving the machine characteristics, especially the prestretch rollers.





Challenges

- Current film is too weak to achieve the right pallet stability on this machine. If secondary tension is increased, film tears at pallet edges.
- The 23 my Katan-Ex van AFP is doing quite well, but with program 1, pallet stability is too low. In addition, film consumption is too high.
- We tested with a challenging pallet. Many sharp edges and corners. Wobbly and unstable due to small shrink packs. If our solution works with this pallet, it will work for all pallets.



Results

Current situation

Katan-Ex AFP 23 my

Prestretch ca. 250%

Sec. tension „45%, at top 15%“

Consumption: 311 grams/pallet

Holding force:

Top: 5,1 kg

Bottom: 7,6 kg

Buying price xxxxx Euro/kg

Cost per pallet: xxxx Euro

New film

Nano film 15 my HL300

Prestretch ca. 250%

Sec. tension „55%, at top 25%“

Consumption: 170 grams/pallet

Holding force:

Top: 7,0 kg

Bottom: 12,0 kg

Buying price xxxxx Euro/kg

Cost per pallet: xxxx Euro

33 layer nano films are considerably stronger than regular film types

45% less plastic = less goods purchased, lower stocks, less waste.

Pallet stability is considerably better. Film does not tear as easily.

45% savings in Euro – starting immediately from the first pallet - no investment needed



Less waste— good for planet EARTH!





Next steps

1. Create frame work contract for 2020
2. 2 week test with new film to confirm test findings
3. If long term test is succesful, switch completely to new film
4. Test new film on large production lines in other facilities