

Retrofit and save costs!

Field study results leave no doubt about the technological advantage of YarnMaster® PRISMA.

The study took place in India at a Loepfe customer's plant to measure YarnMaster® PRISMA on productivity (cut-rate), resulting fabric quality and cost savings.

PRISMA proves to be the right choice for profitable yarn clearing in the application of 100% cotton compact yarns Ne 30 and Ne 40 produced for quality fabrics.

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Result summary:

Significantly fewer cuts with PRISMA

- In NSLT classification, up to 36% fewer cuts and in foreign fibers classification up to 69% fewer cuts
- Total Cuts of ZENIT are 64% higher in Ne 30 and 132% higher in Ne 40

Fabric Quality

- ≈ 30% less remaining faults detected with classimat in the PRISMA cleared yarn
- PRISMA can achieve 39% less contamination / Kg in the woven fabric

Total cost Savings / Year in USD / winding machine

- Ne 30: USD 2516.40
- Ne 40: USD 2826.82

Study set-up:

Sensors:

- YarnMaster PRISMA DMFP compared to YarnMaster ZENIT DFP on productivity (cut-rate), resulting fabric quality and cost savings

Location:

- Loepfe Customer India

Raw Material:

- 100% cotton (MECH) from India Ne 30 carded compact
- 100% cotton (MECH) from India Ne 40 combed compact

Winder:

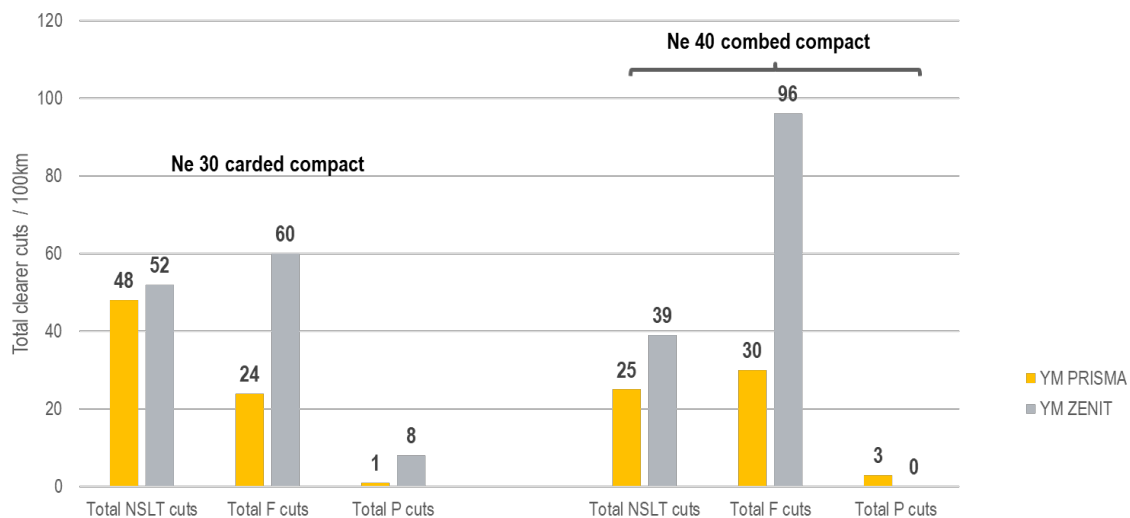
- Study were done with both clearers on the same winding machine

Goal:

- Better clearing performance: Less cuts, higher efficiency and better fabric quality

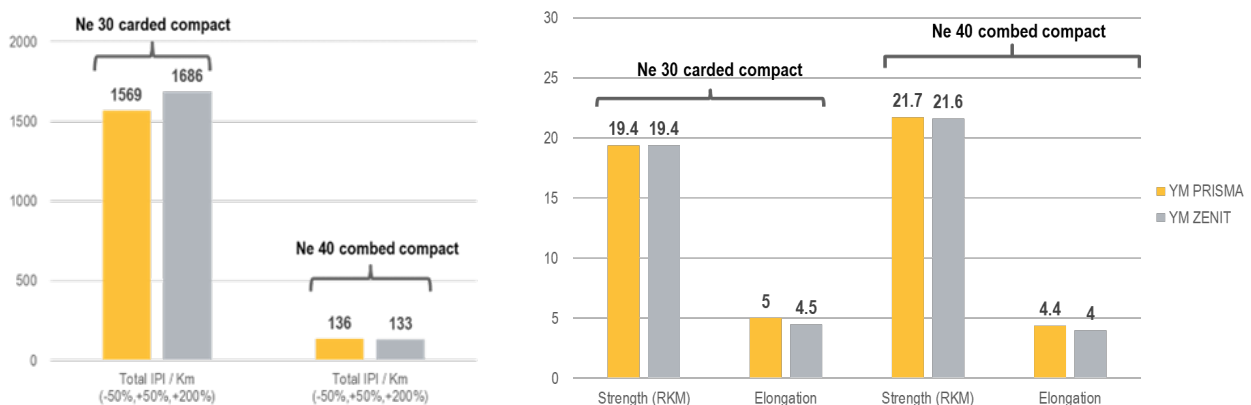
1. Total clearing cuts / 100 km

- Significantly fewer cuts with PRISMA, especially in the F cuts
- In NSLT classification, up to 36% fewer cuts and in foreign fibers classification up to 69% fewer cuts
- Total Cuts of ZENIT are 64% higher in Ne 30 and 132% higher in Ne 40



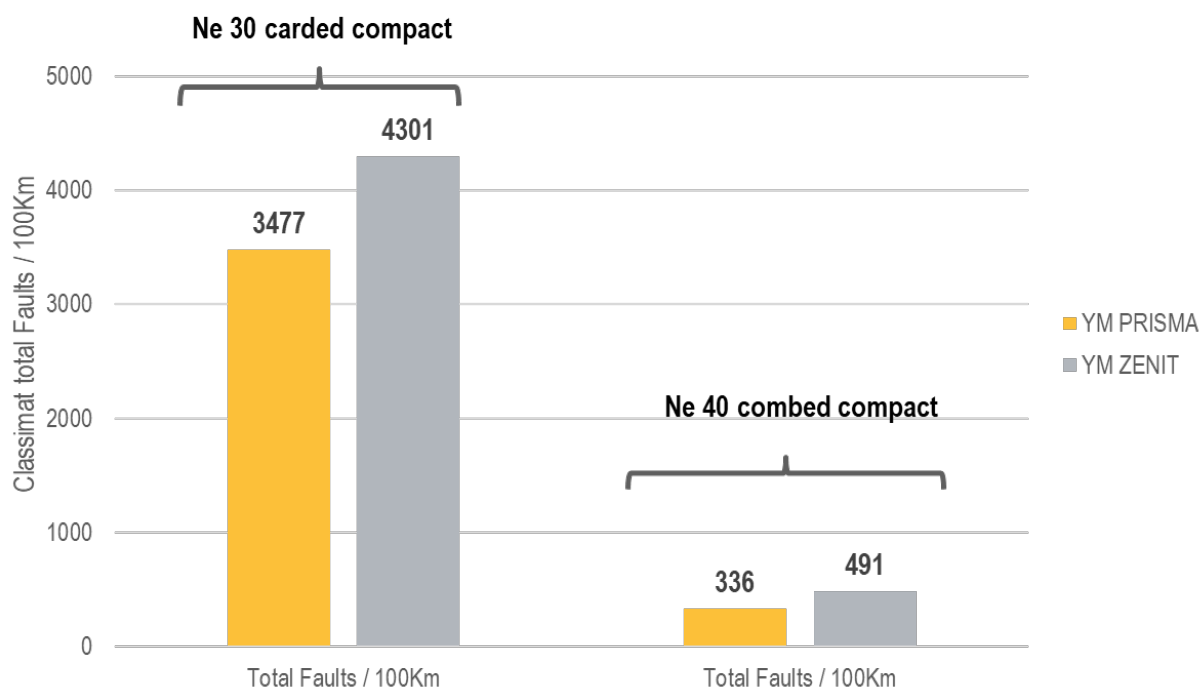
2. Equal results from laboratory test on USTER Tester and USTER Tensojet

- The results of the laboratory are very similar, means same quality



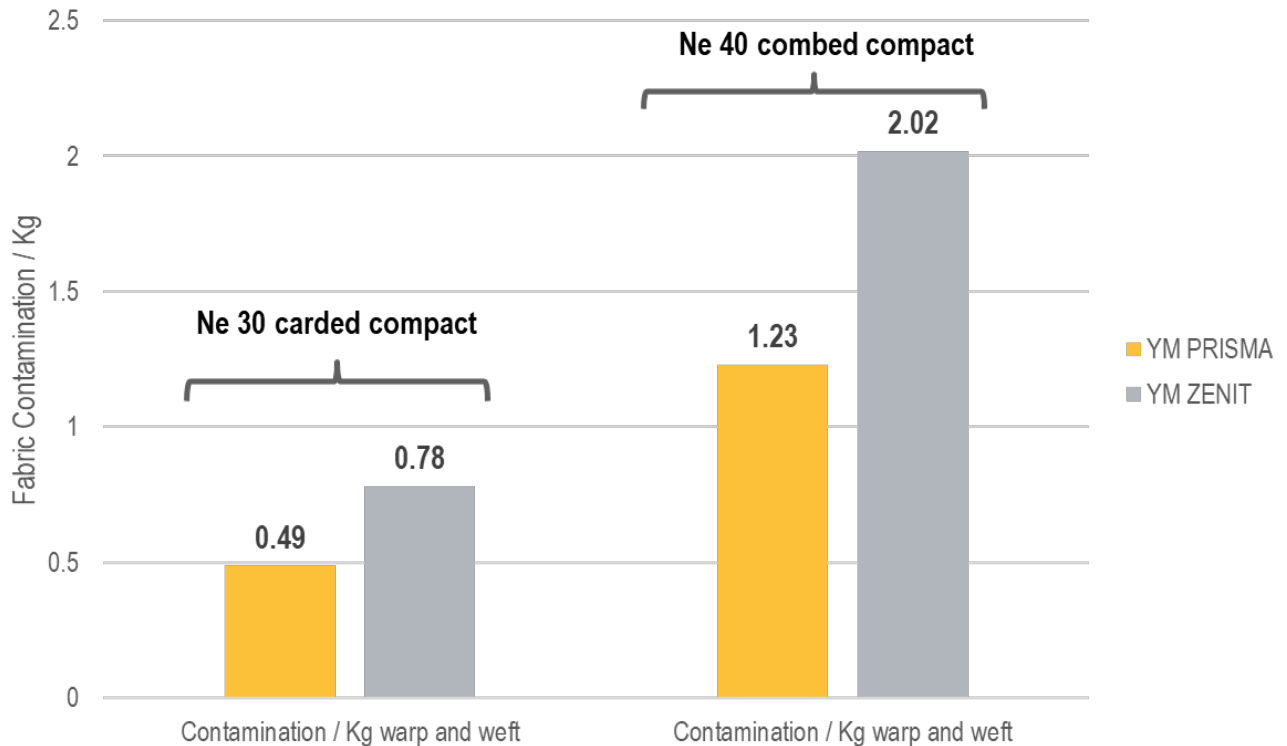
3. Classimat total Faults / 100 km

- ≈ 30% less remaining faults detected with Classimat in the PRISMA cleared yarn



4. Fabric Contamination / Kg

- PRISMA can achieve 39% less contamination / Kg in the fabric



5. Cost savings

Cost savings	Ne 30 carded compact		Ne 40 combed compact	
	YM ZENIT	YM PRISMA	YM ZENIT	YM PRISMA
Total Cuts	120	73	135	58
Cut Savings /100 km	-	47	-	77
Waste cost savings / Year in USD / winding machine	-	669.30	-	1'423.48
Energy and air cost savings / year in USD / winding machine	-	1'320.90	-	1'321.26
Savings through higher productivity / year in USD / winding machine	-	526.20	-	82.08
Total savings / year in USD / winding machine	-	2'516.40	-	2'826.82

Basis for calculation Ne 30:

- Winding speed: 1300
- Amount of winding positions: 30

Basis for calculation Ne 40:

- Winding speed: 1100
- Amount of winding positions: 38

6. Impact on productivity, quality, and raw material utilization

