

250 Kg per Hour: The High-Performance Card C 80 Has Set a New Benchmark in Productivity for Rotor Yarn



The high-performance card C 80 has been presented at ITMA 2019 for the first time and has since impressed numerous customers with its outstanding productivity. The performance of the C 80 during the last months at a customer has shown great results: The production level is higher by 67% in comparison to the C 70 for rotor fine yarn counts. The quality of the yarn and the production efficiency of the Rieter open-end machine is the same or even better.

Expectations exceeded

Shortly after its presentation at ITMA 2019, a lot of customers were interested in the new card C 80 and within a short time more than 100 pieces were sold. During the last couple of months, the C 80 had the possibility to prove its promised performance in use with customers.

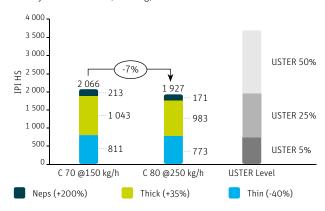
Especially for rotor fine yarn counts, the productivity of the C 80 has exceeded the expectations of the customer. With 250 kg/h the C 80 produced 100 kg/h more than the predecessor model C 70 without impairing yarn quality or efficiency of the rotor spinning machine.

Production level of 250 kg per hour

In a comparison over several months, the C 80 produced $250 \, \text{kg/h}$ with 7% less imperfections in the rotor yarn compared to the C 70 with $150 \, \text{kg/h}$.

Yarn imperfections per 1 000 m

100% cotton, 1 1/8", 4.5 Mic., 2.5% trash rotor yarn count Ne 28, knitting, ~3.0% card waste extraction

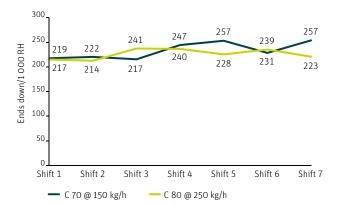


No loss in efficiency

The higher productivity of the C 80 does not result in a loss of efficiency compared to the C 70. The natural ends down per 1 000 operating hours show that the running performance of the rotor machine is the same with the material from the C 80 compared to the material from the C 70.

Natural ends down per 1 000 RH

100% cotton, 1 1/8", 4.5 Mic., 2.5% trash rotor yarn count Ne 28, knitting, ~3.0% card waste extraction

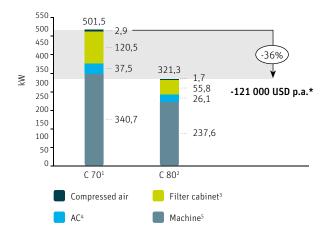


36% less energy needed

Thanks to the high production level of the C 80 it is possible to significantly reduce the number of machines. This leads to energy savings of up to 36% in comparison to the C 70. In the current customer example this accounts for 121 000 USD per year.

Energy comparison for 3 500 kg/h sliver production

100% cotton, 1 1/8", 4.5 Mic., 2.5% trash rotor yarn count Ne 28, knitting



^{*8 400} hours p.a., 0.08 USD/kWh, production after efficiency losses

- ¹25 machines
- ² 15 machines
- ³ Energy consumed by the exhaust air filter (calculated with values for LUWA filters)
- ⁴ Energy consumed by the AC due to the heat generated by the machines
- ⁵ Energy consumption of the machines

The customer is now able to calculate for further machine investments with a significantly higher card production. This results in up to 36% lower energy costs for sliver production because a lower number of cards is required.

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