

## Card C 81: Processing 100% Noil or Card Waste at 160 kg/h



Qianjiang Changyun Textile Co. Ltd., founded in 2016, specializes in producing Ne 3 – 60 rotor spun cotton or blended denim yarns, knitting yarns, slub yarns and ultra-soft yarns. To ensure outstanding quality and economic efficiency, Changyun invests heavily in advanced equipment. Consistently upgrading its machinery, the company has recently integrated another Rieter fiber preparation line, which includes the blowroom line VARIOLine and the latest innovation in carding technology, the card C 81. This investment has significantly enhanced Changyun's fiber preparation processes, ensuring high-quality yarns with excellent evenness, low impurities, and yarn strength consistency.

### The Challenge

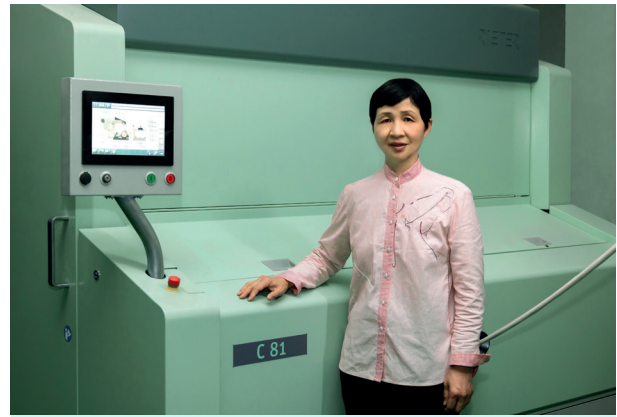
With intense market competition, spinning mills must improve yarn quality and reduce costs. Changyun's old cards from a competitor, producing only 50 kg/hour with high energy consumption, hindered their efficiency. In addition, regularly processing carding waste, noil from combing, and virgin cotton, Changyun faced the challenge of achieving outstanding yarn quality while managing various raw materials. High card productivity and energy efficiency, along with effective trash extraction and carding quality, were crucial.

### The Solution

Changyun's trust in Rieter's fiber preparation line, praised for its stability and durability over 30 years, led to the investment in two blowroom lines VARIOLine and ten cards of the latest Rieter card generation, the C 81 with a 1.5-m working width. The C 81 features the largest active carding area and the highest cylinder circumference utilization in the industry. In the long pre-carding zone, the fiber tufts are further opened, and larger impurities are efficiently removed. The high number of 40 working flats plays a crucial role in achieving excellent sliver quality, regardless of the raw material mix. The fully automated Integrated Grinding System IGS-classic and IGS-top keeps the cylinder wire and flat clothing consistently sharp, ensuring consistent sliver quality and high machine availability.

## The Customer's Benefits

The C 81 processes 100% noil and card waste at 160 kg/h with 98% efficiency, significantly boosting output by 220% compared to the old cards. In the region where Changyun is located, peak electricity costs 0.9 RMB/kWh, and valley electricity costs 0.3 RMB/kWh. The high output of the C 81 allows production during off-peak hours, saving more than RMB 100 000 monthly in energy costs. Frequent raw material changes are handled efficiently, ensuring uniform high-quality yarn and significantly increasing downstream customer satisfaction. When processing 100% Brazilian cotton, a 5% level on the Uster yarn index is possible. Even when using 100% card waste or 100% noil, excellent quality levels are maintained.



## The Customer's Statement

*"When processing 100% noil or card waste, the output of the C 81 is stable at 160 kg/h. Compared with the former card we operated, the output increased by 220%, the CV% of card sliver is lower, the quality of yarn is higher. Additionally, we could reduce the energy consumption per ton of yarn. We are therefore extremely pleased with the card C 81."*

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