

Processing Colored Recycled Fibers on the R 37



Cangnan Zijian Cotton Co., Ltd. is located in Cangnan County, Zhejiang Province, China, and is specialized in the production of recycled woven denim yarns Ne 7/Ne 10, which are mainly sold in domestic markets. Zijian uses a blend of recycled cotton and polyester as raw material. They categorize waste cloth according to color, open it and blend it with polyester. This blend is directly processed into colored yarn and, as a result, the downstream process of bleaching and dyeing is omitted. With the Rieter semi-automated rotor spinning machine R 37, Zijian profits from an efficient yarn production and meets the weaving requirements of downstream customers.

The Challenge

The requirements for yarn quality have increased because weaving mills and downstream customers place high demands on the fabric surface. As soon as yarn quality no longer meets the requirements of the weaving mill due to yarn breaks and yarn imperfections, spinning mills would have to compensate for these economically to a certain extent. As a continuously developing small spinning mill, Zijian needs to ensure yarn quality and maintain recognition among customers on the one hand. On the other hand, it needs spinning machines with high performance and good stability to ensure smooth and efficient yarn production.

The Solution

The semi-automated rotor spinning machine R 37 is the right choice for colored recycled fibers. It provides maximum flexibility also for smaller lots with different colors. Independent machine sides open up the possibility to spin different lots on each side. Thanks to the new spinning box, the extraction of trash and short fibers becomes more selective. The loss of good fibers is reduced. The yarn quality is high with good tenacity and low imperfections. Low energy consumption and simple, time-saving handling by operating personnel minimize production costs.

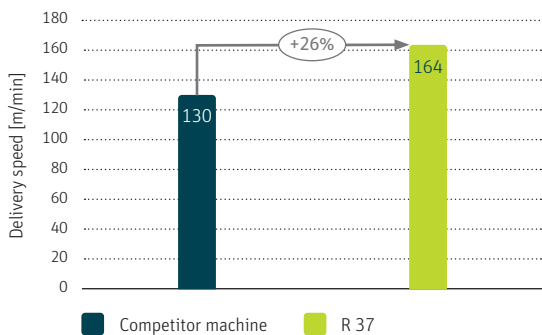
The Customer's Benefits

The R 37 has a higher yarn delivery speed, better yarn quality and quality stability, and high long-term profitability compared to the competitor machine. Energy consumption per ton of yarn has been reduced at Zijian thanks to highly efficient main drives and the energy-saving design concept. The simplified design of the R 37 helps to save costs for replacing components after prolonged operation. In case of high wear due to highly abrasive raw material, the fiber channel can easily be changed. Also, the trash channel can be exchanged without using tools to adapt the trash extraction to the raw material.

Due to its high quality, downstream customers prefer the yarn produced on the R 37 to that produced on the competitor's machine. Since the yarn no longer needs to be dyed in the downstream processes, Zijian achieves a higher price. The production of colored yarn is also more sustainable as water pollution and the use of chemicals is reduced. This makes the yarn even more popular with yarn traders and weavers.

Higher Production of R 37 at Zijian

Rotor yarn, Ne 10, blend of recycled cotton/polyester, weaving



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The Customer's Statement

"The rotor spinning machine R 37 is characterized by a high delivery speed, good equipment, high-quality components, high processing accuracy and easy operation. Especially when spinning coarse yarn, the delivery speed of the R 37 is very attractive."

Mr. Shanghao Li

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