

R 70 Integration Cuts Downstream Yarn Breaks by 60%



SISA is a prominent textile manufacturer in Brazil with over 135 years of experience. The company operates two manufacturing sites in the State of Sergipe, where it produces raw fabric and plush, as well as ready-made bed linen, tablecloth, and towels from its own rotor yarn. SISA's segments are fiercely competitive. To remain at the forefront of the industry, the company prioritizes modernizing its spinning machinery. This allows SISA to offer quality products that meet the needs of customers in the long term.

The Challenge

Since 2000, SISA already is using Rieter rotor spinning machines with great success. To meet the increasing demand and greater need in their downstream processing, the company decided to invest in further capacity of the spinning mill. The challenge was to spin multiple lots simultaneously, including very small ones. SISA is a vertically integrated company producing fine and coarse yarns for its own weaving mill. Especially with dense fabrics made of fine yarns, stops caused by yarn irregularities represent a significant challenge for weaving causing high cost. SISA had already achieved very good results for this application with yarns from the R 66 rotor spinning machine. However, especially with fine yarns Ne36, the R 70 has shown further potential for cost savings in weaving.

The Solution

The R 70 is the ideal solution for SISA's production challenges, thanks to its outstanding yarn quality and machine performance. The machine's innovative spinning box, combined with a cutting-edge machine concept, makes it highly capable of production challenging applications. The leading technology of the spin box ensures best yarn quality and high spinning stability. In addition, the machine concept with reliable individual drives provides additional flexibility. The R 70 can thus handle different lots without stopping the machine and starts up very quickly. This makes the R 70 the ideal choice for SISA's production needs.

The Customer's Benefits

SISA has achieved remarkable results since the installation of the R 70 in January 2022. Meanwhile, SISA has been producing an extensive range of yarn counts, from Ne 12 to Ne 36, yielding very good results. The R 70 has proven especially effective for Ne 36, 100% cotton yarns, which SISA uses in both the warp and weft. The weaving machines at SISA run at up to 800 picks/min for a fabric with a high density of 180 to 200 tpi. The R 70 yarns have the lowest IPI. The result in the fabric is remarkable in terms of less fine and thick stitches as well as neps. The yarn also causes the fewest yarn breaks and downtimes in the weaving mill, both in warp and in weft. Compared to the yarns from the predecessor model R 66, the number is again 60% lower. Moreover, the R 70's single-drive concept and flexibility have enabled SISA to achieve almost zero downtime for lot changes, resulting in significantly higher overall machine utilization. As a result, SISA's R 70 consisting of 720 positions contributes to reduce costs and increase efficiency.



SISA is extremely pleased with the machine's performance



The Customer's Statement

"We are extremely pleased with the machine's performance. The integration of the R 70 has significantly reduced downtimes for lot changes, nearly eliminating them altogether. This has resulted in exceptional overall machine efficiency. Furthermore, the results on the weaving machine are outstanding, with yarn breaks reduced by up to 60%."

Augusto Oliveira
– Plant Director

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