The Challenge

Traditionally, semi-worsted wool yarn producers usually use four draw frame passages without autoleveler. Each draw frame runs at only a low speed of 200 – 300 m/min. The producers are of the opinion that wool and its blends are hard to process and the draw frame speed cannot be increased to maintain a good yarn quality. Producers like Tongxiang Hongdeli Textile Co., Ltd. nowadays face new challenges. On the one hand increased labor costs, lack of proficient operators and the need for quick lot changes. On the other hand their downstream customers demand a higher yarn quality and request higher quantities.

The Solution

To solve all these challenges, the company considered investing in new draw frames. After studying the market, Tongxiang Hongdeli Textile Co., Ltd. learned that Rieter’s autoleveler draw frame RSB-D 50c is not only successfully running in cotton short-staple mills but also in semi-worsted wool spinning mills. So the customer is convinced that the RSB-D 50c with its precise autoleveling system can be used to produce with higher delivery speed and more stable wool yarn quality. The machine has an efficient operator guidance and requires less labor because of its attractive supporting measures direct on the machine display. Lot changes can be made easily due to self-setting autoleveling. Consequently, Tongxiang Hongdeli Textile Co., Ltd. invested in two sets of RSB-D 50c.
The Customer’s Benefits

The customer used to run four passages of non-autoleveled draw frames to produce 100% semi-worsted wool yarn. The delivery speed was only 200 m/min. Now, with the RSB-D 50c, they only need three draw frame passages and the speed reaches 500 m/min. As a result, compared to the previous process, the RSB-D 50c eliminates one draw frame passage and runs with a 25% higher delivery speed. At the same time the yarn quality is more stable.

After running the draw frame for half a year, the customer’s technician is delighted that the RSB-D 50c helps him by dramatically reducing lot change time compared to the old operator-intensive machine. Settings can be done very fast, e.g. roller distances in drafting system by a central setting device, self-explanatory and intuitional touch screen display allowing quick changes of total draft, delivery speed, coiler speed etc. The low number of drive elements such as belts reduces maintenance work.

Operators prefer to work with the RSB-D 50c as there are fewer machines to be handled. The machine is running with fewer stops. The big empty can magazine with five empty cans including a stable running can changer reduces the operator’s workload.

The Customer’s Statement

“Running the newest generation of Rieter draw frame, the RSB-D 50c, we eliminate one draw frame passage. Additionally, draw frame production is increased by more than 25% and the yarn quality is more stable.”

Mr. Kegui Zhu
Owner
Tongxiang Hongdeli Textile Co., Ltd.

<table>
<thead>
<tr>
<th>Draw Frame</th>
<th>Old Draw Frame</th>
<th>RSB-D 50c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Semi-worsted ring spinning Nm 4/8</td>
<td></td>
</tr>
<tr>
<td>Raw material</td>
<td>Semi-worsted ring spinning Nm 4/8 100% wool 50mm</td>
<td></td>
</tr>
<tr>
<td>Draw frame passages</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Output can (mm/mm)</td>
<td>Ø 400 x 900</td>
<td>Ø 400 x 1100</td>
</tr>
<tr>
<td>Heads</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Delivery speed (m/min)</td>
<td>200</td>
<td>500</td>
</tr>
</tbody>
</table>

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