

Boost Your Capability to Handle Fine Counts of up to 100Ne with CCI 'On the Loom' Solution

Highlight: Handling Fine Counts of up to 100Ne

Industry: Weaving Factory

Solutions: ON THE LOOM solution

Products: Taroko (Sizing) | Lutan (Warping)

Challenges

A regular shirt is usually in the range of 30 Ne to 40 Ne. To produce finer quality, the fibre will be higher in count such as 60Ne, 80Ne or 100Ne. In this project, one of our customers, a weaving factory which supplies a wide variety of textiles, was looking for an efficient way to produce the shirt fabric sample up to 100 Ne in full width for its customer's verification. It's usually quick and cheap that weaving factories manufacture textiles with traditional mass production machines on a large scale. However, when it comes to fabric swatch or small quantity order, using the traditional machines to run the production each time the demand is requested would incur significant labour & time cost, material waste and hinder efficient management. This is just the challenge that most weaving factories are facing. Not surprisingly, keeping high-performance factory operation has become first priority for textile manufacturers while handling this kind of demands.

CCI Solutions

The project was carried out automatically with CCI '[ON THE LOOM](#)' solution, including [Taroko](#), Multi-spindle Sizing Machine and [Lutan](#), Single-end Warping Machine. For efficient sizing of small quantity batch, CCI's [Taroko](#) was chosen because it is capable of giving intelligent control throughout the whole process. An individual hot-air drying blower equipped in each drying chamber provides precise control of temperature in each unit. Besides, the drying chamber is specially designed to make it operate in



CCI Taroko
Multi-spindle Sizing Machine

uniform low tension without changing the nature of yarn. Speed and temperature can also be set individually for each spindle with a touch-screen panel to ensure high stability. Taroko is very suitable for more precisely handling fine and delicate yarns to prevent yarn breakage or damaging the yarn properties during sizing process.

To fulfill the needs of small-scale production, we chose [Lutan](#) which features unique design that uses a "Ring" warping. The "Ring" rotates and winds the warp yarn in its required position directly on the drum. Once the warp is wound on the drum, its position and tension are fixed. This eliminates the friction between yarn and machine parts while the ring traversing on the drum to deliver the best quality of warp sheet. The length of the warp can be easily determined after specified rounds, especially ideal for producing short-run warp beam.

Together, this solution was able to finish the warp beam in 66 inch width with 10 thousands warp ends, allowing it to be woven on a jacquard rapier loom smoothly in this project.



CCI **Lutan**
Single-end Warping Machine

Results

CCI '[ON THE LOOM](#)' solution has proven its capability to successfully accomplish the warp preparation of 100Ne just like the mass production machines can do. Minimum one bobbin is capable of delivering efficient production of short-run weaver's beam in full width, easily implementing the job by single-end sizing and warping technology to meet all possible needs. With the innovative design of CCI's solution, our customer can more promptly respond to market demands and remain internationally competitive.

Benefits:

- Reduce costs and improve productivity for small-scale production
- Feature-rich design ensures warp yarn quality
- Faster time to market
- Easy to install and operate
- Less space occupancy of the machine



The short-run warp beam produced by CCI '[ON THE LOOM](#)' solution was successfully woven on a jacquard rapier loom in the project.

Machines Used

Taroko | Multi-spindle Sizing Machine

Quick Facts:

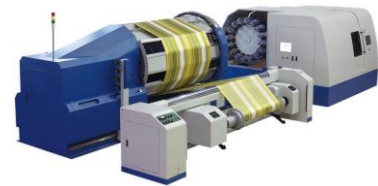
- Sizing Speed: 400 m/min
- Sizing Length: 550,000 m
- Drying Temperature: 90°C
- Drying Method: Hot-air drying blowers
- Sizing Temperature: 45°C (Cold sizing)
- Time Required to Complete: 6 hrs (4 spindles)



LUTAN 3.6 | Single-end Warping Machine

Quick Facts:

- Warping Speed: 500 m/min
- Warping Length: 50 m
- Number of Bobbins: 12
- Time Required to Complete: 2.5 hrs



Jacquard rapier loom (Customer adopted one of the major looms and jacquard machines in the market.)

Quick Facts:

- Weaving Speed: 400 ppm
- Weaving Length: 30 m
- Weaving Width: 1.68 m
- Total Ends: 10,800
- Number of Hooks on Jacquard: 2,688

For more information, please visit our new Website at <http://www.ccitk.com>.

Copyright © 2017 CCI TECH INC. All Rights Reserved.

