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William M. Barefoot Weaving Lab Manager of NC State University's Wilson College of Textiles



NC State University Implements CCI's Solution to Improve Work Efficiency

PROFILE

NC State University's Wilson College of Textiles is a public institution that was founded in 1887. It is the only college in the United States devoted entirely to textiles education, research and service. The college is one of the best textile institutions in the world. It owns a complete range of textile machines in laboratories. In an attempt to advance the textile industry, the Wilson College works internally with students and professors for academic research while it runs projects externally with industry members. For the weaving laboratory, it provides services for everything in the weaving process; from sizing, warping to weaving, and machine setup.

Fast Facts of NC State University

Website:

https://textiles.ncsu.edu/



Industry:

Educational Institute

Based in:

North Carolina, United States

Products Utilized:

LUTAN v3.6 (Single-end Warping Machine) SW550 (Mini Warper)

The Studio (Premium Loom)

SL8900 (Sampling Loom)

SS565 (Single-end Sizing Machine)

CHALLENGES

Before the adoption of CCI's solution, what the college's weaving laboratory had are full scale production looms with various insertion methods, a sectional warping machine, and other machines that aid in the weaving process. However, sometimes students and professors would need sample size fabric for doing their project or class; meanwhile, clients from outside industry would request service of sample for proof of concept & testing, or small order of a full scale warp and fabric. With the existing equipment the laboratory had, it could barely develop any sample fabric; as for small order production, the time and materials it took to do so would incur a considerable expense.

Besides, operation of production machines is complicated and not easy to learn how the machine works. Thus, the machines in the laboratory were not suited for working as a teaching tool as well.

SOLUTION & BENEFITS

After exploring many options, the Wilson College of Textiles chose CCI as the best solution. CCI solution allows the laboratory to easily complete sample and small quantity production because of a very simple design. The solution only requires as minimum as "1 bobbin" to complete most weaving process.

The laboratory first got a CCl's **Sampling Loom** (SL8900), Mini Warper (SW550) and Single-end Sizing Machine (SS565). This way, the laboratory could quickly finish all sample requests around 80 inches in length. Recently, the laboratory put the warp produced by SW550 into





CCI's LUTAN v3.6 (Single-end Warping Machine), installed in NC State University's Wilson College of Textiles

SL8900, and wove about 84 inches of material for a textile engineering student group. They used the material to do the project for their senior class, and their project won.

The laboratory is now also able to get a significant amount of industry work done on the CCI's machines. A lot of clients demand a sample size fabric for testing the material before moving to a full scale production. Sometimes they come in wanting multiple warps done slightly different, such as pick and end count, or variations in yarn size and materials. With CCI's sampling solution, satisfying those needs was easily achievable.

Most importantly, when students & professors and clients only have limited amounts of yarn bobbins, the solution can efficiently help them complete the warp and fabric. "The ease of setup of CCI's machines makes this process of setting up warps, weaving, and turning the machine over for a new warp quick for us", said Mr. William M. Barefoot, Weaving laboratory Manager.





CCI's SL8900 & The Studio (Sampling Loom), installed in NC State University's Wilson College of Textiles

After seeing the many benefits of the solution, the college was very satisfied and decided to purchase a second Sampling Loom (The Studio) and a Single-end Warping Machine (LUTAN v3.6). Instead of having to break down packages of yarn for its sectional warping machine, the laboratory now uses LUTAN v3.6 to easily run the warps of small quantity, speeding the warping process along without waste. "The purchasing of the many CCI equipment that we have has been a big aid in assisting us with the projects we need to get done", said Mr. Barefoot.

In addition, CCI's machines are easy to show students how weaving works. The smaller machine dimensions and ease of programming make the weaving process more observable, and are also a great way for students to learn about machine set-up. "The looms are excellent and productive which is a good teaching tool", he added.

Before employing CCI's solution, the Wilson College of Textiles didn't have proper equipment to make sample and small order productions. Thanks to the solution, the college has established an effective method to meet students' & professors' expectations. In the meanwhile, the college is capable of approaching more clients externally.

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