

Stäubli solutions for every woven application, even the most complex

At ITMA Asia CITME 2018 Stäubli is displaying its expanded range of products that are perfectly aligned with market needs. The company has been a leading supplier of the weaving industry for over a century. Today more than ever, Stäubli solutions allow mills to optimise their weaving processes for greater efficiency and profitability. Thousands of Stäubli machines and systems around the world are running at the highest speeds every day, proving their reliability and effectiveness. The company maintains its leadership position by listening to its customers and partners and constantly conducting research and development to provide advanced technologies that bring new advantages to weaving mills. At its booth this year, Stäubli is presenting an array of innovations showing that its product range squarely addresses key concerns of mills such as flexibility to adapt to quickly changing trends, consistent high-quality output, and high-speed, reliable performance for maximum cost effectiveness.

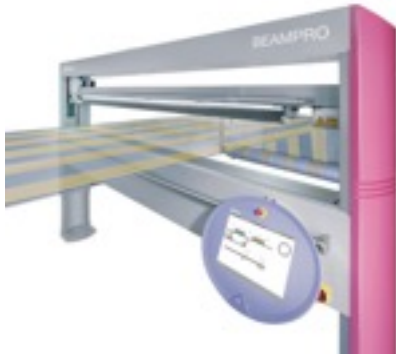
Stäubli's extensive range of products and solutions includes:

- Shedding solutions for frame weaving (cam motions, dobbies)
- Electronic jacquard machines with harnesses, in formats for every woven application
- Weaving preparation solutions for mastering warp preparation and warp tying
- Weaving systems for carpeting and technical textiles
- Deimo automation solutions for sock knitting

Easy-to-integrate automation solutions for weaving preparation

World premiere: BEAMPRO reading in machine for warp beam preparation

Being unveiled for the first time at ITMA Asia 2018, this machine is used at the sizing machine for automatically sorting coloured warp layers. It perfectly suits the needs of mills using multicoloured warps produced using the cost-effective method of beam dyeing and it can be integrated at any time with existing sizing machines. It can also be programmed using the mill's in-house network.



BEAMPRO automatic reading-in machine

The BEAMPRO reading-in machine is set up between the separation area and the warp-beaming machine. It reads in cotton, blended cotton, or staple fibre yarns into the comb in precise accordance with the colour repeat of the warps and achieves an unprecedented level of quality. Warps assembled with the BEAMPRO reading-in machine display perfectly ordered yarns, free from crossed ends and colour repeat defects.

With its reading-in speed of 500 yarns per minute, the machine drastically reduces idle time of the sizing machine during style changes. The productivity boost is significant: Depending on the production programme, 20 to 30% more warps per shift can be prepared. The weaving mill profits from higher productivity and better quality all the way through the weaving process, where warps prepared with BEAMPRO show better operating behaviour with fewer broken yarns.

SAFIR S30 drawing-in machine for high-density filament warps

Stäubli has made a name for itself as an advanced solution provider for reliable automation in weaving preparation with many innovative machines, especially the SAFIR automatic drawing-in machines, designed for the widest range of applications. The SAFIR S30 model is designed especially for filament yarns and is now available featuring a new 16 frame/rod capacity. It perfectly suits the needs of water-jet weavers and it is ideal for high-density warps with fine filament yarns. Like all SAFIR machines, it features Active Warp Control technologies such as double-end detection and colour repeat detection and management.

The SAFIR S30 on display at the booth is drawing in a warp with 12,800 ends and a yarn count of 15 den.

Shedding solutions for every type of application

High-speed rotary dobbies and cam motions for water-jet applications

The demand for synthetic fabrics is growing worldwide, and Asia is the main production region for manmade fibres. Stäubli is renowned for its range of **S3061** and **S3062 electronic rotary dobbies** for water-jet applications. These dobbies feature the exclusive Stäubli locking system for enhanced security and precise selection of heald frames, and they are prized for their reliable operation and long service life. They are ideally suited for weaving patterned fabrics.

An S3060 rotary dobbie is on display in combination with the UNIVALETTE Jacquard weaving machine.

The refined S2600 series of rotary dobbies for water-jet applications has just been expanded with the launch of the **2658** and **S2678 rotary dobbies**. These use the cutting-edge Stäubli rotation principle with which the heald frames have absolutely zero backlash at any operating load or speed. The main functional units such as the eccentric motion and the modulator are key to perfect shedding and precise frame movement. Built using the highest-quality components and a robust monobloc housing, these machines promise many years of reliable, high-speed operation.

The S2678 can be seen at the booth in combination with the new de82 harness motion.

All of Stäubli's rotary dobbies for water-jet applications are now equipped with the new **de82/de83 harness motion**. The reinforced drive and structure of these harness motions is the key to handling heavy loads and forces during weaving. With balanced kinematics and a patented, sealed roller bearing system, these **new transmissions optimize overall machine behaviour** and reduce maintenance requirements.

New range of cam motions for air-jet applications

With its cam motions, Stäubli offers an attractive alternative for weaving high-quality, simple, plain fabrics at the very highest production speeds. Carefully designed to exactly match weavers' needs, the S1691 and S1692 were launched a year ago to expand the range of possibilities for air-jet applications. Both models feature automatic levelling of the frames when switched off and lubrication integrated into the housing, which makes for simple and quick changing of the oil and filter. The robust housing provides optimum sealing to prevent dust penetration. These cam motions come equipped with the proven, maintenance-free e32/e33 harness motions for long, trouble-free service life.

The S1692 cam motion model is on display at the booth.

Flexibility in Jacquard weaving: large-format Stäubli machines

Always aiming to offer customers what they truly need to remain competitive in today's market, Stäubli offers a range of Jacquard machines for weaving the fabrics that today's fashion trends demand, with an emphasis on personal identity and creativity. Thanks to the reliability of Stäubli's Jacquard machines and the expertise and skill of the company's teams, Stäubli is a key partner when it comes to specific applications in industrial fields like automotive, aviation, and agro-technology.

LX/LXL/LXXL Jacquard machines for exquisite and large fabrics

All machines in the renowned LX series benefit from Stäubli's latest innovations and technology developments in the Jacquard field. For instance, the dual coaxial shafts controlled by complementary cams make for very finely balanced kinematics, ensuring precise shed geometry and absolutely vibration-free operation.

The series now boasts three models, available in formats up to 25,600 hooks:

- The LX, the original model, is in daily use around the world as a reliable workhorse producing high-quality fabrics for versatile and demanding applications (format up to 6,144 hooks).
- The LXL is available in formats up to 16,384 hooks. Launched two years ago, it produces excellent results in the form of terry cloth, silk fabric, shirting, and much more.
- The LXXL is the latest model in the series. Sized up to 25,600 hooks, it is designed for very high-density fabrics and very large weaving widths. Two machines in tandem allow a format of up to 51,200 hooks, allowing the production of very large designs in line with current trends.

Visitors to the booth will see the LXL with 19,584 harness cords (format of the machine exhibited is 10,240 hooks) producing clothing fabric and the LX with 6,652 harness cords producing 260cm-wide terry cloth.

Narrow fabrics for enhancing individuality

Welcome to a new era of personalization. With its range of Jacquard machines for name selvages and ribbons, Stäubli allows weavers to add value to their woven fabrics in a high-class way. The CX 172 and the UNIVALETTE electronic Jacquard machines are on display. The latter features individual warp-thread control, opening vast new possibilities for a wide variety of applications.

Weavers opting for a complete Stäubli Jacquard system, including machine and original Stäubli harness, benefit from a perfectly coordinated manufacturing system with precise interplay.

Complete weaving systems for carpeting and technical fabrics

Stäubli's Schönherr ALPHA 500 carpet weaving series allows weaving widths up to 5.3 m. These proven and extremely flexible systems enable weavers to optimise their production of high-quality carpets of all sorts. Weavers can create traditional and modern carpets using a very broad range of binding technologies. From extra-high-density rugs with traditional patterns to ultra-modern designer carpets, low- and high-pile rugs, wall-to-wall applications for the contract and transport sectors, and artificial turf for modern sport facilities, the ALPHA 500 series masters every challenge.

TF weaving system for technical weaves

Producing carbon and aramid weaves for lightweight construction, heavy multilayers, or spacer fabrics require gentle yarn treatment, heavy stroke forces, and machinery that allows individual design options. The TF weaving system offers this and can be spec-built to the technical textile mill's needs. Yarn supply, weft insertion, shed formation, and take up can all be fine-tuned to the requirements of the specific application.



S2678 electronic rotary dobby top mounted



LXXL electronic Jacquard
machine - Stäubli.j