Solutions that set the pace for today’s textile mills
An international group serving all industrial sectors

We serve customers worldwide who aim to increase their industrial productivity whilst maintaining quality, reliability or safety on the highest level.

As one of the leading manufacturers of quick connector systems, the Stäubli Group covers connection needs for all types of fluids, gases, electrical power and data. Our Robotics division is a leading player around the world in industrial automation, consistently delivering engineering as effective and reliable as our service and support. Stäubli Textile manufactures a range of quality high-speed systems for the weaving industry and offers personalized solutions to customers. A passion for quality and innovation, inherited from long industrial experience, is our fundamental driving force.

Customer proximity means we maintain a strong global network worldwide.

employees worldwide

5000

R&D specialists

500

pending or granted patents

2000

About
Connectors

Fluid Connectors
Electrical Connectors

Robotics

Textile

Over 20 industrial segments
Over 12 production sites
Over 60 Locations in 29 countries. Agents in 50 countries.
Technology for the textile industry, focused on productivity

We have been developing and producing high-quality systems for the weaving industry since 1892. Our products and services range from weaving preparation solutions, shedding solutions for frame weaving, and Jacquard machines, to weaving systems for carpets and technical textiles, and automation solutions for the knitting industry. Spare parts and customer training complete the offer.

The weaving industry has relied on Stäubli as a trusted solutions provider for more than a century. Our history in mechatronics gives us a strong foundation. Our passion for innovation allows us to bring leading-edge textile machinery to the market, and develop unique, individual solutions. Most importantly, our strong commitment to support ensures that our customers achieve higher productivity and better results, no matter where they are located.

Partnership: The key element

The Stäubli guarantee of high quality, reliability and performance is built into every one of our products. But helping customers meet the industry's growing demand for high productivity requires additional support. Partnering with our customers worldwide to provide personal service and support are key to ensuring efficient production and minimal downtime.
MASTERING THE CHALLENGES OF A MODERN MILL

Orchestrating your entire weaving and knitting process
As a leading machine and system manufacturer, Stäubli helps textile mills to select equipment that best suits their needs, ensuring the production of high-quality textiles. Since its invention of dobby, Stäubli has continuously been innovative and raising the bar in terms of quality, reliability and efficiency. Stäubli – the perfect partner for mastering the challenges that face the modern textile mill.

**Woven preparation**  
Stäubli offers machines for multi-layer leasing, automatic drawing-in, and warp tying for optimising the weaving preparation and ensuring continuous production.

**Frame weaving**  
With its precisely operating and durable cam motions and dobby, Stäubli provides shedding solutions for any type of weaving machine and ensures the manufacture of high-quality fabrics.

**Jacquard weaving**  
The broad range of Jacquard machines includes high-productivity solutions for all types of flat, technical fabrics and terry. Precise shedding and premium fabric qualities are standard, at high production speeds.

**Carpet weaving**  
With the ALPHA series double rapier carpet weaving systems, Stäubli brings advanced applications and productive solutions to any carpet mill.

**Technical textile weaving**  
With its individually configurable TF weaving system, Stäubli enables the development and production of a wide range of technical fabrics for applications in any industry.

**Knitting solutions**  
Stäubli offers a diversified product range for dynamic process optimisation for circular knitting machines.

**Services**  
Stäubli service begins from the very first contact, with optimal system consulting. The outstanding service continues through machinery installation to after-sales support. Advice on ways to reduce costs or increase productivity is always available and customers anywhere in the world can draw upon the experience and know-how of Stäubli experts at any time.

Take the conductor’s baton in your hand and orchestrate your weaving mill with fully coordinated Stäubli instruments.
High degree of automation in weaving preparation allows mills to operate their machines at a high level of productivity. Warps must be ready at the right time, in the right number and in the required quality in order to ensure continuous production. Stäubli offers a broad range for automated weaving preparation, resulting in faster production cycles.

**WEAVING**

High speed and precision for quality fabrics

<table>
<thead>
<tr>
<th>Application</th>
<th>Weaving preparation product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Style changes</td>
<td><strong>Automatic drawing in machines</strong> -</td>
</tr>
<tr>
<td></td>
<td>For efficient workflow resulting in high-quality woven fabric.</td>
</tr>
<tr>
<td>Warp changes</td>
<td><strong>Warp tying machines</strong> –</td>
</tr>
<tr>
<td></td>
<td>Single or double knots; from finest to coarse yarns and tapes.</td>
</tr>
<tr>
<td>Process optimization equipment</td>
<td><strong>Warp preparation equipment</strong> –</td>
</tr>
<tr>
<td></td>
<td>Preparing and handling the warp sheet for optimum automatic drawing-in or tying.</td>
</tr>
</tbody>
</table>
Solutions for all types of frame weaving applications

Whether producing simple weaves or patterned fabrics, precise shed opening adjustment is required in order to achieve efficient production.

Stäubli offers cam motion and dobies featuring robustness, precision and versatility. They can be adapted to the production of all fabric types including heavy fabrics and up to 56 frames, and are suitable for all models of weaving machines and weft insertion systems.

<table>
<thead>
<tr>
<th>Application</th>
<th>Cam motions</th>
<th>Rotary dobbies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projectile weaving machine</td>
<td>-</td>
<td>Up to 18 frames</td>
</tr>
<tr>
<td>Rapier weaving machine</td>
<td>Up to 10 frames</td>
<td>Up to 24 frames</td>
</tr>
<tr>
<td>Double rapier weaving machine</td>
<td>-</td>
<td>Up to 56 frames</td>
</tr>
<tr>
<td>Water-jet weaving machine</td>
<td>Up to 10 frames</td>
<td>Up to 16 frames</td>
</tr>
<tr>
<td>Air-jet weaving machine</td>
<td>Up to 10 frames</td>
<td>Up to 20 frames</td>
</tr>
<tr>
<td>Weaving machine for heavy technical fabrics</td>
<td>Up to 10 frames</td>
<td>Up to 56 frames</td>
</tr>
</tbody>
</table>

Stäubli Jacquard machines – The synonym for perfect operation at the highest production speeds

Thousands of Stäubli Jacquard machines are in daily operation in mills around the world. These machines are appreciated by weavers for their robust design with very long service life, balanced kinematics allowing extremely high speeds, and easy-to-integrate housing.

Stäubli Jacquard machines are available in a wide range of formats, from 64 to 25,600 hooks and can be combined to achieve installations with up to 51,200 hooks.

This important extremely broad range of formats allows weaving mills to produce a very wide range of applications.

<table>
<thead>
<tr>
<th>Application</th>
<th>Jacquard machine type</th>
<th>Stäubli harnesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name selvedges</td>
<td>Up to 192 hooks</td>
<td></td>
</tr>
<tr>
<td>Ribbon</td>
<td>Up to 896 hooks</td>
<td></td>
</tr>
<tr>
<td>Label</td>
<td>Up to 25,600 hooks</td>
<td></td>
</tr>
<tr>
<td>Terry towel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical fabric</td>
<td>Up to 8,448 hooks</td>
<td>Stäubli harnesses are the perfect link between the Jacquard machine and the warp threads of the weaving machine. Furthermore, our custom configured harnesses can be used to weave nearly all types fabrics.</td>
</tr>
<tr>
<td>Technical fabric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carpet</td>
<td>Up to 14,336 hooks</td>
<td></td>
</tr>
</tbody>
</table>

Stäubli harnesses
WEAVING

Flexibility for creative carpets or technical textiles

Carpet weaving systems
ALPHA 500 series weaving systems feature many state-of-the-art technologies, allowing mills to react easily to rapidly changing market demands. Whether for traditional rugs that look handmade or robust wall-to-wall carpeting for the contract sector, ALPHA 500 series systems give weaving mills the utmost flexibility to create a broad range of carpet qualities.

<table>
<thead>
<tr>
<th>ALPHA 500 Series applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Face-to-face, cut and loop</td>
</tr>
<tr>
<td>■ Cut pile and flat fabrics</td>
</tr>
<tr>
<td>■ Patterning on the ground</td>
</tr>
<tr>
<td>■ Loop pile</td>
</tr>
<tr>
<td>■ High pile, shaggy, artificial grass</td>
</tr>
<tr>
<td>■ Special effects</td>
</tr>
<tr>
<td>■ Additional patterning on the carpet back</td>
</tr>
<tr>
<td>■ Printable carpets</td>
</tr>
</tbody>
</table>

Weaving systems for technical fabrics
The mill specifies the textile characteristics – Stäubli supplies the individually configured weaving system. Together with the mill, we precisely define the fabric qualities, yarn materials, and the required weave.

The Stäubli TF series weaving system allows combining a wide variety of yarn materials into a fabric as well as the production of multi-layer fabrics with variable thickness or new types of spacer fabrics. Weavers enjoy virtually unlimited design freedom to produce innovative fabrics with nearly any required characteristics.

<table>
<thead>
<tr>
<th>TF weaving systems applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Reinforcing fabrics</td>
</tr>
<tr>
<td>■ Heavy industrial fabrics</td>
</tr>
</tbody>
</table>
Automation solutions for the hosiery production

For cost-efficient production, every modern knitting mill needs a high level of automation. The requirements for customisation of automation solutions increase with the complexity of the products to be manufactured. Thus, the process optimisation to be implemented must meet high standards of scalability, flexibility, and quality. DEIMO knitting solutions by Stäubli offer customised answers solutions for every knitting mill.

**Electronic control system**
Controls and monitors all functions and processes in sock and hosiery knitting machines.

**Automatic toe linking device**
A revolutionary device for toe linking immediately after the knitting process while the sock is still on the circular knitting machine.

**Production monitoring and graphic programming systems**
Comprehensive, innovative software packages for programming knitting patterns and for process monitoring and data recording during knitting.
Textile

Systems and solutions for the most demanding applications
Fashion
The extensive range of Stäubli’s machines and automation solutions for the textile industry supports the production of every type of woven fashion application, including elegant designer suits, plain or fancy shirting, denim trousers, and outdoor sportswear. Stäubli even offers accessories for lingerie and seamless socks that offer a delicate wearing experience.

Home textiles
Using Stäubli systems and automation solutions, weavers can create fabrics for cosy and trendy interiors: from quality mattresses, bed linen and fluffy terry towels that enhance well-being to modern curtains, tablecloths and upholstery for an elegant lifestyle.

Flooring
With its Schönherr carpet systems, Stäubli provides weaving systems for the creation of loop or pile wall-to-wall carpeting for high-wear areas such as hotels or offices, and also for transportation applications (trains and airplanes) or rugs of any size up to 5.3 m in width.

Automotive
Certain auto body parts as well as the interiors of practically all motor vehicles – from floor mats to seat covers to headliner panels – feature textile applications. Increased attention to safety has led to the introduction of airbags mounted in the sides of seats and in the headliner above the doors. Stäubli offers weaving solutions that make it possible to meet such complex requirements.

Protection / Manufacturing industry
Stäubli machinery is used in the production of personal protective equipment as well as belts for hoisting heavy payloads, parachute straps, seatbelts, slings and harnesses for free climbers; and conveyor belts for transporting goods.

Innovative technical textiles
Stäubli machinery for specific textiles allows combining a wide variety of yarn materials into a fabric and producing multi-layer fabrics with variable thickness or new types of spacer fabrics. This allows product designers in many sectors – such as building, energy, medical, agricultural, geotechnical or automotive – to create new, applications integrating textiles.
CUSTOMER SUCCESS STORY

8,400 hours per year at top speed

Who is GETZNER?
We are an Austrian family-run business since 1818. We are one of the world’s largest weavers of fancy fabrics and we are the clear leader in the field of African damask – thanks in part to Stäubli Jacquard machines.

What is special about your African damask?
It makes up the largest portion of our production. The very high quality of workmanship and the innovative designs make these fabrics unique. The requirements for appearance and lustre are significant, along with good dyeing properties, which are also very important.

What requirements must weaving machines for African damask fulfil?
We have been using Stäubli Jacquard machines and dobbies to weave these sophisticated textiles since 1996. These modern weaving machines must deliver the highest speeds and handle constant maximum loads – while offering low energy consumption. Additional key advantages are reliability, easy access, and minimum maintenance requirements.
Leading global carpet producer, Kartal, relies on ALPHA carpet weaving systems to expand production.

Kartal Halı is the one of the three largest carpet producers in Turkey. With over 1,200 employees and a 100,000m² factory in Gaziantep, the company produces around 16 million square meters of rugs and carpets every year. They are also among the leading carpet suppliers worldwide, selling their Turkish carpets in over 62 countries, mainly under the brand name Sanat Halı.

Established just over 30 years ago, the company rapidly moved to the forefront, which can be attributed to doing the key things right. The management is firmly committed to product quality & value, customer orientation and employee development.

Kartal installed their first Schönherr 5-metre ALPHA series carpet-weaving system at their factory in Gaziantep in June 2016. Thanks to the efficient installation and intensive training, the system has proven efficient in everyday use. Kartal managers say that “the machine is 10% more productive than the competitor’s machine”. That’s a key reason why Kartal have ordered several more machines to be delivered in 2017.

Kartal’s strategic investment shows their confidence in Schönherr weaving technology and in the teams of Stäubli Turkey, including the R&D, sales, service and administration departments. Working continually with the Staubli teams, the weavers, technicians and managers at Kartal know they can fully rely on the know-how and services of Stäubli.

A warming story about long-term partnership with Fraas

V. Fraas GmbH is a family-owned global fabric producer founded in 1880. Its main business is scarfs and accessories, and its 600 employees around the world produce some 12 million scarves a year, including the premium brand Cashmink.

The main challenge in the scarf industry is that it is a seasonal business. To ensure profitable operation, Fraas needs reliable, precise, high-speed machinery for continuous weaving of very high volumes during the peak months – and these machines must also offer the flexibility and easy handling for quick style changes to produce a diversified range of weaves during non-peak months.

To achieve both high productivity and agility, Fraas has been counting on Stäubli shed motions such as electronic rotary dobbies and Jacquard machines since the 1980s, and the company recently decided to invest in a new SAFIR S60 automatic drawing-in machine. With its unique yarn separation system, this machine supports perfect preparation of the warp and quality of the final product. Because Stäubli also provides reliable and prompt service and always continues to listens to customers about their needs and requirements, this success story will continue as long as winters are cold and people want to bundle up in beautiful scarves.

A warming story about long-term partnership with Fraas

V. Fraas GmbH is a family-owned global fabric producer founded in 1880. Its main business is scarfs and accessories, and its 600 employees around the world produce some 12 million scarves a year, including the premium brand Cashmink.

The main challenge in the scarf industry is that it is a seasonal business. To ensure profitable operation, Fraas needs reliable, precise, high-speed machinery for continuous weaving of very high volumes during the peak months – and these machines must also offer the flexibility and easy handling for quick style changes to produce a diversified range of weaves during non-peak months.

To achieve both high productivity and agility, Fraas has been counting on Stäubli shed motions such as electronic rotary dobbies and Jacquard machines since the 1980s, and the company recently decided to invest in a new SAFIR S60 automatic drawing-in machine. With its unique yarn separation system, this machine supports perfect preparation of the warp and quality of the final product. Because Stäubli also provides reliable and prompt service and always continues to listens to customers about their needs and requirements, this success story will continue as long as winters are cold and people want to bundle up in beautiful scarves.
Global presence of the Stäubli Group

www.staubli.com