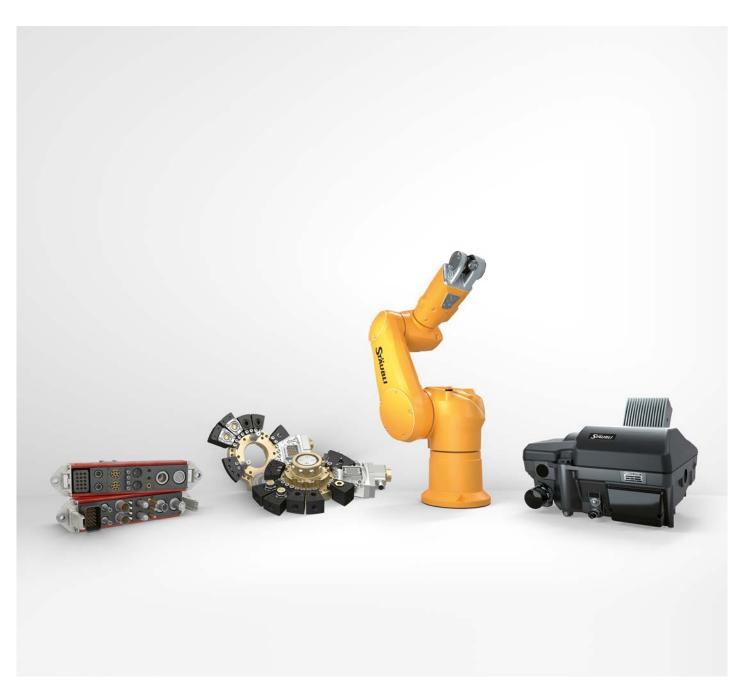
FAST MOVING TECHNOLOGY

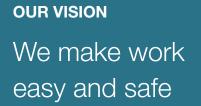


ΕN

# A passion for innovation

# Stäubli Group





Our industrial and mechatronic solutions deliver unparalleled performance and generate value for our customers, organization, society and environment.



# Our values drive the actions we take and define our culture



#### Our teams enable us to advance and succeed

- We work together for the best results and help each other to develop further.
- We treat each other with respect and value the experience or perspectives any colleague or partner brings in.



# Passion

#### Our commitment drives us in everything we do

- We always strive to deliver the best solutions and results.
- We dedicate ourselves to make working with us an outstanding experience.



#### Our actions shape customer satisfaction

- We lead by innovation and seize opportunities to foster our success.
- We are eager to learn from both our achievements and failures as we strive to exceed our customers' expectations.



# Our relationships are founded on long-term orientation and integrity

- We are committed to lasting and trusting bonds with our colleagues, customers and business partners.
- We strive to create value for our stakeholders, taking social, economic and environmental responsibility for all our actions.



"With our commitment to shared values we build a common culture – across all Divisions and regions. Our values draw upon our proud history and provide guidance on how we want to lead and collaborate while empowering us to develop unique strengths that distinguish us from others."

Gerald Vogt CEO Stäubli Group





# Stäubli history and DNA

Stäubli is a global industrial and mechatronic solution provider with four Divisions: Electrical Connectors, Fluid Connectors, Robotics and Textile. We are enabling customers to increase their productivity in different industrial sectors.



Originally founded in 1892 as a small workshop in Horgen (Zurich), today Stäubli is an international Group headquartered in Pfäffikon, Switzerland, operating with over 6,000 employees in 28 countries on four continents.

Stäubli is focusing on differentiation and growing businesses with strong future potential. Operational excellence, focus as well as strategic investments enable Stäubli to grow and take a leading position in the defined businesses and markets.

Innovation and sustainability are part of Stäubli's DNA: high-quality industrial and innovative mechatronic solutions as well as customer proximity will remain a success factor. Passion and family spirit make Stäubli unique. Our people make the difference – therefore we continuously invest in the development of our employees.

Quality and reliability have been the driving force of Stäubli since 1892. Long-term business activities and independence are key factors in Stäubli's success.

#### **OUR DIVISIONS**

# An international Group with a passion for innovation

Stäubli Electrical Connectors develops unique technological solutions for every industry. Our electrical connectors, designed for standard or custom applications, meet the highest requirements for efficiency, productivity and quality. We create connections for life.

At Stäubli Fluid Connectors we cover connection needs for all types of fluids, gases and electrical power. Our standard and customized products, including quick and dry disconnect couplings, multiconnection solutions, safety break-away couplings, tool changers and quick mold change systems, combine performance, quality, safety, dependability and durability. Stäubli Robotics' unique product range includes 4 and 6 axis industrial robots, cobots, mobile robotics and AGVs. The powerful, high precision solutions allow our clients in many demanding industries to tackle the challenges of Industry 4.0 under specific manufacturing conditions.

Starting off as a technological pioneer and reliable partner in the weaving industry, Stäubli Textile has been developing and producing high-quality systems since 1892. Our comprehensive range of proven machines and automation solutions allows weaving mills to optimize their production process and increase productivity.



**Electrical Connectors** 

Fluid Connectors

Robotics

Textile



### STÄUBLI ELECTRICAL CONNECTORS

# Electrical connectors for reliable, safe and durable solutions

Inspired engineering and technical expertise motivate us to develop the most innovative and versatile connectors.

"At Stäubli, we create connections for life – and our customers are at the center of these connections. We are convinced that solid and long-term relationships with our business partners directly contribute to our mutual success. With our Electrical Connectors Division, we develop innovative connector solutions to create value for our customers, taking social, economic and environmental responsibility for all our actions."

Franco Delvecchio Electrical Connectors Executive President



#### FOR VARIOUS INDUSTRIES

# Solutions for every application

Together with our global network of specialists, Stäubli engineers develop unique technological solutions for every industry. Our electrical connectors, designed for standard or custom applications, meet the highest requirements for efficiency, productivity and quality.

#### **Renewable Energy**

As the market leader for PV connections, Stäubli Renewable Energy provides high-quality PV connectors and expert services for electrical Balance of Systems (eBOS) applications.

#### **Industrial Machinery and Equipment**

Our CombiTac connectors with their long service life ensure a robust modular connector solution in various industrial machinery applications.

#### Energy

The energy sector is extremely diverse, and this also applies to our connector solutions for the energy sector.

#### **Medical Devices**

For specific medical and healthcare applications, we supply extremely reliable CombiTac modular connectors, contact elements and products for potential equalization.

#### Aerospace, Transportation and Logistics

We offer dedicated, highly reliable solutions for modern logistic applications such as AGVs and other transportation applications.

#### **Power Transmission and Distribution**

In power transmission and distribution, our connection solutions fulfill the highest demands and ensure decade-long reliable contacts.

#### Railway

We have been a reliable key supplier in the international railway sector for more than 30 years.

#### **Welding Automation**

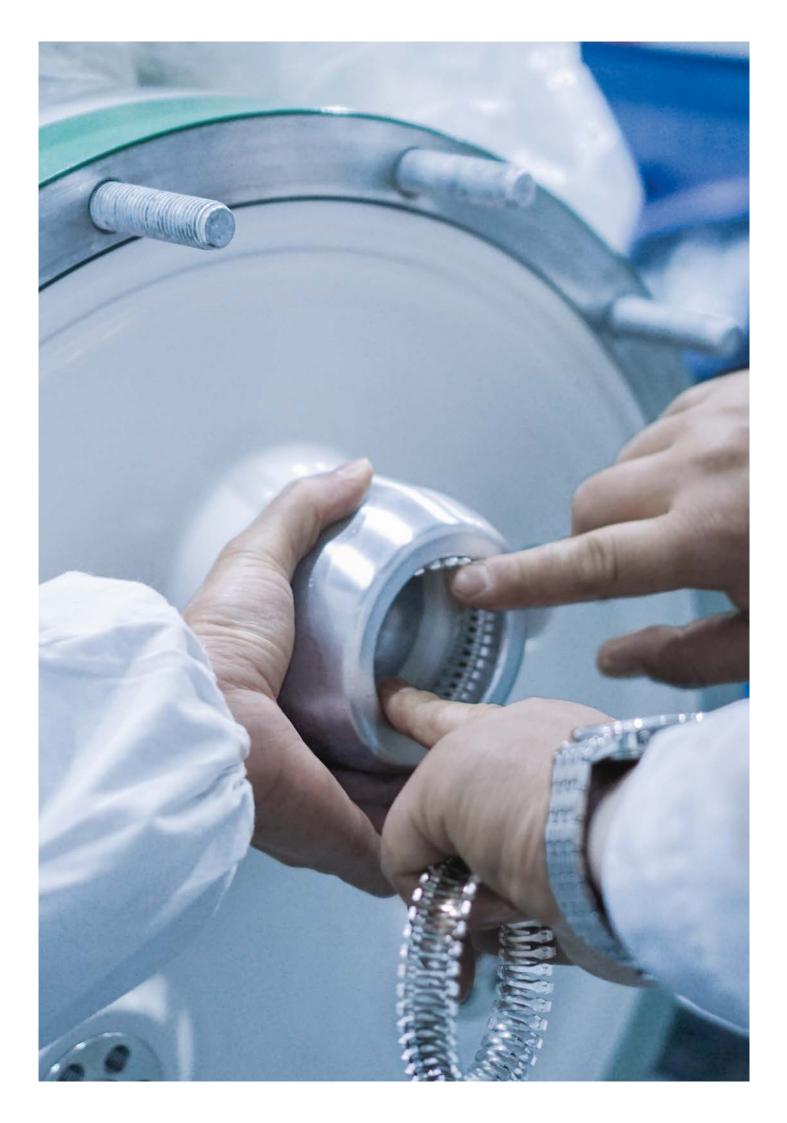
Stäubli's high-performance connectors for primary circuit lines guarantee a reliable power supply for welding units with maximum current-carrying capacity.

#### **Test and Measurement**

Our wide range of high-quality measuring instruments enables the most accurate tests from very low to medium-high voltage as well as in Direct Current (DC) and highfrequency measurement technology.

#### **Electric and Hybrid Vehicles**

Our connectors for e-mobility are designed to meet the requirements of challenging applications and harsh environmental conditions.





#### PRODUCTS

# Powerful connector solutions for excellent performance

#### **MULTILAM Technology**

The unique Stäubli MULTILAM contact technology is an extremely durable and reliable electrical contact system. Superior current carrying capacity and consistent minimum contact resistance result in outstanding performance. MULTILAM technology is particularly recommended for applications with more stringent requirements.

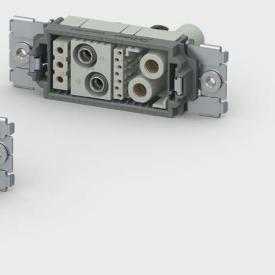
#### CombiTac modular connector systems

Cost-efficient and highly durable, the modular CombiTac connector system works under the toughest conditions. An easyto-use online configurator is available for customizing the product.

Renewable energy – solar photovoltaics As a PV pioneer, Stäubli has set the benchmark for pluggable PV connectors with its safe and efficient Original MC4 product portfolio. The proven quality of Stäubli eBOS components along the entire electrical PV supply chain guarantees reliable operation over the entire lifetime of more than 25 years.

#### Single-pole and multi-pole industrial connectors

Our high-performance industrial connectors are designed for severe requirements in industrial environments. Equipped with our tried and tested MULTILAM, they offer lowest contact resistance and extremely high current density. Our power connectors are used in a wide range of applications such as power generation and distribution, rack and panel applications, machine control systems and mobile transformers.







#### **Modular connection solutions**

Stäubli's broad industrial expertise enables us to offer both standard and customized solutions. We specialize in developing modular connection systems to provide allin-one solutions. Our tried-and-tested connectors allow the combination of electrical power, signal, data, thermocouple, coaxial, fiberoptic, pneumatic and hydraulic.

#### Spot welding connectors

Our connectors for primary circuit cables guarantee a reliable power supply for welding units. They feature the highest contact reliability and current carrying capacity. The lightweight and compact design of our latest connector generation can be easily integrated into modern manufacturing construction concepts.

# Connection solutions and accessories for Test and Measurement

Over the last four decades, Stäubli Electrical Connectors has become synonymous with safe and high-quality test accessories worldwide. Our innovative test accessories provide the performance, reliability and repeatability required for test, measurement and diagnostics. Our Test and Measurement product family exceeds today's stringent safety requirements.

FLUID CONNECTORS Advanced connection solutions

STAUBLI

### **STÄUBLI FLUID CONNECTORS**

# Improving your productivity with durable solutions

Your complete satisfaction inspires our range of fluid connectors, robotic tool changers and Quick Mold Change solutions. Leveraging our unrivalled expertise, we design and manufacture products tailored to the latest requirements of your industry, while anticipating future developments.



"Our expertise and global presence are the keys to our success. When it comes to enhancing productivity, and increasing safety for operators and facilities, our services, together with our range of market specific solutions, deliver a swift response and contribute to sustainable business growth."

Lionel Caillat Fluid Connectors Executive President

# Solutions for your application

For pressure, vacuum levels, specific handling procedures, hostile environments, extreme temperatures, vibration, precision, safety or anything else, Stäubli's engineers mastermind unique technology solutions just for you.



### Plastics

More frequent production line changeovers require more flexibility within automated processes. Used most often in durable plastic applications, our quick mold change (QMC) for transfer, loading and inspection solutions, our robot tool changers and our energy connections for injection molding machines and molds play an instrumental role in minimizing downtime. You get higher productivity at lower cost and stock levels.

How to increase productivity?

### **IT-Cooling**

Data storage capacity continues to rise unabated. Liquid cooling systems are considered mission-critical for protecting data centers against the risk of overheating, which can seriously threaten service continuity guarantees. Our quick release couplings reduce the time required for all maintenance procedures, while enhancing safety and improving the performance of IT and electronic systems.

# Which solution for Fujitsu?

## E-mobility

Stäubli connection systems ensure recordbreaking charging times for the automated guided vehicles (AGVs) operated by Port of Singapore Authority, the world's largest container transhipment hub.



Link to battery swapping solution

# Alternative fuels

Safety, simplicity and reliability are mandatory when refueling natural gas or hydrogen. User safety and comfort are prioritized with ergonomic and reliable service station filling systems, break-away connection systems, vehicle receptacles and non-return valves.

# Pharmaceuticals and cosmetics

Rolling stock must withstand the most

extreme mechanical and environmen-

tal conditions. For this key form of

eco-mobility, our connection solutions for

compressed air, hydraulic circuits, cooling

applications and fill-and-drain systems

hold the key to improving rolling stock reli-

Railway

ability and availability.

A major challenge that pharmaceutical laboratories, biotechnology and the cosmetics and fine chemicals industries face is to prevent even the lowest levels of contamination. Our fluid-line coupling solutions ensure the perfect seal and our sterile capable quick-release couplings are manufactured from materials that maintain product integrity.

## Automotive

"Stäubli's quick-release couplings, centralized connection systems for connecting all fluid and electric circuits in a single motion, and MPS tool changers have helped JAC raise the bar on efficiency, inject greater reliability into our production processes and significantly scale down our running costs."

Kanghe Y. Jianghuai Automobile Group

# Aerospace, transport and logistics

Within high-compliance sectors such as these, connection solutions must be safe, lightweight, compact and clean. Our ability to rise to these challenges in large-scale international projects has been demonstrated time and time again.

# Chemical and petrochemical

In response to your extremely demanding applications, we design non-spill quickrelease couplings that satisfy your environmental requirements and guarantee your competitive advantage.



Link to fluid transfer video



#### **COMPREHENSIVE CONNECTIONS FOR YOU**

# Find your solution in our flagship ranges

#### Quick-release couplings and cleanbreak connectors

Choose from a wide range of configurable quick-release connections for fluids, gases, hydraulic and electrical power supplies. Whatever your needs are for non-spill disconnections, safety or high flow solutions, these high-quality connections guarantee long-term reliability across a wide range of applications and industry sectors.

# Multi-connection systems for centralized energy circuit connections

To automate operations and enhance safety, incorporate our centralized connection solutions into your systems. All energy sources can be connected in a single motion and at a single location to generate productivity gains and make best use of the available space.

#### Tool changers for all types of robots

Stäubli is a pioneer in the development of robotic tool changing systems. Based upon years of experience across multiple sectors, Stäubli's Robotic Tool Changers increase the productivity and flexibility for all robots available in the market today. Our full-solution systems offer numerous different modules for the transmission of pneumatics, vacuum, signals, electrical power along with many others. The ability to combine these different technologies makes it possible to configure a complete solution for the widest range of applications. "Robust connections play a key role in implementing the "smart factory". You bring superior stability and sustainability to your production processes with our robust quick tool changing systems."

Markus W. Head of Business Tool Changers at Stäubli North America





#### Mold clamping systems

Particularly, but not restricted to the plastics industry, your SMED strategy (Single Minute Exchange of Die) delivers fast mold set-up times and obtains excellent results. You harness the benefits of our QMC solutions including hydraulic, magnetic and mechanical mold clamping systems. Both existing and new machines can benefit, regardless of the mold size or loading method.



#### Mold loading tables and vehicles

Accelerate the process of fitting and setting up molds on the press with our mold loading tables and vehicles. You save valuable time during the process. Whether mobile or stationary, manual or automatic, these products are uniquely matched to your machines and mold loading processes.

#### Mold maintenance stations

Mold maintenance stations (MMS) are both multifunctional and safe. They ensure efficient mold maintenance while adhering to the highest quality and safety standards.





### **STÄUBLI ROBOTICS**

# Positive Robotics: Making your work easy and safe

At Stäubli, our mission is to improve operators' working lives and upgrade their competences by enabling the automation of repetitive and 4d tasks (dull, dirty, dangerous, delicate). Especially in the most difficult and demanding environments, we offer support catered to your needs. As a pioneer and performance leader in Robotics, we are excited and feel fortunate to challenge the status quo and innovate next-generation applications that will contribute to a better world.

"We are proud to work on developing new applications that will have a significant impact on our customers' manufacturing operations. Every day, we strive to deliver a positive contribution to the environment by reducing our carbon footprint and waste, optimizing the use of existing resources and prioritizing sustainability. We look forward to working hand in hand with you to create a positive future together. This is Positive Robotics."

#### MARKETS AND APPLICATIONS

# Enabling confidence and reassurance to every application and industry

Our comprehensive offering of robots – industrial, collaborative, mobile and AGV – are all industry 4.0 compliant to support your industry transformation.

For your speed, precision and reliability needs, Stäubli robots are the durable solution. Whatever your industry – automotive, metal, photovoltaics, food, pharmaceutical or medical robotics – and no matter how sensitive your environment, including cleanroom standards, you can count on Stäubli robots to be effective and at full capability in all conditions.







# Automotive

You will find productivity, flexibility and traceability in production with automation solutions dedicated to the rapid innovation automotive industry.



## Pharmaceutical

Fully hygienic and accurate robots meet the strict requirements of the healthcare and life science industries.



# Medical robotics

Precision and patient safety are all that count in operation robots, medical robots or assistance robots for surgery.



# Metal Machine tools

High dynamic precision and reliability come in an enclosed structure to meet the needs of the metal working sector.



# Photovoltaics Semiconductor

For the specific requirements of photovoltaics and semiconductor manufacturing, we offer a complete range of robotic solutions.



Food

Boost your productivity and efficiency while reducing contamination risks. At Stäubli Robotics, we support your automation.

#### **OUR ROBOT LINE**

# Adapting our robot lines to your specific needs

Get in touch with our passionate engineers to design your robotic solution. You will generate outstanding performance throughout your product's life.



#### **Specialized line**

For all requirements, whatever your industry or market, we tailor our product development and specific ranges by working with leading industry partners. This expert approach leads to useful innovation. Two examples are the Stericlean family for the pharmaceuticals sector and the hygienic and humid environments (HE) robots that have revolutionized the food industry. Whether operating in electronics, cleanrooms, aseptic or hygienic/humid environments, your robots deliver distinct specifications and pacesetting performance including high speed, precision and stiffness.

### Industrial robots

Complete line of 4 and 6 axis robots designed to handle payloads up to 170 kg. Several versions are available for sensitive environments, from cleanrooms to harsh conditions.

#### **Electronics**

For the electronics industry, choose our ESD robot range. Our 4 and 6 axis robots are designed to prevent electrostatic discharges in order to safely handle electronic components. They can operate in an ESD Protected Area (EPA) for various applications such as Printed Circuit Board (PCB) assembly, any kind of part inspection or testing and packaging of electronic consumer goods.

#### Cleanroom

Cleanroom robots were designed from the outset to comply with the stringent requirements of cleanroom environments. They offer the added advantages of superior throughput capabilities, with field tested reliability in 24/7 industrial environments.

#### Aseptic

Thanks to over 30 years of experience in the pharmaceutical market, Stäubli is able to offer you a dedicated product range to meet the multiple constraints of your market. The pharma offering includes the access Pharma range, Stericlean and Stericlean+ range for all grade rooms from sensitive to highly aseptic environments, that address the ever-increasing demands of the pharma sector by providing you validated solutions which meet the highest hygiene and cleanliness standards.

#### Hygienic - humid

All around the world, the food industry makes extensive use of industrial robots, particularly HE robots for hygienic and humid environments. With Stäubli's HE robotic arms, you have the market-leading solution due to their compliant and unique design, unmatched technical performance and ability to completely eliminate bacterial contamination risks. This major innovation has revolutionized the food industry. HE robots are also developed for applications within harsh environments such as waterjet cutting, washing-cleaning or deburring.

### Stäubli



## AGV Platform

Whatever the challenge, our modular AGV (Automated Guided Vehicle) platforms series deliver the right solution moving payload up to 450 tons with a large add-ons portfolio.



## AGV Forklift

The ultracompact counterbalance forklift FL090 is fully automated and moves pallets throughout your manufacturing environment.



# Mobile Robot System

The Mobile Robot System (MRS) allows flexible use of robot technology at different workstations within smart production.



## Collaborative robots

The TX2touch is a unique range of cobots designed for safe human-robot collaboration while maintaining high productivity. Operation is safe thanks to its advanced skin technology.



## Stäubli Robotics Suite

Windows-based software workbench for offline development and online operations on a PC.



# Stäubli Robotics Controls

Flexible and powerful software solutions hosted on the controllers.



"Fully optimize your total cost of ownership with Stäubli robots. They are designed for complete integration, programming and maintenance."

Philippe Dejean Research and Development Officer



Solutions that set the pace for today's textile mills

0

#### **STÄUBLI TEXTILE**

# Our focus on productivity for the textile industry

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 and Jacquard weaving to weaving systems for carpets and technical textiles. 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 for supporting 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.

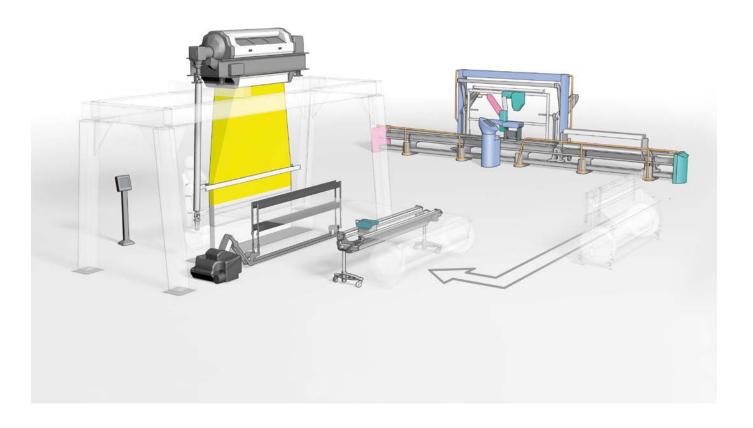
"With over 130 years of experience in the textile industry, Stäubli is a leading supplier of weaving mills with reliable solutions that meet their specific needs. By offering strong R&D, technical consulting and comprehensive support, we stay in close contact with our markets, customers and partners to continuously optimize their production process and increase their productivity."

Bertrand Leroy Textile Executive President



**OUR MARKETS AND APPLICATIONS** 

# Systems and solutions for the most demanding applications





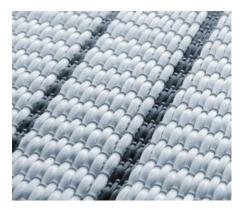
## Fashion

The extensive range of Stäubli's machines and automation solutions for the textile industry supports the production of nearly 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 that offer a delicate wearing experience.



## 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.



# 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.



# Home textiles

Using Stäubli systems and automation solutions, weavers can create fabrics for cozy 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 highwear 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.



# Protection

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.

#### **OUR TEXTILE BUSINESSES**

# Mastermind your entire weaving process

As a leading machine and system manufacturer, Stäubli helps weaving mills to select equipment that best suits their needs, ensuring the production of high-quality textiles. Since the invention of dobbies redefined performance standards across the industry, Stäubli continues to to consistently innovate and raise the bar in terms of quality, reliability and efficiency. Stäubli – the perfect partner for mastering the challenges that face the modern weaving mills.

#### Weaving preparation

Stäubli offers machines for automation in the sizing process, multi-layer leasing, automatic drawing-in and warp tying for optimizing the weaving preparation and ensuring continuous production.

#### Frame weaving

With its precisely operating and durable cam motions and dobbies, 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.

#### **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. Customers anywhere in the world can draw upon the experience and know-how of Stäubli experts at any time.

Boost the efficiency of your weaving mill with fully coordinated Stäubli instruments.









• Stäubli Units • O Representatives/Agents

# Global presence of the Stäubli Group

www.staubli.com



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