Advanced Contact Technology

Electrical Connectors
OUR ACTIVITIES

An international group serving all industrial sectors

We serve customers worldwide who aim to increase their industrial productivity without compromising quality, reliability or safety.

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.

4500 employees worldwide
500 R&D specialists
2000 pending patents
Electrical Connectors

Connectors
Fluid Connectors
Electrical Connectors

Robotics

Textile

Over 20 industrial segments
12 production sites
60 locations in 29 countries. Agents in 50 countries.
Connection solutions designed for safety and reliability

Inspired engineering, avid curiosity and technical expertise motivate Stäubli to continually develop the most innovative and versatile connectors worldwide. Serving a broad range of industries, we have both standard and customized connection solutions for all types of fluids, gases and electrical power, and the expertise to support every application.

Stäubli offers technologically advanced solutions for automotive, railway, steel, pharma and chemical, aeronautics, defense, power transmission and distribution, nuclear, electronics, plastics, motorsports, alternative energies, test and measurement and other industries.

Our extensive product line includes quick couplings and multi-couplings, as well as quick mold change systems and robotic tool changers. All deliver high performance, quality, safety and dependability, backed by Stäubli’s trusted reputation and global support network.

Safety and sustainability built-in
Stäubli connectors meet the highest standards in even the most demanding and competitive industries, where absolute performance, safety, durability, reliability and efficiency are crucial.

Fluid Connectors
- Quick-release couplings
- Multi-couplings systems
- Mold clamping solutions
- Tool changing tables and trolleys

Electrical Connectors
- Industrial connectors
- Connectors for automatic systems
- Connectors for renewable energy
- Test & measurement accessories
- Medical industry connectors
- MULTILAM contact technology
Improved perfection to make knowledge work

Electrical Connectors
Stäubli electrical connectors fulfill all expectations regarding advanced contact technology and sophisticated solutions covering the whole range from single parts to highly complex systems.

High performance, long-term reliability and highest mating cycles
For the connection of all types of industrial applications, test and measurement accessories as well as medical devices and installations, the safety, accuracy and reliability of our products is unmatched.

The power transmission and distribution industry counts on our long-term reliable connectors at all voltage levels. The automotive industry relies on our highly efficient connections for spot welding applications on automotive lines.

Maximum reliability in harsh environments
High current transmission, compact design, low weight and strong vibration resistance are crucial in all transportation industries. These needs are perfectly met by our products for on-board solutions in E-mobility and Aerospace, rolling stock applications in Railway and infrastructure connections.
ACCELERATING TECHNOLOGY

Engineering solutions with perspective

Innovation and leadership
In the growing field of alternative energies, mainly in the solar industry, our products have been setting standards since the 1990s. With more than 1 billion PV connector components successfully installed worldwide, we are global market leader. The core of all of our products, the unique MULTILAM contact technology, allows for highly efficient energy transmission and a long lifetime. Our portfolio, both standard and custom-made, is tailored to the requirements of many industrial applications.

People make the difference
Working closely with our customers, both conceptually and geographically, even for most uniquely demanding tasks, we enter into a longstanding partnership with them. Our customers’ requests or project requirements are processed quickly, creatively and competently.

These collaborations motivate us to move forward and constantly improve our products and services. Thus, innovation is the driving force, which supports us to start trends and set standards.
Versatile contact technology
Our product and application portfolio is as diverse as our customers’ needs. The Stäubli Electrical Connectors’ solutions are based on the exclusive MULTILAM technology. They are designed for use in any area: from connection modules in test beds or charging stations for electric vehicles, robotic welding guns on car production lines, connection of solar panels, to sockets and accessories for measuring devices or even for application in harsh environments. They guarantee reliability and long service life, optimum design with regard to the application, consistent quality and outstanding electrical and mechanical properties.

Industrial connectors
Our high-performance industrial connectors are designed for intense requirements in any industrial environment. Wherever high currents need to be safely transmitted through a removable electrical connection our industrial connectors should be your preferred choice. Our CombiTac connector provides individual combination of various contact types in a compact frame or housing to allow you unmatched flexibility: Various power, signal, data, fiber optic, pneumatic and fluid connections can all be combined in one single modular system.

Connectors for automatic systems
Stäubli electrical connectors are also particularly suitable for applications using manually or automatically actuated multi-couplings for docking systems. And on automated assembly lines, tool change systems in robotics, machining and molding equipment they have a proven track record.

Connectors for renewable energy
The quality and reliability of the Stäubli electrical connectors make them a perfect fit for use in PV installations and plants. Our wide range of connectors, junction boxes and cables are tried and tested for long-term operation and best results.
Solutions tailored to the requirements of each industry
Alternative Energies and E-Mobility
Stäubli Electrical Connectors is an experienced specialist and market leader in electrical connectors for Photovoltaic solutions. We offer reliable, long-lasting quality components that help to reduce operational and maintenance cost. Safe and efficient products along the whole electrical PV supply chain – from roof top installations to power optimizers and energy storage – provide reliability and zero maintenance to increase the bankability of the project. For on-board applications with high vibration resistance, e.g. connectors for batteries and inverters, or for infrastructure applications guaranteeing high mating cycles as connectors for automatic charging applications: Stäubli Electrical Connectors offers short development cycles for customer specific solutions with highest performance reliability and maximum safety.

Power Transmission and Distribution (PTD)
Employing MULTILAM as core technology, Stäubli Electrical Connectors offers a wide range of connectors for use in low, medium and high voltage areas. We guarantee high performance and long-term reliability along the complete electrical supply infrastructure. Our established engineering capabilities for specialized customer applications makes us an outstanding partner and solution provider.

Markets:
Alternative Energies
Power Transmission and Distribution
Test and Measurement
Railway
E-Mobility
Aerospace
Automation
and many more…
Test and Measurement
Stäubli Electrical Connectors is synonymous for safe, high-quality measuring equipment. We offer a wide range of products enabling most accurate and repeatable tests and measurements, e.g. test leads, probes, highly flexible cables, safety sockets, binding posts and many more.

Automation
Stäubli Electrical Connectors is market leader in primary circuit connectors. A new standard in the automotive industry has been set by our RobiFix connector suited for the use on all relevant robot interfaces. We are also a proficient engineering partner for manufacturers of welding robots in the automobile industry. The product range includes production as well as testing equipment, e.g. welding guns, automatic tool-changers, multi-pole connectors for docking and multi-coupling systems. Easy maintenance and highest mating cycle systems characterize our solutions.

Railway
Besides offering innovative product solutions with modular power connectors, Stäubli Electrical Connectors is specialized in providing electrical connectors that meet the demands of harsh environment. High current transmission and high vibration resistance enable a wide scope of application: Covering electrical connections along the whole traction chain and the railway infrastructure, e.g. traction motor, intercar coupling, external power supply, tunnel equipment and more.

Aeronautics and Defense
Stäubli Electrical Connectors offers compact solutions that satisfy the most stringent demands made by military and aeronautics engineering. Vibration resistance and low contact resistance ensure reliable operation of long-term use. The product range includes on-board equipment such as power supply and distribution for land vehicles, navy ships and drones as well as equipment that goes along with military infrastructure, e.g. connectors for ground power units and radar systems. Also, Stäubli electrical connectors are used in business jets and civil aircrafts when it comes to safe and reliable power distribution on board or for engine test applications.

Welding robots in the automotive industry are high-performers, as are our RobiFix connectors in terms of reliability.
Power management and power supply are key to the unlimited enjoyment on board luxury yachts and essential for the operation of any boat. Due to environmental restrictions the use of diesel engines for power generation in harbors is not appropriate any more. As onboard batteries take up a lot of the limited space on the boats, a cable connection to the AC grid in the harbor is more efficient.

The AC shore power is connected and disconnected hundreds and thousands of times in a boat’s lifetime when leaving and returning to dock. This connection must be highly secure and very resistant to prevent serious risks such as fire or electric shocks. The Netherlands’ De Keizer Marine Engineering develops and installs electrical solutions for the shipbuilding industry. For this new connection system Stäubli Electrical Connectors provided an innovative coupling solution for the on-board power distribution cabinet. With a smart bayonet locking system the cables are plugged in to transfer current up to 400A and voltage up to 460V in an easy-to-use, but safe mode. Furthermore, this solution is highly protected against dust, water ingress and high ambient temperature.

Efficient power supply and management for unlimited operation on board.

CUSTOMER SUCCESS STORIES

Making shore power safe for luxury yachts

Power management and power supply are key to the unlimited enjoyment on board luxury yachts and essential for the operation of any boat. Due to environmental restrictions the use of diesel engines for power generation in harbors is not appropriate any more. As onboard batteries take up a lot of the limited space on the boats, a cable connection to the AC grid in the harbor is more efficient.

The AC shore power is connected and disconnected hundreds and thousands of times in a boat’s lifetime when leaving and returning to dock. This connection must be highly secure and very resistant to prevent serious risks such as fire or electric shocks. The Netherlands’ De Keizer Marine Engineering develops and installs electrical solutions for the shipbuilding industry. For this new connection system Stäubli Electrical Connectors provided an innovative coupling solution for the on-board power distribution cabinet. With a smart bayonet locking system the cables are plugged in to transfer current up to 400A and voltage up to 460V in an easy-to-use, but safe mode. Furthermore, this solution is highly protected against dust, water ingress and high ambient temperature.
Cities are vibrant centers for residential areas, working and living spaces of many people. Their increasing traffic volume is a key topic in our daily life.

Efficient, fast and easy locomotion is important, but even more, the reduction of CO\textsubscript{2} emissions has to be considered. Therefore, Scutum is committed to e-mobility solutions and is developing a new generation of electrical scooters for delivery and distribution services or for public authorities. The young Spanish company was founded by experienced designers, engineers and motorcycle specialists. To many international customers, the dynamic company offers a wide range of powerful, maneuverable, environmentally friendly and quiet electrical scooters, which all come with a replaceable battery. The connection solution for this application was developed by Stäubli Electrical Connectors in close cooperation with Scutum.

The Stäubli CombiTac transmits safely and reliably both electrical energy and data whilst being extremely robust. Further, it features vibration resistance and withstands a high number of mating cycles. Demonstrating safe, flexible and fast technology: as the electrical scooters by Scutum.

Ecomobility indicates a new approach to mobility in a city, to which Scutum and Stäubli contribute.

In many areas electric mobility concepts are an important part of ecological and economical operation. The Austrian pioneer in the field of e-mobility, Mattro, develops intelligent and sensible solutions for motors, drives and battery systems.

The latest innovation is an automated battery swap and energy charge system. In order to eliminate any recharging time of electric vehicles, the system offers a grid storage solution for batteries including the automated exchange of the batteries in the vehicles. The exchange is being operated by robots, therefore the mounting solution must be pluggable, allowing a certain misalignment as well as providing high mating cycles and long lifetime. Stäubli Electrical Connectors equipped its modular system CombiTac with an extra frame to compensate an inaccurate guidance. Any further misalignment is tolerated and handled by the standard mounting bracket of the CombiTac.

Stäubli Electrical Connectors’ CombiTac stands up thanks to a smooth and easy integration into the automated system and its unbeatable reliability in long-term use with highest mating cycles.
Global presence of the Stäubli Group

www.staubli.com/electrical