



SUCCESS STORY

Powering in safety and comfort through the scenic Swiss countryside

Stadler Rail AG, headquartered in the Swiss town of Bussnang, has more than 7,600 employees at more than 30 locations around the world, providing reliable, dependable multi-unit trains, light rail and locomotives customized to customer needs. More than 6,000 Stadler rail vehicles bring state-of-the-art technology to the rails worldwide, allowing millions of passengers to travel safely and comfortably. The low-floor design of the new trains for the Appenzell Railway offer new comfort to all passengers, which is important to Appenzell Railway, just as it is to Stadler with its rail vehicles. Making use of its innovation, passion and flexibility as well as its knowledge of the respective local conditions, Stadler puts the best possible vehicle on the rails for its customers. This is where the aspirations meet those of Stäubli Electrical Connectors.

The business needs

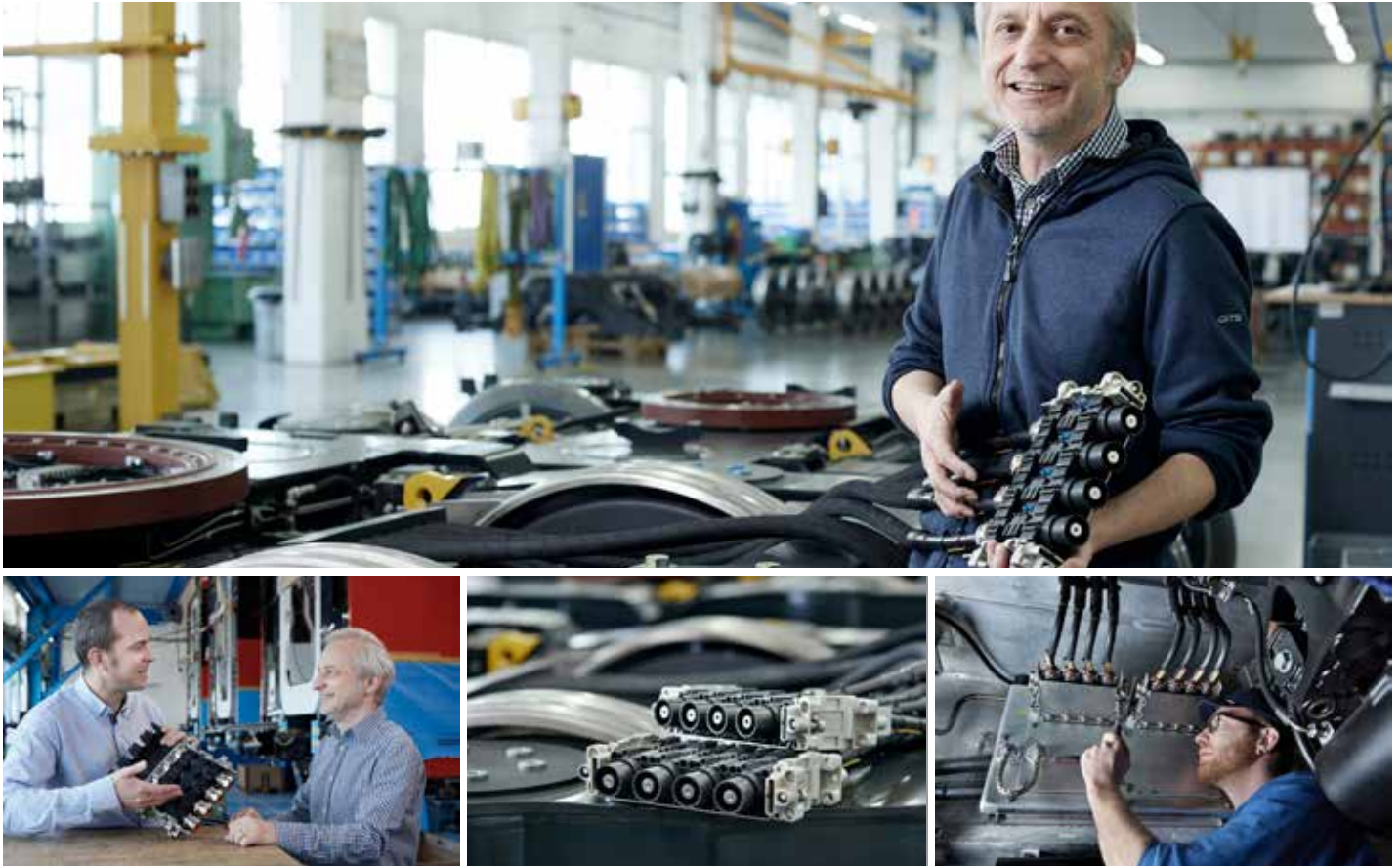
In railway operations, maintenance must be completed as quickly as possible to minimize rolling stock downtime. Therefore, pluggable connections are ideal for efficient maintenance. Durability and low-loss energy transmission for high currents, maximum shock, impact and vibration resistance and highest robustness – even in extreme climatic conditions – are required for all components in railway technology.

The challenge

For Appenzell Railway the connectors used by Stadler must transmit the required power over the acceleration sections after the halts and the tailor-made cable assemblies have to withstand even tight curves and steep hills.



Market Segment: Railway	
Industrial Connectors: Modular Power Connector MPC	
Application: electrical connections between various application of the drivetrain	
■ Modular, universal, compact ■ Low-loss energy transmission for high currents ■ Resistance to impact and vibration	



The solution

Following their discussions with Stäubli Electrical Connectors, Stadler decided the time had come to compare the existing screwed connections between the car and the drivetrain on the bogies with the compact and space-saving MPCs with its excellent power transmission characteristics. Stäubli was able to prove that the MPC could meet the high expectation by means of targeted test procedures, which were tailored to the specific requirements of Stadler and the Appenzell Railway. Therefore, the route and elevation profile of the track in Appenzell were taken into account in the design and tests of the connection solution including the customized cable assembly.

The added-value provided

The expert advice, the excellent supply availability and, above all, the close collaboration during the installation and construction phases of the new connectors for Stadler in the Appenzell trains were convincing. "The

electrical tests carried out specifically for the Appenzell Railway project prove the outstanding suitability under the required conditions. This ensures that we can offer our customers the safety and operational warranty they need. The MPC allows for speedy handling and contact reliability during maintenance periods, which brings the entire train back into operation and back on the rails faster," concludes Stadler.

The increasing global demand for public transportation solutions in urban areas can be seen in Stadler Rail's workshops. Modern, comfortable, safe and efficient rail vehicle technology is developed and customized here. In addition to the five new train compositions for the Appenzell Railway, further trains in various designs are available for other customers in the assembly halls. Stäubli's MPC solutions will also be integrated here to ensure a maintenance-friendly and secure traction interface.

Customer benefits

- Reliable, pluggable connection to reduce down-time during maintenance
- Tailor-made cable assembly for easy, but safe installation
- Customized testings as proof

About Stäubli

Stäubli is a global mechatronics solution provider with three core activities: Connectors, Robotics and Textile. The international Group has a presence in 29 countries.

Stäubli Electrical Connectors is a specialist for advanced contact technology and technically mature solutions with a product portfolio ranging from miniature connectors up to high-power connectors for various industries.

www.staubli.com/electrical