

FAST MOVING TECHNOLOGY

***STÄUBLI***

# Motorsport

Connectors | Advanced connection solutions





**FAR-SIGHTED PARTNER**

# An international group serving all industrial sectors



**Stäubli, a market leading company, continually pushes for innovation, addressing current and future needs for advanced connection solutions.**

Developing and delivering high-performance solutions tailored to specific business requirements, as well as understanding and anticipating the trends shaping each branch of industry, is the strategy pursued by Stäubli, as global leader in advanced connection solutions for all applications: fluid, gas and electrical.

Fluid mono connections, electrical connectors, multi-connection systems for all energy sources, tool changers for robots or Quick Mould Change solutions... each Stäubli assembly is engineered and built from parts of consistently matched quality and design. Our solutions improve the reliability, efficiency, performance and usability of equipment, thereby raising the productivity bar and guaranteeing operator safety.

## **Requirement for high performance**

Like you, Stäubli revels a challenge! Motorsport is a fast-moving sector in which passion, innovation and performance are the key to success. As a long-standing partner of the automotive industry and a responsive motorsport expert for more than 20 years, we fully understand the demands and expectations in terms of connections. Stäubli provides specifically designed products responding to the needs of all motorsport categories, including: Formula 1, Endurance car, GT racing, rallying, motor-cycle racing, and more recently Formula E.



**50**  
countries



**5,000**  
employees worldwide



**12**  
production sites





## OUR MOTORSPORT EXPERTISE

# Multi-disciplined expertise for advanced connection solutions



**Thanks to our global reputation for both quality and performance in all industrial sectors and due to our expertise in mechanical, fluid and electrical systems, the Stäubli Group is your go-to partner satisfying all your needs for end-to-end fluid, gas and electrical connection solutions.**

### **Enthusiastic, committed experts**

Because our motorsport experts work exclusively in your sector, they can provide you with specialist advice. Supporting you along the way, our R&D teams can assist you with your requirements and expectations in the early design phase of your projects.



all type of  
competition vehicles



global  
presence



more than

**300** partners





## OUR MOTORSPORT EXPERTISE



### Quality dedicated to safety

Our experience means we can optimise pit stops with ever-shorter refuelling times; ever more accurate tyre pressures and ever-faster brake calliper changes. Over and above performance, the safety of drivers and technicians is our absolute priority. Through our close relationship with the top safety bodies (FIA and ACO), Stäubli is constantly helping to improve safety levels in the motorsport sector by developing safe solutions that comply with the applicable safety standards.

### The right services and support

Stäubli fully understands the demands of the motorsport calendar during testing, racing or at the design stage. Stäubli commits to ensure that products, support and service are available to meet your requirements.

### From Formula 1 to Formula E

In a world with increasing environmental concerns, motorsport is responding and looking at new power sources.

Stäubli's mechatronics expertise has made significant improvements upon electric and hybrid power trains. Stäubli continues to support manufacturers in the new design of vehicles such as the Formula E which require high-performance electrical and fluid connections.

## OUR APPLICATIONS

# Quick connection: performance focused for motorsport

### Hydraulic power

- Compact quick couplings for high pressure
- Extreme resistance to harsh conditions and vibrations



### Fuel circuits

- Increased safety guaranteed by break-away connections



### Quick lift

- Compact and easy to connect  
Air jack Lance for quick car lifting



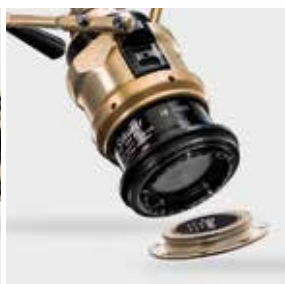
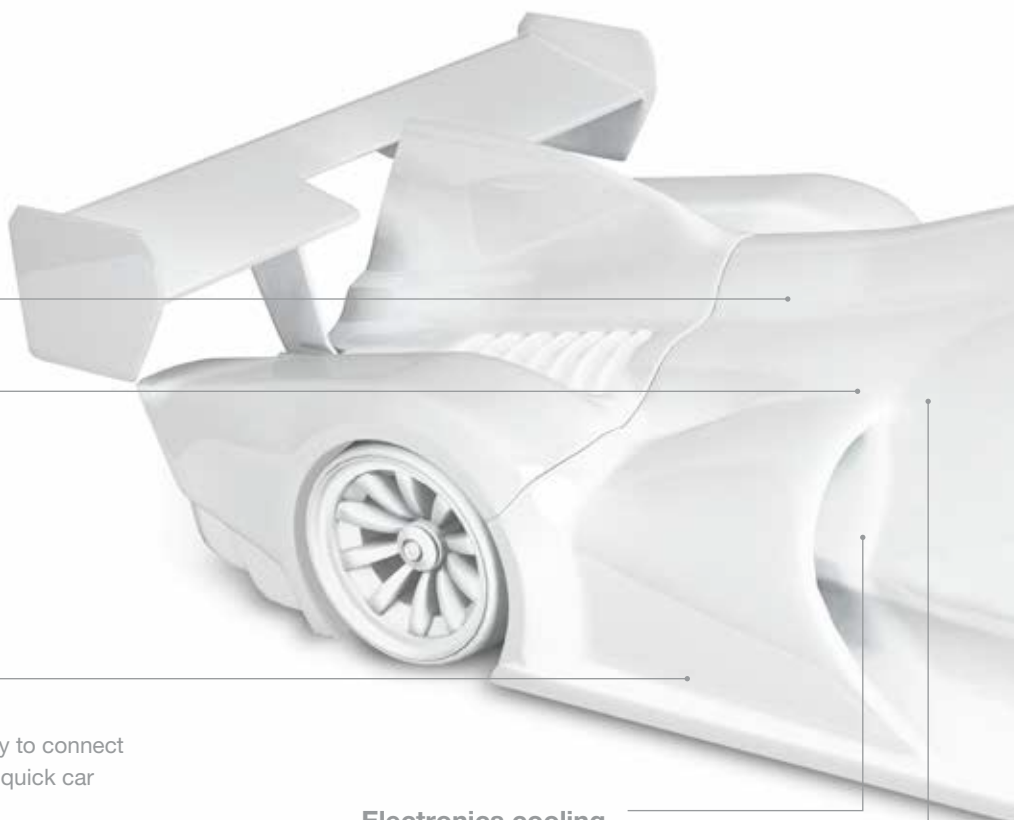
### Electronics cooling

- Perfectly tight quick-release couplings for on-board electronic circuits cooling



### Pit stop refueling

- Extra high flow rate, safely minimising pit stops
  - FIA/ACO recommended





### Electrical hybrid connection

- Break-away electrical connections for high voltage and high power circuits



### Engine oil refilling

- Quick and clean oil filling thanks Stäubli's clean-break technology



### Brake circuit connection

- Non-spill couplings for quick and reliable brake line connections



Electric



Compressed Air



Hydraulic



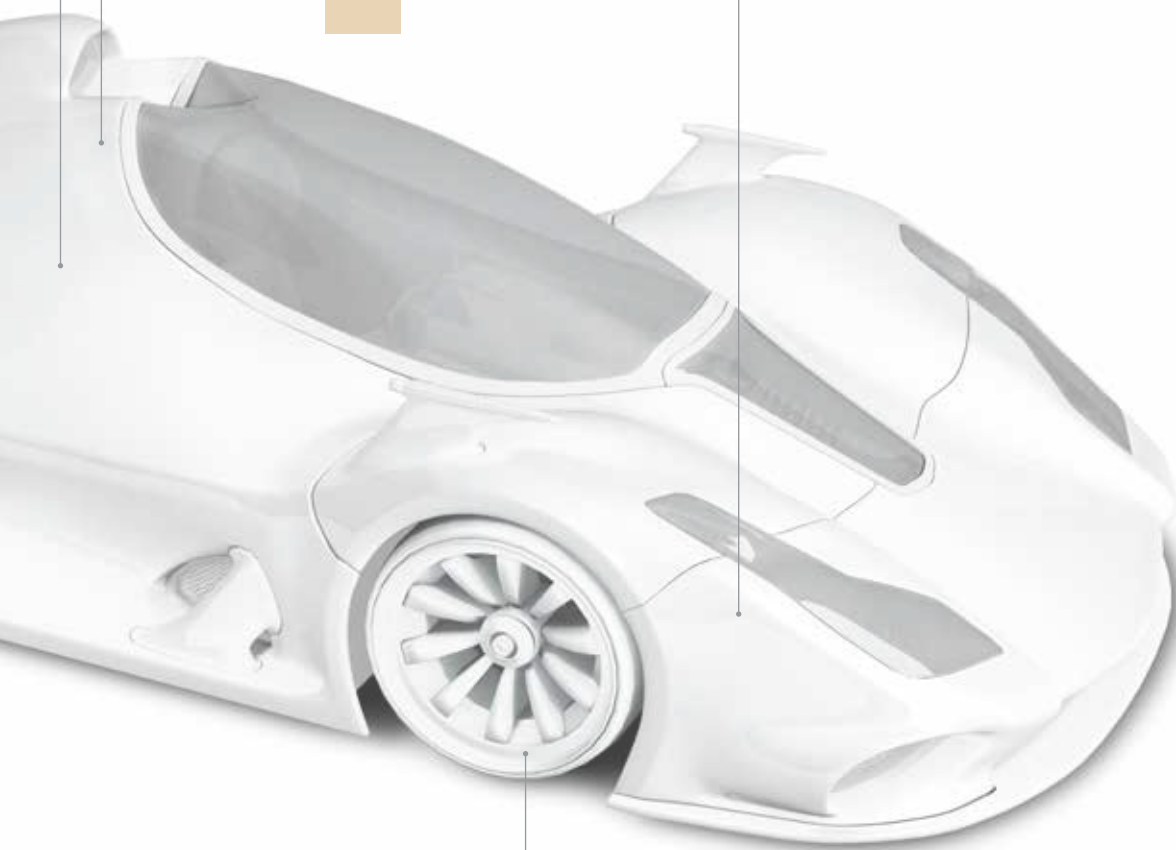
Cooling



Fuel



Filling & draining



### Tyre inflation

- Complete solution to ensure maximum performance and optimum safety during tyre inflation
- Exact pressure adjustment thanks to non-spill design











## OUR TECHNICAL STRENGTHS

# Unique expertise and dedicated ranges for motorsport

### The advantages of our solutions

Connection of hydraulic circuits (including braking circuit, brake bleeding etc), refuelling system, connection of electrical circuits, lifting system, etc., are all applications which require a high degree of reliability.

### High-quality connections

- Our solutions ensure total safety of technicians and environment. Our connectors provide optimal flow, without risk of cross connection. The perfect sealing is guaranteed for all on-board circuits thanks to our flat-face non-spill technology.
- The MULTILAM contact band technology used in Stäubli electrical connectors guarantees permanent contact between surfaces and, consequently, low contact resistance.

### Easy use and quick maintenance

- Each connector is specifically designed to match the application, with ease of use being a priority.
- This guarantees shortened assembly time for manufacturers and simplifies maintenance for the end user.

### Endless possibilities

The modular technology of our ranges supports a wide variety of connection solutions geared towards each specification.

### Reliability and safety in the most extreme conditions

High voltage and high power circuits (up to several kW), thermal stresses (up to 360°C) mechanical stresses (up to 1 million connection cycles), and important temperature variations, vibrations and impacts. Our solutions are designed to keep their performances even in the most extreme conditions.





■ Stäubli Units    ○ Agents

## Global presence of the Stäubli Group

[www.staubli.com](http://www.staubli.com)