

Reliable Connections for eMobility Systems



High performance
Assembly friendly
Space efficient
Tailored solutions



eMobility 360°
BY OETIKER

OETIKER[®]
Reliable Connections

eMobility 360°

Speed of delivery is crucial for electric vehicle development. We help our customers to drive innovation through all phases of electric vehicle development utilizing our 360° solution approach.

Customers count on Oetiker to provide peace of mind for a wide range of proven eMobility connections. Pioneering reliable fastening components for over 75 years, we design, test and deliver high quality connecting and assembly solutions that are simpler, smarter and stronger than ever before.

Global Customer Support

For all Phases of Development

Advanced Engineering

- Consultative engineering
- Dedicated localized support
- Rapid prototyping and machining
- CAD modeling & 3D printing

Early Development

- Technical design analysis
- Custom-build solutions
- Tailor-made prototypes
- Functional testing

Systems Integration

- Advanced testing & validation
- Assembly solution engineering
- Tailored assembly tools
- Pre-production support

Production

- Global quality assurance
- Worldwide production
- On-site technical support
- Commissioning & maintenance

Support & Maintenance

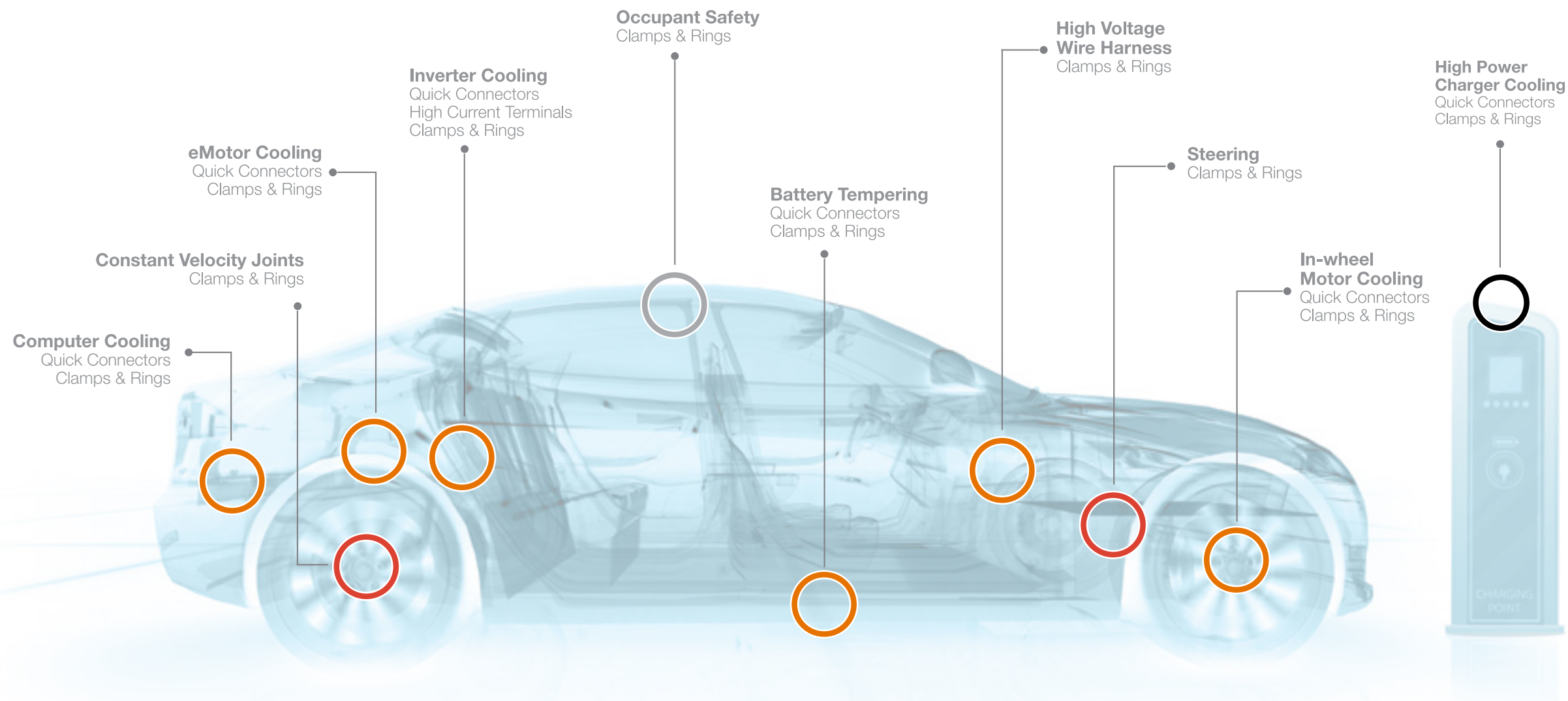
- Tool training and assistance
- Assembly validation
- Maintenance and calibration
- Tool and software upgrades



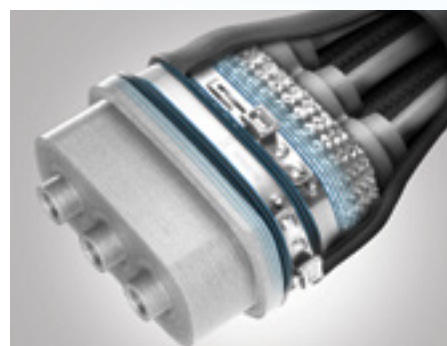
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Reliable connections for
all phases of development.



- Drivetrain
- Propulsion
- Occupant Safety
- Infrastructure



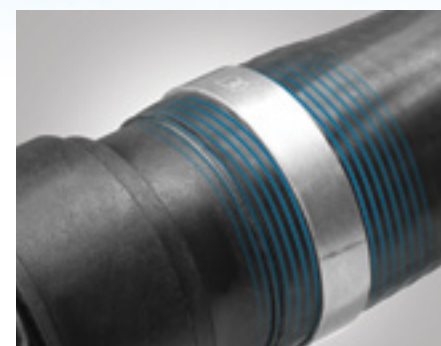
High Voltage Wire Harness
Oval Ear Clamps



eMotor Cooling
Quick Connectors



eMotor Drive
High Current Terminals



Battery Tempering
Multi Crimp Rings



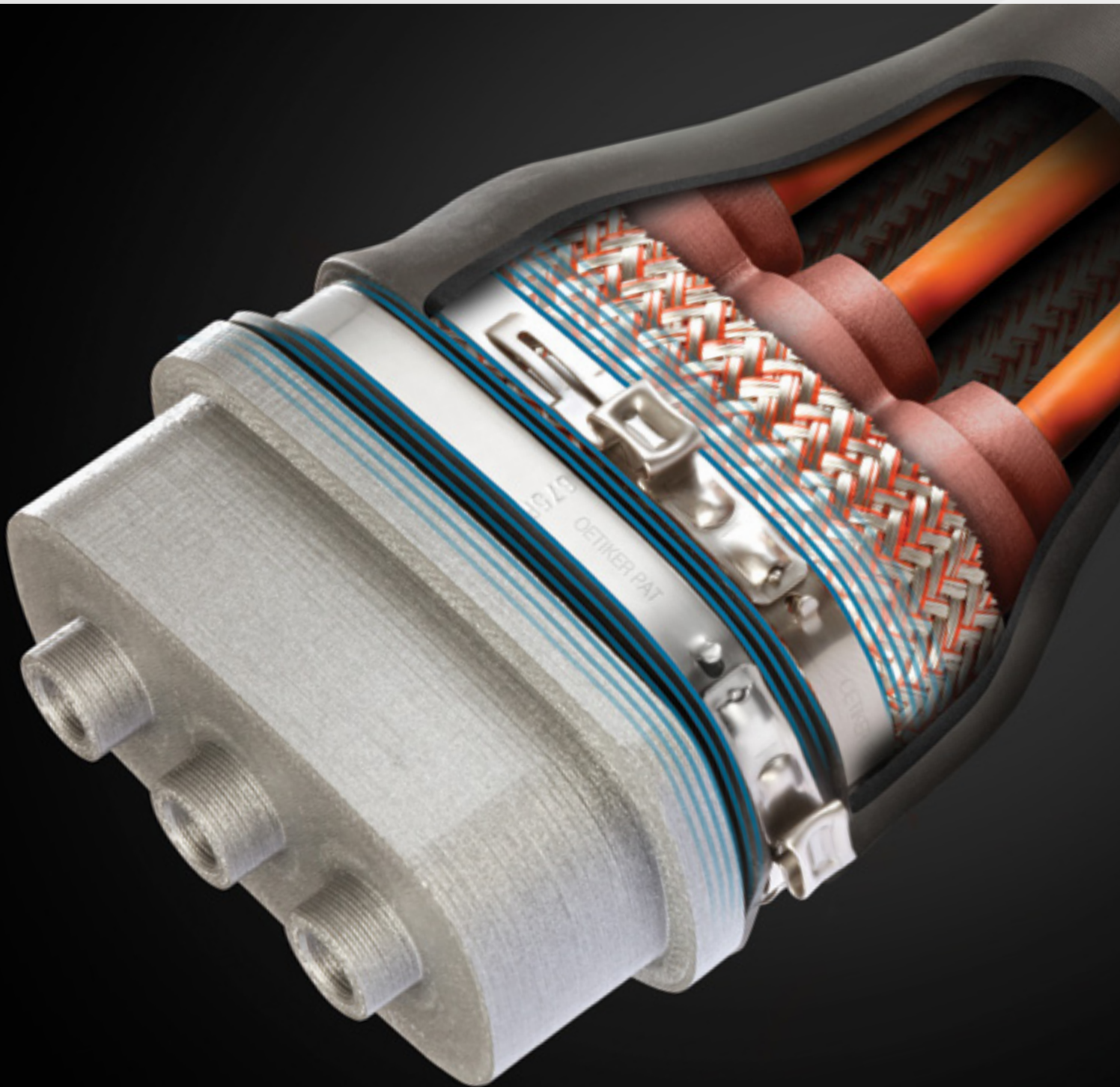
Inverter Cooling/Heating
Quick Connectors



Coolant Pump
Low Profile Reusable Clamps

GLOBAL FOOTPRINT AND LONG-TERM COMMITMENT

With 13 manufacturing facilities worldwide and a local presence in over 30 countries, producing more than 2 billion connections per year, Oetiker is the trusted, global, long-term partner of the world's leading OEMs.



eMobility Connections



StepLess® Ear Clamps 167 & 193 oval/standard

Stainless steel
6.5 – 120.5 mm*

Provides a 360° leak-free seal.
Lightweight, strong, tamper-proof design.
Offers high radial loads and compensates for component tolerances.

*11.9 – 18.0 mm sizes available in the StepLess® Ear Clamps 167 design.



Reusable Low Profile Clamps 268

Stainless steel
22.5 – 41.0 mm

Provides a 360° leak-free seal.
Can be repeatedly opened and re-installed.
Novel tensioning hook design provides fast and reliable high-volume assembly with monitored tools.
Curled edges provides reduced risk of damage to parts being clamped and improved ergonomics during assembly.



Quick Connectors 210 & 220

210 Aluminum
220 Polymer

One piece machined body is lightweight and ideal for compact spaces. Controlled axial clearance prevents micro leakage. Minimum pressure drop ensures optimum flow.



Multi Crimp Rings 150 & 250

Stainless steel
5.0 – 120.5 mm

Full material cross-section over 360° for constant pressure applied uniformly around the circumference offers leak-free sealing with low assembled height.



Quick Connect Disconnects 241

Aluminum
1/4", 3/8", 1/2"

High flow valve technology allows for maximum flow-through diameter resulting in low pressure drop and high flow, with minimal to no fluid loss during disconnection. 100% leak tested before shipment.



High Current Terminals 246

Provides a space efficient and easy assembly solution for direct mounted high voltage power inverter to eMotor systems. The polymer housing and o-ring seals provide electrical isolation and cooling fluid retention to metallic housings while the aluminum terminal provides critical high voltage pass-through and thermal isolation between systems.

Please [contact](#) an Oetiker representative for a complete range of product options.



**WingGuard® Strap Clamps
270**

High strength steel
20 – 50 mm
Unique winged band-locking mechanism provides high holding force and fully encloses all sharp edges. Highly space-efficient and provides a low profile design providing ample clearance for easy assembly. Fast, economical and process reliable assembly.



**Ear Clamps with Stud
103**

Galvanized steel
20.5 – 50 mm
Compact design for securing components with circular cross-sections. Provides high retention properties and good corrosion resistance.



**StepLess® Low Profile Clamps
192**

Stainless steel
19.5 – 120.5 mm
Low profile design includes tolerance compensation elements to allow for variations in component tolerances. Includes 360° leak-proof seal.



**ToothLock® Low Profile Clamps
292**

Stainless steel
57.5 – 118 mm
High and permanent compression rates with outstanding expansion resistance. Ultra low profile design supports very low imbalance on rotating parts. Uniform 360° compression and surface pressure. Process reliable assembly with visual clamp closure verification.



Assurance Caps

Provides assembler with the means to identify an incomplete connection. By placing the optional assurance cap on the tube, it cannot be slid over the retainer in the event of a partial connection.
Default: up to 85°C (black or grey)
High temperature: up to 230°C (white)



Disconnect Tools

Size - 3/8", 1/2", 5/8", 3/4"



Shipping Plugs

Size - 1/4", 3/8", 1/2", 5/8", 3/4"



Connection Verification Aids

Provides reliable process monitoring for Oetiker Quick Connectors in a space-efficient system, at vehicle point of assembly.



Locking Assurance Caps

For 201 & 210 Quick Connectors
Serves as a device to provide 100% confidence the tube is fully seated into the quick connector and features a durable secondary latch.



Ultra-compact Polymer Quick Connector

Our newly engineered ultra-compact polymer quick connector uses half of the space of competing solutions. EV Design Engineers can now build the biggest ideas in the tightest spaces.

Contact Oetiker for more information.

PEACE OF MIND FROM RELIABLE CONNECTIONS

Assembly tool and maintenance support are managed through dedicated in-house service teams, ensuring electric vehicle connections are installed properly every time during production.



Assembly Tools



Swaging Tools

For high-volume installation of Multi Crimp Rings.

Available interlocking swaging segments guarantee uninterrupted 360° compression

Fully reliable assembly process

Electronic process data tracking capability



Pneumatic Pincers

For high-volume assembly of Ear Clamps and Low Profile Clamps.

Highly efficient

Process reliable

Closure verification

Ergonomic pistol grip (optional)

Easy assembly integration



Cordless Pincers

For assembly of Ear Clamps, Low Profile Clamps, Multi Crimp Rings (MCR)

Flexible cordless design

Process reliable

Closure verification

Ergonomic design



Hand Installation Tools

Manual Assembly Tools for installation of Oetiker products.

Quick and easy installation

Exponential gain of mechanical advantage

Secure grip and comfort

Reduced fatigue and risk of repetitive injury



FAST 3000 with AdvantEdge® Technology

For assembly of Strap Clamps

Fast assembly process: 3.5 seconds assembly time for typical airbag applications

Easy to maintain: approximately 5 minute service time per 100,000 closures

Safe & reliable closure: enclosed and separated residual using AdvantEdge® technology

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360° solution approach

Drives innovation

We are committed to deliver the best suited connection and support for our customers at every stage of development. In addition to our high-quality clamps, rings and quick connectors, we offer extensive global customer services and assembly solutions to overcome a wide range of connecting challenges. Quality and reliability guide every step of our 360° solution approach.

