

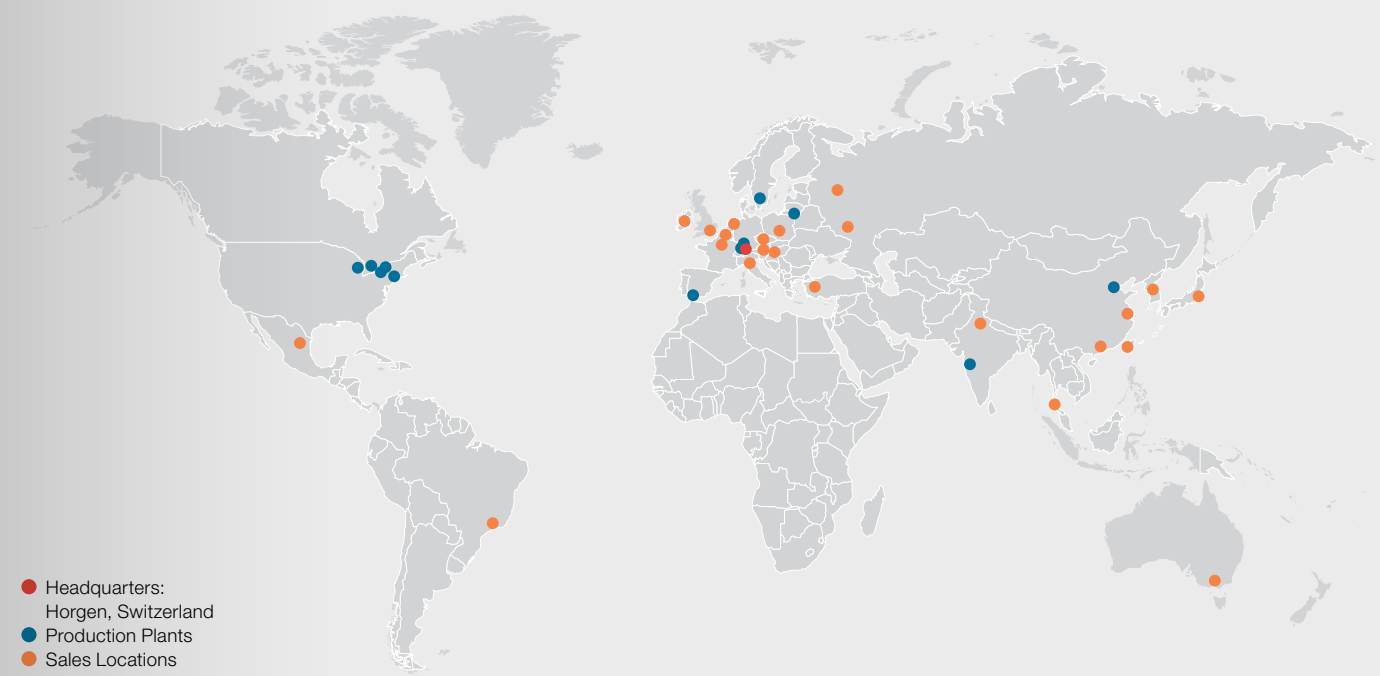
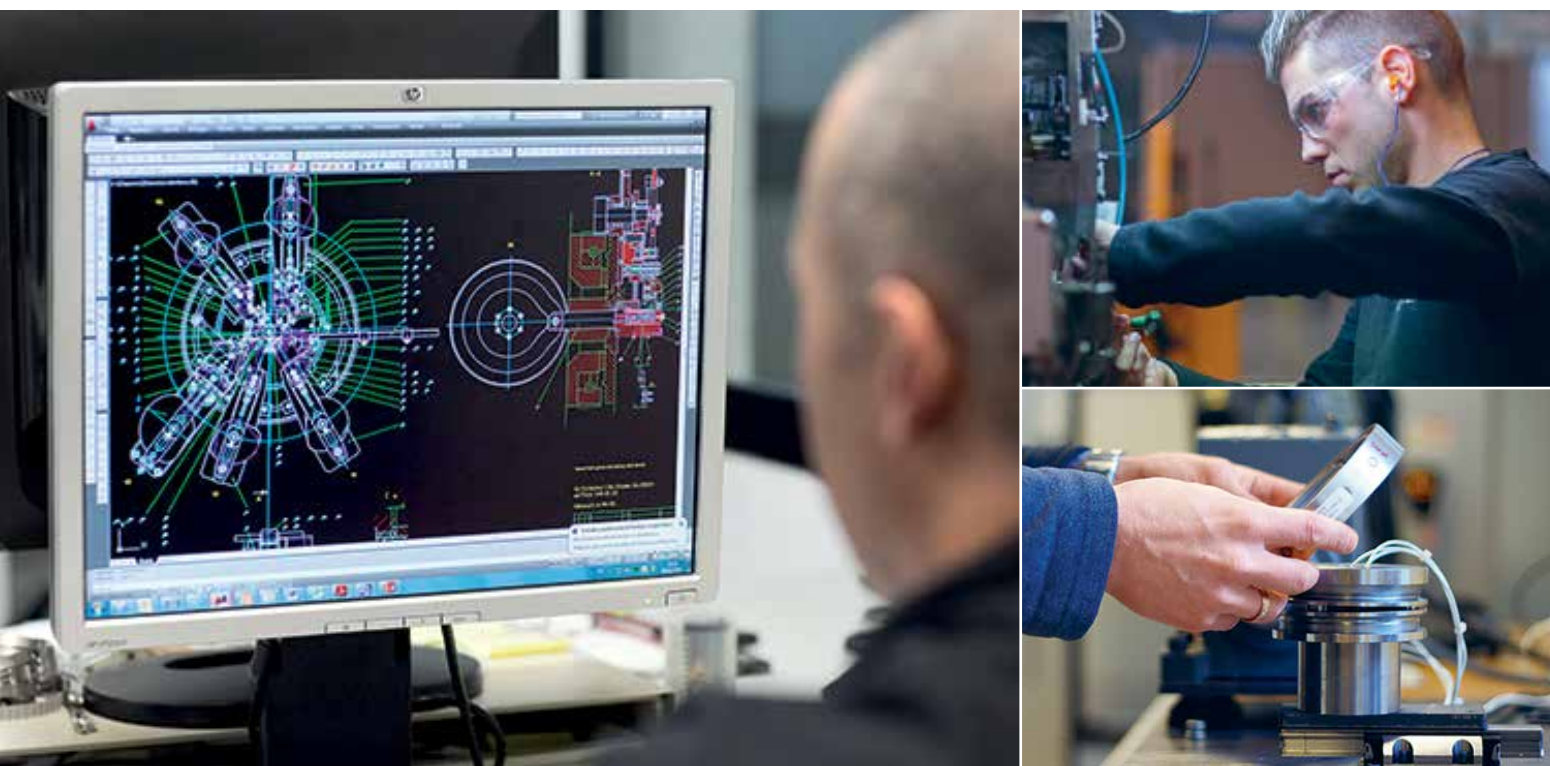
Connecting Solutions

Medium & Heavy Commercial Vehicle eMobility



Cooling Systems
Electric Air Compressors
Fuel Cell Stacks
Hydrogen Tank Fastening

A Global Manufacturer of OEM Connecting Solutions



360° Solution Approach

Oetiker has established a 360° Solution Approach and commitment with OEM and Tier suppliers around the world. Our capabilities span the spectrum from concept to prototyping and testing through assembly. We also provide follow-up maintenance, services and training. Our engineers and support teams are driven to provide connecting solutions that meet the most challenging vehicle specifications.

Oetiker is a family-owned company headquartered in Horgen, Switzerland. Our international network of production and sales locations enables us to deliver reliable connections to our customers quickly and efficiently.

Proven for over 80 years

Oetiker's heritage of excellence inspires us every day to continue to earn our position as the market leader for connecting solutions. Each year we design, test and manufacture 2 billion clamps and related products in 13 manufacturing facilities. Our quality is confirmed on more than 90 million vehicles manufactured annually.

Medium & Heavy Commercial Vehicle eMobility

Meeting the Challenge



We believe every customer connection is critical – within trucks, buses and construction equipment to specialty and off-road vehicles. Technology and regulations are changing rapidly. Our products are developed to comply with the latest requirements and standards.

Engineered for Reliability

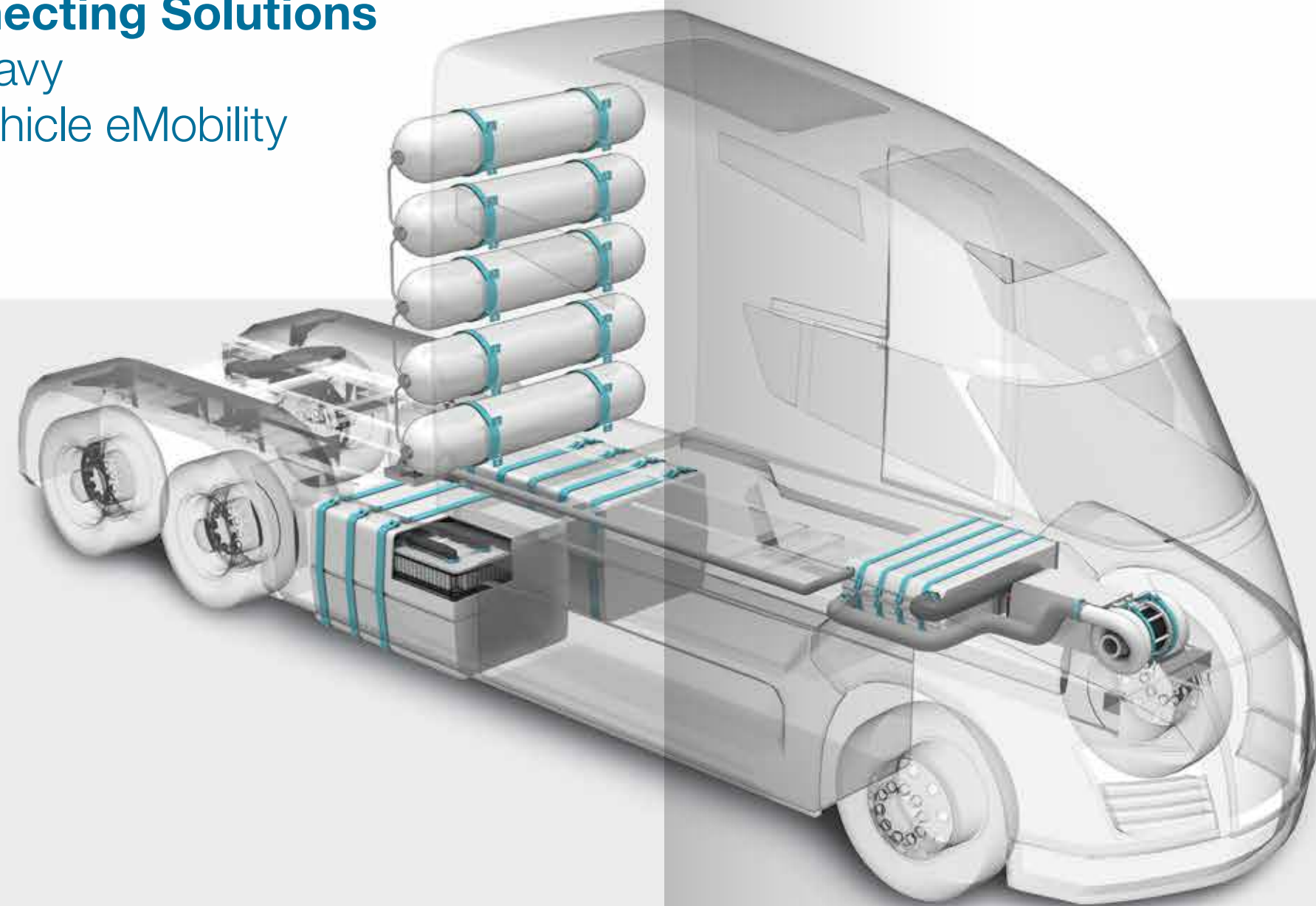
High performance requirements and tight space conditions coupled with increasing demands for safety, durability and environmental targets, make reliable connections a critical priority for the medium and heavy commercial vehicle market. Oetiker is recognized worldwide for delivering reliability today, and for proactively offering innovative connections for reliability tomorrow.

Our products offer unique assembly and performance characteristics to:

- Optimize space
- Improve sealing and durability
- Increase assembly efficiency and ergonomics

Engineered Connecting Solutions

for Medium & Heavy
Commercial Vehicle eMobility





**ELECTRIC
APPLICATIONS**

**FUEL CELL
APPLICATIONS**

Cooling Systems Pages 8–9

	SMILe® Compact Quick Connectors
	Multi Crimp Rings 150 & 250

Electric Air Compressors Pages 10–11

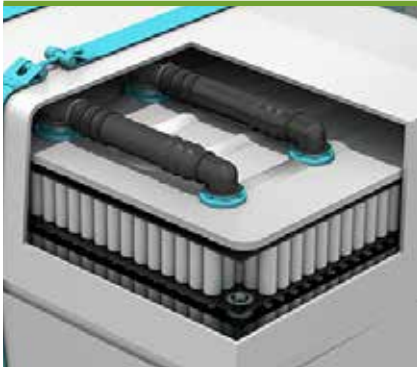
	V-Clamps 280
	Quick Connectors 201 & 210

Fuel Cell Stacks Pages 12–13

	Powertrain Straps 284
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Hydrogen Tank Fastening Pages 12–13

	Tank Straps 283
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Battery Packs

Battery pack density is one of the biggest challenges for OEM advanced engineers today. Our connecting solutions support in optimizing and maximizing storage space and thereby range.



EV Components

Components like inverters or heat exchangers are critical parts in every electric vehicle. One of the key challenges is the evacuation of heat. Oetiker has solutions to support customers in achieving high coolant flow while optimizing space, transportation and flexibility.



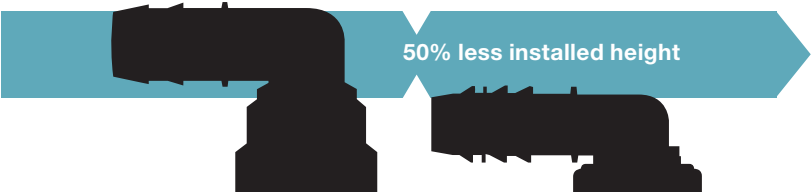
SMILe[®] Surface Mount Quick Connector

SMILe[®], our new compact quick connector, turns Millimeters into Kilometers of EV range.

- With 50% less installed height, it:
- Increases electric vehicle range
 - Cuts freight costs
 - Enhances battery pack lifetime
 - And much more

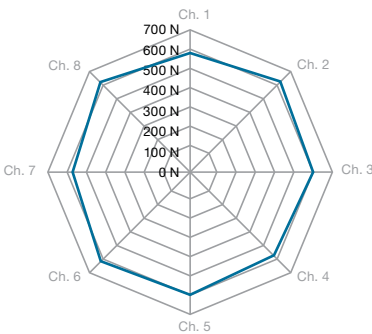
Standard Quick Connector

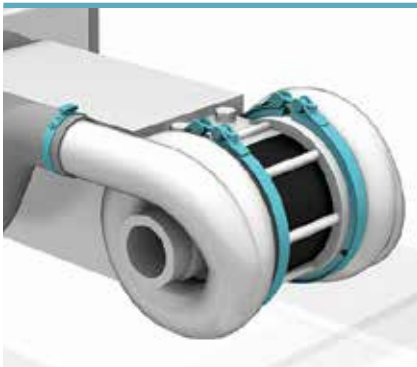
SMILe[®]



Multi Crimp Rings
150 & 250

- High Radial Load and Uniform Sealing Performance**
- Smooth band is uniformly swaged around circumference for ultimate strength and sealing performance.
 - Reliable in high compression and high temperature applications.
 - Smooth appearance and low clearance design.





Electric Air Compressor Assembly

In Fuel Cell Electric Vehicles, air compressors are mission critical for the performance of the fuel cell. To ensure all performance, assembly and safety requirements can be met, our V-Clamps are engineered and customized to the customer's specific needs.



V-Clamps
280

Strong Holding & Sealing Capability

- Precise low friction fastener consistently delivers superior clamping force.
- Self-locking thread retains tightness in high vibration environments.

Customizable

- Designed to maximize joint performance with application specific materials, components and profiles.

Easy Implementation

- Several fastener styles available to match your existing tools.

Assembly Efficiency

- Quick-lock latching mechanism provides effortless swing-action design, no alignment required.



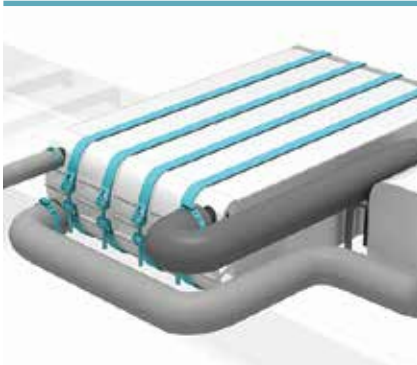
Quick Connectors
201 & 210

Maximum Performance

- Designed for maximum performance and 100% production leak tested.
- Controlled axial clearance prevents micro leakage.

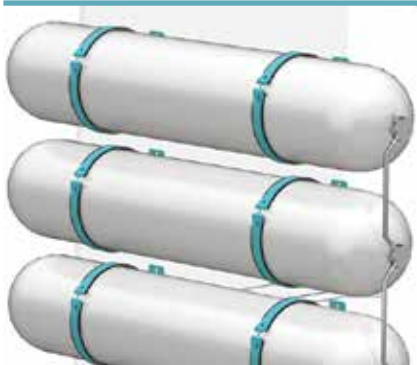
Durable Design

- Available in 6061-T6 Aluminum for inherent corrosion resistance or ZnNi coated steel for increased corrosion resistance.
- One-piece machined body provides a compact, lightweight design.



Fuel Cell Stack Assembly

The fuel cell stack is the heart of every Fuel Cell Electric Vehicle. Multi-layered challenges starting from tightness and pressure distribution down to space efficacy and power density make the right assembly method a crucial element. Our engineers deliver customized solutions that are adapted to meet the unique needs of our customers, while optimizing cost and performance.



Hydrogen Tank Fastening

Safe and reliable holding of tanks under all driving conditions paired with safety requirements and space constraints requires a reliable, high-quality fastening solution. Oetiker provides full support from concept to installation, making us a preferred partner in tank fastening for many leading OEM's and Tier 1 suppliers.



Powertrain Straps 284

- Customized Solutions**
- Various hardware, material and coating options, tailored to specific application requirements.

- Assembly-Friendly:**
- Ergonomically optimized design with pre-shaped layouts.



Tank Straps 283

- Custom Engineered**
- Materials, coatings and liners are selected to meet technical and assembly requirements.
 - Hardware options including bolts, loop and bracket attachments are selected to suit customer needs.

- Performance**
- Strap design offers flexibility, durability and consistent mechanical performance, all exceeding vehicle design criteria.



For further information and product support,
please contact us at **www.oetiker.com**



Reliable Connections