



# BUSBAR FASTENERS FOR AUTOMOTIVE ELECTRONICS

*Safety Critical. Certified Clean.  
Application Tested.*



## SEE HOW THE INNOVATIVE THINKING BEHIND PEM® BUSBAR FASTENERS CAN MOVE YOU FORWARD

As automotive power applications get smaller, faster and more complex – and more electrical systems require higher current-carrying abilities – busbars are more critical than ever to vehicle performance. They are the backbone of many applications and their failure to reliably transfer power is often the result of using the wrong fastener type when connecting busbars.

PEM® busbar fastening solutions for high-current electrical applications are proven to deliver the safety critical, application-tested capabilities you need – along with technical cleanliness in accordance with **ISO 16232** and **VDA 19** standards.

## SAFETY CRITICAL. CERTIFIED CLEAN. APPLICATION TESTED.

Over 80% of the world's top automakers trust PEM® brand fastening solutions for their automotive applications – and many trust PEM® busbar fasteners to achieve reliable clamp load, technical cleanliness, and proven performance for their busbar-to-busbar connections. Our portfolio is one of the largest and most diverse in the industry.

## PROVEN PERFORMANCE FOR BUSBARS

Power applications demand superior electrical/mechanical attachment points, and PEM® busbar fasteners are designed to do just that.

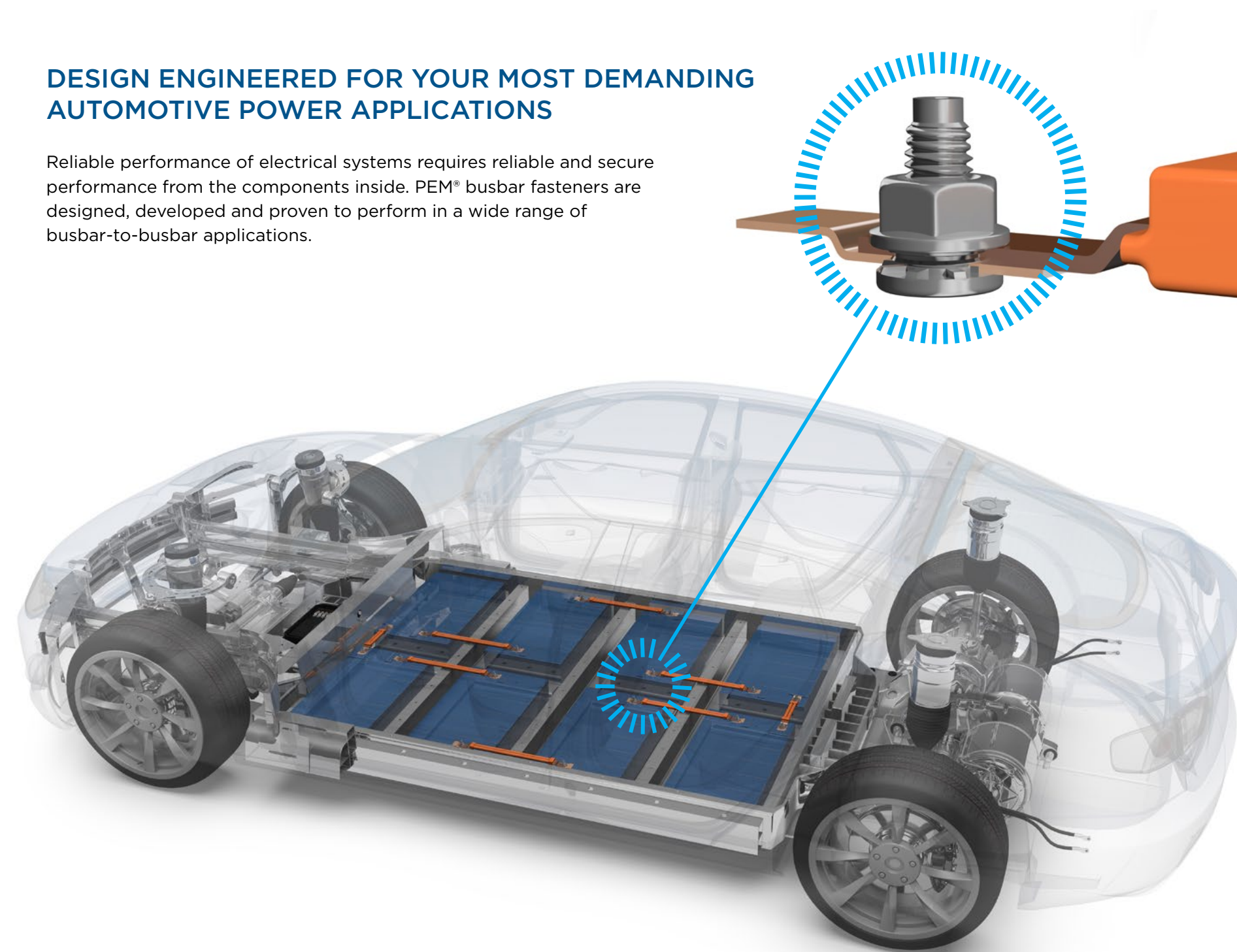
- **No Galvanic Corrosion.** Many material/plating combinations make reliable performance possible in a wide range of busbar environments – with no galvanic corrosion occurring between dissimilar materials.
- **Reliable Clamp Load.** Using PEM® fasteners ensures reliable clamp load to all joints throughout the busbar – for maintaining current flow and safety-critical performance of the vehicle.

## GET MORE WITH PEM® INSTALLATION SYSTEMS

Combining PEM® fasteners with PEM® installation systems can provide even greater reliability and cost savings for your busbar applications. Our in-die installation process eliminates secondary operations by integrating directly into the production process – for increased throughput and repeatability.

## DESIGN ENGINEERED FOR YOUR MOST DEMANDING AUTOMOTIVE POWER APPLICATIONS

Reliable performance of electrical systems requires reliable and secure performance from the components inside. PEM® busbar fasteners are designed, developed and proven to perform in a wide range of busbar-to-busbar applications.



## CERTIFIED TECHNICAL CLEANLINESS STARTS HERE

Using the most advanced equipment and cleaning processes in the industry, The PEM® Clean Lab ensures technical cleanliness of all PEM® busbar fastening solutions.

- In accordance with customer specs, ISO 16232, VDA 19 standards
- Processing: extraction, filtration, drying/weighing
- Clean Analysis: fully automatic with higher sample rate, precise particle detection

## ENGINEERED AND APPLICATION TESTED FOR SUPERIOR QUALITY AND RELIABILITY

Comprehensive engineering support, product testing and technical inspection processes are available as part of our value-add PEMedge® services.

- Custom design and product development
- Application-specific product testing, sampling
- Quality control technical inspections for all PEM® parts



## PEM® BUSBAR FASTENING SOLUTIONS

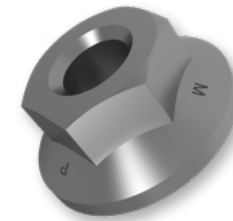
The PEM® product portfolio is one of the largest and most diverse in the industry - with many fasteners design-engineered for a wide variety of busbar applications.



### THFE™ Heavy Duty Studs

For installation into busbars as thin as .031"/0.8 mm

- Clinch design for high-strength, permanent installation
- Ideal for installation into copper, aluminum, steel
- Enlarged head diameter/thickness provides enhanced contact area



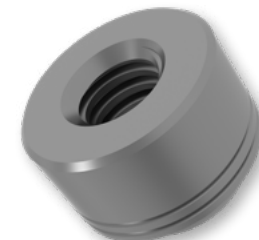
Captivated Spinning Nuts



B™ Self-Clinching Blind Nuts



S™ Self-Clinching Nuts



Reelfast® SMTSO™ Standoffs



SI® Molded-In Inserts for Plastics



PEM® Grooved Self-Clinching Pin for RADSOK® Connectors



## SI® THREADED INSERTS PROVEN PERFORMANCE IN PLASTICS FOR AUTO ELECTRONICS

As automakers convert more assemblies from metal to plastics, SI® threaded inserts are proven to perform in many types of applications - and are often used in plastic overmoldings that house busbars.

- Wear-resistant threads
- Strong joint assembly
- Electrical contact point
- Close tolerance threads
- Available in brass, stainless steel, and aluminum



Brass



Stainless Steel



Aluminum



## GET PEM® SUPPORT ANYTIME, ANYWHERE

No matter where you are in the world, PEM® support services are there. Our locations throughout North America, Asia, and Europe provide complete global support at the local level.

PEM® support services that are accessible around the world include:

- Engineering & Application Support
- **PEMedge®** Teardown Services
- Product Testing
- Technical Support
- Training



## GLOBAL CONTACT INFORMATION

### NORTH AMERICA

Danboro, Pennsylvania USA  
[info@pemnet.com](mailto:info@pemnet.com)  
+1-215-766-8853  
800-237-4736 (USA)

### EUROPE

Galway, Ireland  
[europe@pemnet.com](mailto:europe@pemnet.com)  
+353-91-751714

### ASIA/PACIFIC

Singapore  
[singapore@pemnet.com](mailto:singapore@pemnet.com)  
+65-6-745-0660

### SHANGHAI, CHINA

[china@pemnet.com](mailto:china@pemnet.com)  
+86-21-5868-3688

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