



## PEM® System Solution: Collaboration Drives New Connector Design and Reduced Space Requirements

PEM® engineering and manufacturing expertise leads to patented connector design that significantly reduces space requirements and meets critical busbar electrical specifications.

### OVERVIEW

Customer:  
**Global Automotive  
OEM**

Application:  
**Electric Vehicle  
Busbar Architecture**

Solution:  
**System Solution with  
PEMSERTER® Press**



### CHALLENGE

#### Busbar Design with Space Constraints

- New scalable electric architecture must accommodate all EV configurations
- Tolerance - installation process is critical
- No hydraulic installation systems allowed
- High-volume price challenge
- Support needed for multiple global locations
- VDA 19 Part 1 cleanliness requirements



### SOLUTION

#### System Solution

- PEM® screw machine design solved technical challenge
- Cold formed primary process developed with secondary machining operation
- Force controlled installation
- Servo electromechanical actual technology using PEMSERTER® Series 3000™ Press



### RESULTS

#### Patented Connector Design Reduced Space Requirements by 80%

- Tooling package developed clinch fastener installation after solder ring” assembly
- Fastener/installation solution met both technical and commercial targets
- Supported all of customer’s global manufacturing locations
- Solution accommodated all vehicle configurations

Reduce Space  
Requirements

**80%**