



PEM® Design-Engineered Fastening Solutions: Reduced Project Complexity Delivers Flexible Cost Assembly and 61% Savings.

PEM® developed and tested new custom fastener stud head design to achieve customer's performance requirements including different busbar thicknesses.

OVERVIEW

Customer:
**Global Automotive
OEM**

Application:
**Busbars for
EV/Hybrid Vehicles**

Solution:
**Custom Fastener
Stud Head Designs**



CHALLENGE

Currently Using 11 Different Busbars

- 3 different fasteners & thicknesses per busbar
- Complexity, high costs for installation options
- Potential risk for fastener mix-ups
- Difficulty developing fasteners that could be fed in-die
- High-volume installation
- 7 different toolmakers involved



SOLUTION

New THFE Stud Head Design

- 4 custom parts manufactured for all 11 busbars
- In-die tools customized to application
- Close alignment with toolmakers
- Onsite project coordination by Field Application Engineer



RESULTS

61% Savings – Fastener Rationalization and Reduced Project Complexity

- Achieved customer performance requirements including different busbar thicknesses
- High-volume, in-die installation solution achieved
- Flexible manufacturing operations supported short lead-time requirements
- Proven expertise developing custom solutions for EV/Hybrid vehicle market

61%
Savings