microPEM® TackSert® Pin: Custom-Engineered Solution Delivers 50% Reduction in Parts per Units

Design-engineered solution reduced parts per unit – driving significant cost savings in addition to providing tamper-evident features and improved cosmetic look.



CHALLENGE

Increased Power Output Demand for Electric Power Pack System

- Fasten plastic handle of HDD carrier to 2 metal components of SSD rack
- Wanted solution for easy, fast installation
- Drawbacks using screws in assembly process
- 8 parts required 4 screws, 4 inserts
- Joint strength limitations
- Screws not tamper-resistant
- Screw fastening weakened by creep



SOLUTION

microPEM® TackSert Pin

- Cost-effective alternative to micro screws
- Strong attachment of thin sheets to plastics in compact assemblies
- Eliminates need to tap or use threaded inserts during install
- Low-profile head minimizes protrusion on top panel
- Unique design for reliable, effective performance
- Tamper-evident features



RESULTS

50% Parts Reduction with Significant Cost Savings

- New TackSert® Pins reduced parts per unit from 8 to 4
- Provided easy, fast installation
- Improved cosmetic look of the assembly
- 2+ million rack units using TackSert[®] solution produced annually
- TackSert[®] production will continue for next-generation carriers



PennEngineering®