



FASTENERClass™ by PennEngineering®

A Master Class in Fastening Technology

FastenerClass™ by PennEngineering® is your opportunity to learn from the leading experts in fastening technology.” Choose from customized training sessions – all available at no charge, and all designed to give you actionable insights that will empower you to approach application challenges in new and effective ways.

Learn Theory, Best Practices, and Application Exploration from Industry Experts

Choose the FastenerClass™ course or courses you're most interested in and get valuable insights from training experts who will walk you through theory, best practices for fastener selection, application examples, and more.

You'll also learn how to test and confirm your fastening designs with support from **PEMedge™** services and how to choose the best installation and assembly solution for your application.

FastenerClass™ from PennEngineering® is a valuable learning tool for suppliers and OEMs in countless industries including:

- Consumer Electronics
- Automotive Electronics
- Datacom and Telecom
- Industrial
- Commercial
- Military
- Aerospace
- Medical
- Food Service
- Recreation

With every course you'll discover ways to optimize your current fastener usage and meet your biggest application challenges.

Explore Our FastenerClass™ Courses

Intro to Self-Clinch Theory: Learn about self-clinching fasteners and how they can help improve application performance

Catalog Training 101: An introduction to the PennEngineering® product portfolio and using our catalog bulletins

Alternative Fastening Solutions for Compact Electronics: Reduce the size, weight, and cost of your designs by replacing traditional hardware with microPEM® solutions

Surface Mount Fastener Technology (SMT) vs. Broach: Learn how SMT can reduce scrap, handling, and total installed cost for your applications

Proper Fasteners for Stainless Steel Panels: How to choose the right fastener for proper assembly and performance with stainless sheet metal

Choosing Self-Clinching Locknuts: Finding the best locknut variation to prevent mating hardware from loosening while in service

Determining the Right Panel Fastener for Your Design: Learn about captive panel fasteners and how to choose the right type for specific design requirements

Proper Fasteners for Sheet-to-Sheet Attachment: Learn the advantages of replacing welds and glues with clinching fasteners in face-to-face assembly

Innovative Fastening Solutions for Improving Performance: A look at new and unique fastener alternatives and how they can improve product design and overall performance

(Continued on page 2)

GLOBAL CONTACT INFORMATION

NORTH AMERICA

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

EUROPE

Galway, Ireland
europe@pemnet.com
+353-91-751714

ASIA/PACIFIC

Singapore
singapore@pemnet.com
+65-6-745-0660

SHANGHAI, CHINA

china@pemnet.com
+86-21-5868-3688

Explore Our FastenerClass™ Courses (cont.)

Choosing Fasteners for Magnesium and Aluminum

Castings: Learn how to choose the appropriate fastening solution when working with Mg and Al castings

Blind Threaded Rivets for Thin Sheet Materials: Learn how blind threaded rivet nuts and installation tools are the best choice for certain types of product designs

Using Threaded Inserts When Designing with Plastic Panels: Learn how threaded inserts and compression limiters can help achieve strong and reusable permanent threads in plastics

The Benefits of Self-Clinching vs. Weld: See why self-clinching fasteners are a smarter way to achieve flexible designs, cleaner installation, stronger threads, and reduced costs

Work smarter, not harder!

Connect with PennEngineering® today to schedule a FastenerClass™ for you and your team.

Fewer Parts. Fewer Assembly Steps. Faster time to Market.

PEM® self-clinching fasteners securely attach to a sheet of ductile material by causing the material to cold-flow under pressure into an annular recess of fastener – securely locking it into place. This technology provides many benefits:

Strength – Stronger threads vs. a tapped panel

In-Process Installation – Parts are installed into a plain round hole with no secondary operations required

Cost Reduction – Decreased installation cycle times with in-die capability

Design Flexibility – Can be installed into dissimilar metals

Clean Process – Environmentally friendly, with no weld splatter and less energy requirements

