PD561
Geometric Tolerancing Applications and Tolerance Stacks

Day One

- Fixed and Floating Fastener Formulas: Calculating Position Tolerances
  - Virtual Size
- Linear Stacks, Vector Method with Plus Minus Tolerances
- Linear Stacks, Vector Method with Profile Tolerances
  - When to include flatness, perpendicularity in tolerance stacks
- Grommet Assembly: practical problem 2 parts
  - Selecting Datums, Calculating Position and Profile Tolerances
  - Solid Model Tolerancing
  - Linear Stacks with Profile
- Powder Case: practical problem with 2 parts
  - Selecting Datums, Calculating Position and Profile Tolerances
  - Datum Modifiers
  - Intro to Axial Boundary Stacks
- Fuel Cooler Bracket: Bent Sheet metal problem
  - Hole and Slot vs. Pattern of Holes as datum features
  - Solid Model Tolerancing

Day Two

- Detail Axial Boundary Stacks
  - Inner and Outer Boundaries
  - Wall Thickness Calculations
- Assembly Axial Boundary Stacks
  - 2-part Assemblies RFS (regardless of feature size) datum modifiers
  - 2-part Assemblies MMC (maximum material condition) datum modifiers
  - 4-part Assemblies
  - Excel Stack Exercises
- Optic Connector: 2 machined parts with complex alignment requirements
  - Selecting Datums, Calculating Position and Profile Tolerances
  - Linear Stack
  - Axial Boundary Stack
- Step Bracket Assembly– Bent Sheet metal problem
  - Selecting Datum features, Calculating Position and Profile Tolerances
  - Coaxial Holes as Datum Features
  - Complex Surfaces