

**Jason Thomas Troyer**  
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**Professional Summary:**

Mechanical Engineer with a skill set in machine design and project management that varies from jigs to multi-axis machines in different industries. Typically project managed and engineered products from initial concept to final product and acceptance with manuals using 3D CAD, FEA, MS office, GD&T, and 2D detailing at different companies with different software packages.

**Engineering Work Experience:**

Sep '10 to Present 5 month sabbatical      **3SAE** (Franklin TN) *Senior Mechanical Engineer*  
Mechanical designs of over 40 projects that varied from jigs to 15+ axis machines for fiber optic processing. Project managed the mechanics of the first rounds of most projects. Changed current designs and processes to improve performance, decrease assembly time, and reduced failures.

Aug '17 to present      **Cobalt** (Shelbyville, TN) *Senior Mechanical Engineer* (part time)  
Machine design and reverse engineering of parts for manufactures in southern middle TN.

Dec '03 to Sep '10      **Schmiede** (Tullahoma TN) *Mechanical Engineer*  
Mechanical Engineer responsibilities including: machine design, project management, job planning via ERP, quoting, creating and completing ISO quality documents, structural and vibration analysis, IT, co-designed a document control system with WSS, and account manager. Served as key customer contact throughout project duration

Nov '02 to Dec '03      **Contract engineering** (Middle Tennessee) *Machine and product design*  
Mechanical designs for retail product development, industrial machinery and test equipment.

Aug '00 to Oct '02      **Amherst FiberOptics** (Brentwood, TN) *Mechanical Engineer*  
Mechanical design of an automatic fiber optic preparation machines and test equipment.

Feb '00 to Aug '00      **ARTECH** (Arden, NC) *Mechanical Engineer*  
Responsible for designing, and detailing parts for a large material handling system.

July '98 to Jan '00      **Industrial Manufacturing** (Albany, GA) *Mechanical Engineer*  
Project manager and machine designer for manufacturing equipment. Experience with material handling and reverse engineering. Served as key customer contact throughout project.

May '96 to July '98      **Ropak Manufacturing** (Decatur, AL) *Mechanical Engineer*  
Mechanical project manager and machine designer of a Multi-product soft packaging machine. Managed a design team of an engineer and a draftsman.

**Education:**

Spring '96      **Tennessee Technological University** (Cookeville, TN)  
BS in Mechanical Engineering (Machine design emphasis)

**References:** Available upon request

## Jason Thomas Troyer

### Computer Skills currently using:

SolidWorks 2016 and their FEA lite, 2D Draftsight , MS Office, and Mathcad lite

### Computer Skills previously used:

ProE Wildire 2 trough 5, ProE Mechanica (FEA) MathCad, Vantage (ERP) Visual basic, NI measurement studio, Catia v5r19, Autocad 2D, Alibre.

## Project Details

### 3SAE:

Mechanically designed many 3SAE products. Improved most of the other 3SAE products for reliability, manufacturability, and performance. Made-to-order machines for customers. Some of the products I mechanically designed/engineered are considered the best in the world. Generic questions can be answered about the products but no details.

### Schmide:

*Designed and managed:*

Test fixture for a wind tunnel product. Designed with hydraulic cylinders, load beams, digital inclinometer, and NI measurement studio.

A 400 ton press and 200 ton press with 100"+ stroke for armature shaft installation and removal for generator manufacturing.

Generator lift for testing with vibration reduction design via FEA.

Double ended face mill machine

Redesign of a rivet delivery system for a large wing section assembly.

Press assembly machine for clothes drying product.

Multiple machine, test, assembly, and QA fixtures, jigs, tombstones, nest, birdcage, vacuum chucks and adapters.

### Amherst FiberOptics

Designed, assembled and programed an automated fiber optic preparation machined with many off the shelf items. Worked well but some of the off the shelf fiber tools failed prematurely. Then conceptualized, designed and assembled a fiber optic horizontal ultrasonic cleaner which led to the next project. It consisted of a design team made up with 2 electrical engineers and 2 mechanical engineers to create from scratch a machine that can load two of all current fiber types, strip the coating off, clean the fiber, cleave the fiber with less than a 1° end face, and dispose of all the scrap.

### ARTECH

Checked, designed and detailed conveyors, sheds and structural stands of a material handling system for a brick manufacture.

### Industrial Manufacturing

Designed and managed many machines and fixtures to produce product varying from food, door strikes, and bearings.

Developed equations to model a steady state high voltage latex test machine.

Reverse engineered damaged parts.

### Ropak Manufacturing

Three months of documentation and detailing parts with GD&T. Co-designed tobacco packet package machine.

Designed a package machine that ran three different pouch sizes, four products, and two kinds of web material.

Co-designed a chocolate icing package machining,