

James Lyons

Mechanical Engineer

Hatfield, PA - Email me on Indeed: [indeed.com/r/James-Lyons/c2e0d06edc0cbae2](https://www.indeed.com/r/James-Lyons/c2e0d06edc0cbae2)

- Strong communication skills developed in dealing with varied contacts both domestic and foreign from widely different industries either applying a product, solving technical problems, or guiding larger projects involving multiple disciplines.
- Possess strong research skills to identify options required to solve problems in projects.
- Able to work on projects individually or in collaboration with others. Recently guiding machine design in Germany via "Go To Meeting".
- Extensive knowledge of sealing technologies. Including the ability to design new seals for a given purpose (including: cryogenic) . Something now more possible since seals are commonly machined rather than molded to size which requires specialized equipment.

WORK EXPERIENCE

Mechanical Engineer

Carpenter Technologies - RPA Engineering - Reading, PA - June 2007 to August 2014

Handled several large projects:

One to upgrade arc furnaces to eliminate dangerous but necessary operator duties adjusting electrodes remaining in place since 1917.

- Designed to correct vacuum problems at furnaces eliminating costly stops in processing.
- Developed load cell design for remelt furnaces expected to save \$1 million per month.
- The installation of a traditional grit crucible cleaner at the Reading plant.
- The installation of a high pressure water crucible cleaner from Germany for the new Athens Alabama plant (approx. cost \$1.6 million) applied for the first time in the United States. Problems within the German design required correction and design efforts in the US.

Design Engineer

Clayton H. Landis Company - Engineering Department - Souderton, PA - June 2001 to December 2006

Handled design projects at three Nucor Steel plants.

- Designed and altered machinery to meet the customer's needs and desire for increased plant capacity & ability to process new product.
- Heavily involved in the enhancement of equipment used at Nucor's CASTRIP when an unusual concept steel facility was moved from Australia to Crawfordsville IL.
- Used my knowledge of sealing to further the quality of Nucor's in house hydraulic cylinders, troubleshoot failed cylinders, and implemented changes to increase cylinder functional life.
- Asked to make trips to vendors to access their abilities and later design with their strengths in mind. For example: Coil car cylinders were changed to friction welded rods to increase their physical strength and dimensional repeatability. The vendor involved had perfected this ability manufacturing cylinders for Caterpillar.

Consulting Mechanical Engineer

J. Lyons & Associates - Hatfield, PA - July 1999 to June 2001

Involved with projects at several well known companies in this area. For instance DuPont, Merck, Rorer, Castrol, ATO Chemical, etc. From contacts established prior to August 1996.

Engineering Manager

Pelmor Laboratories Inc - Newtown, PA - October 1998 to July 1999

18940

- Rehired by Pelmor to a higher position managing the engineering department and plant.

Mechanical Engineer

Eisenhower Tool Inc - Quakertown, PA - August 1996 to October 1998

18951

- Involved in automation, machine design, customer communications, on site servicing, and troubleshooting. Working with various local companies in the electronics, manufacturing, and the automotive after market industries. Cadkey was used for design and documentation.

Sept. 1993 Consulting

to August 1996 Hatfield, PA 19440

- Setup a facility with several design computers, plotting facilities, running AutoCAD. Involved in machine design, making drawings via computer and often functioned as the go between to accomplish fabrication and inspection work clients were not equipped to do.

Product Engineer

Pelmor Laboratories Inc - Newtown, PA - May 1992 to September 1993

18940

- Responsible for overseeing Pelmor's rubber molded products, assisting customers with problems and new design, quoting on more complicated parts (like ILC Dover, AMP, Duo Fast), addressing vendor related problems in metallic and plastic components, and implementing appropriate manufacturing processes to enhance part quality.

Sept 1990 Consulting, Drafting

to April 1992 Hatfield, PA 19440

- Did manufacturing drawings for R+B, American Alloy Fabricators, and others. In the beginning using traditional methods transitioning to computer drawings later as funds and equipment permitted.

Senior Mechanical Engineer

Sonobond Ultrasonics - West Chester, PA - January 1988 to August 1990

19380

- Oversaw electronic engineers, drafts people, and electronic technicians.
- Designed an ultrasonic ring welder used for making automotive air bag detonators.
- By changing how it was controlled the handheld welder used to weld shut copper tube was made repeatable enough to allow marketing across the US and Canada. This effort allowed sales to firms like Whirlpool, Subzero, Carrier, & Heil
- Involved with ultrasonic wire splicing at Electrowire for Ford Motor Company.

Project Engineer

American Olean Tile Company - Lansdale, PA - 1983 to 1987

Lansdale, PA 19446

- Designed and supervised the making of several complex dies for plants in Lansdale PA, and Olean NY. Typically these exotic tool steel dies required many different machining disciplines (including wire & conventional edm work) and were the first computer aided designs for AOT using a basic program capable of flipping a 3D part in two planes.
- Assisting in supervising the startup of a major expansion project known as FASTFIRE where state of the art equipment from Europe was applied.

- Supervised a 22 man newly refurbished machine shop involved in complex corporate work.
- Supervised a number of different crews involved in crafts such as woodworking, metal fabrication, production mechanics, and electronics.

Applications Engineer

Greene Tweed & Company - 1979 to 1983

Assisted customers through phone contact and in writing, regarding the application of existing seals, troubleshooting of old, and the development of new seals and concepts. These customers ranged from the users of predeveloped industrial equipment to those designing their own sophisticated equipment for use on aircraft, military, and unusual applications of all kinds worldwide.

EDUCATION

Bachelor of Science in Mechanical Engineering

Clarkson University - Potsdam, NY

1978