

# AMANDA BECK

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## EDUCATION

Master of Engineering in  
Mechanical Engineering  
University of Cincinnati,  
Cincinnati, OH

## SUMMARY

Dedicated Mechanical Engineer experience in the automotive and metal production industries. I have a diploma in collegiate education and a 21st Century Leadership Certificate. I'm professional in 3D solid modeling, producing, communicating engineering drawings and Finite Element Analysis. I have a passion for problem solving and innovation.

## PROFESSIONAL EXPERIENCE

### MECHANICAL ENGINEER

NSI, Portland, OR  
Nov. 2014 - Present

- Singlehandedly plan, design, create and modify drawing packages and specifications while performing complex calculations for custom products, including ultra-high purity vessels and integrated systems. Implement key changes within engineering and bill of material changes using ERP software. Liaise with vendors to approve correct material certifications and assure mechanical testing in accordance with regulatory requirements, including the American Society of Mechanical Engineers (ASME) and the Department of Transportation (DOT). Enhance product quality and realize operational efficiency within multiple departments, including manufacturing, quality control, and customer service.
- Collaborate with machinists on mill and lathe to improve and revise designs as well as manufacturing drawings.
- Selected Contributions: Prepared, updated, maintained, and organized engineering documentation to ensure seamless workflow within the organization along with delivering assistance in designing and enforcing an engineering change order procedure.
- Reduced the number of engineering change orders due to shop and design issues by 30% by improving lead times and assuring cost-effectiveness with a reduction in production errors.

### MECHANICAL ENGINEER

Northrop Grumman,  
Centennial, CO  
Jul. 2011 - Oct. 2014

- Performed a full-lifecycle product development (design, develop, test prototypes, manufacture and implement).
- Produced outline designs to delegate work & create deadlines with contingencies.
- Multiple iterations with the goal of continuous improvement to reach maximum lifecycle.
- Used Finite Element Analysis (FEA) to reduce the number of physical prototypes and optimize components in the design phase to develop a safe product.
- Created B.O.M (Bill of Materials) and Engineering Drawings.
- Worked extensively with machinist until fabricated products met our standards & requirements.
- Assembled the fabricated parts by following the user Manual.
- Evaluated the final product's overall performance, reliability and safety to assure a safe product that meets ASME standards.
- Handled the procurement forms for placing orders and effectively communicated with vendors.
- Assisted in Preparing the presentations to show the projected product lifecycle, product stress points and product capabilities.

## SKILLS

- Software: SolidWorks 2010, AutoCAD 2017, Simulink, Mathematica, ANSYS, MATLAB, LabVIEW, Pro- Engineer, MS Excel, MS PowerPoint, Stratasys 3D.
- Proficient with most hand and power tools.
- Well-versed in the monitoring system and equipment performance, documenting system irregularities, researching new methods for system improvement, and testing system productivity.
- Skilled in managing computer applications, using CAD design techniques, performing math calculations, and preparing layouts for new products according to given specifications.