



## Mechanical Designer - Level 3

### Kathy Shull, Wagstaff Inc.

#### Place of Employment

Spokane Valley, WA

#### Employer

Wagstaff Inc.

#### Type of Work

- Mechanical Design and Drafting of Aluminum Casting Equipment
- Solid Model/Assembly, Drawing and Bill of Material Creation
- Manufacturing Support



#### Typical Day

A typical day at work includes reviewing the specifics of a given project, such as special customer requirements, corporate design standards, and investigating previous design releases to assure both internal and external customer satisfaction are achieved. Work then begins on creating the solid models, assemblies, drawings, and bill of materials. Design review meetings are held to communicate with the manufacturing and planning departments to assure that design intent, drawings, and bill of materials are clearly defined and understood. This output is then released to manufacturing.

#### What I Love About My Job

I love the creative process involved with building solid models, assemblies, and drawings. Drafting was the hook that led me to pursuing a Mechanical Designer/Drafter profession. I also enjoy problem solving and the calculations required to achieve a great design. To see the final product design tested and confirmed is a great pleasure for me.

### Career Pathway

I received an Associate's Degree in Mechanical Engineering Technology. My first job out of college was with Wagstaff, Inc. I began as a Drafter and worked my way to Designer position within a year. I have recently accepted the position of Production Coordinator for the designers in the Special Products area. I have found that my organizational and communication skills are a great asset to this new role. I continue to be an active designer for production, as well. I have worked at Wagstaff for 31 years and still love my job as much as I did on day one!



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### Most Important Skills Needed

- **Technical:** Mathematics and Science
- **Computer:** 3D and 2D CAD Software's, Microsoft Office products
- **Communication:** Verbal and written
- **Critical thinking and problem solving:** Required to solve issues in design and manufacturing
- **Ability to work under pressure:** Meet deadlines for product release and quick decision making when challenges arise.

### Science and Engineering Practices I Use

- **Science:**
  - Fastener Torque requirements
  - Material strengths and compatibility
  - Water and Hydraulic flow
- **Mathematics:**
  - Algebra
  - Trigonometry
  - Geometry

### Technology and Equipment I Use

Computer Aided Design (CAD) Workstation with:  
SOLIDWORKS Premium software  
SOLIDWORKS Product Data Management (PDM)  
Siemens NX 3D CAD software  
AutoCAD 2D software  
Microsoft Excel, Word, Outlook  
JD Edwards Materials Requirements Planning (MRP) software

## Education Background Needed

AA or AS Degree in Engineering Technical Field or equivalent experience

## Salary

Median Annual Wage: \$50,000  
Source: Bureau of Labor Statistics