

DEREK SPENCER DUCKWORTH

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Mr. Duckworth has one year of experience in mechanical design, fabrication, and testing. He is proficient in SolidWorks, Autodesk Nastran FEA, and VA Structural Analysis. In addition, he has experience with testing and analysis to API standards 15S and 17B.

EDUCATION

BS Mechanical Engineering

Oklahoma Christian University, 2021

EMPLOYMENT HISTORY

2021-Present: ETA International Inc., Mechanical Engineer

2018 - 2020: ETA International Inc., Mechanical Engineer Intern

AFFILIATIONS

American Society of Mechanical Engineers

Society of Automotive Engineers

Toastmasters International

PROJECT EXPERIENCE

Mr. Duckworth's project experience includes the following categories.

Spoolable/Flexible Pipe Testing

Development of Data Acquisition, Pressure and Temperature Control Systems for long duration (10,000 hour) testing.

Design, Fabricate, and Operate Controlled Temperature Test Chamber capable of:

- Up to 225°F +/- 2°F
- Up to 5,000 PSI +/- 1%
- Up to 10,000 hours at temperature and pressure
- Up to 16 - 10 in. diameter, 11 ft. length samples
- Minimum User Input

Conduct testing to API 15S and 17B.

Structural Analysis

Conduct structural analysis of structural steel frame.

Floating Hose Testing

Conduct full-scale burst testing on crude offloading hoses.

Electrical Utility Cross Arm Testing

Design, Setup, and Operate Electrical Utility Cross Arm Testing Frame capable of:

- 3,000 PSI Hydraulics
- 50,000 lb Tension
- 24 in. Stroke
- Data Acquisition

Project Management

Acted as Project Manager for a Structural Analysis on a structural steel frame. The project details are listed below:

- Project Duration: 2 months
- Project Budget: \$6,500

Acted as Project Manager for the Development of an Electrical Utility Cross Arm Testing Frame. The project details are listed below:

- Project Duration: 1 month
- Project Budget: \$17,800