



# Office Job Postings

**Position Available:** Test Engineer  
**Location:** Muskegon, MI  
**Department:** Validation & Testing  
**Hours:** 8:00 a.m. – 5:00 p.m. or approved alternative work schedule  
**Reports to:** Lead Test Engineer

## Qualifications Required:

- Qualification 1: Bachelor's Degree (B.S.) in Engineering from a four-year, ABET accredited college or university.
- Qualification 2: 2-5 years of experience in a test lab area of a manufacturing company, or in the design of machinery.
- Qualification 3: Or equivalent combination of education and experience.
- Qualification 4: Ability to read, analyze, and interpret general business periodicals, professional journals, technical procedures, or governmental regulations. Ability to write reports, business correspondence, and procedure manuals. Ability to effectively present information and respond to questions from groups of managers, and customers.
- Qualification 5: Ability to apply advanced mathematical concepts such as exponents, logarithms, quadratic equations, and permutations. Ability to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, sampling theory, and factor analysis. Ability to perform and interpret complex mathematical studies associated with strength of materials, mathematical modeling and analysis, static, and dynamic testing methods.
- Qualification 6: Be familiar with various analytical software tools used in the test lab. Examples of these are Ansys, nCODE, LabView, MATLAB, MathCAD, TruckSim, MTS (407s, 793 Control Software, RPC), PLC Programming (RSLogix, Mitsubishi, or Siemens) programming software or similar software for general analysis of data (static data, dynamic data, fatigue calculations, time series, etc.). Experience with 3D CAD, preferably SOLIDWORKS. In addition, a thorough working knowledge of Microsoft Office is required for reporting and archiving activities. Experience with Excel and Origin.
- Qualification 7: Basic design of experiments, failure analysis, static and fatigue test principles, root cause analysis, test fixture design and operation, power hydraulics knowledge and practical skills (components and circuits, design), basic electrical knowledge (circuits and wiring as pertaining to automatic equipment operation and sensors) Ability to understand variables under test, interpret/analyze test data and test reports, understand drawings/schematics and standards from a variety of sources (independent test labs, customers, etc.), be able to interface with outside test labs and technical authorities in the interpretation of data, methods and results. Experience with data acquisition hardware such as SOMAT eDAQ, DATAQ, Mars Labs, or LabView equipment and their use on vehicles. Thorough understanding of digital data acquisition methods and electrical requirements/circuits needed for various sensors, especially strain gages, accelerometers, load cells, etc.
- Qualification 8: Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to develop algorithms to post process acquired data. For example, to detect and count damaging events.

## Summary of Duties:

Provides overall product testing design and analysis service to SAF-HOLLAND, Inc. Engineering, including, but not limited to test conceptualization and design (and documentation thereof), data acquisition and analysis, stress analysis and durability testing and support of all testing activities at the SAF-HOLLAND test facilities.

**ESSENTIAL DUTIES AND RESPONSIBILITIES** include the following: Other duties may be assigned.

- This position interacts internally with all areas of the Company (globally) with a primary working relationship with the engineering departments. Additionally, the Test Engineer interacts externally with vendors and suppliers of material.
- In each of the duties listed below the employee is expected to perform to the highest standards of quality, to strive for maximum customer satisfaction, and to continually look for ways to improve the methods, practices, and procedures used in this position.

- Test Design: Design test equipment and controls to execute according to a defined loading schedule. This includes 3D (CAD) design, structural analysis (FEA) along with the design of the electrical and hydraulic circuits. The system used to control the test equipment could be based on simple timers, PLCs or by servo-hydraulic control software (MTS). Write programs that will be needed to control the test. Sensors used with the controls will also have to be incorporated in the designs.
- Project Management: Collaborate with various Engineering groups as testing projects go forward. Effectively communicate the project timing and review the test design details to maintain involvement, buy-in and to implement good suggestions.
- Work with data acquisition specialists and other testing staff to plan the details of data acquisition projects. (Define the sensors needed along with their sampling rates etc.)
- Work with structural analysts to track actual test results vs fatigue life predictions to improve modeling methods.
- Stay current with the latest advances in testing equipment and methods.
- Participate in technical committees as needed. (ISO, SAE etc.)
- Be familiar with quality system requirements as they pertain to the Testing operation. Understanding of calibration processes and procedures. Experience with ISO 17025.
- Provide technical supervision during test activities when necessary/required.
- Support the Engineering Design Centers in the following ways: participate in design reviews, provide technical expertise to Engineers, and contribute information for the improvement of SAF-HOLLAND products and services from a Testing perspective.
- Supports Company's quality, environmental policies, and programs and meets quality requirements specified for position. Meets quality requirements specified by production drawings, bills of materials, control plans, policies, work instructions, and procedures.
- Actively participates in and successfully completes appropriate training. As appropriate, submits documentation of specific training to support successful completion (i.e. course description, certificate; Training Completed/Evaluation Form).
- Meets with supervisor at least once per year to review job performance using this job description as a basis for appraisal.
- Maintains complete security and confidentiality of all Company records and employee data.
- Maintains a clean, orderly and professional work environment.
- Performs other miscellaneous duties as may be assigned.

**Miscellaneous (Non-Supervisory)**

- Acts as a good steward of the Company's resources and exemplifies the values of the Company.
- Ensures personal compliance with all Company policies, procedures, values, ethics, and rules.
- Maintains and promotes a safe work environment through ownership of Company safety program. This includes following all safety rules/regulations and proper operating procedures, as well as the proper use of prescribed safety equipment pertinent to the department, and immediately reporting all accidents/incidents to supervisor.
- Supports the Company's equal employment opportunity and affirmative action policy and actions, immediately reporting violations to supervisor and/or the Human Resources representative.
- Ensures that work area is free from any form of harassment (sexual, racial, religious, etc.), immediately reporting violations to supervisor and/or the Human Resources representative.

**Candidate Pool:** Open to any qualified candidate.

**Travel Requirements:** 20% travel required

**Relocation:** Benefits May Be Available

**Resumes can be e-mailed to [husaresumes@safholland.com](mailto:husaresumes@safholland.com) with “Test Engineer” in the subject line, or faxed confidentially to 231-767-8838.**

**EOE-AA-M/F/Vet/Disability**