

# Machinist

**Purpose:** Set up and operate a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures. Assemble equipment according to prints and/or verbal direction.

## **Essential Job Duties/Responsibilities:**

- Calculate dimensions and tolerances using knowledge of mathematics and instruments such as micrometers and vernier calipers.
- Machine parts to specifications using machine tools such as lathes, milling machines, shapers, or grinders.
- Measure, examine, and test completed units in order to detect defects and ensure conformance to specifications, using precision instruments such as micrometers.
- Set up, adjust, and operate all of the basic machine tools and operations.
- Align and secure holding fixtures, cutting tools, attachments, accessories, and materials onto machines. Many specialized or advanced variation tools in order to perform precision machining.
- Monitor the feed and speed of machines during the machining process.
- Study sample parts, blueprints, drawings, and engineering information in order to determine methods and sequences of operations needed to fabricate products, and determine product dimensions and tolerances.
- Select the appropriate tools, machines, and materials to be used in preparation of machinery work.
- Lay out, measure, and mark metal stock in order to display placement of cuts.
- Observe and listen to operating machines or equipment in order to diagnose machine malfunctions and to determine need for adjustments or repairs.
- Check workpieces to ensure that they are properly lubricated and cooled.
- Maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures.
- Position and fasten workpieces.
- Operate equipment to verify operational efficiency.
- Install repaired parts into equipment, or install new equipment.
- Clean and lubricate machines, tools, and equipment in order to remove grease, rust, stains, and foreign matter.
- Advise clients about the materials being used for finished products.
- Program computers and electronic instruments such as numerically controlled machine tools.

- Set controls to regulate machining, or enter commands to retrieve, input, or edit computerized machine control media.
- Confer with engineering, supervisory, and manufacturing personnel in order to exchange technical information.
- Dismantle machines or equipment, using hand tools and power tools, in order to examine parts for defects and replace defective parts where needed.
- Establish work procedures for fabricating new structural products, using a variety of metalworking machines.
- Support metalworking projects from planning and fabrication through assembly, inspection, and testing, using knowledge of machine functions, metal properties and mathematics.
- Confer with numerical control programmers in order to check and ensure that new programs or machinery will function properly, and that output will meet specifications.
- Fit and assemble parts to make or repair machine tools.
- Evaluate experimental procedures, and recommend changes or modifications for improved efficiency and adaptability to setup and production.
- Design fixtures, tooling, and experimental parts to meet special engineering needs.
- Prepare working sketches for the illustration of product appearance.
- Install experimental parts and assemblies such as hydraulic systems, electrical wiring, lubricants, and batteries into machines and mechanisms.
- Set up and operate metalworking, brazing, heat-treating, welding, and cutting equipment.
- Test experimental models under simulated operating conditions for such purposes as development, standardization, and feasibility of design.

# **Essential Qualifications:**

- A high school diploma/GED and a minimum of three years relevant experience.
- Past Experience in machine fabrication and assembly.
- Ability and willingness to multi-task and learn new responsibilities.
- Possess the written, verbal, and communication skills necessary to work both independently and cooperatively.
- Ability to read mechanical, electrical and pneumatic schematics.
- Read and comprehend oral and written procedures.
- Possess basic math skills such as addition, subtraction, division, and multiplication.
- Regularly and reliably work the scheduled hours. Willingness to work overtime when workload requires.
- Comply with safety policy and OSHA Standards.
- Physical requirements include the ability to:

- distinguish and identify wire and paint colors;
- > read fine print with or without the use of corrective lenses;
- work with odors (solder/paint/solvent/manufacturing odor);
- ▶ lift and carry heavy (up to 45 lbs) and/or awkward items;
- stand or sit for the full shift and have full range of motion (including but not limited to bending and lifting) required to perform the job functions;
- maintain steady hand-eye coordination;
- > reach in all directions and in potentially awkward positions;

#### **Desirable Qualifications:**

• Forklift experience

## **Other Information:**

This is a first shift position, working eight-hour shifts Monday through Friday. Pay is dependent upon experience.

## To Apply:

Please submit a complete résumé and cover letter to: Northfield Automation Systems, Inc. ATTN: Human Resources 1325 Armstrong Road Northfield, MN 55057 You may also choose to send your application materials via email to hr@northfieldautomation.com or via fax to 507-645-5521.