



## Charles J. Bishop

### Senior CAD Detailer / Machinist

Chip is a highly skilled Machinist and Drafter that has been in the industrial forest products and engineering services business for over 45 years. His experiences range from maintenance and inspection of complex paper machines to providing detailing of site and utilities plans for industrial, commercial, and educational projects. He has been providing intricate detailing services and has demonstrated to have a precise eye for 3D modeling of intricate parts using AutoCAD and Inventor. Chip has been involved in projects that are directly aligned with the building sciences in terms of processes, instrumentation and the mechanics that makes up running complex facilities to include creating mechanical, civil, piping, HVAC and structural drawings. His ability to provide high quality drawings will ensure that Dirigo BSE will be able to offer consistent libraries and standards for client projects for decades to come.

CBISHOP@DIRIGOBSE.COM  
207.852.2184

## Professional History

### 2020 – Present

Dirigo Building Science Engineers, LLC  
CAD Detailer / Machinist

### 2006 – 2020

D&S Engineering / Mid-South Engineering  
CAD Detailer

### 2005 – 2006

Specialty Minerals, Inc.  
Operator Technician at PCC Plant

### 1978 – 2002

Great Northern Paper Company  
Master Machinist

### 1974 – 1978

Keuffel & Esser Company  
Toolmaker

### 1995 – 2020

Millinocket Fabrication & Machine Co.  
Part-Time CAD Detailer



## Education

### Associate in Science Degree Computer Aided Drafting and Design (2005)

Eastern Maine Community College  
*Excellence in Technology Award for Highest GPA (3.84)*

### Associate Degree in Applied Science Machine Tool Technology (1989)

Southern Maine Community College

### Diploma in Machine Tool Technology (1974)

Southern Maine Community College

## Qualifications Summary

- Twenty-five years of experience as a Maintenance Machinist for Great Northern Paper Company, Inc.
- Twenty-five years of experience as CAD Detailer
- Operated lathes to manufacture parts ranging in size from small precise parts to large 40-ton rolls
- Served for three years as member of OSHA Repair Team responsible for fixing unsafe conditions in a paper mill

## Professional Groups

Autodesk Inventor Users

Autodesk AutoCAD Mechanical Users



*"Making Your Vision a Reality"*



## Professional Experience

### **CAD Detailer / Machinist | Dirigo Building Science Engineers | Veazie, Maine**

Provide intricate detailing services. 3D modeling of intricate parts using AutoCAD and Inventor. Create mechanical, civil, piping, HVAC and structural drawings. Develop consistent libraries and standards for client projects for decades to come. Create business plan for Dirigo BSE.

### **CAD Detailer | D & S Engineering / Mid-South Engineering | Orono, Maine**

Created, maintained and updated drawing template files for client drawings. Created and maintained all symbol libraries and dynamic block libraries. Maintained internal drawing spreadsheet for all client drawings. Created AutoCAD drawings from client (Pdf, Tiff, Jpg, etc) raster drawings. Created mechanical, civil, piping, HVAC and structural drawings for industrial, medical, educational, and commercial projects. Created P&ID's and update electrical drawings. Helped survey sites for civil drawings. Used GPS to record asbestos locations at local landfill. Updated drawings from engineer's notes sketches.

### **Operator Technician | Specialty Minerals, Inc. | Millinocket, Maine**

Operated all equipment at PCC plant to manufacture precipitated calcium carbonate. Performed preventative and predictive maintenance on all equipment in plant. Ordered, billed and received all raw materials and material needed to maintain and repair plant equipment. Developed bid packages for improvements to plant and oversee outside contractors. Performed lab testing on product as well as all lab calibrations on lab equipment for ISO certification. Shipped product to customers via pipeline and truck. Generated all necessary paperwork for each transfer. Attended training seminars and team meetings.

### **Master Machinist / Millwright / Vibration Analysis Technician | Great Northern Paper Company | East Millinocket, Maine**

Master Machinist: Setup and operated all machine shop equipment such as lathes, milling machines, cut off saws, shapers, and planers. Operated lathes to manufacture parts ranging in size from small precise parts to large 40-ton rolls (20 ft. long with 4 ft. diameter). Machined in the field with climax millers, portable milling machine, and journal squirrels. Set lathe compound up in field to repair equipment. Member of machinist certification and advisory committee. Machinist content expert for training program. Millwright: Millwright experience in all areas of a pulp and paper facility. Experience installing/repairing different types of equipment such as pumps, gearboxes, motors, conveyors, fans, blowers, turbines, and boilers. Vibration Analysis Technician: Uploaded/downloaded vibration routes into SKF CMVA60 data collectors. Collected data on predetermined routes throughout mill complex. Analyzed data to determine the cause of vibration. Our vibration analysis team realized huge savings as most equipment failures were identified and repaired on planned outages. Tinsmith: Member of the OSHA Repair Team that worked 3 years to fix all unsafe conditions in two paper mills spending \$30,000,000 to bring the mills into OSHA compliance. Part of OSHA Maine 200 Program which was so successful that it went nationwide as OSHA's Cooperative Compliance Program. Designed, fabricated, and installed a variety of sheet metal guards. CMMS Team: Five years of experience with Enterprise Asset Maintenance Software. CMMS Data Collector for \$6,000,000 project.

### **CAD Detailer | Millinocket Fabrication & Machine Co. | Millinocket, Maine**

Twenty-one years as a Cad Detailer for local machine and fabrication company. Drafting experience with AutoCAD 2015. Design experience with small machine parts to large pressure vessels.

### **Toolmaker / Inspector | Keuffel & Esser Company | Kennebunk, Maine**

Manufactured many high precision prototype parts for transits and other surveying instruments. Manufactured many jigs and fixtures for NC machines. Setup and operated new climate control precision grinding room manufacturing optical tooling such as collimators, autocollimators, laser tubes, and bearing races. Quality control inspector for milling department.

