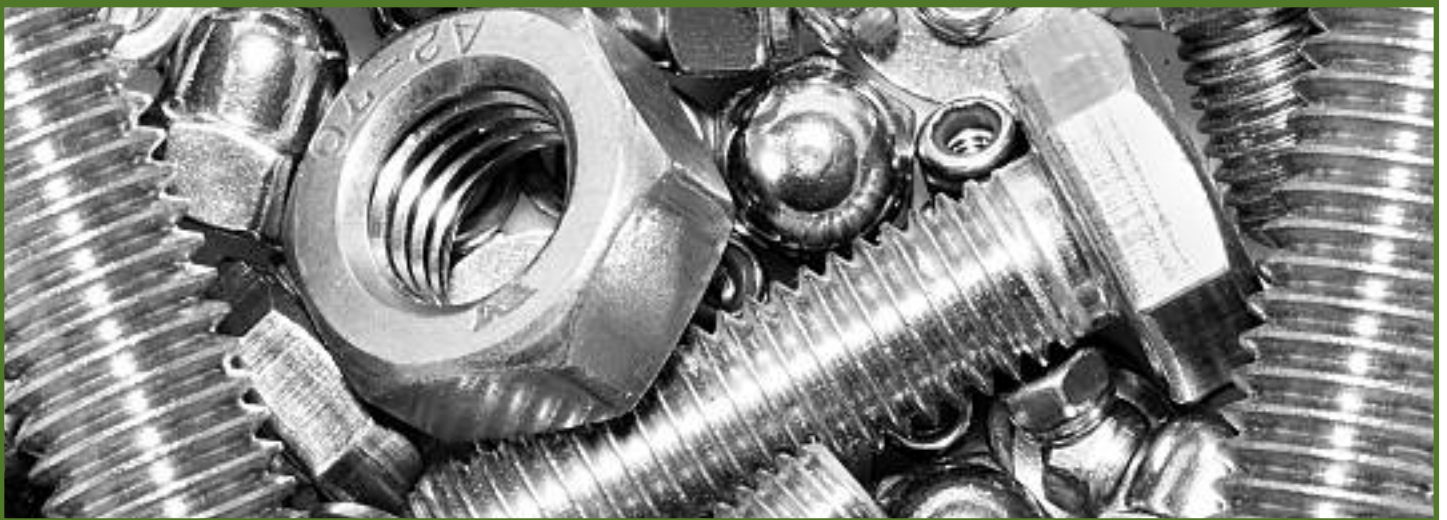


MANUFACTURING MONTH



**Business Profiles
Educational & Training Resources**

October 2019



For Multnomah & Washington Counties



Dear Teachers,

We are constantly in awe of what you do every day. You inform, you influence, you interact, and most importantly, you inspire young people preparing for the exciting world of learning and work.

Over the next decade, 2 million manufacturing jobs will go unfilled due to the skills gap. With your help, we can mitigate this gap and show students the reality of modern manufacturing. Many people of all ages are amazed to learn how much we manufacture in the United States and how diverse the careers are in our dynamic industry. Today's manufacturing is about new innovation, making an impact, and a chance to design and build the future.

Whether they are interested in design, engineering, or even the business side of the industry, there is a place for your students in manufacturing. Not only does our industry offer a wide variety of demanding and fulfilling roles, it also offers high pay and opportunity for career advancement.

This guide provides a brief overview and snapshot of some of the manufacturing employers that are within our local region. The company profiles give a small insight into the inner-workings of these companies.

Once you've had a chance to review the companies, target occupations, locations and overall offerings, we ask that you visit the website to review the activities within the companies which interest you.

We urge you to take advantage of the numerous engagement opportunities that are available to your students, by taking the next steps:

1. Review the listed companies, target occupations, locations and overall offerings in the catalogue;
2. Register at: <https://tinyurl.com/MFG-Month>
3. Provide all of the info on the survey so that we can support you in planning your events;

Once we've received your request, our dedicated staff will work with your classroom, students and/or youth programs to connect our local youth to career learning experiences in our community with the most appropriate business partners.

We hope that you take advantage of these amazing opportunities, and look forward to connecting more of our future workforce to meaningful and lasting experiences.

-MFG Month Committee





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COMPANIES

Dear Business Leaders,

Each and every year we come together around the Portland-Metro area, in order to connect our future workers (youth) to career exploration activities within the Manufacturing Sector. We make the ask for you to open up your shops, and put some time aside in order to meet with these students and allow them the opportunity to learn about what it takes to make it in this industry. From alloys and sheet-metal shops, to the most advanced CNC machining and laser cutting tools, the vast industry exposure you provide to our youth, is second to none.

Over the course of the next month, we are once again asking you to take a little time and meet with the future workers of our region. From opening up your shops for tours, to participating in Job/Resource Fairs, these activities can't be understated with respect to the value that they provide to our students.

Understanding that your time is very limited, we have re-imagined what these activities and their coordination could look like, in order to streamline and help direct events in the community. This year the numerous requests for onsite company tours, job fairs, guest speakers and more will all be filtered through WorkSystems, in order for us to assist in coordinating these activities to the appropriate businesses in the region.

We hope that you take advantage of these amazing connections, continue to engage with our students, and drive their curiosity even further as they plan their future career pathways.

None of this work could ever happen without your support and we look forward to engaging with you over the course of the next month, in order to highlight the amazing growth and advancements within Manufacturing.

-MFG Month Committee



Ajinomoto Foods

Ajinomoto Foods provides frozen quality foods for your kitchen. The Portland plants make Asian foods, including rice, fried rice, potstickers, noodles, and shumai dumplings. Our culture is built upon a dedication to excellence. Ajinomoto Foods has ten factories in seven states, including two in Portland. We are proud of the diversity represented in the Portland plants. We are committed to fair trade practices in everything we do. Creating value through innovation, quality and collaboration is our mission, and our customers' satisfaction is our goal. You can buy our products in grocery stores, as well as Asian markets and stores such as Costco and Sam's Club.

Interesting Company Fact: One of Ajinomoto's founding fathers, Dr. Ikeda, discovered the origin of "umami" –the fifth taste. Like sweet, sour, salty, and bitter, umami cannot be created by mixing other tastes. While experimenting with kombu, a seaweed broth, Dr. Ikeda identified glutamate as the amino acid that gives kombu its distinctive taste.

Typical Occupations: Kettle Operator, Maintenance Mechanic, Machine Operator, Production Worker, Mixer Operator

Wage Range for Occupations: \$13.25-\$25/hour

Required Education: High school diploma or GED, some college (AS/BS)

Company Training and Advancement Opportunities: Training programs provide career advancement and personal development.



FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Boeing Portland



Boeing is the world's largest aerospace company and leading manufacturer of commercial jetliners, defense, space and security systems, and service provider of aftermarket support. With 1,600 employees, Boeing Portland provides flight critical, complex machined hardware to all of Boeing commercial airplanes.

Typical Occupations: Machinist, Inspector, Assembler, Machine Maintenance

Wage Range for Occupations: \$38-\$45/hour



FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



Required Skills: Math (including algebra and trigonometry); hands-on skills in machining, assembly, etc.; good interpersonal skills; computer skills; blueprint reading; teamwork.

Required Education: Advanced degrees are not required for hourly occupations. Preparatory skills can be developed through high school and community college programs for machining and A&P (airframe and powerplant), which are generally 2-year degree pathways. Prior apprenticeship or industry experience is also considered.

Company Training and Advancement Opportunities: Boeing has endless possibilities for advancement. Boeing will pay for education, even awarding company stock upon degree completion, all the way through PhD.

Interesting Company Fact: In June of 1916, William Boeing and U.S. Navy Lt. Conrad Westervelt designed the first Boeing product: the B&W. Made of wood, linen, and wire, the seaplane weighed 2,800 pounds and could cruise at 67 miles per hour over a range of 320 miles.

TO BOOK: <https://tinyurl.com/MFG-Month>

Cascade Controls

All innovation starts with an idea. At Cascade Controls, we help innovators transform their ideas into reality. From concept to prototype and supply chain management to finished product, we work as a fully integrated extension of your team, taking OEM partnership to a completely new level of innovation, quality, and performance. Your products are our passion, and we're fully invested in bringing your ideas to life in order to make your business a success.

Typical Occupations: Mechanical Assembler, Manufacturing Technician, Mechanical Engineering, Project Managers, Electrical Controls Engineers, Programming Engineers, Quality Assurance Technicians

Wage Range for Occupations: \$14-\$28/hour

Required Skills: Past industry work experience is a plus.

Required Education: Depends on the trade - High School Diploma/GED to BS in Engineering.

Company Training and Advancement Opportunities: We offer IPC-610 Training for manufacturing technicians.

Interesting Company Fact: We have been afforded the opportunity to design, procure, manufacture, and qualify in bringing new products to market in a variety of industries. What starts here changes the world.



FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Charter Mechanical



Charter Mechanical is a privately-held, employee-owned construction services firm that specializes in fabrication and installation of mechanical and process piping systems.

As part of our founding vision, we provide an excellent company and culture in which people enjoy working and succeeding together. Through the hard work and commitment of our people to provide outstanding results to our customers, we are proud of the growth and success of Charter Mechanical since our opening in 2006. We have 50-75 employees.

Our goal is to not only make Charter a great place to work, but a company with which our clients want to do business. Our foundation of excellence is based on earning clients' trust by delivering on our promises and supporting the communities in which we build.

We hire our craftworkers through United Association Local Union 290. As emphasized in their Mission Statement: "Our mission is to perform all the tasks related to our trade with excellence and integrity." Local 290 provides us with a diverse group of piping professionals that are highly qualified and trained as master plumbers, certified welders, and specialized pipe fitting journeymen and apprentices.

As a full-service mechanical contractor, we thrive on unique, complex, and fast-track projects. Our fabrication shops and management systems allow us to execute the extraordinary for our customers.

Typical Occupations: Project Manager, Project Engineer, Estimator, Senior Pre-Construction Manager

Wage Range for Occupations: \$13-\$24/hour

Required Skills: The ideal candidate will have experience in construction estimating and/or the mechanical construction industry. Related work experience is required or have a college degree, preferably in Construction Engineering Management, Business Administration, or Mechanical Engineering.

Required Education: High school diploma or GED is minimum. College or trade school preferred.

Interesting Company Fact: Charter Mechanical is owned by its employees.

FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Columbia Steel

Columbia Steel manufactures a wide variety of steel and iron parts for basic industry. These are replacement parts for high-wear applications, such as those that take abuse from abrasion, impact, or heat in rock crushers, grinding mills, mine shovels and draglines, electric power plants, cement plants, and metal and waste recycling shredders. We are a vertically integrated manufacturer with all the departments in-house to engineer and manufacture castings.

Columbia Steel has over 450,000 sq. ft. of buildings on its 86-acre site. We warehouse 115,000 square feet of ready-to-use and customizable patterns for castings. Currently we employ about 300 people.

We were founded in 1901 in Portland, Oregon. At the turn of the century, machinery and spare parts for industry had to be brought in by ship from San Francisco or by rail from the East. These distances and delivery times inspired a group of businessmen to form Columbia Engineering Works, which later became Columbia Steel Casting Co., Inc.

Typical Occupations: Foundry Tech, Melters, Molders, Welders, CNC Techs, Product Design Engineers, Crane Operators, Maintenance Machinists

Wage Range for Occupations: \$16-\$30/hour



FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



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Daimler Trucks North America



Daimler Trucks North America is the leading commercial vehicle manufacturer in North America. Our portfolio of distinctive brands serves a multitude of industries and commercial vehicle applications. Through its affiliated companies like Detroit Diesel Corporation, the company also is a leading provider of heavy- and medium-duty diesel engines and components.

Every day, from the shop floor to the global marketplace, Daimler Trucks North America is working to develop technologically sophisticated products that move people and goods safely and efficiently. Innovation is at the core of everything that we do, throughout our organization, where great minds with a passion for teamwork are constantly focused on the future. Central to our engineering approach, our passion for innovation is driven by our steadfast dedication to our own teams and to those impacted by our products, which is why we also strive to give back.

Interesting Company Fact: Did you know the first #Freightliner truck purchased by a private carrier was named "Hyster No. 1?" It logged four million miles and is now in the Smithsonian Institution.

Typical Occupations: Engineering, Finance & Accounting, Legal, Purchasing, Human Resources, IT & Administration, Manufacturing, Sales & Marketing

Wage Range for Occupations: \$18-\$35/hour

Required Skills: Innovative mind with passion for teamwork.

Required Education: Depends on position.

Company Training and Advancement Opportunities: Our corporate training and professional development programs provide a diverse portfolio of courses and are receptive to the development needs of our employees. We offer tuition assistance.

FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



DAIMLER TRUCKS



TO BOOK: <https://tinyurl.com/MFG-Month>

EC Electric



We all rely on a network of wires, junctions, and switches to transport the electrons that power what we do daily. Our devices are charged, our environments are bright, communications and commerce are humming, and the coffee is on. EC Electric has designed, installed and serviced these networks in thousands of buildings and structures for over 70 years. EC powers life.

EC Electric is one of the largest privately-held electrical contracting companies in the United States. We have over 200 employees.



FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



Typical Occupations: Electrician, Project Manager, Construction Manager, Senior Electrical Estimator

Wage Range for Electrician: \$16.08-\$62.88

Required Skills:

- Project planning, execution, job cost tracking, and job closure
- Providing monthly project status detail and percent of completion reports
- Detailed take-off and estimating for electrical service, tenant improvement, light commercial and light industrial work
- Marketing & building profitable jobs
- Decision-making responsibility concerning project cost, time and performance
- Cross-selling of other company operations through fully integrated solutions
- Interfacing with contractors, vendors and in-house operations
- Coordinating and directing work force
- Supporting an injury-free work environment and safety culture

Required Education: High school diploma or GED with minimum GPA of 2.0 and one full year of math.

Company Training and Advancement Opportunities: We offer employees an apprenticeship to become an electrician. Apprentices receive a full scholarship for tuition, books, and their first set of hand tools.

Interesting Company Fact: EC Electric's story begins prior to World War II when the company serviced electrical systems for ocean-going ships. During the war, EC retrofitted merchant marine vessels and Liberty ships.

TO BOOK: <https://tinyurl.com/MFG-Month>

GK Machine, Inc.

GrovTec US, Inc.

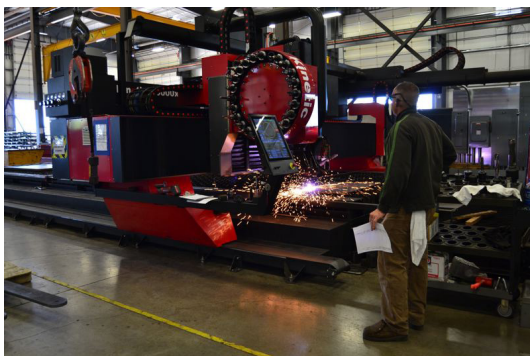
GK Machine is a manufacturer of high quality equipment, parts, and accessories. We offer solutions for agricultural and industrial needs, from production runs of parts and pieces to complete machine assemblies. GK Machine has the facility, technology, and experts on staff to build quality equipment. Our products include agricultural equipment, OEM manufacturing custom equipment and parts, agricultural parts and supplies, and greenhouse and nursery supplies. We also service and repair equipment.

Typical Occupations: Fabricator/Welder, Quoting & Cost Estimating Specialist, Mechanical Designer, CNC Machinist, Parts Counter Sales, Electromechanical/Control Systems Engineer, Industrial Painter

Wage Range: \$18-\$45/hour

Required Education: High school diploma or GED

Interesting Company Fact: GK designed and built a huge sculpture for the Oregon State Fair to commemorate Oregon's 150th birthday.



GrovTec does contract manufacturing for several industries, including aerospace, sporting goods, automotive, transportation, communication, medical/dental, oil & gas, electronics, and fasteners. We create industrial sewed products for a range of specialized fields.

Typical Occupations: CNC Operators, Manual Machine Trainees, Assemblers

Wage Range: \$11.25-\$25/hour

Required Skills: Previous experience in the industry a plus; experience in a machine shop desirable.

Required Education: Manufacturing Technology courses a plus; high school diploma or equivalent.

Company Training and Advancement

Opportunities: We hire from within and offer on-the-job training and tuition reimbursement.

Interesting Company Fact: In 2017, we manufactured over 1.1 million push buttons and 1.9 million swivel studs.



FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Gunderson

Gunderson is one of the leading designers, manufacturers and marketers of railroad freight car equipment in North America and Europe. We manufacture railcars in Brazil and are a manufacturer and marketer of marine barges in North America. Through our European manufacturing operations, we also deliver railcars for the Saudi Arabian market. We are a leading provider of wheel services, parts, leasing and other services to the railroad and related transportation industries in North America and a provider of railcar repair, refurbishment and retrofitting services in North America through an unconsolidated joint venture. Through other unconsolidated affiliates, we produce rail and industrial castings, tank heads, and other components.

We operate an integrated business model in North America that combines freight car manufacturing, wheel services, repair, refurbishment, retrofitting, component parts, leasing and fleet management services. Our model is designed to provide customers with a comprehensive set of freight car solutions utilizing our substantial engineering, mechanical and technical capabilities, as well as our experienced commercial personnel. We believe our integrated model is difficult to duplicate and provides greater value for our customers.



Typical Occupations: Machine & Press Operator, CNC Machine Operators, Material Handlers, Engineers, Mechanics, Welders, Quality Control, Marine Drafter, Railcar Repairman, Crane Operator

Wage Range for Occupations: \$15-\$30/hour

Required Education: High school diploma or GED is minimum. College or trade school preferred.

Interesting Company Fact: The company was known as Gunderson Brothers in 1923 when Al joined forces with his brother Chet, who opened Wire Wheel Sales and Service Company in 1919 in Portland.

FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Imperial Brown, Inc.

Imperial Brown is one of the world's top manufacturers of custom walk-in coolers and freezers. With locations networked on the East and West coasts and in the Heartland, we are positioned to serve customers promptly and cost efficiently.

We continually refine products, using the most up-to-date materials and engineering expertise to provide world-class products that withstand the most extreme temperature and weather conditions. The company is a leader in temperature management facilities for food service, biotechnology, medical and building construction industries. We manufacture walk-in coolers and freezers for restaurants and commercial kitchens, cold storage components for fish processing plants, ice makers for dam construction, wide range testing chambers, pharmaceutical development and manufacturing, high humidity and dry chambers, robotic enclosures, and archival storage chambers for some of the most valuable and fragile documents in human history.



FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



Typical Occupations: Metal Machine Operators, Woodshop Machine Operators, Framers, Builders, Assemblers, Press Loaders, Quality Control, Shipping & Receiving

Wage Range for Occupations: \$12-\$20+/hour, depending on experience, merit, and length of employment

Required Skills: Read a tape measure to 1/16 of an inch and use small hand and power tools. Possess analytical ability. Comprehend and follow work instructions and adhere to company policies. Demonstrate excellent work ethics through attendance, good communication skills, efficiency, attention to detail, and willingness to work well with management and co-workers. Work with minimum supervision.

Required Education: none

Company Training and Advancement Opportunities: After training on-the-job with experienced tradesmen and women, employees with strong work ethic and aptitude are encouraged to become leads in their own department or continue learning multiple department skills to become trainers, leaders and/or certified in quality assurance. Production employees may also be guided toward sales, design or customer service positions as their knowledge and skills grow.

Interesting Company Fact: Imperial Brown created the storage environment for a work of art currently on display at San Francisco's MoMA.



TO BOOK: <https://tinyurl.com/MFG-Month>

Leatherman Tool

Leatherman Tools designs and manufactures quality multi-purpose tools for every individual that has ever needed that right tool at the just the right time! All of Leathermans' products are manufactured/assembled in Portland, Oregon. Leatherman is still a local, family-owned company since 1983.

Typical Occupations: CNC Machine Operator, Team Assembler, Finish Operator, Press Operator and Quality Tech.

Required Skills: Mechanical aptitude, shop math, critical thinking, monitoring, quality control analysis, willingness to learn, working well in a team environment, and communicating effectively.

Required Education: High school diploma or GED.

Company Training and Advancement Opportunities: we offer structured and informal on-the-job training. There are multiple opportunities for individuals to move up through the company and we encourage our staff to take advantage of all training opportunities.

Interesting Company Fact: The original Leatherman tool was called the PST, or known as the Pocket Survival Tool.



FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Open Facility for Families
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Madden

Madden is a custom metal fabrication company furnishing structural and miscellaneous steel for many industries including construction, manufacturing, energy others with metal fabrication and welding needs. We work in all kinds of metals including steel, stainless, aluminum and non-ferrous like copper, nickel and exotic alloys. We do fabrication like heat cutting, forming, rolling, sawing and machine with a primary focus on welding.

Typical Occupations: Project Manager/ Estimator, Welder/Fabricator, Foreman, Engineering

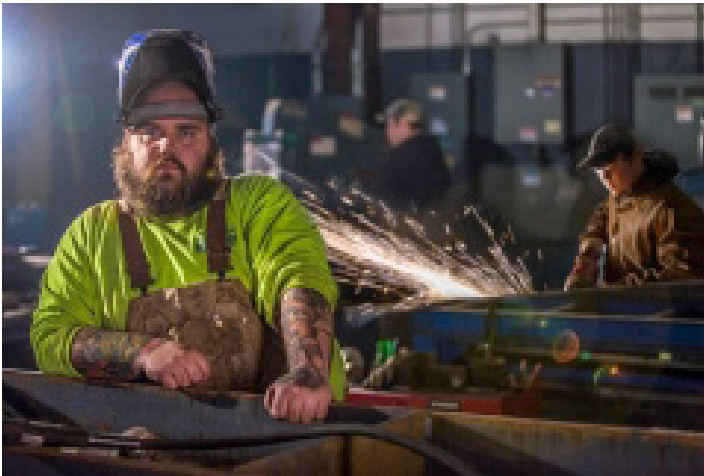
Wage Range for Occupations: \$20-\$40/hour

Required Skills: Blueprint reading, proficient at reading a tape measure, reading/writing skills, good math (basic, trig), MS Office Suite (Excel, Word, Outlook).

Required Education: High school or equivalent in all fields. Associate or BS a plus, and a BS for engineering is a requirement.

Company Training and Advancement Opportunities: Employees can advance all the way from a laborer to a welder then a welder/fabricator to a foreman and then a project manager/estimator.

Interesting Company Fact: Madden manufacturers and sells the Portland Loo public restroom. It is a single occupant pre-fabricated stainless steel restroom that was designed and built in cooperation with the City of Portland. Madden has a license to sell it for the City of Portland, and it is now located in over 17 cities and three countries.



FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Open Facility for Families
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

McKenna Metals



McKENNA METAL, LLC

FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Guest Speaker in Classroom
- Job Fair



McKenna Metal, LLC is a complete custom metal fabrication shop established in 1995. We build custom metal displays for retail environments, events, store displays, and prototypes. We also do plate processing. Our shop is capable of working with a variety of different metals, including mild steel, aluminum, and stainless steel. Our Waterjet can cut other materials such as glass, acrylic, foam, granite, and stone to name a few. Other equipment includes two Amada laser cutting systems: Gemini CNC and Rotary Index.

Open Positions: Fabricators, Welders, CNC Machine Operators, Powder Coaters, Painters, Laser and Press Break Operators

Wage Range: \$23-\$50/hour

Required Skills: Measuring, blue print reading, layout, basic knowledge of metallurgy, safety

Required Education: HS, specific trades, AS/BS

Interesting Company Fact: McKenna Metals created the Seattle Seahawk Super Bowl XLVIII sign.

TO BOOK: <https://tinyurl.com/MFG-Month>

Nu-Tech Machining, Inc.

Nu-Tech provides quality precision, very close-tolerance milling and turning to high-tech industries as well as support to local businesses who expect consistency and accurate machining to their exact specifications.

Typical Occupations: Machinist, Inspector, Maintenance/Helper

Wage Range for Occupations: \$11.25-\$94/hour, depending on job, skill, and experience

Required Skills: For Machinists - Math (including algebra and trigonometry); mechanically inclined. CAD/CAM experience a plus.

Required Education: For Machinists/Inspector, skills can be developed through high school and community college programs for machining. Prior experience is also considered.

Company Training and Advancement Opportunities: Within our corporation, we have had people start out as sweepers/maintenance and end up in sales and/or as a machinist. If people show initiative and willingness to learn, we will help provide tuition reimbursement for education and classes related to their job. We also provide in-house on the job training and mentoring.

Interesting Company Fact: We make parts for guitars that Lindsey Buckingham of Fleetwood Mac and Zac Brown use.



FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Owens Corning



The Owens Corning Gresham Plant produces FOAMULAR Extruded Polystyrene (XS) Rigid Foam Insulation. FOAMULAR is a closed cell, moisture-resistant rigid foam board well suited to meet the needs for a wide variety of residential and commercial construction applications.

Typical Occupations: Production Worker, Maintenance Technician

Required Skills for Production Worker: Ability to do basic mathematical calculations. Ability to read instruments and accurately record readings. Basic computer skills.

Required Skills for Maintenance Technician: Ability to do basic mathematical calculations. Ability to read instruments and accurately record readings. Basic computer skills.

FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Guest Speaker in Classroom
- Job Fair



Required Education: Minimum high school diploma or equivalent. For Maintenance Technician, a State of Oregon Limited Maintenance Electrical (LME) license is required.

Company Training and Advancement Opportunities: We offer scholarship opportunities; in-house safety programs and certifications; technical job and pay advancement opportunities; and a maintenance apprenticeship program.

Interesting Company Fact: Owens Corning received the highest honor of the National Safety Council (NSC), the 2014 Green Cross for Safety medal. NSC presents the award annually to an organization with outstanding safety performance and a commitment to improving the quality of life in the communities where its employees work and live.



TO BOOK: <https://tinyurl.com/MFG-Month>

PCC Structurals

Headquartered in Portland, Oregon, PCC Structurals is the world leader in superalloy, aluminum and titanium investment casting. With applications in jet aircraft engines, airframes, industrial gas turbine (IGT) engines, military armaments, medical prosthesis, and many other industrial markets, we provide a wide portfolio of high-quality components, some as large as 100 inches (250cm).

Precision Castparts Corp. (PCC) is one of the world's leading suppliers to the aerospace (civil and military) and power generation industries. We specialize in the manufacture of complex metal components that have a wide variety of applications, particularly in engines and airframes. These range from turbine blades for the hottest part of the jet engine to large wing ribs for the A380 to the fasteners that secure the wings to the fuselage and hold the plane together. With such critical applications, there is no room for error; we insist on quality, not just in materials and processes, but also in the people we recruit.

PCC Structurals also provides solidification modeling, in-house rapid prototyping (including SLA), digital radiography, hot isostatic pressing, precision machining and protective coating services. We employ over 200 people in 11 manufacturing facilities in the United States and Europe.



Typical Occupations: Engineering, Environmental & Safety, Operations Management, Production, Electrician, CNC Machinists, Environmental Tech, Weld Assembly, Mold Machine Operator

Wage Range for Occupations: \$28-\$42/hour

Required Skills: Detail-focused

Required Education: HS, specific trades, AS/BS, Masters, MBA

Interesting Company Fact: A worm slowly boring its way through a log was the inspiration that led to the creation of PCC Structurals.

FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Open Facility for Families
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Pella Corporation - Portland Operations



Pella is a window and door manufacturer. The business started in 1925 in Pella, Iowa when Pete and Lucille Kuyper invested in a newfangled invention: a roll-up window screen. While still owned by the Kupler family, Pella continues to focus on sustainable, innovative products.

Typical Occupations: Assemblers, Material Handlers, Warehouse, Customer Service, Maintenance, Quality, Continuous Improvement

Wage Range for Occupations: \$13.62-\$26.36/hour + quarterly team performance bonus

Required Skills: Dependable, critical thinker with ability to work in a team environment. Ability to follow process in a fast-paced environment. Willingness to learn and problem solve.

Required Education: High school diploma or GED. Must be 18 years of age or older.

Company Training and Advancement Opportunities: Multiple opportunities for career advancement and personal development. Tuition reimbursement available.

Interesting Company Fact: Pella's Portland operations offers a diverse work environment with team members from 13 countries. Portland Operations was acquired by Pella Corporation in 1998 as Pella's first vinyl window and door production facility.

FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Roy Manufacturing

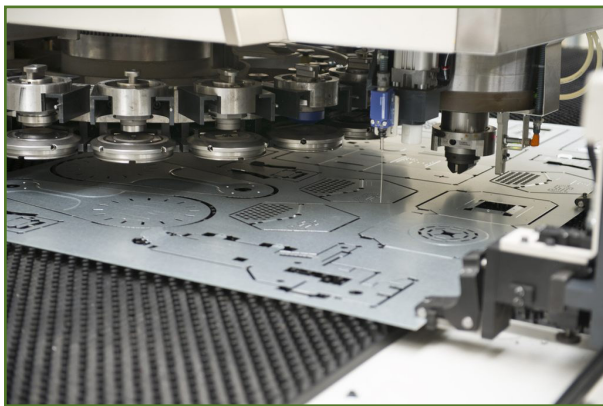
Schoolhouse

Roy Manufacturing is a leading manufacturer of custom and stock perforated metals and materials based in Portland, Oregon. We partner with industrial and commercial customers throughout the United States and Canada to meet your perforated metals and materials needs with quick turnaround times on quotes and our standard five-day lead time on deliveries when an order is placed. Our production capabilities enable us to perforate small precision screens as well as large screen plates for rock crushers, hammer mills and other industrial applications. We also offer forming, rolling, MIG and TIG welding, laser cutting, and shearing.

Open Positions: We are seeking machine operators. The position includes programming and operating CNC punch presses, general maintenance, and other shop floor duties.

Wage Range: depends upon experience

Required Education: HS diploma or GED is minimum. College or trade school preferred.



From iconic lighting and furniture to analog clocks, art, and domestic utility goods, Schoolhouse Electric & Supply Company aims to create the next generation of heirlooms. Along with our own Schoolhouse originals, we are proud to collaborate with other talented makers, artists, and craftspeople outside our walls to offer an eclectic assortment of quality, one-of-a-kind goods with stories of their own.

The heart of Schoolhouse lives in Portland, Oregon inside an over-century-old brick factory building. Here we manufacture our lighting and other wares; we design our collections. Many hands work in many ways to bring each of our products to life, all under this very same roof.

Typical Occupations: Metal Finishing, Lighting & Clock Hand Assembly, Material Handlers, Shipping/Receiving

Wage Range: \$13.50-\$15/hour

Required Education: HS diploma or GED is minimum. College or trade school preferred.



FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



SCHOOLHOUSE
ELECTRIC & SUPPLY CO.



TO BOOK: <https://tinyurl.com/MFG-Month>

Streimer

TCM Corporation

Founded more than 70 years ago, Streimer Sheet Metal Works is a premier supplier of sheet metal products, systems, and services. We have construction, manufacturing, and service branches, serving the commercial and industrial sheet metal markets. We are a company of problem solvers, committed to being the answer to our customers' needs. We value teamwork, finding solutions, personal accountability, and commitment to safety.

Typical Occupations: Welder, CNC Machine Operator, Press Operator, Driver, Production

Wage Range: \$18-\$39/hour

Required Education: HS diploma or GED is minimum. College or trade school preferred.

Interesting Company Fact: Founded by Daniel and Betty Streimer in 1946, Streimer Sheet Metal Works remains a family-run business today, led by their grandson Steven Streimer.



Founded in 1953, TCM is one of the Northwest's largest mechanical and plumbing systems experts. With over 200 employees, we have the best field personnel, superintendents, engineers, administrative staff and management in the business.

We emphasize accountability for all employees. This includes not only personal accountability, but also accountability for the success of others, both inside and outside our company. Our culture is founded on the integrity of our people and the integrity with which decisions are made. This is reflected in every project, every step of the way.

Typical Occupations: Engineering, Design, Operations, Project Management

Wage Range: \$17-\$34/hour

Required Skills: Accountability

Required Education: Journeyman's License (for specific trades), AS/BS, Masters, PMP

STREIMER 

FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Teeny Foods



FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



Our family business began in 1964 by producing a healthy and preservative-free product we call Pocket Bread.™ It was a new and fresh product in a market with little variety. The same dedication to baking delicious alternatives that created our company in 1964 has become the cornerstone of our operation today and our commitment and dedication to produce delicious, healthy, and convenient food remains the same.

Long-term employees, consistent quality, and state-of-the-art technology are all part of our commitment to provide the most to our customers. The Teeny Foods team has over 150 loyal employees. They joined our family years ago and have grown with us as we have increased automation, varied our product line and together met the growing needs of our customers. We are all growing together!

Typical Occupations: Production, Quality Assurance, Maintenance Tech

Wage Range: \$14-\$25/hour

Required Skills: Team player

Required Education: High school diploma, some college coursework

Interesting Company Fact: Pocket Bread™ is based on an old family recipe from Lebanon.

TO BOOK: <https://tinyurl.com/MFG-Month>

Tosoh Quartz, Inc.

Located in Portland, Oregon and Durham, England, Tosoh Quartz, Inc. produces quartz glassware for the semiconductor industry for use in the processing of integrated circuits.

Tosoh Quartz, Inc. has been dedicated to uncompromising quality and service since its inception in 1957. The over 450 employees of Tosoh Quartz, Inc. are driven by their desire to produce the highest quality, technically correct product possible, and they possess an attention to detail and an “anything is possible” attitude.

Through controlled growth and careful training, Tosoh Quartz has become known in the semiconductor industry as the one whose specialty is providing the customer with products that other suppliers deemed impossible to fabricate.

Our design engineering capabilities, our training, and our technology exchange programs, coupled with the latest custom machinery and quality control equipment, have allowed us to maintain our reputation of being the industry leader in technology and quality worldwide.

Typical Occupations: Project Managers, CNC Machine Operators, Manufacturing Tech, Quality Control, Welders

Wage Range for Occupations: \$17-\$34/hour

Required Skills: Attention to detail and “can do” attitude.



Required Education: High school diploma or GED is minimum. College or trade school preferred.

Interesting Company Fact: Look around you, it is almost impossible to find a manufactured item that does not include something from Tosoh. Paper cups, computers, hybrid cars, homes, solar panels, office buildings, highways, communication networks, drinking water, clothes, shoes, pharmaceuticals, printer inks, cell phones, watches! Even, for some people, teeth -- made from Tosoh’s advanced ceramic: zirconia!

FEATURED ACTIVITIES

- Onsite Company Tours
- Guest Speaker in Classroom
- Job Fair



TO BOOK: <https://tinyurl.com/MFG-Month>

Vigor

Vigor is an innovator in complex fabrication, a specialized shipbuilder and a ship repair and modernization powerhouse with 2,300 employees and nine locations in Alaska, Oregon and Washington. Our family of highly specialized companies serves a diverse set of industries, including marine, aerospace, energy, bridge, and infrastructure construction. We build for both commercial contractors, such as Boeing and Bechtel, and for governmental customers, including the Navy and Coast Guard, the Army Corps of Engineers, public utilities, and various state agencies.



Typical Occupations: Carpenter, Electrician, Welder, Machinist, Laborer, Painter, Pipefitter, Rigger, Shipfitter, Engineer, Estimator, Project Manager, Quality

Wage Range for Occupations: \$15-\$35/hour

FEATURED ACTIVITIES

- Onsite Company Tours
- Industry/Science Fair
- Guest Speaker in Classroom
- Job Fair



VIGOR

Required Skills: Some marine experience preferred but not required. Ability to read and interpret construction drawings and weld schedules. Ability to use typical shop devices such as levels and tape measures. Some experience in Shop Mathematics. Ability to interpret specifications from blueprints, drawings, charts and weld or other craft patterns. Communicates effectively, works independently or in a group. Some knowledge of several skills with more advanced knowledge in one primary skill.

Required Education: High school diploma or GED for skilled craft positions. Bachelor's Degree preferred in associated field for other project-related positions (Eng, Est, PM, etc.)

Company Training and Advancement Opportunities: We partner with some of the unions on apprenticeship programs that will advance employees to a journeyman level, as well as partnering with local community colleges in creating custom curriculum. We also have a tuition reimbursement program that allows employees to enroll in a degree or vocational program that is directly related to their current job or career path.

Interesting Company Fact: Our Portland yard has the largest floating drydock in the US, measuring 960' long, 186' inside width and a lifting capacity of 80,000 long tons.

TO BOOK: <https://tinyurl.com/MFG-Month>



EDUCATORS & TRAINING PROVIDERS

CTE OVERVIEW

Career and Technical Education (CTE) is a term applied to schools, institutions, and educational programs that specialize in the skilled trades, applied sciences, modern technologies, and career preparation.

Career and technical programs frequently offer both academic and career-oriented courses, and many provide students with the opportunity to gain work experience through internships, job shadowing, on-the-job training, and industry-certification opportunities. Career and technical programs—depending on their size, configuration, location, and mission—provide a wide range of learning experiences spanning many different career tracks, fields, and industries, from skilled trades such as automotive technology, construction, plumbing, or electrical contracting to fields as diverse as agriculture, architecture, culinary arts, fashion design, filmmaking, forestry, engineering, healthcare, personal training, robotics, or veterinary medicine.

CTE provides students of all ages with the academic and technical skills, knowledge, and training necessary to succeed in future careers and to become lifelong learners. In total, about 12.5 million high school and college students are enrolled in CTE across the nation. CTE prepares these learners for the world of work by introducing them to workplace competencies, and makes academic content accessible to students by providing it in a hands-on context. In fact, the high school graduation rate for CTE concentrators is about 90% – 15 percentage points higher than the national average.



Benson Polytechnic High School

Location

546 SE 12th Avenue
Portland, OR 97232

Phone

503-916-5100

Courses

Manufacturing I, II, III & IV

PCC Dual Credit Courses

Tool Basics
Blue Print Reading I & II
Shop Math
Speeds and Feeds
Layout Tools
Precision Measuring Tools
Vertical Milling Machines and Operations
Drilling Machines and Operations
Turning Machines and Operations

Contact

Barth Clooten
bclooten@pps.net

During students' first two years at Benson, they are introduced to the basics of manufacturing. These include freshman manufacturing, material fabrication, and plastic design. In freshman manufacturing, students make their own tool bit and screwdriver by using a lathe, grinding wheel, furnace, and hand tools. The metal fabrication class teaches students to properly bend sheets of metal into boxes, envelope holders, and dustpans. Then, students learn two basic welding types.

The last year at Benson for manufacturing centers on making a two-ton hydraulic jack, although they are given time for any senior project they want. They all make their own jack by hand with lathes, mills, and a CAD machine. At the end, students are graded on how well their jack works.



Alliance HS @ Meek

Centennial HS

Location

4039 NE Alberta Court
Portland, OR 97211

Phone

503-916-5747

Courses

Manufacturing Technology
Vocational Village Manufacturing

Contact

Jerry Eaton
jeaton@pps.net

Location

3505 SE 182nd
Gresham, OR 97030

Phone

503-762-6180

Courses

Metals 1 & 2
Advanced Metals
Explore Metals

Contact

Mark Watts
mark_watts@csd28j.org



David Douglas HS

Franklin HS

Location

1001 SE 135th Avenue
Portland, OR 97233

Phone

503-261-8300

Courses

Introduction to Metals
Metals Manufacturing
Woods: Introduction & Advanced
Automotive: Introduction & Advanced
Electronics: Introduction & Advanced
CAD: Introduction & Advanced
Welding Lab I, II & III

Contact

Amanda Burns
amanda_burns@ddsd40.org

Location

5405 SE Woodward Street
Portland, OR 97206

Phone

503-916-5140

Courses

Introduction to Industrial Technology
Artistic Metals & Woods
Metals: Intermediate & Advanced
Advanced Metals Projects
Wood Working: Intermediate & Advanced
Advanced Wood Projects
Architectural Design & Drafting

Contact

Myron Ryan
mryan2@pps.net



Reynolds HS

Sam Barlow HS

Location

1698 SW Cherry Park Road
Troutdale, OR 97060

Phone

503-667-3186

Courses

Exploring CAD & Manufacturing
RC and Drone Manufacturing
Introduction to Engineering Design
Principles of Engineering
Exploring Metals Manufacturing
Metals Manufacturing I, II & III
Exploring Artistic Metalworking

Location

5105 SE 302nd Avenue
Gresham, OR 97080

Phone

503-258-4850

Courses

Exploring Metals
Machining 1 & 2
Welding 1 & 2
Independent Study of Metal Technology

Contact

Aaron Ingoglia
ingoglia@gresham.k12.or.us

Scappoose HS

St. Helens HS

Location

33700 SE High School Way
Scappoose, OR 97056

Phone

971-200-8005

Courses

Manufacturing Tech I & II
Advanced Manufacturing Tech

Contacts

Greg Kilbourne
gkilbourne@scappoose.k12.or.us

Ed Budrow

ebudrow@scappoose.k12.or.us

Location

2375 Gable Road
St Helens, OR 97051

Phone

503-397-1900

Courses

Manufacturing 1, 2, 3 & 4
Rapid Manufacturing
Blue Print Reading

Contact

Bonnie Adams
badams@sthelens.k12.or.us

Mt. Hood Community College

Machinist (VESL)

www.mhcc.edu/machinist

Designed to serve non-native English speakers, this 1-year program includes instruction and practice in the setup and operation of manual and CNC (Computer Numerical Controlled) lathes and milling machines. It offers an introduction to metalworking occupations and prepares students for machining and CNC operator positions.

Certificate: Machinist

Entry-Level Jobs: \$10-\$15/hour
Machining, CNC Operator

Machinist: \$50-60K/year

Machine Tool Technology

www.mhcc.edu/MachineToolTechnologyCurriculum

This 2-year program prepares students for entry into machining operations. They will setup and operate CNC (Computer Numerical Controlled) lathes and milling machines, and they will receive an introduction to CAD/CAM software and its applications.

Degree

Associate of Applied Science: Machine Tool Technology

Entry-Level Jobs: \$10-\$15/hour
Machine Operator, Machine Technician

Machinist: \$50-60K/year



Certified Welder

www.mhcc.edu/CertifiedWelderCurriculum

Students who apply themselves and complete the 1- year program should be able to secure employment in ship and barge building and repair, metal fabrication, aircraft component assembly and repair, automotive, custom car, race car/truck and hot-rod fabrication, repair and retrofit, motorcycle and ATV customization and repair, armorer applications, construction and maintenance welding to name just a few.

Certificate

Leads to Welding Technology

Entry-Level Welder: \$17-\$20/hour
Welder: \$45-55K/year



Portland Community College

Machine Manufacturing Technology

www.pcc.edu/programs/machine-manufacturing

Learn the fundamental skills you need to begin a career in machine manufacturing. Machine operators use computer-aided manufacturing (CAM) software to control, manipulate and manage precision tool production. Machine manufacturing and tool dies have become increasingly valuable, especially in the production of high-precision tools for high-tech manufacturing and large industrial construction.

Degree

Associate of Applied Science: Machine Manufacturing Technology

Certificates - 4

CNC Milling, CNC Turning, Manual Machining, Manufacturing Technician

Entry-Level Jobs: \$10-\$15/hour

Machine Operator, Team Assembler or Machine Technician

Jobs: \$50-60K/year

Machinists, Tool & Die Makers



Welding Technology

www.pcc.edu/programs/welding

Welding is a skill used by many trades: sheet metal workers, iron workers, diesel mechanics, boilermakers, carpenters, marine builders, steamfitters, glaziers, repair & maintenance personnel in applications ranging from the home hobbyist to heavy fabrication of bridges and ships. Welders work for shipyards, repair shops, manufacturers, contractors, and government. PCC teaches a variety of welding techniques.

Degree

Associate of Applied Science: Welding Technology

Certificates - 12

Examples: Flux Core Arc Welding, Pipe Welding, Gas Tungsten Arc Welding

Entry-Level Welder: \$17-\$20/hour

Welder: \$45-55K/year



About Our Partners

all hands raised



www.allhandsraised.org

All Hands Raised is an organization committed to relentlessly and systematically connecting our community's diverse assets, with the explicit goal of working in new ways together to improve our kids' success inside and outside of school.



www.eastmetrosteam.org

The East Metro STEAM Partnership develops and aligns resources through collaborative partnerships to support STEAM initiatives.



www.impactnw.org

Impact NW is a premier provider of educational and social services in the greater Portland metro area. Our mission is to help people prosper through a community of support.



www.omep.org

The OMEP (Oregon Manufacturing Extension Partnership) is a team of former manufacturing business owners, engineers and executives. Our staff have distinguished themselves in all aspects of manufacturing from the shop floor to the board room, spanning the full spectrum of industry sectors. As business leaders and colleagues, they care deeply about supporting the passionate and hard-working manufacturing community of Oregon.



www.pdxstem.org

Portland Metro STEM Partnership brings together organizations, programs and people interested in transforming STEM education so that all students are able to participate effectively in our global society, with access to STEM-related careers and opportunities.



www.mhcc.edu

Mt. Hood Community College (MHCC), located in the shadow of majestic Mount Hood, serves approximately 25,000 students annually. MHCC offers 120 associate degrees, certificate programs and transfer options.



www.pcc.edu

Portland Community College is the largest community college in the U.S. state of Oregon. Located in Portland, it serves 1.9 million residents in the five-county area of Multnomah, Washington, Yamhill, Clackamas, and Columbia counties.



**WORKSOURCE
PORTLAND METRO**

www2.worksourceportlandmetro.org

WorkSource Portland Metro helps job seekers make career plans, become more employable, improve job search skills, and find work.



www.worksystems.org

Worksystems, Inc. is a 501(c)3 non-profit organization that pursues and invests resources to improve the quality of the workforce in the City of Portland, Multnomah and Washington Counties.

Thank you to all our partners & participants!



MANUFACTURING MONTH



October 2019