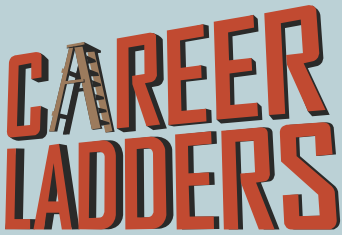


FABRICATING SPECIALIST

Fabricating specialists produce and join together parts to make assemblies by welding or other joining methods.



JOB TITLES COMMON TO THIS CAREER OCCUPATION INCLUDE:

MIG Welder	Computer Numeric Control Fabricator Operator	Flame Cutting Machine Operator
TIG Welder	Shear Operator	Laser Cutting Machine Operator
Arc and Gas Welder	Press Brake Operator	Plasma Cutting Machine Operator
Robotics Programmer	Press Operator	Water Jet Machine Operator
Painter		

SAGINAW VALLEY

Each ladder depicts a series of work experiences that leads to more challenging and higher paying opportunities. While every level of the ladder can provide a satisfying job, some employees will choose to gain even more skills and responsibilities that will advance them in their careers. To do so, they will need more education, training, and work experiences. Some jobs will require a certificate, a license, or an advanced degree.

CLIMBING THE CAREER LADDER

ADVANCED LEVEL

Bachelor's degree or proven technical skills that can be demonstrated through industry experience

Manufacturing Engineer

\$19.50-\$26.75/hour

Supervisor

\$19.00-\$27.00/hour

MID LEVEL

Associate's degree or equivalent training and experience

Assembly Specialist

\$12.50-\$22.10/hour

Machining Specialist

\$16.00-\$23.50/hour

Fabricating Specialist

\$14.50-\$19.75/hour

ENTRY LEVEL

High school diploma and completion of the Engineering/Manufacturing and Industrial Technology Career Pathway requirements and/or appropriate career and technical education classes

Co-op/Internship Student

\$6.00-\$8.00/hour

Machinist Trainee

\$8.10-\$12.00/hour

Welding Trainee

\$8.10-\$12.00/hour

Wages will vary within this occupation based on the ability of the employee to program and set up the machines. The ability to operate more than one type of machine will also increase the wage and the employee's value to the company.

JOB DESCRIPTION

Each occupation is described in terms of specific tasks and typical job duties.

A FABRICATING SPECIALIST MUST BE ABLE TO:

- Read and understand blueprints and other job specifications
- Use precision measuring methods and equipment
- Apply mathematics and perform calculations to verify dimensions on the work piece
- Operate and set up machinery to produce quality parts
- Communicate with coworkers and supervisors to give and receive instructions and coordinate activities

WAGES

Wage information was obtained from the Michigan Department of Labor and Economic Growth and from local employers to give a general idea of the wages and salaries for this occupation.

WAGE RANGE

\$14.50-\$19.75/hour

WORKING CONDITIONS

A fabricating specialist is exposed to a number of hazards, including the intense light created by the arc, poisonous fumes, and very hot materials. They must wear personal protection equipment such as safety shoes, goggles and protective lenses. The working conditions vary from plant to plant and from industry to industry. Fabricators may have to sit or stand for long periods of time and work in a variety of awkward positions to shape and weld the parts.

EDUCATION AND TRAINING

Courses, programs, and certificates that are needed for employment are offered by local education and training providers.



HIGH SCHOOL

- Completion of high school's Engineering/Manufacturing and Industrial Technology Career Pathway and/or appropriate career and technical education classes
- Algebra
- Geometry
- Trigonometry
- Physics
- Career studies, such as a welding program
- Co-op work experience
- Saginaw/Midland/Bay Michigan Works! automation certificate

COMMUNITY COLLEGE

- Delta College: individual classes; welding certificate; first through fourth year apprentice education and training; associate's in applied science, skilled trades; bachelor of science transfer programs
- On-the-job training
- Corporate training

UNIVERSITY

- Saginaw Valley State University: bachelor of science, engineering technology, and management; master of science, technological processes

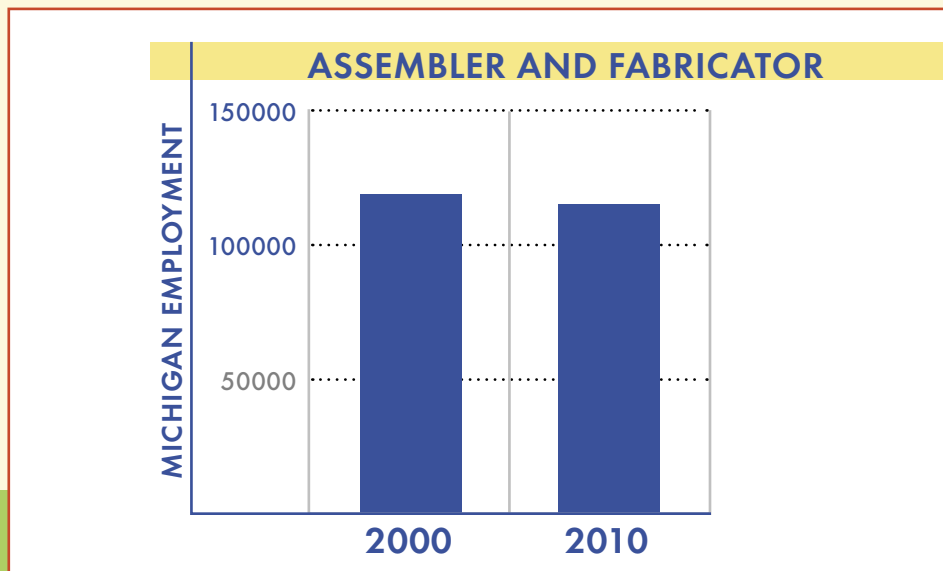
LOCAL EDUCATION AND TRAINING PROVIDERS

- Local school districts
- Bay-Arenac ISD Career Center
- Saginaw Career Complex
- Saginaw/Midland/Bay Michigan Works!
- Delta College

JOB OUTLOOK

The rate of growth within this occupation is projected by data from local employers and the Michigan Department of Labor and Economic Growth.

In the next 10 years, there is a projected decline in the total number of jobs in this profession. It is important to know, though, that this occupation is still a strong career option since there are many opportunities for employment due to retirements, promotions, and other job changes.



ADVANCEMENT

Fabricating specialists are the employees who produce and join parts together to make assemblies by welding or other joining methods. The introduction of robotics, new parts-cutting technology and computerized machinery is making fabricating specialist a high technology occupation in manufacturing. With additional experience and education, they may advance further by increasing their skills and by training other employees. Some fabricating specialists become managers or supervisors.

WHAT THE EMPLOYER SAID



WHAT DO YOU LOOK FOR IN A POTENTIAL EMPLOYEE FOR THIS POSITION?

“We look for someone with trades background. The young people at Dow Chemical are usually from the career centers or from high school trade programs. They are usually the outstanding students in their programs. We look for employees with attention to detail. The welds here have to be perfect since the pipes that they work with carry chemicals throughout the plant. We also look for employees who have a willingness to learn and a desire to be good at what they do.”

John Gordon, maintenance process leader
The Dow Chemical Company

STAR PROFILE

This interview is intended to show you what is needed to be a star employee.



EMPLOYEE:
PAUL HEYSE

OCCUPATION:
**MAINTENANCE
TECHNICIAN**

COMPANY:
**THE DOW CHEMICAL
COMPANY**

TELL US HOW YOU ATTAINED YOUR CURRENT POSITION.

After high school, I trained as an auto mechanic for two years. After that, I returned to school to become a pipe fitter and began working at Dow's Ludington facility. Then I transferred to the Midland plant and became a fabricator.

DESCRIBE YOUR TYPICAL DAY.

I start out by getting my job assignment for the day. We have a schedule of jobs and timelines that we need to meet. I then do whatever fabricating is needed on the job that I am assigned. I work both in the boiler end and the pipe end of the shop. I also do repairs.

WHAT TRAINING AND EDUCATION DID YOU NEED TO ENTER THIS POSITION?

I have a pipe fitter journeyman's card, a welder's certificate, and a fabrication card.

WHAT QUALITIES MAKE SOMEONE A "STAR" IN THIS OCCUPATION?

The qualities that make someone a star in this occupation would be to do the best job they can do every day. They would keep an open mind for change and for finding better ways to do things. A star would be able to communicate well and be able to pay attention to detail.

WHAT DO YOU LIKE MOST/LEAST ABOUT YOUR JOB?

The most rewarding aspect of my job is that most days I learn something new and exciting. Every day has new challenges. The thing I like least is the administrative work that all employees are now required to do.

WHAT ADVICE CAN YOU GIVE SOMEONE SEEKING A JOB IN YOUR FIELD?

Someone in this occupation must have an interest in this type of work and have a strong mechanical aptitude.

ARE THERE ANY LICENSES OR CERTIFICATIONS NEEDED FOR YOUR POSITION?

A journeyman's card is required as well as a welding certificate.

ACKNOWLEDGMENTS

The Career Ladders project began as a Saginaw County Vision 2020 initiative. To date, more than 300 individuals have been involved in the project. It is impossible to list them all, but the Comprehensive Education and Workforce Development Committee appreciates each one and the incredible participation by our major employers and educational institutions, as well as the support from the Arnold and Gertrude Boutell Memorial Fund, The Dow Chemical Company, The Dow Corning Foundation, the Fordney Club, the Hospital Council of East Central Michigan, the Michigan Department of Labor and Economic Growth, the National Tooling and Machining Association – Saginaw Valley Chapter, the Saginaw Community Foundation, the Saginaw County Business and Education Partnership, the Saginaw County Chamber of Commerce Foundation, Saginaw County's local school districts, Saginaw County's Promise, the Saginaw County Vision 2020, the Saginaw Future Inc., the Saginaw/Midland/Bay Michigan Works!, the Saginaw Township Business Association, the Saginaw Valley Manufacturers' Association, and the Saginaw Valley Tech Prep Partnership. We also want to thank NOVA for their guidance.

EQUAL OPPORTUNITY EMPLOYER/PROGRAM. AUXILIARY AIDS AND SERVICES ARE AVAILABLE UPON REQUEST TO INDIVIDUALS WITH DISABILITIES.