



Structural Metal Fabricators and Fitters

SOC Code 51-2041 • Projected Growth (2020) 0 %

Description

What Structural Metal Fabricators and Fitters Do

Fabricate, position, align, and fit parts of structural metal products. Shipfitters are included in "Layout Workers, Metal and Plastic".

Duties

- **Getting Information** - Observing, receiving, and otherwise obtaining information from all relevant sources.
- **Handling and Moving Objects** - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- **Communicating with Supervisors, Peers, or Subordinates** - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- **Evaluating Information to Determine Compliance with Standards** - Using relevant information and individual judgment to determine whether events or processes comply with laws, regulations, or standards.
- **Identifying Objects, Actions, and Events** - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.

Training Opportunities Linked to Those Jobs

(Degree Types and Colleges/Universities)

How to Become a Structural Metal Fabricator and Fitter

How Education and Training

Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree.

Job Training

Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers. A recognized apprenticeship program may be associated with these occupations.

Important Qualities

Active Listening - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

Critical Thinking - Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

Speaking - Talking to others to convey information effectively.

Monitoring - Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

Reading Comprehension - Understanding written sentences and paragraphs in work related documents.

Social Perceptiveness - Being aware of others' reactions and understanding why they react as they do.

Postsecondary Education

Texas Southmost College	South Texas College	Texas State Technical College	The University of Texas at Brownsville	The University of Texas - Pan American
	Structural Welding	Welding Technology -		
	(CERT)	Combination Welding (CERT)		
		Welding Technology (AAS)		

Local Employers

Amfels Inc	Brownsville	Professional Contract Steamers	Harlingen
Brownsville Sheet Metal Works	Brownsville	Carey Sheet Metal Inc	Harlingen
Stainless Pipe Products Inc	Brownsville	Anderson Greenwood & CO	Harlingen
Sauceda's Precision Grinding	San Benito	Precision Mold & Tool	La Feria
Tejas Concrete & Materials	San Benito	Thirlwall Sheet Metal CO	Brownsville

Career Options

(Specific Job Types)

- Fitter
- Layout Man
- Weld Technician
- Tack Welder
- Fitter-Welder
- Ship Fitter
- Mill Beam Fitter
- Welder-Fabricator
- Fabricator
- Structural Steel Fitter

Salary Ranges

Wages for Structural Metal Fabricators and Fitters

Location	Pay Period	2012				
		10%	25%	Median	75%	90%
United States	Hourly	\$11.80	\$14.05	\$17.19	\$21.09	\$25.52
	Yearly	\$24,500	\$29,200	\$35,800	\$43,900	\$53,100
Texas	Hourly	\$11.07	\$13.17	\$16.00	\$18.75	\$22.53
	Yearly	\$23,000	\$27,400	\$33,300	\$39,000	\$46,900
Brownsville-Harlingen, TX MSA	Hourly	\$9.86	\$12.48	\$14.93	\$17.45	\$19.70
	Yearly	\$20,500	\$26,000	\$31,100	\$36,300	\$41,000

Professional Associations linked to the Careers

Not available at this time.

Sources

The information provided in this document was collected from the following sources:

- Occupational Outlook Handbook (<http://www.bls.gov/ooh/>)
- O*NET OnLine (<http://www.onetonline.org/>)
- Texas CARES (<http://www.texascaresonline.com/>)
- CareerOneStop (<http://www.careeronestop.org/>)



Course Overview: Planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities.

Structural Metal Fabricators and Fitters

Career Goal (O*NET Code): (51-2041) - Fabricate, position, align, and fit parts of structural metal products. Shipfitters are included in "Layout Workers, Metal and Plastic".

Student Name: _____

Grade: _____

School: _____

SUGGESTED COURSEWORK

EXTENDED LEARNING EXPERIENCES

Middle School	8th	HS Courses:	(Local districts may list high school credit courses here)	Curricular Experiences: BEST Robotics, Inc FIRST High School Robotics Competition SkillsUSA Technology Student Association TSTC Summer Technology Camps UTB Summer Robotics Camp	Extracurricular Experiences: National Engineering Design Competition School Newspaper Student Government UIL Academic Competitions Yearbook	
High School	9th	Core Courses:	English I Algebra I or Geometry Biology			World Geography Languages other than English I Physical Education
		Career-Related Electives:	Principles of Manufacturing			
	10th	Core Courses:	English II Geometry or Algebra II Chemistry	World History Languages other than English II		
		Career-Related Electives:	Precision Metal Manufacturing or Welding			
	11th	Core Courses:	English III Algebra II or Pre-Calculus Physics/Principles of Technology I	United States History Professional Communications Languages other than English III		
		Career-Related Electives:	Advanced Precision Metal Manufacturing or Advanced Welding			
12th	Core Courses:	English IV Precalculus/Engineering Mathematics/Calculus Engineering Design and Problem Solving	Government/Economics Fine Arts	COLLEGE CREDIT OPPORTUNITIES -- High School Students should take Advanced Placement (AP), International Baccalaureate (IB), dual credit, Advanced Technical Credit (ATC), or locally articulated credit courses, if possible. List those courses that count for college credit on your campus.		
	Career-Related Electives:	Practicum in Manufacturing or Problems and Solutions or Career Preparation I				

How to Become a Structural Metal Fabricator and Fitter
 The education level and qualifications needed to enter these jobs vary depending on the industry and employer. Although a high school diploma is enough for most jobs, experience and extra training is needed for more advanced work.

Career Options:

Professional Associations:

Postsecondary	Texas Southmost College South Texas College Texas State Technical College			<ul style="list-style-type: none"> • Fitter • Layout Man • Weld Technician • Tack Welder • Fitter-Welder • Mill Beam Fitter • Ship Fitter • Welder-Fabricator • Fabricator • Structural Steel Fitter
		Structural Welding (CERT)	Welding Technology (AAS) Welding Technology - Combination Welding (CERT)	
		University of Texas at Brownsville	University of Texas - Pan American	

Students may select other elective courses for personal enrichment purposes.

This plan of study serves as a guide, along with other career planning materials, for pursuing a career path and is based on the most recent information as of 2012. All plans meet high school graduation requirements as well as college entrance requirements.