

# Pipe Welding



The mission of the Pipe Welding program is to allow students with previous welding skills and knowledge to successfully pass the ASME 6G Pipe Welding Certification Test.

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**Length of Course:** 450 clock hours, 75 training days

**Enrollment:** September and January

**Training Hours:** 8:30 a.m. to 3:30 p.m., Monday through Friday

**Certificate Level:** Pipe Welding

**Occupational Levels:**

- Certified Pipe Welder
- Pipe Welder Entry Level
- Pipe Welder Helper

## Industry Certifications:

National certification is available through the American Welding Society, an independent agency. This testing is an additional cost, and is performed in Anchorage. It is the student's responsibility to make transportation arrangements to the testing site. Contact the instructor or admissions for exact costs. The ASME section IX, 6G Pipe certification is required to graduate with the AVTEC Certified Pipe Welder certificate.

## Entry Requirements:

For specific information on entry guidelines in reading and mathematics for this program, contact the Admissions Office at (800) 478-5389.

**TABE** tests scores for this program **must be:**

<b>Reading</b>	552
<b>Combined Math</b>	552

Students must also meet the following:

1. Be an AVTEC graduate as a "Structural Welder."

**OR:**

2. Have 2 or more years of structural welding field experience.
3. Be certified to the AWS D1.1 structural steel code all position plate; within the last 2 years.

Documentation that you have worked in the welding field shall be provided by the applicant. The welding instructor will review your certification and experience for approval.

## APPLIED TECHNOLOGIES DEPARTMENT

Physical requirements of the occupation are the ability to lift 100 pounds, carry 50 pounds, stoop, kneel, crawl, walk, and stand continuously. The student must have the ability to manipulate various types of welding equipment and welding processes, which require the ability to feed filler metal and manipulate the torch head for temperature or arc length. Have the ability to manipulate welding fixtures, place material in fixtures above your head and weld in various positions for extended periods. Welding requires good hand-eye coordination and eyesight corrected to 20/20 with excellent depth perception. We strongly recommend an eye examination prior

to enrollment, so that corrective lenses or glasses may be obtained prior to the start of class.

As part of the pipe welding curriculum, AVTEC pipe welding students will first be required to pass an open root, all position, plate test using the SMAW process before advancing into pipe welding procedures.

Proficient pipe welders must be willing to work hard and spend time at their trade. Good physical condition, eyesight, and mechanical aptitude are also required.

## Pipe Welding

Certified pipe welders continue to be in demand in the petroleum industry. Pipes not only transport commodities in Alaska, they are also used to build structures, affording pipe welders the opportunity to apply their skills in a variety of work settings.

### **Earn University of Alaska Credit While Attending AVTEC**

Pipe Welding graduates may earn up to 12 University of Alaska college credits (depending on coursework completed) while attending AVTEC.



## Program Requirements

Emphasis is on making X-ray quality welds. Pipe welding students spend 90 percent of the day in welding lab and 10 percent in classroom instruction.

To achieve a Pipe Welding certificate, students must complete all required competencies and related processes. This is a total of 450 contact hours.

### **O.A.W. – Oxyacetylene welding**

Contact Hours: 23

Use oxyacetylene cutting equipment to prepare pipe for welding.

### **Related Studies**

Contact Hours: 60

First Aid-CPR, Welders math, job search training, resume writing and interview classes.

### **S.M.A.W. – Stick Electrode**

Contact Hours: 367

Perform open root pipe welding in the 2G, 5G and 6G positions with sufficient quality to pass the ASME guided bend test. Perform downhill pipe welding in the 2G and 5G position with sufficient quality to pass the API 1104 guided bend test. Prepare, tack weld and weld pipe in the 6G position using a backing ring; demonstrate basic skills in pipe layout and pipefitting fabrication; fabricate fittings from pipe; demonstrate basic pipe welding skills using Gas Tungsten Arc welding process. Also includes introduction and exposure to Flux core welding and blueprint reading.