

Learning Objectives

Demonstrate how to access the correct program on the different welding machines.

Demonstrate how to adjust the machines for each of the processes to make an acceptable weld or weldment.

Demonstrate how to get into the programs to change waveform and frequency where applicable.

4. Demonstrate how to visually inspect welds to determine whether it is acceptable or rejectable according to the D1.1 code.

Learning Objectives

Understand the different defects that can happen depending on the weld process being used.

Demonstrate how to use fillet gauges to measure weld size to see if they are acceptable or rejectable.

Demonstrate how to visually look to see and measure to make sure that weld reinforcement is acceptable or rejectable.

5. Demonstrate how to adjust the welding machines by examining the weld profile.

Learning Objectives

Use inspection tools to inspect welds.

Inspect weld for leg-size, undercut, overlap, porosity, underfill, convexity, and general appearance.

6. Compare how different shielding gases change the penetration, bead appearance and weld spatter.

Learning Objectives

Compare what shielding gases can do to the profile of the weld. Use 100% CO₂, 75/25% Ar/CO₂, 92/8% Ar/CO₂ using the same voltage and wire speed settings.

Using the same gases as previous learning objective notice the difference of the arc and notice the different sound of the arc.

7. Examine how proper fixturing decreases warpage and misalignment of parts.

Learning Objectives

Compare two weldments that are identical, one that has been fixtured and the other that was welded freehand.

Examine how proper fixturing and alignment of pipe will reduce burn through.

8. Demonstrate how to repair a weld that is rejectable.

Learning Objectives

Demonstrate how to repair a weld using a grinder, arc carbon arc, or plasma gouging to remove the weld to be rewelded.

Follow D1.1 or ASME code requirements for welder qualification tests.

12. Display welding knowledge and skills needed to be employable in industry.

Learning Objectives

Maintain good attendance and utilize time well in class.
Demonstrate knowledge of welding terms used in industry.
Engage in teamwork with other students in welding program.

SCC Accessibility Statement

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room C-112, (507) 389-7222; Faribault: Room A-116, (507) 332-5847.

Additional information and forms can be found at: