

MFG 276 : GMAW III

Transcript title

GMAW III

Credits

3

Grade mode

Standard letter grades

Contact hours total

60

Other hours

60

Prerequisites

MFG 274.

Description

Includes GMAW welding complete joint penetration welds of 2" and 6" pipe in 6G, qualification test practice, and construction of saddle tees.

Learning outcomes

1. Demonstrate safe practices in the MATC Welding Lab using GMAW processes at an expert level for pipe weldments.
2. Weld 2" pipe in 6G (expert) position with GMAW processes to AWS D1.1, API 1104, and multiple ASME Codes/Standards. Qualification test preparation.
3. Weld 6" pipe in 6G (expert) position with GMAW processes to AWS D1.1, API 1104, and multiple ASME Codes/Standards. Qualification test preparation.
4. Apply visual and destructive examination principles and practices in accordance with AWS D1.1, B2.1, API 1104, and applicable ASME Code/Standards visual acceptance criteria.
5. Construct and weld 2" and 6" saddle tee with GMAW processes to API 1104 Standard.

Content outline

GMAW
2" pipe Sched 40
filler/cover
6G
destructive test
x2
GMAW
2" pipe Sched 40
qualification test prep
destructive test/inspect
GMAW
6" pipe Sched 40
filler/cover
6G
destructive test
x2

GMAW
6" pipe Sched 40
qualification test prep
destructive test/inspect
GMAW
2" and 6" pipe
construct and weld saddle tee to industry standards
Weldments
joints, design, inspection
Industry Drawings
interpretation of symbols
fabrication requirements
general industry requirements
material handling and callouts

Required materials

This class requires the purchase of safety equipment, reference books, measurement equipment, and tools.

Grading methods

Assessment for this course may include, either online or in person, written assignments, homework, timed tests, take home tests, oral presentations, and demonstrations of manual skills acquisition as needed to confirm achievement of the course outcomes.