
PROGRAM OUTLINE

WELDER LEVEL A

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Perform Shielded Metal Arc Welding (SMAW)

Use the SMAW Process to Weld Groove Welds Using Low-Alloy Filler Metal on Low Carbon Steel Plate

Describe and Demonstrate Use of SMAW Stainless Steel Filler Metal on Low Carbon Steel Plate

Use the SMAW/GTAW Process to Weld Groove Welds Using Low-Alloy Filler Metal on Low Carbon Steel Pipe

Use the SMAW/GTAW Process to Weld Groove Welds Using Stainless Steel Filler Metal on Low Carbon Steel Pipe

Describe Basic Metallurgy Relating to Production, Properties and Weldability

Describe the Grain Structure of Metals

Describe Common Non-Ferrous Metals and their Weldability

Describe Reactive Metals and their Weldability

Describe Die Castings and their Weldability

Perform Gas Tungsten Arc Welding (GTAW)

Use the GTAW Process to Groove Weld Using Low Carbon Steel Filler Metal on Low Carbon Steel Pipe

Use the GTAW Process to Groove Weld Using Stainless Steel Filler Metal on Low Carbon Steel Pipe

Use the GTAW Process to Groove Weld Using Stainless Steel Filler Metal on Thin Wall Stainless Steel Pipe

Use the GTAW Process to Weld Stainless Steel Sanitary Tubing

Use the GTAW Process to Weld Groove Welds on Aluminum Pipe

Read and Utilize Industry Drawings

Develop Detail Drawings on Transition Pieces

Program Outline – Welder Level A Cont'd.

Interpret Detail Drawings of a Rolling Offset
Develop Piping Spool Drawings from Single Line Isometric Drawings
Estimate Job Materials and Labour Costs for Projects

Layout and Fabricate Components

Interpret and Apply Mechanical Drawings
Identify Materials and Information Required
Layout Materials
Prepare Materials
Fabricate Shop Projects