

Name of Course: TIG WELDING TECHNIQUES & ITS APPLICATION

Duration : Two weeks

Objectives:

At the end of this training program, the participants will be conversant with TIG Welding techniques, equipments & accessories related to TIG welding. They will have adequate knowledge of types of shielding gases, types of tungsten electrodes, purging methods, defects & remedies.

COURSE CONTENTS

THEORY

- Introduction of welding & safety
- Welding terms & Definition
- Introduction to TIG Welding, Parts, Function, Set-up
- TIG welding equipments-Maintenance-Safety
- Advantages of TIG Welding
- Accessories-HF unit & DC Suppressor
- Tungsten Electrodes, Types, Sizes ,Selection & Application
- Types of Shielding gases and filler rods
- Purging methods
- Possible Welding Defects, Causes & remedy

PRACTICALS

- Setting up TIG Welding plant
- Beading Practice on MS
- Square Butt joint on MS
- Lap joint on MS
- T joint on MS
- Corner joint on MS
- Single "V" joint on MS

Name of Course : MIG WELDING TECHNIQUES & ITS APPLICATION

Duration : Two weeks

OBJECTIVE :

At the end of this training program, the participants will be conversant with MIG welding techniques, equipments & accessories related to MIG welding. They will have adequate knowledge of Modes of metal transfer, shielding gases, defects & remedies.

COURSE CONTENTS

THEORY

- Introduction of welding & safety
- Welding terms & Definition
- Introduction to MIG Welding
- Power Source and accessories
- MIG/MAG Welding - safety, Parts, Function, Set-up
- Wire Feed Unit
- Welding Gun & its parts
- Types of Shielding gases and filler wire
- Modes of metal transfer
- Synergic & pulsed MIG Welding
- Welding Defects, Causes & remedy

PRACTICALS

- Setting up MIG Welding plant
- Beading Practice on MS
- Square Butt joint on MS
- Lap joint on MS
- T joint on MS
- Corner joint on MS
- Single "V" joint on MS

Name of Course : STAINLESS STEEL WELDING USING TIG & MIG APPLICATIONS

Duration : Two weeks

OBJECTIVE :

At the end of this training program, the participants will be conversant with At the end of this training program, the participants will be conversant with TIG/MIG welding techniques in Stainless Steel. They will have adequate knowledge on filler rods, filler wires, shielding gases, power sources , defects & remedies

COURSE CONTENTS

THEORY

- Introduction of welding & safety
- Welding terms & Definition
- Introduction to TIG Welding, Parts, Function, Set-up
- TIG welding equipments-Maintenance-Safety
- Advantages of TIG Welding
- Accessories-HF unit & DC Suppressor
- Tungsten Electrodes, Types, Sizes ,Selection & Application
- Types of Shielding gases and filler rods
- Purging methods
- TIG-Possible Welding Defects, Causes & remedy
- Introduction to MIG Welding
- Power Source and accessories
- MIG/MAG Welding - safety, Parts, Function, Set-up
- Wire Feed Unit
- Welding Gun & its parts
- Types of Shielding gases and filler wire
- Modes of metal transfer
- Synergic & pulsed MIG Welding
- MIG-Possible Welding Defects, Causes & remedy

PRACTICALS

- Setting up TIG & MIG Welding plants
- Beading Practice on SS by TIG & MIG
- Square Butt joint on SS by TIG & MIG
- Lap joint on SS by TIG & MIG
- T joint on SS by TIG & MIG
- Corner joint on SS by TIG & MIG
- Single "V" joint on SS by TIG & MIG

Name of Course : ALUMINIUM WELDING USING TIG & MIG
APPLICATION

Duration : Two weeks

OBJECTIVES:

At the end of this training program, the participants will be conversant with TIG/MIG welding techniques in aluminium. They will have adequate knowledge on filler rods, filler wires, shielding gases, power sources ,defects & remedies

COURSE CONTENTS

THEORY

- Introduction of welding & safety
- Welding terms & Definition
- Introduction to TIG Welding, Parts, Function, Set-up
- TIG welding equipments-Maintenance-Safety
- Advantages of TIG Welding
- Accessories-HF unit & DC Suppressor
- Tungsten Electrodes, Types, Sizes ,Selection & Application
- Types of Shielding gases and filler rods
- Purging methods
- TIG-Possible Welding Defects, Causes & remedy
- Introduction to MIG Welding
- Power Source and accessories
- MIG/MAG Welding - safety, Parts, Function, Set-up
- Wire Feed Unit
- Welding Gun & its parts
- Types of Shielding gases and filler wire
- Modes of metal transfer
- Synergic & pulsed MIG Welding
- MIG-Possible Welding Defects, Causes & remedy

PRACTICALS

- Setting up TIG & MIG Welding plants
- Beading Practice on Al by TIG & MIG
- Square Butt joint on Al by TIG & MIG
- Lap joint on Al by TIG & MIG
- T joint on Al by TIG & MIG
- Corner joint on Al by TIG & MIG
- Single "V" joint on Al by TIG & MIG

Name of Course : HIGH PRESSURE PIPE WELDING TECHNIQUES &
ITS APPLICATION

Duration : One week

Objectives:

At the end of this training program, the participants will be conversant with pipe welding techniques on different positions. They will also have adequate knowledge on codes, standards, WPS & PQR.

COURSE CONTENTS

Theory

- Introduction of welding & safety
- Welding terms & Definition
- Introduction to H.P. Pipe Welding
- Electrodes for H.P. Pipe, codes BIS/AWS
- Root pass pipe welding procedure
- Cover pass pipe welding procedure
- Welding positions, 1G, 2G, 3G, 5G & 6G
- Codes standards and qualification procedure WPS & PQR
- Defects, causes and remedy

Practical

- SMAW on MS plates
- Single "V" on M.S flat 1G & 2G
- Root pass & cover pass by SMAW in 5G
- Root pass and cover pass by SMAW in 6G
- Nomenclature & inspection of pipe joints.

Name of Course : FRICTION WELDING TECHNIQUES & ITS APPLICATION

Duration : One week

Objectives:

At the end of this training program, the participants will be conversant with different operations in friction welding machine. They will have adequate knowledge on variations in friction welding process and its advantages.

COURSE CONTENTS

THEORY

- Introduction of welding & safety
- Welding terms & Definition
- Introduction to Friction Welding process
- Variations in Friction Welding process
- Advantages, Limitations of Friction Welding process
- Applications of Friction Welding process

PRACTICALS

- Study of different operations in Friction Welding machine
- Welding of Mild Steel in Friction Welding Machine
- Welding of Aluminium & SS in Friction welding machine

Name of Course : SUBMERGED ARC WELDING TECHNIQUES & ITS APPLICATION

Duration : one week

Objectives:

At the end of this training program, the participants will be conversant with different operations in Submerged Arc welding machine. They will have adequate knowledge on variations in Submerged Arc welding process and its advantages.

COURSE CONTENTS

THEORY

- Introduction of welding & safety
- Welding terms & Definition
- Introduction to Submerged Arc Welding process
- Different methods in Submerged Arc Welding process
- Fluxes used in Submerged Arc Welding process
- Variations in Submerged Arc Welding process
- Advantages, Limitations of Submerged Arc Welding process
- Applications of Submerged Arc Welding process

PRACTICALS

- Study of different operations in SAW machine
- Depositing bead in Mild steel plate using SAW machine
- Welding of Butt joint in Mild steel plate using SAW machine
- Welding of "T" joint in Mild steel plate using SAW machine

Name of Course : RESISTANCE WELDING TECHNIQUES & ITS APPLICATION

Duration : one week

Objectives:

At the end of this training program, the participants will be conversant with different operations in seam & spot welding machine. They will have adequate knowledge on different types of resistance welding process and its advantages.

COURSE CONTENTS

THEORY

- Introduction of welding & safety
- Welding terms & Definition
- Introduction to Resistance Welding process
- Types of Resistance Welding process
- Advantages, Limitations of Resistance Welding process
- Applications of Resistance Welding process

PRACTICALS

- Study of different operations in Seam Welding machine
- Welding of Square butt joint in Seam Welding Machine
- Welding of lap joint in Seam Welding Machine
- Welding of Mild Steel in Spot welding machine