



*You see a welder. We see a nation builder.*

## **SHIELDED METAL ARC WELDING (1F, 2F, 3F, 4F) & OFW / CUTTING FOR BEGINNERS**

**Course Code:** WD-1

**No. of Seats:** 15 per batch

**Duration:** 4 weeks

**Dates & Fees:** See Course Schedule

### **COURSE OBJECTIVE:**

This course will enable the young entrants into the welding trade to acquire the basic skills/practice of shielding metal arc welding. The course is carefully designed to offer the necessary theoretical and practical exposure to the shielded metal arc welding processes. The lessons are planned in a methodical, step-by-step approach to enable the participant to easily graduate from beginner level to a confident arc welder.

### **COURSE CONTENT:**

#### **THEORY: 86 hrs**

- Introduction and principle of SMAW
- Welding power sources
- Safety Precautions
- Welding electrode and their selection
- Types of joints and their preparation
- Defects in welding - causes and remedies
- Welding techniques
- Inspection and testing weldments
- Economics of welding
- Introduction to gas welding process
- Fuel gases and supporting gas
- Gas welding equipment & accessories
- Welding flames and their applications
- Welding consumables
- Comparison of fusion and non-fusion techniques
- Principle of oxy-fuel cutting
- Feature of gas cutting torches
- Application of gas cutting process
- Module on employability skill

#### **PRACTICAL: 74 hrs**

Practical session with various electrode types, joint types, techniques, weld processes.

#### **ELIGIBILITY:**

For a youngster willing to take up welding as career, preferably 8<sup>th</sup> grade pass.

#### **COURSE EVALUATION:**

Practical & Written/Oral tests.

#### **OUTCOMES:**

The course curriculum will enable students to become a good subordinate welder.

#### **Note:**

The above course can be delivered in English, Hindi or Marathi.