



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

## **CO<sub>2</sub> GAS-SHIELDED METAL ARC WELDING (GMAW) (For Structural Welders)**

**Course Code: AWC-3**

**No. of Seats: 8 per batch**

**Duration: 1 week**

**Dates & Fees: See Course Schedule**

### **COURSE OBJECTIVE:**

Proper training of welders is a critical factor for successful switchover/application to the GMAW welding process. This course will enable an arc welder to acquire the basic skills/practice of GMAW welding process. This course is carefully designed to offer the necessary theoretical and practical exposure to CO<sub>2</sub> welding process. The lessons are planned in methodical, step-by-step approach to enable the participant to easily graduate to a confident CO<sub>2</sub> welder.

### **COURSE CONTENT**

#### **THEORY: 20 hrs**

- Knowledge of GMAW Welding Apparatus, Accessories, Care in handling & routine maintenance
- Basic principle of semi-automatic GMAW & FCAW welding processes
- Safety Precautions in GMAW Welding
- Welding Variables in GMAW Welding
- Characteristics & Preferences of elective metal transfer modes in GMAW welding
- Type & attributes of shielding-gases in GMAW welding
- Welding consumable's specification, class, size & type (Solid/Tubular)
- GMAW Process related defects, causes and remedies
- GMAW Applications and Limitations

#### **PRACTICAL: 20 hrs**

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

#### **ELIGIBILITY:**

Structural Arc Welder.

#### **COURSE EVALUATION:**

Practical & Written/Oral tests.

#### **OUTCOMES:**

The course curriculum will enable to fabricate light, medium & heavy thickness butt, fillet-joints of structural steels by GMAW/CO<sub>2</sub>MIG process in Flat, Horizontal, Vertical and Overhead welding positions.

#### **Note:**

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