

# ALSTA INSTITUTE OF WELDING TECHNOLOGY PRIVATE LIMITED

(Welding Consultancy, Training, Testing, Certification & Fabrication)

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## WELDER SKILL DEVELOPMENT CERTIFICATION SCHEME

### 1. Certification Scheme

| Sl. No | Certification Code | Description of Certification Scheme as per International Standard | Competence Requirements   | Prerequisites  |
|--------|--------------------|---|---|--|
| 1      | OFW & Brazing      | Gas welding, Brazing & Braze Welding                              | Should have adequate experience in OFW & Brazing,<br><b>Must know the type of Fuel gas, connecting tubes and its colour coding, the accessories, gas mixtures ratios, flame setting, filler rods nomenclature.</b>  | Min. VIII – Passed<br>Age : Min. 18 Years completed<br>Basic training in welding at AIWT or any other institute or experience in welding process from any industry |
| 2      | AIWTPL-SMAW PLATE  | Certification in Shielded Metal Arc Welding on carbon steel Plate | 6 to 12 months field experience in the process,<br><b>Must know about welding SMAW machines, its accessories, welding consumables - its size &amp; selection for variable thicknesses, electrode backing where required, knowledge on materials, welding positions, defects &amp; trouble shooting.</b>           |  |
| 3      | AIWTPL-SMAW PIPE   | Certification in Shielded Metal Arc Welding on carbon steel Pipe  | Min. 12 months field experience in the process,<br><b>Must know about welding SMAW machines, its accessories, welding consumables - its size &amp; selection for variable thicknesses, electrode backing where required, Knowledge on pipe materials, pipe welding positions, defects &amp; trouble shooting.</b> |  |

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|---|--------------------------|---|---|
| 4 | AIWTPL-<br>GTAW<br>PLATE | Certification in Gas Tungsten Arc Welding (TIG) on carbon steel Plate             | 6 to 12 months field experience in the process,<br>Must know about TIG welding machines, its accessories, Tungsten electrodes – its sizes, welding consumables - its size & selection for thicknesses, knowledge on materials, welding positions, defects & trouble shooting.                           |
| 5 | AIWTPL-<br>GTAW PIPE     | Certification in Gas Tungsten Arc Welding (TIG) on carbon steel Pipe              | 6 to 12 months field experience in the process,<br>Must know about TIG welding machines, its accessories, Tungsten electrodes – its sizes, welding consumables - its size & selection for thicknesses, knowledge on pipe materials, pipe welding positions, defects & trouble shooting.                 |
| 6 | AIWTPL-<br>GMAW<br>PLATE | Certification in Gas Shielded Metal Arc Welding (MIG / MAG) on carbon steel Plate | 6 to 12 months field experience in the process,<br>Must know about GMAW welding machine, its accessories, Filler wires – its sizes, Shielding gasses & selection for base metals, welding positions, defects & trouble shooting.  |
| 7 | AIWTPL-<br>FCAW<br>PLATE | Certification in Flux Cored Arc Welding on carbon steel Plate                     | 6 to 12 months field experience in the process,<br>Must know about welding machine, its accessories, FCAW wires – its sizes, shielding gasses & its selection for various base metals, welding positions, defects & trouble shooting.   |
| 8 | AIWTPL- SS<br>& AL PLATE | Certification in TIG or MIG processes on Stainless Steel & Aluminium Plates       | Min. 12 months field experience in the process,<br>Must know about TIG & MIG welding machines, its accessories, TIG & MIG welding consumables - its size & selection for various thicknesses, knowledge on SS & AL materials and its welding procedures, welding positions, defects & trouble shooting. |

Certification will be provided as per the international standards like, ASME Section IX, AWS & ISO 9606



## 2. Job & Task Description

Become SMAW or MIG or TIG welder in Structural, boiler, Small, medium and Heavy Fabrication, oil piping (refinery), Marine etc.

- 1) Able to join metals using welding process
- 2) Connection of welding machines with power and welding cable
- 3) Identification and use of proper welding rod or filler Material
- 4) Safety when working in welding process
- 5) Comply with industrial standard and requirements in welding
- 6) Able to work in any situation globally as a welder
- 7) Able to undertake welding under any international standard

## 3. Abilities

The candidate should have the following abilities to attend the examination.

- 1) The candidate should able to Stand, Stoop, Bend and Sit Ability to lift normal,
- 2) Ability to work overhead position,
- 3) Clear Vision to identify the work under black glasses
- 4) Ability to identify the causes of electric shock.

## 4. Assessment / Examination

Each scheme shall have weightage of 80 marks in practical and 20 marks in Theory.

The candidate should score a minimum of 70% i.e., 56 marks in practical and 40% i.e., 8 marks in theory to obtain the certificate.

## 5. Renewal Period

The Renewal period for each certification is 2 years from the date of Certification as per international standard

## 6. Re Certification criteria

The recertification has been carried out as per recertification procedure (Pro. No . : QSP 18) which mainly considers the following.

1. Take the exam 1 month before ends the validity of certificate.
2. Submit the proof of continuing satisfactory work and work experience.
3. Prove physical capability in relation to the competence concerned.
4. Recertification examination will be done according to the Qualified WPS.



## 7. Suspension of certification.

The suspension of certification has been carried out as per Suspending, Withdrawing and reducing the scope of certification procedure (Pro. No. : QSP-09) which considers the following.

1. Suspension involves, restriction to the certified personnel to use the certificate for the benefit of employment of person or other competence requirements if:
  - a. The candidate has persistently or seriously failed to meet certification norms
  - b. The candidate was declined re-certification at frequencies
  - c. The candidate is found to misuse or the certificate is using any kind of misleading statement which might affect the reputation of the Institute.
2. Upon suspension, AIWTPL website will be updated indication that said candidate's certificate is suspended.
3. A formal notice will be issued to the candidate with a request to give an explanation within 15 days. If he fails to provide the explanation within the stipulated period, the certificate will be withdrawn.
4. During the suspension period the certificate shall remain invalid temporarily
5. During suspension period the person will not be allowed to use certificate for the benefit of an employment or other competence requirement

## 8. Withdrawal of the certificate

The withdrawal of certificate has been carried out as per Suspending, Withdrawing and Reducing the scope of certification procedure (Pro. No. : QSP-09) which considers the following.

1. Withdrawal involves return of the certificate to the Institute during period of validity
2. Withdrawal of certification shall be initiated in the following situations,
  - a. The candidate does not meet the conditions of suspension
  - b. The candidate explanation is not accurate and misleading to the scope of certification even after remainders
3. After withdrawal of certification, AIWTPL website well be updated that the certification is withdrawn
4. After withdrawal, the person should not involve in any misuse of certificate for the benefit of his employment and competence requirements
5. After withdrawn the person should surrender the certificate to AIWTPL or Institute has closed down the records of the certificate

## 9. Changes in Certification scheme

Whenever there are changes in the certification scheme including specific methods and mechanisms required or standard, AIWTPL shall upload the same on the website and ensure that these changes are communicated to all existing certified persons through email. The implementation of changes will be made affective from the specified date and all relevant documents shall be modified. if changes require any recertification of certified candidates, a reasonable time limit will be specified and communicated to all certified persons.