



The Indian Institute of Welding is a Member Society of the **International Institute of Welding (IIW)** which was created in 1948 and now has 59 members. IIW have developed and administer a Unified International System for Education, Examination and Qualification of Welding Personnel, which is globally recognised and internationally accepted.

The Indian Institute Of Welding has been accredited by IIW as its only '**Authorised National Body**' (**ANB**) in India (To be referred to as **ANB-India**) to operate its above international scheme and award **International Diplomas on Welding** to welding personnel at various responsibility and job levels including International Welder for different processes at three skill levels.

The Indian Institute of Welding in turn has appointed welder training Institutes in different parts of the country as **Approved Training Bodies (ATBs)** to impart the practical and theoretical training programmes. Prospective candidates are required to undergo training in these ATB's in the welding course of their choice.

1.0 Benefits

1.1 Industry: The IIW qualification system, administered by ANB India will provide a pool of welding personnel at all levels, trained to international standard for industry. This will also enable industry to fulfil the future requirements of ISO 3834 (Quality Requirement for Welding) as well as ISO 14731 (Welding Co-ordination Task and Responsibilities), which will be particularly relevant for export-oriented industries.

1.2 Career for Welders: Welding is a widely used skill offering opportunities to build careers in fabrication & construction. People starting out through practical welding qualifications can achieve high level welding skills which are greatly sought after and they need not stagnate in welder's jobs if they wish to further develop their careers. There is enormous scope to obtain overseas appointment at all levels for IIW Diploma holders. 'International Welder' Diploma includes additional certification for practical skill qualification as per ISO 9606-1 or taken as equivalent to ASME Sec IX. This qualification more than fulfils the requirements of Indian Standard – IS:7310 - Approval Test for Welders Working to Approved Welding Procedures.

2.0 International Welder Curriculum

The detailed course content & eligibility form part of the guideline IAB-089r4-2012 (Part 1 & 2) of the IIW-International Authorisation Board (**IAB**).

For the International Welder course: The Diploma Certificate issued specifies 3 levels of increasing knowledge & skill as **International Fillet Welder (IFW)**, **International Plate Welder (IPW)**, **International Tube (Pipe) Welder (ITW)** taking into account the welding process and material to be welded. A candidate may opt to take a course for any one of the above levels.

The detailed course contents & eligibility form part of the guideline IAB-089 (Part I, latest edition) of the International Authorisation Board (**IAB**). Part II relates to welding of test objects. The diploma at any level of 'International Welder' also includes an additional renewable certification for practical skill tests as per ISO 9606-1 or (equivalent to ASME Section IX).

2.1 Theoretical:

The theoretical education and training programme consist of 3 theory modules **A, B and C** (for IPW only) The candidates also have to undergo an additional module '**S**' depending on the welding process of their choice as offered at the ATB and may also select an optional module 'P' for base material other than carbon steel & low alloy steel, which are the normal materials used for welding training.

Module S: The candidate must select any one process from Module S and related practical training and tests and which provides special requirements for each welding process

SA: Manual Metal Arc (**MMAW- 111**)
ST: TIG Welding (**GTAW-141**)

SM: MIG/MAG (**GMAW-131,135,136 & 138**)
SG: Oxy-Fuel Gas Welding (**OFW-301**)

Module P: There are also 2 optional supplementary modules to provide special requirements for materials other than Carbon Steel included compulsorily.

PSS: Supplementary theoretical education for welding of Stainless Steel material.

PAL: Supplementary theoretical education for welding of Aluminium material.

There are six standard modules in the IW curriculum starting from Module 1 and upto Module 6 for each process

Module	Qualifies to DIPLOMA	Theoretical Input	Additional for Specific Process (S)	Optional for Specific Material (P)
0		Basic		
1 + 2	Int. Fillet Welder (IFW)	A + B	SM / ST / SG	PSS / PAL
3 + 4	Int. Plate Welder (IPW)	A + B	SM / ST / SG	PSS / PAL
5 + 6	Int. Tube Welder (ITW)	A + B + C	SM /ST / SG	PSS / PAL

2.2 Basic Training in Metal Working: Module 0

ATB may require the candidates to attend a special course in case a candidate does not have prior experience or the knowledge prescribed in metal working industry.

The areas that may be covered in Module 0 are:

Industrial Awareness & General Safety Rules, Use of Hand Tools & Power tools, Fitting & Assembling, Oxy Fuel Cutting & Heating, safety precautions in handling and using gas cylinders, Essential First Aid & Elementary Fire Fighting, Introduction to simple engineering sketches, Good Workplace practice i.e. to perform general duties to maintain workplace, equipment and tool cleanliness & follow safe practices in the performance of daily duties.

2.3 Practical:

There are 6 practical training and tests modules or processes covering the various welding processes and materials which are listed to the requirements of ISO: 9606 standards for approval testing of welders.

Process 111	(MMAW)	: MMA welding for Ferritic & Stainless Steel,
Process 135,136,138	(GMAW)	: MAG welding for Ferritic & Stainless Steel
Process 131	(GMAW)	: MIG welding of Aluminium,
Process 141	(GTAW)	: TIG welding of Ferritic & Stainless Steel,
Process 311	(OFW)	: Gas welding of Steel (not being offered presently)

3.0 Routes for Qualification:

3.1 Standard Route: The main material for practical training will be limited to carbon and low alloy steel unless otherwise selected under optional Module 'P'. Both the theoretical and practical study is to be carried out at any ANB – India approved ATB.

The time needed may vary individually according to the capability of the student, background and the available facilities and infrastructure of an ATB. A fulltime course as 'International Tube Welder' at an ATB for MMAW may take about 16 weeks minimum time to complete for a beginner. The ATB may combine the award of diploma by combining two or more levels of qualification with the prior approval of ANB-India before start of the course.

3.2 Alternative Route: For skilled experienced Welders with education of Secondary School level and more than 3 years practical experience with valid Welders Certificate of ISO 9606-1 or ASME Sec IX may opt for directly appearing for ANB conducted Theory Examination and Practical Tests like Standard Route Candidates without attending a regular course at an ATB. However for such candidates it may be more convenient to attend a short refresher course on

Theory as necessary and get practice on the test coupons (Part I) or welding test objects (Part II) at the desired level at an ATB.

4.0 International Welder (Eligibility for Admission in an ATB)

4.1 Eligibility Criteria for Module-1 (Entry Level)

- Must have completed Secondary Education (Class X) from a State or Central Board, or equivalent with ability to comprehend written/oral instructions in English.
- Must possess appropriate health, physical and mental capability i.e. no physical or mental disability that precludes safe operation of welding equipment or interferes with full performance of duties in industry.
- Minimum age requirements prescribed in the State and Indian Central Labour Laws applicable in the state in which the ATB is located.
- Must have some background experience/knowledge in industry. Basic skill in metal working is required as a pre-qualification.

Otherwise a prescribed Basic Training as detailed in previous page 2.2 is recommended.

4.2 Eligibility Criteria for entry to higher level Modules 2- 6

Successful completion of one module qualifies for entry & participation (Access) in the next module.

- ➔ **Entry to Module 2:** Demonstrate the required level of knowledge & skill by passing the tests as described in module 1. Will qualify as **International Fillet Welder (IFW)** on successful completion of Module 2 (**ANB conducted Examination & Test**)
- ➔ **Entry to Module 3:** Demonstrate the required level of knowledge & skill by passing the full examination and test as described in module 2 above.
- ➔ **Entry to Module 4:** Demonstrate the required level of knowledge & skill by passing the full examination as described in module 2 and passing the tests as described in module 3 above. Will qualify as **International Plate Welder (IPW)** on successful completion of Module 4 (**ANB conducted Examination & Test**)
- ➔ **Entry to Module 5:** Demonstrate the required level of knowledge & skill by passing the full examination and test as described in module 4 above.
- ➔ **Entry to Module 6:** Demonstrate the required level of knowledge & skill by passing the full examination as described in module 5. Will qualify as **International Tube / Pipe Welder (ITW)** on successful completion of Module 6. (**ANB conducted Examination & Test**)

The ATB may combine the award of diploma by combining two or more levels of qualification with the prior approval of ANB-India before start of the course.

With knowledge already acquired and proven skill, the candidate may be allowed entry at a higher level, provided that the candidate demonstrates a capability (practically and theoretically) to meet the entry requirements to the satisfaction of ATB as described above and be allowed exemption from attending some module on application with the formal approval of ANB.

5.0 International Welder Examinations, Diploma & Certification

After completion of the modules A, B and C there is a final theoretical examination set under the authority & supervision of the Board of Examiners of the ANB. In addition to the examination of the modules A, B and C, the examination of the specific welding process (S) module and – if applicable – the appropriate material (P) module is required.

Welding skill is tested as per requirements of the IAB guideline and also certified as per ISO 9606-1 or under EN 287-1 under ANB authorised Examiner to ensure compliance. The appropriate level of Diploma as (IFW) or (IPW) or (ITW) with mention of additional Process (S) & Optional material chosen (P) is awarded after successful finish of Module 2, 4 & 6 respectively.

6.0 Procedure For Enrolment, Registration & Training

ANB India controls admission to all IIW courses as per eligibility requirements of the “Access Conditions” and subsequent registration process, examination, testing and final award of International Welder Diploma and Certification on practical welding skill. However as mentioned earlier, the actual theoretical lesson and practical training is conducted by the ATB. For convenience, the application/registration Forms are available with the ATB and may be submitted through them. After successful theoretical and practical examination, the Authorized National Body awards an 'International Welder' Diploma to the candidate specifying the process, level and material (if applicable).

On enquiry, candidates will be provided the '**Information Brochure**' free of cost. Further details can also be downloaded from our Website: www.iiindia.com. The duly filled in 'Application Form' along with all enclosures etc. have to be submitted along with application fees as per chart below to ANB-India or to the Approved Training Body (ATB) for final approval by ANB – India

6.1 Fees & Charges Payable by the Candidates to ANB

Sl. No.	Description	Fee (Rupees.)
1	Application Fee (1, 2 and 3)	On Application from ATB/ANB
2	Registration Fee (For All Routes)	
3	Practical Qualification tests as per ISO:9606 or equivalent	
4	Final Examination (written)	
5	Award of IIW Diploma Certificate	
6	Fees for EN 287/ISO 9606 Certification	

- The above Fees are payable to IIW-ANB only and do not include training and other expenses to be charged by ATB. The ATB may also collect the Fees payable to ANB on their behalf with specific authorisation. Service Tax is applicable at the applicable rate.
- Prospective candidates are advised to refer to ATB for details of course fees and other charges.
- The prospective trainees may contact ANB - India for the list of Approved Training Bodies (ATBs) & to select a one offering the desired course and located for convenience.

7.0 Welders Approval Certification

As mentioned earlier, the diploma at any level of 'International Welder' also includes an additional renewable certification for practical skill tests as per ISO 9606-1.

However for already experienced welders IIW-India ANB also conducts Approval Tests only to certify skill according to required Codes or standards to meet welding fabrication and manufacturing industry requirements. Details are available on enquiry with IIW –India ANB.



For further details and clarification the prospective candidates may visit website <http://www.iiwindia.com> Or contact the nearest ATB

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