



# Information Brochure

**The Indian Institute of Welding- ANB**

Authorised National Body

of

International Institute of Welding

**A World of Joining Experience**

## Introduction

The Indian Institute of Welding is a member of the International Institute of Welding (IIW) which was created in 1948 and now has 53 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 schemes and award various International Welding Diplomas..

The Indian Institute of Welding in turn has appointed training Institutes in different parts of the country as Approved Training Bodies (ATBs) to impart the practical and theoretical training programmes. Prospective candidates following Standard route are required to undergo training in these ATB's in the courses of their choice. Routes other than standard routes for qualification are described later.

The Following Diplomas are offered

**International Welding Coordination Personnel:**

IWE, IWT, IWS & IWP

**International Welding Inspection Personnel:**

Basic, Standard & Comprehensive levels

**International Welder:**

Fillet, Plate and Tube/Pipe

## Quality Assurance in a Fabricating Industry

**Quality Assurance System:** The reliability of quality standard in general in an organisation is guided by the provisions of **ISO 9000** series of standards. *Welding is to be treated as a "special process" since welds cannot be fully verified by subsequent inspection and testing of the product to ensure that the required quality standards have been met.* **Quality cannot be inspected into a product; it has to be built into it.** Even the most extensive and sophisticated non-destructive testing does not improve the quality of welds.

**The manufacturing sectors using welding have to critically address three distinct areas with specific requirements;**

1. Design phase, through joint design, material selection,
2. Process used, skill of welder, control & supervision at various stages
3. Inspection and monitoring at various critical points.

Welding Coordination plays a key role along with trained and skilled personnel engaged in welding fabrication process at different levels. The Indian Institute of Welding ANB is engaged in qualifying personnel to meet the requirement of international level knowledge, expertise and skill at various levels to ensure

that all the three distinct areas are covered. *This is also an essential requirement for the implementation of ISO 3834.*

## Welding Co Ordination Personnel : Why required ?

✓  
**Welding Coordination Personnel** are covered by **ISO 14731** and defines Personnel who have responsibilities in the manufacturing operation for welding and welding related activities and whose competence and knowledge have been demonstrated by training, education and relevant manufacturing experience.

***Welding coordination is considered as the responsibility of all manufacturing organisations using welding as a process and mandatory for those having ISO 3834 certification.***

In this context, the International Welding Diplomas of IWE, IWT, IWS & IWP are the preferred & recommended route for personnel responsible for welding supervision & Coordination as below:

- **(IWE): International Welding Engineer** is a post graduate Diploma and the most knowledgeable in the profession to guide and advise for resolution of technical issues relating to actual welding, process & procedure, inspection, design of welding and fabrication technique, quality control with inputs of "state- of- the -art". He is able to take the position of Welding Co-ordinator with full responsibility in most industries
- **(IWT): International Welding Technologist** is already having a recognised Engineering Diploma and is expected to acquire in depth technical knowledge and expertise to undertake work of the responsibility of weld design, selection of process & procedure for fabrication with safety. He can take responsibility as Welding Co-ordinator in a manufacturing industry.
- **(IWS): International Welding Specialist** is a Science Graduate or a Professional Technician with knowledge on various aspects of welding covering joint design, processes, material, & fabrication of welded structures and quality control and suitable for Welding Co-ordination in a shop with limited variation in welding parameters.
- **(IWP): International Welding Practitioner** is an experienced highly skilled qualified welder, able to read technical drawings. He is informed about production methods concerning welded products He is suitable to hold the position of a supervisor in a manufacturing industry and assist the responsible Welding Co-ordinator or act as a Welding Instructor for welders in a training institute.

## Role of the Welding Inspection Personnel - IWIP

**Welding Inspection:** Examining, Testing and measuring of welding related matters form part of the whole system and is covered by **ISO 9712** and also **SNT–TC–1A / IS: 13805** and **EN 12062**. **Welding inspection is a part of Welding Coordination as per ISO 14731.**

*The Inspector's role begins well before welding starts, continues during welding operation, involves action after welding is completed, and is finished only when the results are properly reported. As a part of a quality system, inspection activities are defined in an inspection and test plan, which clearly describes the requirement.*

International Welding Inspection Personnel follow a curriculum specially designed for the above function to cover both knowledge and skill in Welding Technology and Welding Inspection covering NDT and Mechanical Testing. It is possible that additional training and/or knowledge & experience may be required beyond core education to meet the requirements of specific application or job function.

**International Welding Inspector Diplomas** are at three levels i.e. **Basic (IWI-B)**, **Standard (IWI-S)** and **Comprehensive (IWI-C)** respectively of increasing knowledge, skill & responsibility and criteria for admission/access to obtain the qualification by any route is accordingly different.

### Routes for Welding Coordination Qualifications

**Standard Route:** Involves study by eligible candidates meeting Access Conditions at an Approved Training Body (ATB) as per full syllabus and followed by ANB conducted examination as per IAB Guideline. This is the route offering the most comprehensive manner in which the syllabus could be covered to meet all the requirements of IAB guideline. These could be a University, Technical College or part of a corporate body with separate training setup suitably isolated from its business operation.

*AT present only IWE & IWT (IW also) qualification are offered through Standard route involving around six months lesson in an ATB.*

**Transition Route:** Existing professionals in a country doing similar nature of work with requisite knowledge and experience have an attractive option of acquiring the International Diploma of choice by the Transition Route during a 3 year window after introduction of the course in a country.. Presently this option is available only for IWIP (Basic, Standard & Comprehensive) for candidates fulfilling the approved qualification and experience criteria

**Alternate Route:** The candidate must have educational qualification conforming to the Access Condition as required for the 'Standard Route' for the appropriate level along with relevant knowledge, training and experience *based on a detailed evaluation checklist* and pass an *extensive Professional Assessment Interview (PAI)* and *evaluation of a submitted Project* to directly appear for final examination to be conducted by ANB India based on the full IAB curriculum.

This is available presently only to IWE & IWT (IW Also) candidates who have 4 years minimum experience in Industry at the Welding Engineer/Welding Technologist level and involves no study at an ATB

## International Welder – Diploma

Knowledgeable and highly skilled welders doing the actual job is the most critical and essential aspect of assuring quality in a fabricated product. With the above objective of quality support at shop floor level the renowned International Welder qualification is now made available in India at three levels Fillet, Plate & Pipe

The theoretical education and training program consist of compulsory Theory modules and an additional module 'S' depending on the welding process of their choice. Practical tests are elaborate and fully defined in the International Guideline

**Standard Route:** The intending candidate is required to enroll in an ATB. A candidate must have Class X School leaving academic qualification and attend both Theory lessons and Practical Training as offered at an Approved Training Body (ATB) and may also select an optional module 'P' for base material other than carbon steel & low alloy steel.

Apart from the appropriate Diploma the successful candidates are also awarded a relevant Welder Qualification Certificate as per ISO 9606-1/EN 287-1

**Alternative Route** is highly attractive for experienced skilled Welders who may not attend a full duration International Welder course at an Approved Training Body (ATB). They have to simply meet the minimum requirement, appear and pass all the ANB conducted Theoretical Examinations and Practical Tests as per International guideline of IIW / IAB.

**Welder Approval Certification:** IIW-India ANB also conduct Qualification tests for Welders as per ISO 9606-1 or EN 287-1 or ASME Sec IX or IS 7310. Certificates issued by IIW-India ANB under guideline of IIW-IAB are already recognized by Indian organisations and overseas recruiting agencies for Welders. ANB India also assists in the preparation pWPS and WPQR etc..

## Functions of Authorised National Body (ANB-India)

To operate the Qualification and Certification Schemes in India on behalf of the International Institute of Welding following are the international guidelines:

- ✓ Control Admission to all IIW Courses as per requirement of relevant "Access Conditions"
- ✓ Appoint Authorised Training Bodies (ATBs) to impart the actual lessons & Training following the IIW curriculum and guideline.
- ✓ To conduct and supervise all theoretical examinations and practical tests after the candidate completes the required training

- ✓ Award International Diploma and Certificates as applicable
- ✓ Award International Diplomas through Transition Arrangement during the window of opportunity and administer Alternative Route

## How does the INDUSTRY and the INDIVIDUAL benefit

### **Benefit for Industry:**

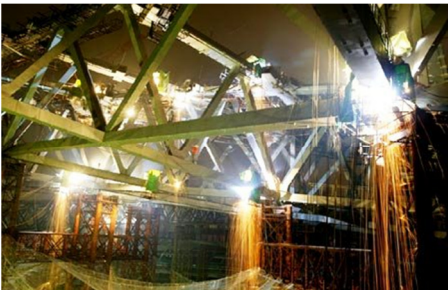
- ✓ The IIW qualification system, administered by ANB India provides a pool of welding personnel at all levels, trained to international standard.
- ✓ This will also enable industry to fulfil the overall requirements of ISO 3834 (Quality Requirement for Welding) as well as ISO 14731 (Welding Co-ordination Task and Responsibilities) and NDT inspectors requirement as per ISO-9712 and which will be particularly relevant for export-oriented industries.

### **Benefits for Individual:**

With Proper curriculum and recognised certification system offered by ANB India, the trained individual can accrue the following benefits:

- ✓ Fill in the void in the globalised domestic fabrication industry desirous of upgrading their quality systems through adoption of ISO 3834 certification to stay ahead of competition in the local and global market.
- ✓ With increasing globalisation, there will be scope for obtaining overseas assignments at all levels.

For details of individual qualifications, eligibility, available routes to qualify, the ATB addresses, Fees etc. the candidates are advised to contact us directly.



**For Further details  
Please visit our**

**Website [www.iiwindia.com](http://www.iiwindia.com)**

**Or contact IIW-India ANB at  
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## **The Indian Institute of Welding -ANB**

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