

**THE INDIAN INSTITUTE OF WELDING**  
(A Member Society of The International Institute of Welding)



**Information Booklet  
for  
National Skill Competition on Best Welders  
Sponsored by  
M/s ELCA Laboratories, Thane**



## Categories

- |                                  |   |                                 |
|----------------------------------|---|---------------------------------|
| A. Best Structural Welder (SMAW) | - | 2F & 3G Position (Carbon Steel) |
| B. Best Structural Welder (GMAW) | - | 2F & 3G Position (Carbon Steel) |
| C. Best Pipe Welder (SMAW)       | - | 6G Position (Carbon Steel)      |
| D. Best Pipe Welder (GMAW)       | - | 6G Position (Carbon Steel)      |
| E. Best Pipe Welder (GTAW)       | - | 6G Position (Carbon Steel)      |

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## GENERAL INFORMATION

- The Indian Institute of Welding conducts the “**Best Welder**” competition every year.
- The preliminaries are conducted at local branches of IIW-INDIA. The winners from branch level competitions are eligible to take part in the final.
- The National Level Competition (Final) - for the Best Welders is held during the National Welding Seminar (or the yearly event) organized by the institute at different venues.
- This competition is FREE and open to all members of the institute as well as to the non-members. The desirous candidates are required to contact the respective branches.
- Only the best candidate at the branch level in each category shall be eligible for the National level competition.
- The candidates selected for the National Level Competition shall be provided with free Boarding and Lodging by the Organisers of the National Welding Seminar (or the yearly event).
- The Best Welders selected at Finals will be given the “IIW INDIA – ELCA Lab Best Welder Award”, inclusive of a Cash prize and a certificate for each Category.
- The past winners of the National Level Competitions are not eligible to take part in this competition.
- To spread the National Skill Competition all around, it is decided to include Industries also for the competition. The industries may conduct the competition by themselves and may send the nominations (winners only) directly for final; however, they have to intimate respective IIW-India branches for the witness and assessment.
- The winners / selected candidates may be eligible for International Arc Cup Competition at China, subject to discretion of IIW-India, in accordance with the situation.

## BEST WELDER COMPETITION – 2018

### Eligibility for the Best Welders:

1. Must be able to read and write in English and / or in any Indian Language.
2. Must have minimum 3 years’ experience in practical welding.
3. Must have basic theoretical knowledge of welding.
4. Must have some knowledge of the Codes / Standards being followed in their work place.
5. Must be within 34 years of age as on 31.12.2018.

### General Rules / Procedures

1. The competition should be started by August 2018 and to be held across all the branches of IIW- India and in different industries for Preliminary Round.
2. Branches to propose one person as the single point of contact for this competition.
3. This year, the National Welding Seminar (NWS 2018) is scheduled to be held in December 2018, in Cochin. Therefore, final competition is planned to be conducted during the 1<sup>st</sup> week of December (2018), at Cochin.
4. The branch level competitions must be conducted within 31<sup>st</sup> October 2018, so that the names of selected personnel can be sent for the National Level competition by the 10<sup>th</sup> November 2018, positively. Competitions at different industries must be completed by 30<sup>th</sup> September 2018.
5. Carrying out the competition through the branch will be the responsibility of each branch. Also, they have to witness the competitions to be held in different industries in their jurisdiction.
6. This will entail, arranging a suitable workshop, material, consumables, safety gear and other essentials as required for branch level competition.
7. This will also entail arranging suitable Assessors for evaluating the candidate's performance.
8. Around three to four days stay is expected at the venue for the competition and declaration of results during the National Level Competition.
9. Competition will be for six categories, which are:
  - A. Best Structural Welder (SMAW) - 2F & 3G Position (Carbon Steel)
  - B. Best Structural Welder (GMAW) - 2F & 3G Position (Carbon Steel)
  - C. Best Pipe Welder (SMAW) - 6G Position (Carbon Steel)
  - D. Best Pipe Welder (GMAW) - 6G Position (Carbon Steel)
  - E. Best Pipe Welder (GTAW) - 6G Position (Carbon Steel)

### **The Criteria**

1. Only one pre-prepared test coupon (two plate or two pipe pieces to make one joint) shall be provided to each competitor.
2. The welded test coupon shall be assessed through Visual Examination and qualified coupons will then be sent for Radiographic Tests.
3. Total Marks: 100. (50 marks for Visual assessment and 50 marks for Radiography assessment)
4. In case there is a tie in marks, completion time will be the factor for winning the competition. i.e., Welder, who have completed in lesser time, will be declare as the winner.

### **SPECIFICATION FOR TESTING**

#### **Material:**

Plate: ASTM A36 / IS 2062 or Equivalent

Pipe: ASTM A106 Gr. B / API 5L Gr. B or Equivalent

#### **Dimension:**

1. Plate: 300 mm X 125 mm X 10 mm thk. (4 pieces) for categories A & B (SMAW & GMAW)
2. Pipe: NB 6" Sch. 80 X 125 mm lg. (2 pieces) for categories C & D (SMAW & GMAW)
3. Pipe: NB 2" Sch. 40 X 125 mm lg. (2 pieces) for category E (GTAW)

#### **Assembly and Tack Welding:**

1. Single V preparation with 55 ~ 65 degree with root gap and root face as per Welder's choice
2. Tack welding: Plate shall be tacked in both the ends with no more than 15 mm length each  
6" Pipe shall be tacked in 3 positions with no more than 15 mm length each  
2" Pipe shall be tacked in 2 positions with no more than 10 mm length each

#### **Consumables:**

1. Categories A & C: E7018 dia 2.5 mm & 3.2 mm
2. Categories B & D: ER70S-6 dia 1.2 mm
3. Category E: ER70S-6 dia 2 mm & 2.4 mm

#### **Cleaning:**

Grinding is not allowed during and after welding. Hacksaw Blade, file and brush can be used for cleaning.

#### **Completion Time:**

1. Category A: 80 min
2. Category B: 70 min
3. Category C: 100 min
4. Category D: 90 min
5. Category E: 60 min

#### **Assessment:**

1. Visual assessment for all coupons shall be done in accordance with ISO 5817.
2. Radiography assessment (only for the visually qualified test coupons) shall be done in accordance with ASME SEC. IX 191.1.2.
3. Final marks will be provided by adding both the marks of visual and radiographic assessments.

**Note:** It is suggested that minimum of 2 assessors each for visual and radiographic assessments shall be deputed. Radiography Laboratory may also act as the Third Party Assessor for radiographic assessments.

#### **Certification:**

1. Certificate of Participation to be issued to each welder at branch level competition by the respective Branch. Certificates also to be issued to the Winner in each category by the Branch.
2. Certificate of Participation to be issued to each welder at Final Level by the Organising Committee of NWS or annual event. Certificates also to be issued to the Winners in each category at Final by the IIW-India HO during the NWS or annual event.

**ATTACHMENT:** Proforma for Application / Nomination for Best Welder's Competition.

**PROFORMA FOR APPLICATION / NOMINATION FOR  
BEST WELDER'S COMPETITION**

**Application for Best Welder Competition in Category .....**

**Forwarded by IIW-India Branch .....**

**PLEASE FILL ALL THE DETAILS IN CAPITAL LETTERS**

Photographs  
(1 photo to be  
affixed here  
and 1 photo to  
be stapled with  
the form)

1. Name :
2. Date of Birth :
3. Present Address :
  
4. Mobile no. :
5. E-mail id :
6. Photo id (type & no.) :
7. Name of Sponsoring Organization (if Applicable) :

8. Address of the Organization :  
(with Tel. No. & Email)

9. Educational Qualification of the Candidate (optional) :

S. No.	Qualification	Institute	Major Subjects

10. Professional Experience :

11. Specific achievements in the Welding Field (optional) :

**Declaration:** I hereby declare that, I will follow all the instructions given for the Best Welder Competition. I will take part in a fair and friendly manner and will accept the results declared, as final. I also declare that all the particulars stated above are true.

Signature of the applicant :

Date :

**Signature of the Nominating authority (if Company Sponsored) :**

Name:

Designation

**IIW-India Branch / Head Office Entries :**

Form Received From ..... on .....  
For competition in Structural Welder (A / B) / Pipe Welder (C/D/E) category.

Signature of Receiving Authority of the branch / Head Office :

Name :

Designation :