

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



**Information Booklet
for
National Skill Competition
on
Best Welders**



Categories

- | | | |
|----------------------|---|--|
| A. Structural Welder | - | SMAW Process – 4 G Position, Carbon Steel |
| B. Structural Welder | - | MIG-CO ₂ Process – 3 G Position, Carbon Steel |
| C. Pipe Welder | - | SMAW Process – 6 G Position, Carbon Steel |
| D. Pipe Welder | - | Root SMAW or MIG-CO ₂ Process, Filling & Capping
MIG-CO ₂ Process – 6G Position, Carbon Steel |

The Indian Institute of Welding
"IIW-INDIA HOUSE", Plot No. 38, Geetanjali Park
200, Kalikapur Main Road, PO: Mukundapur
Kolkata – 700 099, INDIA.

Phone: +91 33 24160826 | Telefax: +91 33 2416 0826

E-mail: iiw@iiwindia.com / hq@iiwindia.com | Website: <http://www.iiwindia.com>

National Skill Competition for “Best Welder”

Sponsored by

M/s. ELCA Laboratories, Thane

About the Award

The Award is sponsored by Mr. N. Kalyan, a veteran member of IIW-INDIA and Managing Director of M/s. ELCA Laboratories and was first instituted during the International Welding Congress 2008 (IIW-IC-2008) for the “Best Welder” and “Best Welding Engineer”

This year, the competition for “Best Welder” would be held under the following 4 categories:-

- Best Welder (Structural) – in SMAW Process
- Best Welder (Pipe) – in SMAW Process
- Best Welder (Structural) – in MIG Process
- Best Welder (Pipe) – in SMAW / MIG Process

BEST WELDER COMPETITION

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 (Finals) - for the Best Welders (Best Structural Welders and Best Pipe Welders) is held during the National Welding Seminar 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 before 31st October 2016.
- Only the best candidate at the branch level in each of the four different categories shall be eligible for the National level competition.
- The candidates selected for the National Level Competitions shall be provided with free Boarding and Lodging by the Organisers of the National Welding Seminar.
- **The Best Welders selected at Finals will be given the “IIW-INDIA ELCA Lab Best Welder Award” inclusive of a Cash prize of ₹ 5000.00 and a certificate for each Category.**
- The past winners of the National Level Competitions for the above are not eligible to take part in this competition.

BEST WELDER COMPETITION – 2016

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 of different materials.
3. Must have basic theoretical knowledge of welding of different materials.
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 14.12.2016.

General Rules / Procedures

1. To be held across all the (13) branches of I.I.W. in India for Preliminary Round.
2. Branches to propose one person as the responsible contact, for this competition.
3. NWS – 2016 is scheduled for 15th, 16th and 17th December, 2016 in Kolkata.
4. **Final competition planned to be conducted during the period from Monday 12th to Tuesday 13th December, 2016.**
5. Final Round to be held at ESAB Welding Institute, Kolkata.
6. Preliminary branch wise competitions to be completed before 12th of November, 2016.
7. Carrying out the competition through the branch will be the responsibility of each branch.
8. This will entail, arranging a suitable workshop, material, consumables, safety gear and other essentials as required.
9. This will also entail arranging suitable Assessors for evaluating the candidate's performance.
10. Only two to three days (night) stay is expected at the venue for competition and declaration of results.
11. The competition can be carried out in two time slots on the same day. Number of machines available at one time should be enough to achieve this objective.
12. Competition will be for two types of Welders, Structural Welder and Pipe Welder.
13. A. Structural welder - SMAW Process – 4 G Position, Carbon Steel
B. Structural Welder - MIG-CO₂ Process – 3 G Position, Carbon Steel
C. Pipe Welder - SMAW Process – 6 G Position, Carbon Steel
D. Pipe Welder - Root either by SMAW or MIG-CO₂, Filling & Capping Runs only MIG-CO₂ – 6 G Position, Carbon Steel

The branch level competitions shall have to be conducted before 12.11.2016 so that the names of selected personnel can be sent for the National Level competitions before 19.11.2016 positively.

The criteria for the Best Welders' tests are given below:

1. Only one pre-prepared test coupon (either two pipe pieces or two plate pieces, as applicable, to make one joint) shall be given to each competitor.
 2. Total Marks : 100 Marks
The welded test coupon should qualify in Visual and Radiography Tests.
 3. Viva Voce test : only in case of a tie for either first or second position.
-

13 A) METHOD / SPECIFICATIONS / ASSESMENT FOR BEST STRUCTURAL WELDER'S TEST – SMAW:

A. Practical Test (Butt welding): Structural Welder – SMAW Process – 4 G Position, Carbon Steel

1. Plate Specification: ASTM A 36 / IS 2062 / SA 516 Gr. 70
2. Plate dimensions: 100 X 300 X 10-12 mm thick
3. Process: SMAW
4. Position: 4G without backing
5. Weld fit-up
 - Root gap - Welder's Choice
 - Root face - 1.5 to 2.0 mm
 - Bevel angle - 60 ~ 65 degree
6. Welding consumables
 - Root, Hot pass and subsequent pass – E 7018
 - Electrodes size - 2.5 mm / 3.15 mm
7. Cleaning: Grinding is not allowed during and after welding. Hacksaw Blade, file and brush can be used for cleaning
8. Completion time: Three hours maximum

B. Assessment: The test coupons should qualify in Visual and Radiography Tests.

13 B) METHOD / SPECIFICATIONS / ASSESMENT FOR BEST STRUCTURAL WELDER'S TEST – MIG-CO₂:

A. Practical Test (Butt welding): Structural welder – MIG-CO₂ Process – 3 G Position, Carbon Steel

1. Plate Specification: ASTM A 36 / IS 2062 / SA 516 Gr. 70
2. Plate dimensions: 100 X 300 X 10-12 mm thick
3. Process: MIG-CO₂
4. Position: 3 G without backing
5. Weld fit-up
 - Root gap - Welder's Choice
 - Root face - 1.5 to 2.0 mm
 - Bevel angle - 60 ~ 65 degree
6. Welding consumables
 - Root, Hot pass and subsequent pass - wire ER 70S-6
 - Wire size - 1.2 mm dia
7. Cleaning: Grinding is not allowed during and after welding. Hacksaw Blade, file and brush can be used for cleaning
8. Completion time: Three hours maximum

B. Assessment: The test coupons should qualify in Visual and Radiography Tests.

13. C) METHOD / SPECIFICATIONS / ASSESMENT FOR BEST PIPE WELDER'S TEST – SMAW:

A. Practical Test (Butt welding): SMAW Process – 6 G Position, Carbon Steel

1. Pipe Specification: ASTM A 106 Gr-B
2. Pipe dimensions: 6" dia Sch 80 pipe (thickness > 10.00 mm)
3. Process: SMAW
4. Position: 6G
5. Weld fit-up
 - Root gap - Welder's Choice
 - Root face - 1.0 to 1.5 mm
 - Bevel angle - 60 ~ 65 degree
6. Welding consumables
 - Root - E 6010 or E 7018, size - 2.5 mm / 3.15 mm (Welder to choose the type of electrode)
 - Hot pass and subsequent pass - E7018, size - 2.5 mm / 3.15 mm
7. Cleaning: Grinding is not allowed during and after welding. Hacksaw Blade, file and brush can be used for cleaning
8. Completion time: Three hours maximum

B. Assessment: The test coupons should qualify in Visual and Radiography Tests.

13 D) METHOD / SPECIFICATIONS/ ASSESMENT FOR BEST PIPE WELDER'S TEST - SMAW & MIG-CO₂:

A. Practical Test (Butt welding): SMAW + MIG Process – 6 G Position, or FULL MIG Process – 6 G Position, Carbon Steel.

1. Pipe Specification: ASTM A 106 Gr-B
2. Pipe dimensions: 6" dia Sch 80 pipe (thickness > 10.00 mm)
3. Process: SMAW + MIG or FULL MIG
4. Position: 6G
5. Weld fit-up
 - Root gap - Welder's Choice
 - Root Face - 1.5 to 2.0 mm
 - Bevel angle - 60 ~ 65 degree
6. Welding consumables
 - Root - E 6010 or E 7018, size - 2.5 mm / 3.15 mm Electrodes for SMAW (Welder to choose the type of electrode) **or**
 - Root – ER 70S–6, 1.2 mm dia wire for MIG
 - Hot pass and subsequent pass – wire ER 70S–6, 1.2 mm dia
 - Wire size - 1.2 mm
7. Cleaning: Grinding is not allowed during and after welding. Hacksaw Blade, file and brush can be used for cleaning
8. Completion time: Three hours maximum

B. Assessment: The test coupons should qualify in Visual and Radiography Tests.

13 E) Assessment

Preliminary Round - Visual for all coupons + Radiography only for those which qualify in Visual Round (subject to a maximum of half the participating number for Radiography) - Final tally of marks both in Visual & Radiography.

Final Round - Visual for all coupons + Radiography only for those which qualify in Visual Round (subject to a maximum of half the participating number for Radiography) - Final tally of marks both in Visual & Radiography.

Applicable Criteria for Visual Round - Similar to Worldskills Norms (ISO 5817 may be referred as guideline).

Radiography Criteria - as per ASME SEC. IX 191. 2.

Radiography Laboratory also to act as Third Party for Assessment and will give marks for coupons. These results to be moderated by the team of Assessors, if required, after assessment of the Radiography Films.

13 F) Certificate of Participation to be issued to each welder at Branch Level by the branch. Certificates may also be issued to Winner in each category - by the branch.

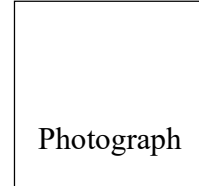
13 G) Certificate of Participation to be issued to each welder at Final Level by the I.I.W. H.O. Certificates may also be issued to Winners in each category at Finals by the I.I.W. H.O.

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

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

Application for Best
(Please write whether Structural or Pipe Welder and the category)

From I.I.W. Branch
(State the Name / location)



PLEASE FILL ALL THE DETAILS IN CAPITAL LETTERS

1. Name :
2. Date of Birth :
3. Present Address :
4. Mobile & landline nos. :
5. E-mail id :
6. Photo identity Reference Document :
7. Name of Sponsoring Organization **(if Applicable)** :
8. Address of the Organization :
(with Tel. No., Fax No. & Email)

9. Educational Qualification of the Candidate (Not mandatory to write):

S. No.	Qualification	Institute	Major Subjects

6. Professional Experience :

7. Specific achievements in the Welding Field **(Not mandatory to write):**
(State in about 100 / 150 words attaching separate sheet)

Declaration : I hereby declare that, I will follow all 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 _____

Branch Office Entries :

Form Received From -----

on -----day, -----(date) at -----Hrs. (Time)

Form No ----- of Structural Welder (A / B) / Pipe Welder (C/D)

Signature of Receiving Authority of the branch :

Name : _____ Designation : _____