

V39 Welding



1. Final Task Assignment

The task consist in completing 3 different welding modules and to assemble a small metalwork station in aluminum, using TIG and semi-automatic welding processes.

MODULE 1. TIG welding of two stainless steel tube together end to end in fixed position at 45°. 141 TBW, 8, t02, D110, HLO 45°, ssnb

MODULE 2. TIG welding of two stainless steel tube together end to end (rotation) (making the tubes spin on themselves). 141, TBW, 1.2, t5, 5, D80, PA, ssnb

MODULE 3. Assembly of a small metalwork station in aluminum using TIG process including: 1 interior horizontal corner, 1 exterior horizontal corner, 1 interior vertical corner, 1 exterior vertical corner.

MODULE 4. Welding of two steel plates together end to end on horizontal axis (cornice position), using MAG semi-automatic procedure (horizontal welding axis). 135, P, BW, 1.2, PC, t4, ssnb

Assembly of two sheets of steel in interior angle and vertical position using MAG semi-automatic procedure. 135, P, FW, 1.2, PF, t4

2. Allocated time: 5h30

5 hours and 30 minutes of competition.

3. Requirements

- Using the provided materials of the required dimensions, and using consumer welding goods, contestants will have to perform the different tasks using the required positions. Contestants must also use the required procedures: task 1 (stainless steel), task 2 (steel) and task 3 (aluminum) using TIG procedure, and task 4 MAG semi-automatic procedure.
- Task 4 will be performed by one-hour turns. The jury will call the contestants one by one. The contestant called by the jury will have to stop his/her work on the other tasks in order to perform task 4.
- Contestants must respect the safety rules.
- Contestants are not allowed to lend or to borrow any tool or material during the competition.

4. Procedure

Day -1 (March 24th): On the day before the competition, contestants will be welcomed by members of the jury. A briefing about the organization of the competition and the safety rules will be arranged. Due to the large number of registered contestants, the competition will be organized in two groups.

Composition of the groups

Group 1: 4 contestants	Group 2: 3 contestants
France, 1 contestant	Bangladesh, 2 contestants
Korea, 1 contestant	Russia, 1 contestant
Canada, 2 contestants	

Day 1 (March 25th): Contestants from group n°1 will have 5 hours and 30 minutes to complete the 4 modules.

Day 2 (March 26th): Contestants from group n°2 will have 5 hours and 30 minutes to complete the 4 modules.

N°	5. Evaluation criteria	Scoring scale
MODULE 1		25/100
01	Regularity	3
02	Undercut (lack of matter on the edges) Cracks (punctual lack of matter)	3
03	Convex shape of the welding bead	2
04	Concave shape of the welding bead	2
05	Welding bead resumption defect	2
06	Blobs, use of a grinder or hammer, arc strikes outside welding zone	2
07	Lack of fusion	3
08	Collapse, 3mm tolerance	2
09	Unmelted filler metal	1.5
10	Misalignment	0.5
11	Respect of the safety protocols	2
12	Organization of the work station	2
MODULE 2		25/100
13	Regularity	3
14	Undercut (lack of matter on the edges) Cracks (punctual lack of matter)	3
15	Convex shape of the welding bead	2
16	Concave shape of the welding bead	2
17	Welding bead resumption defect	2
18	Blobs, use of a grinder or hammer, arc strikes outside welding zone	2
19	Lack of fusion	3
20	Collapse, 3mm tolerance	2
21	Unmelted filler metal	1.5
22	Misalignment	0.5
23	Respect of the safety protocols	2
24	Organization of the work station	2
MODULE 3		25/100
25	Regularity	3
26	Undercut (lack of matter on the edges) Cracks (punctual lack of matter)	3

27	Convex shape of the welding bead	2
28	Concave shape of the welding bead	2
29	Welding bead resumption defect	2
30	Blobs, use of a grinder or hammer, arc strikes outside welding zone	2
31	Lack of fusion	3
32	Collapse, 3mm tolerance	2
33	Unmelted filler metal	1.5
34	Misalignment	0.5
35	Respect of the safety protocols	2
36	Organization of the work station	2
MODULE 4		25/100
37	Regularity	3
38	Undercut (lack of matter on the edges) Cracks (punctual lack of matter)	3
39	Convex shape of the welding bead	2
40	Concave shape of the welding bead	2
41	Welding bead resumption defect	2
42	Blobs, use of a grinder or hammer, arc strikes outside welding zone	2
43	Lack of fusion	3
44	Collapse, 3mm tolerance	2
45	Unmelted filler metal	1.5
46	Misalignment	0.5
47	Respect of the safety protocols	2
48	Organization of the work station	2
TOTAL POINTS		100



Abi wishes you a good competition!