

SkillWeld 2008

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SkillWeld 2008

Competition Starter Pack

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SkillWeld 2008 National Welder Competition

Competition Rules

1.1 Who is eligible?

Any welder who is currently under training may enter the SkillWeld National Welder Competition. They must be proficient in MMA and TIG and MIG/MAG. Their age will not be an obstacle to the final result of the SkillWeld 2008 competition outcome. However, selection of the candidate who may go to Canada in 2009 to represent the UK in the World Skills Competition will depend on them having been born after 1st January 1987.

1.2 How to register

Included in the 'Starter Pack' is a Master Competition Registration Form. If more than one candidate is likely to be submitted this form should be duplicated.

Completed forms should be sent to the Association of Welding Distributors at Unit 42 Business Development Centre, Stafford Park 4, Telford, Shropshire TF3 3BA. Forms must be in the hands of the AWD office by 11th January 2008.

On receipt of the form you will be advised of the regional competition date(s).

1.3 Where the competition will be carried out

We will advise you of the name and addresses of the Regional Competition Centres. It is not necessary for all candidates selected by a particular source to attend the same Regional Centre, as in some cases there may be a centre closer to some candidates than others.

N.B. Candidates may only register at one centre.

1.4 When will the competition be carried out?

The Regional Competition will be carried out in February 2008. (The Regional Centre will advise you of their specific competition date).

Candidates will be required to arrive at 0900 hrs on their given competition date. Competition briefing, centre induction and safety checks will take 30 minutes, allocation of material, etc., a further 30 minutes. The competition will start at 10:00 hrs and will be completed by 15:00 hrs allowing 1 hr for lunch break. Candidates who finish earlier must leave the competition area if they intend to wait for colleagues.

Candidates will be responsible for the provision of their own correct Personal Protection Equipment for each of the fusion welding processes they intend to carry out during the Welding Competition.

1.5 What has to be done

Included in the pack are drawings of four weld tests covering the three main manual fusion processes. As the following table shows, all test pieces are mandatory.

TEST NO.	PROCESS	TEST PIECE	REQUIREMENT
1	MMA	Pipe butt weld H-Lo 45 in carbon steel	Mandatory
2	TIG	Pipe to plate fillet weld in the PB position in Aluminium	Mandatory
3	TIG	Plate fillet weld in the PD position in stainless steel	Mandatory
4	MAG	Plate fillet weld in the PF position in carbon steel	Mandatory

Candidates will have material for two test pieces. If however they elect to use material for a second test piece which ultimately turns out to be more unsatisfactory than their first test piece they may not return to their first test piece.

All test pieces must be completed within four hours. Regional judging of test pieces will take place on completion of the competition, in the absence of all candidates. SkillWeld 2008 judges will inform candidates of the results.

Finalists will be selected for the SkillWeld 2008 national finals, which will take place at TWI Cambridge on 15th to 18th April 2008.

The winner of the SkillWeld 2008 national competition will be announced on 18th April together with the candidates who achieved second and third places.

If any of the winning candidates in the first three places are outside the criteria required by the UK Skills Committee to represent the UK in Canada additional candidates may be selected who meet the age requirement, thereby allowing the committee to select between candidates of qualifying age.

The SkillWeld 2008 Committee emphasizes that the winner of the national finals is not necessarily the candidate who will be selected to represent the UK at the World Skills Competition in Canada 2009 as other personal skills will be taken into account by the committee in reaching their decision on the best candidate to meet this role.

Prior to representing the UK in Canada, if selected the finalist will undergo intensive training at an advanced master craft welder-training centres.

SkillWELD 2008

National Welder Competition Master Registration Form

Candidate Name:

Date of Birth:

Training Centre/College or
Work Address:

Home Address:

Training Centre/College or
Works Contacts:

Home Telephone:

Mobile Telephone:

Email address:

Names: _____

Tel No's: _____

Fax No's: _____

Email's: _____

I have read and agree with the rules of the competition

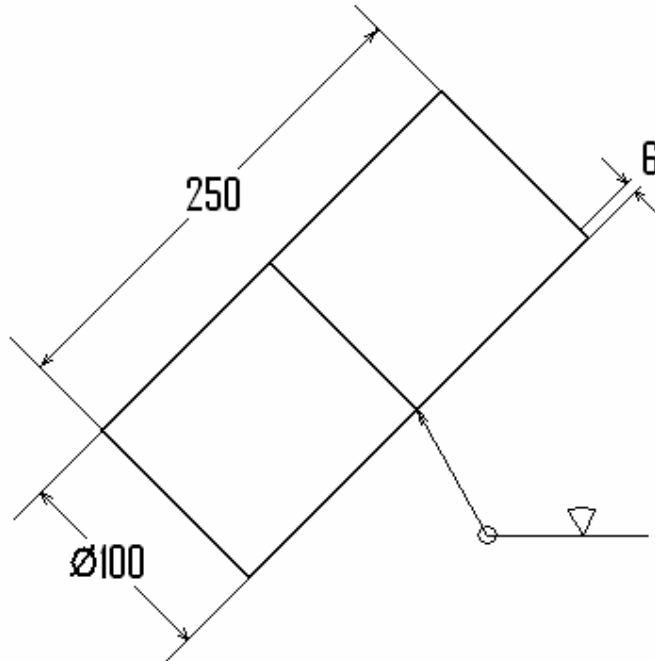
Candidate Signature

Sponsor Signature

Sponsor Name (Block Capitals)
Employer or College

Test No 1 (Mandatory) MMA

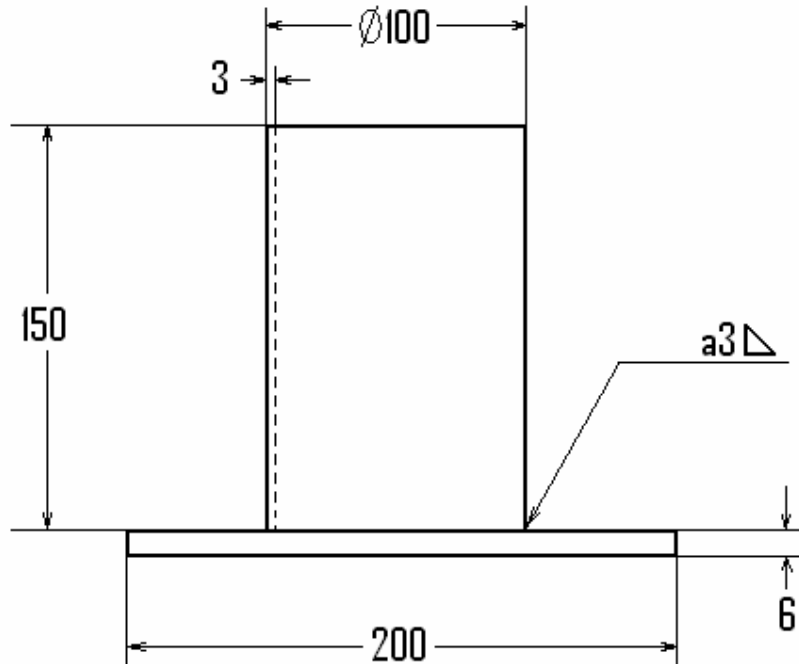
<u>Weld Specification</u>	<u>Test Specification</u>
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		<u>Visuals</u>
Materials	Carbon Steel	12 O'clock pipe position to be marked
Weld Prep	37.5° bevel	
Root Face	As required	Root stops and starts to be marked
Weld Gap	As required	
Weld Process	MMA	
Current Type	AC or DC	
Electrode Type	Any	Root Penetration – 2mm (max)
Electrode Dia	As required	Overfill – 3mm (max)
Number of Runs	As required	
Weld Position (Fixed)	H-Lo 45	
Stop/Starts	May be ground	All dimensions in millimetres.

Test No. 2 (Mandatory) TIG

<u>Weld Specification</u>	<u>Test Specification</u>
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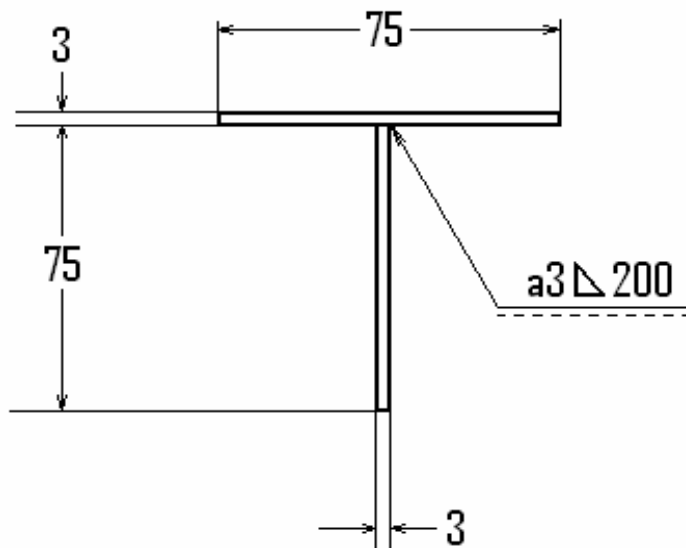


<p>Materials Aluminium Weld Process TIG Current Type AC Electrode Dia As required Filler Dia As required Shielding Gas Pure Argon Weld Position PB Number of Runs 1</p> <p style="text-align: center;">No Grinding of Stop/Starts</p>	<p style="text-align: center;"><u>Visuals</u></p> <p>Weld stop and starts to be marked</p> <p style="text-align: center;">All dimensions in millimetres.</p>
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Test No. 3 (Mandatory) TIG.

Weld Specification

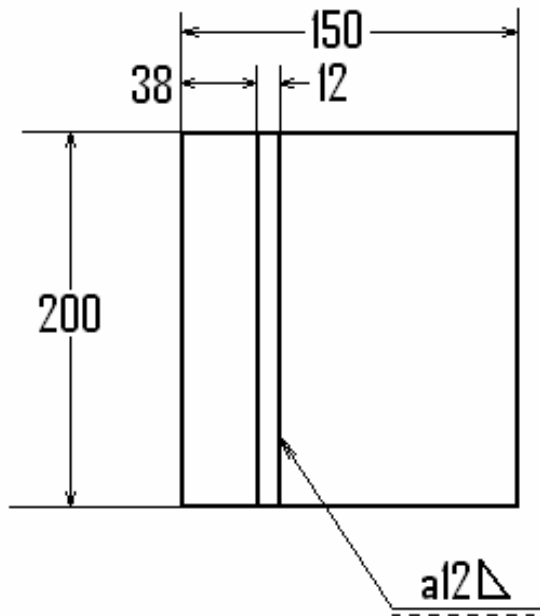
Test Specification



		<u>Visuals</u>
Materials	Stainless Steel	Weld stop and starts to be made at weld mid point and marked
Weld Process	TIG	
Electrode Dia.	As required	
Filler Dia.	As required	
Shielding Gas	Pure Argon	
Current Type	DC	
Number of Runs	1	
Weld Position	PD	All dimensions in millimetres
No Grinding of Stop/Starts		

Test No.4 (Mandatory) MIG/MAG.

<u>Weld Specification</u>	<u>Test Specification</u>
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NOTE –
 Flange thickness 12mm
 Web depth 100mm

		<u>Visuals</u>
Materials	Carbon Steel	Weld stops and starts to be made at weld mid point and marked
Weld Process	MAG	
Electrode Dia.	1.0mm	
Shielding Gas	Argon/CO ₂	
Number of Runs	As required	
Weld Position	PF	
Stop/starts may be ground.		All dimensions in millimetres

Test Piece Marking (Based on BS EN 25817)

Butt Welds

1.1. Penetration (max 15 marks)

This is required over the full length of the weld. Full marks will be given where the penetration is completely made but does not exceed 3mm. Penetration, which exceeds this value, will lose 1 mark for every 2mm length over penetration. The same rule will apply where evidence of lack of penetration is observed.

1.2. Stop Start Positions (max 10 marks)

Full marks will be given where clear evidence of good stop start fusion is obtained.

1.3. Overfill (max 10 marks)

The overfill should not be higher than 3 mm above the plate surface. Of the 10 marks apportioned for this section 1 mark will be lost where overfill exceeds this dimension over each 5mm of weld length where this is evident.

1.4. Undercut (max 10 marks)

The toes of the weld should blend with the plate surface with no high re-entry angle. Undercut should be absent. Of the 10 marks allocated 1 mark will be lost for every 5mm of undercut or poor toe blending present.

1.5. Weldface Appearance (max 15 marks)

The bead ripple should be regular on the weldface and weld penetration. Marks will be lost where the ripple is marked, irregular or weld profile uneven.

Fillet Welds

1.1. Throat (max 15 marks)

The throat thickness must be that stated in the drawing. Marks will be lost where there is evidence of failure to achieve this requirement as shown either by direct throat measurement or unequal leg measurement.

1.2. Stop Start Marks (max 10 marks)

Full marks will be given where clear evidence of good stop start fusion is obtained.

1.3. Weld Overfill (max 10 marks)

This must not exceed 2mm (test 2 and 3) and 4mm (test 4). 1 mark will be lost for every 5mm of weld length where this is in evidence.

1.4. Weld Undercut (max 10 marks).

Weld undercut on either plate will lose marks – 1 mark for every 5mm of weld length on either plate where undercut exceed is identified.

1.5. Weld Appear (max 15 marks)

The ripple should be even on the weld face. The weld `bead width should be regular throughout its length.

SkillWeld
WELDING ASSESSORS MARKING SHEET

Assessment Date:

<u>Candidate Name</u>		Candidate No.	
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Regional Assessors:		Regional Centre:	
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Test 1 MMA Pipe Butt Weld (H-Lo 45 Position) Carbon Steel (Mandatory)

Root Pen /15	Stop Start /10	Overfill /10	Undercut /10	Weld App /15
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Test 2 TIG Pipe to Plate Fillet Weld (PB Position) Aluminium (Mandatory)

Throat Thick /15	Stop Start /10	Overfill /10	Undercut /10	Weld App /15
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Test 3 TIG Plate Fillet Weld (PD Position) Stainless Steel (Mandatory)

Throat Thick /15	Stop Start /10	Overfill /10	Undercut /10	Weld App /15
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Test 4 MAG Plate Fillet Weld (PF Position) Carbon Steel (Mandatory)

Throat Thick /15	Stop Start /10	Overfill /10	Undercut /10	Weld App /15
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