Skillweld 26 (Worldskills Welding Competition)

Entry Stage Marking Sheet

Standard: Steel - BS EN ISO 5817 (Levels B–C) Aluminium BS EN ISO 10042 (Levels B–C)
Total Available: 80 Marks. 0 defects = 5 marks, 1 defect = 4 marks…etc. 5 defects = 0 marks

Competitors Name	Date	College/Training provider

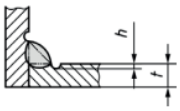
TEST PIECE 1 – Low Carbon Steel (MAG 135), Fillet Weld, PB

Material: 6.00mm **Throat:** 5.7mm (8mm leg) **WPS:** ESC-WPS-MAG-CSFW **Max:** 20 marks

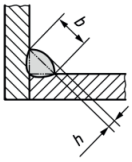
0 defects = 5 marks, 1 defect = 4 marks…etc. 5 defects = 0 marks

Marking Criteria

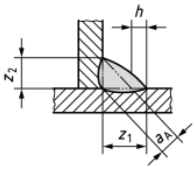
- **Intermittent Undercut:** = h ≤ 0.5mm deep, 3mm in length = 1 defect
- **Excessive Convexity:** = h ≤ 0.15 b + 1mm, max 3mm, 3mm in length = 1 defect
- **Unequal Leg Length:** = h ≤ 0.15 a + 1.5mm, 3mm in length = 1 defect
- **Insufficient Throat Thickness:** = h = ≤ 0.1 a + 0.3mm, but max 1mm, 3mm in length = 1 defect



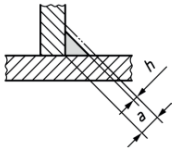
Undercut



Convexity



Unequal Leg Length



Throat Thickness

Defect	5	4	3	2	0
Intermittent Undercut	☐	☐	☐	☐	☐
Excessive Convexity	☐	☐	☐	☐	☐
Unequal Leg Length	☐	☐	☐	☐	☐
Insufficient Throat Thickness	☐	☐	☐	☐	☐

Total TP1: _____ / 20

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Entry Stage Marking Sheet

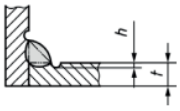
TEST PIECE 2 – Stainless Steel 316L (TIG 141), Fillet Weld, PC

Material: 3.00 mm **Throat:** 2.1mm (3mm leg) **WPS:** ESC-WPS-TIG-SSFW **Max:** 20 marks

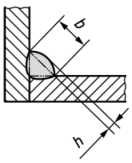
0 defects = 5 marks, 1 defect = 4 marks…etc. 5 defects = 0 marks

Marking Criteria

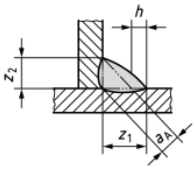
- **Intermittent Undercut:** = h ≤ 0.3mm deep, 3mm in length = 1 defect
- **Excessive Convexity:** = h ≤ 0.15 b + 1 mm, but max 2mm, 3mm in length = 1 defect
- **Unequal Leg Length:** h = 0.15 a + 1.5mm, 3mm in length = 1 defect
- **Insufficient Throat Thickness:** = h ≤ 0.1 a + 0.3mm, but max 1mm, 3mm in length = 1 defect



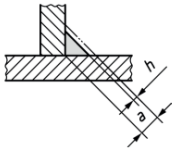
Undercut



Convexity



Unequal Leg Length



Throat Thickness

Defect	5	4	3	2	0
Intermittent Undercut	☐	☐	☐	☐	☐
Excessive Convexity	☐	☐	☐	☐	☐
Unequal Leg Length	☐	☐	☐	☐	☐
Insufficient Throat Thickness	☐	☐	☐	☐	☐

Total TP2: _____ / 20

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Entry Stage Marking Sheet

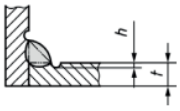
TEST PIECE 3 – Aluminium (TIG 141), Fillet Weld, PB

Material: 6.00 mm **Throat:** 4.2mm (6mm leg) **WPS:** ESC-WPS-TIG-ALUFW **Max:** 20 marks

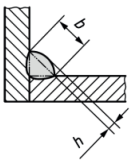
0 defects = 5 marks, 1 defect = 4 marks…etc. 5 defects = 0 marks

Marking Criteria

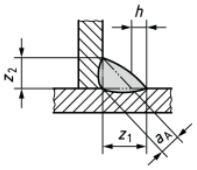
- **Intermittent Undercut:** = h ≤ 0.5mm, 3mm in length = 1 defect
- **Excessive Convexity:** = h ≤ 1.5mm + 0,1 b max 3 mm, 3mm in length = 1 defect
- **Unequal Leg Length:** = h ≤ 1.5mm + 0.2a, 3mm in length = 1 defect
- **Insufficient Throat Thickness:** = h ≤ 1.5 mm + 0.2a, 3mm in length = 1 defect



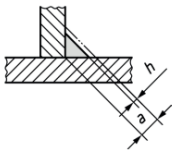
Undercut



Convexity



Unequal Leg Length



Throat Thickness

Defect	5	4	3	2	0
Intermittent Undercut	☐	☐	☐	☐	☐
Excessive Convexity	☐	☐	☐	☐	☐
Unequal Leg Length	☐	☐	☐	☐	☐
Insufficient Throat Thickness	☐	☐	☐	☐	☐

Total TP3: _____ / 20

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Entry Stage Marking Sheet

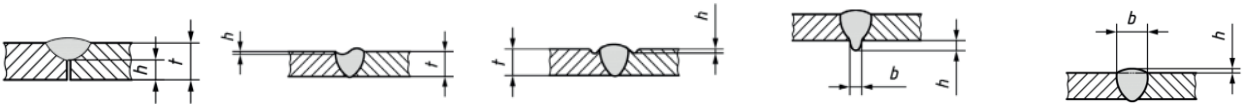
TEST PIECE 4 – Low Carbon Steel (MMA 111), Single-V Butt Weld, PF

Material: 6.00 mm **WPS:** ESC-WPS-MMA-CSFW **Max:** 20 marks

0 defects = 5 marks, 1 defect = 4 marks…etc. 5 defects = 0 marks

Marking Criteria

- **Incomplete Root Penetration:** = any size of h 3mm in length = 1 defect
- **Intermittent Undercut / Underfill:** = h 0.5 mm deep, 3 mm in length = 1 defect
- **Excessive Penetration:** = h ≤ 0.45 b + 1 mm, but max 3 mm, 3 mm in length = 1 defect
- **Excess Weld Metal:** = h ≤ 0,1 b + 1.5 mm, but max 3mm, 3 mm in length = 1 defect



Incomplete Root Pen Intermittent Undercut / Underfill Excessive Penetration Excess Weld Metal

Defect	5	4	3	2	0
Incomplete Root Penetration	☐	☐	☐	☐	☐
Intermittent Undercut / Underfill	☐	☐	☐	☐	☐
Excessive Penetration	☐	☐	☐	☐	☐
Excess Weld Metal	☐	☐	☐	☐	☐

Total TP4: _____ / 20

OVERALL SCORE

Total Marks (out of 100)	Final Position / Notes
_____ / 80	

Assessor Signature: _____