

071505T4WAF

WELDING AND FABRICATION LEVEL 5

ENG/OS/WEF/CR/05/5/A

Tungsten Inert Gas (TIG) Welding

March/April 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION
COUNCIL (TVET CDACC)**

PRACT MENT

INSTRUCTIONS TO ASSESSOR

1. Assess the candidate as the practical progresses observing the critical areas
2. You are required to mark the practical as the candidate perform the tasks
3. You are required to take video clips at critical points
4. Ensure the candidate has a name tag and registration code at the back and front

OBSERVATION CHECKLIST

Candidate's Name & Registration Code			
Assessors Name & Registration Code			
Venue of Assessment			
Date of Assessment			
Items to be Evaluated: <i>Please award marks as appropriate. Give a brief comment on your observation</i>	Marks Available	Marks Obtained	Comments
1. Adhered to prescribed safety; - Wore PPEs - Overall - TIG welding shield - Safety boots - Leather gloves - Leather Apron <i>(Award 1 or 0 mark for each)</i> - Demonstrate safe use of workshop tools <i>(Award 2 or 0 marks for each)</i>	7		
2. Set up Tungsten Inert Gas (TIG) welding equipment as per the job specification; - Machine start up - Connected cables to allow welding - Set current to enable welding of the 6 mm and 4 mm thick flat bar and plates - Set gas flow to allow welding - Machine shut down - Turned off TIG welding machine	6		

• Closed gas • Hanged the cables <i>(Award 1 or 0 mark for each)</i>			
3. Performed housekeeping; • Cleaned the work station • Disposed waste correctly • Wiped the tools clean • Returned the tools and accessories to the right place <i>(Award 1 or 0 marks for each)</i>	4		
Sub-Total 1	17		
PRODUCT CHECKLIST			
4. Prepared work pieces according to the task specifications; • Dimensions: Linear tolerance mm All dimensions are in mm • 300 • 200 (4 × ½) • 50 (6 × ½) • 30 (6 × ½) <i>(Award ½ or 0 mark for each)</i> • Squareness of work pieces • 300 × 30 work piece (4 × ½) • 200 × 50 work piece (4 × ½) • 50 × 30 work piece (8 × ½) <i>(Award ½ or 0 mark for each)</i> • Drilled holes • Ø6 mm hole (2 × 1) <i>(Award 1 or 0 mark for each)</i> • Edge preparation • Semicircular edge (2 × 2)	25		

• Bend 60° bend (2 × 1) (Award 2 or 0 marks for each)			
Sub-Total	25		
5. Tee joint; • Alignment 60° ± 1° • Weld quality • Proper fusion • No undercut • No cavities • Bead width • Bead height • Start • Stop (Award 2 or 0 marks for each)	16		
Sub-Total	16		
6. Butt joint; • Alignment ± 1 mm • Weld quality • Uniform bead • Proper fusion • No undercut • No cavities (Award 2 or 0 marks for each)	10		
Sub-Total	10		
7. Assembly; • Welded as per working drawing • Fitting parts B to D (Award 2 or 0 marks for each)	4		
Sub-Total	4		
8. Quality of finished product (Award 3 or 0 marks for each)	3		

Sub-Total	3		
GRAND TOTAL	75		
ASSESSMENT OUTCOME			
The candidate was found to be: Competent ☐ Not yet Competent ☐ <i>(Please tick as appropriate)</i> <i>(The candidate is competent if the candidate obtains at least 50%)</i>			
Feedback from the Candidate:			
Feedback to the Candidate:			
Candidate Signature:		Date:	
_____		_____	
Assessor's Signature:		Date:	
_____		_____	