

**Name of Assessed Person:**

**Registration:**

**UNIT MEM06003: Carry Out Heat Treatment**

UNIT MEM06003: Carry Out Heat Treatment						
<b>1. Determine job requirements</b>	a. Gas, electric, oil fired furnaces, vacuum furnace, induction heating, kilns, heated baths, salt baths, specialised tongs/tools and lifting equipment	No. of Entries	1	2	3	
		Tail / Job No.				
		LAME Sign.				
		Date				
		Simulated	Yes No	Yes No	Yes No	
	b. Plain carbon steels, alloy steels, non-ferrous	No. of Entries	1	2	3	
		Tail / Job No.				
		LAME Sign.				
		Date				
		Simulated	Yes No	Yes No	Yes No	
	c. Coatings and packings; preheating; soaking; quenching; tempering; annealing; normalising; carburizing; sintering	No. of Entries	1	2	3	
		Tail / Job No.				
		LAME Sign.				
Date						
Simulated		Yes No	Yes No	Yes No		

**Performance Criteria:**

- 1.1. Follow standard operating procedures (SOPs).
- 1.2. Comply with work health and safety (WHS) requirements at all times.
- 1.3. Use appropriate personal protective equipment (PPE) in accordance with SOPs.
- 1.4. Identify job requirements from specifications, sketches, job sheets or verbal instructions from metallurgist or supervisor.

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2. Select and set up heat treatment equipment	a. Gas, electric, oil fired furnaces, vacuum furnace, induction heating, kilns, heated baths, salt baths, specialised tongs/tools and lifting equipment	No. of Entries	1	2	3	
		Tail / Job No.				
		LAME Sign.				
		Date				
		Simulated	Yes No	Yes No	Yes	No
	b. Plain carbon steels, alloy steels, non-ferrous	No. of Entries	1	2	3	
		Tail / Job No.				
		LAME Sign.				
		Date				
		Simulated	Yes No	Yes No	Yes	No
	c. Coatings and packings; preheating; soaking; quenching; tempering; annealing; normalising; carburizing; sintering	No. of Entries	1	2	3	
		Tail / Job No.				
		LAME Sign.				
Date						
Simulated		Yes No	Yes No	Yes	No	
<b>Performance Criteria:</b>						
2.1. Select appropriate equipment for the required heat treatment.						
2.2. Set up equipment according to SOPs and manufacturers' instructions.						

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<b>3. Work safely with hot metals</b>	a. Gas, electric, oil fired furnaces, vacuum furnace, induction heating, kilns, heated baths, salt baths, specialised tongs/tools and lifting equipment	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	b. Plain carbon steels, alloy steels, non-ferrous	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	c. Coatings and packings; preheating; soaking; quenching; tempering; annealing; normalising; carburizing; sintering	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

**Performance Criteria:**

- 3.1. Demonstrate emergency procedures according to approved safety instructions and identity and follow safety signs.
- 3.2. Use equipment according to specifications and SOPs.

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<b>4. Heat treat material</b>	a. Gas, electric, oil fired furnaces, vacuum furnace, induction heating, kilns, heated baths, salt baths, specialised tongs/tools and lifting equipment	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	b. Plain carbon steels, alloy steels, non-ferrous	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	c. Coatings and packings; preheating; soaking; quenching; tempering; annealing; normalising; carburizing; sintering	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

**Performance Criteria:**

- 4.1. Treat material to achieve required result, which may include preparation processes.
- 4.2. Piece or batch load and unload material using equipment according to SOPs.
- 4.3. Maintain correct temperature according to SOPs.

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**Certification of Underpinning Knowledge and Skills to Carry Out Heat Treatment**

A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of this unit of competency are being achieved under routine supervision on each type of system and on at least one (1) item of each group listed in the assessment conditions a) to c). This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide (for details refer to the Companion Volume Implementation Guide).

<b>UNIT MEM06003: Carry Out Heat Treatment</b>	
Evidence has been confirmed of the attainment of the following pre-requisite units of competency (as they are related to attainment of the elements of competency specified in this unit).	
<b>MEM11011, MEM13015, MEM16006</b>	
Evidence has been confirmed of the knowledge requirements for this unit as delivered by a CASR 147 Approved Organisation.	
<b>OR</b>	
Assessment has been conducted to determine that the underpinning knowledge and skills have been achieved in accordance with the Competency Unit.	

**Certification of Unit Completion**

I certify that I have reviewed the certification of the elements for this competency unit and that all of the competency unit requirements have been met.

**Signed:** \_\_\_\_\_ **Assessor No.** \_\_\_\_\_ **MTO:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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