



Australian Government

MSFCP3002 Produce barrels using fired processes

Release: 1

MSFCP3002 Produce barrels using fired processes

Modification History

Release 1. Changes to code, application, elements, performance criteria. Foundation skills added. Range of conditions removed. Assessment requirements changed. Previous unit was housed in an AQF2 qualification. This unit aligns with AQF3.

Application

This unit describes the skills and knowledge required to produce barrels using fired processes. It includes both manual and automated production methods. Workers with this competency follow established procedures using discretion, judgement and problem solving.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Unit Sector

Coopering

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Choose appropriate materials	1.1 Analyse timber types and characteristics to identify appropriate timber for the barrel 1.2 Analyse metal types and characteristics to identify appropriate metal for the barrel
2. Determine the impact of barrel components and storage processes on contents	2.1 Identify effects of barrel fermentation, maturation and seasoning and controlled oxidisation on barrel and barrel contents. 2.2 Apply knowledge of barrel storage processes to barrel production.
3. Prepare for production	3.1 Verify and comply with work health and safety (WHS) legislative and organisational requirements 3.2 Review, confirm and clarify work order with appropriate personnel 3.3 Plan barrel production sequence 3.4 Determine procedures for checking quality at each stage of the process

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	3.5 Select suitable work area for the task 3.6 Select tools and equipment that are suitable for the work and check them for safe operation
4. Select and prepare components	4.1 Collect materials, hardware, fittings and attachments 4.2 Select fixing and joining devices in accordance with work instructions and type of materials to be joined 4.3 Select jigs and check suitability for purpose 4.4 Machine and prepare components, including staves and heads, to specification
5. Pre-assemble barrel components	5.1 Lay out and join components using jigs 5.2 Join and clamp heads 5.3 Fit and hoop staves 5.4 Use hand and power tools and equipment as required 5.5 Check assembled components for compliance with specifications
6. Fire the barrel	6.1 Determine toasting technique and timing appropriate to barrel's intended use 6.2 Toast and char barrel interior to specification 6.3 Apply tensioning processes 6.4 Fit hoops 6.5 Complete crozing to specification 6.6 Cut heads, bevel them to size and fit
7. Finish the product	7.1 Finish barrel using belt, disk or machine sander and hand tools 7.2 Fit and secure final hoops and decorative features to specification 7.3 Test barrel for leakage and repair faults
8. Clean work area and maintain equipment	8.1 Tag and report faulty and/or defective equipment in accordance with workplace procedures 8.2 Organise and store finished barrels in holding area 8.3 Remove waste and scrap following workplace procedures 8.4 Clean tools and equipment, check they are in serviceable condition, and store them appropriately in accordance with workplace procedures

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	8.5 Clean equipment and work area in accordance with workplace procedures 8.6 Complete records and reports to workplace requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to comprehend work instructions
- Writing skills to complete work records
- Oral communication skills to clarify work instructions
- Numeracy skills to calculate lengths, angles, volumes, and material quantities

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Supersedes and is not equivalent to MSFCP2003 Produce barrels using fired processes.

Links

Companion Volume implementation guides are found in VETNet –

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>

Assessment Requirements for MSFCP3002 Produce barrels using fired processes

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- make and test at least 1 fired and fully finished barrel.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- characteristics of wood commonly used for barrels, including at least 2 species of oak and one non-oak species
- function of hand and power tools commonly used in barrel production
- personal protective equipment (PPE) required for barrel production
- barrel production sequence, including
 - docking and grading staves
 - dressing staves
 - jointing staves
 - rising or assembling barrel
 - bending the barrel
 - crozing
 - making heads
 - cutting the head
 - toasting or charring
 - fitting the head
 - finishing the barrel
 - fitting final hoops
 - testing
- leakage repair methods including plugging, caulking and re-machining
- types of metal used in barrels, including steel, stainless steel, copper and other alloys
- properties of oak, including medullary rays and tyloses
- the impact of seasoning, including combination techniques, on cell structure and on the levels of oak lactones and other extractable oak constituents
- impact of firing on barrel and barrel contents

- effects of controlled oxidation, barrel maturation and in-barrel fermentation on barrel and contents.
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - materials and tools required for performance evidence
 - PPE
 - workplace procedures.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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