



Australian Government

MSFFM4001 Hand carve wood to custom design

Release: 1

MSFFM4001 Hand carve wood to custom design

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers confirming the design requirements, selecting the wood, hand carving it to custom design and preparing the carving for finishing. It applies to a work room and on-site environment and involves application of skills and knowledge at the highly skilled craftsman or artisan level.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Competency Field

Unit Sector

Furniture Making

Elements and Performance Criteria

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
1	Confirm the design requirements	1.1	Applicable work health and safety (WHS), legislative and organisational requirements and instructions relevant to the hand carving of wood are verified and complied with
		1.2	Product design requirements are accessed and confirmed as being feasible
		1.3	Product design requirements are elaborated on as required and documented to enterprise requirements
2	Select and prepare the wood to be hand carved	2.1	The design requirements in terms of product specification and product usage are analysed and confirmed
		2.2	Wood species to satisfy the product specifications are identified

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| | 2.3 | Wood for carving is selected from a detailed analysis and comparison of the product specification and the characteristics, properties and costs of the available wood species |
| | 2.4 | Selected wood is prepared for hand carving |
| 3 | Select carving tools | |
| | 3.1 | Carving tools selected are the most appropriate for the job |
| | 3.2 | Selected carving tools are checked for serviceability, sharpness, maintenance compliance and safety |
| | 3.3 | Faults are rectified or passed to qualified persons for rectification |
| | 3.4 | Equipment is selected to hold or support material for hand tools application, where applicable |
| 4 | Carve the wood | |
| | 4.1 | Method and style of wood carving are selected to meet the design requirements and the selected wood |
| | 4.2 | Carving patterns are applied to and enfaced on the wood to guide the carving and optimise the use of the wood |
| | 4.3 | Carving tools are applied initially to bulk clearances which confirm the wood grain selection and the appropriateness of the tools |
| | 4.4 | Carving tools are applied to the precision requirements of the product design |
| 5 | Finalise the work sequence | |
| | 5.1 | The product is prepared for finishing in accordance with the design specification |
| | 5.2 | Carving tools are cleaned, maintained and stored in accordance with manufacturer specification |
| | 5.3 | Work area is cleared and waste removed |
| | 5.4 | Workplace documentation and/or reports are completed |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. Detail on appropriate performance levels for each furnishing unit of competency in reading, writing, oral communication and numeracy utilising the Australian Core Skills Framework (ACSF) are provided in the Furnishing Training Package Implementation Guide.

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Range is restricted to essential operating conditions and any other variables essential to the work environment.

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| Legislative requirements include: | <ul style="list-style-type: none">• applicable legislation from all levels of government that affect organisational operation• award and enterprise agreements• industrial relations• Australian Standards• confidentiality and privacy• WHS• the environment• equal employment opportunity (EEO)• anti-discrimination• relevant industry codes of practice• duty of care and heritage |
| WHS requirements include: | <ul style="list-style-type: none">• Commonwealth, state or territory legislation and regulations• organisational safety policies and procedures• the use of personal protective equipment and clothing• firefighting equipment• first aid equipment• hazard and risk control and elimination of hazardous materials and substances• manual handling, including lifting and carrying |
| Organisational requirements include: | <ul style="list-style-type: none">• legal, organisational and site guidelines, policies and procedures relating to own role and responsibility• quality assurance• procedural manuals• quality and continuous improvement processes and standards• ethical standards• recording and reporting• access and equity principles and practices |

- Instructions include:**
- equipment use, maintenance and storage
 - environmental management (waste disposal, recycling and re-use guidelines)
 - workplace procedures relating to the use and operation of tools and equipment
 - production planning figures
 - workplace instructions, including job sheets, plans, specifications, drawings and designs
 - workplace procedures relating to reporting and communications
 - manufacturer instructions for the use of equipment and materials
- Wood species for carving include:**
- lime and ash
 - maple
 - cherry
 - English oak
 - American oak
 - Japanese oak
 - walnut
 - Brazilian mahogany
 - sycamore
 - holly
 - apple
 - pear
 - beech
 - teak
 - iroko
 - rosewood
 - ebony
 - ramin
 - blackwood
- Preparation of wood for hand carving includes:**
- confirmation of grain
 - identification and response to faults
 - knots and contaminants
 - cutting of wood to workable size and shape
- Carving tools include:**
- carving knives
 - chisels (straight and curved)
 - short bent front bent
 - spoon bit
 - back bent
 - skew
 - fishtail

	• spade • parting tool • macaroni (fluterino and backeroni) • palm tools • rasps • riffles • punches • gouges • venier • router
Tool sharpening includes:	• grinding and sharpening using a sandstone wheel or high-speed carborundum stone, a fine oilstone or a fine carving stone • sharpening a carver's chisel/implement involves sharpening bevels on both sides and rounding off bevels
Methods and styles of wood carving include:	• chip carving • relief carving • Scandinavian flat plane • caricature carving • love spoon • treen • whittling
Personal protective equipment includes:	• that prescribed under legislation, regulations and enterprise policies and practices

Unit Mapping Information

Supersedes and is equivalent to LMFFM4005A Hand carve wood to custom design.

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 MSFFM4001 Hand carve wood to custom design

Modification History

Release 1 - New unit of competency

Performance Evidence

- Comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for the use of hand tools
- Interpret product design and locate and apply relevant information
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Hand carve a minimum of two (2) significant products, including:
 - the interpretation and necessary adoption of the design specifications
 - the selection of timber for the carving
 - the completion of the carving to specification or commercially acceptable standard
 - the preparation of the products for finishing
- Carry out operator maintenance on hand tools, including the grinding and sharpening of a range of knives and chisels
- Follow work instructions, operating procedures and inspection practices to:
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
 - minimise the risk of injury to self and others
- Use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements
- Communicate ideas and information to enable confirmation of work requirements and specifications and the reporting of work outcomes and problems, interpret basic plans and follow safety procedures
- Minimise wastage of resources, including materials, time and money
- Work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity

Knowledge Evidence

- State or territory WHS legislation, regulations, standards and codes of practice relevant to hand carving of wood
- Terminology covering hand carving operations and materials
- Types, characteristics, used and limitations of timber species for hand carving
- Techniques for the design and documentation of specifications for hand carved products
- Organisational and site standards, requirements, policies and procedures for hand carving of wood

- Types, characteristics, uses, limitations and maintenance requirements of the range of tools used in wood carving
- Processes for evaluating the quality of carving tools in terms of specifications, safety, maintainability and commercial reputation
- Range of commonly used hand carving techniques
- Established communication channels and protocols
- Relevant problem identification and resolution
- Workplace safety requirements and WHS legislation
- Work flow within the workplace

Assessment Conditions

- Assessors must:
 - hold training and assessment competencies as determined by the National Skills Standards Council (NSSC) or its successors
 - have vocational competency in the furnishing industry at least to the level being assessed with broad industry knowledge and experience, usually combined with a relevant industry qualification
 - be familiar with the current skills and knowledge used and have relevant, current experience in the furnishing industry.
- Assessment methods must confirm consistency of performance over time rather than a single assessment event and in a range of workplace relevant contexts.
- Assessment must be by observation of relevant tasks with questioning on underpinning knowledge and, where applicable, multimedia evidence, supervisor's reports, projects and work samples.
- Assessment is to be conducted on single units of competency or in conjunction with other related units of competency. Foundation skills are integral to competent performance in the unit and should not be assessed separately.
- Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines.
- Access is required to significant hand carving requirements, including design brief or specification, a range of optional timbers, and a range of quality carving tools and materials for the preparation of the product for finishing.

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