



Australian Government

MSFFM3002 Construct furniture using leg and rail method

Release: 1

MSFFM3002 Construct furniture using leg and rail method

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers following plans to construct and assemble furniture using leg and rail construction.

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.

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| 1 | Prepare for work | 1.1 | Work instructions are used to determine job requirements, including design, tolerances, process, materials, finish and quantity |
| | | 1.2 | Construction and assembly sequence are planned |
| | | 1.3 | Procedures are determined for checking quality at each stage of the process |
| | | 1.4 | Work health and safety (WHS) requirements, including personal protection needs, are observed throughout the work |
| | | 1.5 | Suitable work area is selected for the task |
| | | 1.6 | Preparatory drawings/set-outs/rods for tasks are completed |
| | | 1.7 | Cutting list for components is developed |

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| | 1.8 | Materials are selected following work instructions |
| | 1.9 | Tools and equipment suitable for construction are identified and checked for safe and effective operation |
| 2 | Complete construction | |
| | 2.1 | Material is set out and prepared according to work instructions and components are marked according to workplace procedures |
| | 2.2 | Tools, machines and equipment are used in accordance with safety requirements and manufacturer specifications |
| | 2.3 | Components are manufactured, including any specified shapes, angles or curves, and checked against set-outs and job requirements |
| | 2.4 | Components are assembled using jigs and/or clamps and fastenings |
| | 2.5 | Adhesives are applied according to workplace procedures and/or manufacturer instructions |
| | 2.6 | Joining process is undertaken according to workplace procedures |
| | 2.7 | Assembled furniture is checked for compliance with specifications |
| | 2.8 | Furniture is finished to suitable state for surface preparation |
| | 2.9 | Any non-conformity with the required quality standards is rectified |
| 3 | Finalise operation and maintain equipment | |
| | 3.1 | Work area is cleaned, hand and/or power tools and equipment are cleaned, maintained and stored in accordance with workplace procedures |
| | 3.2 | Machinery is cleaned and left in a safe mode |
| | 3.3 | Faulty and/or defective equipment is tagged and reported in accordance with workplace practices |
| | 3.4 | Unused hardware is collected and stored for re-use or disposal following workplace procedures |
| | 3.5 | Waste and scrap materials are dealt with following workplace procedures |

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.

Furniture to be constructed using the leg and rail method include:

- dining
- occasional
- hall and side tables
- dining and occasional chairs
- cabinets

Unit context includes:

- WHS requirements, including legislation, building codes, material safety management systems, hazardous substances and dangerous goods code, and local safe operating procedures
- work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements
- competency may be demonstrated in workplaces involved in the manufacture of solid timber furniture, domestic furniture, commercial furniture, kitchen and bathroom cabinets and/or furniture components

Traditional jointing methods include:

- mortise and tenon
- mitre
- dowel
- bridle

Tools and equipment include:

- measuring tapes or rulers
- hammers
- mallets
- squares
- bevels
- chisels
- planes

	• hand saws • power saws • cordless drills/screwdrivers • power drills • fixing and jointing devices • pneumatic tools, compressor and spray equipment • jigs • clamps and pincers
Machines include:	• band saws • cross-cut saws • jig saws • panel and rip saws • surface planers • panel planers • belt sanders • horizontal borers • vertical drill presses • furniture mortise and tenoner • dovetailers • pedestal grinders • wood-turning lathes • veneer guillotines and presses
Materials include:	• timber • manufactured board • adhesives • screws • nails • dowels • knock-down fittings
Checking of constructed product is to cover:	• squareness, alignment and wind • hardware, fittings and attachments • functionality and tolerances • meets design specifications • distortion and product faults
Personal protective equipment includes:	• that prescribed under legislation, regulations and enterprise policies and practices
Information and procedures include:	• workplace procedures relating to the use of tools and equipment • work instructions, including job sheets, cutting lists, plans, drawings and designs • workplace procedures relating to reporting and

communication

- manufacturer specifications and operational procedures

Unit Mapping Information

Supersedes and is equivalent to LMFFM3002B Construct furniture using leg and rail method.

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 MSFFM3002 Construct furniture using leg and rail method

Modification History

Release 1 - New unit of competency

Performance Evidence

- Interpret work order and locate and apply relevant information
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Follow work instructions, operating procedures and inspection processes to:
 - minimise the risk of injury to self or others
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
- Construct a minimum of two (2) furniture products, using mortise and tenon, mitre, dowel and bridle, which are to include:
 - a table with a drawer
 - a chair with shaped and angled components
- 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

- Interpretation of plan representation of furniture design
- Preparation of drawings/set-outs/rods
- Types, characteristics, properties and limitations of timber used in furniture construction
- Material selection and structural standards
- Application of ergonomic principles and guidelines to furniture construction
- Identification of hand and/or power tools, materials, equipment, processes and procedures
- Work flow in relation to furniture production

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 plans, tools and equipment required to construct furniture using leg and rail method.

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