MSFDN4004 Design, construct and test jigs

Release: 1

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Modification History

Release 1 - New unit of competency

Application

This unit of competency covers designing, constructing and testing jigs required for manufacture, assembly, construction and testing of furnishing items.

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

Pre-requisite Unit

Competency Field

Unit Sector

Furnishing design

Elements and Performance Criteria

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.
1	Identify production requirements	1.1 Work health and safety (WHS) requirements, including personal protection needs, are observed throughout the work
		1.2 The item to be produced is identified from a work order
		1.3 Production requirements are identified from specifications, an existing item or from drawings, patterns and/or templates
2	Design jig	2.1 Design of proposed jig or fixture is produced
		2.2 Production process incorporating jig is planned
		2.3 Materials to be used to construct jig are selected
3	Construct jig	3.1 Appropriate tools and equipment are selected
		3.2 Jig is constructed in accordance with design and within

tolerances

| 4 | Test jig | 4.1 | Jig is used to produce prototype to ascertain its adherence to set tolerances and to assess its match to original design |
| | | 4.2 | Jig is adjusted, as required, to meet the requirements |

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.

Unit context includes:	• WHS requirements, including legislation, building codes, material safety management systems, hazardous and dangerous goods codes and local safe operating procedures or equivalent
	• work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements
	• work requires individuals to demonstrate conceptual ability, discretion, judgement and problem-solving skills in the completion of this competency
	• work is performed individually or in a team environment
	• customers or suppliers may be internal or external
Tools include:	• routers
	• spindle moulders
	• panel saws
	• copy shapers
	• radial arm saws
Materials include:	• solid timbers

	• manufactured board
	• composites
Personal protective equipment includes:	• that prescribed under legislation, regulations and enterprise policies and practices
Information and procedures include:	• an enterprise work order which may be raised in response to a customer order, a modification to an item of production, or a new product line of the enterprise
	• product drawings, prototype, design brief, patterns, specifications and/or specifications
	• machine manufacturer specifications and operational procedures
	• workplace instructions, including, job sheets, plans, drawings and designs
	• workplace procedures relating to reporting and communicating
	• quality and Australian Standards and procedures

Unit Mapping Information

Supersedes and is equivalent to LMFDN4004B Design, construct and test jigs

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73