



Australian Government

MSFFDT5012 Design for mass production

Release: 1

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Modification History

Release 1 - New unit of competency

Application

This unit of competency covers designing products for mass production specifying equipment requirements and personnel capabilities, while also considering cost-effective opportunities and future planning considerations. It applies to mass production in an industry workplace or design studio environment and involves application of skills and knowledge at a managerial level.

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

Pre-requisite Unit

Competency Field

Unit Sector

Furniture design and technology

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 | Plan for design | 1.1 | Applicable work health and safety (WHS), legislative and organisational requirements relevant to designing for mass production are verified and complied with |
| | | 1.2 | Design brief is reviewed, confirmed and clarified with appropriate personnel |
| | | 1.3 | Client requirements and desires are reviewed, confirmed and clarified |
| | | 1.4 | Communication with others is established and maintained in accordance with WHS requirements |
| | | 1.5 | Problems or underlying factors to be addressed by the design brief are verified |

- 1.6 Elements of design are diagnosed for the intended design brief
- 1.7 Principles of design are diagnosed for the intended design brief
- 1.8 Volumes of mass production runs are set, costed and relevance to the market evaluated
- 2 Design for mass production
 - 2.1 Concepts for the proposed solution to the design brief are reviewed in accordance with mass production requirements
 - 2.2 Different solutions to satisfy the requirements of the design brief are presented and reviewed
 - 2.3 Sample maquette and prototype are reviewed in accordance with the concept sketches
 - 2.4 Final working drawings and specifications are reviewed and compiled in readiness for mass production
 - 2.5 Concept is designed for mass manufacture taking into account available equipment and resources
 - 2.6 Equipment capabilities are reviewed and assessed and design brief modified in accordance with available or obtainable equipment
 - 2.7 Personnel capabilities are reviewed and assessed and design brief modified in accordance with assessed and available skills
 - 2.8 Material or resource supply chain to the company is assessed, stock sizes set and design brief modified or altered to cater for availability of resources
 - 2.9 Outsourcing opportunities are assessed and reviewed in accordance with cost-benefit analysis assigning monetary value to the costs and benefits (social, environmental and monetary) associated with a project for the purpose of selecting and evaluating project investment opportunities
 - 2.10 Work flow methods are reviewed and the design brief or work flow methods amended to cater for mass production
 - 2.11 Opportunities for innovation in mass production

- procedures are researched and implemented
- 3 Implement design 3.1 Manufacturing process is planned and organised taking into account available equipment and resources
- 3.2 Material is processed in accordance with the manufacturing plan and safe working procedures
- 3.3 Jigs are produced to assist with the manufacture of components
- 3.4 Components are produced and prepared for assembly
- 3.5 Components are assembled in accordance with the working drawings
- 3.6 Final product is finished according to specifications
- 3.7 Final product is evaluated for functionality and aesthetic appeal
- 3.8 Mass production methodology is reviewed
- 3.9 Production run products are packaged and despatched to transport methods
- 3.10 Mass production anomalies are recorded and reported to the appropriate personnel

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

Unit Mapping Information

Supersedes and is equivalent to LMFFDT6002A Design for mass production

Links

Companion Volume implementation guides are found in VETNet -

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