



Australian Government

MSFFF3018 Set up, operate and maintain computer numerically controlled (CNC) coating systems

Release: 1

MSFFF3018 Set up, operate and maintain computer numerically controlled (CNC) coating systems

Modification History

Release 1. Changes to code, application, elements, performance criteria, assessment requirements. Foundation skills added. Range of conditions removed. Assessment requirements changed.

Application

This unit describes the skills and knowledge required to set up, operate and maintain CNC coating systems in order to apply coatings to specifications.

Furniture finishing workers with this competency follow established procedures, using discretion, judgement and problem-solving to identify and resolve potential issues. They recognise dependencies and use cooperative approaches to optimise workflow and productivity.

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

Competency Field

Furniture finishing

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. Prepare for task	1.1 Determine task requirements, including characteristics of the surface and the required surface coating, from work documentation 1.2 Plan work by identifying processing and application techniques, time and safety requirements and efficient work methods in accordance with workplace procedures 1.3 Identify and follow work health and safety requirements 1.4 Identify tools, equipment and accessories to meet task requirements and check they are safe and functional 1.5 Identify and prepare coating materials for the task
2. Check and prepare for	2.1 Identify products with surface or other faults and report or

Elements	Performance Criteria
spraying	repair faults in accordance with workplace procedures 2.2 Protect other products and equipment in workplace from overspray in accordance with workplace procedures and safety standards 2.3 Perform trial applications of surface materials to check equipment operation, materials consistency and specified surface finish 2.4 Identify and rectify or report machine faults in accordance with workplace procedures 2.5 Identify material faults and rectify in accordance with workplace procedures
3. Apply surface coating	3.1 Ensure surfaces are kept free of contamination 3.2 Apply surface coatings in accordance with workplace procedures 3.3 Monitor surface coating viscosity and coverage and check against workplace requirements for even spread and thickness 3.4 Perform required rectification of surface faults in accordance with workplace procedures 3.5 Inspect products and assess for suitability for further processing 3.6 Rectify or report defects in accordance with workplace procedures
4. Clean work area and maintain equipment	4.1 Check, clean and store equipment and unused materials in accordance with equipment instructions and workplace procedures 4.2 Tag unserviceable equipment, identify faults and inform appropriate personnel in accordance with workplace procedures 4.3 Clean work area, including spray booth, safely dispose of waste and identify items for recycling in accordance with workplace procedures and environmental standards 4.4 Complete required workplace records

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 interpret familiar workplace procedures and work documentation
- Writing skills to communicate information in familiar workplace documents
- Numeracy skills to measure and calculate area and estimate material requirements.

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

Unit Mapping Information

Release 1. Supersedes and is equivalent to MSFFF3009 Set up, operate and maintain computer numerically controlled (CNC) coating systems.

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 MSFFF3018 Set up, operate and maintain computer numerically controlled (CNC) coating systems

Modification History

Release 1. Changes to code, application, elements, performance criteria, assessment requirements. Foundation skills added. Range of conditions removed. Assessment requirements changed.

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:

- select and apply surface coatings, including the adjustment of system controls, to achieve required coating using at least 2 of the following types of computer numerically controlled (CNC) systems:
 - curtain coating
 - UV coating
 - tumbling
 - dipping
 - electrostatic powder coating tasks.
 -

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- CNC coating system equipment, processes and procedures
- characteristics of coatings and base materials in terms of toxicity, reactivity, flammability, required viscosity and recoatability
- effects of fumes, heat and other radiations on surface coatings
- methods to prevent contamination of surfaces during and after surface coating
- workflow in relation to spraying operations
- function of tools and equipment used in setting up, operating and maintaining computer numerically controlled (CNC systems, including at least 6 of the following:
 - computerised spray system
 - electrostatic spray guns
 - baking ovens
 - barrel tumblers
 - spray booths
 - liquid containers
 - compressor and hoses
 - screwdrivers

- shifting spanner and spanners
- ford cup
- typical materials used in setting up, operating and maintaining computer numerically controlled (CNC) coating systems, including:
 - stains
 - lacquers
 - wax
 - oil
 - two-pack polyurethane
 - three-pack polyester
 - enamels
 - acrylics
 - powder coating
- sources of workplace documentation, including:
 - work instructions
 - workplace procedures relating to reporting and communication
 - manufacturer specifications and operational procedures
- work health and safety requirements, including the use of personal protective equipment (PPE).
-

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:
 - work orders
 - items to be coated
 - CNC coating systems and equipment, including spray booth, required for performance evidence
 - coatings and cleaning products
 - PPE
 - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials.

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

Links

Companion Volume implementation guides are found in VETNet – -

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