



Australian Government

FBPCON3005 Operate and monitor a granulation and compression process

Release: 1

FBPCON3005 Operate and monitor a granulation and compression process

Modification History

Release	Comments
Release 1	This version released with FBP Food, Beverage and Pharmaceutical Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to set up, operate, adjust and shut down a granulation and compression process.

This unit applies to individuals who work as production workers and are responsible for the operation and monitoring of granulation and compression equipment in a confectionery production environment.

All work must be carried out to comply with workplace procedures, in accordance with state/territory health and safety and food safety regulations, legislation and standards that apply to the workplace.

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

Pre-requisite Unit

Nil

Unit Sector

Confectionery (CON)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare the equipment for ingredient addition	1.1 Confirm materials are available for product specification 1.2 Deliver ingredients and additives in the required quantities and sequence

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
2. Prepare the granulation equipment and process for operation	2.1 Identify and confirm cleaning and maintenance requirements 2.2 Identify safety requirements and wear appropriate personal protective equipment, ensuring correct fit 2.3 Identify food safety requirements for the task and product 2.4 Set the granulation process to production specifications according to equipment operating instructions 2.5 Check and adjust granulation equipment performance according to operating parameters 2.6 Carry out pre-start checks according to operating procedures
3. Prepare the compression process for operation	3.1 Set the compression process to production specifications 3.2 Check and adjust compression equipment performance according to operating parameters 3.3 Carry out pre-start checks according to operating procedures
4. Operate and monitor equipment	4.1 Start and operate the process safely according to operating instructions and safety procedures 4.2 Combine ingredients in specified sequence according to recipe and procedures 4.3 Take samples to confirm granules produced are of the required particle size, according to product specifications 4.4 Ensure product is compressed to meet product specification 4.5 Monitor equipment to identify variation in operating conditions 4.6 Adjust equipment operations to meet product specification 4.7 Identify, rectify or report out-of-specification product or process outcomes according to workplace procedures 4.8 Maintain the work area according to workplace procedures 4.9 Maintain workplace records according to workplace procedures
5. Shut down the compression process	5.1 Identify the appropriate shutdown procedure according to operating instructions 5.2 Shut down the process safely according to shutdown procedures 5.3 Identify and report maintenance requirements according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret information in recipes, equipment operational instructions and workplace procedures
Writing	- Accurately enter operational data into production equipment - Complete processing records using digital and/or paper-based formats
Numeracy	- Read and interpret equipment gauges and scales - Apply basic calculations to quantities in recipes for production volume and equipment

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FBPCON3005 Operate and monitor a granulation and compression process	FBPCON2006 Operate a granulation and compression process	Unit code and title updated to better match complexity of task Minor changes to Performance Criteria for clarity Foundation Skills refined Performance Evidence clarified Minor changes to Knowledge Evidence and Assessment Conditions	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=78b15323-cd38-483e-aad7-1159b570a5c4>

Assessment Requirements for FBPCON3005 Operate and monitor a granulation and compression process

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has operated a granulation and compression process to produce at least one batch of confectionery to meet product specifications, including:

- applying food safety procedures to work practices
- following safe work procedures
- taking corrective action in response to typical faults and inconsistencies.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- purpose and basic principles of the granulation and compression process
- basic operating principles of equipment, including main equipment components, status and purpose of guards, equipment operating capacities and applications, and the purpose and location of sensors and related feedback instrumentation
- services required and action to take if services are not available
- the flow of the granulation and compression process, and the effect of outputs on downstream processes
- quality requirements of ingredients for granulating, and effect of variation on the granulation process
- quality requirements of granulated mass, including density and the relationship to weight and breakages
- operating requirements of both granulation and compression, related parameters, and corrective action required where operation is outside specified operating parameters
- typical equipment faults and related causes, including signs and symptoms of faulty equipment, and early warning signs of potential problems

- methods used to monitor the granulation and compression process, including inspecting, measuring and testing as required by the process
- good manufacturing practices (GMP) relevant to work task
- inspection or test points (control points) in the process and the related procedures and recording requirements
- contamination/food safety risks associated with the granulation and compression process, and related control measures
- health and safety hazards and controls relevant to granulation and compression process
- requirements of different shutdowns as appropriate to the granulation and compression process and workplace production requirements, including emergency and routine shutdowns and procedures to follow in the event of a power outage
- isolation, lock-out and tag-out procedures and responsibilities
- procedures and responsibility for reporting production and performance information
- environmental issues and controls relevant to the granulation and compression process, including waste/rework collection and handling procedures related to the process
- basic operating principles of process control, including the relationship between control panels and systems and the physical equipment
- cleaning and sanitisation procedures for the granulation and compression process
- procedures to record traceability of product.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - a food processing workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - personal protective equipment
 - granulation and compression equipment
 - ingredients used in the preparation of granulation and compression confectionery products as required
 - sampling and testing procedures and equipment
 - cleaning materials, equipment and procedures
- specifications:
 - granulation and compression work procedures, including advice on safe work practices, food safety, quality and environmental requirements
 - information on granulation and compression equipment capacity and operating parameters
 - recipe/batch specifications, control points and processing parameters
 - documentation and recording requirements and procedures.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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