### THHBFB12B Prepare and serve espresso coffee

### Unit Descriptor
This unit deals with the skills and knowledge to extract and serve espresso coffee using a commercial espresso machine, including storage of coffee, and cleaning, care and preventative maintenance of machinery. It applies to baristas and others who make coffee using a commercial espresso machine in a variety of hospitality settings. This unit does not cover general preparation of coffee using methods of coffee extraction other than espresso machines. This is covered in the unit THHBFB10B Prepare and serve non-alcoholic beverages.

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Organise and prepare work areas</strong></td>
</tr>
<tr>
<td>1.1</td>
<td>Organise the coffee workstation in accordance with safety and hygiene practices, to enable efficient workflow and easy access to equipment and commodities.</td>
</tr>
<tr>
<td>1.2</td>
<td>Develop preparation and work routines in accordance with enterprise requirements.</td>
</tr>
<tr>
<td>1.3</td>
<td>Complete mise-en-place and preparation for coffee service, according to enterprise procedures.</td>
</tr>
<tr>
<td>1.4</td>
<td>Store coffee and commodities in appropriate containers and conditions to maintain quality and freshness.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Provide customer service and advise customers on espresso coffee</strong></td>
</tr>
<tr>
<td>2.1</td>
<td>Provide advice to customers about coffee types and characteristics where appropriate.</td>
</tr>
<tr>
<td>2.2</td>
<td>Determine customer coffee preferences and requirements, and offer style choices and coffee accompaniments, accordingly.</td>
</tr>
<tr>
<td>3</td>
<td><strong>Select and grind coffee</strong></td>
</tr>
<tr>
<td>3.1</td>
<td>Select correct coffee and grind to correct particle size, in accordance with enterprise requirements and customer preferences.</td>
</tr>
<tr>
<td>3.2</td>
<td>Take into consideration any environmental and equipment variations affecting dosage, and adjust grind and/or dose accordingly.</td>
</tr>
</tbody>
</table>
4 Extract coffee

4.1 Select appropriate cups or glassware and ensure they are warm before preparation.

4.2 Measure or dispense required dosage and place into filter basket, tamping coffee evenly and using correct pressure.

4.3 Ensure group head is clean prior to inserting group handle.

4.4 Monitor water and pump pressure, and moderate between cycles, in accordance with enterprise procedures.

4.5 Analyse extraction rate and adjust where appropriate.

4.6 Assess quality of extraction visually and where appropriate, by verifying flavour.

4.7 Check spent grounds (puck/cake) to identify any required adjustments to dosage and technique.

4.8 Release/purge water for two seconds from the group head before placement of group handle to extract coffee.

5 Texture milk

5.1 In accordance with espresso requirements and quantity on order, select correct milk and appropriate clean, cold jug.

5.2 Expel excess water from steam wand, before and after texturising milk, and wipe clean after use.

5.3 Texturise milk in accordance with milk type and specific order requirements.

5.4 Combine foam and milk through rolling, ensuring even consistency.

5.5 Pour milk promptly, evenly and consistently, according to coffee style and customer preferences.

6 Serve and present espresso coffee

6.1 Present coffee attractively using clean ceramic or glass cups and avoiding drips and spills.

6.2 Serve coffee at the required temperature, according to customer requirements and style, with appropriate crema, milk froth and accompaniments.
7 Clean and maintain espresso machine

7.1 Follow required occupational health and safety and enterprise requirements throughout all cleaning and maintenance procedures.

7.2 Clean all machine parts thoroughly and safely according to manufacturer’s specifications and enterprise policies and procedures, using appropriate cleaning methods and recommended cleaning products and materials, including:
- cleaning machine and parts
- wiping down entire machine to ensure cleanliness
- purging reservoir of hot water, releasing steam and backwashing the machine with an appropriate cleaning solution
- pouring boiling water to clean drainage pipes
- back flushing the machine at the end of a service cycle, using clean water to ensure no chemical and other residues are left.

7.3 Monitor and assess the operation and efficiency of the espresso machine during usage and take appropriate action where required, in accordance with enterprise policies and procedures.

7.4 Check machine parts, in accordance with enterprise policies and procedures.
Range Statement

This unit applies to hospitality and catering operations where espresso coffee is extracted and served. The following explanations identify how this unit may be applied in different workplaces and circumstances.

This unit refers to extracting and serving espresso coffee using a commercial espresso machine, and includes cleaning, care and maintenance of the machine. Care and maintenance procedures may vary according to the machine manufacturers’ recommendations and/or warranty conditions.

All major coffee styles must be prepared including:
- caffè latte
- macchiato (short and long)
- short black (espresso)
- long black
- flat white
- cappuccino
- mocha.

Please note that there is wide variation in the industry. Espresso coffee originated in Italy and Italian styles are the most commonly prepared, however local variations do occur and some coffee styles follow American adaptations eg. the making of super-sized coffees and the adding of various flavourings. Customer preferences may also include temperature requirements, some customers preferring cooler and others hotter espresso products.

Types and sizes of service ware, such as cups, mugs and glasses also affect espresso coffee preparation in terms of required volumes and proportions.

Mise-en-place and preparation for coffee service may include:
- turning on machines to achieve correct pressure and temperature
- setting out cups, mugs, saucers/plates, jugs, glasses and other required service ware
- ensuring adequate supplies of milk varieties and sugars, including specialised sugars and substitutes
- assembling flavourings and toppings
- laying out flatware, serviettes, wipes.

Appropriate containers and conditions for storage of coffee and commodities include:
- air tight containers for coffee
- freedom from light and temperature changes
- refrigeration of milk.

Factors to consider in grinding coffee may include:
- pre-setting grinder
- sensory analysis of grind, including:
  - visual
  - tactile
  - olfactory
  - degree of humidity
• tasting of finished product
• ensuring sufficient supplies of ground coffee in accordance with customer volumes and service cycles.

Dosage measuring may be mechanical or electronic. Dosage also refers to selecting the correct amount of ground coffee, appropriate particle grind size and prevailing conditions such as ambient humidity.

The recommended industry pour rate for coffee is 30mls in 27-32 seconds depending on type of espresso coffee ordered, customer preferences and the coffee blend.

65C has been suggested as standard industry temperature for espresso coffee, however, this may vary.

Equipment may include:
• types and brands of coffee grinders/mills and coffee machines
• service ware including cups, saucers, mugs, glasses of various sizes
• flatware
• weighing equipment
• measuring equipment
• tampers
• storage bins in appropriate materials
• blind or blank filter and espresso cleaning detergent
• thermometer
• storage bins in appropriate materials
• bins for discarded pucks.

Cleaning methods must include using a range of techniques including:
• wet methods (using warm water with recommended detergent for soaking various parts and cleaning with sponge, damp cloth or scourer (only for group handle)
• dry techniques (using a damp cloth followed by a dry cloth).

Appropriate cleaning methods include:
• cleaning the bean hopper using wet method, and drying thoroughly before refilling/storing
• brushing out dispensers
• cleaning all remaining parts using dry cleaning method
• back flushing group heads according to recommended industry methods, using a blank filter and appropriate machine detergent
• using colour-coded chux/cloths (e.g. blue for general cleaning and yellow for cleaning and wrapping steam wands)
• wiping steamer wands after each use, using a damp chux/cloth
• where there is build-up/caked on product, wrapping steamer wands in a clean chux/cloth, opening the valve and allowing hot water, with steam venting, to soften caked-on milk, and then wiping with a damp cloth
• washing drip trays
• cleaning around the inside of the group head using an appropriate brush/chux
• cleaning group handle and filter basket, and steam arm spout after removing, using the wet method.

Activities allied with cleaning include:
• removing beans from hoppers at the end of service day or shift, and storing in accordance with enterprise requirements
• storing equipment in accordance with enterprise requirements
• covering equipment in accordance with enterprise requirements.

Checking equipment covers only those activities permitted in accordance with enterprise policies and procedures, occupational health and safety requirements and requirements related to warranties. This may include:
• ensuring the doser arm delivers the correct dosage of coffee
• checking steam and pump pressure
• stripping the grinder of external working parts, observing required safety procedures and in accordance with enterprise requirements.

Other activities which may require a trained service technician or other designated person such as a licensed electrician, include:
• checking grinder blades to determine wear
• replacing worn blades, filters and other parts as required.

Enterprise requirements may include:
• policies and procedures related to persons authorised and trained to carry out particular activities related to machine operation, adjustment, cleaning and maintenance
• circumstances requiring the services of an authorised and trained service technician
• specific requirements for routine and non-routine cleaning and maintenance
• requirements for the checking and replacement of parts and equipment
• specific requirements for decoration of coffee, prior to presentation, such as stencils, logos, sprinkled toppings, and coffee art
• policies and procedures for stock control, ordering and rotation.

Adjustments to the espresso machine and allied equipment such as grinders, refer to those made without dismantling equipment. Enterprise policies and procedures will define these and designate those activities which must be carried out by:
• a trained service technician
• a licensed electrician
• a designated senior person within the enterprise.

The terms barista, senior barista and master barista, may have different meanings to diverse individuals and groups. Some prefer to make no designation and refer to a barista as someone who is a trained and expert operator.

Evidence Guide

Essential Skills and Knowledge to be Assessed
The following skills and knowledge must be assessed as part of this unit:
• major coffee styles and their characteristics
• types of bean, blends and roasts with a particular emphasis on espresso roast
• key principles of coffee making
• factors that affect quality of coffee
• types of grind and grinding equipment
• types of machine and equipment and their main features and differences
• types of filter baskets, filters, tampers and other equipment
• different milk types and their characteristics and requirements for handling and storing of milk, including correct milk texturing skills
• techniques for dosing and tamping, purging of group head
• storage conditions and requirements for coffee and commodities to ensure maximum freshness and flavour
• safe work practices, in relation to use of coffee machines and other equipment including posture at work station
• cleaning and maintenance procedures
• symptoms of potential faults in espresso machines
• sequencing and production of orders.

Linkages to Other Units
This unit must be assessed with or after the following unit, which describes skills and knowledge essential to this unit of competence:
• THHGHS01B Follow workplace hygiene procedures

This unit also has linkages to the following units and combined training and assessment is recommended:
• THHGHS02B Clean premises and equipment
• THHBFB10B Prepare and serve non-alcoholic beverages

Critical Aspects of Assessment
Evidence of the following is critical:
• ability to recognise quality in espresso coffee, meet customer requirements and expectations, and identify factors affecting quality and required outcomes
• ability to trouble-shoot during production and service of espresso coffee
• ability to extract and present quality coffee within realistic timeframes
• safe work practices in making espresso coffee.

Context of Assessment and Resource Implications
Assessment must ensure:
• access to a work station with industry-current commercial espresso machine
• access to a range of coffee types and commodities
• preparation of quantities of coffee items within industry-realistic timeframes for multiple customers simultaneously
• preparation and service of varieties of coffee types to meet various customer requirements.

Assessment Methods
Assessment methods must be chosen to ensure that the skills and processes for making espresso coffee can be practically demonstrated. Methods must include assessment of knowledge as well as assessment of practical skills. The following examples are appropriate for this unit:
• direct observation of practical demonstration of extracting and serving coffee over an entire service period
• tasting of coffee prepared by the candidate
• use of video or peer observation
• written or oral questions to assess knowledge identified in the Evidence Guide.
• review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate.

**Key Competencies in this Unit**

Key competencies are an integral part of all workplace competencies. The table below describes those applicable to this unit. Trainers and assessors should ensure that they are addressed in training and assessment.

Level 1 = Perform    Level 2 = Administer and Manage    Level 3 = Design and Evaluate

<table>
<thead>
<tr>
<th>Key Competencies</th>
<th>Level</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>Collecting, Organising and Analysing</td>
<td>2</td>
<td>Observing quality of coffee and machine function, identifying and selecting various coffee styles and types</td>
</tr>
<tr>
<td>Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicating Ideas and Information</td>
<td>1</td>
<td>Providing advice to customers, communicating with other members of staff, ordering coffee, liaising with service technicians</td>
</tr>
<tr>
<td>Planning and Organising Activities</td>
<td>2</td>
<td>Preparing coffee machine and work station for service ordering coffee and commodities, organising a cleaning and maintenance routine for coffee machine</td>
</tr>
<tr>
<td>Working with Others and in Teams</td>
<td>1</td>
<td>Working co-operatively with other members of the team</td>
</tr>
<tr>
<td>Using Mathematical Ideas and Techniques</td>
<td>1</td>
<td>Calculating and measuring doses of coffee</td>
</tr>
<tr>
<td>Solving Problems</td>
<td>2</td>
<td>Dealing with problems such as machine malfunction, customer complaints, variations in quality of coffee</td>
</tr>
<tr>
<td>Using Technology</td>
<td>2</td>
<td>Using and maintaining espresso machine</td>
</tr>
</tbody>
</table>
### THHADFB05B Plan and monitor espresso coffee service

#### Unit Descriptor
This unit deals with the skills and knowledge to plan and monitor espresso coffee service, including ordering of coffee, equipment and commodities, appropriate storage, and monitoring of coffee service. It applies to master and senior baristas and includes substantial specialist knowledge of coffee, its history, and presentation in a variety of hospitality settings. This unit builds on the unit THHBFB12B Prepare and serve espresso coffee.

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
</tr>
</thead>
</table>
| 1 Plan coffee service | 1.1 Develop coffee menus and select menu items taking into consideration profit requirements, market focus and demographics, customer preferences and enterprise policies.  
1.2 Select suppliers and/or roasters and make purchases according to enterprise requirements, budget and quality.  
1.3 Liaise with suppliers/roasters to ensure coffee meets requirements. |
| 2 Provide specialist advice on coffee and coffee service | 2.1 Develop and update appropriate information on coffee.  
2.2 Respond accurately to customer questions related to coffee and espresso coffee service.  
2.3 Provide accurate information to colleagues and staff on coffee and coffee service.  
2.4 Promote coffee and coffee appreciation at appropriate opportunities.  
2.5 Display accurate information on coffee and coffee styles for customers where suitable. |
3 Monitor quality and service of coffee

3.1 Identify desirable characteristics of superior espresso coffee.

3.2 Evaluate coffee beans to ensure freshness and appropriate oil content.

3.3 Monitor grind to ensure correct particle size, in accordance with enterprise requirements and customer preferences.

3.4 Monitor environmental variations affecting dosage, and adjust grind and/or dose accordingly.

3.5 Evaluate coffee espresso quality through visual and other sensory means and apply indicators of quality.

3.6 Monitor coffee extractions and service according to enterprise practices, ensuring quality and consistency.

3.7 Diagnose faults and problems in quality of coffee.

3.8 Seek and follow up feedback on coffee quality from customers and staff.

3.9 Deal with problems according to nature of problem and enterprise practices.

3.10 Ensure coffee and commodities are stored appropriately in suitable containers and conditions.

3.11 Ensure coffee items are presented correctly and attractively with suitable accompaniments.

3.12 Assess quality and temperature of milk served and ensure it is texturised correctly.
<table>
<thead>
<tr>
<th></th>
<th>Monitor machinery and equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4.1 Monitor espresso coffee machine and other equipment for efficiency and reliability of operation.</td>
</tr>
<tr>
<td></td>
<td>4.2 Monitor temperature and water pressure, in accordance with enterprise requirements.</td>
</tr>
<tr>
<td></td>
<td>4.3 Ensure that cleaning and maintenance regimes and practices are in place.</td>
</tr>
<tr>
<td></td>
<td>4.4 Identify needs for new equipment and/or parts and evaluate options.</td>
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<tr>
<td></td>
<td>4.5 Ensure that self and others follow safe practices and procedures in using machinery and equipment.</td>
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<tr>
<td></td>
<td>4.6 Identify situations requiring the attendance of a trained service technician or licensed electrician.</td>
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<tr>
<td></td>
<td>4.7 Schedule routine and other service calls and replacement of worn parts at appropriate times.</td>
</tr>
</tbody>
</table>
Range Statement

This unit applies to hospitality and catering operations where espresso coffee is extracted and served. The following explanations identify how this unit may be applied in different workplaces and circumstances.

Information for customers may include:
- coffee items, varieties and accompaniments available
- prices
- brochures about coffee types and grinds
- coffee education programs available.

Sources of information on coffee may include:
- talking to product suppliers, roasters and other baristas
- association or memberships with industry bodies
- reading general and trade media, supplier information
- attending trade shows
- attending coffee tastings
- reading coffee reference books
- Internet.

Characteristics of coffee include:
- colour
- appearance, including opacity or transparency
- aroma
- flavour
- taste
- freshness.
- presentation.

Special qualities may arise from:
- country and area of origin
- roasting techniques
- flavour enhancers and essences
- type of grind and particle size
- freshness.

Evaluation of coffee quality may include:
- use of visual and other sensory means includes smelling and tasting coffee.
- customer feedback
- consistency of product.

Indicators of quality may include:
- industry and enterprise standards and requirements
- customer feedback
- repeat business
- sales of particular items, coffee types and styles.

Faults and problems may include:
- equipment breakdown or malfunction
- incorrect or inappropriate use of equipment
- poor quality control or maintenance
• breaches of OH&S requirements.

Equipment considerations may include:
• characteristics and advantages of size and capacity
• cost
• reliability
• service availability
• training in operation
• reputation of supplier.

Monitoring and checking of equipment includes those activities designated by enterprise policies and procedures and in accordance with occupational health and safety requirements. It does not include those requiring a trained service technician or other designated person such as a licensed electrician or those which may affect warranties. Monitoring and checking equipment may include:
• removing shower screen/s and diffuser/s if appropriate, cleaning using wet method and reassembling
• fine tuning or arranging fine tuning of machines in accordance with manufacturer’s recommendations and warranty requirements.

The terms barista, senior barista and master barista, may have different meanings to diverse individuals and groups. Some prefer to make no designation and refer to a barista as someone who is a trained and expert operator.

Evidence Guide

Essential Skills and Knowledge to be Assessed
The following skills and knowledge must be assessed as part of this unit:
• cost and profit issues associated with the provision of espresso coffee service including product, equipment and pricing of menu items
• flavour characteristics of varieties, types, blends and styles of coffee
• physical and chemical properties of coffee, and effects of roasting, grinding
• diagnosis of problems and faults in coffee
• physical properties of varieties of milk
• history and culture of coffee
• presentation aspects of coffee
• machine operation (technical)
• diagnosis and rectification of problems and faults in coffee machines and equipment
• types of grinders and how they work
• impacts on flavour of coffee of machines, cleanliness of machines, temperature and pressure
• regulatory and legislative requirements impacting on coffee and coffee service
• work practices for the management of large orders
• methods to ensure efficient use of product and minimise wastage
• hygienic and safe work practices related to making, serving and storing coffee and coffee products and service equipment

Linkages to Other Units
This unit must be assessed with or after the following unit which underpins the specialist knowledge and skills required. This unit describes skills and knowledge that are essential to this unit of competence:

- THHGHS01B Follow workplace hygiene procedures
- THHBFB12B Prepare and serve espresso coffee

This unit also has linkages to the following units and combined training and assessment may be appropriate:

- THHGGA07B Control and order stock
- THHGCS02B Promote products and services to customers
- THHGLE01B Monitor work operations
- THHSPT01B Plan coffee shop layout, menu and storage
- THHGTR01B Coach others in job skills

Critical Aspects of Assessment

Evidence of the following is critical:

- in-depth knowledge and understanding of coffee and coffee service
- mastery of skills in extracting coffee
- management of coffee service.

Context of Assessment and Resource Implications

Assessment must ensure:

- demonstration of skills using at least three different types/makes of coffee machine
- access to a range of coffee types and commodities
- work activities that allow the candidate to develop and maintain systems for the service of coffee over a period of time.

Assessment Methods

Assessment methods must be chosen to ensure that the skills and processes for providing and monitoring specialist service of espresso coffee can be practically demonstrated. Methods must include assessment of knowledge as well as assessment of practical skills. The following examples are appropriate for this unit:

- case studies to assess abilities to evaluate coffee, diagnose and rectify a range of faults
- written or oral questions to test knowledge identified in Evidence Guide
- review of workplace documents developed by the candidate eg. operational procedures and maintenance schedules for espresso machines and equipment
- testing of candidate’s ability to analyse and solve typical problems in coffee service or coffee quality
- review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate.

Key Competencies in this Unit

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<td>2</td>
<td>Monitoring quality of coffee and machine function, selecting various coffee types and roasts, selecting suppliers</td>
</tr>
<tr>
<td>Communicating Ideas and Information</td>
<td>2</td>
<td>Providing advice to customers and other members of staff, ordering coffee, liaising with technicians, providing training on coffee making</td>
</tr>
<tr>
<td>Planning and Organising Activities</td>
<td>2</td>
<td>Planning the preparation and service of coffee, ordering coffee and commodities, preparing a cleaning and maintenance routine for coffee machine</td>
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<tr>
<td>Working with Others and in Teams</td>
<td>2</td>
<td>Supervising other members of the team, liaising with other colleagues, suppliers and technicians</td>
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<td>Using Mathematical Ideas and Techniques</td>
<td>1</td>
<td>Calculating and measuring doses of coffee, quantities for ordering supplies and costs</td>
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