

<b>Title:</b>	<b>Produce Cement Castings</b>
<b>Level:</b>	2
<b>Credit value:</b>	6
<b>GLH</b>	60
<b>Unique Reference Number:</b>	M/618/0878
<b>Aim:</b>	The aim of this unit is to provide learners with the skills and knowledge to be able to produce cement castings in accordance with instructions.
<b>Assessment</b>	Assessment of this unit will be through the completion of a NOCN devised practical task and associated knowledge questions (written or verbal). This unit is internally assessed and internally and externally quality assured using the NOCN assessment booklet to evidence all learning outcomes.
<b>Learning outcomes</b>	
<i>The learner will:</i>	
1.	Be able to interpret the information required in order to produce cement castings.
<b>Delivery content:</b>	
The aim of this learning outcome is to provide learners with the skills and knowledge to interpret the information required to produce cement castings.	
The learner must:	
<ul style="list-style-type: none"> <li>• identify the <b>documentation</b> and the details contained within in order to complete given tasks.</li> <li>• Identify and report any inaccuracies with supplied information in accordance with organisational procedures.</li> <li>• identify different types of <b>drawings</b> and their purpose.</li> <li>• interpret different types of <b>drawings</b> including <b>common scales</b> and symbols and hatchings used.</li> <li>• read and apply measurements from the information correctly.</li> <li>• identify and report any inaccuracies with supplied information.</li> <li>• use manufacturer's information to appropriately use resources.</li> </ul>	
2.	Be able to identify tools, equipment, materials and moulds for producing cement castings.
<b>Delivery content:</b>	
The aim of this learning outcome is to provide learners with the skills and knowledge to identify and select the <b>tools, equipment, materials</b> and <b>moulds</b> required to produce cement castings.	
The learner must:	
<ul style="list-style-type: none"> <li>• identify the requirements from the provided information and confirm that it is correct for the given tasks.</li> <li>• report any discrepancies in accordance with organisational procedures.</li> <li>• carry out checks on all resources to ensure they are fit for purpose and free from defects.</li> <li>• report and replace any defective resources that do not meet requirements in accordance with organisational procedures.</li> </ul>	

3. Be able to prepare work areas and materials in order to be able to produce cement castings.

**Delivery content:**

The aim of this learning outcome is to provide learners with the skills knowledge to carry out preparations necessary to produce cement castings.

The learner must:

- interpret risk assessments to identify **hazards** and ensure relevant **protection equipment** is used correctly.
- inspect the area to identify that any additional **hazards** present are mitigated.
- report issues and mitigating work carried out in accordance with organisational procedures.
- ensure that the work area is cleared ready for task to protect the work and surrounding area.
- prepare benches/area for casting moulds.
- ensure all **tools, equipment** and **materials** are in place and set out, safely and logically in order to support effective completion of the tasks.
- carry out **calculations** to identify the correct quantities of materials required for the given tasks.
- select and prepare appropriate **materials** and moulds in line with specifications.
- identify and report any inaccuracies with supplied information.
- use manufacturer's information to appropriately use resources.

4. Be able to produce cement castings.

**Delivery content:**

The aim of this learning outcome is to provide learners with the skills and knowledge to produce cement castings.

The learner must:

- gauge and mix cement.
- prepare moulds with positive and negative profiles.
- apply casting cement and reinforcement.
- produce and finish casts.
- position and protect casts safely for setting / curing and storage.
- remove products from casts safely without damage.

5. Be able to complete works following the production of cement castings.

**Delivery content:**

The aim of this learning outcome is to provide learners with the skills and knowledge to complete work and reinstate work areas.

The learner must:

- clean, inspect and store all **tools, equipment** and excess **materials**.
- report any issues in accordance with organisational procedures.
- clean the work area and dispose of all waste in accordance with legislative requirements, manufacturers' guidance and organisational procedures.
- leave the work area in a safe and clean condition, using collective protective measures as appropriate.
- complete all final paperwork as required and file correctly.

**Scope of Training**

The Scope of Training identifies areas that must be covered during the delivery of this unit. This is the minimum that is expected but tutors are expected to include other areas, knowledge of which will benefit their learners, based on location, types of work available and from the tutors own professional experience.

**Assessment:**

The Assessment Workbook is available from NOCN.

	<b>Requirements</b>		
<b>Documentation and sources of information</b>	Current legislation relating to health and safety Job specification		Risk assessments Manufacturer's guidance Method statements
<b>Drawings</b>	2D and 3D drawings		
<b>Common scales</b>	To include: 1:1, 1:2, 1:5, 1:10, 1:20		
<b>Tools</b>	Trowel Straight edge Scrapers	Brushes Small tool Tape measure	Hammer Screwdriver Rules (various)
<b>Equipment</b>	Work bench Mixing bowl Brushes Shovel	Vibration equipment Drill Casts / moulds	Mixing equipment Waste sacks Clamps
<b>Materials</b>	Semi-dry mix Ready-mix Sealing	Pre-mix Oil/shellac Releasing materials	Curing materials Reinforcing Screws / fixings
<b>Personal protective equipment</b>	Steel toe-capped boots Gloves Goggles Hard hat		High-visibility clothing Respiratory protection Hearing protection
<b>Collective protective equipment</b>	Signage Barriers Sheeting		
<b>Hazards</b>	Slips, trips and falls Working at height Confined spaces Cement burns Cuts and abrasions		Manual handling Hazardous substances Fire Dermatitis Electrical equipment
<b>Methods</b>	Mixing Curing	Vibrating	Compression