<table>
<thead>
<tr>
<th>Learning outcomes</th>
<th>Levels 3+4</th>
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<tbody>
<tr>
<td><strong>KNOWLEDGE</strong></td>
<td><strong>SKILLS</strong></td>
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</tbody>
</table>
| - Earth masonry techniques and traditions | - Production line  
- Shaping: use different methods for mould preparation, infill, unmoulding |
| - Brick / block types and characteristics | - Curing and drying:  
  - create conditions for curing and drying according to brick type and site conditions  
  - use appropriate covers/shelter/drying racks to support the curing and drying process |
| - Relevant codes of practice and current standards for production | - Prepare bricks and blocks for transport and delivery  
- Implement internal quality control |
| - Conditions of use for different brick types | - Label brick types and identify different batches  
- Carry out external quality control and lab testing if necessary |
| - Test methods and results | - Maintenance  
- Clean and maintain moulds, machinery and equipment |
| - Moulded, compressed or extruded process | - Planning and organisation  
- Read drawings, specifications, bills of quantities  
- Read test results  
- Calculate quantities of mix and manage procurement  
- Design and manufacture simple moulds  
- Prepare and arrange the areas for shaping, curing, drying, storage |
| - Production methods | - Preparation of moulds, curing, drying, storage  
- Prepare bricks and blocks for transport and delivery  
- Implement internal quality control |
| - Tools, machinery and equipment:  
  - Materials for moulds (wood, metal, others)  
  - Criteria for selection of appropriate equipment (moulds, press, racks, dryers...)  
  - Types of drying racks/spaces for bricks/blocks  
  - Producers and suppliers for moulds and materials | - Planning and organisation  
- Read drawings, specifications, bills of quantities  
- Read test results  
- Calculate quantities of mix and manage procurement  
- Design and manufacture simple moulds  
- Prepare and arrange the areas for shaping, curing, drying, storage |
| - Properties of clay, earth, mix and appropriate additives | - Production line  
- Shaping: use different methods for mould preparation, infill, unmoulding  
- Curing and drying:  
  - create conditions for curing and drying according to brick type and site conditions  
  - use appropriate covers/shelter/drying racks to support the curing and drying process  
- Prepare bricks and blocks for transport and delivery  
- Implement internal quality control  
- Label brick types and identify different batches  
- Carry out external quality control and lab testing if necessary |
| - Drying and curing processes | - Maintenance  
- Clean and maintain moulds, machinery and equipment |
| - Storage methods | - Planning and organisation  
- Read drawings, specifications, bills of quantities  
- Read test results  
- Calculate quantities of mix and manage procurement  
- Design and manufacture simple moulds  
- Prepare and arrange the areas for shaping, curing, drying, storage |
| - Quality control at each step | - Planning and organisation  
- Read drawings, specifications, bills of quantities  
- Read test results  
- Calculate quantities of mix and manage procurement  
- Design and manufacture simple moulds  
- Prepare and arrange the areas for shaping, curing, drying, storage |
| - Health and safety regulations | - Planning and organisation  
- Read drawings, specifications, bills of quantities  
- Read test results  
- Calculate quantities of mix and manage procurement  
- Design and manufacture simple moulds  
- Prepare and arrange the areas for shaping, curing, drying, storage |
### COMPETENCE Level 3

**Decision making process**
- Select moulds (manual and mechanic)

**Planning and organising for own work**
- With the mix and equipment provided, plan and organise each step of the production, for a defined order of bricks or blocks (humid or plastic process)

**Execution, quality control and coordination within the earth building team**
- Work in accordance with the schedule of works, adjust to general work process on site, instruct L1 + L2 workers of the EB team
- Check if all the steps involved conform to the specification and program
- Identify problems and report
- Implement quality control for own work during shaping, curing, drying, and storage until delivery:
  - Manage and check the fabrication process (infill)
  - Control moisture content (shrinkage and dimensions)
  - Control the drying process (colour, superficial drying)

**Communication beyond the earth building team**
- Liaise with non earth-building specialists on the conditions for use, storage and transport

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### COMPETENCE Level 4

**Decision making process**
- Select machinery and equipment

**Planning and organising for team work**
- Plan and organise all the steps of the production

**Execution, quality control and coordination within the earth building team**
- Supervise and coordinate the entire work of the earth building team according to the specifications and program
- Report mix quality and production progress
- Identify significant problems and intervene
- Put in place quality control during shaping, curing, drying and storage until delivery

**Communication beyond the earth building team**
- Liaise with supervision and design team
- Liaise with other trades and professionals, coordinate and sequence earth works within the general schedule
- Liaise with non earth building specialists on the conditions for use, storage and transport
<table>
<thead>
<tr>
<th>Criteria and Indicators for the Assessment of Skills</th>
<th>Levels 3+4</th>
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<tr>
<td><strong>Quality of dry bricks</strong></td>
<td><em>- Bricks meet the specification regarding shape, size, density</em></td>
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<td><em>- Edges are clean / sharp, brick surface has no cracks</em></td>
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<td><em>- Resistance of the bricks to abrasion and compression conforms to the specifications</em></td>
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<td><em>- Composition and colour are homogeneous</em></td>
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<tr>
<td><strong>Production line</strong></td>
<td><em>- The production line is efficiently organised and prepared</em></td>
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<tr>
<td>- Shaping</td>
<td><em>- Damaged or broken bricks are recycled etc. (no waste of material)</em></td>
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<tr>
<td>- Curing</td>
<td><em>- Quality controls are executed at the 4 steps</em></td>
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<tr>
<td>- Drying</td>
<td><em>- Bricks are protected from water and impacts during handling, drying and storage</em></td>
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<td>- Storage</td>
<td><em>- The storage supports the drying process</em></td>
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<td><strong>Equipment</strong></td>
<td><em>- Forms/moulds are chosen according to:</em></td>
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<tr>
<td></td>
<td><em>- dimensions</em></td>
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<tr>
<td></td>
<td><em>- material</em></td>
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<td><em>- finishing</em></td>
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<tr>
<td></td>
<td><em>- quality</em></td>
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<td></td>
<td><em>- Press, carriers, racks, are chosen according to site conditions and to the product</em></td>
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Ensure that standards of work and materials comply with relevant codes of practice and to current standards.