

Unit 27: Developing Advanced Skills in Complex First and Second Fixing

Unit code: F/503/5768

QCF Level: 3

Credit value: 20

Guided learning hours: 200

Unit aim

This unit enables learners to understand the tools, equipment and working techniques used to perform structural timber carcass operations to complex shapes. It gives learners the opportunity to develop skills used in producing structural site carpentry where a high degree of accuracy and quality is required.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

Learning outcomes	Assessment criteria
1 Understand the preparation required to form complex first and second fix joinery operations	<p>1.1 Explain the first fix setting out procedure for a hardwood balustrade for a quarter turn staircase based on sketched construction details</p> <p>1.2 Calculate the quantity of resources required to fix 5 hardwood door frames of three different sizes, screwed and pelleted to dense concrete blockwork, in the form of a schedule, based on given project drawings</p> <p>1.3 Explain how to complete the framing and lining framing to a horizontal service duct at ceiling level given the plans and specification</p> <p>1.4 Describe the method of constructing a softwood tongued and grooved boarded floor,</p>

	<p>complying with site protocol</p> <p>1.5 Explain the site quality control procedure for hardwood door linings and architraves, given manufacturer's details</p>
<p>2 Be able to construct first fix joinery components to complex specifications safely</p>	<p>2.1 Construct a softwood tongued-and-grooved board floor for the landing of a quarter turn stair opening, complying with current legislation</p> <p>2.2 Erect the framing and lining for an accessible vertical service duct containing one fire stop from working drawings, complying with current legislation</p> <p>2.3 Fix a hardwood door frame screwed and pelleted to a dense concrete block wall, based on given project information</p> <p>2.4 Fit temporary protection to a hardwood door frame</p>
<p>3 Be able to construct second fix joinery components to complex specifications safely</p>	<p>3.1 Explain how to set out kitchen units to a specified accuracy for a given kitchen unit schedule</p> <p>3.2 Construct softwood balustrade for a quarter turn staircase given a layout and manufacturer's information comply with current legislation</p> <p>3.3 Hang a fire-check door, complete with ironmongery to a specified accuracy and given specification</p> <p>3.4 Fix an accessible panel to a bath side and end, given an architect's instruction, complying with current legislation</p>

Unit content

1 Understand the preparation required to form complex first and second fix joinery operations

Fixing preparation: timber (softwood, hardwood); frames (windows, door, casement frame ducting); door linings (rebated, borrowed light, fire-check); fire resisting (30 minutes, 60 minutes, smoke-check); floor covering (hardwood, softwood, sheet, boards); staircases (straight, quarter turn, half turn, winders)

Setting out: location; shape; size; curved; graphical (scaled drawings, plans, elevations, detailed sections, sketches); template; temporary support

Construction details: project drawings (plans, elevations, sections, architect's specification); sketches; scaled drawings; contract documents (drawings, layout, assembly, component, coordinated project information, bill of quantities, specifications); product information

Quantity of resources: timber (softwood, hardwood, engineered); manufactured sheet material; metalwork (fixing, anchors, framing, straps); linings; frames; moulding; balustrade (handrails, balusters, newel post, apron linings, caps); number of tools (hand, portable power); quantities of access equipment (ladders, hop-ups, stepladders, lightweight tower scaffolds, trestles and staging); material handling (manual, mechanical); number of portable power tools (cutting, forming, shaping, site electrical, portable); personal protective clothing; safety barriers and guards

Site protocol: safety signs (advisory, prohibitive, mandatory, warning) first aid, (emergency, trained first-aider, first aid box requirements, medical hazards, drugs, alcohol); risk control mechanism; work methods; site logistics; hazardous materials; material movement; storage; mechanical plant and equipment (lifting, transporting, fixing, forming, cutting, fixing); scaffold; power access equipment; welfare facilities; component protection (site storage, in place protection); traffic routes; walkways; site personnel; waste (licences, consent); temporary site utilities (water, electricity, drainage, telecommunications)

Quality control: contract documents (drawings, specification, bill of quantities); architect; clerk of works; resident engineer; building control; British Standards Specifications; Codes of Practice; Eurocodes

2 Be able to construct first fix joinery components to complex specifications safely

Legislation: main contractor's responsibility (site safety, health, welfare); sub-contractor; environment; Building Regulations (stability, wind, fire); insurances (employer, public liability, contractual); Control of Substances Hazardous to Health (COSHH); waste (reduction methods, recycling, removal, disposing, carrier)

Unit 27: Developing Advanced Skills in Complex First and Second Fixing

licences, transporting, hazardous and non-hazardous, waste calculations, monitoring

Project information: coordinated project information (layout, assembly, component drawings); specifications (National Building Specification (NBS)); contract documents (plans, elevations, sections, architect's specification, bill of quantities); sketches; scaled drawings; trade literature; catalogues

Protection: against damage (physical, abuse, malicious, accidental)

3 Be able to construct second fix joinery components to complex specifications safely

Information: coordinated project information (layout, assembly, component drawings); specifications (National Building Specification (NBS)); contract documents (plans, elevations, sections, architect's specification, bill of quantities); sketches; scaled drawings; trade literature; catalogues

Legislation: working at height legislation; COSHH; manual handling; Lifting Operation and Lifting Equipment Regulations (LOLER); Provision and Use of Work Equipment Regulations (PUWER); site safety induction and control; permits to work; hot permit; waste (segregation, site storage bins, recycling)

DRAFT

THIS IS AN ACCREDITED SPECIFICATION AND CAN BE USED FOR TEACHING AND ASSESSMENT