

# PROFFI370 (SQA Unit Code - FE4E 04) Complete complex production furniture



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## Overview

This standard addresses the competence required to complete contemporary production furniture that is of a high, bespoke or complex specification. A high skill level will be necessary to deal with work which presents particular challenges which may include difficult handling characteristics, fragility, high costs, curved work and/or splayed edges. This involves:

- 1 planning and preparation
- 2 interpreting information
- 3 selecting materials, components and equipment
- 4 curved work
- 5 repairs and modifications to items of furniture
- 6 checking quality

There is also a scope statement which defines the coverage of this standard

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### Performance criteria

#### Plan and assemble components

- You must be able to:*
- P1 comply with the specific health and safety legislation and follow official guidelines to maintain a safe working environment
  - P2 interpret and clarify the **information** relating to the design and where necessary make adjustments
  - P3 design and/or make accurate templates for complex designs
  - P4 sort, match and mark **components**, where necessary making any adjustments
  - P5 use approved safe handling techniques, following any special procedures for handling **components**
  - P6 deal with damaged and/or incorrect **components** and take the actions necessary to resolve any **problems** this causes with production
  - P7 select the correct **components** as specified and confirm their quality meets the company standards
  - P8 select the required **tools and equipment** to complete the assembly
  - P9 assemble **components** in a logical and safe sequence using appropriate fixing and joining **materials**
  - P10 make necessary adjustments to ensure that alignment of surfaces is to the required tolerances
  - P11 maintain effective communication with the supporting personnel, clearly specifying quality outcomes to be met
  - P12 ensure safe and effective working practices are followed at all times, in line with current health and safety legislation

#### Attach fittings and finish the assembly

- You must be able to:*
- P13 finish the furniture which may involve cleaning, wiping glue joints, staining, filling
  - P14 use the correct techniques and **materials** to achieve the **specification**
  - P15 make good any assembly **faults** which need to be dealt with for the specified quality to be achieved
  - P16 carry out any **repairs** on marks and defects made during the manufacturing/fitting process
  - P17 accurately, measure, mark and position fittings to produce the required alignment adjusting as necessary to ensure that movement of fixed **components** is minimised
  - P18 accurately bore, cut or shape the item as necessary in preparation for the fastening of fittings
  - P19 ensure that fittings are firmly secured in place and lie square and true to the surface, according to the attachment method used
  - P20 ensure organisational procedures to minimise the risk of damage to **components/workpieces** are followed
  - P21 maintain effective communication with supporting personnel or colleagues, clearly specifying quality outcomes to be met
  - P22 where authority allows ensure safe and effective working practices are

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followed at all times, in line with current health and safety legislation

*You must be able to:*

### **Complete and check assemblies**

- P23 complete the work within the required time and to the required standard
- P24 deal safely and effectively with any **problems** during the assembly
- P25 make sure dimensions and construction of completed furniture are to the required quality standard/**specification**
- P26 confirm that necessary legal and regulatory requirements are met in the completed assembly
- P27 reinstate the work area ready for the next assembly
- P28 complete and check required documentation
- P29 in line with current health and safety legislation, ensure safe and effective working practices are followed at all times,

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### Knowledge and understanding

*You need to know and understand:*

#### Plan and assemble components

- K1 how to interpret work specifications, including the meaning of technical terms
- K2 the circumstances under which it would be necessary to make adjustments to designs and the extent of adjustment that might be necessary
- K3 how to correctly identify which measurements are required for the production of templates and cut outs
- K4 how to design and make accurate templates for complex designs
- K5 the specific health and safety issues associated with working in the workplace
- K6 the handling characteristics and properties of natural timber, wood composites, laminates, glass and stainless steel
- K7 how to recognise defects in wood and wood based products and the action to take to deal with this
- K8 safe handling techniques for components such as delicate or heavy components or items of an awkward size or shape
- K9 the range of joining and fixing materials available, their characteristics and suitability for the furniture assembly
- K10 the range of tools and equipment available, their operation and suitability for the furniture assembly
- K11 techniques for joining materials and potential problems with joining different materials
- K12 how to accurately measure, check and align in three dimensions
- K13 what sort of problems can occur with the assembly, such as equipment faults, and how would they be dealt with
- K14 organisational work flow procedures
- K15 what your personal responsibilities and that of your team are towards health and safety and the implications for your work of the HASAWA and COSHH regulations

*You need to know and understand:*

#### Attach fittings and finish the assembly

- K16 how to interpret and pass on information on work specifications
- K17 the handling characteristics of natural timber, wood composites, glass, laminate, stainless steel
- K18 the working characteristics of natural timber, wood composites, glass, laminate, stainless steel
- K19 the tolerances expected and the level of accuracy required
- K20 the types of assembly fault that may arise and how to correct them
- K21 how to repair marks and defects
- K22 what fittings are appropriate for production furniture and the methods of attachment

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- K23 how to accurately measure, mark and position fittings
- K24 how to check and adjust alignment and movement of components
- K25 what sort of faults may occur and how should they be dealt with
- K26 what your personal responsibilities and that of your staff are towards health and the implications for your work of the HASAWA and COSHH regulations
- K27 what timescale have been agreed for the work

*You need to know and understand:*

### **Complete and check assemblies**

- K28 the time allowed for the completion of the work
- K29 what sorts of problems might arise and the appropriate action to take to deal with them
- K30 how you would check the assembly against specifications or drawings and make alterations as necessary
- K31 the quality standards required for the work and the procedures for checking quality of completed assemblies
- K32 legal and regulatory requirements applicable for the intended use of production furniture
- K33 how to reinstate the work area for the next assembly
- K34 what documentation is required and confirmed by the customer and how to complete it
- K35 what your personal responsibilities and that of your team are towards health and safety and the implications for your work of the HASAWA and COSHH regulations

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### Additional Information

#### Scope

#### Components

These may vary in size from complex, detailed and/or delicate components to large, heavy items and/or items of an awkward shape or size. Components will differ according to the type of furniture and can include:

- 1 structural/framework
- 2 curved parts
- 3 splayed work
- 4 tapered and shaped components
- 5 internal components such as wine racks, hidden drawers
- 6 sliding doors
- 7 tambour door

Components can be made from natural or man made materials. Doors may be flat or curved and surface or flush fitted.

The types of drawers covered by this unit are those with false fronts, fitted by hand, and which make use of mechanical runners.

#### Problems and faults

Problems and faults may relate to quality and design issues, the use of materials, tools, equipment and/or components. Solving them will require communicating and coordinating with internal and external suppliers about lead times and other supply information or ordering replacement components/materials.

#### Repair

Repairs may relate to any work that is done to put right any marks or defects highlighted, or modifications that alter the design. These could include

1. cutting in new pieces of laminate/veneer to repair chips or blemishes
2. reattaching loose laminate/veneer
3. filling or waxing with coloured materials to hide any blemishes

#### Materials

Typical materials for assembling of furniture could include: wood composites (e.g. chipboard, laminates, MFC), softwoods, hard woods, metals, glass and man-made materials used in modern production furniture.

Materials also covers: finishes (e.g. filler, silicone), adhesives, fixings (e.g. screws, nails, drawer runners, hinges, handles, bolts) and specialised fixtures and fittings.

#### Equipment

Typical tools and equipment needed for the production of furniture would include:

- 1 hand tools (e.g. sawing, sanding, screwing scraping)
- 2 powered tools (e.g. drilling, screwing, sawing, routing, sanding)
- 3 basic woodworking machinery
- 4 devices (eg. jigs, templates, cramps, measuring devices)
- 5 pneumatic or vacuum operated tools

#### Information/Specification

The specification for the assembly of furniture will have been obtained and

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agreed between yourself and colleagues. This may also include deciding and agreeing on other information such as suitable materials and fittings for use in the assembly.

It should be written and/or involve drawings and work lists. It will typically detail:

- 1 the dimensions, construction and finishing of the furniture
- 2 resource requirements
- 3 time schedule
- 4 Health and Safety issues
- 5 design alterations

This will also include manufacturer's information for components and fittings.

In the context of this unit, fitting tolerances to within +/- 1mm would be expected.

Although specifications will usually be provided in written form or by diagrams a competent person should also be able to work from verbal instructions.

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**Status** Original

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**Relevant occupations** Paper and wood machine operatives; Furniture maker and other craft woodworkers; Upholsterers; Labourers build and woodworking trades

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**Suite** Furniture; Furnishings and Interiors

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