

# PROFFI201 (SQA Unit Code - FE5E 04) Prepare and assemble furniture using mechanical fixings



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## Overview

This standard addresses the competence required to prepare and make furniture using mechanical fixings. This involves:

- 1 Checking and preparing components
- 2 Prepare and assemble components to specification
- 3 Working in ways which maintain your own and others' safety
- 4 Finishing and checking the assembly conforms to specifications

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

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### Performance criteria

#### Prepare components and equipment

*You must be able to:*

- P1 organise the **materials, tools and equipment** you will need so that you can work effectively and keep your work area tidy
- P2 make sure that you have the required **work specification** and that it is clear and complete
- P3 check that the **equipment** to be used is in a safe and useable condition and that it is set to the required position
- P4 complete the preparations within the required time
- P5 accurately check **components** and surfaces against **specifications** and reject any which are of unacceptable quality
- P6 make sure that **joint surfaces** are clean and free of **substances**
- P7 mark out **components** accurately to within the allowed tolerance **specifications**
- P8 drill and bore holes for **mechanical fasteners** to the required dimensions and position
- P9 match **components** so that they are uniform
- P10 sort **components** according to type
- P11 deal promptly with any damaged and incorrect **components** or surfaces and report any which prevent you from completing the preparations

#### Assemble components

*You must be able to:*

- P12 lay **components** and **tools** out for **assembly**
- P13 where applicable, check that **components** match colour/grain **specifications**
- P14 complete **assembly** in the correct sequence accordance to work **specifications**
- P15 use the correct size and type of **fasteners** in **mechanical joints**
- P16 use template and jigs when it may be necessary
- P17 reject and report any **assemblies** which are not finished to **specification**
- P18 deal promptly with any **problems** that arise, reporting any which you cannot solve
- P19 assemble **components** to specified quality and tolerance levels
- P20 complete the process within the required time

#### Check and complete finished assemblies

*You must be able to:*

- P21 check **assembly** for **quality standards**, reporting any **faults** which you cannot solve
- P22 fill any defected surfaces using appropriate **substance** and colour, where required
- P23 where applicable, clean surfaces appropriately for the required finish
- P24 check and confirm that finished **assemblies** meet **specification** requirements
- P25 complete required **records** so that they are accurate and legible

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- P26 pass the completed **assemblies** over to the next stage in the production process in the required condition
- P27 clean and clear work area in preparation for the next **assembly**

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## Prepare and assemble furniture using mechanical fixings

### Knowledge and understanding

*You need to know and understand:*

#### Prepare components and equipment

- K1 the meaning of terms used in technical specifications for preparation of furniture assembly
- K2 the functions and uses of different types of equipment used in furniture assembly
- K3 how to handle power tools safely in ways that protect yourself and others from risk
- K4 the handling characteristics of wood composites and how this affects the way you handle and prepare components
- K5 the implications for your work of the HASAWA and COSHH Regulations, including where to find out about relevant risk assessment details and risk control strategies that have been set by your organisation
- K6 what Personal Protective Equipment (PPE) to use and why
- K7 how to set out a work area for efficient working and health and safety issues that can arise if a work area is disorganised and untidy
- K8 what the consequences are of substances being left on work surfaces
- K9 the types of equipment fault that can occur and how to recognise and deal with them

*You need to know and understand:*

#### Assemble components

- K10 why it is important that components are assembled in a particular sequence
- K11 the different types of mechanical fixings used, what each is for and when it is used
- K12 the functions and uses of different types of equipments used in furniture assemblies
- K13 what the consequences are of incorrect sorting of components
- K14 why is it important to use the correct techniques and equipment for filing, sanding, scraping, drilling and boring of wood composites
- K15 what preparations are required for making mechanical joints
- K16 the implications for your work of the hasawa, coshh regulations and the environmental protection act, including where to find out about relevant risk assessment details and control measures that have been set by your organisation
- K17 what personal protective equipment should be worn when assembling and why
- K18 work rates that you are expected to meet
- K19 how to dispose of waste in accordance with current legislation

*You need to know and understand:*

#### Check and complete finished assemblies

- K20 the meaning of terms used in technical specifications for checking of finished assemblies

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- K21 why is it important to check and confirm that the assembly is as specified
- K22 the implications for your work of the HASAWA, COSHH Regulations and the Environmental Protection Act, including where to find out about relevant risk assessment details and control measures that have been set by your organisation
- K23 what information is recorded on production records and why it is important that these are kept up to date and accurate
- K24 why it is important to pass the completed assemblies to the next stage, in the correct condition and at the required time
- K25 who to report unsolvable problems to
- K26 why its important to keep to time schedules
- K27 types of problems that can occur and how to recognise and deal with them
- K28 how to dispose of waste in accordance with current legislation

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### Additional Information

#### Scope

##### **Tools and equipment**

Hand operated and machine equipment used within modern furniture production environments for sanding, scraping, filing, drilling, boring, stapling, pinning, screwing, removing faults in furniture components.

##### **Equipment problems**

These relate to none functioning, missing or damaged tools and equipment or equipment parts. The person carrying out would be expected to solve any equipment problem for which maintenance engineers are not required. Where a problem does require a maintenance engineer the person would be expected to report the problem to a more senior person.

##### **Components**

The pieces which are assembled to create furniture items. They may be made of wood composites, metals or plastics.

##### **Joints**

The joints used in making production furniture whether for the domestic or office market. These include mechanical joints which are pinned screwed or stapled together.

##### **Specifications**

The set of instructions which describe the work to be carried out, including details of qualities of components to be used, the method of fixing and tolerances to be achieved. The specifications will also detail the assembly to be produced and the time in which this must be completed. In the context of these standards a tolerance of +/- 0.5 mm would be expected.

##### **Assembly**

An assembly is some part of an item of furniture which will be combined with other assemblies to make the full item. For example kitchen/ bedroom units or other knock down type assemblies.

##### **Assembly problems**

The problems will be related to the quality of the components relating to tolerance whether any are incorrect missing or damaged in some way. The person carrying out this role is responsible for identifying minor repairs; problem which cannot be solved in this way will be reported using correct work place procedures.

##### **Mechanical fasteners**

The screws, staples, pins and bolts used in modern furniture production methods.

##### **Substances**

This includes grease, adhesives, solvents and general manufacturing debris.

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<b>Developed by</b>	Proskills
<b>Version number</b>	1
<b>Date approved</b>	April 2008
<b>Indicative review date</b>	April 2013
<b>Validity</b>	Current
<b>Status</b>	Original
<b>Originating organisation</b>	Proskills
<b>Original URN</b>	201
<b>Relevant occupations</b>	Paper and wood machine operatives; Furniture maker and other craft woodworkers; Upholsterers; Labourers build and woodworking trades
<b>Suite</b>	Furniture; Furnishings and Interiors
<b>Key words</b>	Contemporary Furniture Making; Traditional Furniture Making; Bed Making; Frame Making; Component Manufacture; Veneering; Modern Upholstery; Traditional Upholstery; Soft Furnishing; Cutting; Sewing; Hand Finishing;