

## Task 2 – Manufacture and test

You must:

- a) produce a risk assessment for the manufacture of the scaled prototype
- b) construct a scaled prototype to be used in testing of the main body of the pylon
- c) carry out testing for the scaled prototype pylon checking its suitability of carrying the required scaled loading, recording your findings
- d) select and carry out material strength testing for a fully-scaled sample piece of the body of the main pylon provided by your assessor, recording your findings.

### Conditions of assessment:

- the time allocated for this task is **13 hours**
- you must carry out the task on your own, under **controlled conditions**.

### Controlled conditions:

- you must only work on the tasks in the allocated times
- assessment evidence must be handed in at the end of each session for secure storage which cannot be accessed
- you must not share or discuss your work with other candidates
- you are not permitted to bring any materials into the assessment session.

### What must be produced for marking:

- risk assessment
- test records
- scaled prototype.

### Additional evidence for this task:

- assessor observations:
  - development of scaled prototype
  - testing.

To support the comments made within the Practical Observation the assessor must capture the following photographs and videos that must be submitted as supporting evidence for each candidate.

**Photographic evidence which shows:**

- sequence of photographs during the manufacture of the scaled prototype to include:
  - results of tool selection and usage
  - cutting and preparation of model components
  - connecting of model components
  - arrangement of model components in plan, elevation and detail
  - 3D view of the final scaled prototype.

**Video evidence which shows:**

- functionality of the scaled prototype.

**Resources:**

- copies of completed documentation from task 1
- material strength testing and measuring equipment
- hand tools
- modelling materials and components.

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