

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 global stability testing for the scaled prototype pylon checking its suitability of carrying the required scaled loading
- d) select and carry out material strength testing for a full-scale sample of the body of the main pylon provided by your assessor.

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
- 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 construction of the 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 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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