



Space 4 Cassette Roof Vertical Method Installation Guidance

This is a step-by-step guidance on the safe installation of the Space4 vertical cassette roof rapid fit system on traditional and timber frame build properties.

Please note that the installation of this system should only be undertaken by suitably experienced and qualified personnel, such as those with a Level 2 Diploma in Site Carpentry. Operatives undertaking the task must also be trained in manual handling techniques.

In addition to this guidance, site management must ensure that the following procedures are adhered to prior to the installation of the cassette roof system:

- The carpentry operatives scheduled to undertake the work have received a full induction and can demonstrate levels of competency for the operation;
- There are appropriate risk assessments and method statements (RAMS) for the task and the operatives undertaking the work have been trained on these RAMS, with a written record confirming this;
- The carpentry operatives have confirmed that a suitable access platforms (2 metre step ladders & hop ups) are available and suitable to ensure full compliance with this guidance;
- A crane lift assessment has been undertaken by a competent person;
- A visual check has also been undertaken to determine that fall prevention/protection measures are in place and that the scaffolding and table lifts are suitable as detailed in the working at height assessment;
- There are sufficient number of operatives available (minimum team of three) to ensure cassettes can be safely handled and positioned into their final position and that all fixings can be fitted safely; and
- That all assembly drawings and information provided by the supplier are available on site before the operation, this includes the Space4 Standard Operations Manual.

Pre-installation

A site pack will be issued to site management containing the Space4 Standard Operations Manual and assembly drawings, including fastening details and a pre assembly completion checklist. Before any work starts, a preliminary inspection must be conducted by site management to ensure the site is ready for the crane lift and that the scaffold requirements of table lifts and height of the final lift are correct. Site management on the day of the lift must ensure that the Carpentry Supervisor is issued the Space4 Standard Operations and this guidance document and has read and understood prior to start of the assembly.

Before any work starts, preliminary due diligence checks must be conducted by site management using:

1. [Pre Installation Check List Sheet – HSMS Form 069](#)
2. [Pre Installation Confirmation Sheet – HSMS Form 070](#)

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Ensure adequate equipment

Correct scaffold and safety equipment is paramount to the safe assembly and fixing of the roof system and must be either present on site and/or fitted to the scaffold prior to the start of the assembly.

Table lifts must be in place, at both gable ends, to allow for external control through guide ropes, whilst providing a safe working platform to safely place the cassettes during assembly. The table lifts must have an internal double hand rail fitted as there is a fall from height risk internally prior to assembly of spandrel panels.

A set of stepladders will be required to assist with locating the “top hat” section of the roof. A rescue plan must be formulated in order that anyone suspended from a harness is rescued immediately.

Harnesses must be supplied by the carpenters and these must undergo regular inspections. Operatives must be trained in the use of a harness.

NOTES:

1. Under no circumstances must operatives walk on the installed roof, if access is required to the installed roof then a roof ladder must be used;
2. If the lifting strops are damaged that are attached to the roof cassettes, the cassettes must not be lifted until the lifting strops have been replaced with a like for like strop; and
3. The mobile crane's duty charts will specify the maximum wind speed at which the mobile crane must be taken out of service, the maximum allowed wind speed must never be breached.

Spandrel Panels

Assemble spandrel panels as required by the Space4 Standard Operations Manual.



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“Top hat” section

Harnesses must be supplied by the carpenters and these must undergo regular inspections. Operatives must be trained in the use of a harness.



- The top hat must be fully boarded out with Caber Deck or plywood;
- Additional Timber Lock fixings must be used to secure the ridge beam;
- Temporary handrail must be installed, using proprietary systems;
- An opening must be required for access once the top hat has been lifted into place, and this must have a hinged cover;
- Prior to the Top hat being lifted, sacrificial strops must be fitted to the ridge beam, these will be used by the operative that guides in the cassettes within the “top hat” section, to clip their safety lanyard onto.

Lifting the “top hat”

- The “top hat” must be lifted into position using a crane;
- Operatives will guide the “top hat” section in, from the table lift and using a step ladder from below;

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- Once the “top hat” is in position on the spandrel Panels it should be nailed into position, from the table lifts and from below; and
- The operative that will land the cassettes from the “top hat” can now gain access to the “top hat” section, by entering through the hatch from a ladder. Once the operative working in the “top hat” is clipped on and secure the proprietary edge protection can be removed.

Landing the roof cassettes

- The operative working in the “top hat” must ensure that the hatch is closed;
- Hand/guidelines must be fitted to the roof cassettes by the slingers;
- The crane will lift the cassette into place, this will be brought in vertically under control using the hand lines, the operative in the “top hat” section will land the upper part of the cassette first and the operative working from the scaffold will ensure that bottom part of the panel is located correctly;



- Once in position the cassette must be fixed, once fixed the strop can be cut and additional cassettes landed;
- The operative in the “top hat” will guide the final panel into place, this can be fixed in place from the table lift scaffold; and

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- The operative in the “top hat” can then cut the sacrificial stop that is around the ridge beam and access through the hatch.

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