

Hangin9 Scaffold Guidelines

Definition

Hangin9 Scaffold means a temporary work platform without support from below, secured to an overhead structure using fixed length rigid suspension members.

Scope

These guidelines apply to scaffolds used in workplaces where the platforms are supported by scaffold members attached to overhead structures. Hangin9 Scaffolds do not have the ability to move vertically or horizontally.

1.0 Loading/Design

- 1.1 Hangin9 Scaffolds shall be securely attached to a structure capable of safely supporting the anticipated loads.
- 1.2 Each scaffold and scaffold component shall be capable of supporting, without failure, its own weight and at least 4 times the maximum intended load applied or transmitted to it.
- 1.3 All Hangin9 Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.
- 1.4 Hangin9 Scaffolds shall be designed by a registered professional engineer when:
 - 1.4.1 Intended live load exceeds 25 psf (light duty).
 - 1.4.2 There will be more than one platform level.
 - 1.4.3 The scaffold will be a large area scaffold (multiple bays in both directions).
 - 1.4.4 Bay width (bearer) exceeds 4 feet or bay length (runner) exceeds 7 feet.
- 1.5 Do not bridge between independent Hangin9 Scaffolds unless specifically designed for this purpose.
 - 1.5.1 Multiple bay scaffolds (single bay width by two or more bays in length) shall be designed and constructed as a continuous scaffold.
 - 1.5.2 Large area scaffolds (multiple bays in both directions) shall be designed and constructed as a continuous scaffold in both directions.
- 1.6 The scaffold shall be secured against all anticipated sway and uplift forces.

2.0 Anchorage/Suspension

- 2.1 When overhead structural beams are used to support the hangin9 scaffold, specialty scaffold beam clamps shall be used, except as noted in Section 2.2.
 - 2.1.1 Specialty beam clamps shall be used in pairs on the same beam.
 - 2.1.2 Specialty beam clamps shall not be used on channels except two clamps may be used on back-to-back channels.
 - 2.1.3 Specialty beam clamps shall be tested and rated by the manufacturer. Rating shall specify clamp orientation. Rated loads for recommended use shall be published and include allowable loads based upon specified tightening torque for both the pinch bolt and the nut on the clamp cap.
- 2.2 In lieu of beam clamps, the supporting overhead structural beam may be "boxed" using tubes and right angle clamps.

2.3 Horizontal tubes resting directly on structural beams may be used for attaching hanging legs where the scaffold is lightly loaded and the hanging legs are directly adjacent to the supports for the horizontal tubes (scaffolds with no more than one work level and no more than two workers) unless designed by a registered professional engineer.

2.3.1 Horizontal tubes supported on the top flange of structural beams shall be fixed or restrained in their longitudinal direction to prevent the tube from becoming dislodged.

2.3.2 Horizontal tubes supported on the bottom flange shall be cut to fit snugly between the beams webs, but shall not be used on beams with tapered flanges.

2.3.3 Horizontal tubes shall not be used on sloping beams unless a suitable stop is provided to prevent the support tubes from sliding. Stop shall be designed to withstand all anticipated lateral forces.

2.4 Hanging Scaffolds supported from other structural members (such as wood beams) shall be designed by a qualified person.

3.0 Erection/Dismantling

3.1 Vertical tubes (legs) hung from overhead shall have a check clamp installed directly above and in contact with the primary clamp. The primary clamps shall be installed a minimum of 6" from the end of the vertical tubes as measured from the center of the clamp to the edge of the tube.

(Note: A check clamp will not increase the capacity of the primary clamp. Its purpose is to serve as a backup to the primary clamp.)

3.1.1 When system legs are used as vertical tubes, the primary clamp may be placed directly below and in contact with a ring/rosette in lieu of a check clamp.

3.1.2 When system legs are hung together, the snap buttons that normally connect the legs together shall be removed and replaced with bolts and nuts or other connecting devices as approved by the manufacturer or a registered professional engineer.

3.2 Bearer tubes shall be clamped to the vertical tubes using right angle clamps.

3.2.1 Bearer tubes shall not span greater than 4 feet (measured center to center of the vertical tubes unless designed by a registered professional engineer.

3.2.2 Check clamps shall be placed directly below and in contact with the bearer clamps unless runners are installed directly below the bearers.

3.3 Runners shall be clamped directly below and in contact with the bearers using right angle clamps.

3.3.1 Runners shall not span greater than 7 feet (measured center to center of the vertical tubes) unless designed by a registered professional engineer.

3.4 Vertical diagonal bracing shall be installed to prevent swaying.

3.5 Horizontal diagonal bracing shall be installed as necessary to square the scaffold and provide additional rigidity.

3.6 Work platforms shall be fully planked between the vertical tubes.

3.6.1 Hook-on decks and planks shall be placed with their hooks fully engaged on the bearer tubes.

3.6.2 Wood plank shall be graded as scaffold plank and extend over the bearers by a minimum of 6 inches.

3.6.3 All platform units shall be secured against uplift.

- 3.7** Dismantle in the reverse order of the erection sequence.
 - 3.7.1** Do not remove any clamps that are directly supporting any load other than its component self-weight.
- 3.8** Fall protection during erection and dismantling
 - 3.8.1** The Competent Person shall determine the feasibility and safety of providing fall protection for workers erecting or dismantling hung scaffolds.
 - 3.8.2** Personal fall arrest systems used by workers erecting or dismantling hung scaffolds shall comply with Federal OSHA 1926.502(d).
 - 3.8.2.1** Appropriate anchorage connectors shall be used for attaching a vertical lifeline or self-retracting lanyard to an overhead structural member.
 - 3.8.2.2** A site specific work plan shall be developed to ensure that appropriate fall protection is provided to all workers and to prevent entanglement between worker's lifelines and scaffold components being installed or dismantled.
 - 3.8.3** A rescue plan shall be developed. The Competent Person shall ensure that workers are trained in the rescue plan and that all necessary rescue equipment is readily available at the work site anytime workers are erecting and dismantling scaffolds.

Disclaimer

The information contained herein is believed to be accurate as of the date of publication. This provides information on best practices of hanging scaffold use but does not purport to be all-inclusive, or to supplant or replace any manufacturer or other safety and precautionary measures. They are intended to neither conflict with nor supersede the requirements of law or governmental regulations, codes and ordinances. The user must refer to such provisions. Scaffold & Access Industry Association expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information. The ownership of the copyright for these guidelines belong to the Scaffold & Access Industry Association. For more information visit www.saiaonline.org or by phone at (816) 595.4860.