



## Scaffolding Basics

OSHA Standard Subpart L Scaffolding – Capacity - 1926.451(a)(1) - Except as provided in paragraphs (a)(2), (a)(3), (a)(4), (a)(5) and (g) of this section, 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.

OSHA Standard Subpart L Scaffolding – Design - 1926.451(a)(6) - Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design. Non-mandatory appendix A to this subpart contains examples of criteria that will enable an employer to comply with the paragraph.

OSHA Standard Subpart L Scaffolding - Platforms - 1926.451(b)(1) - Each platform on all working levels of scaffolds shall be fully planked or decked between the front uprights and the guardrail supports and 1926.451(b)(1)(ii) - where the employer makes the demonstration provided for in paragraph (b)(1)(i) of this section, the platform shall be planked or decked as fully as possible and the remaining open space between the platform and the uprights shall not exceed 9½ inches (24.1 cm) and each platform unit (e.g., scaffold plank, fabricated plank, fabricated deck, or fabricated platform) shall be installed so that the space between adjacent units and the space between the platform and the uprights is no more than 1 inch (2.5 cm) wide, except where the employer can demonstrate that a wider space is necessary (for example, to fit around uprights when side brackets are used to extend the width of the platform).

OSHA Standard Subpart L Scaffolding - Platform and Walkways - 1926.451(b)(2) - Except as provided in paragraphs (b)(2)(i) and (b)(2)(ii) of this section, each scaffold platform and walkway shall be at least 18 inches (46 cm) wide.

OSHA Standard Subpart L Scaffolding – Distance to Face - 1926.451(b)(3) - Except as provided in paragraphs (b)(3) (i) and (ii) of this section, the front edge of all platforms shall not be more than 14 inches (36 cm) from the face of the work, unless guardrail systems are erected along the front edge and/or personal fall arrest systems are used in accordance with paragraph (g) of this section to protect employees from falling and 1926.451(b)(3)(i) The maximum distance from the face for outrigger scaffolds shall be 3 inches (8 cm).

OSHA Standard Subpart L Scaffolding – Base to Height - 1926.451(c)(1) - Supported scaffolds with a height-to-base width (including outrigger supports, if used) ratio of more than four to one (4:1) shall be restrained from tipping by guying, tying, bracing, or equivalent means.

OSHA Standard Subpart L Scaffolding – Foundations - 1926.451(c)(2) - Supported scaffold poles, legs, posts, frames, and uprights shall bear on base plates and mud sills or other adequate firm foundation.

OSHA Standard Subpart L Scaffolding – Electrical - 1926.451(f)(6) - The clearance between scaffolds and power lines shall be as follows: Scaffolds shall not be erected, used, dismantled, altered, or moved such that they or any conductive material handled on them might come closer to exposed and energized power lines than as follows: {Less than 300 volts 3 feet (0.9 m), 300 volts to 50 kv 10 feet (3.1m), More than 50 kv 10 feet (3.1 m) plus 0.4 inches (1.0 cm) for each 1 kv over 50 kv}.

OSHA Standard Subpart L Scaffolding – Fall Protection - 1926.451(g)(1) - Each employee on a scaffold more than 10 feet (3.1 m) above a lower level shall be protected from falling to that lower level. Paragraphs (g)(1) (i) through (vii) of this section establish the types of fall protection to be provided to the employees on each type of scaffold. Paragraph (g)(2) of this section addresses fall protection for scaffold erectors and dismantlers.

QUANDEL IS COMMITTED TO OUR NUMBER ONE CORE VALUE:  
**SAFETY: FIRST. LAST. ALWAYS!**

OSHA Standard Subpart L Scaffolding – Struck by Objects - 1926.451(h)(1) - In addition to wearing hardhats each employee on a scaffold shall be provided with additional protection from falling hand tools, debris, and other small objects through the installation of toeboards, screens, or guardrail systems, or through the erection of debris nets, catch platforms, or canopy structures that contain or deflect the falling objects. When the falling objects are too large, heavy or massive to be contained or deflected by any of the above-listed measures, the employer shall place such potential falling objects away from the edge of the surface from which they could fall and shall secure those materials as necessary to prevent their falling.

OSHA Standard Subpart L Scaffolding – Inspections - 1926.451(f)(3) - Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each work shift, and after any occurrence which could affect a scaffold's structural integrity.

**Scaffold-related accidents cause 4,500 injuries and over 60 deaths per year. Scaffolds are used by approximately 65% of construction workers, so it's critical to understand how to stay safe and have the proper set of scaffolding safety standards in place.**

### **APPLICATION SUMMARY OF OSHA SCAFFOLDING REQUIREMENTS:**

1. Scaffolds shall support, without failure, its own weight and at least 4 times the maximum intended load applied or transmitted to it.
2. Scaffolds shall be designed by a qualified person and erected and inspected by a competent person.
3. Construction scaffolds shall be fully planked or decked between the front uprights and the guardrail supports. The space at the guardrail side shall not exceed 9½ inches and there should be no gaps in the planking greater than 1 inch.
4. Scaffold platforms and walkways shall be at least 18 inches (46 cm) wide.
5. All platforms shall not be more than 14 inches from the face of the work and outrigger scaffolds shall be no more than 3 inches for the face of the work. (There is an exception for plastering and lathing work but shall be more than 18 inches from the face of the work.

6. Supported scaffolds require a four to one (4:1) height to base ratio (including outrigger supports) after which they need to be tied in.
7. Uprights shall bear on base plates and mud sills or other adequate firm foundation.
8. An electrical clearance good rule of thumb is to (maintain a minimum of 10 foot clearance) from any power line.
9. Each employee on a scaffold more than 10 feet (3.1 m) above a lower level shall be protected from falling to that lower level and from objects that might strike them.
10. Scaffolds must be inspected for visible defects and OSHA compliance by a competent person before each work shift, and after any occurrence which could affect a scaffold's structure, working surface integrity or employee safety.

### **WHAT YOU NEED TO KNOW:**

1. The most common scaffolding hazards are; construction deficiencies, electrocutions, climbing scaffolding, falls, falling objects, structure failure. 8% of high risk hazards are associated with the hazards during assembly and removal.
2. OSHA focus is on scaffolding; use and movement, inspections, limits, and fall protection.
3. Scaffolds should not be moved, erected, dismantled or changed without informing appropriate personnel and receiving an after change inspection by a "Competent Person." Yes, this competent person evaluation is required after every known change and/or inspection deficiency.
4. Always use the proper equipment and compatible scaffolding systems.
5. Remember slips, trips and falls are magnified when they happen on scaffolding.
6. Brace the scaffold per the manufacturer's code. Use guardrails, mid rails, and toe boards on all open sides and ends of platforms above 10 feet. Inspect the scaffold's setup after erection and before each shift.
7. Failure to use guard rails and fall arrest systems to prevent falls from elevations is the number one scaffolding hazard.
8. Guardrail systems are the primary means of fall protection and include top rails, midrails and toe boards for most scaffolding systems or a PFAS designed for utilization on the scaffolding.

"1926.451 - General Requirements. | Occupational Safety and Health Administration." Osha.gov, 2019, [www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.451](http://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.451).

**QUANDEL IS COMMITTED TO OUR NUMBER ONE CORE VALUE:  
SAFETY: FIRST. LAST. ALWAYS!**

[quandel.com](http://quandel.com)

