



International Window Cleaning Association

SAFETY & TRAINING

INFORMATION PACKAGE

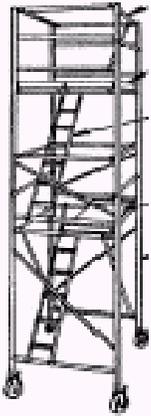
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Tower Scaffolding

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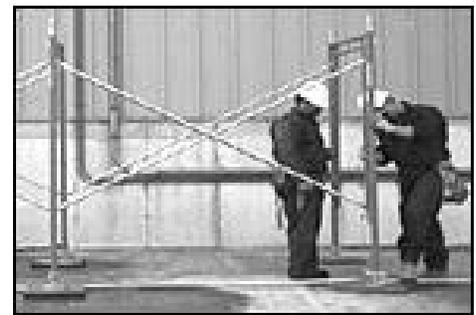


Tower/Rolling Scaffolds

Employees shall be trained in the use and care of manually propelled mobile scaffolds before they are permitted to use such equipment. Training shall include but not be limited to understanding the manufacturer's instructions, inspection, scaffold assembly and dismantling, moving, climbing, descending, fall protection and a full understanding of safe working conditions considering as a minimum, unlevelled surfaces and wind.

A tower or rolling scaffold is a combination of components that when correctly assembled, create a vertical tower that can be climbed and descended in order to reach windows that cannot be reached by other methods. Typically, these towers may have wheels or casters on the base section as shown in the photo. This enables the scaffold to be moved easily from location to location. Often times, the scaffolding will have an interior ladder for ascending and descending the tower. This ladder or stairway is much safer than older style scaffolding where workers are forced to climb the outside rails and without any advantageous fall protection.

A typical configuration for tower scaffolds consists of side rails that are around 6 feet in height. Two side rails are connected together using cross braces or beams. Once connected, a work platform is placed at uppermost available level and a second set of side rails and cross beams are erected on top of the first. Another work platform is added and the scaffolding continues to be erected to its desired height in this manner. When its ultimate height is reached, a work platform is installed and one more set of side rails and cross beams are installed to provide fall protection for this work level of the scaffold.

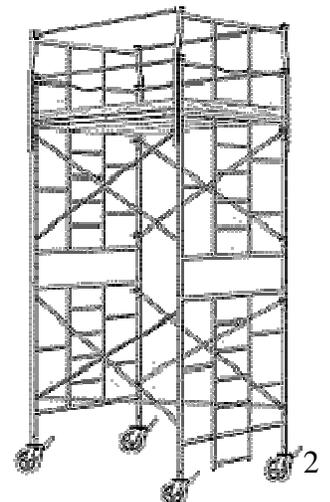


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Often times outriggers are needed to support a tower scaffold when the height of the scaffold exceeds the width of the base. Outriggers are used to actually increase the width of the base.

The following safety guidelines need to be observed whenever a tower scaffold is used for window cleaning.

1. All scaffolding should be of approved design and used for its intended purpose only.
2. The scaffolding should be assembled according to the manufacturer's specifications, Federal, State and Local regulations. Wheels must be locked before assembling above the first section, ascending, descending and disassembling the scaffold.
3. All components of the scaffolding should be inspected before and after each use. Any damaged or excessively worn components should be reported immediately, permanently labeled and taken out of service until repairs or replacements are made.
4. All repairs or replacements should be made by the manufacturer or according to manufacturer specifications.



5. Scaffolding and its components shall be stored in such a manner as to provide ease of access or inspection and to prevent danger of an accident when withdrawing the scaffolding for use. Components should be stored at a location where they will be protected from the elements. Climbing and work surfaces shall be kept free from grease, oil or other slippery substances.
6. The scaffolding must be level. All outriggers and intermediate supports shall be in place before climbing. If the work area is over steps or an unlevelled area, adjustable legs must be used to level base to build upon. Do not use mobile scaffolds on sloped surfaces unless its frame is elevated as to raise its wheels from the surface. No more than 12 inches of a screw jack shall extend between the bottom of the adjusting nut and the top of the caster.
7. Scaffolding should not be erected on an unstable surface in order to gain more height.
8. Ladders or makeshift devices should not be used on the work level in order to gain more height.
9. The height of the scaffold should not exceed 4 times the minimum base width. If the height must be raised the scaffolding should be tied in to the workface at 25 foot intervals. The tie ins should start at the point where the height exceeds 4 times the minimum base width.
10. The erected scaffolding or any of its components shall not be loaded beyond manufacturer's specifications.
11. Front rear and both side guardrails and toe boards should be in place on the work level of the scaffolding.
12. Scaffolding should not be moved while a worker is on it. Before moving an un-occupied tower, the work location should be surveyed for any hazards (including unstable ground or exposed power lines) and all equipment on the tower should be secured. The force to move the tower should be applied as close to the bottom of the tower as possible.
13. Extreme caution should be taken when using scaffolding around electrical lines or devices.
14. The scaffolding should be secured and the work operation discontinued, when wind speeds or other weather conditions may affect the safety of the worker or public.
15. When using scaffolding on or around public areas all window-cleaning tools should be secured to prevent them from falling.
16. Before, during and after erection and use of scaffolding proper danger signs and barricades should be in place.

Assembly and Disassembly

- (a) Workers are prohibited from attempting to assemble a scaffold by themselves unless the scaffold is of a pre-assembled design that allows for one person set up and take down.

(b) A competent person shall determine when fall protection is to be used during the assembly and disassembly of a scaffold.

(c) Rope shall be used to raise and lower structural components of the scaffolding. At no time are workers permitted to climb the scaffold while carrying a structural component.

(d) Never remove a component without considering its affect on the entire scaffold structure.

(e) Remove equipment and clean debris from components prior to dismantling scaffold.

(f) Lower dismantled components in a safe manner to protect those below and prevent damage to the components.

Supported Scaffold Safety Tips

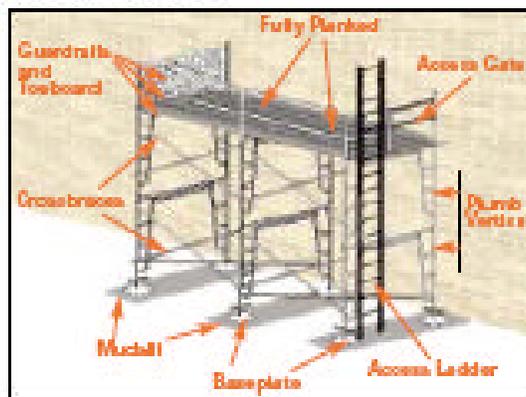
Supported scaffolds consist of one or more platforms supported by outrigger beams, brackets, poles, legs, uprights, posts, frames, or similar rigid support.

Guardrails or personal fall arrest systems for fall prevention/protection are required for workers on platforms 10 feet or higher.

Working platforms/decks must be planked close to the guardrails.

Planks are to be overlapped on a support at least 6 inches, but not more than 12 inches.

Legs, posts, frames, poles, and uprights must be on base plates and mud sills, or a firm foundation, and be plumb and braced.



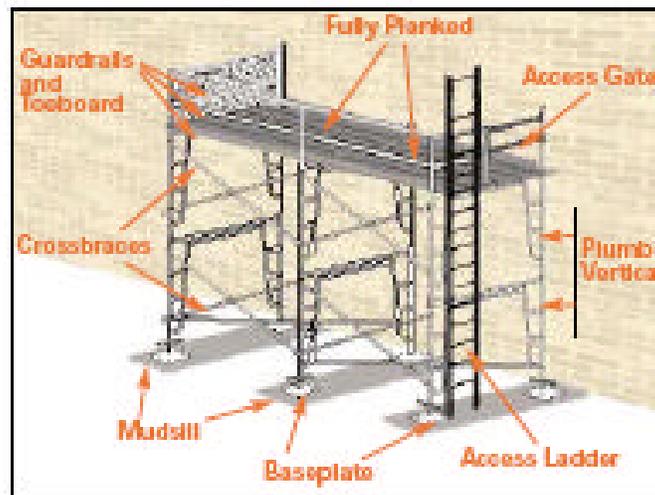
Scaffold user training must include:

- The hazards of type of scaffold being used;
- Maximum intended load and capacity;
- Recognizing and reporting defects;
- Fall hazards;
- Electrical hazards including overhead lines;
- Falling object hazards;
- Other hazards that may be encountered.

Supported Scaffold Inspection Tips

Inspect scaffolds and scaffold parts daily, before each work shift, and after any event that may have caused damage.

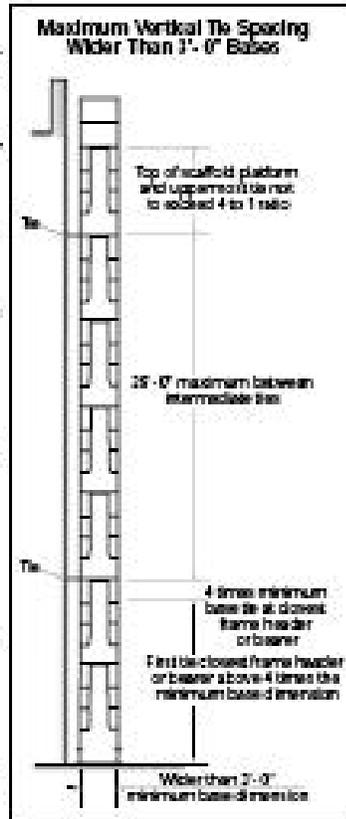
- Check to see if powerlines near scaffolds are deenergized or that the scaffolds are at least 10 feet away from energized powerlines.
- Make sure that tools and materials are at least 10 feet away from energized powerlines.
- Verify that the scaffold is the correct type for the loads, materials, employees, and weather conditions.
- Check footings to see if they are level, sound, rigid, and capable of supporting the loaded scaffold.



- Check legs, posts, frames, and uprights to see if they are on baseplates and mudsills.
- Check metal components for bends, cracks, holes, rust, welding splatter, pits, broken welds, and non-compatible parts.
- Check for safe access. Do not use the crossbraces as a ladder for access or exit.

OSHA QUICK CARD

- Check wooden planks for cracks, splits greater than $\frac{1}{8}$ inch, and splits that are long, many large loose knots, warps greater than $\frac{1}{8}$ inch, boards and ends with gouges, mold, separated laminate(s), and grain sloping greater than 1 in 12 inches from the long edge and are scaffold grade lumber or equivalent.
- If the planks deflect $\frac{1}{8}$ of the span or 2 inches in a 10-foot wooden plank, the plank has been damaged and must not be used.
- Check to see if the planks are close together, with spaces no more than 1 inch around uprights.
- Check to see if 10-foot or shorter planks are 6 to 12 inches over the center line of the support, and that 10-foot or longer planks are no more than 18 inches over the end.
- Check to see if the platform is 14 inches or more away from the wall or 18 inches or less away if plastering/stucco.
- Check for guardrails and midrails on platforms where work is being done.
- Check for employees under the platform and provide falling object protection or barricade the area. Make sure that hard hats are worn.
- Use braces, tie-ins and guying as described by the scaffold's manufacturer at each end, vertically and horizontally to prevent tipping.



OSHA Occupational Safety and Health Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA

SHORT QUIZ

1. Tower scaffolds can be moved while some one is on the top of it as long as the force to move it is as close to the bottom of the scaffold as possible:
 - a) True
 - b) False

2. When using a tower scaffold over an area that is not level, it is best to:
 - a) Take off the wheels and use cinder blocks to level it
 - b) Use the adjustable wheel levelers (screw jacks) to adjust the height until its level
 - c) Skin those windows
 - d) Call the office
 - e) None of the above

3. You should never raise a tower scaffold wheel farther than:
 - a) 1 foot
 - b) 2 foot
 - c) 6 inches
 - d) 36 inches

4. If your scaffold tower is not high enough to reach the windows you're trying to clean, it's best to:
 - a) Use an extension pole to reach them
 - b) Set up section ladders on the work platform
 - c) Get more sections to the site
 - d) Go home for the day

5. You only need side and rear guardrails on the work platform of the tower scaffold:
 - a) True
 - b) False

6. The best way to assemble or disassemble a tower scaffold is by holding a section or piece with one arm and climbing the tower using the other arm:
 - a) True
 - b) False

7. Because a tower scaffold is so heavy, you do not need outriggers on the base;
 - a) True
 - b) False

ANSWERS

1. Tower scaffolds can be moved while some one is on the top of it as long as the force to move it is as close to the bottom of the scaffold as possible:
 - c) True
 - d) False
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 - c) Skin those windows
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 - e) None of the above
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