

SAFETY GUIDELINES

This brochure is intended for general information only; some provisions may not apply to all applications. If you have questions regarding specific applications, contact Layher Inc.

POST THESE SCAFFOLDING SAFETY GUIDELINES in a conspicuous place and be sure that all persons who erect, dismantle or use the scaffolding are aware of them.

⚠ WARNING

Serious INJURY or DEATH can result from your failure to follow all applicable safety requirements of OSHA, federal, state and local regulations, and these Safety Guidelines before erecting, using or dismantling Layher scaffolding.

- Erection, use, maintenance and disassembly must conform to current Layher instructions as well as OSHA, and all other federal, state and local regulations.
- These Safety Guidelines are not intended to supersede any OSHA, federal, state, local statutes or regulations.
- These Safety Guidelines apply to Layher Scaffolding's Allround and Speedyscaf products. For the erection of suspended scaffolds, additional precautions apply: please contact Layher Inc. and refer to OSHA and all other applicable federal, state and local regulations.

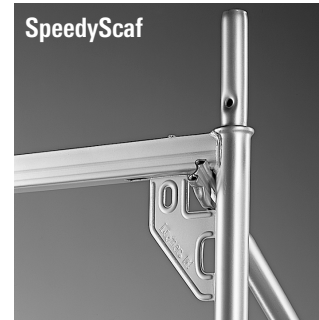
⚠ WARNING

DO NOT USE Layher Allround posts with crimped spigots for suspended scaffolds. Use only posts with bolt-in spigots for this application.

Layher's corresponding ERECTION MANUAL must be followed in erecting all Layher scaffolding. Erection Manuals are available from Layher Inc. without charge.

I. GENERAL GUIDELINES

- Layher Scaffoldings must be erected, moved, altered or dismantled only under the supervision and direction of a competent person¹. Hard hats and appropriate clothing must be worn by all persons erecting, moving, dismantling or using Layher Scaffoldings.



OSHA requires that the employer shall have a competent person¹ determine the feasibility and safety of providing fall protection for employees erecting or dismantling supported scaffolds.

- **DO NOT WORK ON SCAFFOLDS** if you feel dizzy or unsteady in any way.
- **DO NOT** abuse or misuse the scaffold equipment.
- **Never take chances!** If you are in doubt regarding the safety or use of this scaffold, contact Layher Inc.
- Properly qualified personnel² **MUST ANALYZE** load-carrying members during design. Information about the component load capacity and weight is available from Layher Inc.
- The scaffold assembly must be designed to comply with local, state and federal requirements.

⚠ WARNING

Wedges that are not fully seated or couplers that are not fully tightened will not support design loads. Failure to FULLY KNOCK HOME WEDGES OR TIGHTEN COUPLERS could cause serious INJURY or DEATH.

¹ OSHA defines "competent person" for this purpose as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them." 29 CFR 1926.450 (b).

² OSHA defines "qualified" for this purpose as "one who, by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training or experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project." 29 CFR 1926.450 (b).

- SURVEY THE JOB SITE to determine ground conditions, strength of the supporting structure, proximity of electric power lines, overhead obstructions, wind conditions and the need for overhead or weather protection. These conditions must be evaluated and adequately provided for.
- DO NOT erect scaffolds near electrical power lines unless proper precautions are taken.
- Post/frame spacing and sill size can be determined only after the total loads to be imposed on the scaffold and the weight of the scaffold have been calculated.
- Any part of a building or structure used to support the scaffold must be capable of supporting the load to be applied. This analysis must be done by a qualified person.
- Stationary scaffolds over 125 feet in height must be designed by a professional engineer.
- All equipment must be inspected prior to erection to see that it is in good condition and is serviceable. Damaged or deteriorated equipment must not be used. REMOVE it from the job site.
- Inspect all Layher "Robust Decks" prior to erection, especially for mechanical damage, deformation and rot or other deterioration.
- Use only properly identified Layher components in erecting scaffolds with Layher instructions or guidelines.
- Rolling Towers over 60 feet in height must be designed by a professional engineer.

WARNING

Fall arrest equipment attached to scaffold MAY NOT prevent serious INJURY or DEATH if a fall occurs.

ERECTION OF FIXED SCAFFOLD

- Base plates must be used on all scaffolds, centered on the sills, and in firm contact with the sills. Base plates must also be in firm contact with other scaffold components, depending upon the scaffold design being followed. Be especially careful when scaffolding is to be erected on soft or frozen ground.
- Compensate for uneven ground by using screw jacks and base plates with sills. DO NOT USE unstable objects such as blocks, loose bricks etc.
- Use only tools recommended by Layher for erection and dismantling. Layher recommends a 500g (1.12 lbs.) hammer for knocking home the wedges.
- DO NOT stand, lean or put weight on horizontal members until the wedges are fully driven home and the couplers are tightened.

WARNING

FULLY KNOCK HOME WEDGES AND TIGHTEN COUPLERS IMMEDIATELY after placing member.

- Horizontal and/or vertical diagonal bracing, per Erection Manual, is required to maintain a square and plumb scaffold structure.
- Plumb and level the scaffold until proper fit can easily be made. DO NOT force members to fit. Be sure the scaffold stays plumb and level as erection progresses.

- Ties, guys, bracing and/or outriggers may be needed to assure a safe, stable scaffold assembly. The height of the scaffold in relation to the minimum base dimension (length or width), wind loads, the use of brackets or cantilevered platforms and imposed scaffold loads determine the need for sway and stability bracing.
- For detailed information regarding tying or guying of Layher Allround and Speedyscaf, the corresponding Erection Manual MUST BE USED or contact Layher Inc..
- Outrigger bays or outrigger units can be used to increase the minimum base width of freestanding towers. If used, they must be installed on both sides of the tower. The resulting base dimension, however, may no longer be the minimum (or limiting) base dimension.
- Work platforms must be fully decked with Layher platform units in sound condition. Individual grade wood planks MUST NOT be used with Layher Speedyscaf. Secure platform units against lift-off.

WARNING

USE ONLY LAYHER FABRICATED DECKS with LAYHER SPEEDYSCAF SYSTEM. Substitutions could cause a SCAFFOLD COLLAPSE.

- Guardrails must be used on all open sides and ends of scaffold platforms. Both top and midrails are required. Local codes specify heights above working surface and the platform height above ground when guardrails are required. Use at lower heights above ground if falls can cause injury. Watch out for local regulations!
- Toeboards must be installed whenever people are required to work or pass under a scaffold platform. Screening is required when materials are to be stacked higher than the toeboard.
- A means of access must be provided to all work platforms. If access is not available from the structure, access ladder units and swing-gates, decks with built-in ladders or stairways must be provided. Attachable ladder units must extend at least 3 feet above platforms. Install access ladder units as scaffold erection progresses.
- Materials MUST NEVER be placed on cantilevered, side or end bracket platforms unless the assembly has been designed to support material loads by a qualified person. These types of platforms cause overturning and up-lift forces which must be compensated for.
- When uplift can occur, vertical members (frames or posts) must be pinned together.
- Consult a qualified person. The qualified person has to determine if a locking pin can be used or if bolt in spigots must be used.
- DO NOT use Layher Bridging Ledgers without considering the loads to be supported. DO NOT cantilever Layher Bridging Ledgers. DO NOT cantilever Lattice Girders or other horizontal members without special design.
- Special care must be taken when Layher lattice girders or unit beams are used.
 - SpeedyScaf lattice girders must only be installed using special Layher girder couplers, with all bolts and nuts installed and tightened.
 - Trusses must overhang their supports by at least 6 inches.
 - Lateral bracing is required for all girders spans according to design
 - Lattice girders and unit beams used as side or end brackets require special mountings and special bracing. Consult a qualified person.

- Always use lattice girder transoms and/or spigots to support platforms when planking or when installing frames above Allround lattice girders. Use SpeedyScaf intermediate transoms for SpeedyScaf lattice girders.
- DO NOT connect unit beams together to form longer girders without assuring the longer girder and scaffold assembly will support all imposed loads. For connection use only unit beam spigots and pins. Consult a qualified person.
- DO NOT install platforms between free standing towers unless the assembly is designed by a qualified person.
- DO NOT MOUNT material hoists and derricks on a scaffold unless the scaffold is specifically designed for that purpose.
- DO NOT erect scaffold on wagons, trucks or other wheeled vehicles.
- CHECK THE ENTIRE SCAFFOLD ASSEMBLY BEFORE USE. Thoroughly inspect the completed assembly to see that it complies with the Erection Manual and all safety codes, that all wedges are driven home and all couplers tightened, that it is level and plumb, that work platforms are fully decked and guardrails are in place and that safe access is provided.

ERECTION OF ROLLING SCAFFOLDS

- Height of the rolling tower must not exceed 4 times its minimum base dimension (length or width). Watch out for local regulations.
- According to the type of Layher caster used, either check the nuts or bolts at the integrated adapter or secure the casters to the adapters with nuts and bolts.
- Screw jacks must not increase the height of the scaffold by more than 12 inches. Tower must be kept level and plumb at all times.
- Use horizontal diagonal near the bottom (above the casters) and at 20-foot (6m) intervals measured from the lowest horizontal diagonal. Only Layher fabricated decks must be used on rolling towers. Secure the decks against lift-off with the Layher lock against lift-off.

USE OF FIXED SCAFFOLD

Before each work shift and after any occurrence which could affect the structural integrity of the scaffold, a competent person must inspect the scaffold assembly to be sure it is assembled correctly and has not been altered; that it is level and plumb; that the scaffold and all components are firm and secure; that safe access is provided; and that there are no overhead obstructions and no energized electric power lines within 10 feet of the scaffold assembly. Correct any deficiencies prior to use.

- Tag the scaffolding. Use only scaffolds that have been properly tagged. For further information about tagging refer to ANSI A 10.8-2001.
- Use only proper access. DO NOT climb any scaffold component unless it is specifically designed for that purpose. If safe access is not provided, insist that it be provided.
- Climb safely and only in access areas.
 - Face the rungs as you climb up or down.
 - Use both hands.
 - DO NOT try to carry materials while you climb.
 - Be sure of your footing and balance before you let go with your hands. Keep one hand firmly on ladder at all times.
 - Clean shoes and rungs to avoid slipping.
- DO NOT throw or do not let drop material on platforms.
- DO NOT jump onto planks or platforms.
- DO NOT work on slippery rungs or platforms.

- DO NOT overload platforms with materials. Special care must be taken when lattice girders are used.
- DO NOT use planked guardrails, boxes, ladders or other materials on top of scaffold platforms to increase working heights.
- DO NOT loosen, detach or remove any component of a scaffold assembly except under the supervision of a competent person. Components that have been removed must be replaced immediately.
- DO NOT stand on platform overhangs. Stand only within the platform area; do not try to extend work area by leaning out over guardrailing.

USE OF ROLLING TOWERS

- DO NOT RIDE a rolling tower. NO ONE MUST BE on a rolling tower WHILE it is being MOVED.
- Lock all casters before getting on a rolling tower. Casters must be locked at all times the scaffold is not being moved.
- DO NOT bridge between rolling towers without special design.
- Remove all materials from rolling tower before moving.
- Be sure floor surface is clear of debris, obstructions or holes before moving scaffold.
- Be sure there are no overhead obstructions or energized electric power lines in the path when moving a rolling tower.
- USE rolling towers ONLY on level surfaces.
- DO NOT PULL OR PUSH from the top. Move rolling towers from the base level only.

WARNING

Serious INJURY or DEATH can result from climbing or working on a rolling tower on which the CASTERS ARE NOT LOCKED.

DISMANTLING SCAFFOLDS

- BEFORE REMOVING OR LOOSENING any component, consider the effect of that action on the strength of the rest of the scaffold.
- Check to see if scaffold has been altered in any way which would make it unsafe. If so, reconstruct where necessary before commencing dismantling procedures. This includes all scaffold ties.
- Use only proper access. DO NOT climb braces, guardrails, or vertical members. DO NOT stand on platform overhangs.
- Visually inspect each plank or deck to be sure it is supported on both ends and is safe to stand or work on.
- DO NOT remove ties until scaffold above has been removed.
- Remove component immediately after loosening wedges or couplers.
- DO NOT accumulate removed components or equipment on the level being dismantled.
- Lower components in a safe manner as soon as dismantled. DO NOT throw components off scaffold.
- Stockpile dismantled equipment in an orderly manner.

WARNING

It may be NECESSARY TO ADD PARTS to a scaffold before it can be dismantled safely.

II. ADDITIONAL GUIDELINES FOR ALLROUND

PRIOR TO ERECTION

All wood planks used with Layher Allround must be inspected to see that they are graded for scaffold use, are sound and in good condition, and are free from saw cuts, cracks, notches, splits, delaminations and holes.



WARNING

NOT ALL SPECIES AND GRADES OF LUMBER CAN BE USED AS SCAFFOLD PLANK. Wood planks used for scaffolding must be graded by an approved grading agency or specifically manufactured for scaffold use.

ERECTION OF ALLROUND

- Layher fabricated scaffold decks.
 - If you use Layher scaffold decks with claws that connect to U-transoms, use the lock against lift-off provided by Layher to secure the deck.
 - If you use Layher fabricated decks which connect to tubular transoms, use the integrated lift-off lock to secure the deck against lift-off.
- If wood planks are being used for the scaffold platform, the platform must be fully planked or decked between the front upright and guardrail post. Work platforms and walkways must be at least 18 inches wide.

- Each end of each plank must overlap its support by a minimum of 6 inches or be cleated.
- Each end of each platform 10 feet long or less (longer than 10 feet) must overhang its supports by not more than 12 inches (18 inches). Larger overhangs must be guarded to prevent access to the overhang. Materials must not be stored on overhangs. DO NOT stand on platform overhangs.
- Each plank on a continuous run scaffold must extend over its supports by at least 6 inches and overlap each other by at least 12 inches.
- Spans of 2 inch by 10 inch nominal scaffold grade plank must never exceed 10 feet. No more than one person must stand on an individual plank at one time. Loads on planks must be evenly distributed and not exceed the allowable loads for type of plank being used.
- Use fabricated decks or cleated plank to minimize platform interference in access areas.

Understanding and following these Safety Guidelines will increase your personal safety and the safety of your fellow workers.

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