

# SL Frame System™ Safety Guidelines

## Scaffold safety is everyone's responsibility!

Everyone's safety depends upon the design, erection, use, and dismantling of scaffold by **Competent Persons only**. Inspect your scaffolding before each use to see that the assembly has not been altered and is safe for your use.

### ! WARNING

**SERIOUS INJURY OR DEATH CAN RESULT FROM YOUR FAILURE TO FAMILIARIZE YOURSELF AND COMPLY WITH ALL APPLICABLE SAFETY REQUIREMENTS OF FEDERAL, STATE, PROVINCIAL AND LOCAL REGULATIONS AND THESE SAFETY GUIDELINES BEFORE ERECTING, USING OR DISMANTLING THIS SCAFFOLD.**

## Safety must come first!

The SL Frame System Scaffold is designed and manufactured with the user in mind. The safety that goes into each piece of equipment, however, cannot offset carelessness on the part of the erector or the user. With this thought in mind, **in order to prevent injury to the users** of this equipment, we urge you to follow these safety guidelines.

Scaffold design must include analysis of load carrying members by properly qualified personnel. The SL Frame System component load capacity and weight information is available from Safway. Scaffolding must be erected, used, moved, and disassembled only under the supervision of Competent Persons.

### ! WARNING

**SAFMAX® FRAME SYSTEM AND SL FRAME SYSTEM™ SCAFFOLDS ARE EACH A UNIQUE SCAFFOLD PRODUCT LINE. THE COMPONENTS SHALL NOT BE INTERMIXED WITHOUT THE PRIOR APPROVAL OF THE MANUFACTURER/SUPPLIER.**

## I. Erection of the SL Frame System

### A. Prior to Erection - All Scaffold Assemblies

1. Job site must be inspected to determine ground conditions, strength of 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 addressed.
2. Frame spacing and sill size can only be determined after the total loads to be imposed on the scaffold and the weight of the scaffold have been calculated.
3. SL Frame Scaffolds taller than 80 ft. must be designed by a qualified engineer.
4. Stationary scaffolds over 125 ft. in height must be designed by a professional engineer.

### ! WARNING

**USE ONLY STEEL PLANK SPECIALLY DESIGNED FOR USE WITH THE SL FRAME SYSTEM. SUBSTITUTIONS COULD CAUSE A SCAFFOLD COLLAPSE .**

5. All equipment must be inspected to see that it is in good condition and is serviceable. Damaged or deteriorated equipment must not be used.
6. SL scaffold plank must be inspected before use to assure it is sound, in good condition, free of kinks and sides are straight (not collapsed or parallelogramed).
7. A fully qualified and Competent Person can deviate from these guidelines only if it can be shown that the resulting scaffold design complies with applicable codes and generally accepted scaffold engineering practices.
8. The scaffold assembly must be designed to comply with local, state and federal requirements.

## B. Erection of Fixed Scaffold

### ! WARNING

**FALL ARREST EQUIPMENT ATTACHED TO SCAFFOLD MAY NOT PREVENT SERIOUS INJURY OR DEATH IF A FALL OCCURS.**

SL Frame Scaffolds must be erected, moved or disassembled only under the supervision of Competent Persons. Personal safety equipment including safety glasses and hard hats must be worn by all persons erecting, moving, dismantling or using scaffold. Read, understand and follow the SL Frame System Assembly Instructions (ORN 803).

1. Base plates must be used on all scaffolds, centered on the sills and be in firm contact with both sills and frame legs. Be especially careful when scaffolds are to be erected on soft or frozen ground. Any part of a building or structure used to support the scaffold must be capable of supporting the load to be applied.
2. Compensate for uneven ground by using screw jacks and base plates with sills if required by ground conditions. **Do not use** unstable objects such as blocks, loose bricks and similar objects or materials.
3. Plumb and level scaffold. Vertical diagonal braces are required on all lifts throughout the scaffold height. On wall erected scaffolds, these braces shall be placed on the outer row of scaffold legs in the first and last bay and in at least every 4th bay in between. On free standing scaffolds these braces shall be placed on both the inner row and outer row of scaffold legs in the first and last bay and in at least every 4th bay in between. Be sure scaffold stays plumb and level as erection progresses.

4. Ties or guys and bracing are 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 determines the need for sway and stability bracing. The following general guidelines apply:

### ! WARNING

**OUTRIGGERS, OR OTHER MEANS, MAY BE USED TO INCREASE THE MINIMUM BASE DIMENSION OF A SCAFFOLD TOWER. THE RESULTING BASE DIMENSION, HOWEVER, MAY NO LONGER BE THE MINIMUM (OR LIMITING) BASE DIMENSION.**

- a. Only use ties specifically made for use with the SL Frame System™.
  - b. A scaffold must always be secured when the height of the scaffold exceeds 4 times the minimum base dimension (length or width). See **Footnote 1**.
  - c. Ties must be placed as near as possible to horizontal members. The bottom tie must be placed no higher than 4 times the minimum base dimension (length or width) and every 20 ft. vertically thereafter. The uppermost tie should be placed as close to the top platform as possible and, in no case, more than 4 times the minimum base dimension (length or width) from the top. See **Footnote 1**.
  - d. Horizontally, ties must be placed at the ends of the scaffold runs and at no more than every third bay in between.
  - e. Ties must be installed as the erection progresses and not removed until scaffold is dismantled to that height.
  - f. Side brackets, cantilevered platforms, pulleys, hoist arms, enclosed scaffolds, sloped surfaces and windy conditions introduce overturning and uplift forces which must be considered and compensated for. These situations require additional bracing, tying or guying.
  - g. Circular scaffolds erected completely around or within a structure may be restrained from tipping by use of "stand off" bracing members.
  - h. A free standing tower must be guyed at the intervals outlined above or otherwise restrained to prevent tipping or overturning.
5. SL frames can be used as outriggers to increase the minimum base width of free standing towers. If used, they must be installed on both sides of the tower.
  6. All rectangular scaffold lifts must be fully planked with SL plank units which are in good sound condition. When the SL Frame

System is used to conform to irregular shapes, the gaps between rectangular sections may be filled using other structural platform materials.


7. Guardrails must be used on all open sides and ends of scaffold platforms. Both top and midrails are required. Local codes specify minimum platform heights where guardrails are required. Use at lower heights if falls can cause injury.
8. Toeboards must be installed whenever people are required to work or pass under a scaffold platform. When materials are to be stacked higher than the toeboard, screening is required from the toeboard or platform to the top guardrail.
9. Safe access must be provided to all platform levels. Use the SL access system only.
10. **Do not** store materials on side or end bracket platforms.
11. Cantilevered platforms must be specifically designed for that purpose, the frames pinned to prevent uplift and adequate ties provided to prevent overturning.
12. Materials must never be placed on cantilevered platforms unless the assembly has been designed to support material loads by a qualified person. These types of platforms cause overturning and uplift forces which must be compensated for.
13. After erecting scaffold, be sure screw jacks are in firm contact with frame legs.
14. Special care must be taken when trusses or girts are used:
  - a. Trusses must only be installed using right angle clamps, with all bolts and nuts installed and tightened.
  - b. Trusses must overhang their supports by at least 6 in.
  - c. Lateral bracing is required for all truss spans.
  - d. Trusses used as side or end brackets require special mountings and special bracing. Consult a qualified person.
  - e. Always use girt spreaders to support platforms when planking girts or when installing frames above the girts.
  - f. Do not couple trusses together to form longer truss members without assuring the longer truss members and scaffold assembly will support all the imposed loads. Consult a qualified person.
15. **Do not** install platforms between free standing towers.
16. Material hoists and derricks should not be mounted on a scaffold unless the scaffold is specifically designed for that purpose.
17. **Check the entire scaffold assembly before use.** Thoroughly inspect the completed assembly to see that it complies with all safety codes, all fasteners are in place and tightened, it is level and plumb, work platforms are fully decked, guardrails are in place and safe access is provided. Correct any deficiencies prior to use.

## II. Use of Scaffolds

### A. All Scaffolds

1. Before you use the scaffold, a Competent Person must: inspect the scaffold assembly to be sure it has not been altered, is assembled correctly, is level and plumb, all base plates are in firm contact with sills, all bracing is in place and securely tightened, all lifts are fully decked, all guardrails are in place, safe access is provided, it is properly tied and/or guyed, there are no overhead obstructions, there are no energized electric power lines within 10 ft. of the scaffold assembly, and correct any deficiencies prior to use.
2. Use only proper access. Do not climb bracing. Do not climb any scaffold component unless it is specifically designed for that purpose.
3. Climb safely!
  - a. Face the rungs as you climb up or down.
  - b. Use both hands.
  - c. Do not try to carry materials while you climb.
  - d. Be sure of your footing and balance before you let go with your hands. Keep one hand firmly on frame or ladder at all times.
  - e. Clean shoes and rungs to avoid slipping.
4. **Do not** work on slippery platforms.
5. **Do not** overload platforms with materials. Special care must be taken when trusses or girts are used.
6. **Do not** store materials on platforms supported by trusses unless designed by a qualified person for that purpose.
7. **Do not** extend working heights by standing on planked guardrails, boxes, ladders or other materials on scaffold platforms.
8. **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.
9. **Do not** erect scaffolds on wagons, trucks or other wheeled vehicles.
10. Stand only within the platform area; do not try to extend work area by leaning out over guardrailing.

### III. Dismantling Scaffolds

 **WARNING**  
IT MAY BE NECESSARY TO ADD PARTS TO A SCAFFOLD BEFORE IT CAN BE DISMANTLED SAFELY.

The following additional precautions apply when dismantling scaffolding:

1. **Prior to removal or loosening** of any component, consider the effect the removal of the component, or the loosening of a joint, will have on the strength of the remaining assembly.

2. Check to see if scaffold or ties have been altered in any way which would make the scaffold unsafe. If so, reconstruct where necessary before beginning the dismantling process.
3. Use only proper access. Do not climb braces, guardrails or vertical members. Do not climb scaffold components unless they are specifically designed for that purpose.
4. Do not remove ties until scaffold above has been removed.
5. Visually inspect each plank to be sure it is supported on both ends and is safe to stand or work on.
6. Do not accumulate removed components or equipment on the scaffold.
7. Lower components in a safe manner as soon as dismantled. Do not throw components off scaffold.
8. Stockpile dismantled equipment in an orderly manner.
9. Remove scaffold components immediately after detaching from scaffold.

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

#### Footnote 1:

California and some other states require a height-to-minimum base width ratio of three to one (3:1). Refer to the governing codes for your job location. Minimum base dimension may be length or width measured from center line of tubes.

**Footnote 2:** Additional instructions and information are available from Safway regarding:

- Training & software resources
- Competent person training
- Step-by-step erection and disassembly videos
- Individual & group training CD programs
- Safety guidelines for each product line
- Material management & utilization software
- Equipment estimating & drafting software

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