

QES® – QUICK ERECT SCAFFOLD

SAFETY RULES AND INSTRUCTIONS
#910R5

General Safety Rules

1. It shall be the responsibility of all users to read and comply with the following rules which are designed to promote safety in the erecting and the dismantling of scaffolding systems. These rules do not purport to be all inclusive nor to supplant or replace other additional safety and precautionary measures to cover usual or unusual conditions. If these rules conflict in any way with state, local, provincial or federal statute or regulation said statute or regulation, shall supersede these rules and it shall be the responsibility of the users to comply therewith.
2. A survey shall be made of the jobsite for hazards, including but not limited to, untamped earth fills, ditches, debris, tension wires, unguarded openings or hazardous conditions created by other trades.
3. Only an experienced and qualified supervisor shall be utilized in the erecting and dismantling of steel scaffolding.
4. Do not climb runners, bearers, or diagonal braces.
5. Use caution when erecting free-standing towers. Prevent tipping by guying or bracing. Refer to installation instructions for proper use of components.
6. Use plywood, planking, walkways, or ladders during the erection of scaffolding equipment. Plank must conform to OSHA specifications.
7. Erecting and dismantling of scaffolding shall be accomplished by a user trained in this type of construction operation and aware of the hazards connected with erecting and dismantling.
8. Use shock absorbing lanyards.
9. At customers' request, BrandSafway will discuss any accessories not available directly from BrandSafway.
10. Do not make unauthorized changes or substitutions of equipment. Always consult with BrandSafway prior to making changes necessitated by jobsite conditions.
11. Do not make unauthorized modifications to any equipment supplied by BrandSafway.

IN THE EVENT OF A CONFLICT BETWEEN THESE GENERAL SAFETY RULES AND THE CONTRACT ENGINEERING DRAWINGS, THE CONTRACT ENGINEERING DRAWINGS SHALL TAKE PRECEDENCE.

QES® Scaffolding Safety Rules #910R5

1. **Serious injury may result from improper erection** or use of scaffolding equipment. Erectors and users must be familiar with and follow Safe Practice and the Instructions and Safety Rules contained herein.
2. **Follow OSHA and all other governmental regulations,** codes and ordinances pertaining to scaffolding.
3. **Inspect all equipment before using.** Never use any equipment that is damaged, has been altered or deteriorated in any way.
4. **Keep all equipment in good repair.** Do not use heavily rusted equipment as its strength is unknown.
5. **Inspect erected scaffolds regularly** to be sure that they are maintained in safe condition and that scaffold connections have not loosened.
6. **Consult your scaffolding supplier when in doubt. Never take chances.**
7. Assure that the surface on which the scaffold is to be placed is adequate to safely support the intended loads.
8. Provide adequate sills for scaffold posts and use adjustable bases to level the scaffold. Use adjustable swivel bases where supporting surface or sill is sloping.
9. Plumb, level and square the scaffold AT THE BASE COLLAR LEVEL, then proceed with the erection maintaining the scaffold plumb and square as it is built-up.
10. Fasten all wedge and other connections securely.
11. The tying of the scaffold to the structure is of great importance to the stability and safety of the scaffold. Assure that the structure to which the scaffold is anchored is capable of safely supporting all loads imposed by the scaffold.
12. Wall scaffolds must be butted and tied to adequate anchors secured to the structure at each end of the scaffold and at least every 30' horizontally. To assure the stability of the scaffold during erection and dismantling, place the first level of ties and butts at the closest horizontal member to a height four (4) times the width of the scaffold. Ties and butts are to be repeated vertically every 20' or less for scaffolds 3' wide or less and every 26' or less for scaffolds greater than 3' wide. Also, install ties and butts at tops of scaffolds, which extend more than one lift above the previous tie position.
13. Step unit towers must be tied, and butted at least every 13' vertically.
14. Free-standing scaffolds other than wall scaffolds should be tied and butted similarly, or otherwise stabilized as appropriate to the conditions that pertain there to, recognizing that the stability of the scaffold is essential to the safety of the scaffold.
15. When scaffolds are to be partially or fully enclosed, specific precautions must be taken to ensure frequency and adequacy of ties and butts attaching the scaffold to the structure due to increased loading conditions resulting from the effects of wind and weather. Ensure that the scaffolding components to which the ties and butts are attached are capable of safely sustaining the additional loads resulting therefrom.
16. If a tie or butt must be removed for any reason, alternate or substitute ties and butts or other methods must be used to ensure the continued stability of the scaffold.
17. At every tie level, install continuous horizontal diagonal bracing for the full length of the scaffold.
18. Install diagonal bracing as shown in the accompanying Instructions in both longitudinal and transverse directions of the scaffold, and on all faces of free standing scaffolds.
19. Install guardrails, midrails, and toeboards at all openings, open sides and ends of every working platform. Assure that guardrails, midrails, and toeboards are in place whenever a scaffold level is planked. Guardrail posts must be secured to brackets or posts below by pinning or bolting.
20. All scaffolds must be equipped with suitable climbing ladders or step units to provide safe and proper access to working levels. Use caution and assure that placement of the ladders will not result in tipping over of the scaffold when being climbed. Whenever possible, place such ladders on the inside of free standing and rolling scaffolds. Do not climb rings.
21. Never use ladders or makeshift devices on top of scaffolds to increase their height.

QES® Scaffolding Safety Rules #910R5 (continued)

22. Power lines near scaffolds are dangerous. Use extreme caution and consult the power service company to have the lines de-energized, insulated or otherwise rendered safe. Never allow any installation or use of scaffolds until this is done.
23. Where uplift due to wind or other external forces may occur, scaffold posts shall be pinned or bolted together vertically.
24. When erected scaffolds are to be moved by crane assure that:
- All vertical joints of the scaffold are attached and secured by bolts and nuts or other fastening devices of adequate strength;
 - All other connections of the scaffold are tight and secure;
 - All components of the scaffold, including planks, are securely fastened.
25. Proper care and precautions must be taken to prevent tipping of the scaffold when any cantilevers are used.
26. QES® sidewall brackets are designed to provide 1', 2' and 3' wide cantilevers from the face of the scaffold. Brackets are for light duty use only and must be used only to support men and planking. They must not be used to support materials. Brackets must be properly guardrailed in accordance with Safety Rule No.19 above. Also see Rule No. 25 above.
27. Never cantilever a horizontal member with only one end secured for use in lieu of a bracket, unless it is also securely braced with tube and couplers diagonally from the end of the cantilever back to the scaffold post.
- 28. For rolling scaffolds follow these additional safety rules:**
- Never ride rolling scaffolds.
 - Remove all materials and equipment from the scaffold before moving.
 - Lock caster brakes at all times when the scaffold is not being moved.
 - All posts and guardrail posts must be securely pinned or bolted to each other. Casters must be secured to posts or adjustable bases.
 - Do not attempt to move rolling scaffolds without sufficient help. Watch out for holes or floor obstructions and for overhead obstructions, including power lines, energized craneways and other hazards.
 - The maximum platform height of a rolling scaffold must not exceed four (4) times the narrowest base dimension. Check local/State OSHA regulations for other height/base limitations such as 3:1 in California. Comply with these regulations by appropriately widening and/or lengthening the scaffold at the lower levels so that the above proportions are not exceeded. If the base dimensions cannot be increased, extreme care must be taken to secure the scaffold from tipping; it must be guyed, or tied to a solid structure and maintained in a stabilized condition at all times so that it cannot tip over while supporting persons, while being moved or while being erected or dismantled.
 - If rolling scaffolds are used outdoors, care must be taken to ensure that they cannot become unstable due to wind or other conditions.
- h. Do not extend screw legs more than 12" on rolling scaffolds.
- i. Install diagonal bracing on all sides of rolling towers for the full height of the tower. Install horizontal diagonal braces at the base and at every 20' height interval measured from the rolling surface.
- 23. Platform planking:**
- Only use lumber that has been properly inspected and graded as scaffold plank or fabricated metal plank.
 - Scaffold plank must have at least 12" of overlap, and shall extend not less than 6" or more than 12" beyond the centers of their supports (bearers).
 - Single-span planks must be cleated at both ends to prevent planks from sliding off their supports, or, must be of a prefabricated type having end hooks to seat over bearers and restrain the planks from movement.
 - Secure planking to scaffold when necessary.
 - Planking must be placed across the full width of scaffold platforms.
24. Due to differences in design and fit, do not intermingle QES® components with those of other scaffold systems.
25. Equip scaffolds with wire mesh or similar screens, lighting, danger lights or barricades, signs and gates when required for safe practice and to comply with the requirements of law, governmental regulations and codes.

Allowable Loads for Typical Wall Scaffolds up to 125' High and OSHA and "Maximum Permissible Spans for 2 x 10 Wood Scaffold Plank."

1. The scaffold loading table is based on working levels fully planked with additional non-working planked levels as indicated.
2. All loads on scaffolds and planks are to be evenly distributed and are shown as pounds per square foot (PSF). Place concentrated material loads carefully so that the plank and scaffold are not overloaded.
3. Maximum permissible spans for 2 x 10 wood planks, below is extracted from OSHA Regulations. When using solid sawn plank, do not exceed these allowable plank loads and spans. For nominal size laminated plank, use the full thickness undressed table. When fabricated planks or platforms are used, consult with the manufacturer for allowable loads.
4. OSHA requires that scaffolds over 125' high be designed by a professional engineer.
5. For further information relative to specific scaffolding installations that do not fall within these guidelines, consult BrandSafway.

**MAXIMUM PERMISSABLE SPANS FOR
2x10 WOOD PLANKS**
OSHA Regulation 1926 Subpart L App. A 1.(b)(c)

	Full Thickness Undressed Lumber	Nominal Thickness Lumber (1)
Working load (PSF)	25 50 75	25 50
Permissible Span (Ft.)	10 8 6	8 6
(1) Nominal thickness lumber not recommended for heavy duty use.		

DO NOT EXCEED THE ALLOWABLE LOADINGS SHOWN

Allowable Scaffold Heights for Medium Duty Scaffolds (50psf) Based on Bearer Width

These scaffold loading tables apply only to scaffold butted, tied and braced as shown on Page 10.

Bearer Width — 3 Ft.

NUMBER OF WORKING LEVELS	NUMBER OF ADDITIONAL PLANKED LEVELS	RUNNER LENGTH IN FEET			
		5	6	7	8
1 at 50#/sq. ft.	6	125+	125+	125+	125+
1 at 50#/sq. ft. +1 at 25#/sq. ft.	0	125+	125+	125+	125+
1 at 50#/sq. ft.	ALL	125+	125+	112	92.5
1 at 50#/sq. ft. +1 at 25#/sq. ft.	ALL	125+	105.5	86	66.5

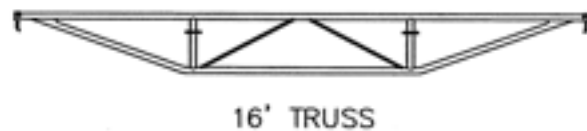
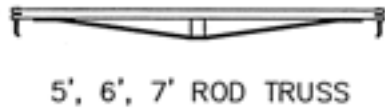
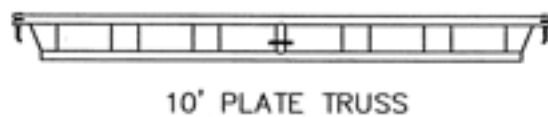
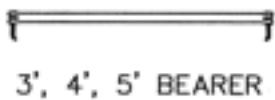
Bearer Width — 4 Ft.

NUMBER OF WORKING LEVELS	NUMBER OF ADDITIONAL PLANKED LEVELS	RUNNER LENGTH IN FEET	
		5	6
1 at 50#/sq. ft.	6	125+	125+
1 at 50#/sq. ft. +1 at 25#/sq. ft.	0	125+	125+
1 at 50#/sq. ft.	ALL	125+	99
1 at 50#/sq. ft. +1 at 25#/sq. ft.	ALL	86	73

1. These scaffold loading tables are based on working levels fully planked with additional non-working planked levels as indicated.
2. All loads on scaffolds and planks are to be evenly distributed. Use dunnage and/or spreaders to distribute any and all concentrated loads.
3. Planked levels are calculated to include midrails and guardrails.
4. OSHA requires that scaffolds in excess of 125' be specifically designed for the job by a professional engineer. In cases marked with +, greater heights are possible. Consult BrandSafway's Engineering Department for assistance.
5. Where deviations from the above are required, consult BrandSafway's Engineering Department.
6. This chart does not take into account the use of sidewall brackets. If sidewall brackets are required, consult BrandSafway's Engineering Department.
7. This chart applies to wall scaffolds only, not to single scaffold towers or rolling towers. Consult BrandSafway's Engineering Department for these applications.

Safe Allowable Loads for Bearers and Trusses

QES® PART NUMBER	DESCRIPTION	MAXIMUM UNIFORM LOAD (LBS./FT.)	ALLOWABLE CONCENTRATED LOAD AT CENTER (LBS.)	ALLOWABLE BEARER DESIGN LOAD IN #/SQ. FT.			
				6' RUNNER	7' RUNNER	8' RUNNER	10' RUNNER
QH3	3' Bearer	533	800	88	76	67	53
QH4	4' Bearer	300	600	50	43	38	30
QH5	5' Bearer	192	480	32	27	24	19
QT5R	5' Rod Truss	450	1125	75	64	56	45
QT6R	6' Rod Truss	312	940	52	45	39	31
QT7R	7' Rod Truss	243	850	41	35	30	24
QT8P	8' Pl. Truss	384	1500	64	55	48	38
QT10	10' Pl. Truss	196	980	33	28	25	19
QT16	16' Truss	177	1980	30	25	22	18
QT20	20' Truss	130	1334	22	18	16	13



DO NOT EXCEED THE ALLOWABLE LOADINGS SHOWN IN THE ABOVE TABLES

Typical Installation Sequence

This publication contains standard instructions for the basic methods of installing the QES® Scaffolding Systems. These Safety Rules and Instructions cover generalized situations only and do not purport to be all-inclusive, nor to supplant or replace other additional safety and precautionary measures that may be necessary to cover the many usual and unusual conditions that may be encountered during its installation, use and removal. They are not intended to conflict with, or supersede the requirements of OSHA or any other governmental regulations, codes, or ordinances; reference to such specific provisions of law should be made by the user.

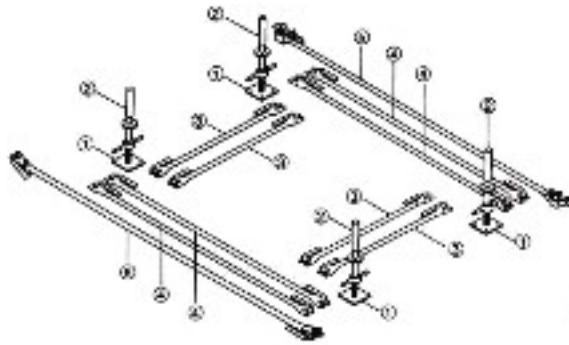


Fig. 1

FIG. 1—LAYOUT

- Set out 4 adjustable bases (1) at their intended post positions.
- Always commence at highest point of ground with a small amount of screw leg adjustment.
- Lay out the parts shown alongside the bases for the first scaffold tower or section.
- Place 4 base collars (2) over the screw legs; these will form the base.
- Orient the locking rings of (2) so that one of the slots is aligned in the bearer direction.
- Also see Fig. 3.

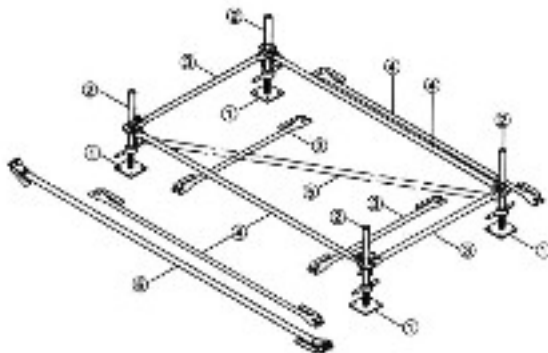


Fig. 2

FIG. 2—BASE CONSTRUCTION

- Connect 2 bearers (3) and 2 runners (4) to the 4 locking rings on the base collars.
- Slide the wedges of (3) and (4) down into the aligned locking ring slots – DO NOT TIGHTEN WEDGES AT THIS TIME.
- Place horizontal diagonal brace (5) between corner posts as shown. DO NOT CONNECT THIS BRACE – it is used at this time ONLY to square the base rectangle. Alternatively use a template to square the base.
- Use a spirit level on the horizontals and level them accurately by adjusting the screw legs. The more carefully this is done, the more easily subsequent erection will be accomplished as the scaffold is built-up.
- Now tap wedges into secure engagement in the locking rings; the wedge design makes a firm and rigid right-angle connection. Assure wedge is centered in slot.
- Remove horizontal diagonal brace (5) and retain for future use at a tie level.
- By adding successive pairs of screw legs (1) and base collars (2) and repeating the above steps, complete the whole of the base before extending the scaffold vertically.
- Extend the screw legs progressively to retain the base horizontals level with the first section. Screw legs have 20½" of adjustment. On progressively sloping ground, once 19½" of adjustment is reached set the next pair of bases 19½" lower (one ring spacing) than the previous ones.
- This method has the advantage of completely laying out the base and taking care of uneven base problems before installing the upper members of the scaffold, which would be more difficult to change at a later time.
- See Fig. 5 for large base-level variations

KEY COMPONENT CODE	Part No. followed by spacing/size in feet
1. Adjustable Base (20" adjustment)	QL 20
2. Base Collar	QLC
3. Bearer (horizontal) & Guardrail	QH__
4. Runner (horizontal) & Guardrail	QH__
5. Horizontal Diagonal Brace Gooser (scaffold width x bay size)	QG__
6. Side/End Diagonal Brace (6'-6" High x Width or bay size)	QD__
7. Post/Guardrail Supports (height,feet)	QP__
8. Double Locking Caster—attaches to (1)	QL10

Typical Installation Sequence (continued)

FIG. 3—LOCKING RING

In each locking ring are eight (8) slots. During initial assembly, align the locking ring of base collar and those on the posts so that one of the slots points in the intended bearer direction; two slots at right angles to it will point in the runner direction automatically. The other slots are for the connection of diagonal braces. Any slot can be used to start the scaffold.

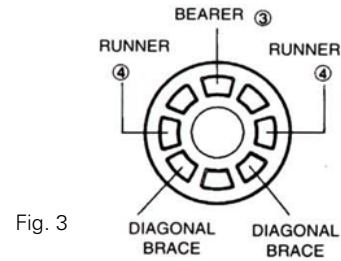


Fig. 3

FIG. 4 – FIRST SECTION

- Place 4 posts (7) either 6'-6" or 9'-9" long, vertically into the base collars (2) and orient their locking rings approximately the same as those on the base collars.
- Joint couplings on the posts must point up.
- Add the second level of horizontals (3) and (4); the normal vertical lift increment is (4) 19 1/2" locking ring spaces (6'-6"). Insert the wedges in the locking ring slots but **DO NOT TIGHTEN YET**.

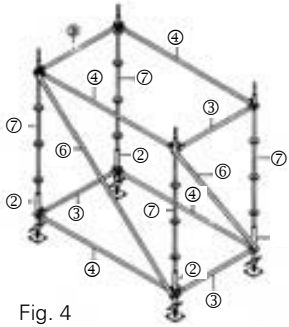


Fig. 4

- Install a side diagonal brace (6) in the first bay on the outside face of the scaffold between the same locking rings that the two levels of runners are attached to.
- Continue to build-up the scaffold, adding 2 posts at a time connected with runners and bearers at the same levels as the first section, and diagonal side braces at longitudinal intervals as specified in Fig. 7B.
- Add successive levels of posts, connecting these with horizontals and diagonals in the same manner as before. See Figs. 7 through 9 for typical methods of construction.

FIG. 5 – SCAFFOLD ON VARYING GRADE

- When the scaffold has to accommodate a sudden change in level or more than the 20 1/2" normal adjustment of a screw leg it is necessary to make a step-down as shown above.
- Start leg (B) using an adjustable base (1) with minimum adjustment, a base collar (2) and a new post (7). Adjust the screw leg so that the post's locking rings are approximately level with those to the preceding post. Connect a runner 4 at (C).
- Accurately level this runner, tighten the wedges, and repeat this sequence for the opposite face of the scaffold. Connect bearers (3) at positions (D) and attach a diagonal brace at (F).
- Complete all the other upper members attaching to post (B) before continuing in similar fashion along the scaffold from post (E) onwards.

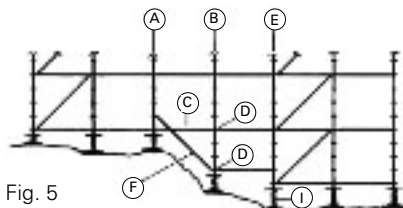


Fig. 5

FIGS. 6 TYPICAL SCAFFOLD PLATFORMS

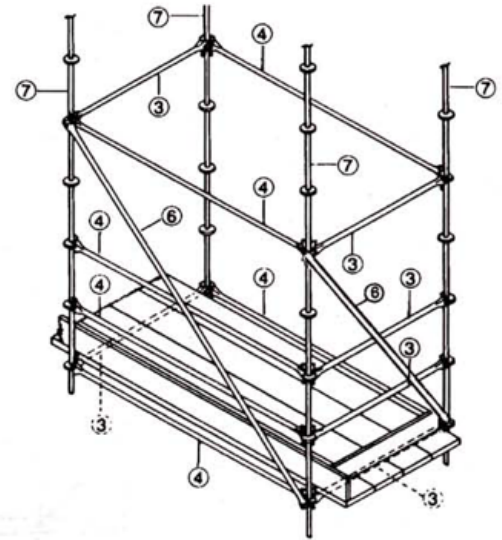


Fig. 6

FIG 6A – STANDARD RUNNER METHOD

Always install guardrails, midrails and toeboards along all open sides and ends of planked platforms, using bearers (3) and runners (4) as guardrailing.

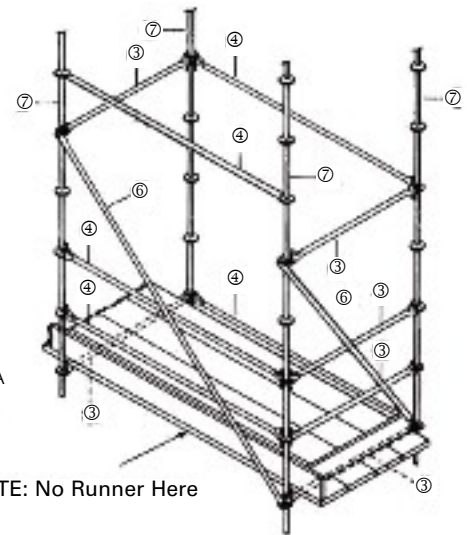


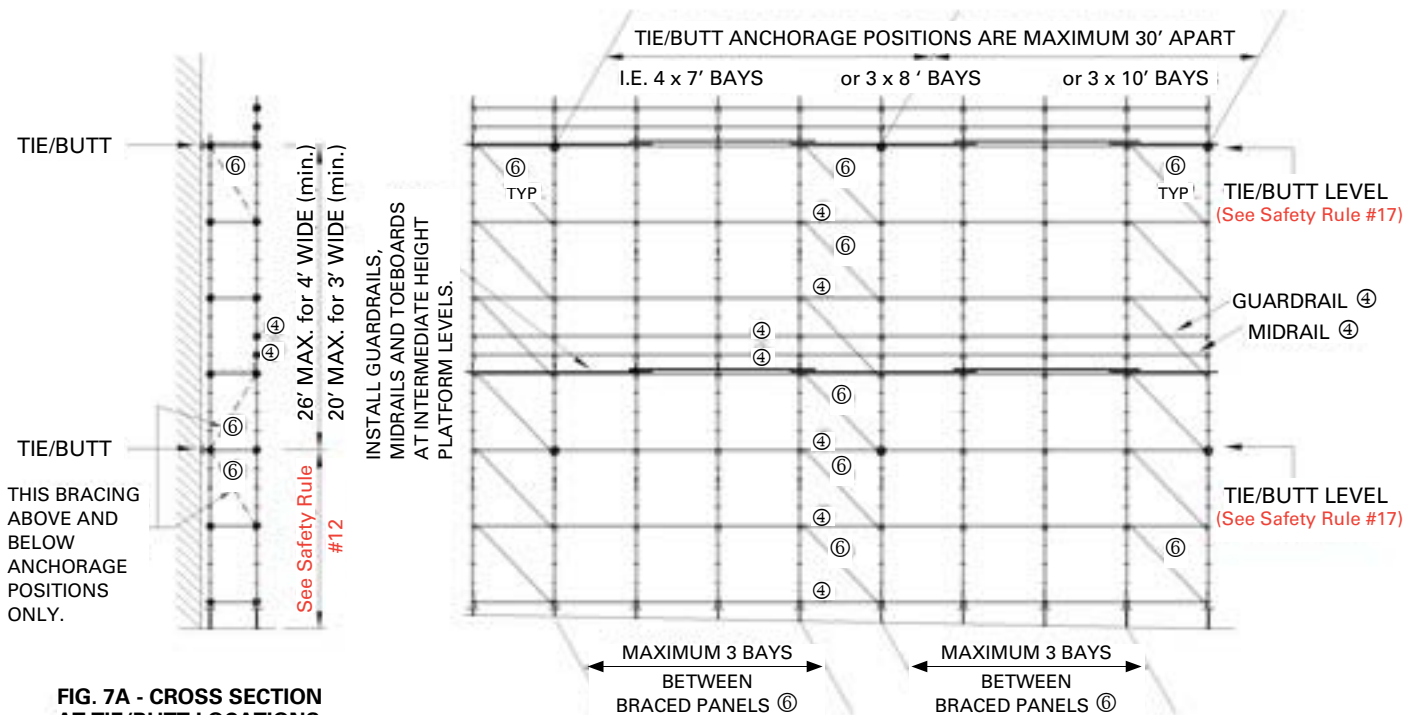
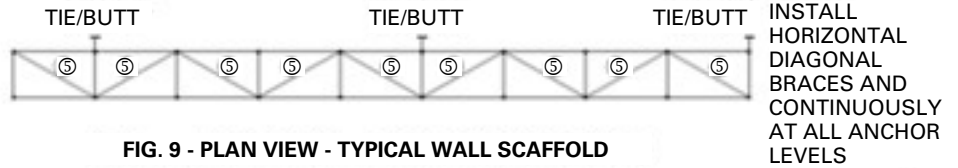
Fig. 6A

NOTE: No Runner Here

ACCESS EQUIPMENT HAS BEEN OMITTED FOR CLARITY. SEE PAGE 11, 12, 14, 15 AND 16 FOR DETAILS. READ AND COMPLY WITH SAFETY RULES ON PAGES 2, 3.

Wall Scaffolds

WALL SCAFFOLDS

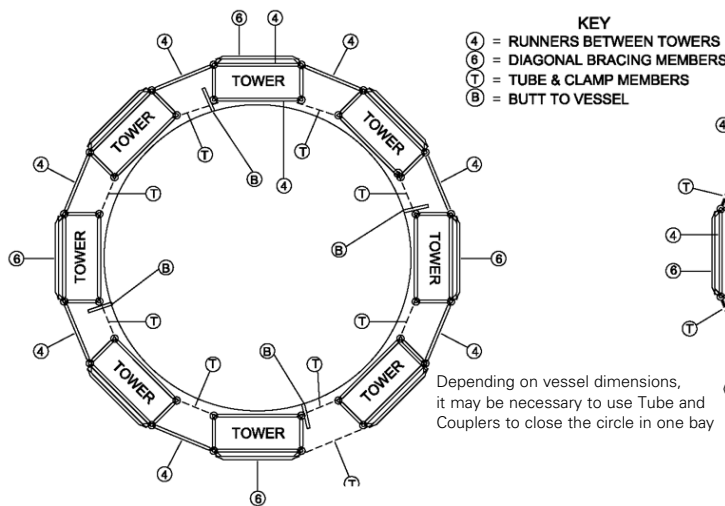


FOR OPEN SCAFFOLDS ONLY. CONSULT BrandSafway FOR ENCLOSED SCAFFOLDS. ACCESS EQUIPMENT HAS BEEN OMITTED FOR CLARITY.

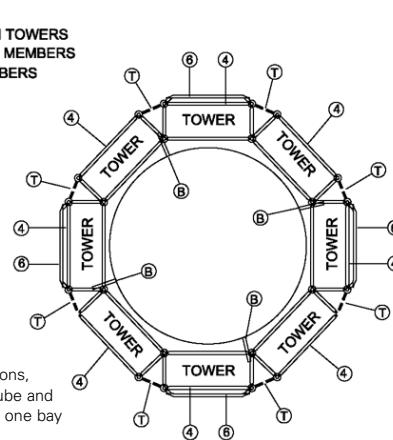
SEE PAGE 11, 12, 14, 15 AND 16 FOR DETAILS. READ AND COMPLY WITH SAFETY RULES ON PAGES 2, 3.

Round Vessel Scaffolds

**FIG. 8A - PLAN VIEW
TYPICAL CONSTRUCTION FOR ROUND VESSELS**



**FIG. 8B - PLAN VIEW
ALTERNATE CONSTRUCTION FOR ROUND VESSELS**



For round vessels it helps to consider scaffold as a series of towers, connected together by runners (4) across the bays between the towers. Depending on vessel diameter and method used, some of these runners may be tube and coupler to obtain the necessary spacing.

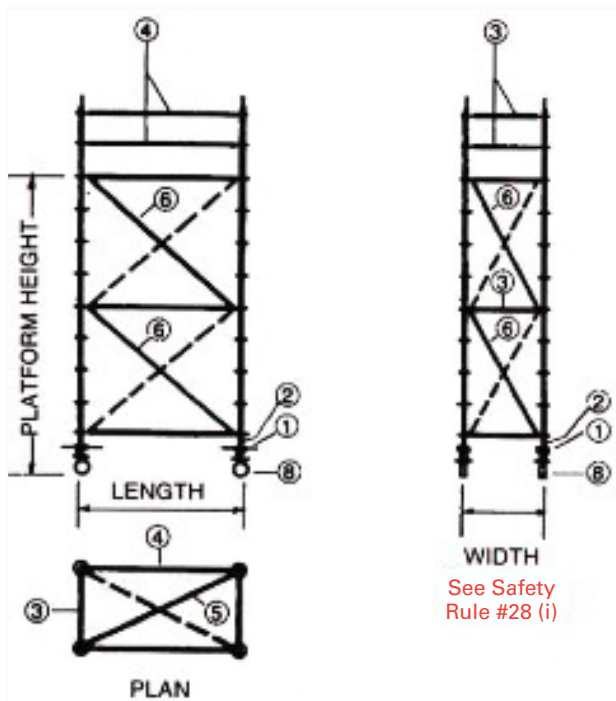


FIG. 10 - TYPICAL QES® ROLLING SCAFFOLD

Ensure that all Safety Rules for rolling towers are followed in addition to all other pertinent Safety Rules.

See Safety Rule #28 (i)

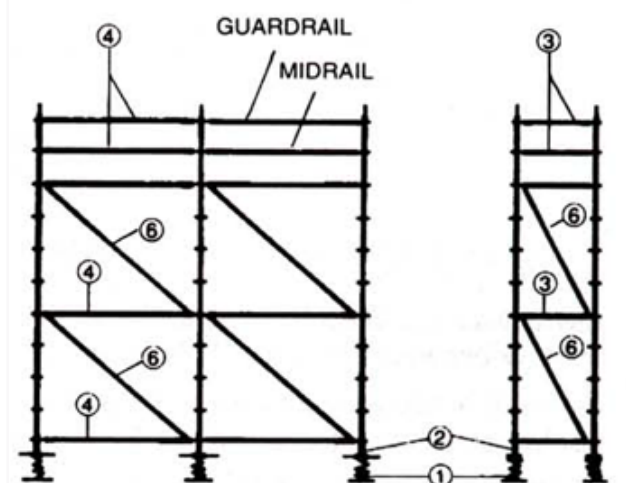


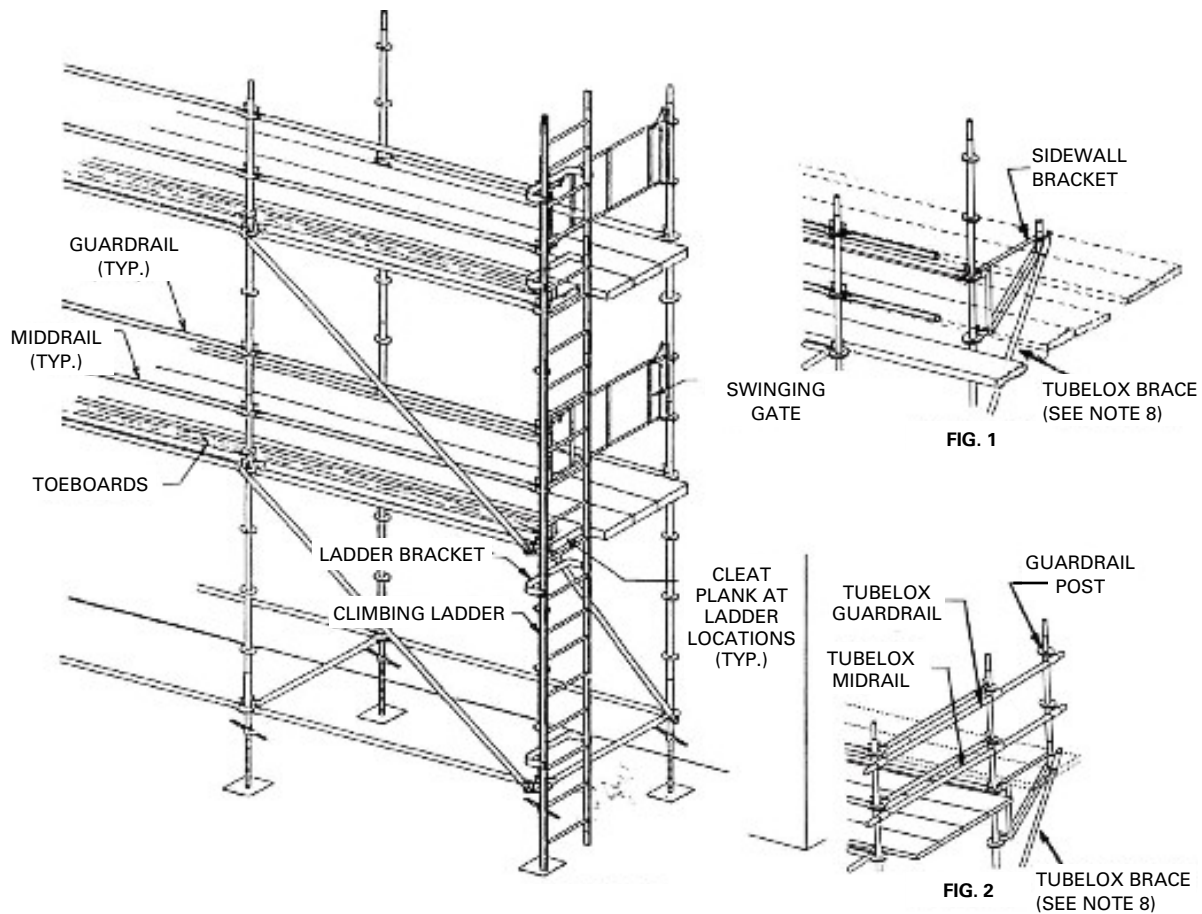
FIG. 11 - INDEPENDENT FREE STANDING SCAFFOLD

The method of assembly is generally the same as for a wall scaffold, with the following important exceptions:

- All bays on all four sides and ends must have diagonal braces installed (see Safety Rule No. 18).
- If top scaffold platform is to be more than 4 times the normal scaffold width of 3 feet or 4 feet, follow Safety Rule No. 28 (f) and widen the base. (In California, height is not to exceed 3 times the minimum base width).
- Follow Safety Rules Nos. 14 and 20 and assure that scaffold cannot tip while being climbed or used.

**ACCESS EQUIPMENT HAS BEEN OMITTED FOR CLARITY. SEE PAGE 12, 13, 14, 16 AND 17 FOR DETAILS.
READ AND COMPLY WITH SAFETY RULES ON REAR PAGES 2, 3.**

Stationary Scaffolds



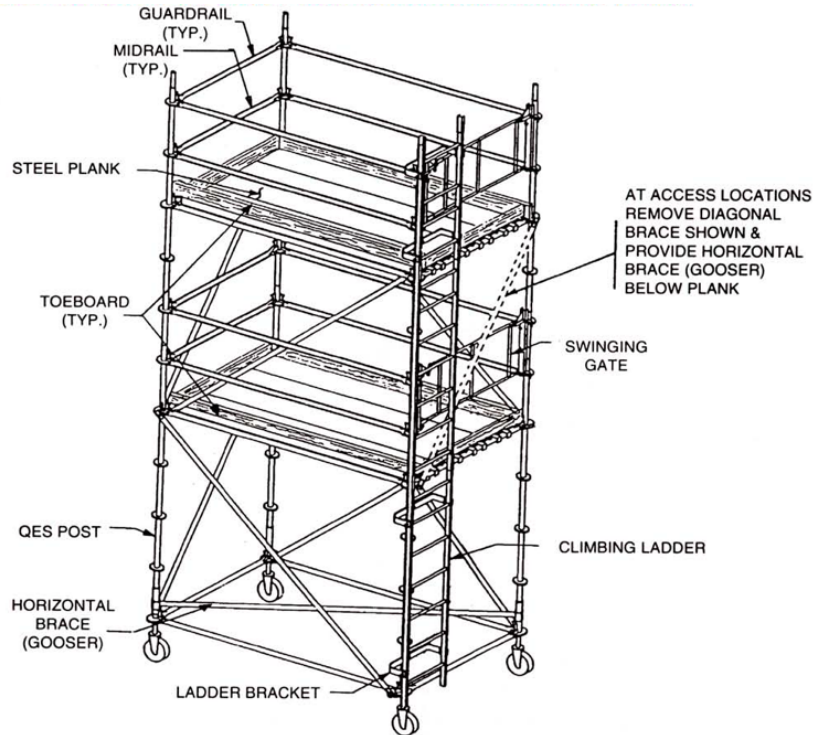
Notes:

1. Install and use step units (See Page 14), attachable climbing ladders (See Page 16) or other appropriate ladders for access to all platforms.
2. Sidewall brackets must be seated properly and securely to posts and locking rings; assure brackets do not become unseated when planks are placed on them (See Fig 1).
3. Install guardrail protection at ends of sidewall bracket runs (See Fig 2).
4. Install planking in accordance with Safety Rule #29, (Page 3).
5. Install guardrails, midrails, and toeboards along all open sides and ends of working platforms as required by OSHA or local codes.
6. When scaffolds are to be partially or fully enclosed, additional specific precautions must be taken to assure frequency and adequacy of ties attaching the scaffolding to the building because of increased load conditions resulting from effects of wind and weather. The scaffolding components to which the ties are attached must also be checked for additional lateral loads imparted thereto.
7. Bracing recommendations shown above apply to unenclosed scaffolds only. Enclosed scaffolds must be specifically designed for each application by a qualified person.
8. On wall scaffolds greater than six lifts high (40'), it may be necessary to brace two plank and three plank sidewall brackets back to the scaffold legs. Consult with BrandSafway's Engineering Department prior to using the sidewall brackets on those occasions

Typical Rolling Scaffolds

Towers not higher than 4 times the narrowest base dimension.

SEE NOTE TOP OF PAGE 14 REGARDING GUYING & TIEING



General Notes for All Rolling Towers:

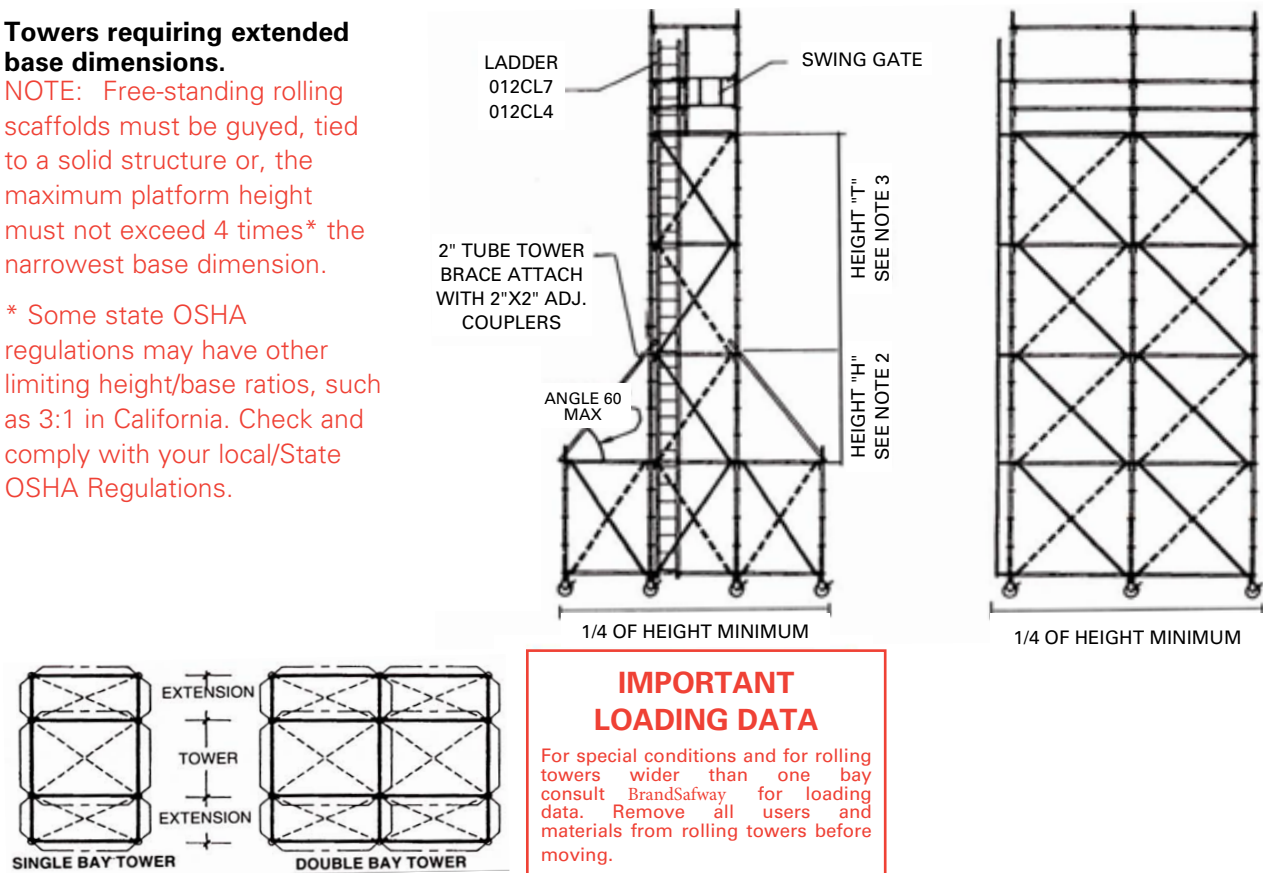
1. Important: single span wood planks on rolling scaffolds must be cleated to prevent planks from dislodging or sliding off bearers. Prefabricated type (as shown above) have hooks to seat over the bearers and restrain the plank from movement.
2. Install all planking in compliance with Safety Rule #29, (See page 3).
3. Install guardrails, midrails and toeboards at the top and at any intermediate height working levels.
4. Install horizontal brace (goosers) as low as possible at bases of rolling towers; repeat them at least every 20' of tower height and always directly below the top working platform.
5. All casters must be securely attached to base plate of adjustable leg. Adjustable legs must not extend more than 12".
6. Hinge pins must be installed at the vertical connection points between posts, sprockets, guardrail supports and between posts and casters.
7. Always install side and end toeboards at planked working levels. Use climbing ladders for access to platforms, (See Page 16).
8. Free-standing rolling scaffolds must be guyed, tied to a solid structure or the maximum platform height must not exceed 4 times the narrowest base dimension. Refer to Page 14 for high rolling towers. Check if State OSHA Regulations have other than 4:1 height/base ratios. See additional rolling tower Safety Rule #28 on Page 3.

High Rolling Scaffolds

Towers requiring extended base dimensions.

NOTE: Free-standing rolling scaffolds must be guyed, tied to a solid structure or, the maximum platform height must not exceed 4 times* the narrowest base dimension.

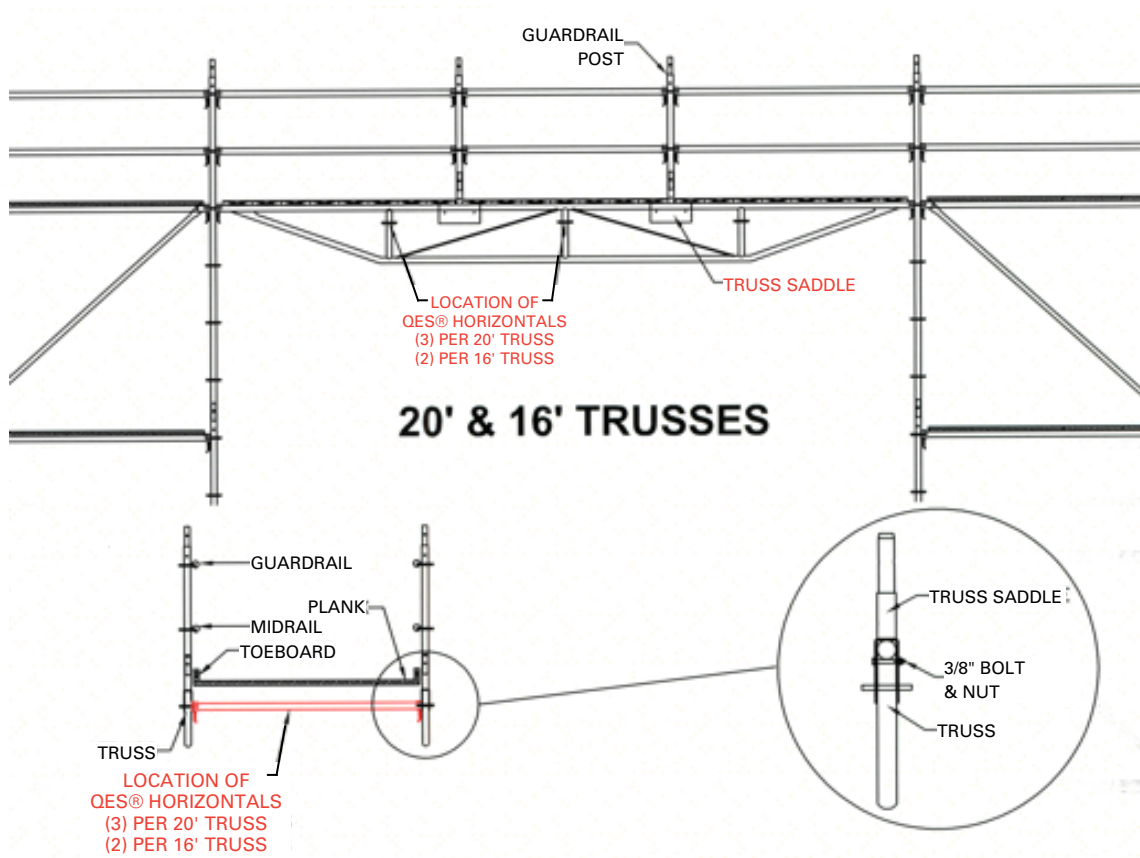
* Some state OSHA regulations may have other limiting height/base ratios, such as 3:1 in California. Check and comply with your local/State OSHA Regulations.



Additional Notes for High Rolling Scaffolds

1. Base of rolling tower may be extended by the addition of horizontals and posts.
2. The 2" tube tower braces must be installed at approximately 60 degrees between the tower and each additional post with 2" x 2" adjustable couplers. Height "H" must not exceed: 9'-0" for 5'-0" wide extension, 6'-10" for 4'-0" wide extension, 5'-6" for 3'-0" wide extension, 3'-5" for 2'-0" wide extension.
3. Height "T" must never exceed 3 times the width of the bearers of the upper portion of the tower, i.e. 15' for 5' bearers.
4. To maintain heights "H" and "T" above, it may be necessary to build-up the extensions to a suitable height using posts. All additional posts must be connected to each other with diagonals, horizontals and be coupled to the tower in the same manner shown for the base level with (two) 2" x 2" adjustable couplers.
5. Consult with BrandSafway for the proper equipment for the required height, for any unusual conditions and high rolling towers over 30'.
6. Refer to and comply with all Safety Rules on Pages 2 and 3.

Proper Methods of Installing Trusses



Truss Loading Data

Never exceed these uniformly distributed loads

TRUSS SIZE	MAXIMUM SPAN	ALLOWABLE LOADS* UNIFORMLY DISTRIBUTED	MAXIMUM** CONCENTRATED LOADS
20'	20'	130#/FT.	1334#
16'	16'	177#/FT.	1980#

*Allowable uniformly distributed load of planks, men and materials.

**Maximum load of men and materials in any span concentrated in a 25 square feet (5' x 5') area directly over one truss or between two trusses.

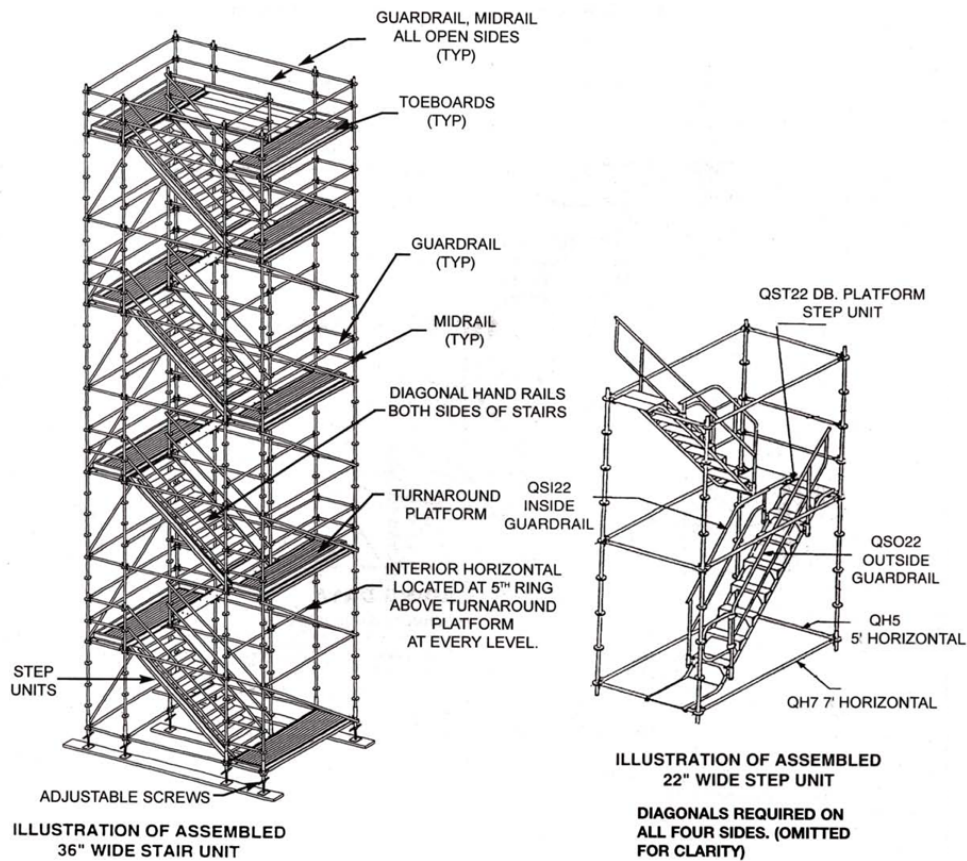
WARNING:

DO NOT PERMIT CONCENTRATIONS OF MEN AND/OR MATERIALS TO EXCEED THE ABOVE LOADS AT ANY LOCATION. DEDUCT WEIGHTS OF PLANKS AND USERS FROM UNIFORMLY DISTRIBUTED LOADS ABOVE TO DETERMINE MAXIMUM MATERIAL WEIGHTS. CHECK TO ASSURE LOADS ON TRUSS SUPPORT LEGS DO NOT EXCEED THEIR ALLOWABLE LOAD.

General Installation Instructions for All Trusses

1. Install guardrails, midrails and toeboards on trussed platforms at all platform openings and at all open ends and sides.
2. Assure that all securing bolts, nuts, pins, wedges and other hardware are properly and safely fastened.
3. See truss loading data above.

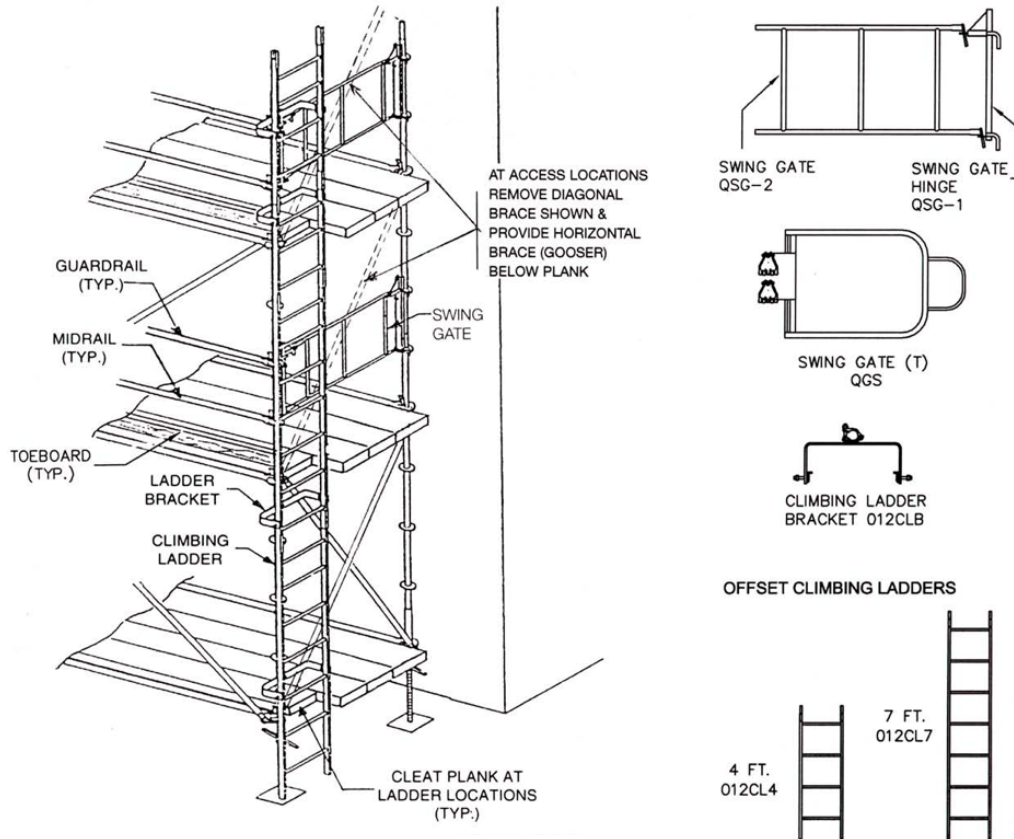
Step Unit Access Towers



Notes:

1. Maximum allowable tower height is 60'. For greater heights, consult BrandSafway's Engineering Department.
2. All step/stair units must be installed with diagonal handrails units as shown.
3. Guardrails, midrails and toeboards must be installed as illustrated above.
4. The top level must be equipped with full guardrails, midrails and toeboards to protect all openings and open sides. In the above illustration, guardrails, midrails, and toeboards would be removed at access locations.
5. The tower must be properly tied or guyed every 13' vertically.
6. Total personnel loading must be restricted to a maximum of ten users up to 60' and a maximum of eight users up to 124'. Never allow users to congregate in excessive numbers at landings, exits, or entrances.

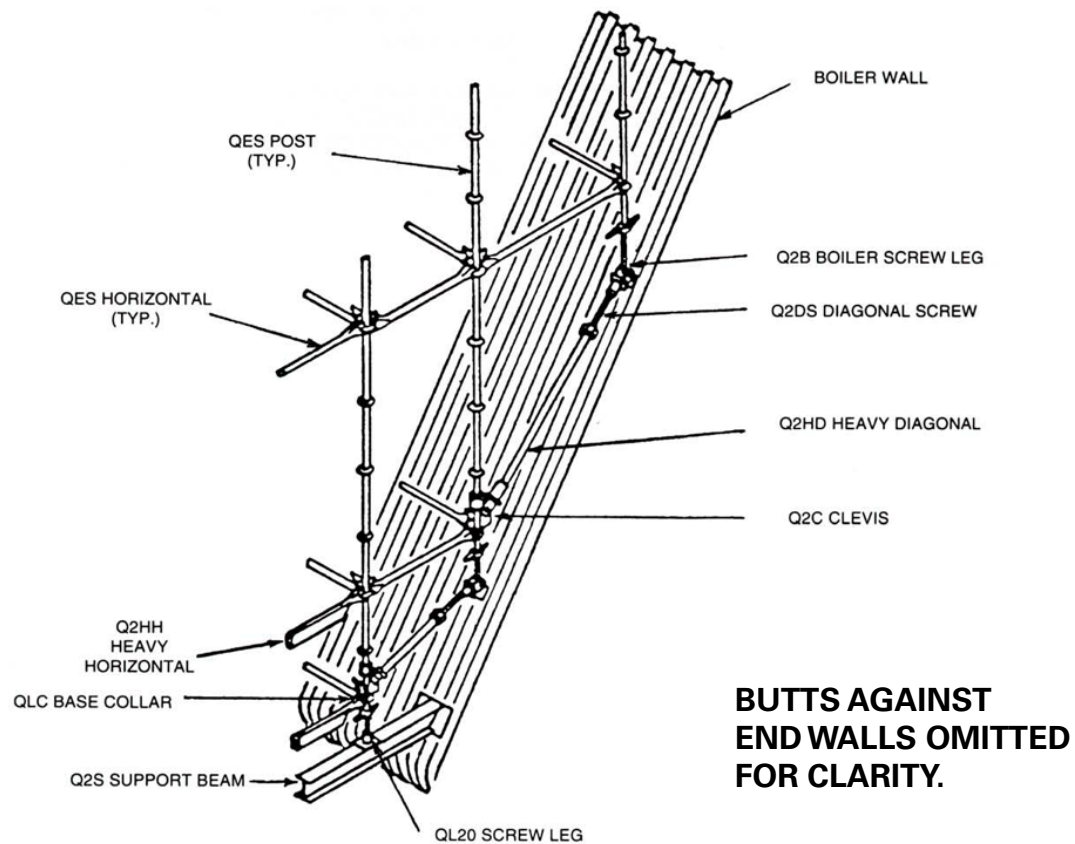
Climbing and Access Components



Notes:

1. All scaffolds must be equipped with climbing ladders or equivalent safe means of access to scaffold platforms.
2. Climbing ladders shown on this page and the step units shown on Page 16 are available from BrandSafway upon request.
3. Alternatively, properly installed portable wood or metal ladders, or job-built ladders can be used and installed by the user or erector.
4. Appropriate guardrail or grab rails must be provided at ladder exit locations. Landing platforms or rest platforms must be provided at 30' intervals of continuous ladder runs.
5. NEVER position ladders so that their use will tip the scaffold.
6. NEVER allow climbing of diagonal braces or rings of posts.

Typical Assembly – Boiler Accessories



Notes:

1. Support beam should be installed level.
2. Single legs bearing on support beam must be "C" clamped to beam.
3. Ends of support beam may require shims due to uneven boiler tubes.
4. Heavy horizontals must be positioned as shown on drawings with TUBELOX® butts, at end walls.
5. Keep unauthorized personnel out of boiler while scaffolding is being erected or dismantled.
6. Washdown is recommended prior to dismantling – watch for loose debris.
7. Provide a safe, stable means of access to upper end of heavy diagonal.

Dismantling Notes

As adapted from the SCAFFOLDING, SHORING & FORMING INSTITUTE (SSFI)

THE WORK OF DISMANTLING QES® – QUICK ERECT SCAFFOLD SHOULD BE UNDER THE SUPERVISION OF AN INDIVIDUAL WITH PROPER EXPERIENCE AND APTITUDE. THE FOLLOWING SHOULD BE OBSERVED WHILE DISMANTLING.

1. It should be the responsibility of users to read and comply with the following guidelines which are designed to promote safety in the dismantling of QES® scaffolding. These guidelines do not purport to be all inclusive nor supplant or replace other additional safety and precautionary measures that may be necessary to cover usual or unusual conditions.
2. Check to see if the QES® scaffolding has been structurally altered in any way which would make it unsafe; and, if so, reconstruct where necessary, in accordance with these safety rules, before commencing with the dismantling procedures.
3. Dismantle the QES® scaffolding from the top down. Begin by removing all accessories from the lift being dismantled at the time.
4. **Always** work from a minimum of two planks placed on the bearers below the lift being removed. Move planking down as dismantling progresses.
5. Do not remove ties and braces until dismantling has reached the lift to which they are attached.
6. Always stay within the inside of the QES® scaffolding. Do **not** climb on the outside for any reason when dismantling. Do **not** climb on ties, braces or unbraced components. Use only appropriate climbing and access components to move between levels.
7. Only remove hinge pins, butts/ties, and any added bracing from the level being dismantled.
8. Be sure that area below is clear of users not involved in the dismantling and is secured against unauthorized access.
9. Lower QES® scaffolding components in a safe manner as they are dismantled. Avoid dropping or throwing the components as this could result in injury to users below, or damage to the equipment.
10. Use energy absorbing lanyards and full body harnesses as required. Secure to properly designed anchor points or structure.
11. Do **not** climb rings.



With a commitment to safety as its foremost value, BrandSafway was created when Brand Energy and Infrastructure Services and Safway Group combined in 2017. BrandSafway is a portfolio company of Clayton, Dubilier & Rice.

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Photos and diagrams are illustrative only. All products and equipment shall be used or offered for sale only where permitted by law or governmental regulations, codes or ordinances and shall be used in strict conformity therewith and for the purposes and in the manner as may be prescribed therein and in conformity with safe practice. Specifications of products and equipment shown herein are subject to change without notice.

WARNING

Serious injury may result if you fail to use safe practice in the erecting, dismantling or use of mast climbing, work platforms, scaffolding, shoring and/or forming equipment. Erectors, dismantlers and users must be familiar with and follow current laws and regulations, safe practice and the Safety Rules and Instructions. Individuals using this equipment must be instructed in these requirements. Safety Rules and Instructions pertaining to the products shown herein are provided upon sale or rental of equipment. Additional copies or further information shall be provided upon the customer's request and are online at www.brandsafway.com.

It is important to note that current OSHA regulations require the use of guardrail systems and/or fall-protection devices at all working levels, open sides, and at all other openings on platforms and work areas above certain heights, as specified by OSHA. In all cases, where a worker is exposed to a fall hazard in the use of this equipment, guardrail systems, where appropriate, or other personal fall-protection devices, must be utilized. Means of access must be made available by the customer to all locations where people are expected to work. Materials for the provision of such means of access may be job-built by the customer or, at the customer's option, be obtained through BrandSafway or other suppliers. BrandSafway will, at the customer's request, consult on an alternative means of access.