WINSAFE Corp.

OPERATING INSTRUCTIONS FOR SUPERMOD MODULAR PLATFORMS

THESE INSTRUCTIONS MUST BE READ AND UNDERSTOOD BY ANYONE INSTALLING OR SUSPENDING EQUIPMENT FROM WINSAFE MODULAR PLATFORMS. ANY QUESTIONS MUST BE DIRECTED TO THE WINSAFE DEALER OR DIRECTLY TO THE ADDRESS BELOW.



WINSAFE CORP.

1 VALLEYWOOD DRIVE, UNIT #1
MARKHAM, ONTARIO
L3R 5L9
CANADA





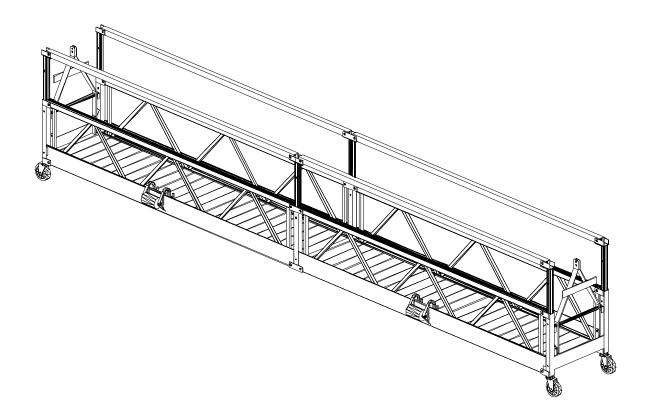
- 1. Serious injury or death can result from improper use of this equipment. Understand all instructions for all components of your system before using them.
- 2. A complete modular powered platform / suspended scaffold is composed of three sub–systems. You must ensure that you have operating instructions for each of the following sub-systems:
 - → Modular platform
 - → Hoist (suspension) system and suspension cables
 - → Fall arrest system for each person on the modular platform
- 3. All suspension lines, lifelines, hangers, platforms and other supporting parts must be inspected prior to each usage.
- 4. Do not use equipment which has been damaged or which displays excessive wear. Inspect all equipment before and after each use. For replacement parts, contact your local dealer or Winsafe Corp.
- 5. Install and use Winsafe modular platforms according to the platform arrangement and load ratings indicated on the Modular Platform Arrangement Labels.
- 6. **DANGER**—To avoid contact and shock hazard, scaffold and tools shall not be used in the vicinity of energized power lines or electrical lines.
- 7. Risk of Injury: Acids and other corrosive substances may severely affect the strength of metal scaffolding devices. Use extreme care around such materials and follow instructions.
- 8. Do not use modular platforms in conditions of high winds, inclement weather, extreme temperatures or where any surrounding conditions impair safe use.
- 9. Read the Code of Safe Practices before installation and use of Winsafe SuperMod platforms.

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1. WINSAFE MODULAR PLATFORMS

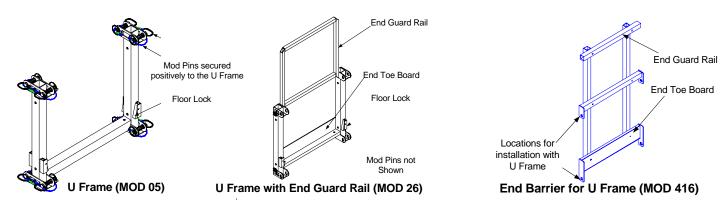
A modular platform (scaffold) is a temporarily or a permanently suspended powered platform system used for the maintenance of buildings or structures (bridges, boilers, etc.) Winsafe Corp. provides various accessories and configurations for suspended modular platforms.



2. COMPONENTS

This section presents the components required for the assembly and installation of Winsafe SuperMod platforms.

2.1. U Frames



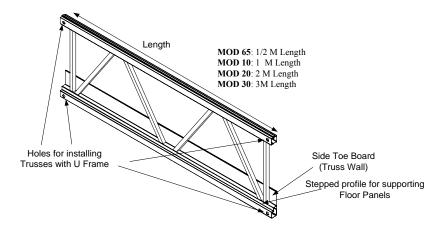
U Frames are used to construct the framework of the modular platform. The U Frame supports and connects the Trusses through Mod Pins, locks the Floor Panels with the Floor Lock, holds the Hand Rail Post, and holds the Swivel Caster.

End U Frame - MOD 26 is similar to the U Frame (MOD 05) except that it has an end guard rail (end hand rail) and an end toe board. End U Frames support Trusses, Floor Panels, Swivel Casters and Hand Rail Posts in only one direction and are installed at the ends of the modular platforms.

The End Barrier for U Frame (MOD 416) is an alternate to MOD 26 with the U Frame when used (MOD 05) at the ends of the modular platform. The End Barrier consists of an end guard rail and an end at the ends of the modular platform. The End Barrier consists of an end guard rail and an end toe board.

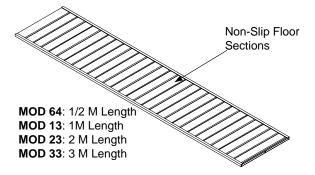
2.2. Trusses

Winsafe Trusses are light weight and designed for use with Winsafe U Frames. Trusses are 21 5/8" high and vary in length from ½ M to 3 M. Owing to the height of the Truss; a mid Hand Rail is not required in the modular platform. The side wall of the Truss extends more than 4" from the floor level; serving as a toe board for the sides of the modular platform. The inner side of the Truss is stepped to support Floor Panels.

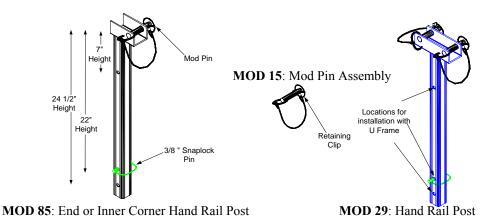


2.3. Floor Panels

Winsafe provides light weight, custom extruded, non-slip flush Floor Panels designed for use with Winsafe U Frames and Winsafe Trusses. Floor Panels are 25" wide and vary in length from ½ M to 3 M.

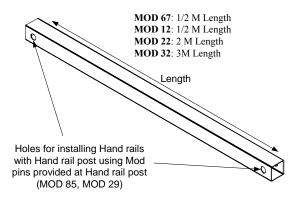


2.4. Hand Rail Posts and Hand Rails



Winsafe provides two types of hand rails posts: End or Inner Corner Hand Rail Post (MOD 85); and Hand Rail Post (MOD 29). End Hand Rail Post (MOD 85) is installed at the end corners of the modular platform with the End U Frame (MOD 26) or End stirrup (MOD 08) since it can secure only one Hand Rail. Hand Rail Post (MOD 29) can secure the ends of two Hand Rails and is installed with the U Frames (MOD 05). MOD 85 and MOD 29 can be installed at a height of 3 1/2", 18 1/2" or 21" from the U Frame (MOD 05), End U Frame (MOD 26) or End Stirrup (MOD 08) using 3/8" snaplock pin.

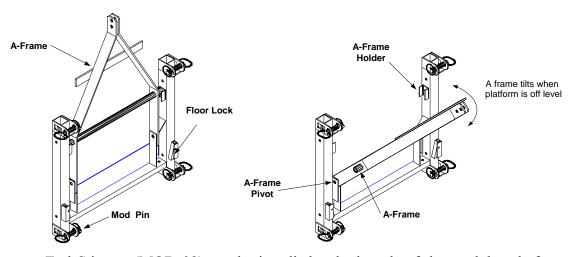
Hand Rails



2.5. Stirrups

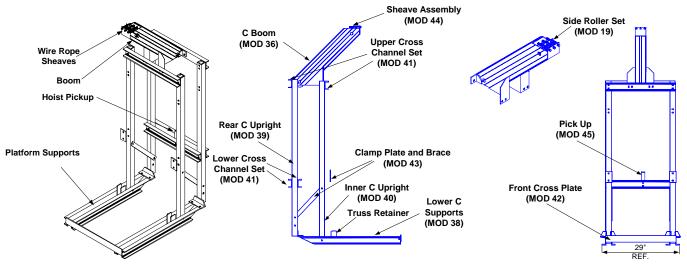
Stirrups support the ends of the modular platform and transfer the loads of to the suspension cables / hoist system. Winsafe provides two types of stirrups: End Stirrup (MOD 08) and C Stirrup (MOD 35).

End Stirrup (MOD 08)



End Stirrups (MOD 08) can be installed at both ends of the modular platform up to a length of 48' 9". The End stirrup contains an A Frame and a U Frame. The U Frame supports the end of the modular platform similar to the End U Frame (MOD 26). The A-Frame can pivot on the U Frame and connects to the suspension cable/hoist system. When suspended, rises to disengage from the A-Frame Holder so it can pivot and align its angular position with respect to variations in the level of the hoist system. Restrictions of the pivot movement of the A-Frame will develop bending stresses on the platform and may damaged the modular platform.

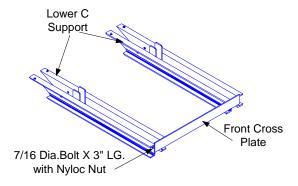
C Stirrup (MOD 35)



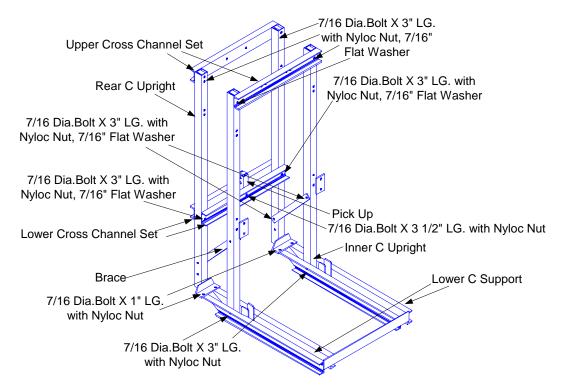
C Stirrups are used on SuperMod's that need to keep the ends of the platform workable or to allow greater variation in the suspension locations.

Assembly Procedure for C Stirrups

Your shipment would contain: 1 C Boom (MOD 36), 4 Lower C Supports (MOD 38), 2 Rear C Uprights (MOD 39),1 Cross Channel Set (MOD 41 - 2 Upper Cross Channels and 2 Lower Cross Channels), 2 Inner C Uprights (MOD 40), 1 Front Cross Plate (MOD 42), 2 Clamp Plate & Brace(MOD 43), 6 - 4" Dia. Sheave Assemblies (MOD 44), 1 Pick Up (MOD 45) and 1 Side Roller Set (MOD 98) with fasteners.

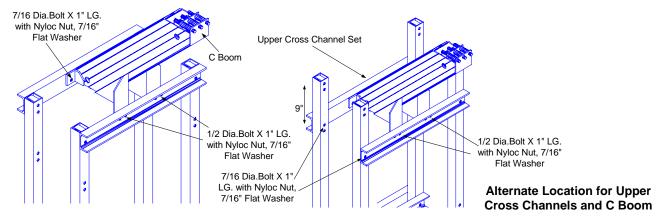


- 1. Place the Lower C Supports (MOD 38) on a level surface spaced at approximately 29 inches.
- 2. Install Front Cross Plate (MOD 42) with Lower C Supports using 7/16 Dia. Bolt X 3" LG. with nyloc nuts. The Front Cross Plate should be positioned so that the lip of the Front Cross Plate extends up beyond the Lower C Supports.



3. Install the Inner C Uprights (MOD 40) with the Lower C Supports using 7/16 Dia. Bolt X 3" LG. with nyloc nuts.

- 4. Install the Rear C Uprights (MOD 39) with the Lower C Supports using 7/16 Dia. Bolt X 1" LG. with nyloc nuts.
- 5. Install Braces to uprights using 7/16 Dia. Bolt X 3" LG. with nyloc nuts and 7/16 Dia. Flat washer.
- 6. Install Suspension Pick Up (MOD 45) using 1/2 Dia. Bolt X 3 1/2" LG. with nyloc nuts.
- 7. Install the Lower Cross Channels (MOD 41) with Inner C Uprights and Rear C Uprights using 7/16 Dia. Bolt X 3" LG. with nyloc nuts and 7/16 Dia. Flat washer.



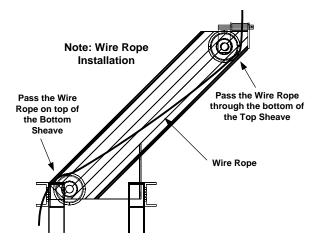
- 8. Install the Upper Cross Channels (MOD 41) with the Inner C Uprights and Rear C Uprights using 7/16 Dia. Bolt X 3" LG. with nyloc nuts and 7/16 Dia. Flat washer. Note the Upper Cross Channel Set can be installed in the high position or in the low position. The low position would be used when workers need to gain access to a ceiling or other conditions requiring access above the stirrup.
- 9. Install the lower back end of the C Boom (MOD 36) with the upper cross channel sets using 1/2 Dia. Bolt X 1" LG. with nyloc nuts and 7/16" Flat washer as shown.

Notes:-

- 1. Ensure that all fasteners are tightly secured.
- 2. Ensure that the C boom is installed at the proper location so that the sheave assembly is inline with the centre of the C stirrup.

Traction Hoist Installation Note:-

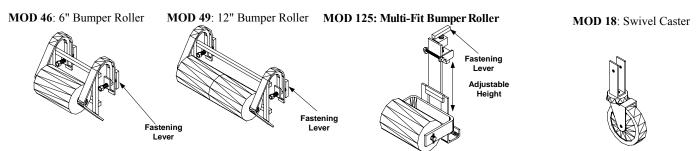
Always install Powered Hoist with Pickup (MOD 45) with the controls (and electrical motors) facing the centre of the modular platform for better access to controls. Install Hoist to the left or right side of MOD 45 so that the suspension cable is inline with the wire rope sheaves. If not inline, ensure that the offset is minimum.



2.6. Accessories

Bumper Rollers

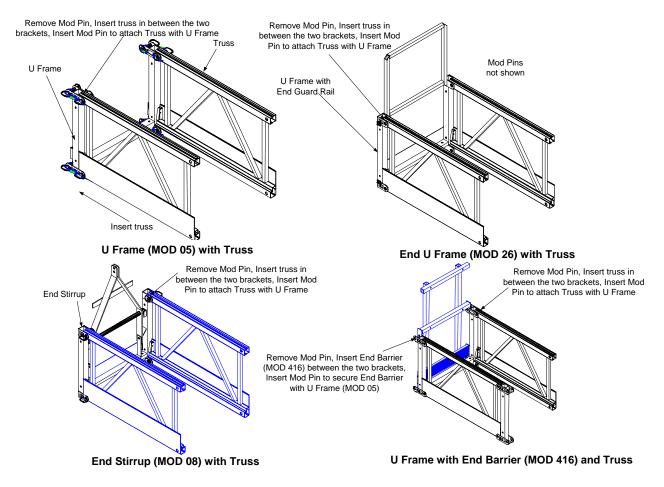
Winsafe provides three types of Bumper Rollers for its modular platforms. The 6" MOD 46 and 12" MOD 49 are designed for use with Winsafe Trusses. MOD 125 can also be used with Trusses of other manufacturers since the height of MOD 125 can be varied.



The Winsafe Swivel Caster consists of a 6 inch Dia. 1 ¼ "wide delrin wheel capable of withstanding heavy loads. The Swivel Caster can be installed at the bottom of the U Frames (MOD 05), End U Frame (MOD 26) and End Stirrup (MOD 08). It can also be mounted at the rear uprights of the MOD35 C Stirrup.

3. INSTALLATION PROCEDURES

3.1. Installation of Trusses with U Frames

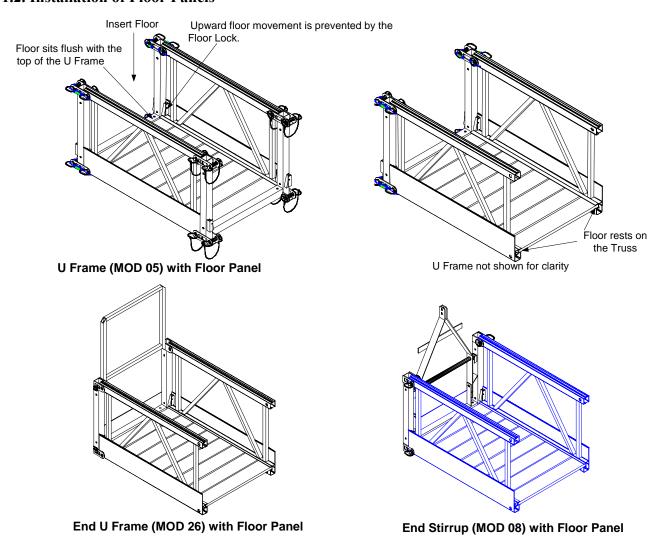


- 1. Remove Mod Pins from the U Frame. Insert the Truss in between the brackets that hold the Mod Pin so that the stepped portion of the Truss faces inward. The stepped portion of the Truss will support the Floor Panel.
- 2. Insert Mod Pins through the Truss and U Frame pinning the Truss with U Frame. Insert Mod Pins completely and secure the Mod Pin with the retaining lynch pin. Be sure to run the lowering retaining pin tethers under the truss so they will not interfere with floor panel installation.

Note:-

- 1. The installation procedure is the same for End U Frame (MOD 26), and End Stirrup (MOD 08).
- 2. To install End Barrier (MOD 416) with U Frame (MOD 05), remove Mod Pins, insert End Barrier between the two brackets and insert Mod Pins to secure the End Barrier to the U Frame.

1.2. Installation of Floor Panels

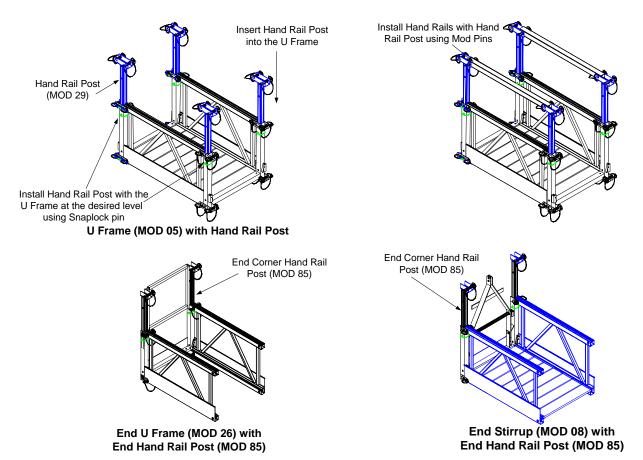


- 1. Ensure that U Frames are installed on both ends of the Trusses.
- 2. Insert the Floor Panel as shown from above until the Floor Panel rests on the stepped portion of the Trusses and the Floor Lock on the U Frame lock the Floor Panels in place. Ensure that the Floor Panels are flush with the top surface of the U Frame cross member.

Note:-

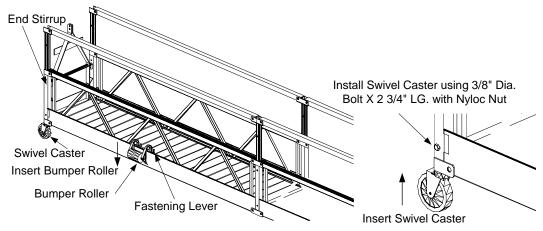
- 1. Insert the Floor Panels completely so they sit flush with the U Frame.
- 2. Ensure that the Floor Panel is secured by the Floor locks.

3.3. Installation of Hand Rail Post and Hand Rails



- 1. Ensure that all U Frames, End U Frames and End Stirrups are installed on the Modular Platform.
- 2. Install the End Hand Rail Post (MOD 85) with the End Stirrup (MOD 08) or End U Frame (MOD 26) by inserting the End Hand Rail Post into the End Stirrup or End U Frame. Secure the End Hand Rail Post at the desired height with the U Frame or End Stirrup using 3/8" snaplock pin as shown.
- 3. Install the Hand Rail Post (MOD 29) with U Frame (MOD 05) by inserting the Hand Rail Post into the U Frame. Secure the Hand Rail Post at the desired height with the U Frame using 3/8" snaplock pin as shown.
- 4. Remove the Mod Pins from the Hand Rail Post. Select the appropriate Hand Rail (with respect to length) and secure the Hand Rail with Hand Rail Post by inserting the Mod Pins completely through the Hand Rail Post and Hand Rail. Secure the Mod Pins with the retaining lynch pin.

3.4. Installation of Accessories



Installation of Bumper Roller (MOD 46, MOD 49)

- 1. Select the bumper roller (MOD 46, MOD 49) and locations on the Truss for installation.
- 2. Mount the bumper roller on the lower Truss member and secure by tightening locking screws.

Installation of Bumper Roller (MOD 125)

- 1. Place the lower bracket of the bumper roller on the bottom member of the Truss. Adjust the height of the bumper roller to fit the height of the Truss.
- 2. Secure bumper roller to Truss by tightening the locking screw.

Note:-

1. Select proper location of Bumper Rollers so that they are always in contact with the wall or building surface.

Installation of Swivel Caster (MOD 18)

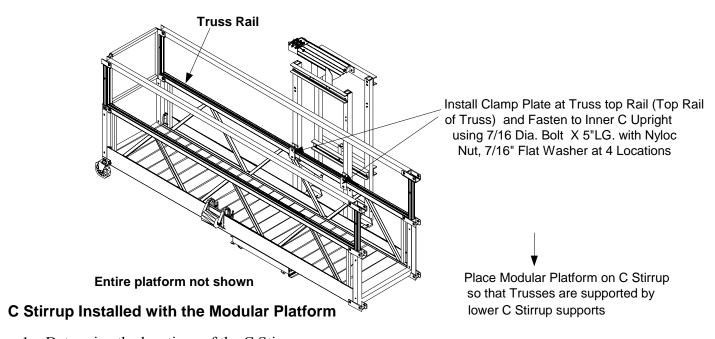
- 1. Insert the swivel caster into the base of the End Stirrup or U Frame as shown.
- 2. Install the swivel caster with the U Frame using the provided 3/8"DIA X 2 3/4 "LG Bolt as shown.

3.5. Installation of C Stirrup with Modular Platform

General Instructions

The stirrups must be positioned so that there will be a stabilizing moment of 1 ½ times the overturning moment caused by any possible concentration of the rated load on the overhang. As a safe practice, install C Stirrup according to the Modular Platform Arrangement provided by Winsafe Corp. (see LABEL: **Arrangement of SuperMod Platforms to be Used with SuperMod Walk through Stirrups**). Overhang should not exceed 1M on platforms less than 14M and must not exceed 2M on platforms between 14 ~ 17M length.

Installation Procedure



- 1. Determine the locations of the C Stirrups.
- 2. Place the modular platform on the C Stirrup so that the platform lies on the Lower C Supports and the Truss (at the back) is locked by the Truss Retainer. The other Truss is restrained by the Front Cross Plate.
- 3. Place the Clamp Plate (MOD 43) on the inner side of Truss Rail (Top Rail of the Truss) and fasten to the Inner C Post using 7/16" Dia. Bolt X 5" LG. with nyloc nuts and 7/16" Flat washers. Do not over tighten the Clamp plate as it may deform the Truss.

4. SUPERMOD

The SuperMod (modular platform) is characterized by strong trusses, strong connectors that provide a secure and a long lasting platform. SuperMod platforms can be assembled in two configurations: SuperMod with End Stirrups and SuperMod with Walk Thru Stirrups. Winsafe recommends installation and use of SuperMod according to the platform arrangements indicated on the labels. Arrangements presented on the label are based on several critical design criteria and safety standards.

4.1. Installation of SuperMod with End Stirrups

LABEL: ARRANGEMENT OF SUPERMOD PLATFORMS WITH END STIRRUPS

TOTAL		PLATFORM ARRANGEMENT	TOTAL PLATFORM		MAX RATED	
LENGTH		↑ = END STIRRUP	WEIGHT		WORKING LOAD	
FT./INCH	M	- = CROSS FRAME	LBS.	KG.	LBS.	KG.
6'9"	2	<u>↑2↑</u>	240	110	1500	680
9'9"	3	<u>↑3↑</u>	282	129	1500	680
13'6"	4	$\uparrow 2-2 \uparrow$	358	163	1500	680
16'6"	5	$\uparrow 3-2 \uparrow$	400	182	1500	680
19'6"	6	$\uparrow 3-3 \uparrow$	440	201	1500	680
23'3"	7	$\uparrow 2-3-2 \uparrow$	518	236	1500	680
26'3"	8	$\uparrow 3-2-3 \uparrow$	560	255	1500	680
29'3"	9	$\uparrow 3-3-3-\uparrow$	602	274	1000	450
33'	10	$\uparrow 3-2-2-3 \uparrow$	678	309	1000	450
36'	11	$\uparrow 3-3-2-3 \uparrow$	720	328	1000	450
39'	12	$\uparrow 3-3-3-3 \uparrow$	762	347	1000	450
42'9"	13	$\uparrow 3-3-2-2-3 \uparrow$	838	381	750	340
45'9"	14	$\uparrow 3-3-2-3-3 \uparrow$	880	400	750	340
48'9"	15	$\uparrow 3-3-3-3-3 \uparrow$	922	420	750	340

Total Length: Distance between the hoist (suspension cables) ~ total length of the platform

Total Platform Weight: Dead weight of the SuperMod for the specific arrangement

Max Rated Working Load: Maximum live load

Platform Arrangement: Framework (arrangement of U Frames, Trusses)

↑ : End Stirrup (MOD 08)

- : U Frame (Connection)

2,3: Length in meters of Truss, Hand Rail, and Floor Panel

2-3: 2 M Truss is connected to 3 M Truss by a U Frame

Note:-

- 1. End stirrups are installed only at the ends of the SuperMod.
- 2. Intermediate sections of the SuperMod are connected using U Frame (MOD 05).
- 3. Hand Rails and Floor Panels are selected according to the length of the Truss.

Installation Procedure

- 1. Select the platform arrangement for the desired platform length and prepare a list of components required for installation. Ensure that you have all the necessary components.
- 2. Set up the framework of the SuperMod by installing U Frames and End Stirrups with Trusses.
- 3. Install Floor Panels.
- 4. Install Hand Rail Posts and Hand Rails.
- 5. Install Bumper Rollers, Swivel Casters and other accessories if used.
- 6. Install hoist system on the End Stirrups.

Note:-

- 1. Refer to Section 3 for detailed installation procedures.
- 2. Do not substitute Winsafe modular platform components with components of other manufacturers.
- 3. Live loads must be distributed. Do not concentrate live load at one end of the modular platform.
- 4. Verify that all Mod Pins, lynch pins and hardware are secure.

Example:- SuperMod Platform arrangement: \(\gamma \) 3 - 3 \(\gamma \)

List of components for installation

End Stirrups

No. of Stirrups = Number of
$$\uparrow$$
's = 2 X MOD 08

U Frames (Intermediate)

Each pair of Truss is connected by 1 U Frame.

No. of U Frames =
$$1 \times MOD 05$$

Trusses

Trusses / Side = 3 M + 3M = 2 X 3M Truss

Each U Frame / End Stirrup requires 2 Frames.

Total Truss =
$$2 \times 3M / Side \times 2 = 4 \times 3M Truss = 4 \times MOD 30$$

Floor Panels

No. of Floor Panels =
$$3M + 3M = 2 \times 3M$$
 Floors = $2 \times MOD 33$

Hand RailPosts

Each End Stirrup (MOD 08) requires 2 End or Inner Corner Hand RailPost (MOD 85)

No. of End Stirrups = 2. No. of End Hand RailPost = 2 X 2 = 4 X MOD 85

Each U Frame (MOD 05) requires 2 Hand RailPosts (MOD 29)

No. of U Frames = 1. No. of Hand RailPost = $1 \times 2 = 2 \times MOD 29$

Hand Rails

Length of Hand Rail= Length of Truss since Hand Rails run parallel to Truss.

Hand Rails / Side = $3M + 3M = 2 \times 3 M$ Hand Rails.

Each U Frame / End Stirrup requires 2 Hand Rails.

Total Hand Rails = $2 \times 3M / Side \times 2 = 4 \times 3M + Rail = 4 \times MOD 32$

Swivel Caster

Each End Stirrup requires 2 Swivel Casters.

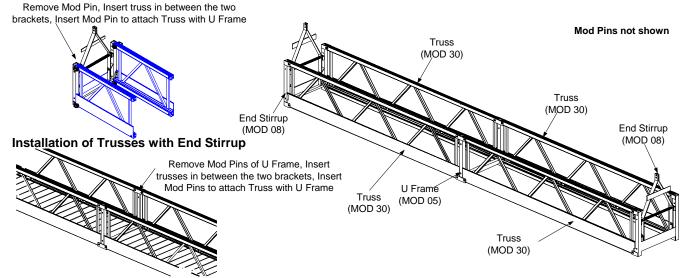
No. of swivel caster = No. of End Stirrups $X = 2 \times S$ Swivel Caster $X = 4 \times S$ MOD 18

Bumper Roller

Select bumper roller to suit. Usually 1 bumper roller / Truss. Note that Bumper Rollers are installed on only one side of SuperMod.

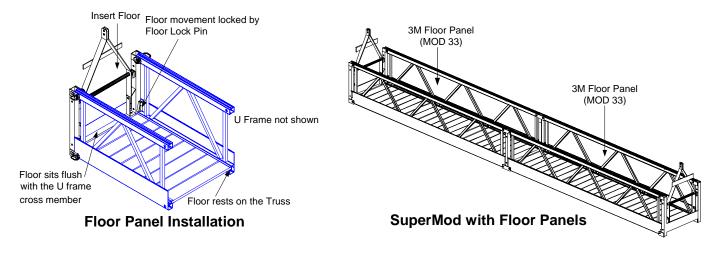
Total Bumper Rollers = 2 X 6" Bumper Roller = 2 X MOD 46

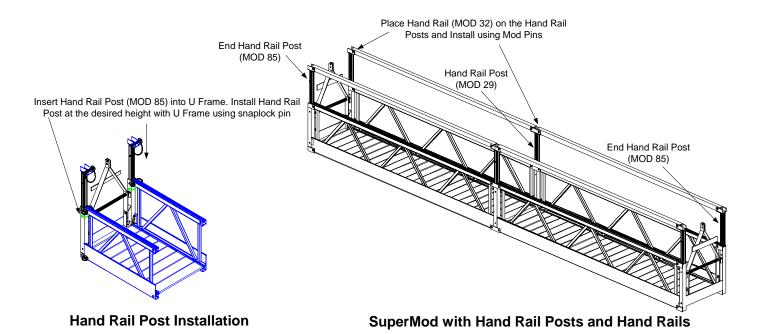
SuperMod Installation

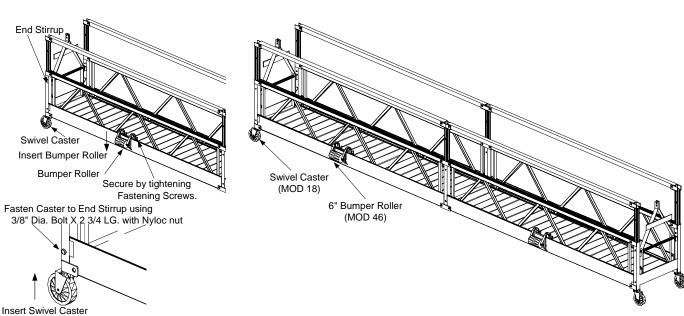


Installation of Trusses with U Frame

SuperMod Framework







Bumper Roller, Swivel Caster Installation

SuperMod Platform

4.2. Installation of SuperMod with Walk Thru Stirrup

LABEL: ARRANGEMENT OF SUPERMOD PLATFORMS WITH WALK THRU STIRRUPS

TOTAL		TOTAL		PLATFORM	TOTAL PLATFORM		MAX RATED	
LENGTH		DISTANCE		ARRANGEMENT	WEIGHT – SEE		WORKING LOAD	
				↑ = WALK THRU STIRRUP	NOTE			
FT/INCH	M	FT./INCH	M	- = CROSS FRAME	LBS	KG	LBS	KG
30'0"	9	23'3"	7	$1 \uparrow 2 - 3 - 2 \uparrow 1$	602	274	1000	450
33'9"	10	26'3"	8	<u>1 ↑ 3-2-3 ↑ 1</u>	644	293	1000	450
36'9"	11	29'3"	9	<u>1 ↑ 3-3-3 ↑ 1</u>	686	312	1000	450
40'6"	12	33'	10	$1 \uparrow 3-2-2-3 \uparrow 1$	762	347	1000	450
43'6"	13	36'	11	$1 \uparrow 3-3-3-2 \uparrow 1$	804	366	1000	450
46'6"	14	39'	12	$1 \uparrow 3-3-3-3 \uparrow 1$	846	385	1000	450
50'3"	15	42'9"	13	$1 \uparrow 3-3-2-2-3 \uparrow 1$	922	420	750	340
53'3"	16	45'9"	14	<u>1 ↑ 3-3-2-3-3 ↑ 1</u>	964	439	750	340
56'3"	17	48'9"	15	<u>1 ↑ 3-3-3-3 ↑ 1</u>	1006	458	750	340
						•		•
46'6"	14	33'	10	2 ↑ 3-2-2-3 ↑ 2	796	362	750	340
49'6"	15	36'	11	$2 \uparrow 3-3-3-2 \uparrow 2$	862	392	750	340
52'6"	16	39'	12	2 ↑ 3-3-3-3 ↑ 2	904	411	750	340
56'3"	17	42'9"	13	$2 \uparrow 3-3-2-2-3 \uparrow 2$	1082	492	750	340
59'3"	18	45'9"	14	<u>2 ↑ 3-3-2-3-3 ↑ 2</u>	1124	511	750	340
62'3"	19	48'9"	15	<u>2 ↑ 3-3-3-3 ↑ 2</u>	1166	530	750	340

Total Length: Total length of the SuperMod platform

Total Distance: Distance between the hoists (suspension cable) = distance between centers of C Stirrup

Total Platform Weight: Dead weight of the SuperMod for the specific arrangement

Max Rated Working Load: Maximum live load

Platform Arrangement: Framework (arrangement of U Frames, Trusses, C Stirrups)

↑ : C Stirrup (MOD 35)

- : U Frame (Connection)

1,2,3: Length in meters of Truss, Hand Rail, and Floor Panel

- $1 \uparrow 2$: Modular platform has 1 M left side overhang from C Stirrup. Distance between the U Frames is 2 M.
- 2 ↑ 1 : Modular platform has 1 M right side overhang from C Stirrup. Distance between U Frames is 2M.
- **2-3**: 2 M Truss is connected to 3 M Truss by a U Frame (MOD 05)
 - 1. U Frame with End Guard Rails (MOD 26) is installed at the ends of the SuperMod.
 - 2. Intermediate sections of the SuperMod are connected using U Frame (MOD 05).
 - 3. Hand Rails and Floor Panels are selected according to the length of the Truss.

Installation Procedure

1. Select the platform arrangement for the desired platform length and prepare a list of components

required for installation. Ensure that you have all the necessary components.

2. Set up the framework of the SuperMod by installing U Frames with Trusses.

3. Install Floor Panels.

4. Install Hand Rail Posts and Hand Rails.

5. Install Bumper Rollers, Swivel Casters and other accessories if used.

6. Place the C Stirrup (MOD 35) at specified locations on the SuperMod and install the C Stirrups with

the SuperMod (see Section 3.5 for detailed installation procedure).

7. Install hoist system on the C Stirrup.

Note:-

1. The stirrups must be positioned so that there will be a stabilizing moment of 1 ½ times the

overturning moment caused by any possible concentration of the rated load on the overhang. As a

safe practice, install C Stirrup according to the platform arrangement provided by Winsafe Corp. on

the Modular Platform.

2. Do not substitute Winsafe modular platform components with components of other manufacturers.

3. Live loads must be distributed. Do not concentrate live load at one end of the modular platform.

4. Verify that all Mod Pins, lynch pins and hardware are secure.

Example:- Platform arrangement: $1 \uparrow 2 - 3 - 2 \uparrow 1$

List of components for installation

C Stirrups

No. of Stirrups = No. of \uparrow 's = 2 X MOD 35

U Frames

Arrangement: $1 \uparrow 2 - 3 - 2 \uparrow 1$

No. of U frames = $3 \times MOD 05$

20

Trusses

Trusses / Side =
$$1M + 2M + 3M + 2M + 1M = 2 \times 1M$$
, $2 \times 2M$, $1 \times 3M$

Each U Frame requires 2 Trusses

Total Trusses = 2 X 1M /Side X 2, 2 X 2M/Side X 2, 1 X 3M/Side X 2

Floor Panels

No. of Floor Panels = 1M+2M+3M+2M+1M

= 2 X MOD 13, 2 X MOD 23, 1 X MOD 33

Hand Rail Posts

Each U Frame with End Guard Rail (MOD 26) requires 2 End Hand Rail Post (MOD 85)

No. of U Frame with End Guard Rail = 2. Hence, No. of End Hand Rail Post = 2 X 2 = 4 X MOD 85

Each U Frame (MOD 05) requires 2 Hand Rail Posts (MOD 29)

No. of U Frames = 3., No. of Hand Rail Post = $3 \times 2 = 6 \times MOD 29$

Hand Rails

Length of Hand Rail= Length of Truss, since Hand Rails run parallel to Truss.

Hand Rails / Side = $1M + 2M + 3M + 2M + 1M = 2 \times 1M$, $2 \times 2M$, $1 \times 3M$ Hand Rails.

Each U Frame / End Stirrup requires 2 Hand Rails.

Hence total Hand Rails = 2 X 1M/Side X 2, 2 X 2M/Side X 2, 1 X 3M/Side X 2

= 4 X MOD 12, 4 X MOD 22, 1 X MOD 33

Swivel Caster

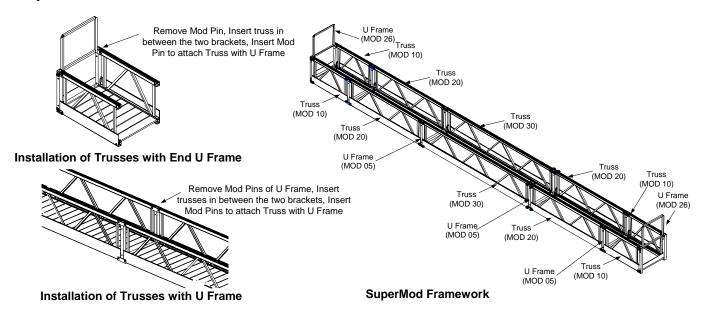
Each U Frame with End Guard Rail (MOD 26) requires 2 Swivel Casters.

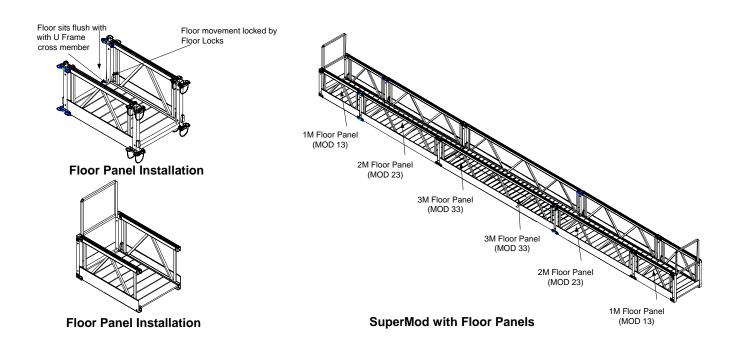
Bumper Roller

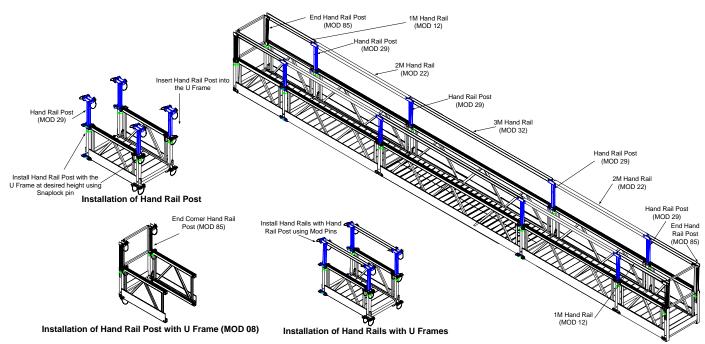
Select bumper rollers to suit. Note that Bumper Rollers are installed on only the side of the platform closest to the building.

Total Bumper Rollers = 4 X 12" Bumper Roller = 4 X MOD 49

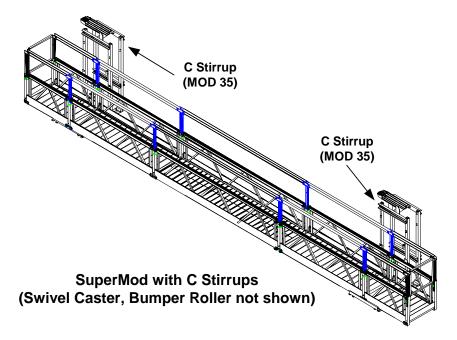
3. SuperMod Installation





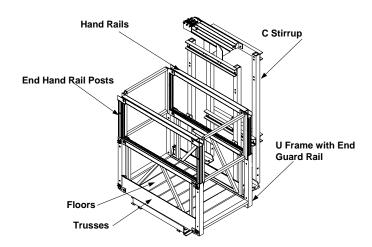


SuperMod with Hand Rail Post and Hand Rails



5. WORK CAGES

This section presents the installation procedures of SuperMod components in Work Cage configurations. Work Cages are small independent 1M or 2M modular platforms capable of carrying loads up to 750 lbs. For custom work cages contact Winsafe Corp.



Installation Procedure

1. Select the platform length and components.

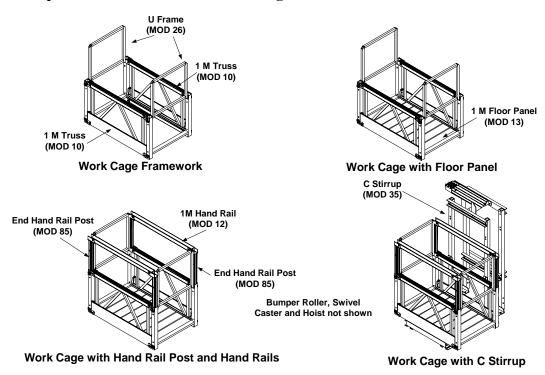
Component	1 M Work Cage	2 M Work Cage
U Frame with End Guard Rail (MOD 26)	2	2
1 M Truss (MOD 10)	2	
2 M Truss (MOD 20)		2
1M Floor Panel (MOD 13)	1	
2M Floor Panel (MOD 23)		1
1M Hand Rail(MOD 12)	2	
2M Hand Rail(MOD 22)		2
C Stirrup (MOD 35)	1	1

- 2. Set up the framework of the Work Cage by installing U Frames with Trusses.
- 3. Install Floor Panels, Hand Rail Posts and Hand Rails.
- 4. Install Bumper Rollers and Swivel Casters if used.

Note:-

- 1. Refer to Section 3 for detailed installation procedures.
- 2. Do not substitute Winsafe modular platform components with components of other manufacturers.
- 3. Ensure to secure all Mod Pins, snaplock pins and properly tighten all nuts.

Example:- Installation of 1 M Work Cage



6. CODE OF SAFE PRACTICES FOR SUSPENDED POWERED SCAFFOLDING

It shall be the responsibility of all employers and users to read and comply with the following common sense guidelines which are designed to promote safety in the erection and use of suspended powered scaffolds. These guidelines are not all-inclusive nor do they supplant or replace other additional safety and precautionary measures to cover usual or unusual conditions. If these guidelines conflict in any way with any state, local or federal statute or government regulation, said statute or regulation shall supersede these guidelines and it shall be the responsibility of each employer and user to comply therewith and also to be knowledgeable and understand all, state local or federal statues of governmental regulations pertaining to suspended powered scaffolding.

A. GENERAL GUIDELINES

- 1. Post these safety guidelines in a conspicuous place and be sure that all persons who, erect, use, locate or dismantle suspended scaffold systems are fully aware of them.
- 2. NEVER TAKE CHANCES! If in doubt regarding safety or use of suspended scaffold, consult your scaffold supplier.
- 3. FOLLOW ALL EQUIPMENT MANUFACTURER'S RECOMMENDATIONS as well as all state, local and federal codes, ordinances, statutes and regulations pertaining to suspended scaffolding.
- 4. Survey the job site for hazards such as exposed electrical wires, obstructions that could overload or tip the suspended scaffold when it is raised or lowered, unguarded roof edges or openings, inadequate or missing tieback anchorages, or the need for overhead protection where exposure to falling objects exist. These conditions must be corrected before installing or using suspended scaffold systems.
- 5. INSPECT ALL EQUIPMENT BEFORE AND AFTER EACH USE. Never use any equipment that is damaged or defective in any way. Tag damaged or defective equipment and remove it from the job site.
- 6. ALWAYS USE FALL ARREST EQUIPMENT when using suspended scaffolds. (See Section E for further details)
- 7. Erect, use and dismantle suspended powered scaffold equipment in accordance with design and/or manufacturer's recommendations.
- 8. Do not erect, dismantle, or alter suspended scaffold systems unless under the supervision of a qualified person.
- 9. Do not abuse, misuse, or use suspended scaffold equipment for purposes or in ways for which it was not intended.

- 10. USERS MUST BE TRAINED on how to safely operate equipment and how to handle emergency situations. If in doubt, consult a qualified person.
- 11. Suspended scaffold components should be continuously inspected by the users to ensure that they are maintained in a safe condition. Report and unsafe conditions to your supervisor.
- 12. Care must be taken when operating and storing equipment during windy conditions.
- 13. Scaffolds and tools shall not be allowed to contact unprotected, energized electrical lines or equipment.

 Maintain a minimum safe distance of at least 10 ft. (3 m). Consult the power company to shut off power or insulate/relocate the line if working closer than 10 ft. (3 m).
- 14. **<u>DANGER</u>**—To avoid contact and shock hazard, scaffolds and tools shall not be used in the vicinity of energized power lines or electrical lines.
- 15. Do not work on scaffolds if you feel dizzy, unsteady, or physically or mentally impaired in any way by drugs or any other substance.
- 16. Do not work on scaffolds during storms or high wind unless a competent person has determined that it is safe. (Suspended scaffolds must be secured against wind loads)
- 17. Do not work on scaffolds covered with snow, ice, or other slippery materials, except as necessary for removal of such materials.
- 18. Do not use a ladder or other device to gain greater heights.
- 19. Never climb onto a stage from a ladder unless both the stage and the ladder are secured from movement in all directions.

B. RIGGING GUIDELINES

- 1. ALWAYS WEAR FALL ARREST EQUIPMENT WHEN WORKING AT HEIGHT.
- 2. Roof anchorages, parapet clamps, outrigger beams, or other supporting devices, including tiebacks and there anchorages, must be capable of supporting the rated load of the hoist with a safety factor of 4.
- 3. Verify that the building or structure will support the suspended loads with a minimum safety factor of 4.
- 4. Over head rigging, including counterweights, must be secured from unintentional movement in any direction.
- 5. Suspended scaffold outrigger beams must be stabilized either by counterweights or bolts (direct connections). Counterweights used to counterbalance the suspended platform must be capable of resisting at least 4 times the tipping moment imposed when the suspended scaffold is operating at the rated load of the hoist or a minimum of 1 1/2 times the tipping moment imposed by the scaffold when its operating at the stall load of the hoist, or whichever is greater. COUNTERWEIGHTS MUST NOT BE REMOVED FROM THE RIGGING SYSTEM UNTIL THE SUSPENDED STAGE HAS BEEN DISCONNECTED

FROM THE RIGGING.

- 6. Outrigger beams that do not use counterweights must be installed and secured on the roof structure with devices specifically designed for that purpose.
- 7. Tie back all transportable rigging devices with wire rope and hardware that has strength equal to the hoist rope.
- 8. Install tiebacks at right angles to the face of the building and secure to a structurally sound portion of the structure without allowing for any slack in the tieback line.
- 9. RIG SO THAT SUSPENSION POINTS ARE DIRECTLY ABOVE THE HOISTING MACHINES.
- 11. The platform must be secured to prevent swaying. Do not tie it to window cleaning anchors.

C. WIRE ROPE AND HARDWARE GUIDELINES

- 1. Only use wire rope and attachments as specified by the hoisting machine manufacturer. Do not use wire rope that is kinked, bird caged, corroded, undersized, or damaged in any way.
- 2. Suspension ropes supporting adjustable suspensions scaffolds must have a diameter large enough to permit proper functioning of brake and hoist mechanisms. The load end of wire suspension ropes must be equipped with properly sized thimbles and secured by eye splicing or equivalent means.
- 3. The stall load of any scaffold hoist must not exceed 3 times its rated load.
- 4. When winding drum hoists are used and the scaffold is extended to its lowest point of travel, there must be enough rope to still wrap four times around the drum.
- 5. Clean, lubricate and handle wire rope in accordance with the wire rope or hoist manufacturer's instructions.
- 6. Coil and uncoil wire rope in accordance with the wire rope or hoist manufacturer's instructions in order to avoid kinks and damage.
- 7. Use thimbles at all wire rope suspension terminations.
- 8. Use J-type clamps or swaged fittings to fasten wire ropes. DO NOT USE U-CLAMPS.
- 9. Tighten wire rope clamps in accordance with the clamp manufactures.
- 10. Wire ropes used with traction hoists must have prepared ends in accordance with the manufacturer's recommendations.
- 11. INSPECT WIRE ROPE DURING EACH ASCENT AND DESCENT. Do not expose wire rope to fire, undue heat, corrosive atmosphere, chemicals, or to passage of electrical currents or to damage by tools or improper handling.

D. POWER SUPPLY GUIDELINES

- 1. BE SURE YOUR POWER SUPPLY CONFORMS TO HOIST MANUFACTURERS RECOMMENDATIONS.
- 2. Ground all electrical power sources, power cord connections and protect circuit breakers.
- 3. Use power cords or air hoses of proper size that are long enough for the job.
- 4. Power cord or are hose connections must be restrained to prevent their separation.
- 5. Tie off power cords or are hoses to the suspended scaffold to prevent them from falling.
- 6. Protect power cords or air hoses at sharp edges.
- 7. Ensure that air hoists have a clean supply of lubricated air.

E. FALL ARREST EQUIPMENT GUIDELINES

- 1. Each person on a suspended powered scaffold must be attached to a fall arrest system at all times.
- 2. Each lifeline must be fastened to a separate anchorage.
- 3. When wrapping lifelines around structural members, the lines must be protected and a suitable anchorage system must be used.
- 4. Protect lifelines at sharp corners to prevent chafing.
- 5. Rig fall arrest systems to prevent free fall in excess of six feet.
- 6. Lifelines must be suspended freely without contact with structural members or building façade.
- 7. Use a lifeline size and construction that is compatible with fall arrester and complies with applicable safety codes.
- 8. Be sure fall arrester is installed on the lifeline in the proper direction above your head and in accordance with the manufacturers' recommendations.
- 9. Use a body support device that is properly sized and fitted.
- 10. Be sure your body support device has a lanyard attached to the D-ring at the center of the back.
- 11. Guardrail systems must be installed along all open sides and ends of platforms and must be in place before the scaffold is released for use by employees other than erection/dismantling crews.
- 12. When screens and mesh are used, they must extend from the top edge of the guardrail system to the scaffold platform, and along the entire opening between the supports.

F. ACCESS

 Suspended scaffolds must be tied or otherwise secured to prevent them from swaying, as determined to be necessary by a competent person. Window cleaning anchors may be used for this purpose. Angulated roping and static lines may be used.

- 2. Direct access to or from another surface is permitted only when the scaffold is not more than 14 inches horizontally and not more than 24 inches vertically from the other surface.
- 3. For two-point adjustable suspension scaffolds, access to one platform from another may only take place when the platforms are at the same height, or are abutting or the platforms have walk-through stirrups specifically designed for that purpose.
- 4. For most activities, there must be no more than a 14 inch gap between the scaffold platform and the structure being worked on. For lathing and plastering, a gap of 18 inches is permitted.

G. STABILITY

- Suspended scaffolds must be tied or otherwise secured to prevent them from swaying, as determined to be necessary by a competent person. Window cleaning anchors may be used for this purpose. Angulated roping and static lines may be used.
- 2. No more than two employees should occupy suspension scaffolds designed for a working load of 500 pounds (non-mandatory).
- 3. No more than three employees should occupy suspension scaffolds designed for a working load of 750 pounds (non-mandatory).
- 4. Scaffolds and modular platforms shall be reconfigured on the ground and only under the supervision and direction of a competent person.

H. SOME ADDITIONAL GUIDELINES

- 1. USE ALL EQUIPMENT AND ALL DEVICES IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- 2. Do not overload, modify, or substitute equipment.
- 3. Scaffold components manufactured by different manufacturers must not be intermixed, unless they fit together without being forced while preserving the structural integrity of the scaffold setup.
- 4. Scaffold components manufactured by different manufacturers are not allowed to be modified to make them fit together.
- 5. Always refer to the Label charts in Sections 4.1 and 4.2 to determine the correct working load for your platform configuration. The total combined weight of each worker and all materials should not exceed the rated working load.
- 6. Never attempt to straighten a deformed rail or decking member.
- 7. Do not apply impact loads to any parts.
- 8. Any parts that have been exposed to excessive heat, as in the case of fire, should be immediately removed from service an destroyed due to loss of structural strength.
- 9. Do not allow unstable objects, such as barrels, boxes, loose brick, tools, and debris to accumulate on the work surface.
- 10. Care should be taken to operate the platform hoists such that the working or standing surface remains level.
- 11. Before commencing work operations pre-load wire rope and equipment with the maximum working load, then retighten rigging clamps to manufacturer's recommendations.
- 12. Use guard rails, midrails, and toeboards as required by local, state, and federal regulations. Their use is recommended in all cases.
- 11. Secure stirrups no less than six inches from the end of the platform.
- 12. All components must be securely fastened to prevent them from falling off the platform.
- 13. Use bumper rollers or buffers to prevent damage to the structure or equipment.
- 14. Do not use acids or other corrosive substances on a platform without consulting the platform manufacturer for specific instructions.
- 15. Clean and service equipment regularly.
- 16. Always maintain at least four wraps of wire rope on drum type hoists.
- 17. Traction hoists must have wire rope that is long enough to reach from the highest point of support to the lowest possible landing, plus reeving lengths.
- 18. Do not join platforms unless the installation was designed for that purpose.
- 19. DO NOT MOVE SUSPENDED SCAFFOLDS HORIZONTALLY WHEN OCCUPIED.

- 20. When re-rigging for another drop, be sure sufficient wire rope is available before moving the suspended scaffold system horizontally.
- 21. Do not permit oil, grease, or slippery material to accumulate on climbing or gripping surfaces.
- 22. Do not use platform floors if the surface is damaged or has deteriorated.
- 23. Always refer to the Label charts in section 4.1 and 4.2 to determine the correct working load for your platform setup. The total combined weight of each worker and all materials should not exceed the rated working load for your platform setup. Do not overload.
- 24. Do not allow unstable objects, such as barrels, boxes, loose brick, tools, or debris to accumulate on the work surface.
- 25. Do not ride the platform if it is being moved to another location. Tools, materials, and equipment should not be stored on planks or platforms that are being moved.
- 26. Scaffolds and tools shall not be allowed to contact unprotected, energized electrical lines or equipment.

 Maintain a minimum safe distance of at least 10 ft. (3 m). Consult the power company to shut off power or insulate/relocate the line if working closer than 10 ft. (3 m).
- 27. Each end of a platform unit shall extend over its support centerline no less than 6 inches and no more than 18" inches. Do not stand on the cantilevered portion of platforms.
- 28. WHEN WELDING FROM SUSPENDED SCAFFOLDS:
 - a) Be sure the platform is grounded to the structure.
 - b) Insulate wire rope above and below the platform to protect from damage by the welding torch or electrode.
 - c) Insulate wire rope at suspension point and be sure wire rope does not contact Structure along its entire length.

The Safety Guidelines (Code of Safe Practices) set forth some common sense procedures for safely erecting, dismantling and using suspended scaffolding equipment. Since equipment and scaffolding systems differ, reference must always be made to the instructions and procedures of the supplier and/or manufacturer of the equipment.

Since field conditions vary, and are beyond the control of the Scaffolding Industry Association and the Scaffold, Sharing & Forming Institute, safe and proper use of scaffolding is the sole responsibility of the employer and user.