

## 2. Safety instructions (6 pages)

### **WARNING**

**Serious injury or death can result from your failure to familiarize yourself with and comply with all applicable safety requirements of federal, state and local regulations and these safety guidelines before erecting, using or dismantling this scaffold**

- ▶ Never move a STINGL scaffold when anyone (or any material) is on it.
- ▶ If in doubt as to the ability of a STINGL scaffold to handle any particular job, write or telephone for instructions. Don't take chances. If you have questions regarding specific applications contact STINGL/DRAKA
- ▶ Never use any STINGL scaffold that is damaged or improperly erected. Do not force parts that do not fit freely.
- ▶ Never interchange STINGL scaffolding components with components from a different manufacturer. Should components other than those originating from STINGL be used we accept no liability for any damages which may occur as a result of their use.
- ▶ Each employee using the platform must be familiar with the safety advices outlined in OSHA 3150. Furthermore, STINGL expects all users to be familiar with STINGL safety instructions, this installation manual, the inspection instructions, all federal, state and local regulations governing scaffold construction and use before erecting the scaffold.
- ▶ The metric dimensions in this manual are the exact dimensions. Imperial sizes are only approximate.

### 2.1 General instructions

- STINGL MOBIL PANO shall be erected, moved, dismantled, or altered only under the supervision and direction of a competent person<sup>1)</sup> qualified in scaffold erection, moving, dismantling or alteration. Such activities shall be performed only by experienced and trained employees selected for such work by the competent person.
- User shall refer to installation sequence provided by manufacturer & adhere strictly. While manufacturer will provide guidance on installation procedure, user is responsible for assembling in a responsible, logical manner (i.e. levels should not be loaded until all necessary components are in place, upper level should not be loaded without lower level secured, etc). If unsure about any aspects of installation or usage, **DO NOT PROCEED!** Consult with manufacturer for clarification. Installation manuals are available from STINGL/DRAKA without charge.
- The job site should be inspected to determine ground conditions or strength of supporting structure, and for proximity of electric power lines, overhead obstructions, wind conditions, the need for overhead protection or weather protection coverings. These conditions must be evaluated and adequately provided for.
- Any part of a building or structure used to support the scaffold must be capable of supporting the load to be applied. This analysis must be done by a qualified person<sup>2)</sup>.

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

<sup>2)</sup> Qualified person: OSHA defines "qualified person" for this purpose as "one who, by possession of a recognized degree, certificate or professional, or who by extensive knowledge, training or experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project. 29 CFR 1626.450 (b)

# **WARNING**

- STINGL MOBIL PANO shall not be erected or used in the immediate vicinity of power lines or electrical conductors until such are insulated, de-energized, or otherwise rendered safe against accidental contact. OSHA can provide minimum guidelines.
- Keep materials away from areas where cutting, welding, & torching occurs. Take care to prevent cuts, nicks, tears to FRP (fiber reinforced polyester) parts, particularly when handling steel parts nearby. Do not toss or drop any parts.
- It must be ensured that no elevator is operating while the working platform is in use. OSHA lock-out procedures should be followed to prevent operation of equipment (elevators, motors, electrified conductors, etc.) that may harm platform users.
- Before using STINGL MOBIL PANO, check the individual parts for damage, ageing or wear. Do not use the parts if they are aged or worn. Inspect for any changes from original condition. Degradation can result from a variety factors, including repeated use, extreme loading, moisture, UV, chemicals, mechanical means, etc. Proper maintenance and inspection, however, can preserve the utility and safety of this platform for a long time to come. Minor color changes (fading) and surface chalking over time can be expected and are usually acceptable. Bending/yielding/cracking of steel OR welds is unacceptable. All pins should have fully functioning cotter pin with attachment chain at all times. Ensure pins show now signs of bending/yielding. Ensure that bolts are not split, cracked, or stripped of proper threading. Unacceptable FRP (fiber reinforced polyester) anomalies include cuts, tears, gouges, blisters, discolorations, soft spots, areas where glass fibers are exposed. Pay particular attention to elongations of drilled holes, cut edges, and splits or cracks that may radiate from them. Also, observe for cuts/grooves in FRP (fiber reinforced polyester) tubes where they interact with steel sleeves. If anomalies (above or otherwise) are discovered, members should **NOT BE USED** and should be **REPLACED** with new members by manufacturer. **NO** members should be repaired. Check material every two years beginning with the purchase date in accordance with the manufacturers separate instructions.
- Appurtenances – straps, clips, turnbuckles, buckles, telescoping rods, tensioning devices, etc – are important to the platform’s adequate performance. Test each prior to assembly by tightening buckles and applying superficial loads to ensure that buckles, etc are operable and capable of resisting loads before installing on platform.
- Any STINGL MOBIL PANO scaffold that has been damaged or weakened from any cause shall be immediately removed from service and shall not be used until repairs have been completed.
- Never modify the original parts. Do not sand, cut, drill, weld or glue any parts in any way. Only use parts as provided by manufacturer.
- Only use bolts, pins, etc provided by manufacturer to ensure proper diameter, length, thread count, strength, ductility, fit, etc. Cotter pins with safety chains shall be secured and used at all pin connections at all times. **NEVER SUBSTITUTE WITH OTHER ITEMS!** (screwdrivers, after-market bolts, etc). For securing cotter pins use the hole in the locking pin closest to the part which needs to be connected in order to minimize movement.
- All bolted connections shall be snugly tightened with wrenches **BEFORE ENTERING OR APPLYING ANY LOAD TO PLATFORM**. Only use bolts free from defects (no cracks, bends, yields, stripped threads, etc.).
- All clips, braces, turnbuckles, straps, telescoping rods shall be considered part of the assembly, just as the FRP (fiber reinforced polyester) and steel is. All items shall be fully in place and secured before using the platform assembly. Inspect each prior to use to ensure operability.
- The contractor must ensure that installation, conversion and removal work can be performed without the persons insured running any risk of falling.
- The entrance area to the right and to the left of the vertical platform posts must be secured against the risk of falling into the hoistway. Guard rails or other safety means to secure possible gaps must comply with all federal, state and local regulations as well as OSHA and ANSI requirements.
- Hard hats must be worn by all persons erecting, moving, dismantling or using scaffolding.
- Use gloves to protect hands from sharply cut edges while handling parts.

- Each employee shall be protected by the use of personal fall arrest systems or guardrail systems. Users are responsible for safety and full OSHA compliance during setup, usage, and breakdown. Workers on the platform should be tied off and secured to something permanently affixed to the building structure that is capable of supporting their weight in a fall or collapse.

## **WARNING**

**Fall arrest equipment MAY NOT prevent serious INJURY or DEATH if a fall occurs**

- Guard rails must be used on all open sides and ends of scaffold platform. Top and midrails as well as toe boards are required. DO NOT stand, lean or put weight on horizontal members. Be careful while handling inner and outer FRP (fiber reinforced polyester) tubes as well as guardrail sections with inner and outer parts. Interior parts might slide out easily causing damage or injuries.
- Employees shall be prohibited from working on the scaffold if covered with snow, ice, or other slippery material except as necessary for removal of such materials.
- DO NOT WORK ON SCAFFOLDS if you feel dizzy or unsteady in any way.
- DO NOT abuse or misuse the scaffold equipment.
- Keep scaffolding parts away from extremely wet, humid, or corrosive environment during use. Also avoid harsh chemicals. Contact manufacturer immediately to diagnose chemical exposure.
- Where swinging loads are being hoisted onto or near STINGL MOBIL PANO such that the loads might contact the scaffold, tag lines or equivalent measures to control the loads shall be used.
- Once on PANO platform, avoid sudden movements laterally or horizontally and avoid inducing vibratory or rhythmic loading to platform. If structure ever feels unstable, or unsafe, user should immediately vacate platform and return to nearby building floor. DO NOT jump on platforms.
- Work on or from STINGL MOBIL PANO is prohibited during storms or high winds unless a competent person has determined that it is safe for employees to be on the scaffold and those employees are protected by a personal fall arrest system or wind screens. Wind screens shall not be used unless the scaffold is secured against the anticipated wind forces imposed.
- Tools, materials and debris shall not be allowed to accumulate so as to create a hazard on scaffold platforms.
- Inspect the scaffold assembly before each use to see that it is assembled correctly, that it is level and plumb, base plates are in firm contact with sills, bracing is in place and connected, platforms are fully planked, guardrails in place, safe access is provided, that it is properly tied and/or guyed and that there are no overhead obstructions or electric lines within 12 feet of the scaffold assembly.
- Use only safe means of access (e.g. Ladder). Do not climb bracing or frames not specifically designed for climbing. If such access is not provided, insist that it be provided.
- Climb Safely.
- Face the rungs as you climb up or down. Use both hands.
- Do not try to carry materials while you climb.
- Be sure of your footing and balance before you let go with your hands. Keep one hand firmly on frame or ladder at all times.
- Ladders shall not be used on STINGL MOBIL PANO to increase the working level height of employees.
- Ladders used on the STINGL MOBIL PANO platform must comply with the ANSI standard series ANSI A14.
- Do not work on slippery rungs to avoid slipping. Clean shoes and rungs to avoid slipping.

# **WARNING**

- Do not overload STINGL MOBIL PANO with materials. Scaffolds shall not be loaded in excess of the design load. Manufactured scaffolds shall be used in accordance with the manufacturer's recommendations.
- Makeshift devices, such as but not limited to boxes and barrels, shall not be used on top of scaffold platforms to increase the working level height of employees.
- Stand only within the platform area; do not try to extend work area by leaning out over guardrailing.
- Do not remove any component of a completed STINGL MOBIL PANO scaffold assembly except under the supervision of a qualified person. Any component that has been removed should be immediately replaced.
- Always remove loads from both platform levels overnight or during longer periods of not working on the scaffolding. The platforms may not be fully charged for a period of longer than 12 hours
- Users must maintain clear areas beneath the platform according to OSHA requirements. No persons are allowed below the platform and access must be denied to the area below (e.g. with caution tape, warning signs, or similar) to prevent people from entering unknowingly.
- **CHECK THE ENTIRE SCAFFOLD ASSEMBLY BEFORE USE.** Thoroughly inspect the completed assembly to see that it complies with the installation manual and all safety codes, that all pins are driven home, that it is level and plumb, that work platforms are fully decked and guardrails are in place and that safe access is provided. See supervisor checklist supplied with each platform for further details.
- Before each work shift and after any occurrence which could affect the structural integrity of the scaffold, a competent person must inspect the scaffold assembly to be sure it is assembled correctly and has not been altered; that it is level and plumb; that the scaffold and all components are firm and secure; that safe access is provided; and that there are no overhead obstructions and no energized electric power lines within 10 feet of the scaffold assembly. Correct any deficiencies prior to use.

## **DISMANTLING SCAFFOLDS**

- **BEFORE REMOVING OR LOOSENING** any component, consider the effect of that action on the strength of the rest of the scaffold.
- Check to see if scaffold has been altered in any way which would make it unsafe. If so, reconstruct where necessary before commencing dismantling procedures. This includes all scaffold ties.
- Use only proper access. **DO NOT** climb braces, guardrails, or vertical members.
- **DO NOT** remove ties until scaffold above has been removed.
- Remove component immediately after loosening bolts/pins/screws.
- Do not accumulate removed components or equipment on the level being dismantled.
- Lower components in a safe manner as soon as dismantled. **DO NOT** throw components off scaffold.
- Be careful while handling inner and outer FRP (fiber reinforced polyester) tubes as well as guardrail sections with inner and outer parts. Interior parts might slide out easily causing damage or injuries.
- Stockpile dismantled equipment in an orderly manner.

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

# **WARNING**

## 2.2 Additional instructions for STINGL MOBIL PANO

- The unit is rated as "medium duty", 50 lbs per square foot, two 225lb persons with tool kits max. per platform level.
- STINGL MOBIL PANO may only be mounted on sufficiently stable parts of structural works capable of taking up and passing on the forces which are produced. This analysis must be done by a qualified person.
- The lintel section must be able to withstand horizontal forces of min. 652 lbf (2.9 kN).
- The door threshold must be able to withstand horizontal forces of min. 809.3 lbf (3.6 kN) and vertical forces of min. 1259 lbf (6.6 kN).
- Threshold shoes must be in firm contact with the floor of the building as well as the threshold of a hoistway door opening. Compensate for uneven ground with materials capable of taking up and passing on the forces which are produced. NEVER USE unstable objects such as blocks, loose bricks, etc.
- The vertical wall with the door opening for mounting must be concrete (wall thickness min. 4 in (100 mm)).
- The front vertical girder must extend higher than the door opening by at least 4 in (100 mm). The distance between floor and ceiling must not be shorter than 92.5 in (2350 mm).
- Before setting foot on the upper work platform, at least two telescopic spacers must be mounted as per the installation instructions and extended out to the surrounding hoistway wall, profiled girder or guide rails.
- It must be ensured that the spacers (telescopic rods) can be placed perpendicular to the working platform and push against the hoistway wall or a hoistway partition which is capable of taking up and passing on the forces which are produced.
- The gap between the perimeter of the working platform and the hoistway wall may not exceed 39.37 in (1000 mm). The following maximum hoistway widths must be observed when using the platform:  
Platform width of 27.55 in (700 mm): maximum hoistway width 110.25 in (2800 mm)  
Platform width of 39.37 in (1000 mm): maximum hoistway width 122 in (3100 mm)  
Required minimum opening widths to ensure proper installation: platform width plus 4 in (100 mm).
- Guardrails must be used on all open sides and ends of scaffold platforms. Top, midrails and toeboards are required.
- Make sure that the entrance area to the right and to the left of the vertical platform posts is secured against falling into the hoistway. Guard rails or other safety means to secure those gaps must comply with all federal, state and local regulations as well as OSHA and ANSI requirements.

# **WARNING**

- Be careful while handling inner and outer FRP (fiber reinforced polyester) tubes as well as PVC guard rail sections with inner and outer parts (midrails and toeboards). Interior parts might slide out easily causing damage or injuries.
- Cotter pins with safety chains shall be secured and used at all pin connections at all times. For securing cotter pins use the hole in the locking pin closest to the part which needs to be connected in order to minimize movement.
- Make sure that a minimum of two sufficiently dimensioned and norm-compliant M12 anchor dowels is taken to each project site with concrete hoistways in order to fix the guardrail system of the upper platform. Only one set of anchor dowels is part of the platform delivery! The wall anchors remain on each site and cannot be used again! For fixing undergrounds other than concrete, a qualified person must be contacted regarding the appropriate mounting of the upper guard rail system.
- A detailed drawing and specifications must be kept with the scaffold on the job.
- Safety gear for fitters like for example fall arrester, full body harness, suitable anchorage point etc. must be used in accordance with local and OSHA and ANSI requirements at all times during the erection, use and dismantling of the platform.