

CHANCE® Insulated Scaffolding Assembly Instructions

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CHANCE® Insulated Scaffolding by Hubbell Power Systems, Inc. ("HPS") is comprised of a series of modules, which are assembled to create a scaffolding tower. Once assembled, the scaffolding tower provides a work platform for one or two operators to perform live-line work using the bare hand method or hot stick method inside a substation or other application.

A scaffolding set consists of wheels with rails or feet, two tension rods, four side crosspieces, 1m x 1m (or 1m x 2m) modules, diagonal crosspieces, a two or four piece platform, guard modules, insulated swivel sticks for guying and guy rope.

The insulating pole used in the modules is compliant with IEC 60855 and ASTM F711 standards. The insulating members must be clean, dry and free of any abrasions, damage or contaminants to avoid risk of property damage, serious personal injury or death. The maximum capacity of a scaffolding set is 300 kg (660 lbs.) and cannot be increased by combining scaffolding sets. When assembled to the appropriate height and with leakage current monitoring, the scaffolding can be used up to 800kV AC.

All users of this equipment must review these instructions and understand the safety precautions associated with its use.

⚠ WARNING

CHANCE® Insulated Scaffolding is intended for use by experienced and competent operators. Improper erection, dismantling or use of CHANCE Insulated Scaffolding may result in property damage, serious personal injury or death! Erectors, dismantlers and users of CHANCE Insulated Scaffolding must read and fully understand the safety rules and instructions as well as all national, local and company regulations pertaining to this equipment prior to its use.

CHANCE® Insulated Scaffolding is not rated for fall restraint. Fall arrest equipment attached to scaffolding may not prevent serious injury or death if a fall occurs.

To avoid property damage, serious personal injury or death:

- **Keep the insulating members clean, dry and free of any abrasions, damage or contaminants;**
- **Do not roll or level scaffolding with personnel or materials on platform;**
- **Do not climb scaffolding or place materials on scaffolding unless it has been leveled and all wheels raised with outriggers or feet set firmly on stable ground;**
- **Do not exert horizontal force from the top of free-standing scaffolding;**
- **Do not use boxes, ladders, or other means to increase working height;**
- **Do not stand or sit on guard rails.**

Scaffolding Assembly Pre-Check

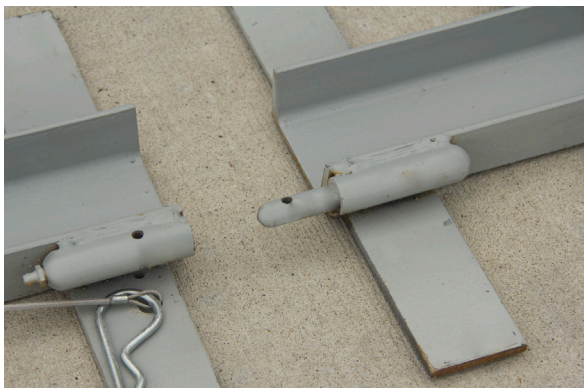
- Prior to each use, check all parts to ensure they are dry and free of any abrasions, damage or contaminants. Any part that is not in good working condition or damaged in any way should not be used.
- The insulating poles and platforms must be cleaned prior to use.
- It is recommended to test each insulating member with a CHANCE® Wet/Dry Hot Stick Tester prior to use in a high voltage application.
- Scaffolding must only be assembled on a stable surface with adequate load-bearing capacity. The surface grade and slope must allow the outriggers or feet to be firmly planted on the ground and allow the scaffolding set to be properly leveled. The surface grade and slope may impact the mobility of the scaffolding set.
- Safety precautions should be implemented to identify and address any risks and hazards.**
- Always use appropriate Personal Protective Equipment (PPE) when assembling and using the scaffolding.**

Base Assembly

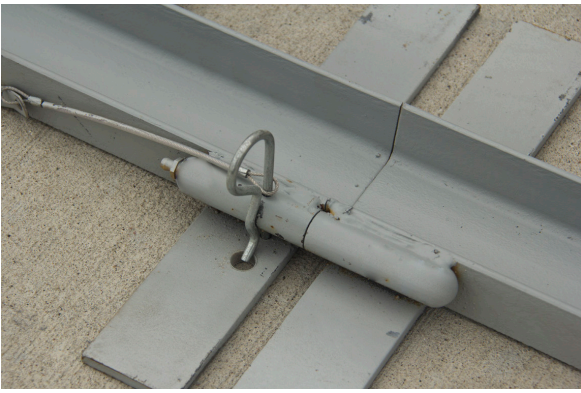
Option 1: Base Assembly with Wheels and Rails



1. Place rails in parallel, spaced 1 meter apart with handles facing out.



2. On each side, couple rails using the alignment pins to guide them together until flush



3. Secure all coupled rails by fully engaging the locking pins in the alignment pin holes.



4. Connect the parallel rails by placing the connecting bars into the rail tabs located between the 2 rails. Each 2 meter section requires two connecting bars.



5. Set the four wheel assemblies in the vertical position with two wheels on each rail and equally spaced 1 meter apart. Adjust each outrigger so that the wheel sits down inside the rail.



6. Connect wheels on one rail to the wheels on the opposite rail using the side crosspieces. Ensure the crosspieces are fully seated down on the wheel assembly. The crosspiece locking pins are not required in this step of the assembly and shall be positioned so they do not interfere with the wheels.



7. Place a module on each pair of wheels perpendicular to the side crosspieces until they are fully seated against the crosspiece castings. Take into consideration the ladder position that will best suit the safest and best access during use.



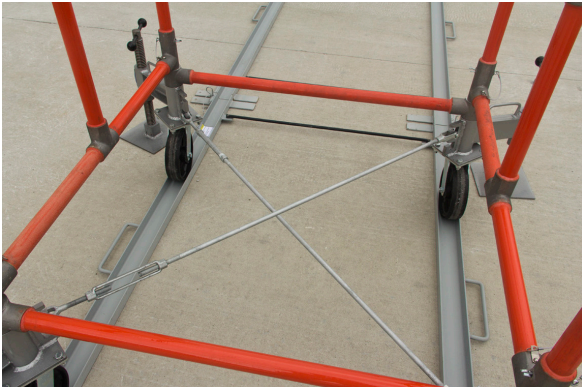
8. Insert each of the module locking pins completely through the hole of the casting to secure it in place with the wheel assembly.



9. Connect the two modules using a diagonal crosspiece. Ensure the crosspiece seats firmly in place over the mating castings.



10. Install the steel tie rods diagonally across the wheels using the top notches for one tie rod and the bottom notches for the other tie rod. Adjust turnbuckle as necessary during installation so that the threaded clevis and rod are equally spaced in the turnbuckle.



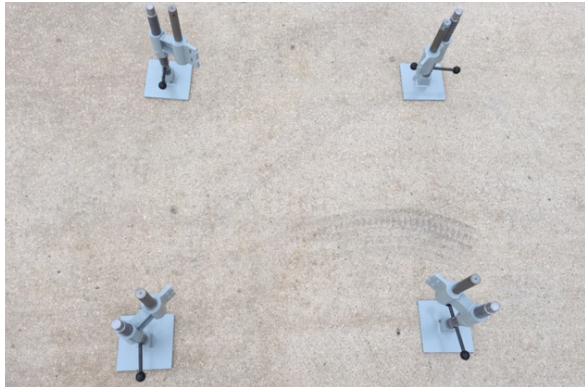
11. Tighten each of the tie rods using the turnbuckle so the scaffolding unit is square and secure. Do not over tighten.



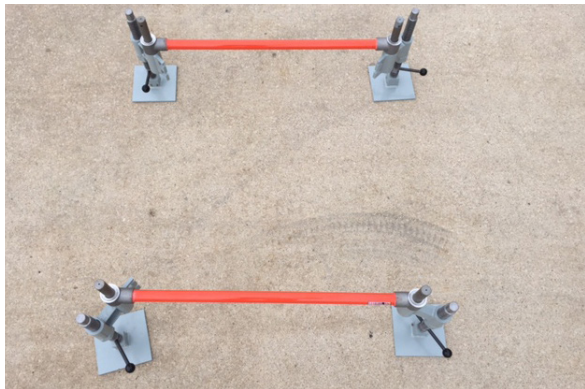
12. For stability, raise the wheels off the rails by turning the handle on the adjustment nuts and level before continuing the scaffolding assembly. Use a leveling device to confirm.

Continue on to Scaffolding Assembly

Option 2: Base Assembly with Feet



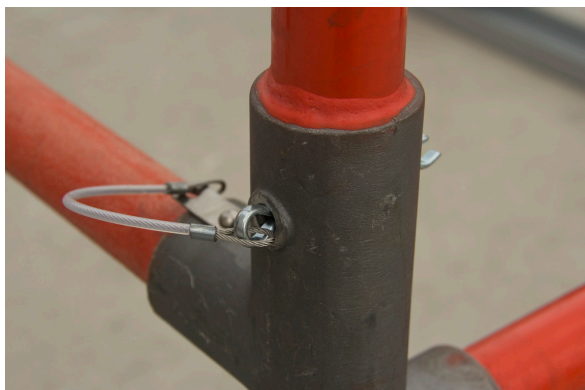
1. Set the four adjustable feet assemblies in the vertical position to form a 1 meter square and adjust the leveling nut on each foot assembly to position it vertically in the middle of its threaded rod.



2. Connect each pair of feet together using the side crosspieces and ensure the crosspieces are fully seated down on the foot assembly. The crosspiece locking pins are not required in this step of the assembly.



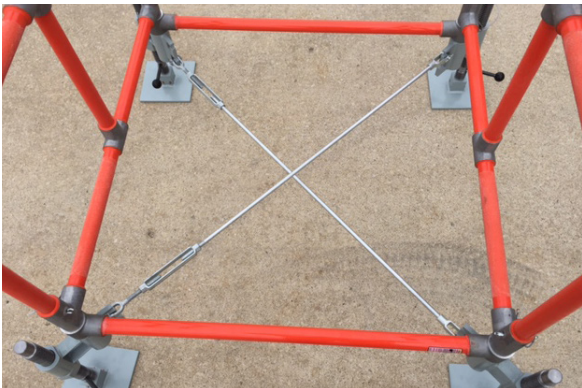
3. Place a module on each pair of feet perpendicular to the side crosspieces until they are fully seated against the crosspiece castings. Take into consideration the ladder position that will best suit the safest and best access during use.



4. Insert the locking pins completely through the hole of each casting to secure it in place with the foot assembly.



5. Connect the two modules using a diagonal crosspiece. Ensure the crosspiece seats firmly in place over the mating castings.



6. Install the steel tie rods diagonally across the feet using the top notches for one tie rod and the bottom notches for the other tie rod. Adjust turnbuckle as necessary during installation so that the clevis and rod are equally spaced in the turnbuckle.



7. Level the modules using the adjustment handle on each foot. Use a leveling tool to confirm.
8. Tighten each of the tie rods using the turnbuckle so the scaffolding unit is square and secure. Do not over tighten.

Continue on to Scaffolding Assembly

Scaffolding Assembly



1. Assemble the scaffolding by alternating the direction of the modules. Take into consideration the ladder position that will best suit the safest and best access during use.
During assembly, the operator must climb internally to minimize the risk of tipping. Use proper hoisting methods to lift the modules in place.



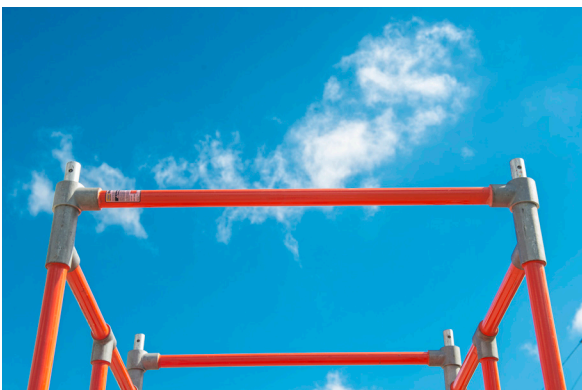
2. Install a diagonal crosspiece between each level of modules, alternating the direction of the crosspieces. Ensure the crosspieces seat firmly in place over the mating castings.



3. After a module is seated on top of another module, insert the locking pins completely through the hole of each casting to secure them in place.



4. Guy the assembly at approximately 45° from all four corners every 3 to 5 meters. The guy consists of a short section of rope secured between a scaffolding corner and an insulated swivel stick, and a longer section of rope secured on the opposite end of the swivel stick to an established anchor point. Guy spacing should be planned so that the top section can be guyed.



5. Once the desired height is achieved, the guard modules shall be put in place perpendicular to the last modules.
6. Install the side crosspieces connecting the two guard modules. Ensure the crosspieces seat firmly in place. Install locking pins into the top holes to block the top crosspieces from sliding up.



7. Install platform boards across the bottom rungs of the desired modules. Ensure the platforms are seated firmly in place.
8. An electrode shall be secured around the entire base and connected to a leakage current monitor to continuously measure the leakage current to ensure safe operating leakage current levels at all times..
9. Ground the base of the scaffolding set.

Always use appropriate Personal Protective Equipment (PPE) when assembling and using the scaffolding.

Moving the Assembled Scaffolding Set with Wheels

1. The outriggers can be raised to lower the wheels into the rails to move the structure closer to or away from the worksite.
 - **Do not climb on scaffolding when supported by the wheels.**
 - **Use caution when moving the scaffolding; take additional precautions when moving the scaffolding on an unlevel surface.**
 - **A tall scaffolding structure can become top heavy. Advance scaffolding with caution and closely monitor its movement to avoid the scaffolding from tipping.**
 - **Ensure there is overhead clearance from any low structures when advancing the scaffolding into position.**
2. Use appropriate Personal Protective Equipment (PPE) when moving the scaffolding assembly into the required work position.
3. Once in position, the outriggers should be lowered to raise the wheels off the rails and to level the scaffolding unit. **Always level and guy the scaffolding prior to climbing and placing materials on the scaffolding. Use a leveling tool to confirm.**

These instructions apply to products manufactured by Hubbell Power Systems, Inc. and/or its corporate affiliates. When using any product, make sure to follow all safety procedures, practices, regulations and industry standards issued or required by any local, state or federal regulatory body or agency. In addition, users should review and follow all operating and installation instructions located on the Hubbell Power Systems website at, <http://www.hubbellpowersystems.com/resources/instructions>. The safe installation and use of any product also depends on the specific conditions present at the location of use and requires users to independently evaluate those conditions and consult with their own independently retained safety experts and internal safety guidelines. Failure to follow the appropriate safety regulations, industry standards, installation instructions, operating instructions or internal safety guidelines could result in property damage, serious bodily injury and/or death. Hubbell Power Systems is not liable for any damages to property or injuries, including death, to individuals that use this product in a manner that is inconsistent with the safety procedures and practices explained in this message or recommended by independent safety experts or internal safety guidelines.

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