

These Assembly Guidelines provide guidance for the correct and safe assembly of the Scaffold and Stairs when used in conjunction with Manhole Form Hire outer forms.

Disclaimer

These Assembly Guidelines are provided as a general guide only and represent recommended best practice for assembling the Outer Forms Scaffold and Stairs, and associated components supplied by Manhole Form Hire.

Manhole Form Hire does not control site conditions, supervision, competency of personnel, or the manner in which equipment is assembled, used, or maintained. As such, Manhole Form Hire accepts no responsibility or liability for any loss, damage, injury, or incident arising from the use, misuse, incorrect assembly, modification, or application of the equipment.

It is the responsibility of the end user to:

- ensure all persons involved are competent, trained, and suitably supervised
- conduct a site-specific risk assessment for the use of the equipment that captures the equipment's use in the Safe Work Method Statement (SWMS), including manual handling and lifting tasks
- verify that the equipment is suitable for the intended application and site conditions
- comply with all relevant Work Health and Safety legislation, Australian Standards, and industry requirements.

These guidelines do not replace professional engineering advice, site-specific procedures, or statutory obligations.

Note:

The Outer Forms Scaffold is certified for use with Manhole Form Hire form drums only and must not be used with any other brand of formwork.

SafeSmart Access Stairs are approved for use only in conjunction with the Outer Form Scaffold.

Do not substitute or modify any components. Only components supplied by Manhole Form Hire are to be used, as the Outer Form Scaffold system is specifically designed and certified to suit Manhole Form Hire form drums.

If you are unsure about correct assembly, compatibility, or require further documentation, please contact your nearest Manhole Form Hire branch on 1300 MH FORM (1300 643 676).

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Minimum PPE Requirements

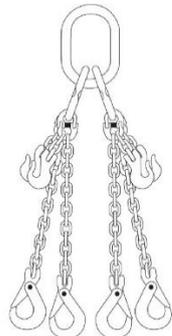
The following minimum PPE requirements are recommended for the assembly of manhole forms in addition to any site requirements.



The use of a ladder may be required during the assembly and disassembly phase of the scaffold.

Always assess your own physical capabilities before attempting any manual handling task. Manhole Form Hire highly recommend using mechanical aids for the assembly of manhole forms. If you have any doubts about your ability to safely perform a task, seek assistance from a coworker.

Equipment Required

Item	Qty	Illustration
Marking Pencil	1	
Tape Measure	1	
Nylon Mallet	1	
1 × 4 Leg 8mm Grade 100 Chain Sling	1	
Platform Ladder or Step Ladder	2	

Component Breakdown

Component	Illustration	Tare Weight Each
Scaffold Arm		16kg
Scaffold Arm with Clamp (Stair Access)		24kg
Scaffold Pipe		6kg
Stair Tread Plate		10kg
Scaffold Tread Plate		10kg
Balustrade		3kg
Lateral Stability Sleeve & Brace (supplied with use of partial scaffolds)		Sleeve: 3kg Short: 3kg Long: 4kg
Safe Smart 9 Step Stair Ladder WLL: 225kg		60kg
Adjustastairs Step Extension		

Outer Forms Scaffold Rating

The Manhole Form Hire Outer Forms Scaffold rating has been engineered and assessed for a rating of:

Maximum working load limit 225kg per platform tread for personnel and equipment.

The engineering certification can be found on Page 1&2 of Outer Scaffold Dimensions & Weights Drawing SAP-OUTERSCAF-V0, available on the Manhole Form Hire website under the Work at Height Platforms. Further documentation can be found by scanning the QR code on the side of the equipment.



Outer Forms Scaffold Assembly

Scaffold can be assembled by two (2) methods. **Manhole Form Hire highly recommend option 1 for assembling the Outer Form Scaffold.**

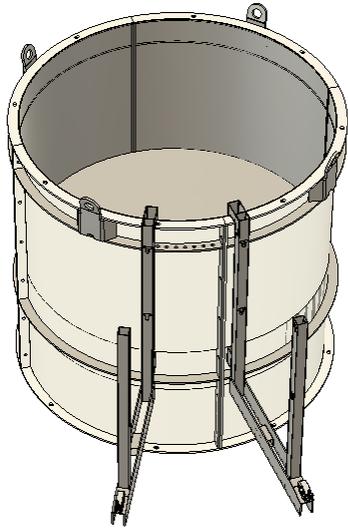
1. Build the top outer form drum and add the scaffold to it before lifting it into place and bolting it to the lower outer form drum. Refer to the following drawings for dimensional footprint of the scaffold system and weights for lifting
 - Outer Scaffold Dimensions Components Quantities & Weights
SAP-OUTERSCAF-P-V0
2. Build the scaffold in-situ.

This assembly guide will cover both methods including partial scaffolds.

Basic lift plans are also available for lifting outer forms with full scaffold or partial scaffolding which can be accessed via the website, referring to LP-FORMSCAFFOLD-V0 Outer Form with Scaffold Full & Partial.

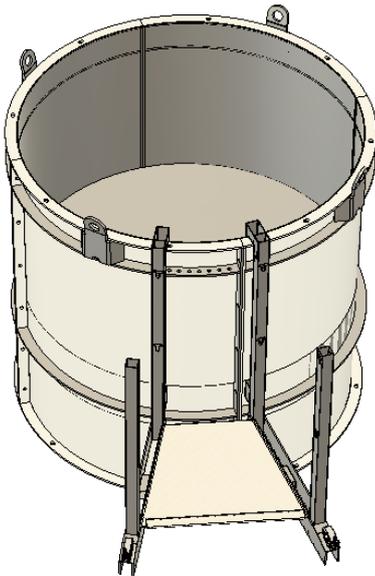
Assembly Process of Scaffold and Stairs on Ground

STEP 1



- Add two scaffold arms with clamp to the side of the drum.

STEP 2



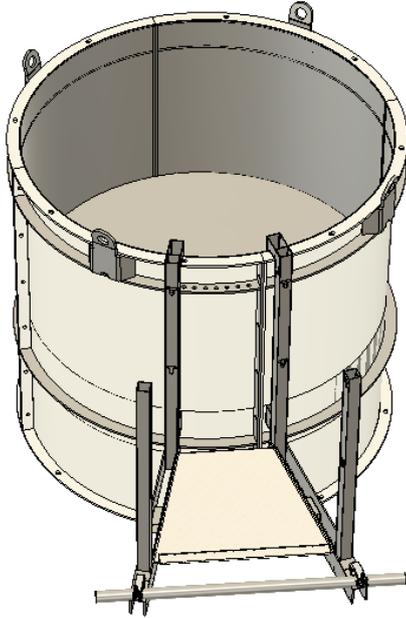
- Add the stair tread to the scaffold arms.
- Make sure that the arms are spread correctly and the floor plate is locked in properly.



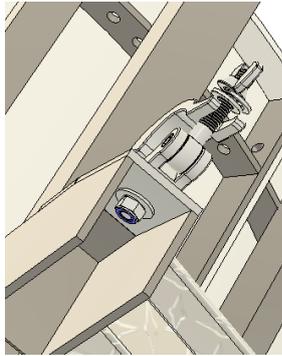
- Use a nylon mallet to adjust the position of the scaffold arm if required for snug fit.

Note: This may be required to do throughout the build.

STEP 3

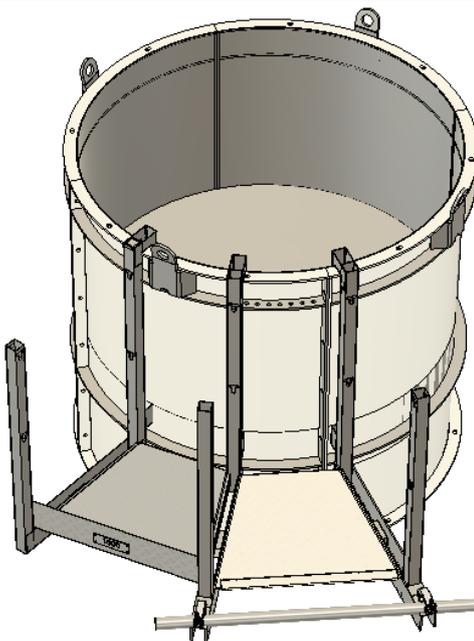


- Add the scaffold pipe in the clamps.
- Adjustment of the clamp angle may need to be done. This can be done underneath the arm using a long M24 impact socket.
- Back both nuts off slightly and adjust the clamps until the pipe is sitting in the clamps correctly.



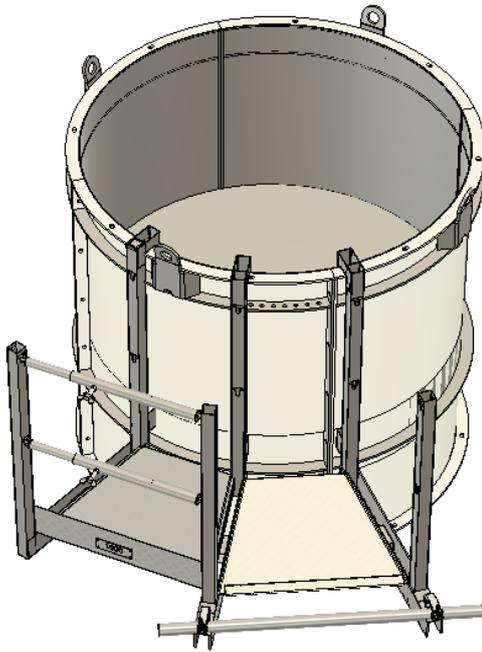
- Do the nuts up underneath the arm and then close the scaffold clamp locking arms.
- For the clamp retaining bolt that will lock the scaffold bar in place, do the nuts up but not tight.
- Do the scaffold clamp retaining bolt up tightly once all tread plates have been installed.

STEP 4



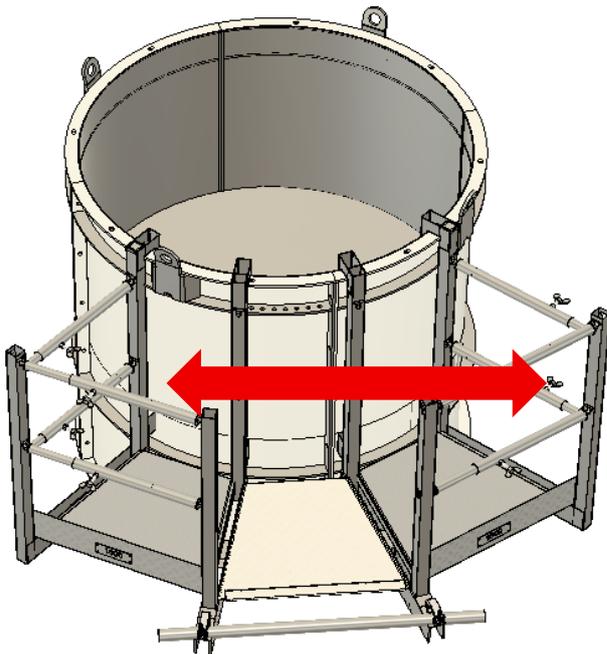
- Add the next scaffold arm and tread plate.
- Use a plastic mallet to adjust the position of the scaffold arm if required for snug fit.

STEP 5



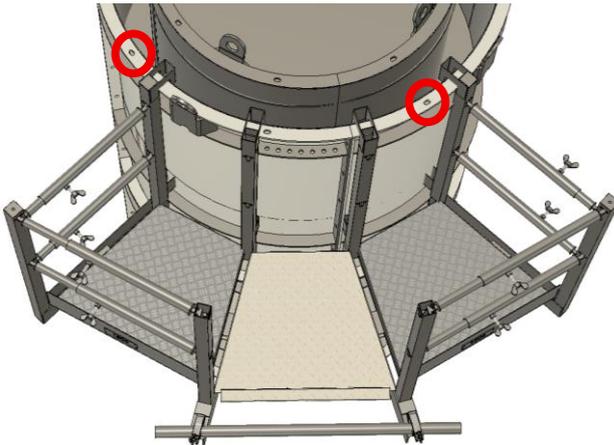
- Add balustrade rails to the outer of the scaffold arms. Ensure that the balustrade rail wing nuts face outward.
- Adjust the balustrade rails to required length as needed and tighten the wing nut firmly.
- Repeat STEPS 4-5 until the full scaffold has been completed, or the required number of sections if doing a partial scaffold (refer STEP 6 & 7).
- Remember to do the scaffold clamp retaining bolt up tightly once all tread plates have been installed.

STEP 6

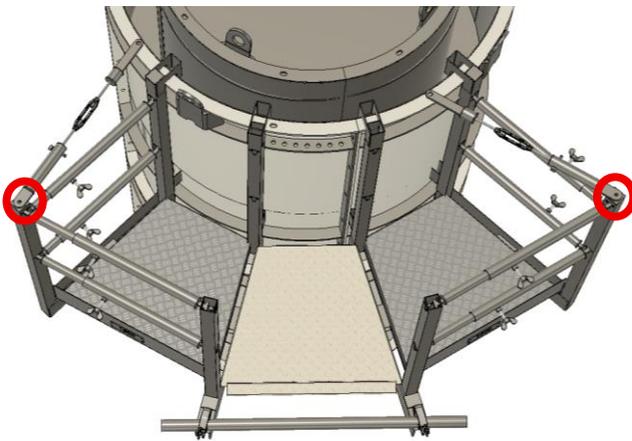


- If doing a partial scaffold, you must add the balustrade rails to the middle of the scaffold arms.
- Ensure balustrade wing nuts are tight.

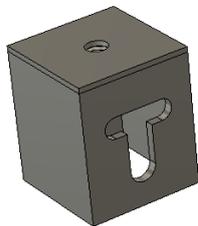
STEP 7



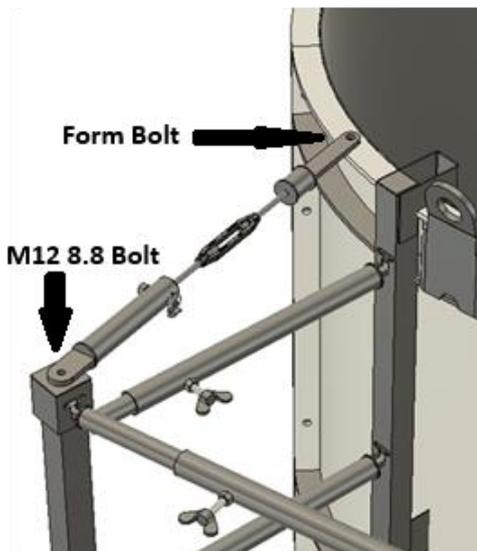
- Partial scaffold will require 2 (two) bolt holes on the outer form to be accessible to add the lateral stability brace.



- Insert the connection sleeve over the end of the scaffold arm. This is best done prior to adding the top balustrade rails.

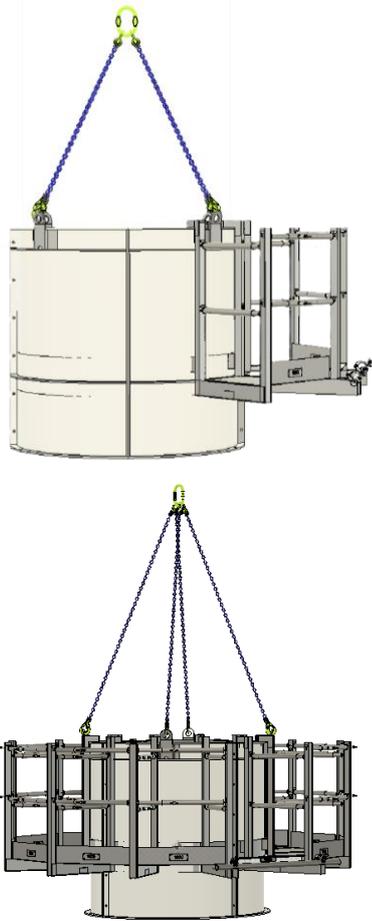


- The T Slot connections must line up with the Scaffold Arm Post T Slots.



- Position the Lateral Stability Brace between the hole in the sleeve and the outer form drum hole.
- Using the supplied M12 8.8 bolt in the connection sleeve screw the bolt in.
- Adjust the tensioner length with the turnbuckle to the required length.
- Using the Manhole Form Hire bolt add this to the drum end.
- Lightly do up tension on the turnbuckle.

STEP 8

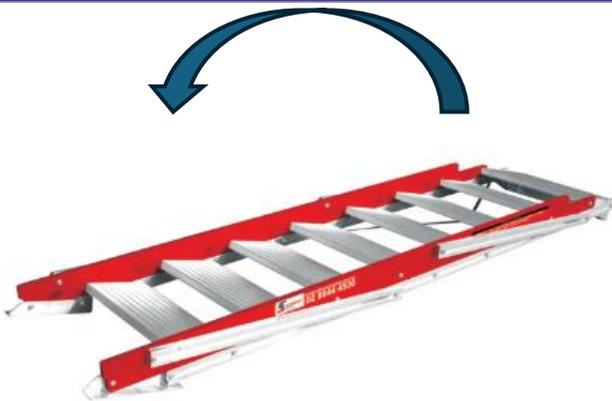


- Remember to do the scaffold clamp retaining bolt up tightly once all tread plates have been installed.
- Lift the outer drum and scaffold into place onto the other outer drum as per Manhole Form Hires lift plan.

! CAUTION!!

Make sure that the excavator meets the requirements stipulated on the lift plan. If it does not meet these requirements DO NOT LIFT.

STEP 9



- Place the stair on the support surface with the top step facing the fixing location.
- Open the stair treads by twisting steps, to minimum of 30 degrees.

STEP 10

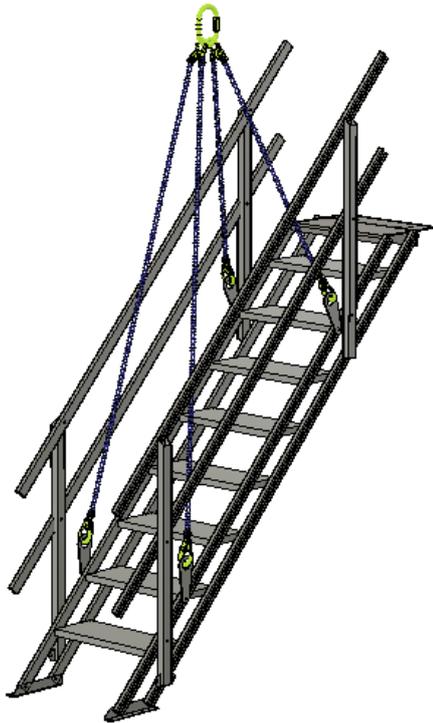


- Lift the handrails until the locator-tab (circled in RED) can be slipped over the bolt and tighten the wingnut firmly.

Note: This will not be possible with the stair closed. This is a set locking position on the stair handrail to maintain a gap of 100mm or less at the top of the stairs between the scaffold arms.

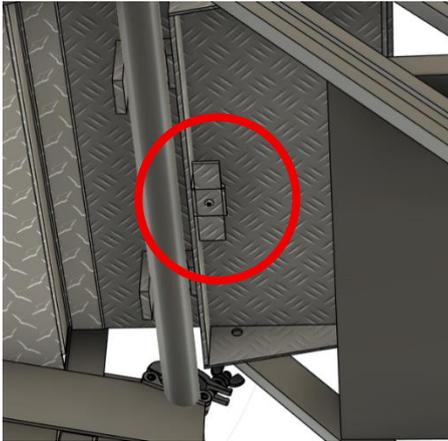
- The above steps are to be completed on the handrails on both sides.

STEP 11



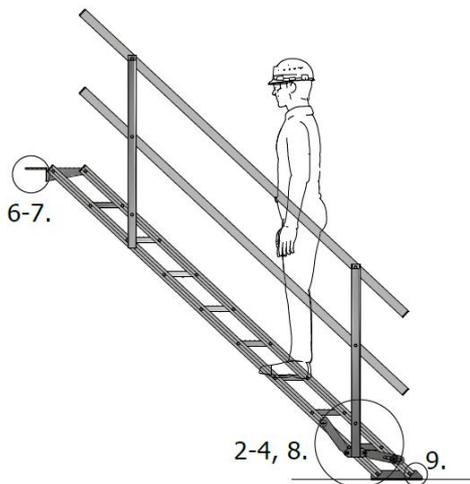
- Using two people each side of the stair raise the top step end of the stair and place it on to the scaffold pipe.
- If using a crane or excavator use a 4 leg chain sling and attach to the 4 lifting lugs on the ladder, 2 legs of the chain sling may need to have their chain legs shortened so that the stairs lift level to the correct angle. Refer to stair lift plan LP-SSA9STEP600WIDESTAIRS-V0.
- Adjust the angle of the steps to ensure they are level and the notch in the top step fits firmly onto the support position.
- Tighten the lock-tab by hand only, to prevent the stair closing while being lifted.

STEP 12



- Under the stairs scaffold tread, rotate the scaffold stair locking mechanism (circled in **RED**) so that it is under the scaffold pipe.

STEP 13

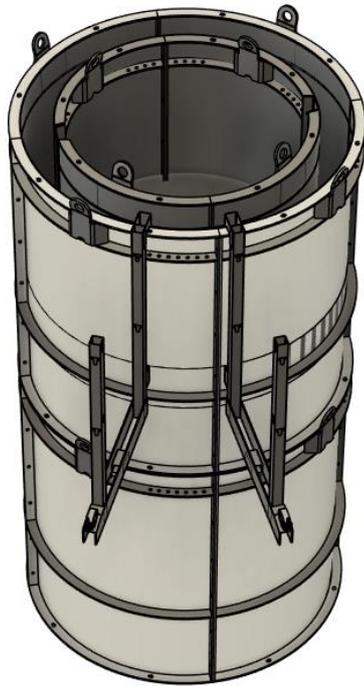


- Where possible fix the foot of the stair onto the lower support surface again referring to the specification sheet for fixing details.

Your stair is now ready for use.

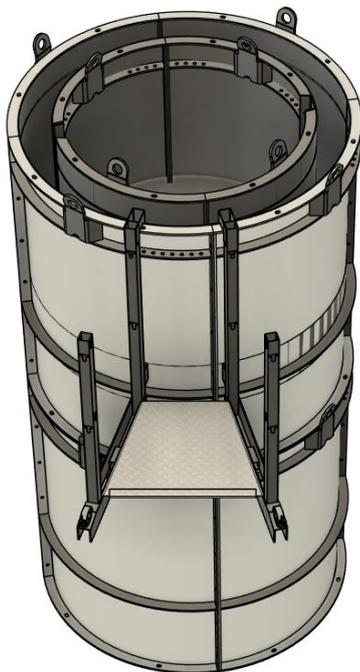
Assembly Process of Scaffold and Stairs In-Situ

STEP 1



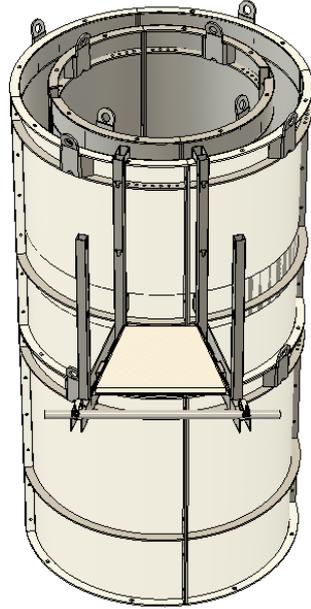
- Add two scaffold arms with clamp to the side of the drum.
- A platform ladder and a second person are required.

STEP 2

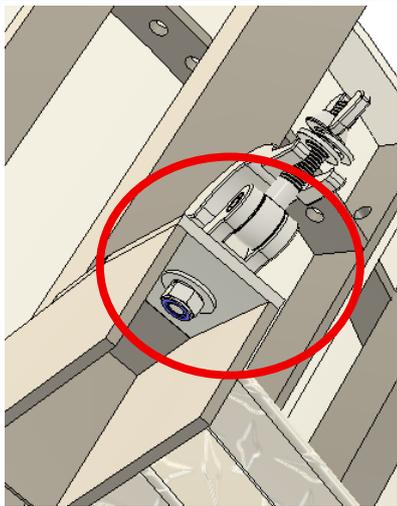


- Add the stair tread to the scaffold arms.
- Make sure that the arms are spread correctly and the floor plate is locked in properly.
- Use a plastic mallet to adjust the position of the scaffold arm if required for snug fit.

STEP 3



- Add the scaffold pipe in the clamps.
- Adjustment of the clamp angle may need to be done. This can be done underneath the arm using a long M24 impact socket.

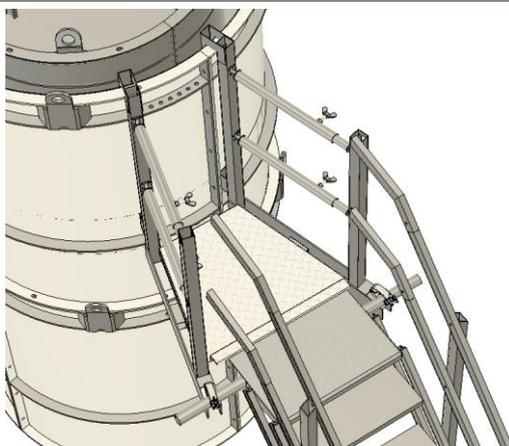


- Back both nuts off slightly and adjust the clamps until the pipe is sitting in the clamps.
- Do the nuts up underneath the arm and then close the scaffold clamp locking arms and do the nuts up on their using the same size socket.

STEP 4

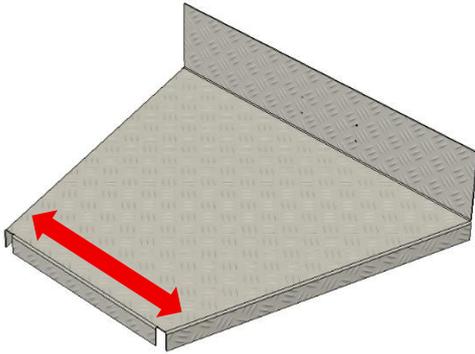
Refer to Step 9 on pages 10–12 for guidance on installing the stairs to the scaffold pipe.

STEP 5

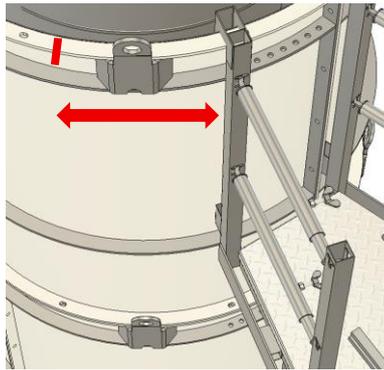


- From the top of the stairs add balustrade rails to the middle of the scaffold stair arms.

STEP 6

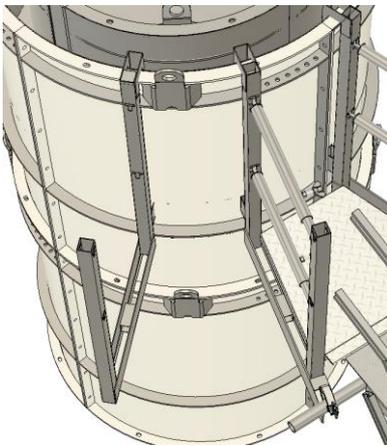


- Measure the front part of the tread.



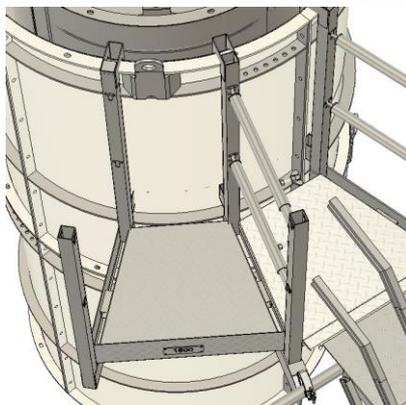
- This will give you an approximate length of wear to mark with your pencil for the position of the next scaffold arm.

STEP 7



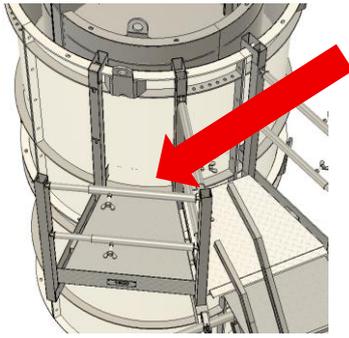
- Place scaffold arm on the mark.

STEP 8



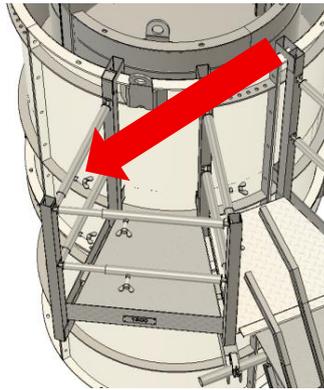
- Place scaffold tread plate between the two arms.
- Use a plastic mallet to adjust if required for snug fit.

STEP 9



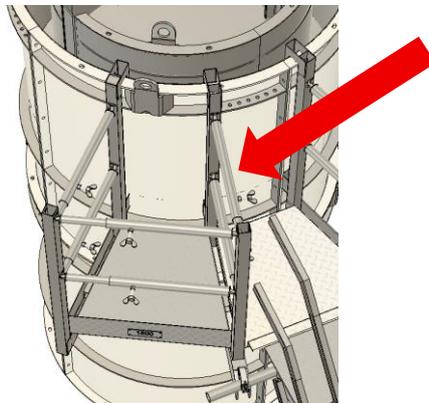
- Add the balustrades on the outer side.
- Ensure balustrade wing nuts are tight.

STEP 10



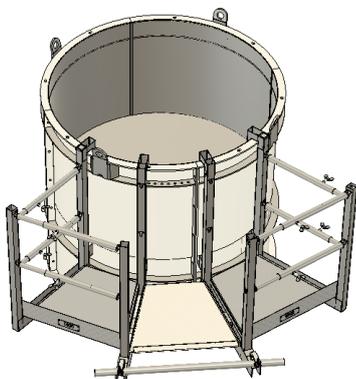
- Add the balustrades on the opposite mid-section.
- Ensure balustrade wing nuts are tight.

STEP 11



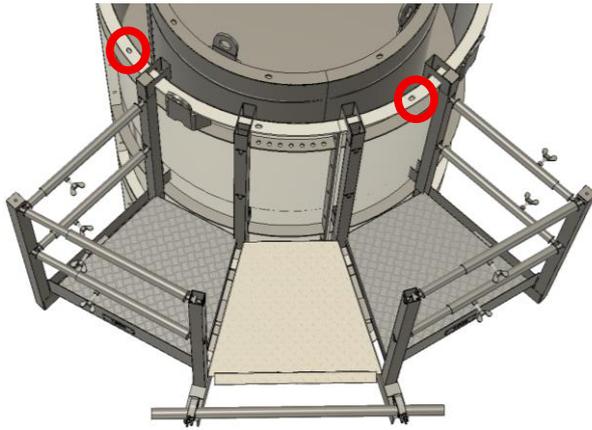
- Remove the 2 balustrades.
- Repeat STEPS 7-11 until the full scaffold has been completed, or the required number of sections if doing a partial scaffold.

STEP 12

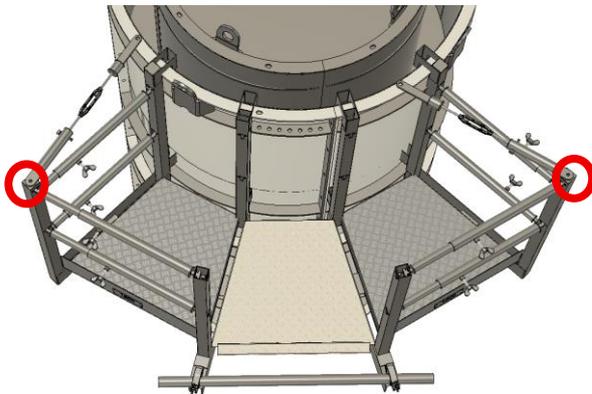


- If doing a partial scaffold, you must add the balustrade rails to the middle of the scaffold arms. Ensure balustrade wing nuts are tight.

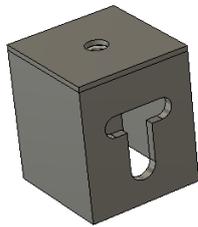
STEP 13



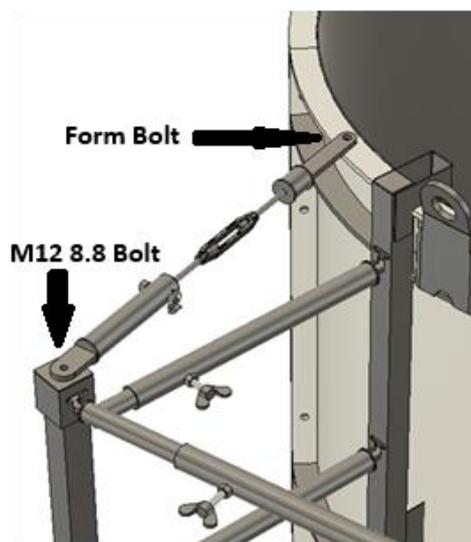
- Partial Scaffold will require 2 (two) bolt holes on the outer form to be accessible to add the Lateral Stability Brace.



- Insert the connection sleeve over the end of the scaffold arm. This is best done prior to adding the top balustrade rails.



- The T slot connections must line up with the scaffold arm post T slots.



- Position the lateral stability brace between the hole in the sleeve and the outer form drum hole.
- Using the supplied M12 8.8 bolt in the connection sleeve screw the bolt in.
- Adjust the tensioner length with the turnbuckle to the required length.
- Using the Manhole Form Hire Bolt add this to the drum end.
- Lightly do up tension on the turnbuckle.

Dismantling Guidelines: Reverse the assembly process in the order described above and store the components in the provided scaffold stillage for collection.