



Installation Procedure for a Harkness Screens Spectral 3D screen by rolling across the front of a frame.

These recommendations are for guidance only. Experienced installation teams may well have developed their own procedure that is relevant to specific screen frames and local Health and Safety requirements.

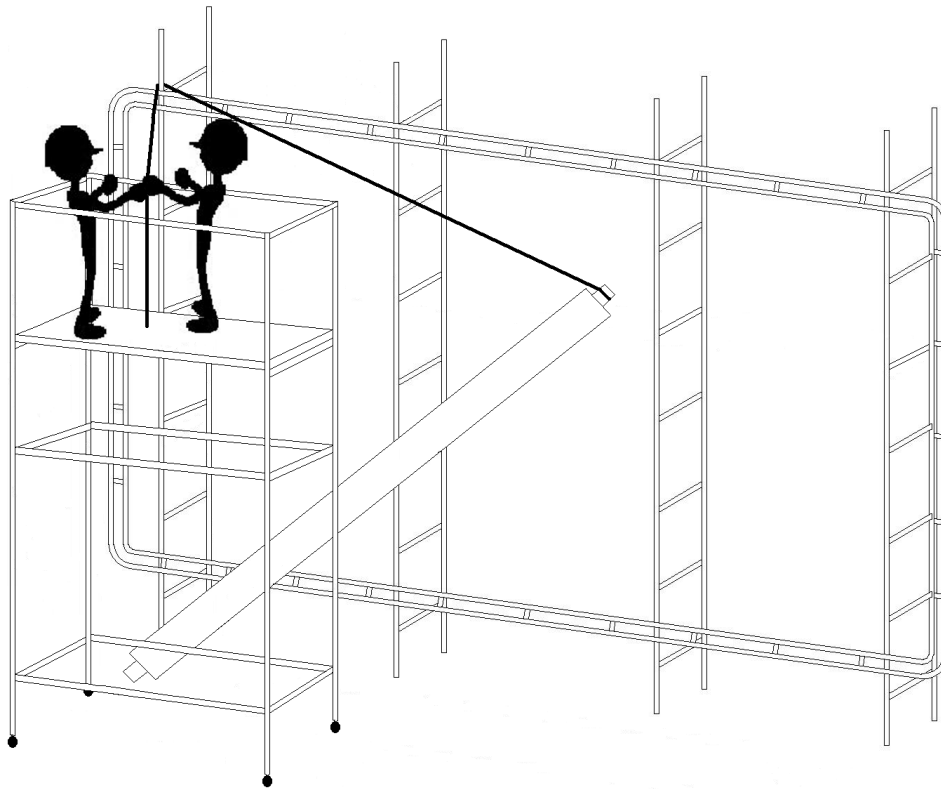
Requirements:

1. Installation team. Typically, four people are required to carry the screen in its packing tube or crate into the auditorium and to install the screen onto the frame. Screens more than 20 feet high will need 6-8 people to carry and install it.
2. A metal extension tube and wheeled trolley to raise the screen to the bottom picture line and to move the screen across the front of the frame.
3. A 1/2" diameter rope for lifting the screen pole into the vertical.
4. A non expanding material such as Sisal cord or cable ties is recommended for lacing the screen to the frame. Sisal cord is used as the normal tie in method for the remainder of this procedure.

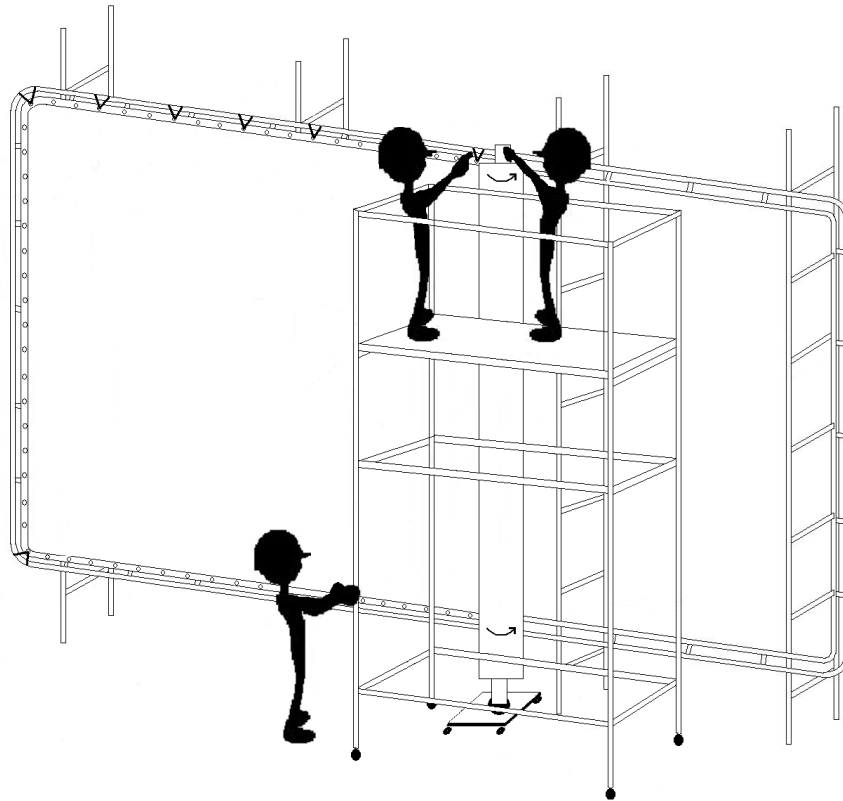
Instructions:

1. Ensure the auditorium is clean and dry and at a temperature of 20 – 25 °C and the screen has been allowed sufficient time to acclimatise to ambient temperature. Recommended time is 24 hours.
2. If the screen is to be installed in an existing auditorium, remove the old screen. Move all static and moving masking away from the frame to prevent dust transferring from the masking onto the screen.
3. Clean the frame, removing all dust and moving any item with a sharp edge that may come in contact with the screen.
4. Take the screen wood crate into the auditorium and position crate horizontally at least 8 feet out from frame so top of screen is at the audience right side. Top of screen will be indicated on the crate by "Ties this end" or "Top".
5. Remove crate lid screws, remove lid and lift out screen, using end slide in supports.

6. Supporting screen by steel core only, remove both end slide supports and rest screen on 2 wooden support blocks at each end ensuring that the blocks are positioned under the steel tube and that the screen does not rest on either the supports or the floor.
7. Look for rolled direction markings on foam, and double check that the screen top is at the audience right of the frame (with ties at top), to ensure screen opens out and unrolls correctly
8. Open the packing to reveal sisal ties. Make sure the sisal ties are fastened to the metal tube using holes in the top of the metal tube. This will ensure the screen does not slip down the tube when it is positioned vertically. Remove the black tape from the outer foam packing, leaving the top and bottom tape in place.
9. Loop the hauling rope over the top of the frame and fasten to the metal tube next to the sisal ties. Haul the screen into the vertical ensuring the rolled screen does not come in contact with the frame.

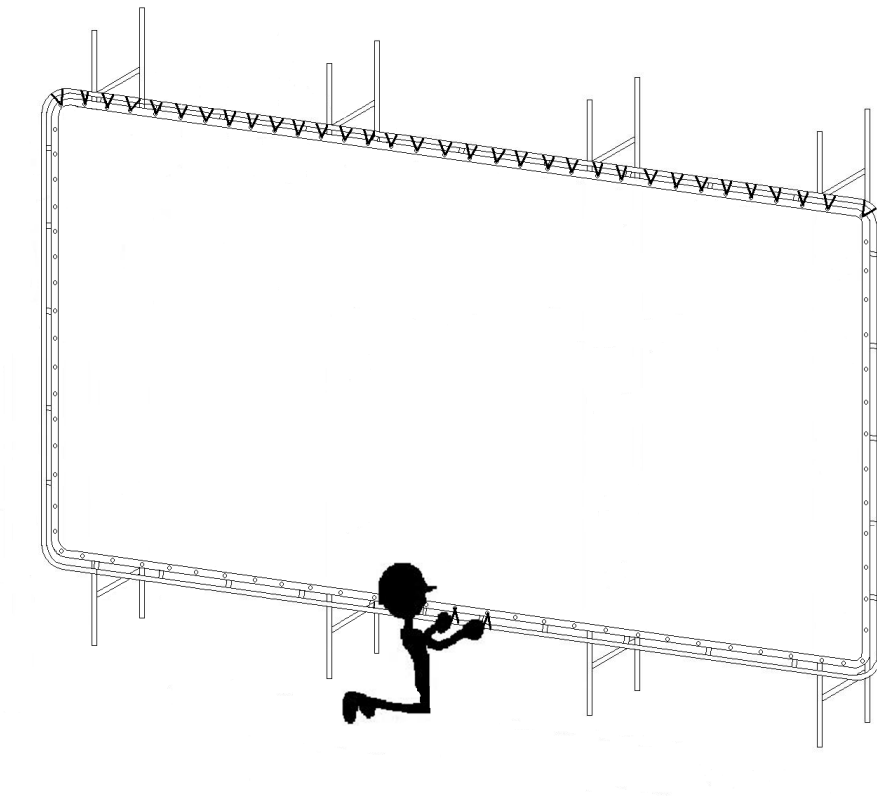


10. Lift the screen using the metal pole and attach an adjustable extension tube if required and trolley. Do not grab or push up on the screen when lifting the metal screen pole onto the extension tube and trolley.
11. Remove the remaining packing tape from the top and bottom and then tie the top corner screen eyelet to the top and side of the frame lace rail. Tie the bottom corner screen eyelet loosely to the bottom and side frame lace rail.
- 12. Do not crease fold or touch the silver screen surface.**
13. Unroll the screen carefully keeping light tension by moving the metal pole to the right. Using sisal, secure the top of the screen (every 3rd or 4th grommet spacing) to the frame as it is unrolled.



14. When the screen is fully unrolled, lower the metal pole to the ground ensuring it does not come in contact with the screen.
15. Untie the bottom screen corner eyelet, and position the screen so it is centred on the frame, and starting at the centre top, lace in the screen at every grommet using sisal. Ensure there is an even space between the screen and lace bar and keep the screen flat.

16. At the bottom, work out from the centre of the frame pulling the screen down and lacing the screen to the frame rail. The screen must be stretched sufficiently to pull out any wrinkles in the surface.



17. At the sides, work down from the top to the bottom lacing the screen to the sides of the frame using every other eyelet. Do not stretch the screen; only pull it enough to make it straight.
18. Return any static and moving masking cloth to its correct position.
19. Recheck the tension of the screen and if necessary re-tension it. The screen is only re-tensioned from the bottom.