SPC iTwelve Sports Hall Panel Installation Guidance

Assembly and Hanging

IOM 102 Issue 2

SPC

Contents

		Page
1	Introduction	3
2	Preparation for hanging	3
3	Step 1	4
4	Step 2	6
5	Step 3	6
6	Step 4	8
7	Step 5	9
8	Step 6	10

1. Introduction

This detailed example of a typical sports hall panel installation should be read in conjunction with the general iTwelve installation instructions IOM 100. The photographs below are of a particular panel width (900mm) and continuous runs of panels but they are generally applicable to all installations.

2. Preparation for hanging

The wires from which the panels are to be hung should be arranged to be in position and firmly anchored to the roof or unistrut channels being used for hanging. Any anchors used are the responsibility of the installer along with suitability of the roof structure for hanging. Hanging positions will be given on the drawings generated specifically for the project. Lengths of hanging wire can be adjusted as the panels are being suspended by using loop adjusters on the wire hangers. This instruction assumes, going forward, that the hanging wires (or rods) are already in position.

Figure 1. View of panel before commencing the hanging/installation process

3. Step 1

Undertaken at floor level prior to raising the panels to their final position

The central section of the ballguard mesh should be installed between the side flanges of the panels leaving 500mm uncovered at either end; for 3m panel lengths the central guard sections will be 2m long. The guard mesh should be clipped to the side flanges via the carabiner clips supplied. The mesh will need to be cut at points where it passes over the hanging brackets and tin snips will be required to undertake this.

Figure 2. Snips breaking the mesh around the hanging brackets

Figure 3. Mesh bent after snipping to avoid bracket when pushed inside flanges

Figure 4. Carabiner clip holding mesh to side flange

Figure 5. Array of carabiner clips holding mesh to side flanges

The three sections of ballguard can be laid out at floor level and offered up to the panel. The snips can be used at this stage to cut the guard in the places required to miss the hanging brackets. Alternatively, this can be done to suit after the panels have been hung.

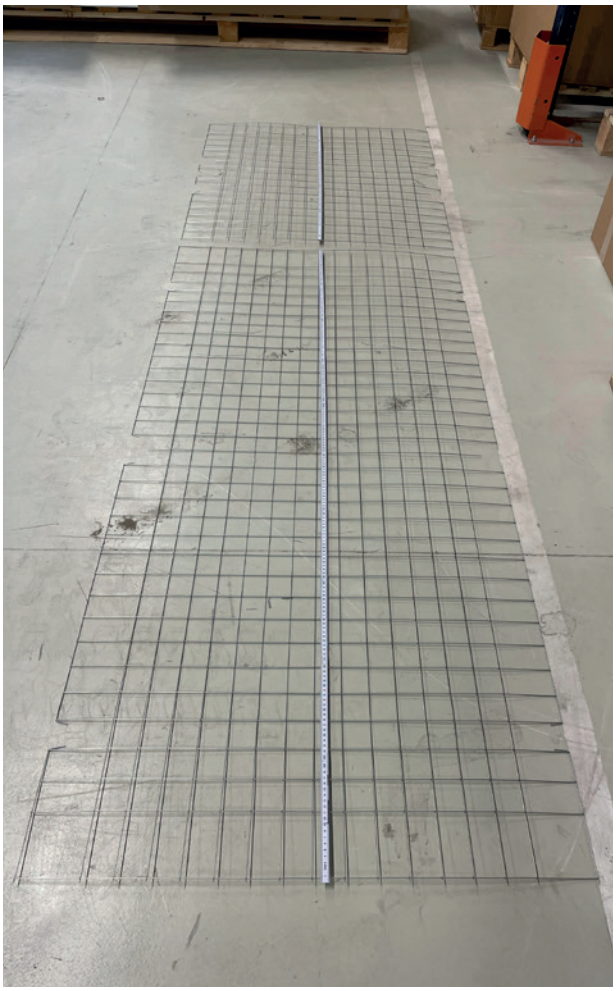

Figure 6. Ball guard laid out on floor and snipped to suit

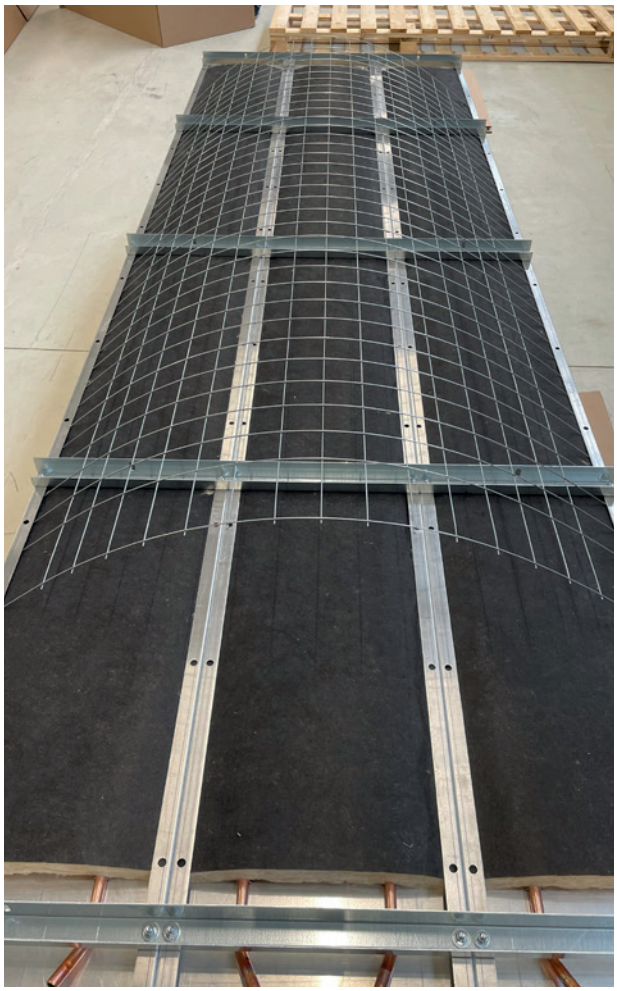

Figure 7. Centre mesh section after fitting

4. Step 2

Lift the panel section to the correct height/position using a scissor lift, level using a laser and the adjustment loops on the end of the suspension wires. The suspension wires will pass through the ballguard mesh and attach to the carabiner clips whose other end is clipped through the panel's hanging bracket.

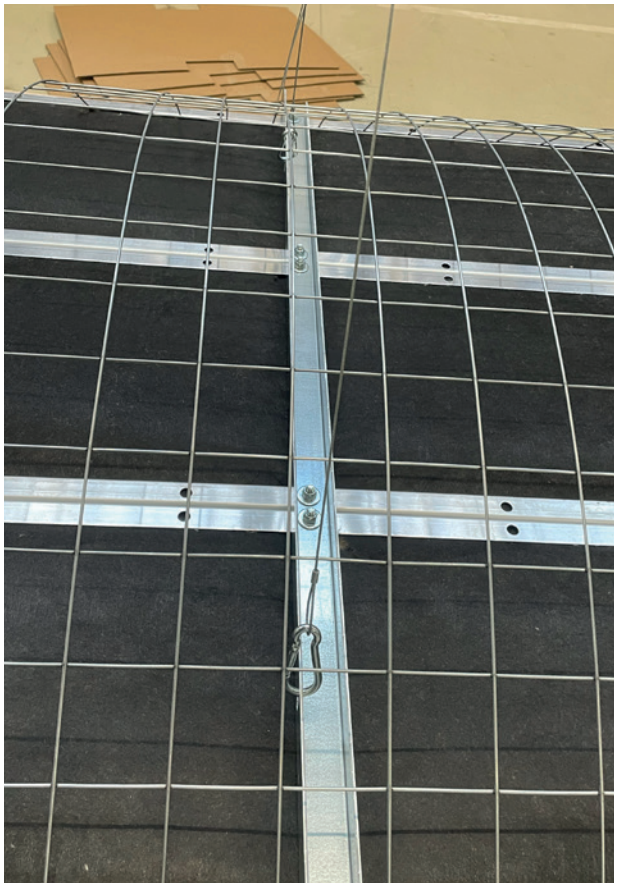

Figure 8. Hanging wire shown passing through ballguard mesh and clipping to hanging bracket

5. Step 3

Proceed as above for the remaining panels in the run. Where the panels in a run are butted together they are to be connected using the screws/washers/nuts provided and the reinforcing channels.

Figure 9. Reinforcing channels being slid into place

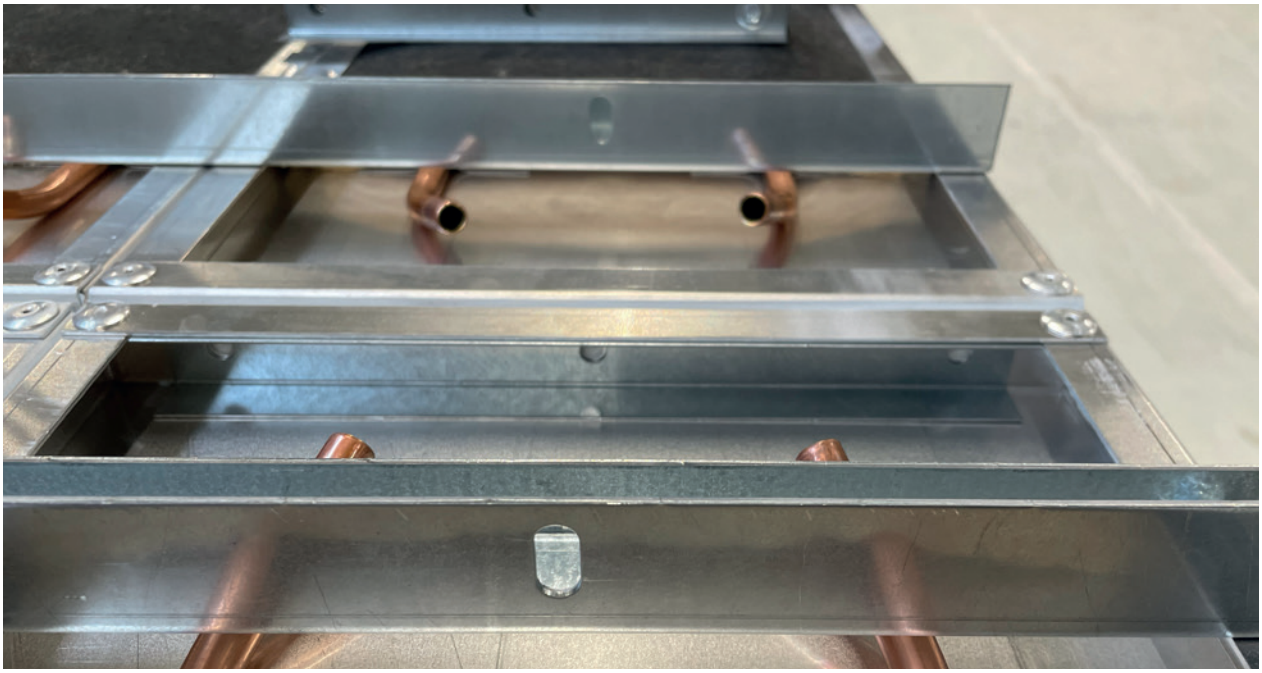

Figure 10. Reinforcing channels in place

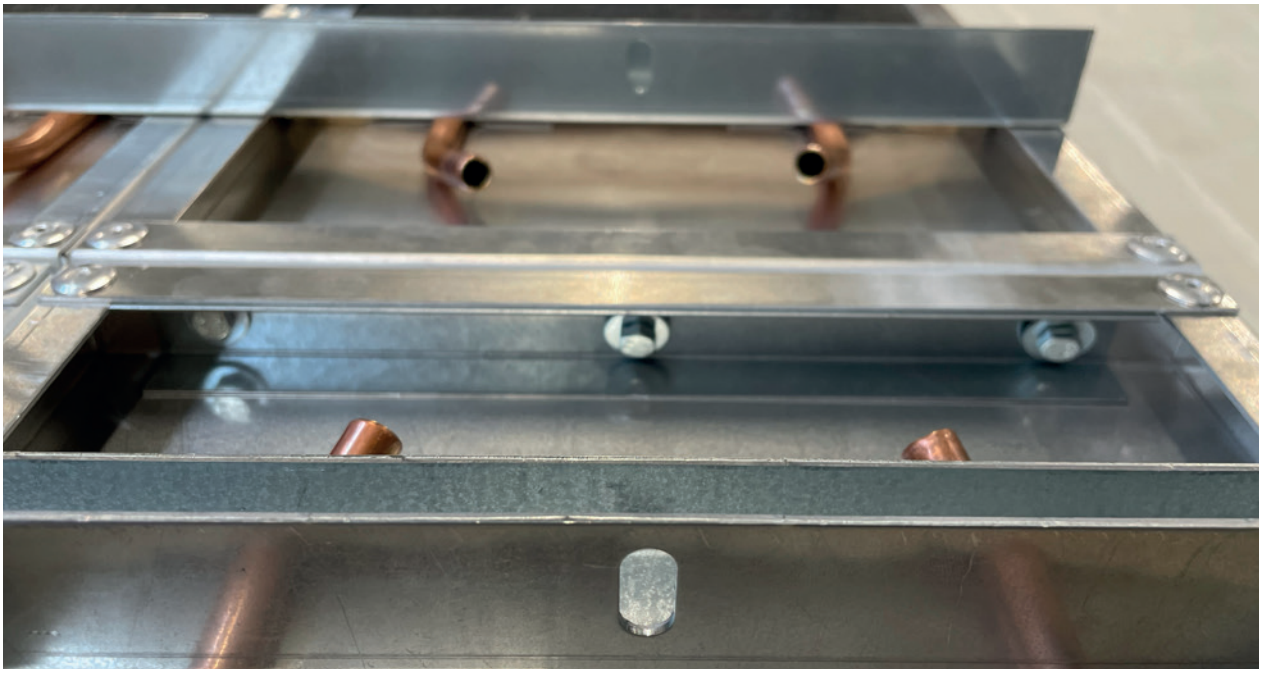

Figure 11. Adjacent panels screwed together via reinforcing channels

6. Step 4

Make the interconnections between the panels in the run using the flexible hoses provided. In this instance the pipes crossover to give better temperature distribution but refer to the actual, specific arrangement for the job. At the rear of the panel run the 12mm copper pipes are connected together using the short hoses proved, again, see project specific drawings for actual arrangements. On the connection side the pipe ends are connected via flexible hoses to the multi-way brass flow and return manifolds.

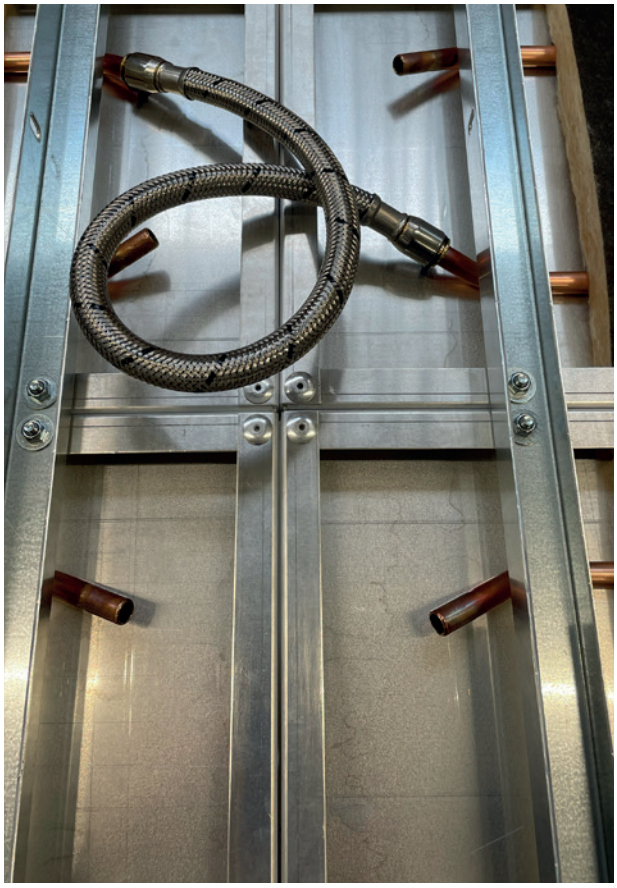

Figure 12. Interconnecting hose between adjacent panels

Figure 13. A pair of interconnecting hoses between panels

Figure 14. Return hose at end of panel run

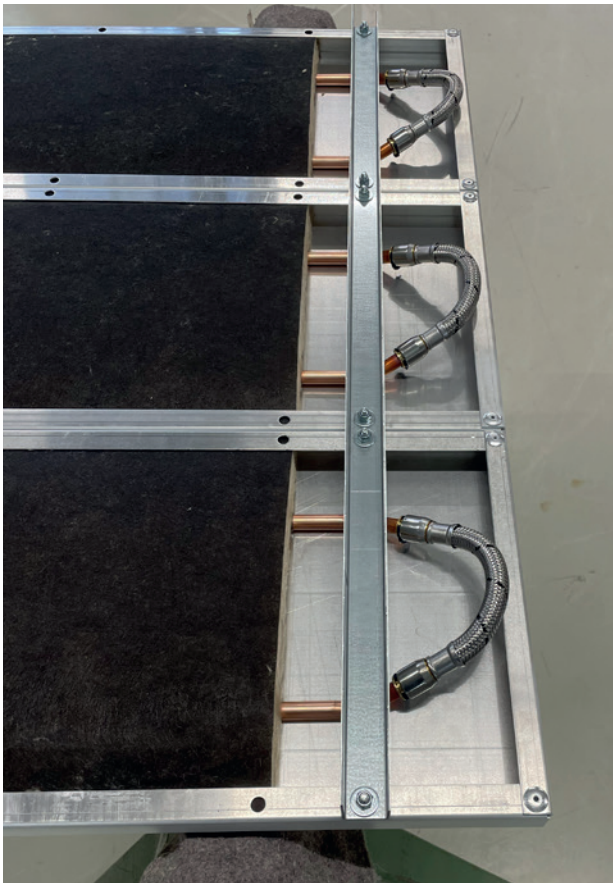

Figure 15. 3-off return hoses

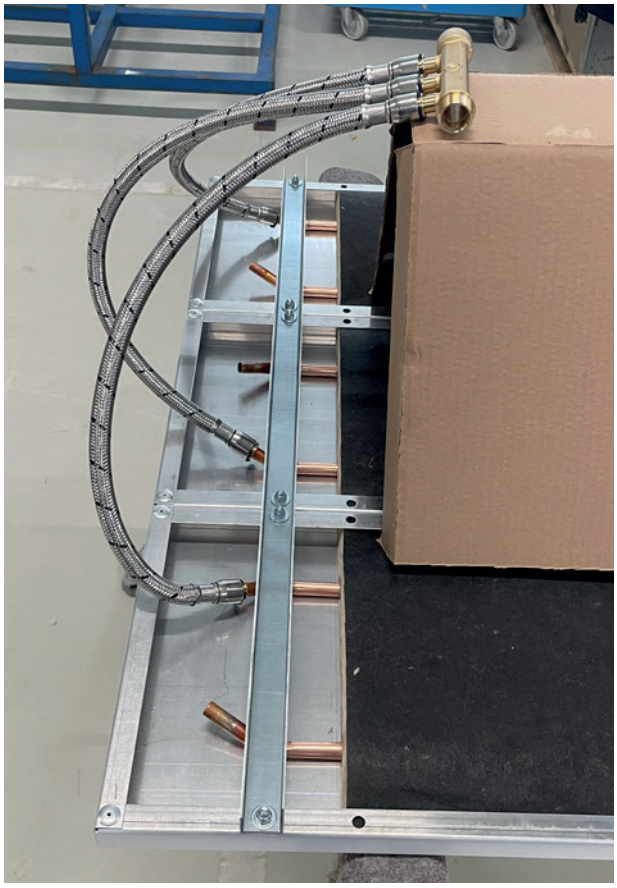

Figure 16. Flow manifold and flexible hoses

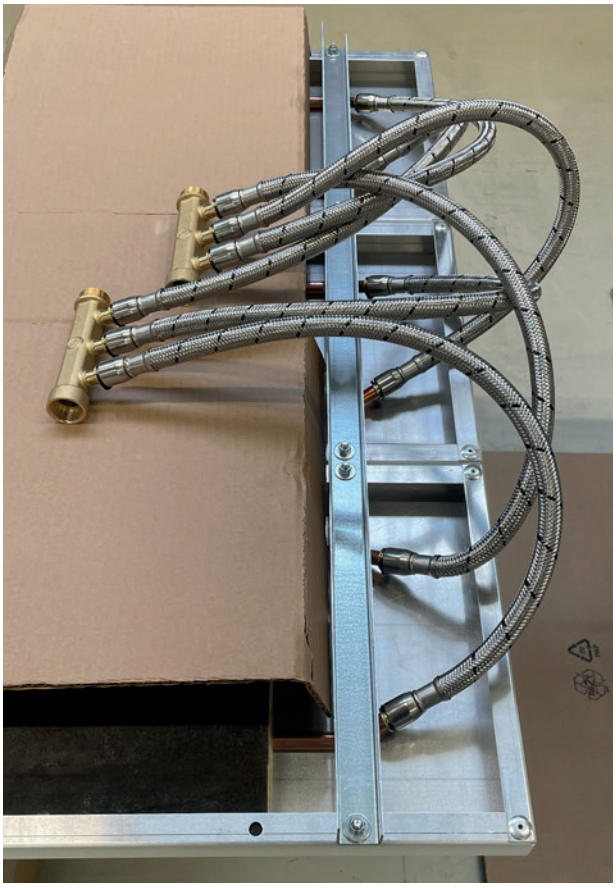

Figure 17. Flow and return manifolds and hoses

7. Step 5

The installation can now, or subsequently, be pressure tested.

8. Step 6

The remaining ballguard mesh sections can now be fitted to the ends to cover the flexibles, these will comprise a 500mm section at the end and a single 1m section between adjacent panels. These guards are clipped to the side flanges and to each other using the carabiners provided.

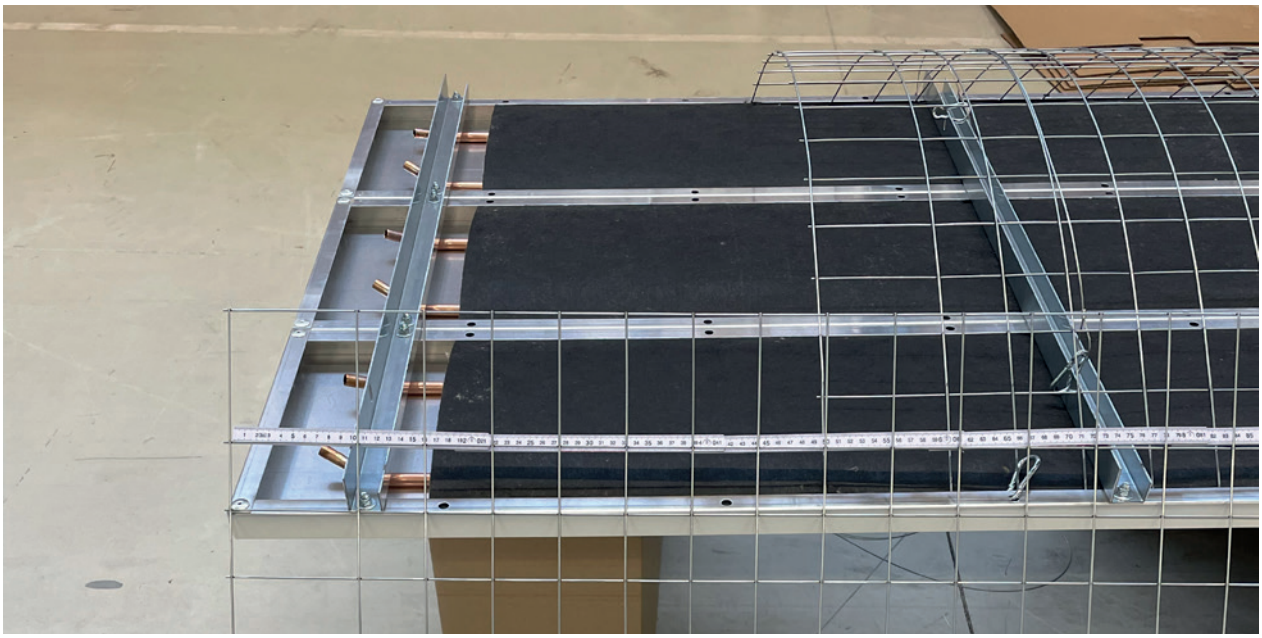

Figure 18. End guard before fitting

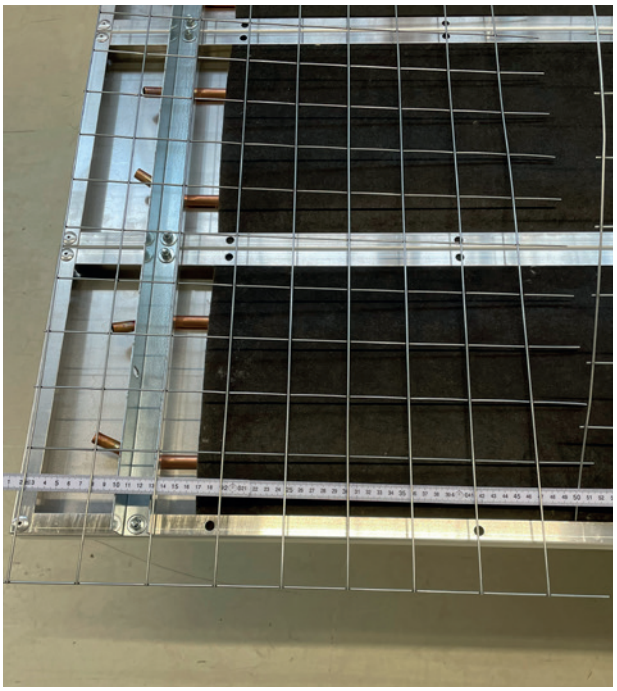

Figure 19. End guard snipped around bracket

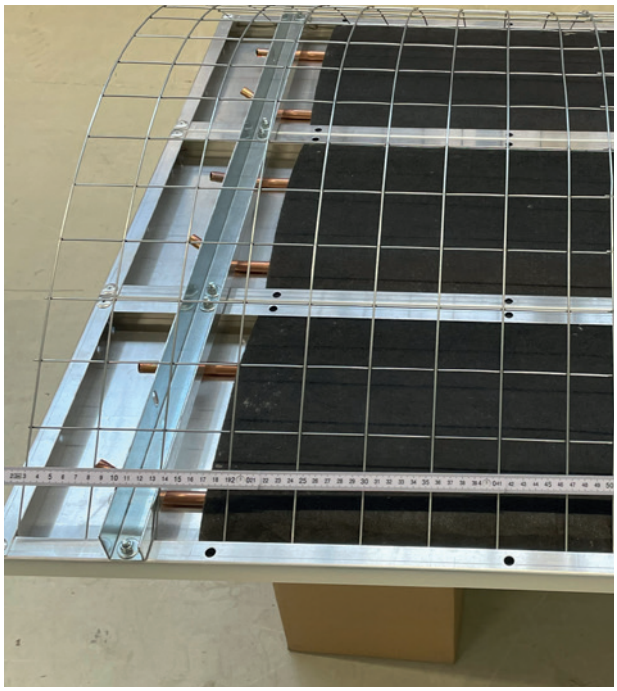

Figure 20. End guard fitted

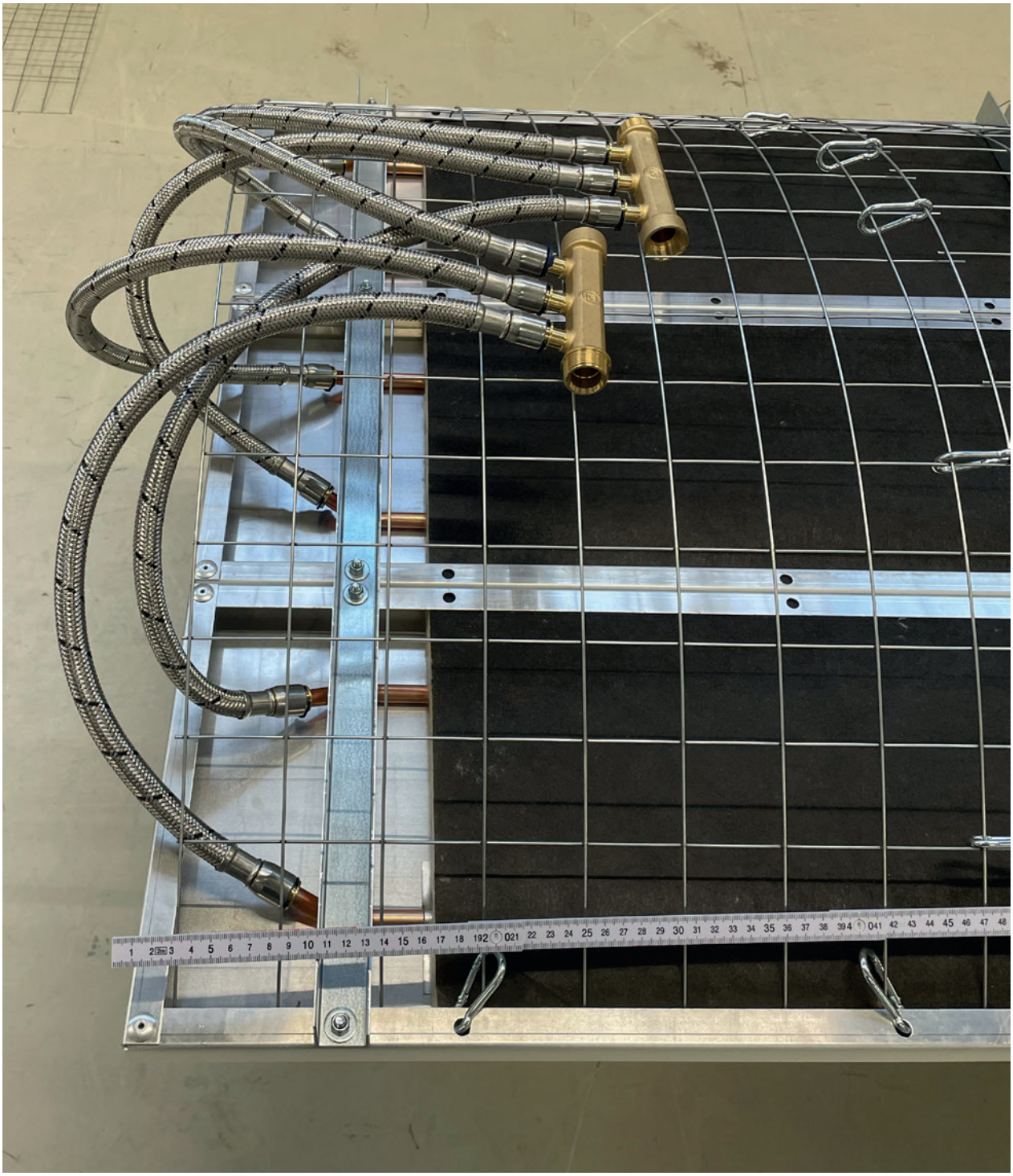

Figure 21. End guard secured with carabiner clips

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