

# Access Floor Technical Room

## Sect.01 General features



### Description

The structure for control rooms is made completely from galvanised steel, with under-head adjustment, and comprises the following elements:

- Support pedestal with tropicalization surface treatment (yellow) and height adjustment, made up of:
  - circular base, 100mm diameter, 2mm thick, featuring stiffening ribs and diameter holes for mechanical anchoring to the ground, if required;
  - variable-length pipe based on the height of the floor, tightly pressed into the pedestal, available in the following versions:
    - outside diameter 24mm, 2mm thick;
    - outside diameter 26mm, 3mm thick;
  - M20 threaded bar, firmly fixed to the head and featuring an M20x10mm nut for locking at the final height;
  - flat head measuring 120x120mm, 5mm thick, featuring radial slotted holes for positioning and fastening the stringers.
- Connecting stringers made from open "C" sections, bent at the bottom to increase flexural strength. Available in the following versions:
  - section for 600x600mm module, 40x40mm cross-section and 2mm thick, lengths 558mm (tolerance -2/0mm) and 2400mm (tolerance -4/0mm);
  - double section for bridge (spanning across one support) for 600x1200mm module.
- Black polyethylene (PE) conductive head gasket, dimensions 52x45mm, 1.5mm thick, with sound-proofing function and coupling teeth for centering and connection, to be positioned at the intersections between stringers. Featuring 4 spikes at the top for positioning and centering the panels.
- Self-extinguishing gasket for stringer in extruded black plastic material, dimension 547x40mm and 1.5mm thick, with sound-proofing and air tight functions, to be placed on the stringer with a simple manual pressure.

The stringers are fixed to the heads of the pedestals using a bolt with hammer head screw M8x25mm and flange nut. The joints are tightened using the head of the bolt only, thus creating a very rigid and stable structure.

All the parts described are free of burrs and all other sharp elements that would be dangerous when handling and assembling and potentially cause damage to other parts (sheaths, cables, etc.) under the floor.

The nominal heights, steps and range of adjustment of the individual support pedestals for the various models available are shown in the table below. The thickness of the panel, the stringer and head gasket need to be added to the values shown to give the overall height of the finished floor.

**Table 1 – Available support models**

Nominal support height [mm]	Tube [mm]	Nominal adjustment [mm]	Working axial load <sup>(1)</sup> [kN]
from 225 to 925 (50mm step)	Ø24x2	±40	≥15
from 975 to 1175 (50mm step)	Ø26x3		

*(1) The breaking load is determined multiplying the working axial load by the safety factor equal to 2.*

The table 2 shows the number of components required per square metre and their weight.

**Table 2 – Components required and weight**

Component	Pieces/m <sup>2</sup>	Weight [g]/piece
Support pedestal	3.3	from 970 to 2070 (increasing 55g)
Stringer 558mm length	3	1200
Stringer 2400mm length	0.9	5200
Head gasket	3.3	5
Bolt (hammer head screw M8x25mm with flange nut)	13.2	20

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As concerns the mechanical performance of the structure, see the standard configuration of a control room floor. This configuration consist of the structure described above plus the panels describe below:

- 40LA panel consist of a 38mm thick high density particle board core, the backing is a nominal 0.05mm thick aluminium foil. The panel is provided with a nominal 0.45mm thick black plastic edge material that is self-extinguishing and PVC free;
- 40LF panel consist of a 38mm thick high density particle board core, the backing is a nominal 0.5mm thick sheet of zinc-plated steel. The panel is provided with a nominal 0.45mm thick black plastic edge material that is self-extinguishing and PVC free;
- 30KA panel consist of a 30mm thick high density calcium sulphate core, the backing is a nominal 0.05mm thick aluminium foil. The panel is provided with a nominal 0.45mm thick black plastic edge material that is self-extinguishing and PVC free;
- 30KF panel consist of a 30mm thick high density calcium sulphate core, the backing is a nominal 0.5mm thick sheet of zinc-plated steel. The panel is provided with a nominal 0.45mm thick black plastic edge material that is self-extinguishing and PVC free.

The upper finishing available for the panel are:

- plastic laminate or HPL (High Pressure Laminate), identification marking: "L";
- vinyl, identification marking: "V".

The values are shown in the table 3.

The tests were conducted in the Uniflair company laboratory, in accordance with European standard EN 12825.

Table 3 – Mechanical properties					
Load condition	Unit	40LAL 40LAV	40LFL 40LFV	30KAL 30KAV	30KFL 30KFV
Working load centre of panel <sup>(1)</sup>	kN	5.8	6.4	5.0	6.8
Distributed load at 2.5mm deflection	kN/m <sup>2</sup>	30.0	42.0	36.0	44.0
Load/deflection class	-	5/C	6/C	5/B	6/B

<sup>(1)</sup> The breaking load of the panel is determined multiplying the working load by the safety factor equal to 2.

### Working range

This Access Floor solution is designed for server rooms and data centers. Installation uses the same procedure as for Uniflair modular access floors. Around the perimeter, the stringers perpendicular to the building walls need to be sized to measure on site. Where necessary, the height of the support pedestal can be adjusted on site by cutting the tube to measure. For other heights (outside of the defined models), special load conditions or other types of module, contact the company's Technical Department.

### Ventilation accessories

The solution provides the following possibilities:

- grid panel dimension 600x600mm constituted by a pressed grid with 66x15mm mesh, welded to a perimeter frame 4mm thick, two heights available: 30mm and 38mm. The panel is totally made of steel with electroplating zinc surface treatment and then polyester powder coated. The free surface is approximately 80%;
- perforated metal panels 588 holes (diameter 13mm) dimension 600x600mm, made from a flat sheet of 3mm thick attached to a frame of appropriate section. All metal parts are painted. The free surface is equal to about 22%.

### Delivery

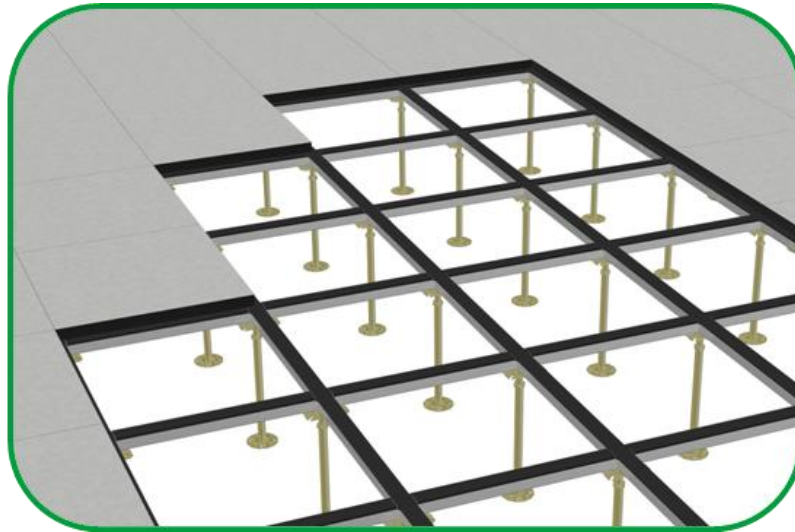
Panels, support pedestals, stringers, support gaskets and hardware are packaged separately. Transport and disposal of the product: in accordance with national, international and intercontinental standards in force.

### Disposal

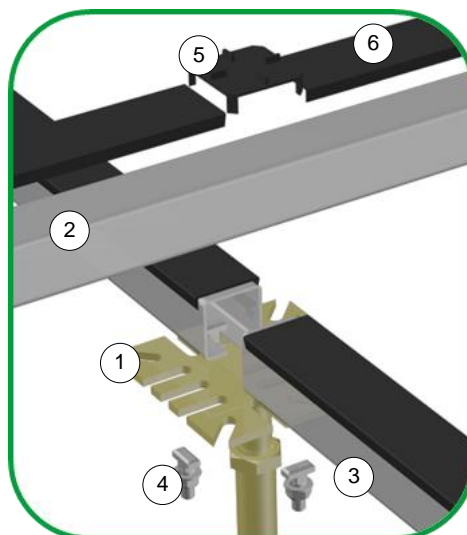
Regarding precautions for disposal of the product, see the details provided in the Uniflair modular access floor datasheet.

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Access Floor example view



Detail view

Legend:

- 1) Support pedestal
- 2) C stringer L.2400mm
- 3) C stringer L.558m
- 4) Hammer head screw
- 5) Corner gasket
- 6) Stringer gasket