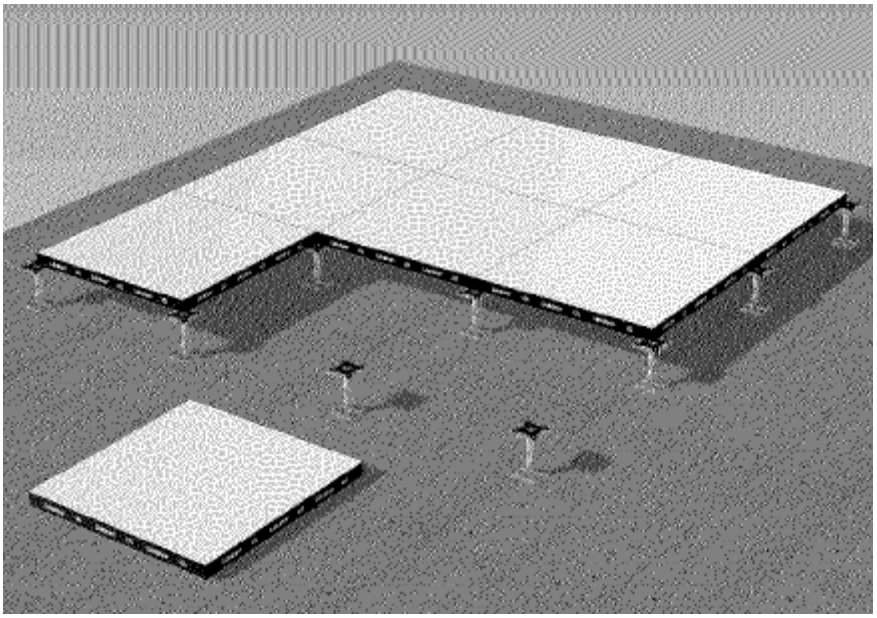
RAISED ACCESS FLOOR

CONSTRUCTION * TECHNOLOGY * DETAILS

THE FLEXIBILITY

A raised floor construction consists of numerous single slabs, not connected to each other, in a 60 cm x 60 cm standard raster, which are placed on an adjustable-height stand system. The hollow space below can accept various types of installations (electrics, computer, heating, ventilation, and air-conditioning). The advantages of a raised floor system lie in its great variability and in the possibility of accessing and modifying all elements of the installation lying underneath at any time. To use these advantages of raised floors to the full, the characteristics of the floor covering must be matched to the requirements of the particular commercial property, and the lifespan of the floor covering must economically justify the use of the raised floor.



THE SURFACE WITH NO LIMITS

THE CHIPBOARD PANEL

COMPOSITION

The basic material used in the composition of the chipboard panels consists of high-density chipboard (720 ± 5% kg/cu.m), compression bonded using hot polymerised ureic resins. High grade woods are used, mostly from conifers. The formaldehyde content is lower than the limits established by the European specifications for Class E1.

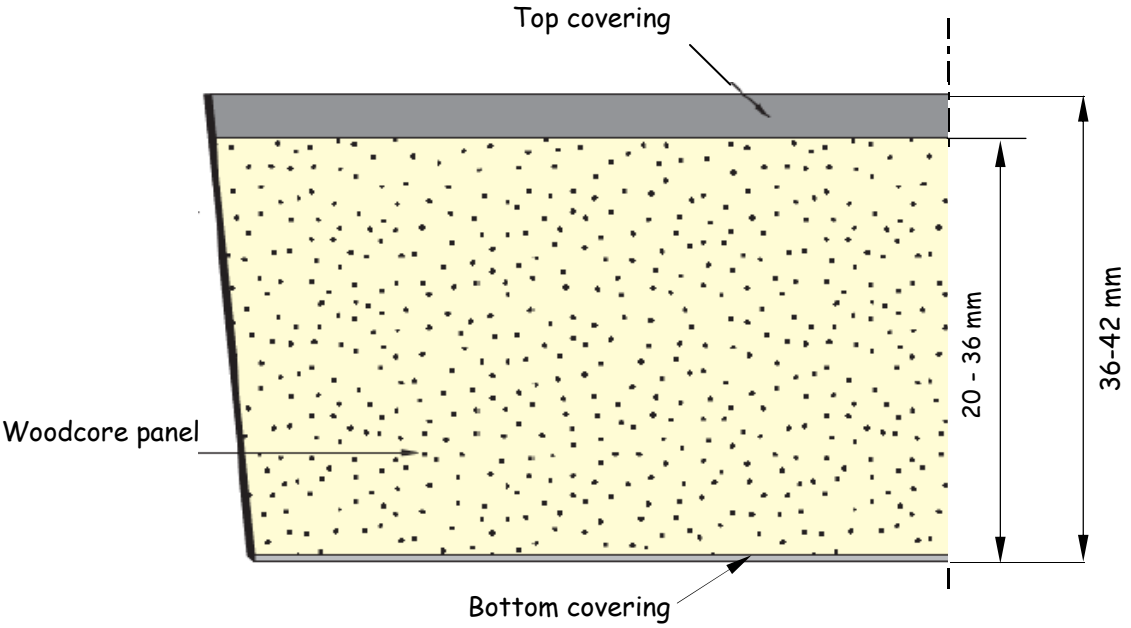
SIZE TOLERANCES FOR CORE PANEL

- side length: ± 0,2 mm
- side squareness: ± 0,3 mm
- thickness: ± 0,3 mm

COVERING

The covering must be selected based on aesthetic, mechanical and electrostatic service requirements. Conductive raised access floor coverings can be laid on request, with electrical continuity between the finishing applied to the underside, ensuring a minimum resistance of 10^6 Ohms against electric discharges.

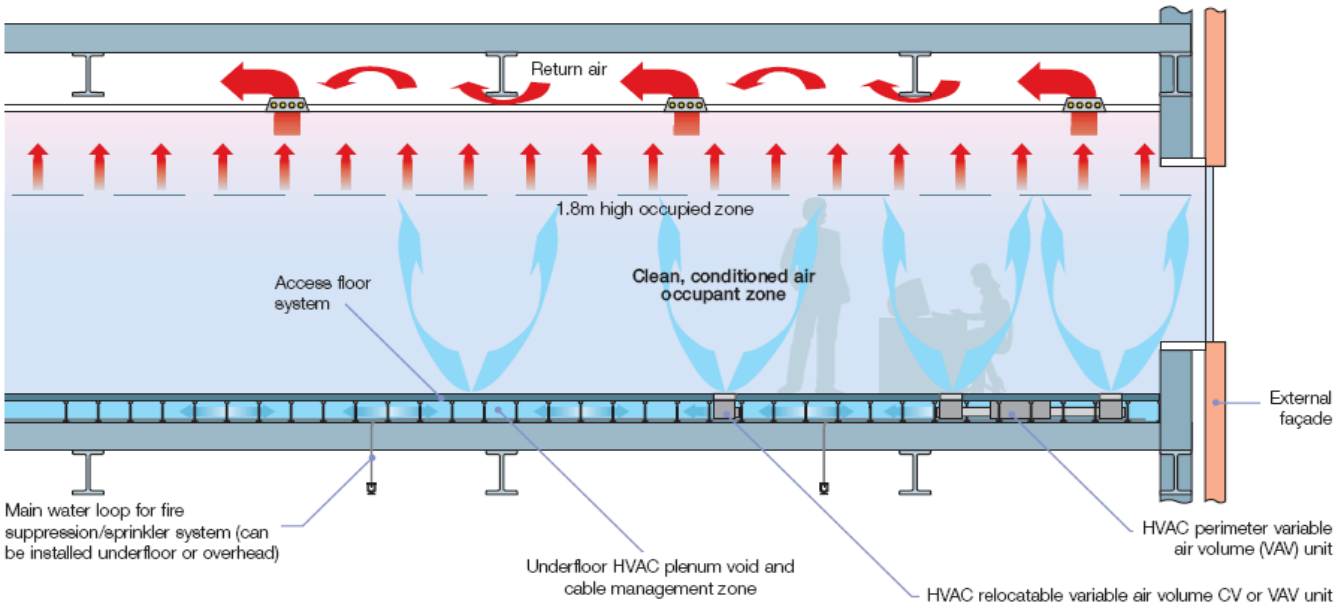
Weight (without covering)	approx. 27 Kg/sq.m
Concentrated load on the centre of the panel's edge with 2,5 mm deflection according to UNI 10467-3 specification	300 kg.
Reaction to fire:	Class 1
Fire resistance:	REI 30
Sound insulation evaluation index	43 dB



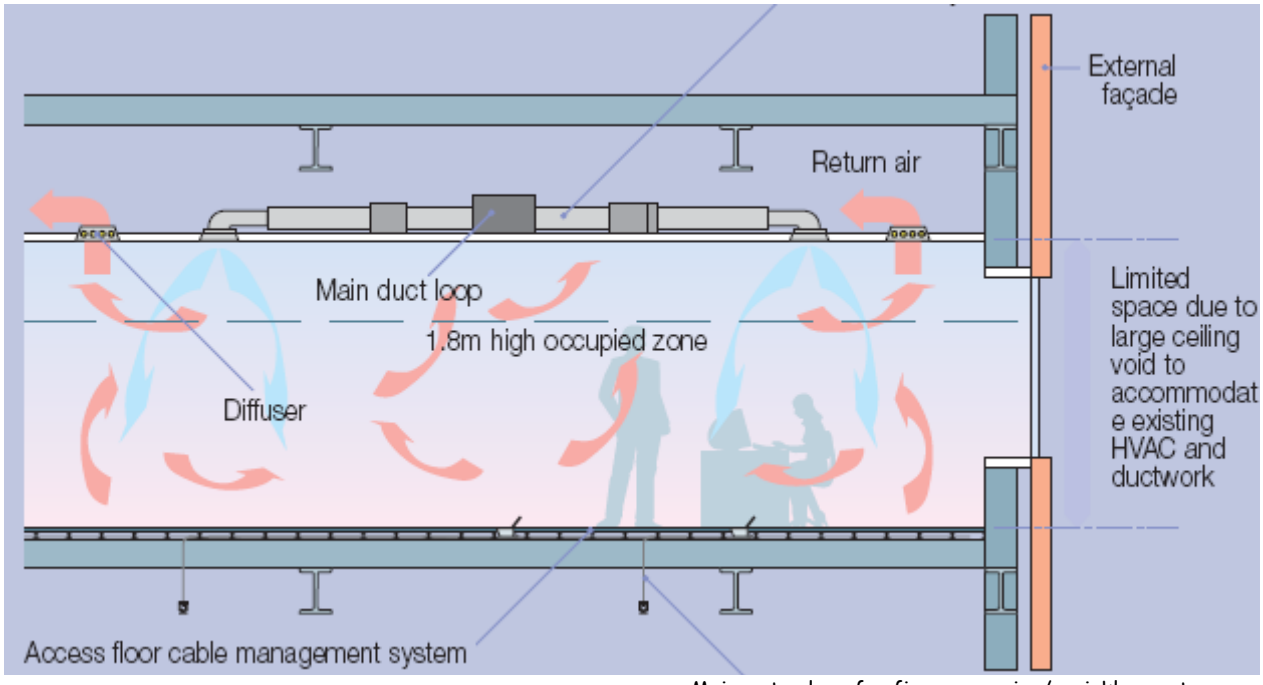
THE INTEGRATION

THE PROBLEM - the technical challenge of distributing the services, with the related supply and branch lines, through the various points on the premises.

THE SOLUTION - the panels form a perfectly flat and stable modular surface overlying an underfloor space (plenum) suitable for the installation of various systems.



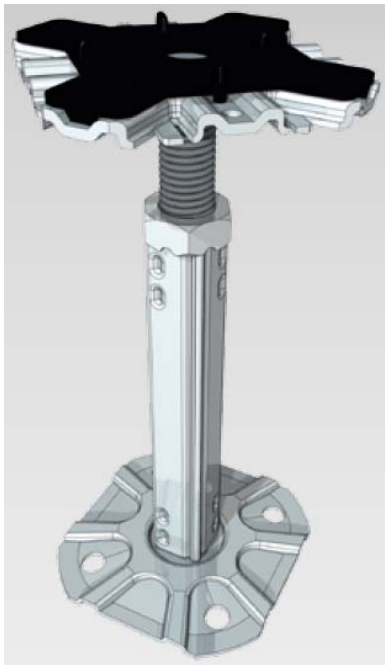
Overhead HVAC VAV system and ductwork



Main water loop for fire supression/sprinkler system

Underfloor HVAC system is available over 150 mm. FFL

THE UNDERSTRUCTURE



Q - base

Strong base

Traverso

THE UNDERSTRUCTURE

Product Description

Base: manufactured from fully galvanized steel with a uniquely designed cross head profile design. Fully adjustable ± 25 mm (on pedestals heights exceeding 130 mm) over a nut screwed onto the base of support base: The base is constructed from galvanized steel thickness of 1.5 mm - 90 mm in diameter with 8 stiffening ribs to facilitate the application of adhesive and a squared edge to ensure a close positional fit at perimeters or abutments.

Head: Manufactured from cold-formed steel thickness 2.6 mm - 90 mm in diameter with 4 arms to accommodate the stringers. The pedestal head includes a band of lateral reinforcement in order to ensure a perfect precision fit between with the connecting "snap-on" stringers which in turn ensure total system stability whilst minimizing possible movement or noise when subjected to dynamic loading.

Threaded rod: M16 threaded rod obtained by cold pressing and rolling. Tolerance OD thread + / - 0.05 mm.

Pedestal Tube: formed from square section obtained by the folding and crimping of 1.2 mm high resistance sheet calibrated and galvanized both internally and externally, dim. 18.5 x 18.5 mm. The connection between the tube and base is achieved through a mechanical pressing process which offers greater resistance to imposed loads.

Light Grade Stringers "L": comprise 18 mm galvanized steel section with integral stiffening ribs embossed on the whole length. The stringer can be used as a "snap-on" product or mechanically fix with the use of self tap screws.

Medium Grade Stringers "M": comprise 30 mm galvanized steel section with integral stiffening ribs embossed on the whole length. The stringer can be used as a "snap-on" product or mechanically fix with the use of self tap screws.

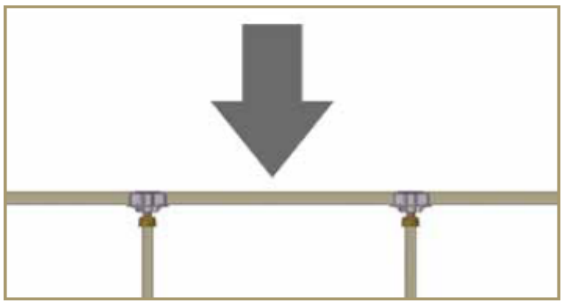
Pedestal & Stinger Gaskets: Produced from impact resistant plastic, they produce a stable and firm seat / seal between the top of the understructure and the underside of the panels.

Stringers are available in several lenghts to adapt to the different grid module

THE LOAD

Concentrated Load

A load is applied over a 25 x 25mm steel indentor onto the panel at its weakest point. Once the load has been removed, the deflection or permanent set of the indentor movement must not exceed 2.5mm.



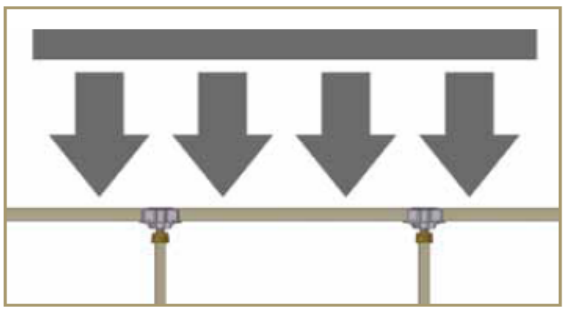
Ultimate Load

A load is applied over a 25 x 25mm steel indentor onto the panel until the system fails structurally. The ultimate load should be three times the concentrated load.

Uniform Load

Static force equally applied over the panel, and is typically imposed by stationary furniture.

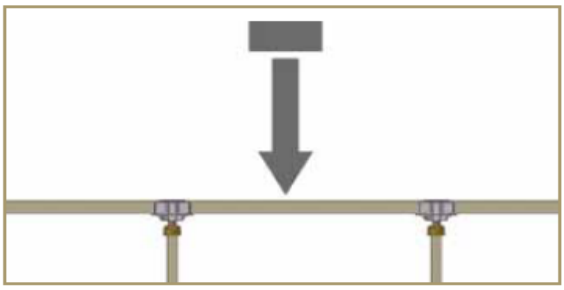
Uniform load is tested by applying a load over a $1m^2$ area. Once the load has been removed , the deflection or permanent set of the indentor movement must not exceed 2.5mm.



Impact Load

The effects or deformation of an access panel, when subjected to heavy load being dropped onto it.

A panels impact load is tested by dropping a weight from 900mm onto a 25 x 25mm steel indentor.



Rolling Loads

The durability or deformation of an access floor system when exposed to commercially anticipated caster traffic using a specified load. Rolling loads are defined by the number of passes, size and hardness of the wheel, and the combined weight of the cart and it's contents on each wheel.

When testing rolling loads, a load is rolled back and forth across the panel which is applied through 3 different size wheels.