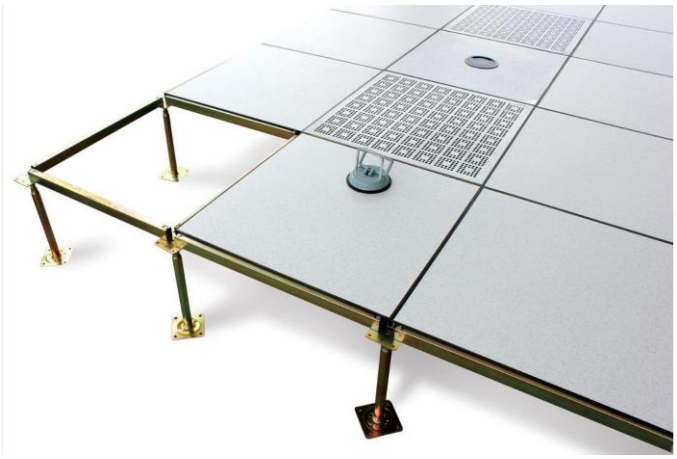
APPLICATION COMPUTER / EQUIPMENT ROOM etc

Specification Details

Panel Type HT FS-800 HPL

The Stringered FS800 'HPL Access Floor' System forms an extremely stable surface and maintains an anti-static environment by combining FS800 panels, captured within a stringered understructure. The panel and understructure unite to provide excellent lateral stability and rigidity along with easy underfloor access. This access floor system is capable of with standing heavy-duty static and dynamic loads experienced within the majority of computer/equipment room environments.



Performance Summary

Application	A computer room, data center where there is a requirement to route mechanical services and cables, wiring, and electrical supply. The space is likely to be subject to equipment loads, normal levels of foot traffic and infrequent rolling loads in the room corridors and aisleways.
Performance	The access floor will be Medium Grade, with a safety factor of three times the concentrated (design) loan, and is capable of meeting Heavy static and dynamic loads per CISCA Platform (Raised Access) Floors Performance Specification.
Finished Floor Height	The finished floor height of the access floor, measured from the sub-floor to the top surface of the installed access floor, shall be as shown in the contract drawings.
Surface Finish	The access floor shall have a 'HPL' panel surface finish (High Pressure Laminate)

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Installation	The access floor will be rigid, free from vibration and rocking panels within a ±3.0mm level over the entire space. Panels will be accurately cut to fit around all permanent features.
Fire Rating	All panels are to provide zero fire hazard indices under CISCA Platform (Raised Access) Floors Performance Specification – Fire and Safety Requirements.
Maintenance	All whole panels will be interchangeable allowing for any future changes. The access floor will maintain these original conditions when runs of panels have been removed for normal underfloor access.

Performance to Standards Guide per CISCA Platform (Raised Access) Floors Performance Specification

Structural Performance: Provide access flooring system capable of supporting the following loads and stresses within limits and under conditions indicated, as demonstrated by testing manufacturer's current standard products according to referenced procedures in latest revised edition of Ceilings and Interior Systems Construction Associates (CISCA) "Recommended Test Procedures for Access Floors" referenced elsewhere in this section as CISCA/AF or, if not specified, manufacturers standard method

1. Concentrated Loads: Provide floor panels, including those with cutouts, capable of withstanding a concentrated design load of 800LB (3.56KN) with a top-surface deflection under load not to exceed 0.100 inch and 750LB (3.34KN) with a permanent set not to exceed 0.080 inch.

2. Ultimate Load: Provide access flooring system capable of withstanding a minimum ultimate load of 2,530LB(11.25KN) without failing.

3. Rolling Loads: Provide access flooring system capable of withstanding rolling loads of the following magnitude, with a combination of local and overall deformation not to exceed 0.040 inch (1.02) mm:2.94KN for 10PASS, 2.45KN for 10KPAAASS

4. Uniform Load Test: Provide access flooring system capable of withstanding a uniform load of 4000LB/ m^2 (17.78KN/ m^2) placed the over area one panel with a permanent set not to exceed 0.010 inch (0.25 mm) after the load is removed.

Note: The uniform load rating of an access floor panel shall not be confused with the "uniform live load" as specified for use in seismic calculations for seismic zone applications.

5. Drop Impact Load Test: Provide access flooring system capable of withstanding a drop impact load of 100LB(45 kg) dropped from a height of 36 inches (914mm).

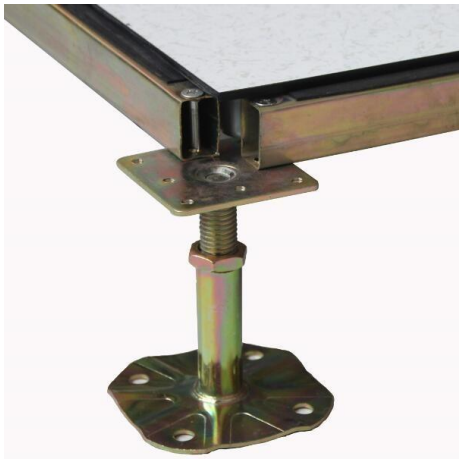
6. Panel Drop Test: Provide access flooring system with panels capable of meeting all structural performance requirements specified, after the panel is dropped from a height of 36 inches onto a concrete surface.

7. Pedestal Axial Load Test: Provide pedestal assemblies, without panels in place, capable of withstanding a 10,000 LB(44800N) axial load per pedestal.

8. Pedestal Overturning Moment Test: Provide pedestal assemblies, without panels in place, capable of withstanding an overturning moment of 1,000 inch-pounds (113 NM) per pedestal.

Type	Size	Rolling load		Uniform load		Ultimate load		Concentrated load			
FS800	600 * 600 * 35mm	10PASS	10KPAA ASS	4000 LB/㎡	17.78 KN/㎡	2530LB	11.25KN	0.100''/2.5mm DEFLECTION		0.080''/2.0mm DEFLECTION	
		2.94KN	2.45KN					800LB	3.56KN	750LB	3.34KN

Description of Understructure



Flat Head Pedestal with Stringer
Top Plate: 3.0mm Thick * 75mm Square / M19 screw
Base Plate: 2.0mm Thick * 95 / 100mm Square
Tube: 22mm tube * 1.5mm Thick wall

Snap-on Pedestal with Stringer
Top Head: Die-casting aluminum head
Base Plate: 2.0mm Thick * 95 / 100mm Square
Rod: M16 / M18 / M20 solid full threaded rod with screw
Stringer can be snap on pedestal directly without using screw

Heavy- duty Pedestal with Stringer
Top Plate: 3.0 / 4.0mm Thick * 75mm Square / M19 screw
Base Plate: 3.0 / 4.0mm Thick * 125 / 150mm Square
Tube: 32 / 38 / 48mm tube * 1.5 / 2.0mm Thick wall
Suitable for high load system, or height over FFH600,

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Seismic Pedestal System
The seismic pedestal system is consist of heavy-duty pedestal, stringer and bracing, can be capable of bearing quake. Mainly used for extremely high system, or areas of earthquake zone

Note:
1. More different designs are available;
2. Golden galvanizing, white galvanizing, black epoxy are avaliable
3. Hot-dipped galvanizing, dacromet are available
4. Support customized design and logo

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1. GENERAL

Work Included

The access floor supplier shall provide submittals, materials and installation of the access floor system as shown on the contract drawings and as specified in this document.

Related Work Not Included

The builder or general contractor shall provide clear access, dry secure storage and a clean sub-floor area which is free of construction and other trades debris during the installation of the access floor system.

The area to receive the access floor shall be enclosed and be maintained at a temperature range of 5ºC to 32ºC in a relative humidity range of 20% to 70%.

The concrete sealer (if any) shall be compatible with the access floor pedestal adhesive.

The electrical contractor shall provide necessary material and labour to electrically connect the access floor to the building earth.

System Description

The access floor system shall consist of interchangeable square panels of a nominal 600mm x 600mm dimension. The panels shall be selected to meet specific load requirements as detailed in “Performance to Standards Guide per CISCA Platform (Raised Access) Floors Performance Specification”.

The panels shall be supported by adjustable pedestal assemblies, which will positively locate panels to create a rigid membrane.

The understructure system will be as defined under “Description of Understructure”.

The finished floor height of the system above the sub-floor shall be as shown in the contract drawings or client’s requirement.

Shop Drawings and Product Data

The access floor contractor shall submit drawings showing the complete access floor system including floor panel layout and all accessories that are part of the system.

The access floor contractor shall submit details and descriptive notes for finished components, anchoring, edge details and interfaces with adjoining work.

Samples

The access floor supplier shall submit for approval cut corner or full-size panel sample with finished surface and understructure components for each type of access floor system being supplied.

2. PRODUCT & SYSTEM REQUIREMENTS

Access Floor Panels

The panels shall be 600mm x 600mm in size and shall be interchangeable with other panels except where cut for special conditions. The panels shall be easily removed and replaced without disturbing adjacent panels, by one person using a portable lifting device.

The panels shall consist of a full hard steel top sheet and a die formed bottom pan with a corrosion resistant protection, inside and out, filled with a structural concrete composite core.

The panels shall be rigid structural assemblies, fabricated to size with a size and squareness tolerance of ±0.25mm and a flatness tolerance of ±0.5mm measured on a diagonal across the top of the panel.

Each corner of the panel shall be formed to accept a single locking screw designed to secure a single corner of each of four adjacent panels at the pedestal head.

Understructure System

The understructure system shall consist of steel pedestal base and steel head assemblies fabricated with the manufacturers standard corrosive resistant finishes. All components are to be factory assembled.

The assembly shall be fabricated with sufficient height to provide the required underfloor clearances shown on the contract drawings.

For finished floor heights of 150mm and over, vertical adjustment shall be accomplished over a range of not less than ±25mm without requiring the rotation of the pedestal head.

For finished floor heights less than 150mm a minimum of ±10mm adjustment is required.

The pedestals will be provided with a means of levelling and locking the assembly at a selected height, which requires a deliberate action to change the height setting, and which prevents vibration displacement.

Other accessories to be provided by the access floor contractor should be listed and defined.

3. PERFORMANCE REQUIREMENTS

The access floor system shall meet or exceed all of the Specific Performance Requirements set out below:

General

All components shall be protected against corrosion with the manufacturers standard factory applied protective finishes.

Fire Hazard

The panels, without floor coverings, shall provide zero indices for ignitability, spread of flame, heat evolved and smoke developed. These indices shall not change when the panel is cut.

Occupational Health & Safety

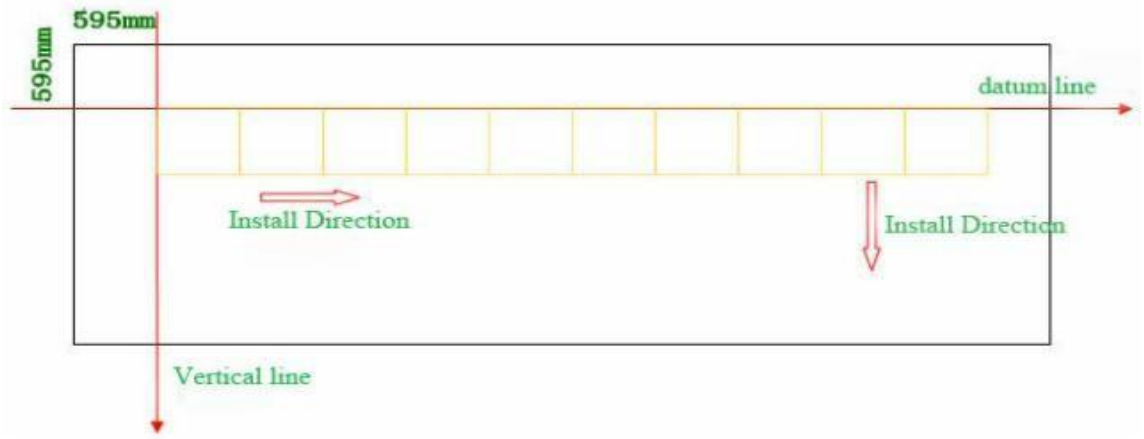
The access floor system shall not include any toxic substances, which could prove harmful to building occupants, nor shall it create dust or contaminants, which are harmful to personnel or equipment.

4. SITE & INSTALLATION

Main Tools Include

Large push cutter, Infrared ray level instrument, Panel lifter, Screw driver, Wax wires, Level bar, Adz-eye Hammer, Nail, Pencil, Flexible rule, Pedestal adhesive, Tool bag, Broom, etc.

Position Datum Point



Proper datum point can avoid the waste of room, the best choice is to set the intersection point of two walls which are rectangular as datum point. If there is a ramp at door, or space for door to swing, the best datum point should be near door. If designing or partition drawing has marked datum point,it can be considered as final.

Notice

Datum line: A straight line paralleled to datum line,the longest distance between datum level and datum line is 600mm

Datum level: It is a wall which owner requires to be installed with whole floor panel.

Vertical: It is a straight line which is vertical to datum line.The largest distance between the vertical line and adjacent wall is 600mm.