

**ACCESS FLOOR SPECIFICATION FOR SERVER ROOM**  
**M3-1000C/60CM ACCESS FLOOR PANEL**  
**STRINGER UNDERSTRUCTURE SYSTEM**

**PART 1 – GENERAL**

1. Access floor specialist shall provide drawings, materials and installations of the complete access floor system as shown on the contract drawings and as specified.
2. Main contractor shall provide clear access, dry secure storage, and a clean sub-floor area that is free of construction debris and other trades during access floor installation.
3. Electrical contractor shall provide necessary material and labour to electrically connect the access floor to the earthing point, if required.
4. Access floor system shall consist of interchangeable square panels to meet specific load requirements. Panels shall be supported by adjustable pedestal assemblies which positively locate, engage and secure panels while accommodate horizontal stringers.
5. Access floor system must be tested by Singapore Productivity and Standard Board for non-combustible core material test and be listed under the Singapore PSB Product Listing Scheme.
6. Test methods for all other loading test such as concentrated, ultimate, rolling, overturning moment, and axial loads shall be in accordance with the “Recommended Test Procedures for Access Floors” as published by CISCA, the Ceilings and Interiors System Construction Association.

**PART 2 – PRODUCTS**

1. Access floor system shall be M3 brand with approved Green Label as manufactured and distributed by Millennium 3 Building Products Pte Ltd.
2. Access floor system shall be proprietary made and the complete system shall be supplied by the same manufacturer from the same factory.
3. Floor panels of model M3-1000C shall consist of 600mm steel top sheet welded to a formed steel bottom pan with epoxy coating. Panels shall be internally filled with lightweight concrete infill of density 1953kg/m<sup>3</sup>.
4. Understructure shall be bolted stringer type suitable for 150mm finished floor height.
5. Pedestal assembly provide 22.7KN axial load without permanent deformation.

**ACCESS FLOOR SPECIFICATION FOR SERVER ROOM**  
**M3-1000C/60CM ACCESS FLOOR PANEL**  
**STRINGER UNDERSTRUCTURE SYSTEM**

6. Pedestal assembly shall provide a range of adjustment from +/- 25mm, o/a 50mm.
7. Pedestal base shall be fabricated of galvanized steel square base with not less than 100mm x 100mm bearing area and assembled to a tube designed to engage the pedestal head and be secured to concrete sub-floor with manufacturer recommended pedestal adhesive.
8. Pedestal base with adhesive shall meet minimum overturning moment of 90Nm.
9. Pedestal head shall be universal type fabricated of galvanized steel materials, with a corresponding stud designed to engage the pedestal base.
10. Pedestal head must be the proper type to positively locate the floor panel and to receive a bolted stringer system.
11. Stringer shall be fabricated of galvanized steel material, designed to interlock, and bolted to pedestal head using stringers screws, to form a modular grid pattern of 600mmx 600mm.
12. Panel shall be factory finished with 1.50mm thick anti-static high pressure laminate covering of approved colour with vinyl edge trim for edge protection.

**PART 3 – SYSTEM PERFORMANCE**

1. Access floor system shall be capable of supporting a concentrated load of 1000lbs (4.5KN) placed on a one square inch area with a maximum surface deflection of not exceeding 2.4mm, at the weakest point of the panel.
2. Uniform Load shall be 12kn/m<sup>2</sup>
3. The ultimate strength of the floor system shall provide a safety factor of at least 2.0 times the design load, without failure. Failure is defined as a point at which the system will no longer accept the load.
4. Access floor system shall be capable of supporting 3.56 Kn rolling load after 10 passes and 2.67 Kn after 10,000 passes, with local and overall surface deformation of less than 1mm.

**ACCESS FLOOR SPECIFICATION FOR SERVER ROOM**  
**M3-1000C/60CM ACCESS FLOOR PANEL**  
**STRINGER UNDERSTRUCTURE SYSTEM**

**PART 4 – ACCESSORIES**

1. Allow for cable openings to be trimmed with black PVC protective edging, as indicated in layout drawings.
2. Allow 1 no. of panel lifter for maintenance purposes.
3. Allow for [metal fascia, steps or ramps](#) at door entrance, complete with anti-skid rubber matting and aluminum nosing, all as shown in the tender drawings, for the complete installation of the access floor system.

**PART 5 – INSTALLATION**

1. Access floor system and accessories shall be installed by manufacturer's authorized representative to ensure the integrity of the products and acceptable performance of the complete installation, and one that is ISO9001: 2008 certified and Bizsafe certified by workplace Safety & Health Council.
2. Prior to commencement of site installation, sub-floor shall be examined for unevenness, irregularities and dampness that would affect the quality and execution of site work.
3. Do not proceed with installation until sub-floor surfaces are clean, dry, clear of other trades and debris, and are ready to receive access floors.
4. Access floors must be prepared and installed in accordance with the access floor manufacturer's instruction covering preparation, layout, alignment and installation.
5. Completed access floor system shall be rigid and free of rocking panels.
6. Debris shall be removed and cleared from site as work progress, in order to maintain a clean environment.
7. The main-contractor shall protect the finished access floor from damage and misuse.