

ACCESS FLOOR SPECIFICATION
M3-1500C/60cm HPL cw 60cm Bolted Stringer System cw Hot-Dipped
Galvanised Heavy Duty Pedestal Assembly

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 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 M3-1500C 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/m³.

4. Understructure shall be 60cm Hot-Dipped Galvanised Bolted Stringer cw gasket. Pedestal shall be Hot-Dipped Galvanised Heavy Duty Pedestal 38mm diameter type to 800mm finished floor height (Zinc Whisker Free System)
5. Pedestal assembly provide 8000lbs/3623kg axial load without permanent deformation.
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 150mm x 150mm 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 Anti-Static High Pressure Laminate (HPL) finished.

PART 3 – SYSTEM PERFORMANCE

1. Access floor system shall be capable of supporting a concentrated load of 1500lbs (6.7KN) 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 18KN/M2.
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 5.56 KN rolling load after 10 passes and 4.45KN after 10,000 passes, with local and overall surface deformation of less than 1mm.

5. Allow for M3-56% Aluminium die-cast air grating panel with a minimum open area of 56%. The air grating panel shall be interchangeable with access floor full panel and must be able to sustain a minimum concentrated load of 4.5KN and rolling load of 3.5KN.

Under floor air damper shall be aluminium opposed blade damper with adjustment control from the top of the grating if require.

PART 4 – ACCESSORIES

1. Allow for cable openings to be trimmed cw PVC protective trimming type.
2. Allow 1 no. of panel lifter for maintenance purposes.
3. Allow for hot-dipped galvanized metal ramps gradient 1:12 cw black rubber matting finished all as shown in the tender drawings, for the complete installation of the access floor system.
4. Allow for hot-dipped galvanized metal step comprising of 4 Tread (W275mm) and 5 Riser (H160mm) cw black rubber matting and aluminium nosing to 800mm finishes floor height.
5. Allow for fascia enclosure with 1.5mm thick galvanized steel sheet. The fascia closure shall be finished with 3mm thick rubber matting and aluminium nosing.
6. Allow for M3 Brush Grommet overall size: W211mm x L281mm x H37mm
7. Allow for BCA approved type SS304 Stainless Steel Handrail in hairlines finishes.
8. Provide 30mm x 3mm thick neoprene gasket seal along perimeter wall to full up gaps between cut panels.
9. Provide 100mm high x 2mm thick PVC Black skirting to the foot of all walls unless otherwise stated.

PART 5 – INSTALLATION

1. To ensure the integrity of the products and acceptable performance of the complete installation, the access floorings shall be installed by an authorized representative as appointed by the manufacturer.
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.