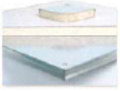


MC125 Series Specifications



ASM MODULAR SYSTEMS

Phone (843)534-1110
Fax (843)534-1111

1.1 Related Documents

Drawings and general provisions contract, including general and supplementary conditions and Division 1 Specifications Sections, apply to this section.

1.2 Summary

A. This section includes the following: (choose one)

1. Gravity held panels, steel clad composite core complete with bolted stringer understructure system as specified in this section.
2. Gravity held panels, steel clad composite core complete with snap on stringer understructure system as specified in the section.
3. Cornerbolt panels, steel clad composite core complete with understructure system as specified in this section.
4. Cornerbolt panels, steel clad composite core complete with understructure system as specified in this section.

B. Related Sections: The following sections contain requirements that relate to this section:

1. Division 3 Section "Concrete Work" for concrete floor sealer.
2. Division 16 Section "Grounding" for connection to ground of access floor understructure.
3. Division 9 Section "Carpet Tile" for carpet tiles applied over access floor panels.

1.3 Definitions

A. Access flooring is a complete portable assembly of modular floor panels on an elevated support system (understructure), forming an accessible under floor cavity to accommodate electrical and mechanical service.

1.4 System Performance Requirements

- A. Performance requirements , General: Design, engineer, fabricate and install access flooring to comply with performance requirements specified, as demonstrated by testing of manufacturers corresponding stock systems per test methods specified or, if not specified, manufacturers standard method.
- B. Structural performance per CISCA/AF: Provide access flooring capable of supporting the following loads, within limits and under conditions indicated, as demonstrated by testing according to applicable procedure in Ceilings and Interior Systems Construction Associates (CISCA) "Recommended Test Procedures for Access Floors" referenced elsewhere in this section as CISCA/AF.
1. Floor panels, including those with cutouts, capable of supporting concentrated design loads of the following magnitude, with a bottom surface deflection under load and a permanent set not to exceed respectively,
1/300 of the span and 0.010"
A) 1250 LBS
 2. Pedestal assemblies capable of withstanding the following types of loads per pedestal, without panels or other

supports in place.

- A) Overturning moment of 1000 inch pounds
- B) Axial load of 9000 lbs.

3. Floor system capable of supporting the following loads:

- A) Ultimate concentrated load without failure. Ultimate concentrated load shall be not less than the value obtained from multiplying the factor indicated below by the specified concentrated design load on floor panels.

Failure is defined as the point at which access flooring system will not take any additional load.

Factor 2.5

- B) Rolling loads as noted below applied to panels through CISCA/FA wheel 1 with combination of local and overall deformation not to exceed 0.04" measured across panels 24" span and permanent beam set not to exceed 0.02" after exposure to rolling load over CISCA/FA path A or B, whichever path produced the greatest top surface deformation.

1000 lbs.

- C) Impact load: A load as noted below shall be dropped 36" onto a 1" square indenter. There shall be no system failure.

150 lbs.

- D) Earthquake loads: Provide access flooring system capable of withstanding stresses produced by lateral forces of magnitude indicated in geographic zone of installation.

- E) Electrical resistance of system: Provide access flooring system with the following electrical resistance characteristics:

- 1. 10 Ohms or less measured across surface of bare panel to understructure by test method as specified in Chapter 3 of NFPA 99.

1.5 Submittals

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specifications section.
- B. Product data for each type of access flooring specified.
- C. Shop drawings indicating complete layout of access flooring based of field verified dimensions; include dimensional relationships to adjoining work installation tolerances. Include details, with descriptive notes indicating materials, finished, fasteners, typical and special edge conditions, accessories, understructure, and other data to permit a full evaluation of entire access flooring system
- D. Samples for initial selection purposes in form of manufacturers color charts consisting of actual units or sections of units showing full range of colors, textures and patterns available for each type of floor covering and exposed finish indicated.
- E. Samples for verification purposes in full size units of each type of floor covering and exposed finish indicated.

1.6 Quality Assurance

- A. Installer qualifications: Engage an experienced installer who is approved by the access flooring manufacturer for installations of the types access flooring required for the project.
- B. NFPA Standard: Provide access flooring complying with NFPA 75 requirements for raised flooring.
- C. Single Source Responsibility: Obtain access flooring from single manufacturer.
- D. Coordination of Work: Coordinate location of mechanical and electrical work in under floor cavity to prevent interference with access flooring pedestals.

1.7 Delivery, Storage and Handing

- A. Deliver access flooring components in original, unopened packages, clearly labeled with manufacturer's name

and item description.

- B. Handle and store packages containing access flooring in a manner which avoids overloading building structure.

1.8 Project Conditions

- A. Environmental conditions: Do not proceed with installations of access flooring until installation area is enclosed and has an ambient temperature of between 55 degrees Fahrenheit and 90 degrees Fahrenheit and a relative humidity of not more than 70 percent.

1.9 Sequencing and Scheduling

- A. Mark pedestal locations by use of 10' X 10' grid on concrete sub floor so that mechanical and electrical work can take place without interfering with pedestals.
- B. Do not proceed with installation of access flooring until after substantial completion of other performable construction within affected spaces.

1.10 Extra Materials

- A. Deliver extra materials to owner. Furnish 2% extra materials described below matching products installed, packaged with protective covering for storage and identified with labels clearly describing contents.
 - 1. Standard field panels and understructure.

2.1 Manufactures

- A. Subject to compliance with requirements, provide access floor by the following:

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2.2 Floor Panels

- A. General: Provide manufacturer's standard modular field panels of size and construction indicated, that are interchangeable with other standard field panels, easily located and removed without disturbing adjacent panels or understructure device, free of expose metal edged in installed position with floor covering in place.
- B. Nominal Panel Size: 24" X 24"
- C. Fabrication Tolerances: Fabricate panels to the following tolerances with squareness tolerances expressed as the difference between diagonal measurements from corner to corner.
 - 1. Size and squareness: Plus or minus 0.015" or required size, with squareness tolerance of plus or minus 0.020". Unless tolerance are otherwise indicated for a specific panel type.
- D. Steel covered composite core panels: Fabricate panels with 1" thick high density particleboard core, laminate to top and bottom face sheets of zinc coated sheet steel. Enclosed edges of core with upturned, die formed edge of bottom sheet. Provide panels with flame spread rating of 25 or less per ASTM E 84.

2.3 Floor Panel Covering

- A. General: Cover tops of floor panels to comply with requirements indicated for color, pattern and material. All surface covering to be factory applied by the manufacturer of the access floor panels.
- B. Colors and patterns: Provide floor covering materials in colors and patterns as indicated below:
 - 1. Provide selections made by Architect from manufacturer's full range of standard colors and patterns.

C. (choose from the following)

1. Plastic Laminate: Provide for panels, High wear type, of grade indicated below; fabricated in one piece to cover each panel face.

Choose 1/16" or 1/8" thick

2. Panels to be provided bare, with standard galvanized or zinc coated finish.

D. Edge Condition (Choose from the following)

1. Manufacturers standard form of edge trim. For applied edge trim, use method standard with manufacturer involving mechanical attachment of edge trim to perimeter of each panel. Edging shall be interlocked with top sheet and captured by up-turned edge of bottom steel sheet.

2. Panel finish to be applied monolithically to panel surface without use of any edge trims.

3. Panel finish is bare; panel surface covering edge treatment is not applicable.

2.4 Understructure

A. Pedestals: Provide manufactures standard pedestal assembly including base, column with provisions for height adjustments, and head (Cap), made either of steel or aluminum or a combination of both.

1. Base: Square base plate with not less than 16 square inches of bearing area embossed for strength.

2. Provide vibration proof mechanism for making a holding fine adjustments in height for leveling purposes over arrange of not less than 2". Include means of locking leveling mechanism at a selected height, which requires deliberate action to change height setting and prevents vibratory displacement.

3. Construct pedestal adjusting rod of minimum 3/4" solid steel, and vertical column of 7/8" Square steel tubing minimum. All steel components to have manufactures rust prohibitive finish and precisions resistance welded.

4. Fabricate units of sufficient height to provide required under floor clearance.

5. Pedestal head to accept bolted stringers as specified below.

B. Stringer System: Manufacturer's modular steel stringer system, designed and fabricated to interlock with pedestal head and to form a grid pattern with member under each edge of each floor panel and with pedestal under each corner of each floor panel. Protect steel component against corrosion with manufacturer's standard rust prohibitive finish.

1. Provide stringers which support each edge of each full panel where required to meet design load criteria.

A. Bolted Stringers: System of 2'0" stringers connected to pedestal heads with self threading fasteners accessible from above. Grid shall be manufacturers corrosion resistant steel and be capable of supporting a 300 lb. point load at stringers center span, with a permanent set not to average more than 0.010".

B. Snap on stringers: System 2'0" stringers connected to pedestal heads with a lock in mechanism to prevent lateral and vertical movement. Stringers to be removable without the use of special tools. Grid shall manufacturers corrosion resistant steel and be capable of supporting a 300 lb. point load at stringers center span, with a permanent set not to average more than 0.010"

C. Heavy duty bolted grid: system of (choose from the following) 2/2", 4/4", 4'2' roll formed steel stringers bolted to pedestal heads with a 1/4-20 fasteners from top of stringer. Grid shall be manufacturers corrosion resistant steel and be capable of supporting a 350 lb. point load at stringers center span, with a permanent set not to average more than 0.010"

C. (choose from the following)

1. Panels shall be gravity held on understructure system specified.
2. Bare panels shall be corner bolted to stringer less understructure system with one fastener per full panel corner.

2.5 Accessories

- A. Colors and Finishes: For exposed accessories available in, more than one standard color or finish, provide color or finish complying with the following requirements.
1. Provide selections made by architect from manufacturer's full range of standard colors and finishes for products and materials indicated.
- B. Cutouts: Fabricate cutouts in floor panels to accommodate cable penetrations and service outlets. Comply with requirements indicated for size, shape, number and location. Provide reinforcement for additional support, if needed, to make panels with cutouts comply with standard performance requirements.
1. Fit cutouts with manufacturer's standard grommet sizes indicated or, where size of cutouts exceeds maximum grommet size available, trim edge of cutouts with manufacturer's standard plastic molding having tapered top flange. Furnish removed covers for grommets.
 2. Provide foam rubber pads for sealing annular space formed in cutouts by cables and trim edge of cutout with molding having flange and ledge for capturing and supporting pads
- C. Vertical Closures (Fascia): Where under floor cavity is not enclosed by abutting walls, columns, beams or downward slabs, provide manufacturer's standard metal closure plates with factory applied finish.
- D. Ramps: Manufacturer's standard ramp construction of width and slope indicated, but not steeper than 1 in 12, with non-slip raised disc rubber or vinyl floor Coverings, and of same materials, performance and construction requirements as the access flooring.
- E. Steps: Provide steps of size and arrangement indicated with floor covering to match access flooring. Apply non-slip aluminum nosing to treads unless otherwise indicated.
- F. Panel Lifting Device: Manufacturer's standard portable lifting device of type and number for lifting panels with floor covering provided.
- G. Perforated Panels: Provide perforated panels with or without (choose one) operable dampers and 25% free open area in quantities noted below. Finish to be that as specified for solid floor panels.

3.1 Installation

- A. Install access floor system and accessories under supervision of the access flooring manufactures authorized representative to ensure rigid, firm installation free of vibration, rocking, rattle, squeaks, and other unacceptable performance.
- B. Set pedestal in adhesive as recommended by the access flooring manufacturer to provide full bearing of the pedestal base on the sub floor.
- C. Layout floor panel installation to keep the number of cut panels at the floor perimeter to a minimum. Scribe panel assemblies at perimeter to provide a close fit with no voids greater than 1/18" where panels a but vertical surfaces.
- D. Secure grid member to pedestal heads in accordance with access floor manufacturers instructions.
- E. Thoroughly clean up dust, dirt and construction debris caused by floor installation, including vacuuming the sub floor area, as installation of floor panel proceeds. Extend cleaning under installed panels as far as possible.
- F. Cutting and trimming or other dirt debris producing operations will not be permitted in the rooms where the

floor is being installed.

- G. Level installed access floor to within 0.060" of true level over the entire area and within 0.100" in and 10' distance.
- H. General contractor and/or owner shall suitably protect the completed access floor from damage.

All specifications are subject to change without notice or obligation.