

06/29/03

(insert any other related sections)

## MC125 Series Specifications

### Part 1 - General

#### 1.1 Related Documents

- A. Drawings and general provisions of 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 systems as specified in this section.
3. Gravity held panels, steel clad composite core complete with stringerless understructure system as specified in this section.
4. Cornerbolt panels, steel clad composite core complete with understructure system as specified in this section.

(insert any other special items)

- 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 underfloor cavity to accommodate electrical and mechanical services.

#### 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 & Interior Systems Construction Association (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 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/AF wheel 1 with combination of local and overall deformation not to exceed 0.04" measured across panels 24" span and a permanent beam set not to exceed 0.04" after exposure to rolling load over CISCA/AF path A or B, whichever path produces 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 systems 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:

l) Less than 1 Ohm 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 on field varied dimensions; include dimensional

relationships to adjoining work installation tolerance include details, with descriptive notes indicating materials, finishes, 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 installation of the types of access flooring required for this 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 underfloor cavity to prevent interference with access flooring pedestals.

### 1.7 Delivery, Storage and Handling

- 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 installation of access flooring until

installation area is enclosed and has an ambient temperature of between 55 degrees Fahrenheit and 80 degrees Fahrenheit and a relative humidity of not more than 60 percent.

### 1.9 Sequencing and Scheduling

- A. Mark pedestal locations by use of a 10' x 10' grid on concrete subfloor 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.

## Part 2 -Products

### 2.1 Manufacturers

- A. Subject to compliance with requirements, provide access flooring by the following:
  - 1. ASM Modular Systems USA  
Phone: 843-534-1110
  - 2. ASM Modular Systems Canada  
Phone: 905-819-5000

Your local ASM representative:  
Advanced Contracting Enterprises, Inc.  
740 Double J Rd.  
Covington, LA 70433  
(985)898-6311 FAX (985)898-0311

### 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 are

understructure by one person using a portable lifting device, free of expose metal edges in installed position with floor covering in place.

- B. Nominal Panel Size:24" x 24" or 600 x 600
- C. Fabrication Tolerances: Fabricated 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" of required size, with a squareness tolerance of plus or minus 0.020", unless tolerances are otherwise indicated for a specific panel type.
- D. Steel covered composite core panels: Fabricate panels with 1" thick high density particleboard core, laminated 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 coverings to be factory applied by the manufacturer of the access floor panels.
- B. Color and Patterns: Provide floor covering material in colors and patterns as indicated below:
  - 1. Provide selections made by Architect from manufacturers 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 from 1/16" or 1/8" thick)
  - 2. Panels to be provided bare, with standard galvanized or zinc coated finish.

3. Other finishes; *(please specify)*
- 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 inter-locked 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 (For seismic pedestals please contact ASM)**

- A. Pedestals: Provide manufacturers standard pedestal assembly including base, column with provision for height adjustment, and head (cap), made either of steel or aluminum or a combination of both.
1. Base: Square or circular base with not less than 16 square inches of bearing area.
  2. Provide vibration proof mechanism for making and holding fine adjustments in height for leveling purposes over a range 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 be zinc plated and precision resistance welded.
  4. Fabricate units of sufficient height to provide required underfloor clearance.  
  
(as noted below if stringer system required)
  5. Pedestal head to accept snap on or bolted stringers as specified below.

- B. Stringer systems: Manufacturer's modular steel stringer system, designed and fabricated to interlock with pedestal head and to form a grid pattern with members under each edge of each floor panel and with a pedestal under each corner of each floor panel. Protect steel components against corrosion with manufacturer's standard galvanized finish.

1. Provide stringers which support each edge of each full panel where required to meet design load criteria. Gasket tape shall be factory applied to top surface of grid to provide a quiet, sound absorbing seal.

*(choose one of the following options)*

a. Bolted Stringers: System of 2'0" stringers connected to pedestals 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 of 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 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 stringerless 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 manufacturers 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 or additional support, if needed, to make panels with cutouts comply with standard performance requirements.
1. Fit cutouts with manufacturer's standard grommet in 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 removable 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 underfloor 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 covering, 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 nosings to treads unless otherwise indicated.
- G. Panel Lifting Device: Manufacturer's standard portable lifting device of type and number required for lifting panels with floor covering provided.
- H. 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.
1. Provide the following quantity: (enter quantity)

## Part 3 - Execution

### 3.1 Installation

- A. Install access floor system and accessories under supervision of the access flooring manufacturers authorized representative to ensure rigid, firm installation free of vibration, rocking, rattle, squeaks and other unacceptable performance.
- B. Set pedestals in adhesive as recommended by the access flooring manufacturer to provide full bearing of the pedestal base on the subfloor.
- 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 1/8" where panels abut vertical surfaces.
- D. Secure grid members 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 subfloor area, as installation of floor panels proceeds. Extend cleaning under installed panels as far as possible.

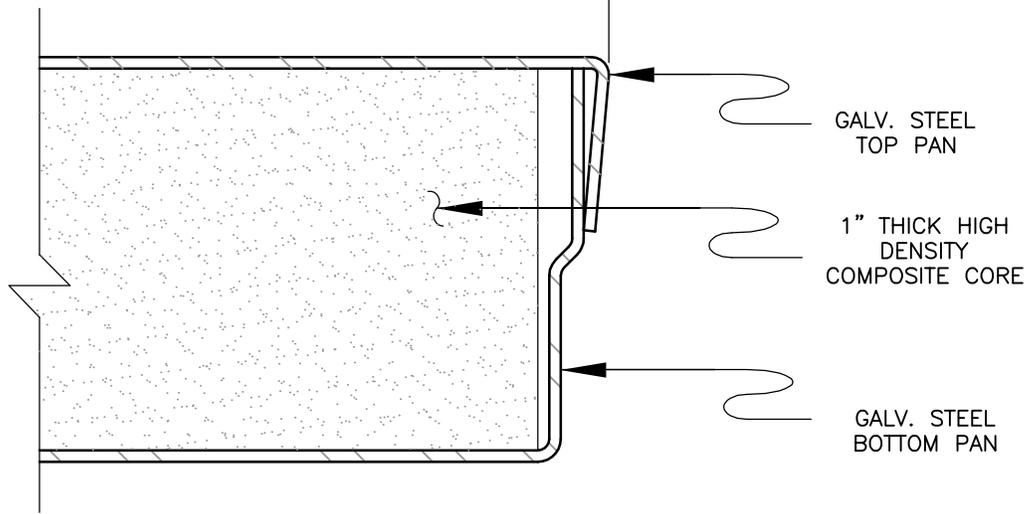
- F. Cutting and trimming or other dirt or debris producing operations will not be permitted in the rooms where the floor is being installed.
- G. Level installed access floor to within 0.060" of true level over the entire area and within 0.100" in any 10' distance.
- H. General contractor and/or owner shall suitably protect the completed access floor from damage.

*All specifications are subject to change without notice or obligation.*

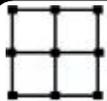
**MC125-Series Performance Guide** As per CISCA Test Procedure

<b>Panel</b>	<b>Applications</b>	<b>Concentrated Load LBS. (KN)</b>	<b>Impact Load LBS. (KN)</b>	<b>Rolling Load 10 Pass LBS. (KN)</b>	<b>Rolling Load 10,000 Pass LBS. (KN)</b>	<b>Ultimate Load LBS. (KN)</b>
<b>MC125</b>	<b>Standard Duty</b>	<b>1250 (5.29KN)</b>	<b>150 (67KN)</b>	<b>1000 (4.41KN)</b>	<b>800 (3.53KN)</b>	<b>3000 (13.2KN)</b>

← 24" OR 600MM SQUARE →



SECTION VIEW  
(ENLARGED)

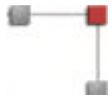


**ASM**

Constructing a smarter building

USA 843.534.1110  
CAN 905.819.5000

[www.asmmodularfloors.com](http://www.asmmodularfloors.com)  
[customerservice@asmmodularfloors.com](mailto:customerservice@asmmodularfloors.com)



PART NAME:

**MC125 SERIES  
BARE PANEL**

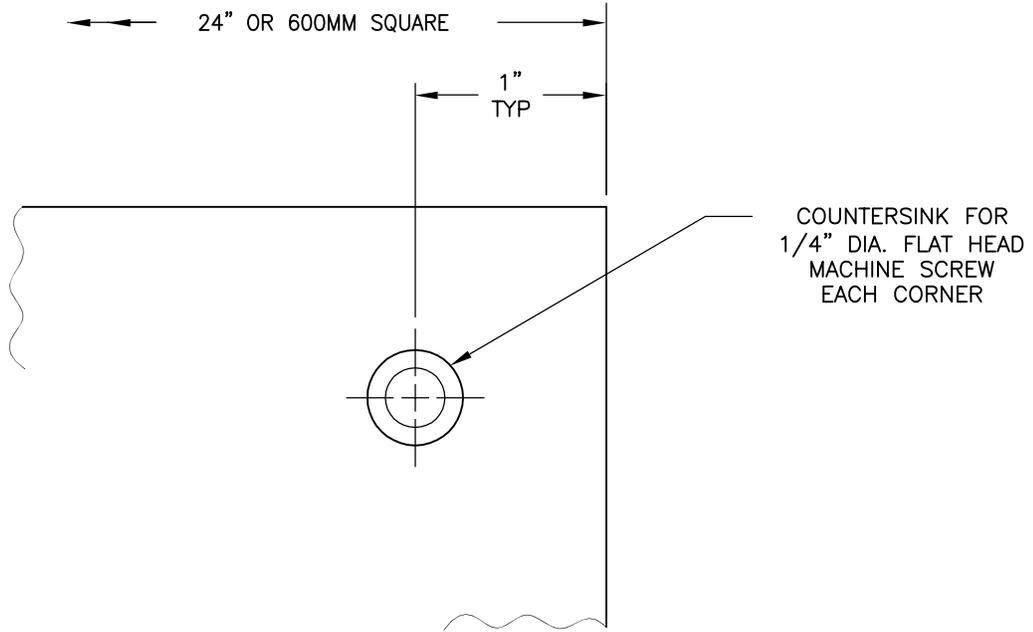
PART NO:

SCALE:

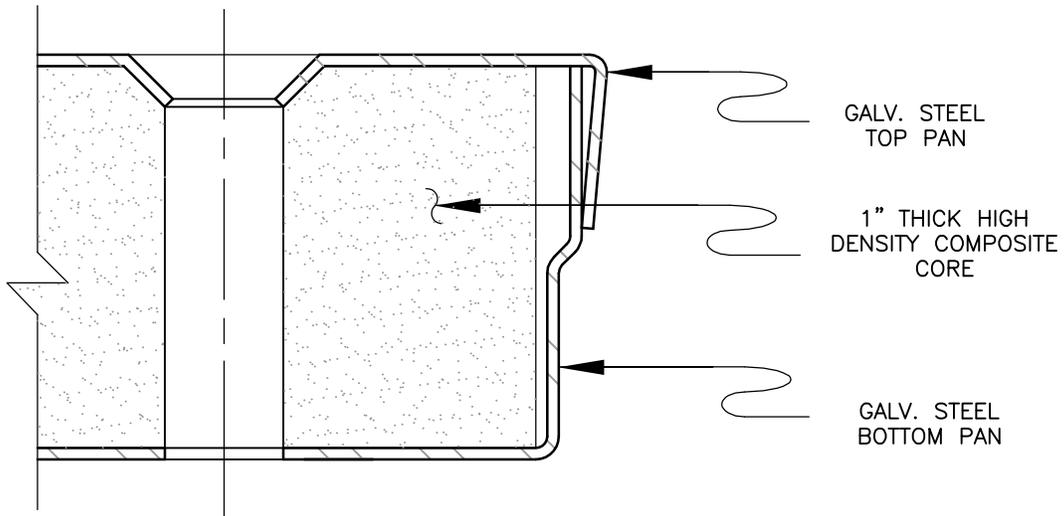
**NTS**

DWG:

**ASM\_1015.dwg**



CORNER VIEW



SECTION VIEW  
(ENLARGED)



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PART NAME:

**MC125 SERIES  
CORNER LOCK PANEL**

PART NO:

SCALE:

NTS

DWG:

ASM\_1016.dwg

← 24" OR 600MM SQUARE →

WEARING SURFACE  
HIGH PRESSURE LAMINATE (HPL)  
VINYL COMPOSITION TILE (VCT)  
CONDUCTIVE HPL OR VINYL

PURE VINYL TILE CARPET

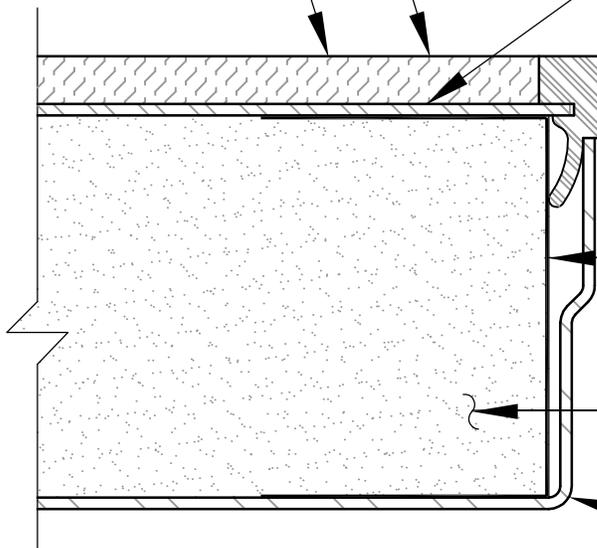
NON-FERROUS ALUMINUM  
CLAD TOP SHEET

VINYL EDGE TRIM

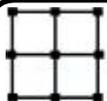
CONTINUITY STRIP CONNECTING  
TOP SHEET TO BOTTOM PAN

1" THICK HIGH DENSITY  
COMPOSITE CORE

NON-FERROUS ALUMINUM  
CLAD BOTTOM PAN



SECTION VIEW  
(ENLARGED)

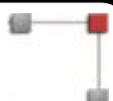


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PART NAME:

**MCA-125 SERIES  
TILE COVERED PANEL**

PART NO:

SCALE:

**NTS**

DWG:

**MCA-125.dwg**