

*This section includes metal access door and frame units for walls and ceilings, single thickness or double thickness insulated; with or without fire resistance ratings; for accessing mechanical, electrical and other concealed items requiring maintenance admission. Floor mounted access doors are specified in Section 08 31 13; access doors for ducts are described in Section 23 33 00. This section should be referenced from mechanical, electrical and other sections requiring access door or floor panels and frame units. This section includes performance, proprietary, and descriptive type specifications. Edit to avoid conflicting requirements.*

## **Part 1            General**

### **1.1            SECTION INCLUDES**

- .1    [Fire resistive rated] [and] [non-rated] access door and frame units.
- .2    [Wall] [and] [ceiling] locations.

### **1.2            RELATED SECTIONS**

- .1    Section [\_\_\_\_\_-\_\_\_\_\_]: Openings in concrete.
- .2    Section [\_\_\_\_\_-\_\_\_\_\_]: Openings in masonry.
- .3    Section [\_\_\_\_\_-\_\_\_\_\_]: Openings in partitions.
- .4    Section [\_\_\_\_\_-\_\_\_\_\_]: Openings in ceilings.
- .5    Section 09 91 10 - Painting: Field paint finish.
- .6    Section [\_\_\_\_\_-\_\_\_\_\_]: [\_\_\_\_\_] components requiring access.
- .7    Section [\_\_\_\_\_-\_\_\_\_\_]: Mechanical components requiring access.
- .8    Section 23 33 00 - Duct Work Accessories: Access doors in ductwork.
- .9    Section [\_\_\_\_\_-\_\_\_\_\_]: Electrical components requiring access.

*List sections which specify installation of products specified in this section; indicate specific items.*

- .10   Section [\_\_\_\_\_-\_\_\_\_\_]: Placement of access frame unit anchors in [concrete] [\_\_\_\_\_].

### **1.3            REFERENCES**

*List reference standards that are included within the text of this section. Edit the following as required for project conditions.*

- .1    ASTM A653/A653M-11 - Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .2    ASTM E119-05a - Standard Test Methods for Fire Tests of Building Construction and Materials.
- .3    CAN/CSA-A440-00/A440.1-00 (R2005) - User Selection Guide to CSA Standard A440-00, Windows.
- .4    CAN/ULC S101-04 - Standard Methods of Fire Endurance Tests of Building Construction and Materials.
- .5    ITS - Intertek Testing Services - Certification Listings.

- .6 NFPA 251-2006 - Standard Methods of Tests of Fire Resistance of Building Construction and Material.
- .7 NFPA 252-2003 - Standard Methods of Fire Tests of Door Assemblies.
- .8 NFPA 288-2001 - Standard Method of Fire Tests of Floor Fire Door Assemblies Installed Horizontally in Fire Resistance Rated Floor Systems.
- .9 UBC 7-2-94 - Uniform Building Code Standard.
- .10 UL - Fire Resistance Directory.
- .11 UL 10B-1997 - Standard for Fire Tests of Door Assemblies.

#### **1.4 PERFORMANCE REQUIREMENTS**

*Use this article carefully; restrict statements to identify system design requirements only.*

- .1 Gasketed Access Doors:
  - .1 Air infiltration rating: A-3 at 75 Pa (1.57 psf), A-3 at 300 Pa (6.27 psf), to CSA A440.
  - .2 Air exfiltration rating: A-3 at 75 Pa (1.57 psf), A-2 at 300 Pa (6.27 psf), to CSA A440.

*The B-1 rating below is for the Van-Met Model NGP and NGS doors, and the B-4 rating is for the Model NWR door.*

- .3 Water tightness rating: [B-1] [B-4] using the screwdriver cylinder cam latch, to CSA A440.
- .2 Fabricate floor access assemblies to support live load of [700] [1400] [\_\_\_\_] kg/sq m ([150] [300] [\_\_\_\_] lb/sq ft) with deflection not to exceed [1/180] [1/240] [\_\_\_\_] of span.

*Use this article when specifying fire rated access doors .*

- .1 Fire Hazard Classification: To CAN/ULC S114, ASTM E136, CAN/ULC S102, ASTM E84, or UL723.
  - .1 Flame Spread 0, Fuel Contribution 0, Smoke Developed 0.

#### **1.5 SUBMITTALS FOR REVIEW**

*Do not request submittals if drawings sufficiently describe the products of this section or if proprietary specifying techniques are used. The review of submittals increases the possibility of unintended variations to drawings, thereby increasing the Specifier's liability. The following submittals are intended for review and approval or other action by the Consultant.*

- .1 Section 01 33 00: Submission procedures.
- .2 Product Data: Provide sizes, types, finishes, hardware, scheduled locations, and details of adjoining work.
- .3 Shop Drawings: Indicate exact position of all access door units.

*Use the following paragraph for submission of physical samples for selection of finish, colour, texture, etc.*

- .4 Samples: Submit [two] [\_\_\_\_\_] access units of each type specified, [\_\_\_\_x\_\_\_\_] mm ([\_\_\_\_x\_\_\_\_] inch) in size illustrating frame configuration, anchors and [\_\_\_\_\_].

## **1.6 SUBMITTALS FOR INFORMATION**

*The following submittals are informational; responsive action by the Consultant is not required.*

- .1 Section 01 33 00: Submission procedures.

*When manufacturer's instructions for specific installation requirements are referenced in Part 3 Execution, include the following request for submittal of those instructions. Edit the Part 3 statements to avoid conflict with manufacturer's instructions.*

- .2 Manufacturer's Installation Instructions: Indicate installation requirements, rough-in dimensions and [\_\_\_\_\_].

*Include the following ONLY if specifying for a LEED project. Specify only the technical requirements necessary to achieve the credits desired for this project.*

- .3 Sustainable Design:
  - .1 Section 01 35 18: LEED documentation procedures.
  - .2 Provide required LEED documentation for Product [regional materials] [recycled content] .
  - .3 Manufacturer's Certificate: Certify that Products meet or exceed [specified requirements].

## **1.7 SUBMITTALS AT PROJECT CLOSEOUT**

*The following submittals are for project close-out purposes.*

- .1 Section 01 73 03: Submission procedures.
- .2 Record actual locations of all access units.

## **1.8 QUALITY ASSURANCE**

*Include the last sentence of the following paragraph only when the costs of acquiring the specified standards are justified.*

- .1 Perform Work in accordance with [ULC Design #[\_\_\_\_\_]] [UL Design #[\_\_\_\_\_]] [ITS - Intertek Testing Services Design #[\_\_\_\_\_]] [\_\_\_\_\_] requirements. [Maintain [one copy] [[\_\_\_\_\_] copies] on site.]
- .2 Provide fire rated products with Intertek/Warnock Hersey labels.
- .3 Provide all products specified in this Section from one manufacturer.

## **1.9 REGULATORY REQUIREMENTS**

*Different types of access units are rated by a variety of agencies. If proprietary specifying, edit this article to suit the appropriate testing or approving agency.*

- .1 Conform to [applicable] [\_\_\_\_\_] code for fire rated access doors.
- .2 Provide certificate of compliance from [authority having jurisdiction] [\_\_\_\_\_] indicating approval of fire rated doors.

## **1.10 PROJECT CONDITIONS**

- .1 Section 01 33 00: Coordination and meetings.
- .2 Coordinate the work with other work requiring access doors.

## Part 2 Products

### 2.1 MANUFACTURERS

*In this article, list the manufacturers acceptable for this project. Edit the subsequent descriptive specifications to identify project requirements and to eliminate any conflict with specified manufacturer's products.*

- .1 Van-Met Series, by Maxam Metal Products Limited.  
Maxam Metal Products Limited  
Toll Free Phone: 866-446-2926  
Toll Free Fax: 866-436-2926  
Direct Phone: 604-433-4243  
Direct Fax: 604-433-4148  
E-mail: info@maxammetal.com  
Internet: www.maxammetal.com
- .2 [\_\_\_\_\_].
- .3 Substitutions: [Refer to Section 01 61 00.] [Not permitted.]

### 2.2 MATERIALS

- .1 Steel: ASTM A653/A653M, galvanized coated steel, 2 mm (14 ga), ZF120 (A40) zinc coating designation, with off-white prime finish.
- .2 Stainless Steel: Type [304] [316], [No. 4 polished] [No. 2b mill] finish.
- .3 Gasketing: Urethane composition maximum compression set two percent (2%) at 23 degrees C (73 degrees F).
- .4 Insulation: Fiberglass, RSI-0.74 per 25 mm (R-4.2 per inch).

### 2.3 ACCESS UNITS - WALLS

*The following paragraphs are used primarily to specify by proprietary method indicating model numbers, and by implication, the various mounting methods. Edit to include only those types required for the project.*

*This article should be coordinated with the more general statements included in the associated Fabrication article.*

- .1 Non-Fire Rated Door and Frame Unit:
  - .1 Exterior Flange Doors:
    - .1 Standard Doors: [Galvanized steel, Van-Met Model NSM.] [Stainless steel, Van-Met Model NSS.]
    - .2 Oversize Doors: Galvanized steel, double-leaf design, Van-Met Model NDL.
  - .2 Concealed Flange Doors:
    - .1 In Gypsum Board on Studs
      - .1 Standard: Galvanized steel, Van-Met Model NDB.
      - .2 High profile: Galvanized steel, Van-Met Model NSL.
    - .2 In Plaster on Metal Furring: Galvanized steel, Van-Met Model [NAP] [NSK].
    - .3 Fan coil access: Galvanized steel, Van-Met Model NFC.
  - .3 Recessed Access Doors:

- .1 In Acoustic Tile: Galvannealed steel, Van-Met Model NAT.
- .2 In Gypsum Bead: Galvannealed steel, Van-Met Model NDI.
- .4 Vented Doors: Galvannealed steel, Van-Met Model NET.
- .5 Air and Water Resistant Doors: [Galvannealed steel, Van-Met Model NGP.] [Stainless steel, Van-Met Model NGS.] [Galvannealed steel, insulated, Van-Met Model NWR.]
- .6 Security Doors: Galvannealed steel, [2.7 mm (12 gauge) thick, Van-Met Model NSD.] [3.4 mm (10 gauge) thick, Van-Met Model NHS.]
- .7 Specialty Doors:
  - .1 No inner frame: Galvannealed steel, Van-Met Model NFM.
  - .2 Plenum door: Galvannealed steel, Van-Met Model NPL.
  - .3 Removable panel: [Galvannealed steel] [Stainless steel], Van-Met Model NRP, with safety chain.
  - .4 Inward/Outward swinging panel: Galvannealed steel, Van-Met Model NUP.
- .2 Fire Rated Door and Frame Unit: [Galvannealed steel] [Stainless steel].

*Keep in mind that there are maximum leaf sizes for fire-rated doors.*

- .1 Exterior Flange Doors:
  - .1 Insulated, 2-hour rating: [Van-Met Model FIN-150.] [Van-Met Model FCI-150.] [Van-Met Model FAI-150.] [Van-Met Model FDL-150.]
  - .2 Uninsulated, 2-hour rating: [Van-Met Model FRM.] [Van-Met Model FSD.] [Van-Met Model FFM.]

*Maximum Van-Met FCL-250 3-hour door leaf size for wall application is 1200 x 1500 mm (48 x 60 inches), and ceiling application is 750 x 1200 mm (30 x 48 inches) or 900 x 900 mm (36 x 36 inches).  
Maximum Van-Met FDL-250 3-hour door size for wall application is 1050 x 1500 mm (42 x 60 inches), and ceiling application is 1500 x 1200 mm (60 x 48 inches).  
Maximum Van-Met FAI-250 3-hour door leaf size for is 750 x 1200 mm (30 x 48 inches)*

- .3 Insulated, 3-hour rating: [Van-Met Model FCI-250.] [Van-Met Model FAI-250.] [Van-Met Model FCL-250.] [Van-Met Model FDL-250.]
- .4 Insulated, 4-hour rating: Van-Met Model [FAI-150] [FAI-250] (for noncombustible construction).
- .2 Concealed Flange Doors:
  - .1 Insulated, 2-hour rating: [Van-Met Model FCB-150.]
  - .2 Uninsulated, 2-hour rating: [Van-Met Model FDB.] [Van-Met Model FRK.]
- .3 Recessed Access Doors:
  - .1 Insulated, 2-hour rating: [Van-Met Model FCL-150.] [Van-Met Model FTA-150.]
  - .2 Uninsulated, 2-hour rating: [Van-Met Model FRL.]
- .4 Specialty Doors:
  - .1 High Temperature Doors: [Van-Met Model FCI-300.] [Van-Met Model FCI-400.] [Van-Met Model FCI-600.]
  - .2 Chute Doors: [Laundry service, insulated, Model FCC-150,] [Refuse service, uninsulated, Model FRCD,] 2 hour rating.

## 2.4 ACCESS UNITS - CEILINGS

*The following paragraphs are used primarily to specify by proprietary method indicating model numbers, and by implication, the various mounting methods. Edit to include only those types required for the project.*

*This article should be coordinated with the more general statements included in the associated Fabrication article.*

- .1 Non-Fire Rated Door and Frame Unit:
  - .1 Exterior Flange Doors:
    - .1 Standard Doors: [Galvannealed steel, Model NSM.] [Stainless steel, Model NSS.]
    - .2 Oversize Doors: Galvannealed steel, double-leaf design, Model ND.L.
  - .2 Concealed Flange Doors:
    - .1 In Gypsum Board on Studs
      - .1 Standard: Galvannealed steel, Model NDB.
      - .2 High profile: Galvannealed steel, Model NSL.
    - .2 In Plaster on Metal Furring: Galvannealed steel, Model [NAP] [NSK].
    - .3 Fan coil access: Galvannealed steel, Model NFC.
  - .3 Recessed Access Doors:
    - .1 In Acoustic Tile: Galvannealed steel, Model NAT.
    - .2 In Gypsum Bead: Galvannealed steel, Model NDI.
  - .4 Louvred Doors: Galvannealed steel, Model NET.
  - .5 Air and Water Resistant Doors: [Galvannealed steel, Model NGP.] [Stainless steel, Model NGS.] [Galvannealed steel, with foil-faced insulated, Model NWR.]
  - .6 Security Doors: Galvannealed steel, [2.7 mm (12 gauge) thick, Model NSD.] [3.4 mm (10 gauge) thick, Model NHS.]
  - .7 Specialty Doors:
    - .1 No inner frame: Galvannealed steel, Model NFM.
    - .2 Plenum door: Galvannealed steel, Model NPL.
    - .3 Removable panel: Galvannealed steel, Model NRP.
    - .4 Inward/Outward swinging panel: Galvannealed steel, Model NUP.
- .2 Fire Rated Door and Frame Unit: [Galvannealed steel] [Stainless steel].
  - .1 Exterior Flange Doors:
    - .1 Insulated, 2-hour rating: [Van-Met Model FAI-150.] [Van-Met Model FCI-150.] [Van-Met Model FAI-150.] [Van-Met Model FDL-150.]
    - .2 Insulated, 3-hour rating: [Van-Met Model FAI-250.] [Van-Met Model FCI-250.] [Van-Met Model FCL-250.]
    - .3 Insulated, 4-hour rating: Van-Met Model [FAI-150] [FAI-250] (for noncombustible construction).
  - .2 Concealed Flange Doors:
    - .1 Insulated, 2-hour rating: [Van-Met Model FCB-150.]
  - .3 Recessed Access Doors:
    - .1 Insulated, 2-hour rating: [Van-Met Model FCL-150.] [Van-Met Model FTA-150.]

## 2.5 FABRICATION

*Specify metal thickness for the majority of panels and frames. Thicknesses may be deleted if specifying by proprietary method (with model numbers). Refer to Product Description sheets or manufacturer's data for specific information.*

- .1 Panel Fabrication: [Single thickness steel sheet] [Double sheet with integral [non-combustible insulation filler], [gasketed].
- .2 Panel: Galvannealed steel, [1.3 mm (18 gauge)] [1.6 mm (16 gauge)] [1.9 mm (14 gauge)] [\_\_\_\_\_] thick.
- .3 Liner Panel: 1.3 mm (18 gauge).
- .4 Frame: Galvannealed steel, minimum [1.6] [1.3] mm ([16] [18] gauge) thick.

*Stainless steel piano hinges are standard on some doors, and optional on others. Refer to Maxam technical literature to make sure the proper hinge is specified for the project.*

- .5 Hinge: Continuous, [concealed rod] [stainless steel piano] hinge, allowing door panel to open 175 degrees.
- .6 Flanges:
  - .1 Exterior: [19 mm (3/4 inch)] [22 mm (7/8 inch)] [32 mm (1-1/4 inch)] [38 mm (1-1/2 inch)] [50 mm (2 inch)] wide at perimeter.
  - .2 Gypsum: Gypsum bead, Galvannealed steel.
  - .3 Plaster: Metal lath, Galvannealed steel.
  - .4 Concealed: Galvannealed steel.
- .7 Latching/Locking Devices:
  - .1 Cam Latch: [5 mm (3/16 inch)] [6 mm (1/4 inch)] allen key operator.
  - .2 Key operated cylinder cam lock with two (2) keys, keyed alike.
  - .3 Handle: Non-locking, two position.
  - .4 Preparation to accept a 29 mm (1.125 inch) mortise cylinder. Cylinder and core specified in Section 08 70 00 - Door Hardware.

**[OR]**
  - .5 Preparation to accept a 29 mm (1.125 inch) mortise cylinder with 29 mm (1.125 inch) satin chrome 626 finish mortise cylinder, keyway X01 Schlage "C", keyed alike (KA43758) and factory installed. Fabricate frames [and flanges] of [1.6] [\_\_\_\_\_] mm ([16 gauge] [\_\_\_\_\_] steel.
- .8 Weld, fill, and grind joints to ensure flush and square unit.

## 2.6 FINISHES

*Delete the first two paragraphs if stainless steel units are specified.*

- .1 Steel Finish: Galvannealed coated finish with applied grey primer.
- .2 Stainless Steel: No. [4] [2b mill] [\_\_\_\_\_] finish.

## Part 3 Execution

### 3.1 EXAMINATION

- .1 Section 01 73 03: Verification of existing conditions before starting work.

- .2 Verify that rough openings for door and frame are correctly sized and located.

### **3.2 INSTALLATION**

- .1 Install units in accordance with manufacturer's instructions.
- .2 Install frames plumb and level in opening. Secure rigidly in place.
- .3 Position unit to provide convenient access to concealed work requiring access.

### **3.3 SCHEDULE**

*List typical or specific locations, sizes, types, fire rating, and finishes of access units. Be careful in identifying locations and quantities, and in coordinating with mechanical and electrical work. The following is a "sample" indicating what a project schedule may look like.*

- .1 Washroom Walls Above Urinal Valves: Ceramic tile finish type, 300 x 300 mm (12 x 12 inch) size, cylinder lock, primed and two coat baked enamel to match ceramic tile colour.

**END OF SECTION**