

Part 1 General

1.1 SECTION INCLUDES

- .1 Rated and Non-rated steel frames.

1.2 RELATED SECTIONS

- .1 Section 08 13 13 - Standard Steel Doors.
- .2 Section 08 71 00 - Door Hardware - Common Requirements: Hardware, silencers.

1.3 REFERENCES

- .1 ANSI A117.1 - Accessible and Usable Buildings and Facilities.
- .2 ASTM A653/A653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .3 ASTM E2074- Fire Tests of Door Assemblies, Including Positive Pressure Testing of Side-Hinged and Pivoted Swinging Door Assemblies.
- .4 CSDFMA (Canadian Steel Door and Frame Manufacturers Association).
- .5 NFPA 80 - Fire Door, Fire Windows.
- .6 NFPA 252 - Fire Tests for Door Assemblies.
- .7 SDI-100 - Standard Steel Doors and Frames.
- .8 UL 10B - Fire Tests of Door Assemblies.

1.4 SUBMITTALS FOR REVIEW

- .1 Section 01 33 00: Submission procedures.
- .2 Product Data: Indicate frame configuration and finishes.
- .3 Shop Drawings: Indicate frame elevations, reinforcement, anchor types and spacings, location of cut-outs for hardware, and finish.

1.5 QUALITY ASSURANCE

- .1 Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.

1.6 REGULATORY REQUIREMENTS

- .1 Fire Rated Frame Construction: Conform to ASTM E2074.

- .2 Installed Frame Assembly: Conform to NFPA 80 for fire rated class same as fire door.

1.7 DELIVERY, STORAGE, AND PROTECTION

- .1 Transport, handle, store, and protect products.
- .2 Accept frames on site in manufacturer's packaging. Inspect for damage.

Part 2 Products

2.1 FRAMES

- .1 Frames: To suit CSDFMA door specified in Section 08 13 13.
 - .1 1.5 mm (16 GA) thick material.

2.2 ACCESSORIES

- .1 Removable Stops: Rolled steel shape, butted mitred corners; prepared for countersink style screws.
- .2 Primer: Zinc chromate type.
- .3 Silencers: Resilient rubber fitted into drilled hole.

2.3 FABRICATION

- .1 Fabricate frames as welded unit.
- .2 Fabricate frames with hardware reinforcement plates welded in place.
- .3 Reinforce frames wider than 1 200 mm with roll formed steel channels fitted tightly into frame head, flush with top.
- .4 Prepare frames for silencers. Provide three single silencers for single doors and mullions of double doors on strike side. Provide two single silencers on frame head at double doors without mullions.
- .5 Configure exterior frames with special profile to receive recessed weatherstripping.
- .6 Attach fire rated label to each fire rated door unit.
- .7 Fabricate frames to suit masonry wall coursing with 100 mm head member.

2.4 FINISH

- .1 Steel Sheet: Galvanized to ASTM A653/A653M Z180
- .2 Primer: Air dried.

- .3 Factory Finish: Baked enamel colour as selected.

Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 70 00: Verification of existing conditions before starting work.
- .2 Verify that opening sizes and tolerances are acceptable.

3.2 INSTALLATION

- .1 Install frames in accordance with CSDFMA.
- .2 Coordinate with masonry gypsum board concrete wall construction for anchor placement.
- .3 Coordinate installation of frames with installation of hardware specified in Section 08 71 00 and doors in Section 08 13 13.
- .4 Install roll formed steel reinforcement channels between two abutting frames. Anchor to structure and floor.

3.3 ERECTION TOLERANCES

- .1 Maximum Diagonal Distortion: 1.5 3 mm measured with straight edges, crossed corner to corner.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Non-rated and fire rated thermally insulated and acoustic steel doors.

1.2 RELATED SECTIONS

- .1 Section 08 12 13 - Standard Hollow Metal Frames.
- .2 Section 08 71 00 - Door Hardware – Common Requirements.

1.3 REFERENCES

- .1 ANSI A117.1 - Accessible and Usable Buildings and Facilities.
- .2 ASTM A653/A653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- .3 ASTM E2074 - Fire Tests of Door Assemblies, Including Positive Pressure Testing of Side-Hinged and Pivoted Swinging Door Assemblies.
- .4 CSDFMA (Canadian Steel Door and Frame Manufacturers Association).
- .5 DHI (Door Hardware Institute) - The Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Wood Frames and Builder's Hardware.
- .6 NFPA 80 - Fire Doors, Fire Windows.
- .7 NFPA 252 - Fire Tests for Door Assemblies.
- .8 SDI-100 - Standard Steel Doors and Frames.
- .9 UL 10B - Fire Tests of Door Assemblies.

1.4 SUBMITTALS FOR REVIEW

- .1 Section 01 33 00: Submission procedures.
- .2 Product Data: Indicate door configurations, location of cut-outs for hardware reinforcement.
- .3 Shop Drawings: Indicate door elevations, internal reinforcement, and closure method.

1.5 QUALITY ASSURANCE

- .1 Conform to requirements of CSDFMA

- .2 Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.

1.6 REGULATORY REQUIREMENTS

- .1 Fire Rated Door Construction: Conform to ASTM E2074.
- .2 Fire Rated Door Construction: Rate of rise of 138 C degrees across door thickness.
- .3 Installed Door Assembly: Conform to NFPA 80 for fire rated class as indicated.

1.7 DELIVERY, STORAGE, AND PROTECTION

- .1 Transport, handle, store, and protect products.
- .2 Protect doors with resilient packaging sealed with heat shrunk plastic.

1.8 DOORS AND PANELS

- .1 Interior Doors (Fire Rated): CSDFMA I Model 1.
 - .1 Minimum 1.2 mm (18 GA) surface sheets.

1.9 DOOR CONSTRUCTION

- .1 Face: ASTM A653/A653M, steel sheet in accordance with CSDFMA. SDI-100.
- .2 End Closure: Channel, 1.2 mm thick, flush.
- .3 Core: Mineral core to achieve required fire protection rating.
- .4 Vertical stiffeners: welded to face sheets.

1.10 ACCESSORIES

- .1 Removable Stops: Rolled steel, shape, butted corners; prepared for countersink style tamper proof screws.
- .2 Primer: Zinc chromate type.

1.11 FABRICATION

- .1 Fabricate doors with hardware reinforcement welded in place.
- .2 Attach fire rated label to each fire rated door unit.

1.12 FINISH

- .1 Steel Sheet: Galvanized to ASTM A653/A653M Z180 ZF180.
- .2 Primer: Air dried.

Part 2 Execution

2.1 EXAMINATION

- .1 Verify existing conditions before starting work.
- .2 Verify that opening sizes and tolerances are acceptable.

2.2 INSTALLATION

- .1 Install doors in accordance with CSDFMA.
- .2 Coordinate installation of doors with installation of frames specified in Section 08 13 13 and hardware specified in Section 08 71 00.
- .3 Touch-up factory finished doors.

2.3 ERECTION TOLERANCES

- .1 Maximum Diagonal Distortion: 1.53 mm measured with straight edge, corner to corner.

2.4 ADJUSTING

- .1 Section 01 70 00: Adjusting installed work.
- .2 Adjust door for smooth and balanced door movement.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Hardware for hollow metal doors.
- .2 Thresholds.
- .3 Weatherstripping, seals, and door gaskets.

1.2 RELATED SECTIONS

- .1 Standard Steel Frames.
- .2 Hollow Metal Doors.

1.3 REFERENCES

- .1 MBC (Manitoba Building Code) – Regulation 31/2011
- .2 AWMAC (Architectural Woodwork Manufacturers Association of Canada) - Quality Standards.
- .3 BHMA (Builders Hardware Manufacturers Association) - A156 series.
- .4 CAN4-S104-M80(R1985) - Method for Fire Tests of Door Assemblies.
- .5 CSDFMA (Canadian Steel Door and Frame Manufacturers Association).
- .6 DHI (Door Hardware Institute) - A115 series.
- .7 CAN/ULC-S132-2007 - Emergency Exit and Emergency Fire Exit Hardware.
- .8 NFPA 80 - Fire Doors, Fire Windows.
- .9 NFPA 101 - Life Safety Code.
- .10 NFPA 252 - Fire Tests of Door Assemblies.
- .11 UL 10B - Fire Tests of Door Assemblies.
- .12 UL 305 - Panic Hardware.

1.4 SUBMITTALS FOR REVIEW

- .1 Shop Drawings:
 - .1 Indicate locations and mounting heights of each type of hardware, schedules, catalogue cuts, electrical characteristics and connection requirements.
 - .2 Submit manufacturer's parts lists, templates.

- .2 Samples:
 - .1 Submit 1 sample of hinge, latchset, lockset, closer, illustrating style, colour, and finish.
 - .2 Samples will be returned to supplier.

1.5 SUBMITTALS FOR INFORMATION

- .1 Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention.

1.6 SUBMITTALS AT PROJECT CLOSEOUT

- .1 Project Record Documents: Record actual locations of installed cylinders and their master key code.
- .2 Maintenance Data: Include data on operating hardware, lubrication requirements, and inspection procedures related to preventative maintenance.
- .3 Keys: Deliver with identifying tags to Owner by security shipment direct from hardware supplier.
- .4 Warranty: Submit manufacturer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.

1.7 QUALITY ASSURANCE

- .1 Perform Work in accordance with the following requirements:
 - .1 AWI.
 - .2 BHMA A156 series.
 - .3 CSDFMA. DHI - A115 series.
 - .4 CSDFMA. DHI - WDHS.3.
 - .5 NFPA 80.
 - .6 NFPA 101.
 - .7 NFPA 252.
 - .8 UL 10B.
 - .9 UL 305.
- .2 Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.
- .3 Hardware Supplier Qualifications: Company specializing in supplying commercial door hardware with three years experience approved by manufacturers.
- .4 Hardware Supplier Personnel: Employ an Architectural Hardware Consultant (AHC) to assist in the work of this section.

1.8 REGULATORY REQUIREMENTS

- .1 Products Requiring Electrical Connection: Listed and classified by Underwriters' Laboratories, Inc., as suitable for the purpose specified and indicated.

1.9 DELIVERY, STORAGE, AND PROTECTION

- .1 Transport, handle, store, and protect products.
- .2 Package hardware items individually; label and identify each package with door opening code to match hardware schedule.

1.10 PROJECT CONDITIONS

- .1 Coordinate the work with other directly affected sections involving manufacture or fabrication of internal reinforcement for door hardware and recessed items.
- .2 Sequence installation to ensure utility connections are achieved in an orderly and expeditious manner.
- .3 Coordinate Owner's keying requirements during the course of the Work.

1.11 WARRANTY

- .1 Provide five year manufacturer warranty for door closers.

1.12 MAINTENANCE PRODUCTS

- .1 Provide special wrenches and tools applicable to each different or special hardware component.
- .2 Provide maintenance tools and accessories supplied by hardware component manufacturer.

1.13 EXTRA MATERIALS

- .1 Provide ten extra key lock cylinders for each master keyed group.

Part 2 Products

2.1 HARDWARE

- .1 Hardware: Identified in Schedule.

2.2 FINISHES

- .1 Finishes: Identified in Schedule.

Part 3 Execution

3.1 EXAMINATION

- .1 Verify existing conditions before starting work.
- .2 Verify that doors and frames are ready to receive work and dimensions are as indicated on shop drawings.
- .3 Verify that electric power is available to power operated devices and is of the correct characteristics.

3.2 INSTALLATION

- .1 Install hardware in accordance with manufacturer's instructions.
- .2 Use templates provided by hardware item manufacturer.
- .3 Mounting heights for hardware from finished floor to centre line of hardware item:
 - .1 Locksets: 965 mm.
 - .2 Push/Pulls: 1066 mm.
 - .3 Dead Locks: 1219 mm.
 - .4 Exit Devices: 914 mm.
 - .5 Door Opening Devices shall be mounted no higher than 900 mm. above finish floor and shall comply in accordance with the Manitoba Building Code Regulation 31/2011.

3.3 FIELD QUALITY CONTROL

- .1 Field inspect, test, and adjust.
- .2 Architectural Hardware Consultant will inspect installation and certify that hardware and installation has been furnished and installed in accordance with manufacturer's instructions and as specified.

3.4 ADJUSTING

- .1 Adjust hardware for smooth operation.

3.5 PROTECTION OF FINISHED WORK

- .1 Protect installed work.
- .2 Do not permit adjacent work to damage hardware or finish.

END OF SECTION