



# PRODUCT SPECIFICATION GUIDE

## **Preface**

This Specification Guide is intended to provide reference material for the specifying of Integrated Door Opening Systems into project specifications. Detailed product specification information is provided as a guide. It is the purpose of this information to aid in the completion of a CSI three-part formatted general specification for Section 08150 for Integrated Door Opening Assemblies. This is the current CSI section format for Pre-assembled Metal Door and Frame Assemblies. The new MasterFormat™ will change this to Section 08 17 00 for Integrated Door Opening Assemblies.

This Specification Guide is not intended for use as a final product specification. Each project is unique and decisions regarding product applications and equivalency are the sole responsibility of a professional door openings consultant and specification writer to evaluate and determine the appropriate product selection for a specific opening application. The manufacturer does not and will not take any responsibility for the consequences of using the content of this guide for any specific project specification. The manufacturer shall not be liable for any direct, indirect or consequential damages.

For specification assistance contact Adams Rite Manufacturing at 800.872.3267 or [www.adamsrite.com](http://www.adamsrite.com). For a directory of certified consultants contact the Door & Hardware Institute at 703.222.2010 or [www.dhi.org](http://www.dhi.org).

## **Integrated Door Opening Assemblies Product Specification Guide:**

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## 1.01 Conditions

General Conditions and Supplementary Conditions are part of the specification whether contained herein or not.

## 1.02 Scope of Work

- A. Work in this section includes integrated door opening systems including metal frame, integrated doors, and associated finish hardware, unless specified elsewhere.
- B. Smoke Seals shall be included in related work areas, unless specifically listed in this section.
- C. The following types of doors are not included in this section, shall be furnished complete under other sections or divisions unless otherwise listed in this section.
  - 1. Roll-Up Door Hardware and Operations
  - 2. Folding or Partition Door Hardware
- D. All glass and glazing are not covered in this section.

## 1.03 Related Work

- A. The following sections of this specification should be examined in order to identify materials or equipment which may be obtained through this section and may require coordination with other trades.
  - 1. Section [01010] [01 00 00] - Summary of Work
  - 2. Section [06100] [06 10 00] - Rough Carpentry, Blocking for Hardware
  - 3. Section [08110] [08 11 00] - Metal Doors and Frames
  - 4. Section [08710] [08 71 00] - Door Hardware
  - 5. Section [08800] [08 80 00] - Glass and Glazing
  - 6. Section [09900] [09 90 00] - Painting

- 7. Section [13000] [28 30 00] - Fire Detection
- 8. Section [16000] [26 20 00] - Electrical

## 1.04 References

The following references established standards for architectural hardware as specified in this section.

- A. American National Standards Institute (ANSI)
  - 1. Hinges - ANSI A156-1
  - 2. Locks & Lock Trim - ANSI A156.2
  - 3. Exit Devices - ANSI A 156.3
  - 4. Door Controls / Closers - ANSI A156.4
  - 5. Auxiliary Locks & Associated Products - ANSI A156.5
  - 6. Architectural Door Trim - ANSI A156.6
  - 7. Template Hinge Dimensions - ANSI A156.7
  - 8. Door Controls / Overhead Holders - ANSI A156.8
  - 9. Mortise Locks & Latches - ANSI A156.13
  - 10. Closer / Holder / Release Devices - ANSI A156.15
  - 11. Auxiliary Hardware - ANSI A156.16
  - 12. Americans with Disabilities Act (ADA) - ANSI A117.1
  - 13. Continuous Hinges - ANSI A156.26
  - 14. Materials and Finishes - Builders Hardware Manufacturers Association BHMA 1301
  - 15. Test Procedures for and Acceptance Criteria for Physical Evidence for Steel Doors and Reinforcement - ANSI 250.4
  - 16. Recommended Specification for Standard Steel Doors & Frames - ANSI 250.8 (1998)



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- B. Americans Society for Testing and Materials (ASTM)
  - 1. ASTM E152 Standard Method for Fire Test of Door Assemblies
- C. Metal Door and Frame Associations
  - 1. Hollow Metal Manufacturing Association (HMMA)
    - a. National Association of Architectural Metal Manufacturers (NAAMM)
  - 2. Steel Door Institute (SDI)
    - a. SDI 100 - Standard Steel Doors and Frames
- D. Approved Testing Laboratories
  - 1. Underwriter's Laboratories, Inc. (UL)
    - a. UL10C - Fire Test of Door Assemblies (UBC-7-2-97)
    - b. UL305 - Panic
  - 2. Intertek Testing Services/Warnock Hersey Inc.
- E. National Fire Protection Association
  - 1. NFPA 80 - Fire Doors and Windows
  - 2. NFPA101 - Code for safety to life from fire in building and structures
  - 3. NFPA252 - Fire tests of door assemblies
- F. Building Codes (Applicable Building Code)
  - 1. Uniform Building Code
  - 2. California Building Code
  - 3. Southern Building Code
  - 4. International Building Code
  - 5. Building Officials and Code Administrators
  - 6. Local building code

## 1.05 Quality Assurance

- A. A base specification has been established for each product type to assure proper quality levels. This includes the manufacturer's name, brand, and catalog number.
- B. Those manufacturers whose products are deemed acceptable for this project are listed in section 2.02. Deviations are not permitted unless required for the purpose of providing proper operational function due to special circumstances. These will be approved in advance by the architect.
- C. Hardware shall be installed by people knowledgeable and skilled in the application, installation and adjustment of commercial grade doors and door hardware. Doors and Frames must be installed plumb, square and level.
- D. Doors frames must be properly prepared and reinforced to install hardware per the manufacturer's template and installation instructions. Install door frames in accordance with SDI 105 - "Recommended Erection Instructions for Steel Frames."
- E. Contractor shall provide and furnish screws, bolts, expansions shields or other fasteners to facilitate the proper installation of products, not furnished as part of the Integrated Door Opening Assembly.



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## 1.06 Submittals

The Integrated Door Opening Assembly supplier, after award of a formal contract, shall perform and coordinate the following in accordance with Section [01330] [01 33 00] - Administrative Requirements:

- A. Submit shop drawings with proposed Integrated Door Opening Assembly system, product and hardware options, in a timely manner to obtain the approval from architect in time to meet construction schedule of other trades.
- B. Provide for each door an frame location; frame type, profile, and installation details, items of finish hardware accessories, finishes, degree of opening and electrical rough-in requirements. Submit required templates to door and frame manufacturers to enable proper and accurate sizing and locations of hardware.
- C. Samples: Provide physical samples as required by section [01330] [01 33 00].
- D. Provide Owner Manual, instruction sheets and installation details as required under the provision of Section [01730] [01 78 00].
- C. Deliver Integrated Door Opening Assembly system to project site. Contractor will jointly check in hardware with representatives of the supplier to verify shipment is correct and /or note and rectify discrepancies promptly.
- D. Furnish door assemblies with flush operating hardware flush with door skin, using protective wrappings and protective spacers between projecting hardware. Maintain and protect door assemblies using cardboard spacers and protective edge guards along the door edges, to reduce exposure to marring or damage during storage.
- E. Store door assemblies in a dry and secure area. Storage area shall be void of any excess humidity that can cause damage to the product.

## 1.08 Warranty

- A. Provide manufacturer's standard five-year limited warranty against defects in material and workmanship unless noted otherwise.
  - a. Door Closers - 10 Years
  - b. Steel Pinned Continuous Hinges: 10 years

## 1.07 Delivery, Storage and Handling

- A. Products shall be delivered to the project site under provisions of Section [01660] [01 66 00]- Product Storage and Handling Requirements.
- B. Integrated Door Opening Assembly systems shall be delivered to the general contractor at the job site complete with necessary screws, miscellaneous parts, instructions, and installation templates. Each package shall be legibly and properly labeled to correspond to the approved door schedule.



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## 2.01 Acceptable Integrated Door Opening system manufacturer:

- A. The Rite Door® Adams Rite Manufacturing, Co.  
260 Santa Fe Street, Pomona, CA 91767  
Phone: (800)872.3267 Fax: (800)232.7329  
[www.adamsrite.com](http://www.adamsrite.com)

## 2.02 Material Requirements

- A. Integrated Door Opening Assembly requirements:
1. Integrated Door Opening Assemblies shall be 1-3/4" thick, with no seams or spot welds on door face and be of manufacturer's standard construction: Door face skins to be minimum [18][16]-gauge cold rolled steel. Door core construction to be [Honeycomb] [Steel Stiffened] [Temperature Rise]. All doors shall be constructed with a U-Shaped, 16 gauge steel reinforcement channel, top and bottom, for the installation of door hardware accessories.  
All doors be supplied with an 18 gauge top cap.
  2. Integrated Door Opening Assemblies shall provide a label for life safety or fire labels as required in door schedule.
  3. Integral vision lite preparation, or field installed lite kit, as required.
- B. Door Frame requirements:
1. Door Frames shall be [16][14]-gauge ASTM A366, cold roll steel and shall comply to ANSI/SDI 100 Level A - Grade III and / or HMMA/NAAMM - 850-99.
  2. Door frames shall be furnished with mitered corners, continuously welded, ground smooth on frame face.
  3. Prepare frames with proper 14 gauge reinforcements for applied hardware.
  4. Provide suitable adjustable type anchors, minimum 4 per jamb.
- C. Integrated Hardware Requirements:
1. The Rite Door: Provide a complete Integrated Door Opening Assembly including the installation and adjustment of the latching mechanism within the door construction. The exit device shall be clean and unobtrusive in design with a minimal bar height of 2-7/16". The push bar of the exit device shall not exceed a projection of 1-1/8" when in the latched position. Push bar shall be made of heavy duty aluminum extrusion, available in anodized and true architectural finishes using a metal cladding. End caps shall be metal. The Push and Pull devices shall be clean and unobtrusive in design with a maximum projection of 1/4" on pull side and 5/8" on the push side. Lever handles shall be clean and unobtrusive in design with a maximum projection of 3-1/2" and shall match design of other hardware furnished on project.
- D. Performance Requirements:
1. Steel Doors: Level A - 1,000,000 cycle testing
  2. Hinges: Grade 1 - 2,500,000 cycle testing
  3. Exit Device: Grade 1 - 1,000,000 cycle testing
  4. Lever Hardware: Grade 1 - 1,000,000 cycle testing
  5. Push/Pull Hardware: Grade 1 - 1,000,000 cycle testing



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## E. Standard Hardware Options:

### 1. Hinging

#### a. Continuous Hinge

##### i. Pinned

1. Cold Rolled Steel - FM200 series
2. Stainless Steel - FM300 series
3. Aluminum - FM4000 series

##### ii. Geared - ARCFM series

#### b. Butt Hinges

#### c. Pocket Pivots

#### d. Offset/Intermediate

### 2. Latching Hardware

#### a. Inset Exit Device

##### i. Device Models

##### 1. Pairs/Double Egress

- a. Life Safety Model D8576
- b. Fire-Rated Model D3676

##### 2. Single Top Rod

- a. Life Safety/Fire-Rated Model D3677

##### 3. Single Mortise

- a. Life Safety Model D8375
- b. Fire-Rated Model D3375

##### ii. Operating Trim

1. Clutch Lever Trim - [D3081]  
[D3082] [D3083]

2. Flush Pull - D3681

##### iii. Electrification

##### 1. Electric Latch Retraction - LR

- a. Power Supply - D-PS-LR

##### 2. Electronic Dogging/Monitored - EDM

- a. Transformer/Rectifier - D4605/  
D4603

- b. Power Supply - PS1

##### 3. Electrified Lever Trim (D3080E series)

##### 4. Monitor Switch

- a. M - Single
- b. MS - Dual

### 5. Wire Transfers

#### a. Mortised into door edge

- i. 90-degree - D4612-1
- ii. 180-degree - D4612-2
- iii. Swing Clear Hinge - D4612-SP
- iv. Current Transfer Prep - CTP

#### b. Concealed Wire

- i. 4-wire CE-4D
- ii. 8-wire CE-8D

#### c. Surface Door Loop - PT3

### b. Dual-Lever Hardware - D3640 series

- i. D3644 - Classroom Function
- ii. D3645 - Passage Function
- iii. D3646 - Storeroom Function
- iv. D3647 - Electrified (Fail-Safe or Fail-Secure)

### c. Push/Pull Hardware - D3680 series

- i. D3681 - Pull x Exit Device
- ii. D3682 - Push/Pull
- iii. D3683 - Pull Only
- iv. D3684 - Push Only

### d. Blank Door - D3621 Automatic Flushbolt - DAFB

### 3. Door Closer

#### a. Surface Closer - D-DC-D8901PA

- i. D-DC-PA Surface Closer (180-degrees Max.)

#### b. Pocket Closer

- i. D-DC-8907PKT90 (90-degrees)
- ii. D-DC-8907PKT180 (180-degrees)
- iii. D-DC-PKT 90/180 Pocket Closer (180-degrees Max.)
- iv. D-DCT-PKT 90 Track Pocket Closer (90-degrees Max.)

### 4. Magnetic Holder - D2000 series

- i. D-MDH-102 (1-1/8" projection)
- ii. D-MDH-113 (1-7/8" projection)
- iii. D-MDH-210 (2-5/8" projection)
- iv. D-MDH-310 (3-5/8" projection)
- v. D-MDH-410 (4-5/8" projection)



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5. Smoke Seals - D-SS-STK-DBZ
6. Protection Plates - DKP (Size varies)
7. Edge Guards/Astragal
  - i. Edge Guard Model EG-308
  - ii. Edge Guard/Astragal Model EG-T-308

## 2.03 Finishes

### A. Finish Symbols

US	BHMA	Description of Finish
USP	600	Primed for field painting
US3	605/632	Bright Brass
US4	606/633	Satin Brass
US9	611/637	Bright Bronze
US10	612/639	Satin Bronze
US10B	613/640	Dark Bronze
US26	625/651	Bright Chrome
US26D	626/652	Satin Chrome
US28	628	Satin Aluminum
US32	629	Bright Stainless
US32D	630	Satin Stainless
N/A	689	Aluminum Painted
N/A	695	Dark Bronze Painted
N/A	313	Dark Bronze Anodized
N/A	335	Black Anodized
BLK	N/A	Black Powdercoat

### B. Finish Requirements

- a. Door Faces: [Prime][Factory Pre-Finished]  
[HPL-Plastic Laminate]
- b. Frames: Prime
- c. Door Hardware:
  - a. Continuous Hinges: [600][628][630]
  - b. Push Bar: [628][313][335][US3][US4]  
[US9][US10][US32][US32D]
  - c. Clutch Lever Exit Device Trim: [US3]  
[US4][US10][10B][US26][US26D]
  - d. Dual-Lever Trim: [US3][US4][US10][US10B]  
[US26][US26D]
  - e. Push/Pull Trim: [US26D][Black]
  - f. Door Closers: [689][695]
  - g. Miscellaneous: To match other finishes



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## 3.01 Examination

- A. Contractor is responsible for notification of any wall conditions or building structure that would prevent proper execution of the installation of products produced in accordance with approved hardware schedule.
- B. Note short or damaged deliveries on the bill of lading at the time of delivery.
- C. The fire label is a manufacturer's certification only. Proper installation of products and proper wall construction are requirements to meet fire label.
- D. Verify that power supplies, as required, are available to power electrically operated devices.
- E. Do not fabricate any product until receipt of approved submittal drawings.
- F. Beginning of installation means acceptance of existing conditions.

## 3.02 Installation

- A. Mount furnished hardware accessories at heights indicated in "Recommended Locations or Builder's Hardware" for Standard Doors and Frames, Custom Steel Doors and Frames, established by the Door and Hardware Institute (DHI), except if otherwise indicated or to comply with requirements of governing regulations, or if otherwise directed by the architect.

- B. Install furnished hardware accessories in compliance with the manufacturer's instructions, templates and recommendations. Comply with specified degree of opening for doors with automatic operators, overhead door closers, etc. Securely fasten all furnished parts. Make sure all operating parts move freely and smoothly without binding, sticking and void of any excessive clearance.
- C. Coordinate installation and interface wiring with fire alarm and smoke detection systems.
- D. Remove or protect furnished hardware accessories, prior to any painting or finishing that is to be completed after the installation of the hardware accessories.

## 3.03 Adjustment and Cleaning

- A. Adjust and check door assembly and each operating item of hardware to ensure correct operation and function. Units which cannot be adjusted to operate as intended for the application made shall be replaced.
- B. Final Adjustment: Wherever hardware installation is made more than a month prior to building acceptance or occupancy of a space or area, the installer shall return to the work during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items. Hardware Accessories shall be cleaned as necessary to restore correct operation, function, and finish. Do not use cleaners that will harm finish.