

1 SECTION 08100 - STEEL DOORS AND FRAMES

2
3 PART 1 - GENERAL

4
5 RELATED DOCUMENTS:

6
7 Drawings and general provisions of Contract, including General and Supplementary Conditions and
8 Division 1 Specification sections, apply to work of this section.
9

10 DESCRIPTION OF WORK:

11
12 Extent of standard steel door frames as shown and scheduled on drawings:

13
14 Heavy Duty Steel Door and Frame at Armory, Door.
15

16 QUALITY ASSURANCE:

17
18 Provide doors and frames complying with Steel Door Institute "Recommended Specifications: Standard
19 Steel Doors and Frames" (SDI-100) and as herein specified.
20

21 Manufacturer: Provide standard steel doors and frames by a single firm specializing in production of this
22 type of work.
23

24 Provide steel door frames by one of the following:

25
26 Ceco Corp.
27 SteelCraft Mfg. Co.
28

29 Fire-Rated Assemblies: Provide fire-rated frames investigated and tested as fire door assemblies,
30 complete with type of hardware to be used. Identify each frame with recognized testing laboratory labels,
31 indicating applicable fire rating of steel frames. Construct and install assemblies to comply with NFPA
32 Standard No. 80, and as herein specified.
33

34 Temperature Rise Rating: At stairwell enclosures, provide doors which have Temperature Rise Rating of
35 450° F (232° C) maximum in 30 minutes of fire exposure.
36

37 SUBMITTALS:

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39 Product Data: Submit manufacturer's specifications for fabrication and installation, including data
40 substantiating that products comply with requirements.
41

42 Shop Drawings: Submit for fabrication and installation of steel door frames. Include details of each
43 frame type, elevations of door design types, conditions at openings, details of construction, location and
44 installation requirements of finish hardware and reinforcements, and details of joints and connections.
45 Show anchorage and accessory items.
46

47 Provide schedule of door frames using same reference numbers for details and openings as those on
48 contract drawings.
49

50 Label Construction Certification: Submit manufacturer's certification for oversize fire-rated door frames

1 that each assembly has been constructed with materials and methods equivalent to requirements for
2 labeled construction.

3
4 DELIVERY, STORAGE AND HANDLING:

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6 Deliver hollow metal work cartoned or crated to provide protection during transit and job storage. Store
7 doors and frames at building site under cover.

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9 PART 2 - PRODUCTS

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11 MATERIALS:

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13 Galvanized Steel Sheets: Zinc-coated carbon steel sheets of commercial quality, complying with ASTM
14 A526, with ASTM A525 G60 zinc coating, mill phosphatized.

15
16 Standard Door Frames: Fabricate of not less than 16 gage galvanized sheet steel
17 Armory Door and frame: Fabricate of not less than 14 gauge galvanized sheet steel.

18
19 Shop Applied Paint:

20
21 Primer: Rust-inhibitive enamel or paint, either air-drying or baking, suitable as a base for specified finish
22 paints.

23
24 FABRICATION, GENERAL:

25
26 Fabricate steel door frame units to be rigid, neat in appearance and free from defects, warp, buckle or
27 weld marks.

28
29 Exposed Fasteners: Unless otherwise indicated, provide countersunk flat Phillips heads for exposed
30 screws and bolts.

31
32 Finish Hardware Preparation:

33
34 Prepare door frames to receive mortised and concealed finish hardware in accordance with final Finish
35 Hardware Schedule and templates provided by hardware supplier. Comply with applicable requirements
36 of ANSI A115 series specifications for door and frame preparation for hardware.

37
38 Locate finish hardware as shown on final shop drawings or, if not shown, in accordance with
39 "Recommended Locations for Builder's Hardware", published by Door and Hardware Institute.

40
41 Shop Painting:

42
43 Clean, treat and paint exposed surfaces of steel door frame units, including galvanized surfaces.

44
45 Clean steel surfaces of mil scale, rust, oil, grease, dirt and other foreign materials before application of
46 paint.

47
48 All exterior doors to have flush tops sealed to prevent water collection.

49
50 STANDARD STEEL FRAMES:

51

1 Provide metal frames for doors, transoms, sidelights, borrowed lights and other openings, of types and
2 styles as shown on drawings and schedules. Conceal fastenings, unless otherwise indicated.

3
4 Fabricate frames with mitered corners, welded construction.

5
6 Door Silencers: Except on weather-stripped frames, drill stops to receive three (3) silencers on strike
7 jambs of single-swing frames.

8
9
10 PART 3 - EXECUTION

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12 INSPECTION:

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14 Installer must examine substrate and conditions under which steel doors and frames are to be installed
15 and must notify Contractor in writing of any conditions detrimental to proper and timely completion of
16 work. Do not proceed with work until unsatisfactory conditions have been corrected in manner
17 acceptable to installer.

18
19 INSTALLATION:

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21 General: Install standard frames and accessories in accordance with final shop drawings and
22 manufacturer's data, and as herein specified.

23
24 Placing Frames: Set frames accurately in position, plumbed, aligned and braced securely until permanent
25 anchors are set.

26
27 At in-place concrete or masonry construction, set frames and secure to adjacent construction with
28 machine screws and masonry anchorage devices.

29
30 Install fire-rated frames in accordance with NFPA Standard No. 80.

31
32 In metal stud partitions, install at least three (3) wall anchors per jamb at hinge and strike levels.

33
34 ADJUST AND CLEAN:

35
36 Prime Coat Touch-Up: Immediately after erection, sand smooth any rusted or damaged areas of prime
37 coat and apply touch-up of compatible air-drying primer.

38
39 Final Adjustments: Check and readjust operating finish hardware items, leaving steel doors and frames
40 undamaged and in complete and proper operating condition.

41
42
43 END OF SECTION 08100