

DAWSON DOORS

SECTION 08480

STAINLESS STEEL BALANCED CUSTOM SERIES DOORS AND ENTRANCES

PART I – GENERAL

1.1 DESCRIPTION

- A. Work Included: All entrance and vestibule doors and frames shall be integral “Balanced Door” units consisting of doors, jambs, frames (sidelight and transoms where applicable), thresholds, operating mechanism and all finish hardware as shown on the drawings and specified herein.
- B. Related Work:
 - 1. Lock cylinders are not included in this section.
 - 2. Glass and glazing are not included in this section.
 - 3. Sealants between frame and masonry are not included in this section.
 - 4. Structural members not within jambs, head members, transom bars and mullions are not included in this section.

1.2 QUALITY ASSURANCE

- A. The manufacturer must have been regularly engaged in the manufacture and installation of “Balanced Doors” for a period of no less than ten (10) years.
- B. All door, frame and balanced hardware must be engineered and fabricated by the same manufacturer.
- C. The manufacturer must have a quality system registration to the ISO9002 standard.

1.3 SUBMITTAL

- A. Shop drawings including elevations and plan views, full size detail sections of typical section views, hardware arrangement details and interactions with surrounding material.
- B. Two (2) finish samples shall be submitted per customer specifications.
 - 1. Stainless steel, #8
 - 2. Stainless steel, satin finished

1.4 WARRANTY

- A. All finished hardware and material not fabricated by Dawson to carry manufacturer’s standard warranty.
- B. All Dawson manufactured material furnished and installed to these specifications, including the door operating mechanisms, shall be warranted against defective material and workmanship for a period of ten

(10) years beginning thirty days after shipment from Dawson’s factory.

- 1. This warranty is not intended to cover adjustments made necessary by the shifting or settling of the building structure.

PART II – PRODUCTS

2.1 ACCEPTABLE MANUFACTURER

- A. Dawson Doors Division/Dawson Metal Co.
Balanced Custom Series Doors and Frames

2.2 MATERIAL AND ACCESSORIES

- A. Material: Shall be stainless steel Type #304
- B. Finish (select one of the following):

- 1. Stainless steel, #8 mirror
- 2. Stainless steel, #4 satin
- 3. Stainless steel non-directional
- 4. Other finishes available; consult factory.

C. Doors

- 1. Stainless steel door bodies shall be formed from a minimum of 14 gauge material.
- 2. Formed stainless steel doors shall be a minimum .078” thick continuous channel frame welded into door body. Three tier metal thickness welded into door body as required for all hardware reinforcement.
- 3. Door skins blanked from one (1) continuous sheet of material (no face welding).
- 4. The finish is to be applied to the door after fabrication to ensure a blemish free finish.
- 5. Door thickness shall be 2”.
- 6. Stiles: 2-3/4” minimum, or larger as specified.
- 7. Top rail: 4” high minimum or larger as specified.
- 8. Bottom rail: 5” minimum.
- 9. All reinforcing material to be stainless steel and welded to door body. Aluminum, plastic, or other glued-in reinforcements or stiffeners are unacceptable.

D. Frames

- 1. Stainless steel frames shall be formed from a minimum of .078” thick material as specified.
- 2. Minimum face dimension of frame to be 3”.
- 3. Minimum depth of frame to be 5”.
- 4. Consult factory for dimensions less than those above.

5. Frames shall be erected without the use of exposed screws where feasible.
 6. The finish is to be applied to the frame after fabrication to ensure a blemish free finish.
 7. Portion of hinge jamb shall be removable for access to operating hardware.
- E. Weatherstrip
1. Shall be manufacturer's standard wool pile integral weatherstrip (replaceable).
 2. Shall occur:
 - a. Vertically at meeting stiles on pairs of doors.
 - b. Concealed at door top and bottom rails (adjustable)
 - c. At door stops at both hinge and strike jambs.
- F. Thresholds
1. Shall be furnished at all doors unless otherwise detailed.
 2. Thresholds shall be type #304 stainless.
 3. Woodscrew and rawl plug type fastenings shall be approximately 15" on center.
 4. Thresholds shall be 6" wide and shall be set on the finished floor and adequately caulked against water seepage.
- G. Balanced Hardware
1. All balanced door hardware shall be manufactured by the door fabricator. Exposed hardware will be manufactured of cast bronze or stainless steel and finished per specification (choices shown below). Internal structural components shall be manufactured from stainless steel.
 2. All components of heavy duty design and must be adjustable for variations in door size, door weight, and varying building pressures.
 3. Balanced hardware shall consist of the following items:
 - A. Cast hydraulic check mechanism with integral closer spring, swing speed and latch speed adjustments to be concealed in head frame.
 4. The hydraulic check mechanism must be removable without removal of the door, head frame, or other parts of the balanced door system. Exposed closer arms are unacceptable.
 5. The hinge shaft will be a heavy duty steel tube 1.90" diameter with 3/16" minimum wall thickness. Top and bottom arms will be cast solid (bronze or stainless – see below), and welded to the hinge tube. All pivot points on top and bottom arms shall contain self-aligning radial bearings and thrust bearings where applicable. Plastic bearings will be not accepted.
 6. The door guide channel will be made of cast stainless steel (3.97" x 3/4" with 9/16" minimum wall thickness), and include a metal reinforced mechanical back check device. Operating mechanism in the head shall include bearings at all pivot points. A semi-automatic hold open device will be located in the bottom rail of the door. Means shall be provided which make possible field adjustments for proper perimeter clearance of each door leaf in relation to its finished framework.
- H. Finish hardware by door manufacturer (optional)
1. Standard locking to be Adamsrite deadlocks (or deadlatches with lever handles or push paddles) and flushbolts at pair of doors (most other type of mechanical locking and electronic locking also available – contact factory for compatibility).
 2. Standard push/pull hardware to be 1" diameter stainless steel in all finishes (custom push/pulls available upon request).
 3. Panic hardware (if required) shall be Precision, Sargent, or VonDuprin furnished by the door supplier. Concealed type exit device for pairs of doors, rim type exit devices for single doors of matching material and finish. All hardware shall be finished to match doors.
- I. ADA COMPLIANT OPENINGS
1. Doors designed as handicapped entrances shall have a maximum of 8 lbs. spring tension adjustment at the pull handle. The clear opening shall be a minimum of 32" (or greater depending on local codes).

PART III – EXECUTION

- 3.1 Prior to leaving the factory, all balanced doors and immediate framing shall be assembled and prehung. At this time, adjustment shall be made to provide proper perimeter clearance between door and frame and all coordination between door, frame and finish hardware shall be tested.
- 3.2 Erection
 - A. All materials shall be installed in strict accordance with installation data provided by factory and these specifications.
 - B. All doors shall be adjusted after installation and readjusted when necessary prior to owner's acquisition of the building.

