

SECTION 08344/08340/08100
INDUSTRIAL SWING DOORS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Single; Industrial Swing Door
- B. Paired; Industrial Swing Door
- C. Paired, Monorail Door; Industrial Swing Door

1.2 RELATED SECTIONS

- A. Section 04810 - Unit Masonry Assemblies.
- B. Section 05120 - Structural Steel.

1.3 REFERENCES

- A. ASTM A 36 - Standard Specification for Carbon Structural Steel.
- B. ASTM A 167 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
- C. ASTM A 276 - Standard Specification for Stainless Steel Bars and Shapes.
- D. ASTM A 500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
- E. AISI CL 304 - American Iron and Steel Institute.
- F. ASME Structural Welding Code Section IX.
- G. AWS D1.1 - Structural Welding Code - Steel.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Design doors to perform under positive and negative wind/draft pressures. Specific wind/draft pressure loading must be provided by Architect.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
 - 1. Preparation instructions and recommendations.

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2. Storage and handling requirements and recommendations.
 3. Installation instructions.
- C. Shop Drawings: Provide shop drawings showing layout, profiles, and product components, including anchorage, hardware, and finishes. Include dimensional plans, applicable material specifications, elevations and sections detailing mounting and connections.
- D. Calculations: Upon signed finalization and approval of dimensions, mounting location material and configuration, and load requirements;

****Note to Specifier** Choose one (1) of the following statements.**

1. Engineering calculations are not required for this barrier.
 2. Submit stamped calculations by a registered professional engineer from within the state or territory where the project will be constructed or substantially improved, to verify the door's ability to withstand the design loading.
- E. Closeout Submittals: Provide Operation and Maintenance data to include methods for maintaining installed products, precautions against cleaning materials and methods detrimental to finishes and performance.
- F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Manufacturer must demonstrate a minimum of five years successful experience in design and manufacture of similar related closures. Upon request, provide supporting evidence including list of installations, descriptions, name, and method of contact.
- B. Welder Qualifications: Welders Certified in accordance with American Welding Society Procedures: AWS-1-GMAW-S, WPS No. B2.004.90 for applicable material used in production of specified product.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging container with identification labels intact until ready for installation.
- B. Protect materials from exposure to moisture.
- C. Store materials in a dry, warm, ventilated, weather-tight location. If outdoor storage is required, block materials to store at an incline, to prevent pooling of any moisture and promote runoff. Tarp materials in a tent-like arrangement, elevated above the product with open sides to allow airflow. Store all other hardware in a dry controlled environment.
- D. Use caution when unloading and handling product to avoid bending, denting, crushing, or other damage to the product.

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- E. When using forklifts, use forks of proper length to fully support product being moved. Consult shop drawings or consult with factory for proper lift points.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 COORDINATION

- A. Coordinate work with other operations and installation of adjacent materials to avoid damage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Approved Manufacturer: PS Access Solutions™, which is located at: 1150 S. 48th Street, Grand Forks, ND 58201. Toll Free Tel: 877-446-1519. Web Site: www.psindustries.com or www.psaccesssolutions.com. E-mail: 4psinfo@psindustries.com.
- B. Substitutions: Not permitted
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.
- D. Obtain all industrial sliding door assemblies from single manufacturer.

2.2 EQUIPMENT

- A. Industrial Sliding Doors: Provide the following doors:
 - 1. Single Industrial Swing Door – Model 1516
 - 2. Paired Industrial Swing Door – Model 1516-(Paired)
 - 3. Custom Configuration – Model 1516 – (Specify Custom design requirements).
- B. Products Details:
 - 1. Door Sections: Sections shall be, at a minimum, nominal 1-5/8 inch thick, fabricated with a welded internal frame, 16 gauge sheeting on the interior and exterior, welded in place. Insulate voids between internal door framing and door sheeting, full depth of cavity.
 - 2. Frame: Frames shall be fabricated from formed steel shapes and sized as shown on the drawings. Provide anchor preps as indicated on the drawings, or embedment ties where the frames will be integral to the wall. Threshold to be of custom design, fabricated from 12 gauge 304-2B stainless steel, and factory welded to frame. Prepare threshold for countersunk anchors at 14 inch centers maximum.

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3. Hinges: Sized to the requirements of the door, but at a minimum: Pintles of 3/8" diameter, 3/16" thick mounting flanges and barrel. Provide a minimum of three (3) hinges per jamb on doors up to 8 ft. high, four (4) hinges up to 12 ft. high, five (5) hinges up to 16 ft. high. Hinges shall be furnished with thrust bearings and grease fittings. Hinges to be prepped for jamb mounting by bolting or welding.
4. Latching: Latch to be single point, gravity type bar latch. Latch to be lever operated from both sides of door. Provide beveled strike and keeper for automatic latching. Finish on latch to be gray enamel. See Options for additional latching information.
5. Weatherseals: Seals at head, jambs, and sill to be nylon filament brush in a mill finish aluminum retainer.
6. Options:
 - a. Vision Lites, factory glazed with 1/4 tempered glass; standard nominal size(s): 12" x 12", 7" x 22", or 24" x 24".
 - b. Special Locking Assemblies, Specify.
 - c. Door Closer.
 - d. Personnel Passage Door within swing door, with or without step-over sill. (For Large Sized Swing Doors Only)
 - e. Monorail Notches, sized to requirements.

2.3 MATERIALS

- A. Industrial Swing Door Panel:
 1. Steel: Structural or formed steel shapes conforming to ASTM A 36; tubing conforming to ASTM A 500 Grade B, ASTM A 513; bars conforming to ASTM A 36, M1020; of appropriate size and strength with welded construction.
 2. Stainless Steel: Stainless steel conforming to ASTM A 276.
- B. Door Panel Sheeting: Panel to be sheeted with galvanealed steel sheeting or plate, Commercial Quality-Low Carbon ASTM-A-569, ASTM-A-366, ASTM-A-36 welded in place. Optional materials include Stainless Steel (304 or 316).
 1. Steel: Commercial Quality-Low Carbon steel conforming to ASTM A 569, ASTM A 366, ASTM A 36; of appropriate size and strength with welded construction.
 2. Stainless Steel: Stainless steel conforming to ASTM A 167, 304 or 316 alloy.
- C. Weatherseals to be compressible rubber type or brush, typically EPDM and Nylon Brush Seal unless otherwise noted, and to be field replaceable.
- D. Frame: To include jamb and head members for field locating and installation on structure. Jamb members to be designed and fabricated with appropriate material as required for the loading.
 1. Steel: Structural or formed steel shapes conforming to ASTM A 36 of appropriate size and strength.
 2. Stainless Steel: Stainless steel conforming to ASTM A 167 using 304 or 316 alloy of appropriate size and strength.
- E. Frame Mounting Hardware: Provide anchors, as required.

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- F. Operating Hardware: Provide hardware sized for the size and weight of the industrial sliding door. Hardware to be factory located as practical. Latching hardware to be as indicated on Drawings. Doors to be factory prepared for applicable latching devices.
- G. Steel Shop Finish: Apply in accordance with manufacturer recommendations and instructions.
 - 1. Primer: One shop coat of manufacturer's standard shop primer (S-W Kemflash Primer E61-R-26).
 - 2. Optional Finish: One shop coat of Standard Industrial Enamel (S-W Industrial Coatings B54 Series)
- H. Stainless Steel products to be mill finish, welds ground smooth, not polished, and are factory acid washed, neutralized and rinsed after fabrication.

2.4 FABRICATION

- A. Fit and shop assemble items in largest practical sections, for delivery to site.
- B. Fabricate items with joints tightly fitted and secured.
- C. Supply components required for anchorage of fabrications. Fabricate anchors and related components of same material and finish as fabrication, except where specifically noted otherwise.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's installations instructions, approved shop drawings, shipping, handling, and storage instructions, and product carton instructions for installation.

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- B. Frames shall be installed level, square, plumb, and rigid.
- C. Tolerances: All dimensional requirements must be in accordance with manufacturer's installation instructions and shop drawings.

3.4 FIELD QUALITY CONTROL

- A. Products to be operated and field verified including the sealing surfaces to assure that they maintain contact at the correct sealing points.
- B. Verify that rollers and latching assemblies operate freely and correctly.
- C. Verify all anchorage is in accordance with manufacture's installation instructions and applicable data sheets.

3.5 CLEANING

- A. Repair or replace damaged installed products or components.
- B. Touch up damaged finish.

3.6 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

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