

SECTION 08370
INDUSTRIAL ACCESS / INSPECTION HATCH

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Industrial Access / Inspection Hatch: Model AH-710

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 industrial environmental conditions.

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.
 - 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,

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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 Access Hatch.
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 hatch'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.

- 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

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- 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™, 1150 S 48th Street, Grand Forks, ND 58201. Toll Free Tel: 877-446-1519. Web Site: www.psaccesssolutions.com or www.psindustries.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 access / inspection hatch assemblies from single manufacturer.

2.2 EQUIPMENT

- A. Industrial Access / Inspection Hatch: Provide the following hatches:
 - 1. Industrial Access / Inspection Hatch: Model AH-710
 - 2. Custom Configuration – (Specify Custom design requirements).
- B. Products Details:
 - 1. Hatch Panel: Shall be of 10 gauge formed steel. Perimeter edges of hatch panel to be of flanged design to protect gasketing.
 - 2. Frame: Frames shall be fabricated from 7 gauge formed steel shapes and sized as shown on the drawings. Frame shall have a maximum depth of one inch to the surface of the closed hatch panel, and shall be sloped away from the opening on all four sides to minimize debris buildup.
 - 3. Hinges: Hinges to be sized to the requirements of the hatch, but at a minimum provide two (2), 7 gauge steel offset hinges per panel, factory welded in place. Hinges to be an integral part of the hatch panel and frame construction, requiring no field fasteners to the door leaf or frame.
 - 4. Latching: Standard rigid Quarter-Turn Mechanical Latch is fabricated of 7 gauge steel. Latch to be field adjustable and bi-directional latching capable.
 - 5. Seals: Factory located perimeter seals. Seals to be field replaceable.
 - 6. Options
 - a. Special Locking Assemblies
 - b. View Panels

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- c. Pressure Relief Latches
- d. Blast Loading
- e. High Temperature Seals

2.3 MATERIALS

- A. Industrial Access / Inspection Hatch:
 - 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. Hatch Panel: 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. Standard Dust Seals to be EPDM, factory applied to perimeter of door panel. Maximum temperature rating of EPDM dust seal is 350 degrees Fahrenheit. Mounting adhesive maximum temperature rating is 250 degrees Fahrenheit.
- D. Extruded Silicon Rubber Dust Seal factory applied to perimeter of door panel. Maximum temperature rating of 450 degrees Fahrenheit set in and adhered to door panel with Silicone RTV with a maximum temperature rating of 600 degrees Fahrenheit.
- E. Fiberglass Seal to be factory mounted to perimeter of door panel. Maximum temperature rating of Fiberglass dust seal is 1000 degrees Fahrenheit.
- F. Frame to include four sided special design frame. Frame shall have a maximum depth of one inch to the surface of the closed door panel, and shall be sloped away from the opening on all four sides to minimize debris buildup.
 - 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.
- G. Operating Hardware: Provide hardware sized for the size and weight of the access / inspection hatch. Hardware to be factory located as practical. Latching hardware to be as indicated on Drawings.
- H. 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)

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- I. 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.
- 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.

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- B. Verify that hinges 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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