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SECTION 08 34 10

SLIDING INDUSTRIAL DOORS

Note to Specifier This specification contains component and configuration options. Where indicated, choose the appropriate choice for your specific project requirements.

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. **[Single Sliding], [Bi-Part Sliding], [and] [Monorail Sliding]** Industrial Sliding Doors with Formed Tracks.
2. Door Hardware.

B. Related Sections:

1. Division 03 – Cast-In-Place Concrete.
2. Division 04 – Concrete Unit Masonry.
3. Division 05 – Structural Steel Framing.

1.2 SUBMITTALS

A. 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.

B. 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.

1. Contractor to provide manufacturer with field measurements and mounting structure prior to commencement of shop drawings.

C. 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 door.

2. Submit calculations by a qualified engineer, to verify door's ability to withstand the design loading.
3. 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 flood door's ability to withstand the design loading.

1.3 CLOSEOUT SUBMITTALS

A. Provide Operation and Maintenance data to include methods for maintaining installed products, precautions against cleaning materials and methods detrimental to finishes and performance.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Manufacturer must demonstrate a minimum of five (5) 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. Minimum Qualifications: Manufacturer must demonstrate compliance and certification of a Quality Management System administered by the International Organization for Standardization (ISO). Documentation of current certification status to be provided upon request.

C. Welder Qualifications: Welders Certified in accordance with American Welding Society Procedures for applicable material used in production of specified product.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging container with identification markings intact until ready for installation.

B. Protect materials from exposure to moisture during storage.

C. Store materials in a dry, warm, ventilated weathertight 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 loose or high value components 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 "Approved for Construction" drawings or consult with factory for proper lift points.

1.6 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 indicated limits.

1.7 COORDINATION

A. Conduct site survey and provide to manufacturer, prior to manufacturer's commencement of shop drawings, the actual site conditions of the mounting location, to include; material type, dimensions and configuration, interferences with mounting surface, or any other condition that may impact the ability of the gate to be properly installed.

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

1.8 WARRANTY

A. Manufacturer's Standard Warranty: Product to be free from defects in material and workmanship for a period of five (5) years from date of shipment.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Design industrial sliding doors to support, solely or in combinates of, temporary super-imposed live loads as indicated below. All applied types of related loadings are transferred from industrial product barriers, solely or in combinations of, by mullion anchorage to structural floor slabs and/or jamb anchorage and direct pressure contact to structural walls or other structural elements.

Note to Specifier Delete any loading types that do not apply.

1. Positive Wind/Draft Pressures
2. Negative Wind/Draft Pressures

B. Engineer Code Practices: Engineer industrial products to conform to the design requirements that are based on the latest adopted edition of the International Building Code (IBC). LFRD and/or ASD methodologies are applied as appropriate to align with specific project specifications and/or limited published material data.

2.2 SLIDING INDUSTRIAL DOOR WITH FRAME

A. Description: Sliding, Industrial Metal Door including track assembly, door panel, and door hardware.

1. Approved Manufacturer: PS Access Solutions™, which is located at: 1150 S. 48th Street, Grand Forks, ND 58201; Toll Free Tel: 877.446.1519; Email: 4psinfo@psindustries.com; Web: www.psaccesssolutions.com or www.psindustries.com

a. Basis of Design Product: Model: SLDS, SLDB.

B. Substitutions: Not permitted.

C. Single Source Responsibilities: Obtain all sliding industrial door assemblies from single manufacturer.

2.3 EQUIPMENT

A. Products Details:

1. Door Sections: Sections shall be, at a minimum, nominal 2- 1/8" thick, fabricated with a welded internal frame, sheeted on the interior and exterior, welded in place. Insulate voids between internal door framing and door sheeting, full depth of cavity.

2. Track/frame: Track shall be minimum ¼" thick, furnished in one piece (as practical), with integral mounting brackets. Vertical track support shall be furnished at each jamb. Clearance pack-outs shall be integral to track and vertical track supports, providing a nominal 2" clearance between door face and wall mounting surface. SLDS, SLDB & Monorail Doors, center door stop(s) attached to the underside of the tracks. Provide factory located stop clip to stop door at open position.

3. Top Trolley Assembly: Shall be one-piece, the full width of door section. A minimum of ¾" vertical travel adjustment shall be available for leveling of door panel. Top guide rollers to be sized appropriately to weight and size of door panel, but at minimum shall be 4" diameter, with roller bearings and grease fittings. Rollers to have non-corrosive treads machined to match track and shall provide both vertical load support and lateral load control from either side of door without binding.

4. Bottom Guide Roller Assembly: Bottom guide roller to be non-corrosive and provide dual lateral load control of door while concealed within door bottom. Roller-mount to be integral to vertical track supports and shall not require floor anchors. Bottom guide roller to be non-corrosive and shall not require lubrication.

5. Handles: Provide one (1) 12" bow handle. Opposite side of door to have one (1) 6" x 8" recessed flush pull. Handles to be factory located on door.

6. Safety Device:

   a. Most doors to have factory installed "Knuckle Saver Safety Stop" device with operating lever mounted within door panel. Intermediate stopping location to be factory located.
   b. Monorail doors and operated doors do not have "Knuckle Saver Safety Stop". See general drawing for KSSS.

7. Weatherseals: Seals at head, trail jamb, and sill to be nylon filament brush in a mill finish aluminum retainer. Head seal to be factory located. Trail jamb and sill seal to be field

located. Seal at stop jamb to be compressible neoprene bulb seal in a compression retainer attached to the vertical track member at stop jamb.

a. SLDB doors shave a center bulb on the leading edge of both panels.

8. Options:

Note to Specifier The following are offered as options, all may not be available for your application. Delete if not required.

a. Vision lights: factory glazed with ¼" tempered glass, standard nominal size(s): 12" x 12", 7" x 22", 24" x 24".
b. Weatherhood: 20-gauge galvanized steel with end caps.
c. Deadlatch or other locking device: Specify Type.
d. Closer Assist: spring reel type with hold open latch.
e. Egress Breakaway Swing Door: for out-swing capability in emergency exit locations. Includes adjustable release pressure latch.
f. Personnel Passage Door within slider: with or without step-over sill. (For Large Sized Sliding Doors Only.)
g. Automatic Operation: Electric.
h. Monorail Notches: sized to requirements.
i. Sparkless Environment Design Requirements.

2.4 MATERIALS

A. Exposed sheet metal of door panel to be formed of the following material type;

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

1. Steel: Commercial quality, low carbon steel of appropriate size and strength, welded and structurally bonded.
2. Stainless Steel Type 304 or 316: stainless steel of appropriate size and strength, welded and structurally bonded.

B. Industrial door internal structure to be structural tubes, plates, and formed shapes of the following material type;

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

1. Steel: commercial quality, low carbon steel of appropriate size and strength with welded construction.
2. Stainless Steel Type 304 or 316: stainless steel of appropriate size and strength with welded construction.

C. Weatherseals to be compressible rubber type or brush, typically Neoprene and Nylon Brush Seal unless otherwise noted, and to be field replaceable.

D. Door Frame to be manufactured of the same material type and finish as door panel. Frame to include jambs and header jamb for field location and installation on structure. Jamb members to be designed and fabricated with appropriate material as required for the loading.

E. Frame Mounting Hardware: Provide anchors, as required.

F. Operating Hardware: Provide hardware appropriate for the size and weight of the industrial sliding door. Hardware to be factory located on jambs and door panels, as practical. Latching hardware to be as indicated on drawings. Industrial doors to be factory prepared for applicable latching devices.
   1. Standard Hardware:
      a. Exterior: Oversized Bow Handle provided for easy gloved hand operation (Powder coat #49 gray finish).
      b. Interior: Oversized, industrial pull handle recessed into the panel (powder coat #49 gray finish), Knuckle Saver safety stop release.

Note to Specifier The following are offered as options. Delete if not required.

   2. Lock; keyed, flush bolt with thumb-turn inside, deadbolt to the track.
   3. Latching; Floor bolt.
   4. Closer; Spring reel closer (sized to fit door). *Up to 60” x 96” panel size.

G. Placards: Factory mounted, decal labels for product identification.

H. Finish:

   1. Steel Shop Finish: Apply the following paint system in accordance with manufacturer recommendations and instructions;

      a. Primer Only: One (1) shop coat of manufacturer’s standard shop primer (S-W DTM Epoxy Primer). No top finish coat.
      b. Finish: Powder Coat (#49 Gray)

Note to Specifier The following Steel Shop Finishes are offered as options. Delete if not required.

      c. Topcoat Finish: One coat of primer as shown above with one (1) shop coat of manufacturer’s standard two-component polyurethane (S-W Genesis® Lustral™ Single Stage System – LST3).
      d. Finish: One (1) coat epoxy (Macropoxy 646) with two (2) shop coats of Acrylic Polyurethane (S-W Acrolon 218 HS).

Note to Specifier The following Steel Shop Finish is offered as an option for heavier Gauged Steel Barriers *ONLY*. Delete if not required.

      e. Topcoat Finish: One (1) shop coat of Zinc-Rich Epoxy Primer (Zinc Clad 4100) with two (2) shop coats of Acrylic Polyurethane (S-W Acrolon 218 HS).

2. Stainless Steel products to be mill finish, welds are ground smooth, not polished.

    a. No. 2b, products to be mill finish, welds are ground smooth, not polished.

3. Labeling: Each door will be individually identified for matched installation.

2.5 FABRICATION

A. Fit and factory assemble items in largest practical sections, for shipment 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 mounting substrates have been properly prepared.

B. If substrate preparation is the responsibility of another subcontractor, notify Architect of uncompleted preparation before proceeding.

C. Inspect opening for compliance with manufacturer requirements. Verify open conditions are within required tolerances.

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 installation instructions, "Approved for Construction" drawings, shipping, handling, and storage instructions, and product carton instructions for installation.

B. Frames must be installed level, square, plumb, and rigid.

C. Tolerances: All dimensional requirements must be in accordance with manufacturer's installation instructions and "Approved for Construction" drawings.

D. Verify all anchorage is in accordance with manufacturer's installation instructions and applicable data sheets.

E. Inspect weatherseal for damage, wear, and adhesion. Replace compromised weatherseals immediately.

3.4 FIELD QUALITY CONTROL

A. Field Testing:

1. Installer to operate and field verified products including the sealing surfaces to assure that they maintain contact at the correct sealing points.
2. Installer to verify that rollers and latching assemblies operate freely and correctly.

3.5 CLEANING

A. Touch-up, repair or replace damaged products or components before Substantial Completion.

B. Clean all sealing surfaces.

3.6 PROTECTION

A. Protect installed products until completion of project.

END OF SECTION