

SECTION 05522

HORIZONTAL MEZZANINE GATE

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Specialty custom designed, manual, or electric HORIZONTAL SLIDING MEZZANINE GATE for elevated openings, including;

**\*\*Note to Specifier\*\* Consult Manufacturer for dimension requests/requirements/limitations.**

1. Model Number: MGH-XX (Manual Operation)
2. Model Number: MGHE-XX (Electric Operation)

**\*\*Note to Specifier\*\* Food processing environment model, stainless steel construction, with gate voids seal welded.**

1.2 RELATED SECTIONS

- A. Section 03300 – Cast-In-Place Concrete.
- B. Section 05520 – Safety Railings.
- C. Section 05120 – Structural Steel.

1.3 REFERENCES

- A. OSHA Reference 29 CFR 1910.23 Guarding of Floor and Wall Openings and Holes
- B. AISC M016 Manual of Steel Construction, Allowed Stress Design
- C. ASTM A 36/A 36M Standard Specification for Structural Steel
- D. ASTM Z325 (Bolt, Nuts, and Washers)
- E. American Society for Testing and Materials (ASTM) - ASTM A36 Standard Specification for Carbon Structural Steel
- F. American Iron and Steel Institute (AISI) - AISI CL 304.
- G. American Welding Society Structural Welding Code (AWS) - AWS D1.1, D1.2

1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. The HORIZONTAL SLIDING MEZZANINE GATE is intended as a visible and physical continuation of adjacent railing systems at elevated openings where required by U.S. Federal OSHA at time of manufacture. Product designed to meet U.S.

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Federal OSHA requirements of dimensional and load requirements at time of manufacture.

## 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, applicable material specifications, elevations and sections detailing mounting and connections.
- D. 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.
- E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

## 1.6 QUALITY ASSURANCE

- A. Experience: Manufacturer must demonstrate a minimum of Five (5) years successful experience in design and manufacture of similar related products.
- B. Provide evidence to the effect, including list of installations, descriptions, name and method of contact shall be provided, upon request.
- C. 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 DELIVER, STORAGE, AND HANDLING

- A. Delivery
  - 1. Deliver materials in manufacturer's original, unopened, undamaged shipping container with identification labels intact.
- B. Storage
  - 1. Store all materials in a dry, controlled area to protect from elements and damage. If outdoor storage is required, block materials to store at an incline, to prevent pooling of any moisture and promote runoff.
  - 2. Do not tarp tightly, as this will entrap moisture. Instead, tarp materials in a tent-like arrangement, elevated above the product with open sides to allow airflow.
  - 3. For additional questions on delivery, storage, or handling, contact the manufacturer at 877-446-1519 or email to [4psinfo@psindustries.com](mailto:4psinfo@psindustries.com).

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- C. Handling
  - 1. Use caution when unloading and handling product to avoid bending, denting, crushing, or other damage to the product.
  - 2. 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 WARRANTY

- A. Special Warranty
  - 1. The manufacturer provides a limited warranty on this product and components to be free from manufacturing defects for a period of one (1) year from ship date.

## 1.9 MAINTENANCE

- A. Routine inspections and maintenance (Determined by owner).
- B. General housekeeping of immediate area.
- C. Immediate replacement or repair of damaged or missing components.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Approved Manufacturer: PS Access Solutions™, 1150 S. 48<sup>th</sup> Street, Grand Forks, ND 58201. Toll Free Tel: 877-446-1519. Web Site: [www.psaccesssolutions.com](http://www.psaccesssolutions.com) or [www.psindustries.com](http://www.psindustries.com). E-mail: [4psinfo@psindustries.com](mailto:4psinfo@psindustries.com).
- B. Substitutions: Not permitted.
- C. Request for substitutions will be considered in accordance with provisions of Section 01600.
- D. Obtain all HORIZONTAL SLIDING MEZZANINE GATE assemblies from single manufacturer.

### 2.2 EQUIPMENT

- A. Products Details:
  - 1. The HORIZONTAL SLIDING MEZZANINE GATE provides fall protection to elevated railing openings.
  - 2. Model/Operation Options:
    - a. Model Number: MGH-XX (Manual Operation)
    - b. Model Number: MGHE-XX (Electric Operation)

**\*\*Note to Specifier\*\* Food Processing Environment Model, Stainless Steel Construction, with Gate voids seal welded.**

- 3. Material requirements: See Section 2.3 MATERIALS.

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## 2.3 MATERIALS

### A. Attributes

1. The HORIZONTAL SLIDING MEZZANINE GATE is to be fabricated from structural or formed steel shapes, ASTM A36; tubing, ASTM-A-500 Grade B, ASTM-A-513; bars, ASTM-A-36, M1020; of appropriate size and strength, welded construction. Optional materials include Stainless Steel (304 or 316).
2. Height: 42 inches (1067 mm).
3. Mid-rail: Weld to posts at 21 inches (533 mm).
4. Toeboard: 4 inches (102 mm).
5. Vertical Members: Not to exceed 8 feet on center.
6. Rollers: To be minimum 2 5/8" inch diameter, concealed within Toeboard. Rollers to be non-corrosive material.
7. Placards: Include two (2) factory applied caution labels that describe the gate as being operable.
8. Hardware:

**\*\*Note to Specifier\*\*** Select one (1) of the Operation Types above and delete those that do not apply.

- a. Electric Operation: (4) 5/16"-18 x 1" Hex Bolt, (6) 5/16" nylock nut, (8) 5/16" flat washer, (4) #14x1" Tek screw.
- b. Manually Operated (Deck-mounted): (5) 1/4"-20 x 1 3/8" flat head sleeve anchor, (2) 3/8"-16 x 1 7/8" hex nut sleeve anchor, (4) #14x1" Tek screw.
- c. Manually Operated (Face-mounted): (2) 5/16"-18 x 1" hex bolt, (2) 5/16"-18 nylock nut, (4) 5/16" flat washer.
9. Finish on all exposed surfaces to be Powder Coat Safety Yellow, or Stainless Steel. Stainless Steel products to be mill finish, welds are ground smooth, not polished, and are factory acid washer, neutralized and rinsed.

**\*\*Note to Specifier\*\*** If choosing automated operation, please see Operator Specification below.

10. DC Electric Operation:
  - a. One (1), 1/3 HP Low Voltage DC Electric Motor with all motor mounting hardware and drive system components.
  - b. One (1), Pre-wired Control Panel (24 Volt DC controls) with integral push button assembly. Control Panel has built in Limit and Obstruction Sensors.
  - c. Requires: 120 Volt, 10 AMP minimum, Single-Phase power supply (by others).
  - d. Built-in Remote control Receiver with non-volatile memory for up to 60 different transmitter codes, customer programmable.

## 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.

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- 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.

**\*\*Note to Specifier\*\* Supplied components will differ based on the type of operation selected and the type of mount (face/deck) selected.**

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Compliance: Comply with all manufacturer's product data, including installations instructions, reference drawings, shipping, handling, and storage instructions, and product carton instructions for installation.

### 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/APPLICATION

- A. HORIZONTAL SLIDING MEZZANINE GATE Installation
  1. Install in accordance with manufacturer's installation instructions, shop drawings, and details.
  2. All bolted connections must be tight with no fewer than two threads exposed and the nuts are to be positively locked by provide lock nuts.
- B. Tolerances
  1. All dimensional requirements must be in accordance with manufacturer's installation instructions and shop drawings.

### 3.4 FIELD QUALITY CONTROL

- A. Installation: Product to be installed using good general construction methods and practices, in accordance with manufacturer's instructions and drawings.
- B. Field Tests/Installation Verification:
  1. 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.

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### 3.6 PROTECTION

- A. Protect installed product and finish surfaces from damage during handling, storage, and installation.
- B. Protect installed product and finish surfaces during normal and general use.

END OF SECTION

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