SECTION 13 44 13
MEZZANINE AND RACK SYSTEM SAFETY GATES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. LedgeGuard elevated access protection.

B. Rollback Safety Gates.

C. Pallet Flow Gates.

D. SentryGuard single opening and split opening gate systems.

1.2 RELATED SECTIONS

A. Section 05 52 17 - Safety Railings.

B. Section 11 13 33 - Loading Dock Fall Protection.

1.3 REFERENCES

A. OSHA 29 CFR 1910.29. - Guarding floor and wall openings and holes.

B. ANSI MH28.3 - Design, Manufacture, and Installation of Industrial Steel Work Platforms

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

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 methods.

C. Shop Drawings: Complete details of entire mezzanine gate layout, showing member sizes and part identification, fasteners, anchors, fittings and evidence of compliance with structural performance requirements.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: minimum of 30 years experience manufacturing portable railing systems.

B. Installer Qualifications: 2 person crew capable of positioning and installing fall protection system according to manufacturers instructions.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store and maintain products in accordance with the manufacturer's printed recommendations.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Substitutions: Not permitted.

B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 DESIGN REQUIREMENTS

A. Structural Performance: Comply with requirements of applicable local, state, and federal codes.

B. Structural performance of top gate rails and supports:
1. Capable of withstanding a concentrated load of 200 pounds (90.6 kg), applied to the top rail at any point and in any direction.

C. Structural performance of railing infill:
1. Capable of withstanding a horizontal concentrated load of 200 pounds (90.6 kg), applied to one foot (30.5mm) square area at any point on the infill.
2. Infill includes panels, intermediate rails, posts and other elements.
3. Design need not provide for infill loads to be applied concurrently with top rail loading.

2.3 EQUIPMENT

A. Garlock LedgeGuard Mezzanine Safety Gate System: Two-gate system for protecting elevated access points during material loading and unloading.
1. Meets OSHA 1910.23(c)
2. Rails: 1-5/8 inch (41 mm) HREW steel tubing.
3. Depth: 63 inches (1600 mm).
4. Height: 42 inches (1067 mm).
5. Width: **[57 inches] [Custom width].** Gates 70 inches and wider require additional damper.
6. Mid-rail: weld to posts at 21 inches (533 mm) below top rail.
7. Options: **[Toeboard] [Ground Pole]**.
8. Holes: Holes for permanent mounting and securing base.
9. Finish: Epoxy powder coated safety yellow.

B. Rollback Safety Bay Gate System: Fixed gate sits within standard and custom racking systems to protect elevated access points for material loading and unloading. Two-gate system ensures one gate is always closed.
1. Meets OSHA 1910.23(a)(8) and ANSI 6.4.3.
2. Heavy duty chains and roller tracks.
3. Counteracting gates
4. Adjustable chains.
5. Overall Height: 106 inches (2692 mm) high.
6. Overall Length: 60 inches (1524 mm) long.
7. Fixed Gate Width: **[6060 Gate - 60 inches (1524 mm) wide] [6072 Gate - 76 inches (1930 mm) wide] [60126 Gate - 126 inches (3200 mm) wide]**.
8. Top Rail Height: 42 inches (1067 mm0.
9. Lower Rail Height: 20 inches (508 mm).
10. Finish: Epoxy powder coated safety yellow.

C. Rollback Safety Gate: Free-standing gate to protect elevated access points for material loading and unloading. Two-gate system ensures one gate is always closed.
   1. Meets OSHA 1910.23(c) and ANSI 6.4.3.
   2. Heavy duty chains and roller tracks.
   3. Counteracting gates
   4. Adjustable chains.
   5. Overall Height: 106 inches (2692 mm) high.
   6. Overall Length and Width: **[6060 Gate: 70 inches long, 70 inches wide] [7260 Gate: 82 inches long, 70 inches wide] [9660 Gate: 106 inches long, 70 inches wide] [10860 Gate: 118 inches long, 70 inches wide] [60102 Gate: 70 inches long, 112 inches wide] [72102 Gate: 82 inches long, 112 inches wide] [96102 Gate: 106 inches long, 112 inches wide] [108102 Gate: 118 inches long, 112 inches wide].**
   7. Top Rail Height: 42 inches (1067 mm).
   8. Lower Rail Height: 20 inches (508 mm).
   9. Finish: Epoxy powder coated safety yellow.

D. Pallet Flow Gates: Self-closing control gates, bolt to existing industrial racking for one-way flow of pallets.
   1. Meets OSHA 1910.23(a).
   2. Gate Opening: **[single] [double].**
   3. Heavy duty spring closer.
   4. Finish: Epoxy powder coated safety yellow.

E. SentryGuard: Open loading dock and mezzanine fall protection, manual or pneumatic operation, single gate or split gates.
   1. Meets OSHA 1910.23(c).
   2. Rails: 1-3/4 inch (44.5 mm) O.D. by 0.083 inch (2 mm) wall EWSQT tubing.
   3. Length: **[Standard 12 feet] [Custom length (specify)]**.
   4. Standard Single Opening Style: Overall Length: 125.5 inch (3188 mm) fits 8 foot overhead door - opens right or left. Open height 161 inches (4089 mm).
   5. Standard Split Opening Style: Overall Length: 154 inch (3912 mm) fits 12 foot (3.66 m) dock - opens half the length to the right and half the length to the left. Open height 109 inches (2769 mm).
   6. Custom Single Opening Style: Overall Length: minimum 65.5 inches (1664 mm) up to maximum 110 inches (2794 mm). Overall length equals rough opening plus 29.5 inches (749 mm). Open height equals rough opening plus 65 inches (1651 mm).
   7. Custom Split Opening Style: Overall Length: minimum 106 inches (2692 mm) up to maximum 240 inches (6096 mm) overall length equals rough opening plus 10 inches (254 mm). Open height equals one-half rough opening plus 37 inches (940 mm).
   8. Height: 42 inches (1067 mm).
   9. Mid-rail: 21 inches (533 mm) below top rail.
   10. Operation: **[Manual] [Pneumatic]**.
   11. Single Opening Pneumatic Operation: Dual gas assist struts with positive locking mechanism to hold gate fully open or closed. Can be installed to open to right or left. Can be padlocked.
   12. Split Opening Cantilevered Pneumatic Operation: Dual gas assist struts with positive locking mechanism to hold gate fully open or latched closed in the center. Can be padlocked.
   13. Finish: **[Epoxy powder coated safety yellow] [Hot dipped galvanized] [Architect specified custom powder coat color]**.

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 instructions.

B. Before installation, inspect all parts to insure no damaged parts are used.

C. Railing must be secured to base with bolts indicated on the shop drawings.

D. Anchor base mounts to concrete substrate with expansion bolts or to steel edge angles with appropriate anchors bars.

3.4 PROTECTION

A. Protect installed products until completion of project.

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

END OF SECTION