**SECTION 08 36 00**

**SECTIONAL OVERHEAD DOOR**

**COMMERICAL SERIES – MODEL 273**

NOTE TO SPECIFIER: This specification must be edited before issuing. Standard items are shown with options in parenthesis. Delete unwanted options. For assistance contact Safe-Way Door at (574) 267-4861.

**PART 1 GENERAL**

* 1. SECTION INCLDES
1. Steel Sectional Doors.
2. Operating Hardware and Tracks.
3. (Electric Operators and Controls).
	1. RELATED SECTIONS
4. Section 03300 – Cast in Place Concrete. Prepared openings in concrete. Requirements for placement of anchors in concrete construction.
5. Section 04810 – Masonry Assemblies. Prepared openings in masonry. Requirements for placement of anchors in masonry construction.
6. Section 06100 – Rough Wood Carpentry. Rough wood framing and blocking for door opening.
7. (Division 16 Sections – Electrical service and connections for power operated doors.)
	1. REFERENCES
8. ANSI/DASMA 102 – American National Standard Specifications for Sectional Overhead Type Doors.
	1. SUBMITTALS
9. Submit under Section 01300.
10. Product Data: Manufacturer’s data sheets on each product to be used including:
	1. Preparation instructions and recommendations.
	2. Storage handling requirements and recommendations.
	3. Installation methods
	4. Operation and maintenance data.
11. Shop Drawings: Include opening dimensions, clearance dimensions, connection details, anchoring spacing and installation details.
12. Selection Samples: When requested by the architect provide two complete sets color chips of manufacturers range of available colors or patterns.
13. Manufacturer’s Certificates: Certify products meet or exceed specified requirements.
	1. QUALITY ASSURANCE
14. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
15. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.
	1. DELIVERY< STORAGE AND HANDLING
16. Store products in manufacturer’s unopened labeled packaging until ready for installation.
17. Protect materials from exposure to moisture until ready for installation.
18. Store materials in a dry, ventilated weathertight location.
	1. PROJECT CONDITIONS
19. Pre-Installation Conference: Convene a pre-installation conference just prior to installation of field operations to coordinate this work with a related and adjacent work.
	1. WARRANTY
20. Provide manufacture’s five-year warranty against defects in materials and workmanship.

**PART 2 PRODUCTS**

* 1. MANUFACTURERS
1. Acceptable Manufacturer: Safe-Way Door, 3814 East U.S 30, Warsaw, IN 46580.
Phone: (574) 267-4861. Website: [www.safewaydoor.com](http://www.safewaydoor.com).
2. Substitutions: Not permitted.
3. Requests for substitutions: Requests for substitutions will be considered in accordance with provisions of Section 01600.
	1. SECTIONAL OVERHEAD DOORS
4. Sectional overhead doors: Series 273 by Safe-Way Doors
	* + 1. Type: Nominal 2: thick, insulated sandwich.
			2. Material: Nominal 20 gauge ribbed galvanized steel exterior and interior skins.
			3. Rails: Tongue and groove with thermal break.
			4. Endcaps: Minimum. 20 gauge.
			5. Hardware reinforcement: 20 gauge full height of section
			6. Insulation: Foamed in place polyurethane foam insulation for a calculated R-value of 17.68.
			7. Bottom seal: Aluminum retainer and vinyl bulb weatherstrip.
			8. (Weatherstripping: Vinyl jamb and header seal.)
			9. (Glass: Rectangular windows of 1/2” clear insulated DSB glass (1/2” clear tempered glass) (1/2” clear acyclic).
				1. (16”x 34”) (12” x 24”) (8” x 24”)
				2. (Full view section)
	1. FINISH AND COLOR
5. Painted Finish: (Rosewood) (Oak).
	1. TRACK, ROLLERS AND HARDWARE
6. Track: Provide track as recommended by the manufacturer to suit clearances available.
7. 2” track of 16 gauge galvanized steel for doors to 10’ tall, 14 gauge for doors exceeding 10’ tall.
	1. Include adjustable 13 gauge galvanized steel track brackets to assure weathertight closure at jambs.
	2. (Provide adjustable tapered reverse angle to assure weathertight closure at jambs.)
8. (3” track of 13 gauge galvanized steel.)
	1. Include adjustable 13 gauge galvanized steel track brackets to assure weathertight closure at jambs.
	2. (Provide adjustable tapered reverse angle to assure weathertight closure at jambs.)
9. (Provide Standard Lift track as indicated.)
10. (Provide Vertical Lift track as indicated.)
11. (Provide High Lift track as indicated.)
12. (Provide Follow the Roof Pitch track as indicated.)
13. (Provide Low Headroom track as indicated.)
14. Mounting:
15. (Continuous reverse angle for steel jambs.)
16. (Continuous angle for wood jambs.)
17. (Bracket mounting for wood jambs)
18. Rollers: Provide rollers to suit track.
19. 10 ball steel rollers with case hardened inner and outer races.
20. Doors with double end sties shall have long stem rollers.
21. Hinges
22. Minimum 14 gauge galvanized steel hinges.
23. Doors with double end stiles shall have double hinges.
	1. WEATHERSTRIPPING
24. Bottom Weather Seal: Provide flexible bulb type weather seal on the bottom section.
25. (Jamb and Header seal: Provide flexible jamb and header seals.)
	1. OPERATION
26. Manual Operation: Provide pull down rope.
27. (Manual Operation: Provide gear reduced chain hoist.)
28. (Motor Operation: provide U.L listed electric motor operator of a size and type as recommended by the manufacturer capable of moving the door in either direction at not less than 9”/second. Operator shall meet UL325 standard for monitoring of safety devices.
29. Entrapment Protection: Required for momentary contact.
	1. Provide pneumatic sensing edge with coil cord
	2. Provide electric sensing edge monitored to meet UL 325
		1. Connected with a coil cord.
		2. Connected with a take up cord reel.
	3. Provide electric sensing edge monitored to meet UL 325
30. Operator Controls:
	1. Surface mounted Interior NEMA 1 Open/Close/Stop push button control.
		1. Flush mounted.
		2. NEMA 4 exterior mounted.
	2. Exterior surface mounted NEMA 4 spring loaded key operated control.
		1. Flush mounted.
	3. Surface mounted NEMA 1 key operated Open/Close/Stop push button control.
		1. Flush mounted.
		2. NEMA 4 exterior mounted.
	4. Surface mounted NEMA 1 key operated Open/Close/Stop push button control and exterior surface mounted NEMA 4 spring loaded key operated control.
	5. Special application controls contact Safe-Way engineering.)
	6. SPRING COUNTERBALANCE:
31. Provide a helically wound oil tempered torsion spring counterbalance sized to the weight of the door and mounted on a steel shaft by die cast aluminum cast drums with high strength galvanized steel aircraft cable. Minimum 7 to 1 safety factor.
	1. Standard cycle spring: 10,000 cycles.
	2. (High cycle spring: 25,000 cycles.)
	3. (High cycle spring: 50,000 cycles.)
	4. (High cycle spring: 100,000 cycles.)
	5. LOCKING
32. No lock (use with motor operator)
33. Inside mounted spring-loaded slide bolt locks engaging into slots in the track.

**PART 3 EXECUTION**

* 1. EXAMINATION
1. Examine wall and opening including framing and blocking with installer present to confirm clearances, tolerances and other conditions affecting performance are met before beginning installation. Proceed only after all unsatisfactory conditions are corrected.
2. If opening preparation is the responsibility of another trade, notify the architect the conditions.
	1. PREPERATION
3. Clean surfaces prior to installation per manufacturer’s recommendations.
	1. INSTALLATION
4. Install overhead doors and tracks in accordance with the approved shop drawings and the manufacture’s printed instructions.
5. Coordinate with trades of adjacent work to insure clearance and allow for maintenance.
6. Securely brace overhead door tracks suspended to structural members only.
7. (Coordinate installation of electrical service.)
	1. CLEANING AND ADJUSTING
8. Adjust doors for smooth operation and tight weather seal.
9. Clean doors, frames and glass.
10. Remove temporary labels and visible markings.
	1. PROTECTION
11. Do not permit construct traffic through door openings after final adjustment and cleaning.
12. Protect installed products until project completion.
13. Touch-up, repair or replace damaged items before substantial completion.

**END OF SECTION**