

ALUMINUM FULL VIEW

451 & 452

WAYNE-DALTON COMMERCIAL DOOR SYSTEMS



## ALUMINUM FULL-VIEW SECTIONAL DOOR SYSTEMS

WHEN VISIBILITY AND LIGHT TRANSMISSION ARE KEY

Wayne-Dalton's Aluminum Full-View doors are the preferred choice when visibility and light transmission are just as important as aesthetics. Aluminum Full View sectional doors are weather-resistant and virtually maintenance-free, and are ideal for commercial applications such as service stations, car washes, and auto dealerships.



- MAXIMIZES LIGHT AND VISIBILITY
- CHOOSE FROM DSB GLASS, ACRYLIC, POLYCARBONATE THICK PLATE GLASS, OR INSULATED GLASS PANELS
- STANDARD SIZES UP TO 16'2" WIDE AND 16'1" HIGH

## SECTIONAL DOOR SYSTEMS

# ALUMINUM FULL-VIEW 451 & 452

Perfectly suited for applications where maximum light and visibility are desired, Wayne-Dalton's Aluminum Full-View doors help create a pleasant interior environment while offering a warm and open look from the exterior. Aluminum Full-View doors feature an aluminum bottom section with three to seven clear upper sections, depending upon size.

### Model 451

Glazed with 1/8" DSB glass held in place with aluminum molding and sealed with butyl glazing tape, the Aluminum Full-View 451 is ideal for applications up to 16'2" x 16'1". Acrylic (plexiglass) or polycarbonate (lexan) panels, in thicknesses of 1/8" and 1/4" can be substituted for DSB glass.

### Model 452

Ideal for larger installations and applications where insulation and durability are important, the Aluminum Full-View 452 features 1/2" insulated SSB glass, held in place with aluminum molding and sealed with butyl glazing tape. Alternative glazing options include 1/4" thick plate and wire polished glass.

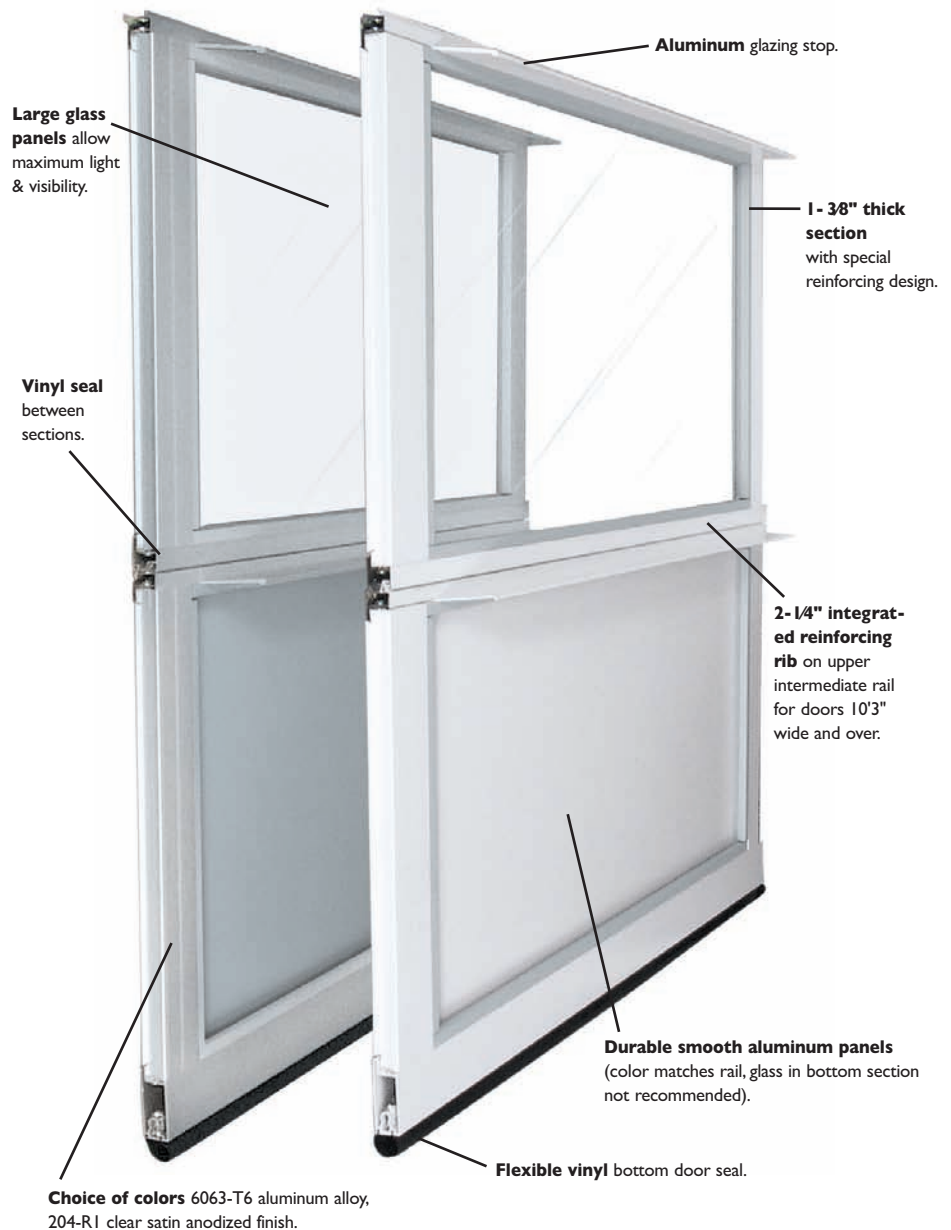
### Materials & Construction

Aluminum Full-View doors are manufactured using high-quality materials for excellent durability. All stiles and rails are extruded aluminum alloy 6063T6 and feature a beveled edge around panels. Stiles and rails can be clear anodized (standard) or finished with white or brown powder coat finish. Tracks and hardware are manufactured from hot-dipped galvanized steel, and the doors feature vinyl seals between sections and on the bottom of the door.

Contact Wayne-Dalton for additional sizes and colors.

### Finishes

- Clear Satin Anodized (standard)
- Bronze Anodized
- Black Anodized
- White/Brown Acrylic
- Custom Powder Coat







**STANDARD SIZES UP TO:**  
16'2" WIDE & 16'1" HIGH

**ENERGY EFFICIENCY VALUES:**  
R = 1.8

**WINDLOAD:**  
Wayne-Dalton Certified  
**windSAFE**

MEET OR EXCEED  
ANSI/DASMA 102-2003  
IN ACCORDANCE WITH  
ASTM E-330-70.

**BEST APPLICATIONS:**  
Where high visibility or  
natural light is needed

### General Operating Clearances

Type	Headroom***		Sideroom**		Depth Into Room	Center Line of Springs	
	2" track	3" track	2" track	3" track	2" & 3" track	2" track	3" track
Standard Lift Manual 12"R	12½-17"	NA	4½"	5½"	Opening Height +18"	Opening Height +12"	NA
Standard Lift Manual 15"R	14½-20"	15½-21"				Opening Height +13"	Opening Height +14"
Standard Lift Motor Oper. 12"R	15-19½"	NA	4½"	5½"	Opening Height +66"	Opening Height +12"	NA
Standard Lift Motor Oper. 15"R	15-19½"	18-23½"				Opening Height +13"	Opening Height +14"
High Lift Manual	Door Height +12"		24" One Side		Opening Height - Lift +30"	Opening Height +Lift +6½"	Opening Height +Lift +7½"
High Lift Motor Oper.							
Vertical Lift Manual 12"R	Door Height +20"		4½"	5½"	Opening Height +18"	Double Door Height +13"	
Vertical Lift Motor Oper. 12"R			24" One Side				
Low Headroom Manual*	6-14½"	6-14½"	6"	9"	Opening Height +20" - 26"	Does Not Apply	
Low Headroom Motor Oper.*	8½-17"	8½-17"			Opening Height +66"		

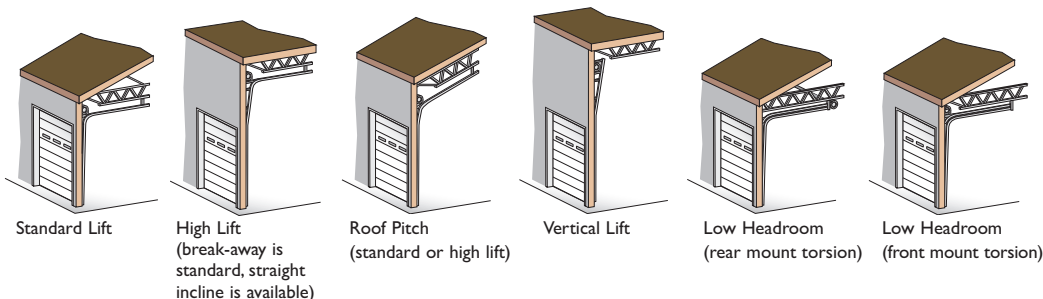
### Panel/Section Selection Guide

Door Width	No. Panels	Door Height	No. Sections
Up to 9'2"	2	Up thru 8'1"	4
9'3" to 12'2"	3	8'2" thru 10'1"	5
12'3" to 14'2"	4	10'2" thru 12'1"	6
14'2" to 16'1"*	8	14'2" thru 16'1"*	8
16'2" & up	Call Factory	16'2" & up	Call Factory

\*Model 451 only

- \*Note: Rear mount torsion requirements shown on chart. See drawings for front mount torsion clearances.
- \*\*Note: 8" sideroom required, one side for doors having chain hoist. 24" side room required, one side for doors having jackshaft operators.
- \*\*\*Note: Clear headroom is based on cable size so please contact factory for specific headroom for your door.

### Track Selection Guide



# SECTIONAL DOOR SYSTEMS

# ALUMINUM FULL-VIEW 451 & 452

**Note to specifiers:** Words in parentheses indicate frequently specified and highly recommended options.

## PART I – GENERAL

### 1.01 Section Includes

- A. Sectional overhead doors [manually] [motor] operated with accessories and components.

### 1.02 Related Work

- A. Opening preparation, miscellaneous or structural steel work, access panels finish or field painting are in the scope of work of other trades and divisions of these specifications.

### 1.03 Reference Standards

- A. **ANSI/DASMA 102** – American National Standards Institute [A216.1] Specifications for sectional overhead doors published by Door & Access Systems Manufacturers Association International in bulletin 102-1990.
- B. **ASTM A123** – Zinc [hot-dipped galvanized] coatings on iron and steel products.
- C. **ASTM A216** – Specifications for sectional overhead type doors.
- D. **ASTM A229** – Steel wire, oil-tempered for mechanical springs.
- E. **ASTM E330** – Structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference.

### 1.04 Quality Assurance

- A. Sectional overhead doors and all accessories and components required for complete and secure installations shall be manufactured as a system from one manufacturer.

### 1.05 Systems Description

- A. Sectional Overhead Door: Type:  
**AFV 451/452**
- B. Mounting: Continuous angle mounting for [steel] [wood] jambs [bracket mounting for wood jambs]
- C. Operation: [manual push-up] [chain hoist] [motor] [motor with chain hoist]
- D. Material: Aluminum Alloy 6063 T6 [clear anodized] [acrylic enamel]

### 1.06 Submittals

- A. Shop Drawings: Clearly indicate the following:
  - 1. Design and installation details to withstand standard windload.
  - 2. All details required for complete operation and installation.
  - 3. Hardware locations.
  - 4. Type of metal and finish for door sections.
  - 5. Finish for miscellaneous components and accessories.
- B. Product Data: Indicating manufacturer's product data, and installation instructions.

### 1.07 Delivery, Handling, Storage

- A. Deliver products in manufacturer's original containers, dry, undamaged, seals and labels intact.
- B. Store and protect products in accordance with manufacturer's recommendations.

### 1.08 Warranty

- A. Provide manufacturer's standard ONEYEAR warranty against defects in workmanship and material.

## PART II – PRODUCTS

### 2.01 Manufacturer

- A. Wayne-Dalton or approved equal **AFV 451/452** overhead doors of aluminum alloy 6063-T6 construction complete as specified in this section and as manufactured by **Wayne-Dalton Corp.**

### 2.02 Materials

- A. Door Sections: Shall be of aluminum alloy 6063-T6, 1 3/8" thick stiles and rails, joined with self tapping screws
  - 1. Rails – Top and bottom rails with 3 1/2" wide, lower intermediate rail 1 3/8", upper rail 1 3/8", minimum wall thickness 0.062".
  - 2. Stiles – Top, bottom, and end stiles are 3 1/2" wide, center stile 3" wide, minimum wall thickness 0.062".
  - 3. Glazing – 1/8" DSB (451) or 1/2" double insulated SSB (452)
- B. Track: Track design shall be [standard lift] [high lift] [vertical lift] [low headroom]. Vertical mounting angles shall be hot-dipped galvanized. Track size shall be [2"] [3"]. Vertical track shall be graduated to provide wedge type weathertight closing with continuous angle mounting for [steel] [wood] jambs, and shall be fully adjustable to seal door at jambs [bracket mounting for wood jambs]. Horizontal track shall be reinforced with continuous angle of adequate length and gauge to minimize deflection.

**Note:** Horizontal track applies to standard lift, high lift, low headroom and follow-the-roof designs only.

- C. Hardware: Hinge and Roller Assembly:
  - 1. Hinges and brackets shall be made from hot-dipped, galvanized steel.
  - 2. Track rollers shall be case-hardened inner steel races with 10-ball [2"] [3"] rollers.
  - 3. All factory authorized attachments shall be made at locations indicated.
- D. Counterbalance:
  - 1. Springs shall be torsion type, low-stress, helical wound, oil-tempered spring wire to provide minimum [10,000 standard] [25,000] [50,000] [100,000] cycles of use, on continuous steel [solid].
  - 2. Spring fittings and drums made of die cast, high strength aluminum.
  - 3. Pre-formed galvanized steel aircraft cable shall provide a minimum of a 5:1 safety factor.

### 2.03 Operation

- A. Operation shall be [manual push-up] [chain hoist] [motor] [motor with chain hoist].

**Note:** Manufacturer does not recommend chain hoists or jack shaft operators on the following track applications.

- 15" radius standard lift with roof pitch less than 2:12
- Hi-lift less than 24"
- Hi-lift between 12" – 23" with roof pitch less than 1:12
- Low headroom track

Special chain hoist assemblies (using a trolley rail) are available for the above track systems.

### 2.04 Locks

- A. Locks shall engage the right-hand vertical track and utilize [an interior side lock] [standard size rim cylinder].

### 2.05 Weatherstripping

- A. Doors shall be equipped with vinyl joint seals between sections and vinyl "bulb" shaped astragal provided on the bottom section. Optional top seal and jamb seal are available.

### 2.06 Glazing

- A. Optional.

### 2.07 Windload

- A. Windload – per DASMA 102-2003 and as required by local codes.

## PART III – EXECUTION

### 3.01 Installation

- A. General:
  - 1. Install doors in accordance with manufacturer's instructions and standards. Installation shall be by an authorized Wayne-Dalton representative.
  - 2. Verify that existing conditions are ready to receive sectional overhead door work.
  - 3. Beginning of sectional overhead door work means acceptance of existing conditions.
- B. Install door complete with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports in accordance with final shop drawings, manufacturer's instructions, and as specified herein.
- C. Fit, align and adjust sectional overhead door assemblies level and plumb for smooth operation.
- D. Upon completion of final installation, lubricate, test and adjust doors to operate easily, free from warp, twist or distortion and fitting for entire perimeter.

**Note:** Architect may consider providing a schedule when more than one sectional overhead door or opening type is required.

### 3.02 Materials (See note above.)

Specifications and technical information also available at [www.arcad.com](http://www.arcad.com), [SpecWizard™](http://SpecWizard™), and [Sweets.com®](http://Sweets.com®).

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COMMERCIAL DOORS & OPERATORS

For technical information, visit:  
[www.wayne-dalton.com/commercial](http://www.wayne-dalton.com/commercial)

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