

SECTIONAL DOOR SYSTEMS

WHEN VISIBILITY AND LIGHT TRANSMISSION COUNT MOST

Wayne Dalton Aluminum Full-View doors are ideally suited for commercial applications ranging from car washes and tire stores to store fronts and other buildings where maximum light and visibility are desired. Available in clear, bronze and black anodized colors or powdercoated colors. The model K-AL door is sturdy, virtually maintenance free and weather resistant.



- MAXIMIZES LIGHT AND VISIBILITY
- CHOICES IN GLASS TYPES COMPLIMENT THE VARIETY OF USES THAT THE MODEL K-AL IS IDEAL FOR
- STANDARD SIZES UP TO 24' WIDE AND 18' HIGH
- OPTIONAL INSULATED RAILS AND STILES AVAILABLE

ALUMINUM FULL-VIEW K-AL

Doors shall be Model K-AL aluminum sectional type as manufactured by Wayne Dalton.

Sections – All rails and stiles are extruded aluminum alloy 6063T6 with clear satin anodized finish. Optional baked-on acrylic finish, color as selected from standard finishes. Sections are 2" thick.

Stiles and rails to be joined together with self-tapping screws. Ends of bottom section are through bolted. Panels and glass are held in place by aluminum molding and sealed with waterproof acrylic high bond structural glazing tape. Optional insulated rails and stiles are available with an R-value up to 4.25.

Doors over 12' 2" wide will be equipped with one or more integral 2 1/4" reinforcing fins, as required by size and weight of door. Bottom section panel inserts shall be clear satin anodized aluminum (or finished to match door color). Vinyl U-shaped astragal weather-stripping is furnished as standard.

Tracks – Hot-dipped galvanized steel graduated for weathertight closing, 2" or 3" as required by size and weight of door.

Hardware – Hinges and brackets shall be made from hot-dipped galvanized steel. Track rollers to be bearing with case hardened inner races, sized to suit track type.

Counterbalance – Minimum 10,000 cycle rated helical wound torsion springs. Optional high cycle springs.

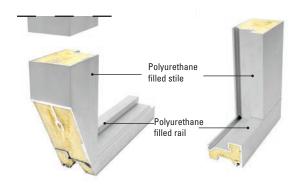
Locking Device – Interior slide lock suitable for padlocking.

Weather Seals – Bottom seal and between sections seal are standard. Optional jamb and header seal are available.

Contact your Wayne Dalton for additional sizes and colors.

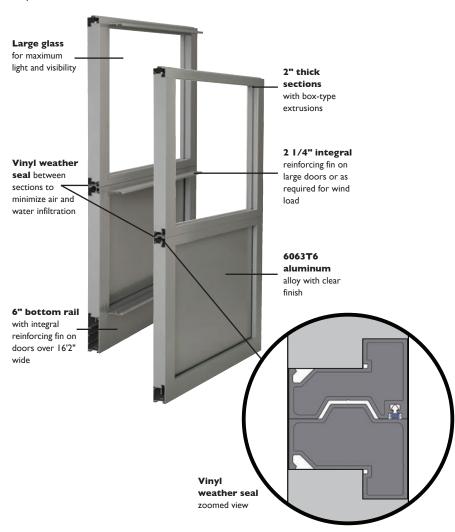
Finishes

- · Clear Satin Anodized (standard)
- · Bronze Anodized
- Black Anodized
- Powdercoat in over 200 RAL colors
- Custom Powder Coat



Glazing – I/8" DSB glass standard in intermediate and top sections. Optional I/8" or I/4" Tempered Glass, I/8" Polycarbonate (Lexan), I/4" Acrylic (Plexiglass), I/2" Insulated DSB, I/2" Solar Ban, I/2" Low E, I/4" polycarbonate multiwall. Special glass types not shown are available, please consult factory. Solid aluminum panels may be specified in lieu of glass.

Ventilation Panels – Optional perforated aluminum panels or expanded mesh aluminum panels are available in a variety of patterns to suit flow requirements.



R-values of Complete K-AL	10x10 door	12x12 door	14x14 door
1/2" ins glass Solar Ban 70XL argon filled (R = 3.125) with polyurethane filled rails and stiles	4.25	4.18	4.17
1/2" ins glass Low E (R = 2.38) with polyurethane filled rails and stiles	3.60	3.52	3.52
1/2" ins glass (R = 1.75) with polyurethane filled rails and stiles	3.05	2.96	2.96



STANDARD SIZES UP TO:

24' WIDE & 18' HIGH

THERMAL EFFICIENCY VALUES:

R-value up to 4.25

WIND LOAD OPTIONS AVAILABLE:



BEST APPLICATIONS: WHERE HIGH VISIBILITY OR NATURAL LIGHT IS NEEDED

General Operating Clearances

	Headr	oom ^{***}	Sidero	om**	Depth Into Room	Center Line of Springs****	
Туре	2" Track	3" Track	2" Track	3" Track	2" & 3" Track	2" Track	3" Track
Standard Lift Manual 12" R	12 I/2" to 17"	NA			O: -:- 0"	Opening Height +12"	NA
Standard Lift Manual 14" R	14 1/2" to 20"	NA			Opening Height +18"	Opening Height +13"	NA
Standard Lift Manual 15" R	NA	15 1/2" to 21"	4 1/2" 5 1/2"		Opening Height + 66"		Opening Height +15"
Standard Lift Motor Oper. 12" R	15 1/2" to 19 1/2"	NA				Opening Height +12"	NA
Standard Lift Motor Oper. 14" R	16 1/2" to 23"	NA			Opening Height - High Lift + 30"	Opening Height +13"	NA
Standard Lift Motor Oper. 15" R	NA	18 I/2" to 24"					Opening Height +15"
High Lift Manual	High Lift +12" to 16"		1		Liit 1 30	Opening Height + High	Opening Height + High
High Lift Motor Operator			24" One Side			Lift + 6 1/2"	Lift + 7 1/2"
Full Vertical Lift Manual	Door Height +12"		4 1/2"	5 1/2"	24"	Door Height + 6"	
Vertical Lift Motor Operated			24" One Side			Door Fielgrit + 6	
Low Headroom Manual*	6-14 1/2"	10-14 1/2"	- 6" 9"		Opening Height + 30"	Does Not Apply	
Low Headroom Motor Operated*	9-14 1/2"	13-14 1/2"			Opening Height + 66"		

Panel/Section Guide

Door Width	No. Panels	Door Height	No. Sections
Up to 8'3" Wide	2	Up thru 8'1"	4
9'4" to 12'3"	3	8'2" to 10'1"	5
12'4" to 16'3"	4	10'2" to 12'1"	6
16'4" to 20'3"	5	12'2" to 14'1"	7
20'4" to 23'7"	6	14'2" to 16'1"	8
23'8" to 24'2"	7	16'2" to 18'1"	9

NOTES:

- Rear mount torsion requirements shown on chart see drawings for front mount clearances
- 8" sideroom required on one side for doors having chain hoist.
 24" side Room required on on side for doors having jackshaft operators.
- *** Clear Headroom is based on door weight and door size so please contact dealer for specific headroom for your door.
- **** Center line of shaft is based on door weight and door size so please contact dealer for specific headroom for your door.

Track Selection Guide



Standard Lift



High Lift (breakaway is standard and straight incline is available)



Roof Pitch (standard or high lift)



Vertical Lift (break away is standard; straight incline available)



Low Headroom (rear mount torsion)



Low Headroom
) (front mount torsion)



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LUMINUM FULL-VIEW K-AL

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

PART I - GENERAL

1.01 Section Includes

A. Sectional overhead doors [manual push-up] [chain hoist] [motor] [motor with chain hoist] 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
- ASTM A123 Zinc [hot-dipped galvanized]
- coatings on iron and steel products.

 C. **ASTM A216** Specifications for sectional overhead
- 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

I.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

- Sectional Overhead Door:Type: K-AL
- 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]
 Material: Aluminum Alloy 6063 T6 [clear anodized] [acrylic enamel]

1.06 Submittals

- A. Shop Drawings: Clearly indicate the following:
 I. Design and installation details to withstand
 - standard wind load.
 - 2. All details required for complete operation and installation.
 - 3. Hardware locations.
 - 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 **K-AL** overhead doors of aluminum alloy 6063-T6 construction complete as specified in this section and as manufactured by **Wayne Dalton**.

Materials

- A. Door Sections shall be of aluminum alloy 6063-T6. 2" thick stiles and rails. Top and intermediate section have stiles and rails joined with screws. Bottom section will be through bolted vertically through the section for extra strength where bottom corner brackets pick up the door.
- Rails Top and bottom rails 3" wide up to 16'2" wide. 16'3" and wider are 6" top and bottom rails.
- Stiles End and center stiles 3" wide.

 Optional insulation with R-values up to 4.25 depending on glass type and door size.
- Glazing 1/8" DSB or 1/2" insulated standard. Additional glazing options include, but not limited to, Low E, Solar Ban, plexiglass and polycarbonate.
- 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:

 I. Hinges and brackets shall be made from hotdipped, 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.

 Output

 Description:

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- 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].
 - 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 hoist or jackshaft operation with the following track systems:

- 12" or 14" radius standard lift with roof pitch < 2:12 Low headroom track
- High lift < 24" with no roof pitch

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

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

 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 Wind Load

A. Wind load - provide to meet the design/performance requirements specified.

PART III - EXECUTION

3.01 Installation

- A. General:
 - Install doors in accordance with manufacturer's instructions and standards. Installation shall be by an authorized Wayne Dalton representative.
 - Verify that existing conditions are ready to receive sectional overhead door work.
 - 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.
- 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.arcat.com, SpecWizard™, and Sweets.com®.

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