



# ALUMINUM INSULATED ROLL-UP DOOR

## ARCHITECTURAL SPECIFICATIONS

Aluminum Insulated Roll-Up Doors can be manufactured to fit openings of up to 70' in width, and to meet a diversity of commercial and residential applications where insulation is required. Doors can be obtained in an anodized or powder coated aluminum, and can be motor, chain hoist, crank or manually operated. Possible applications include, but are not limited to, aircraft hangers, craneway openings, horizontal mountings, door/grille combinations, and small opening protection.

Insulation consists of "form injected" polyurethane. Polyurethane has been proven to be one of the most thermally effective insulation materials available today. Its effectiveness comes from having the lowest thermal conductivity and the highest resistance of all common insulators.

After "foam injecting" the polyurethane under pressure into our aluminum slats it expands many times its size ensuring that 100% of the slat will be insulated. As the foam cures it hardens into a lightweight insulation forming an exceptionally effective aluminum-foam-aluminum permanent bond that will not separate or warp for the life of the door.

Weatherstripped guides are standard to minimize rain infiltration, dust, wind and rodents. Additional weatherstripping for hood and sill is available.

### ■ PART 1 GENERAL

#### 1. Work Included

Aluminum Insulated Roll-Up Doors will be designated as Model AI\_\_\_ as manufactured by Best Roll-Up Door, Inc.

- Mounting: Can be face interior face mounted or interior mounted between jamb and under intel in a prepared opening.

#### 2. Related Work

Opening preparations miscellaneous or structural steel, field painting or finish, access panels, electrical wires, wiring, switch connection, conduit will be handled by the appropriate trades.

### ■ PART 2 PRODUCT

#### 1. Curtain

- Slats: Extruded in continuous lengths of anodized 6063 through 6463 aluminum with foam injected polyurethane as insulation. These are then interlocked to form curtains.

- Gauge: Aluminum slat thickness shall be no less than 16 gauge and no more than 8 gauge on each side of dual-faced slats.

- Endlocks: To accomplish slat alignment and serve as a wearing surface endlocks are fitted to each end of alternate slats.

- Anodizing: All aluminum parts are anodized. Mill finish and shiny bright-dip anodized finish is also available.

#### 2. Bottom Track

Curtain is reinforced with an extruded 6063-T6 aluminum tube that can be further reinforced for wider openings.

#### 3. Guide and Wall Angle Assembly



- Guides/Wall Angles: 6063 - 6463 aluminum angles of 5/32" minimum thickness. Guide weatherstripping on inside and outside shall be provided.
- Depth of Guide: To be of appropriate size to allow slat penetration and to restrict horizontal slat movement.

#### 4. Windload

Aluminum Roll-Up Door construction is designed to withstand windload of up to 60 PSF in a fully closed position, and can be designed to withstand higher windload upon request.

#### 5. Bracket Plates

- Bracket Plates: With a 5/16" minimum thickness our carrying pipe counterbalancing shaft houses ends of door coil.
- Drive End Bracket Plate: The bracket plate on the drive-end is to be fitted with a sealed ball bearing.

#### 6. Spring Counterbalance

- Counterbalance: Housed in a steel pipe, maximum deflection of 0.03" per foot of door width is achieved by having the appropriate diameter and wall thickness.
- Springs: Helical torsion with a 25% overload factor for ease of operation and are greased packed mounted on a cold rolled steel inner shaft.
- Spring Tension: Can be adjusted from outside of end bracket plate.
- Ball Bearing: Sealed in order to minimized wear of pipe shaft rotation around inner shaft.

#### 7. Hoods

- Hoods: To house coil and can be manufactured from #24 U.S. gauge galvanized steel or 5/32" thick anodized aluminum.
- Reinforcing: Can be reinforced laterally to prevent sag.
- Intermediate Hood Supports: Provide where door width exceeds 16'.

#### 8. Operation

Operation can be manual push-up, chain hoist, waist high crank hoist, or power operated.

#### 9. Locking

- Slide Bolts: On bottom track for manual push-up operated doors.
- Integral Gearing: Power operator can provide locking for door.
- Hand Chain Lock: Consists of a locking bracket mounted on a guide angle.
- Cylinder Lock: System is installed in bottom track and can be key or thumb knob operated.
- Locking Disc: Can be provided on crank hoist's crank box.

#### 10. Finish

Aluminum surfaces are anodized and can be powder coated upon request.

## ■ PART 3 EXECUTION

INSTALLATION: Installation to be completed by an authorized representative.

#### OPTIONS

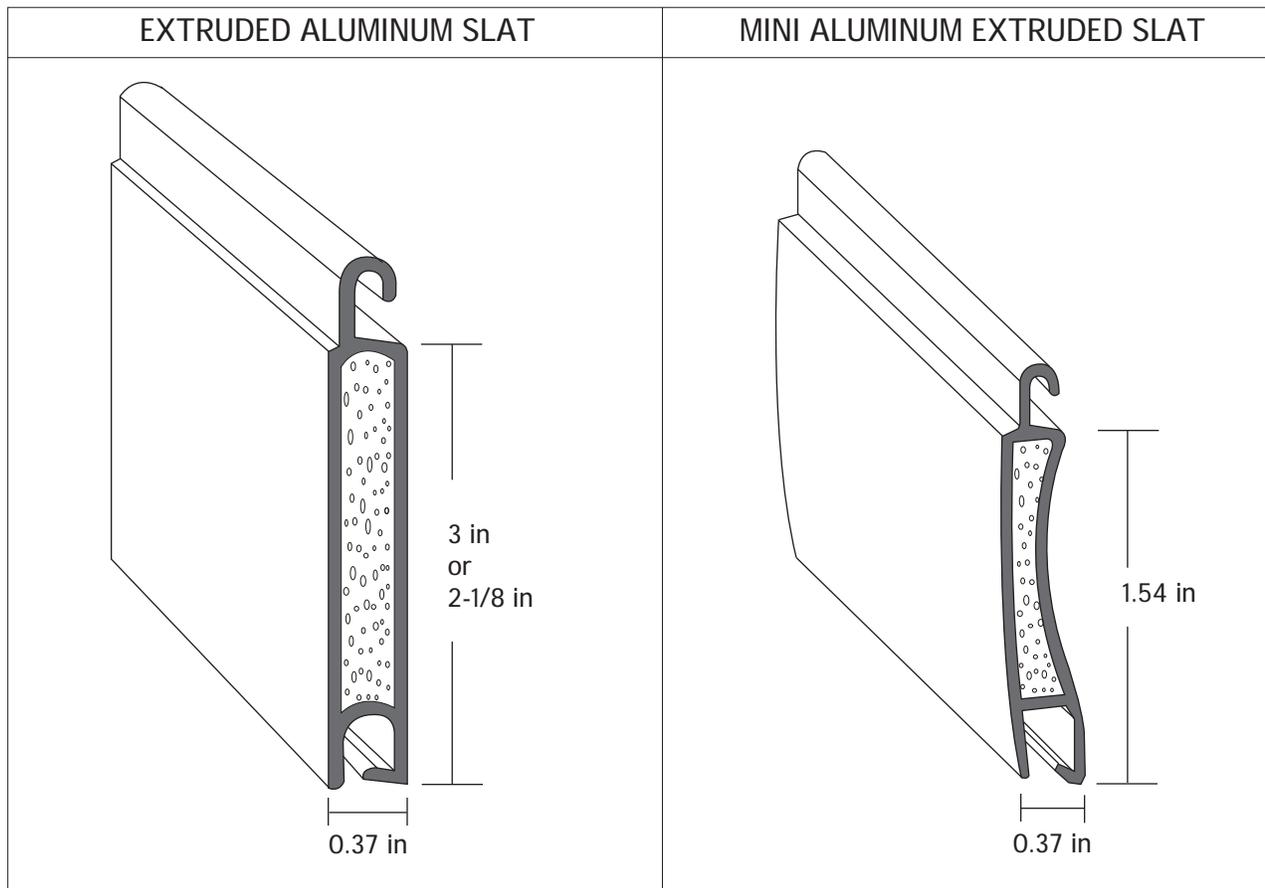
- Endlocks: They can be continuous, stamped steel, malleable iron, or brass to prevent sparks caused by metal to metal contact in guides.



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- Windload: Special windloads are available.
- Bottom Track: Can be Aluminum angles or extruded aluminum. It can be notched to match obstruction in finished floor.
- Sensor Edge: An electronic sensor edge can be added to power operated doors.
- Vision Lites: Consisting of clear polycarbonate plastic can be embedded in slats and can be range in size from a minimum of a 4" x 3/4" to a maximum of a complete slat.
- Perforated Slats: Can be provided in curtain. Each individual slat cutout can be 5" wide and 3/4" high, in set of 15 cutouts, five slats high, and three cutouts wide.
- Fenestrated Slats: Can be provided in 1/16" diameter holes located on 3/32" staggered centers.
- High Cycle Springs: Can be obtained for motorized doors that require 50,000 to 100,000 cycles. Very high cycles in excess of 100,000 are also available.
- Bracket Plates: Can be made from galvanized or stainless steel.
- Powder Coat Finish: Provides a powder coat in wide range of colors.
- Pass Door: Hollow metal pedestrian door with in roll-up door can be obtained in a 3' x 7' or 3' x 6' 8" size. Hinged to roll-up door guide the hollow metal door frame will swing clear of opening when desired. Hardware includes heavy duty langes and lock set with cylinder lock outside and night latch inside.
- Stop Lock Bearing: Can be provided to prevent chain, crank, or motor operated door room falling completely to the floor in the event of damage to chain, crank, or motor operator.
- Weatherstripping: Weatherstripped guides form both inside and outside are supplied with our Aluminum Roll-Up Door. Sill and hood weatherstripping is also available.

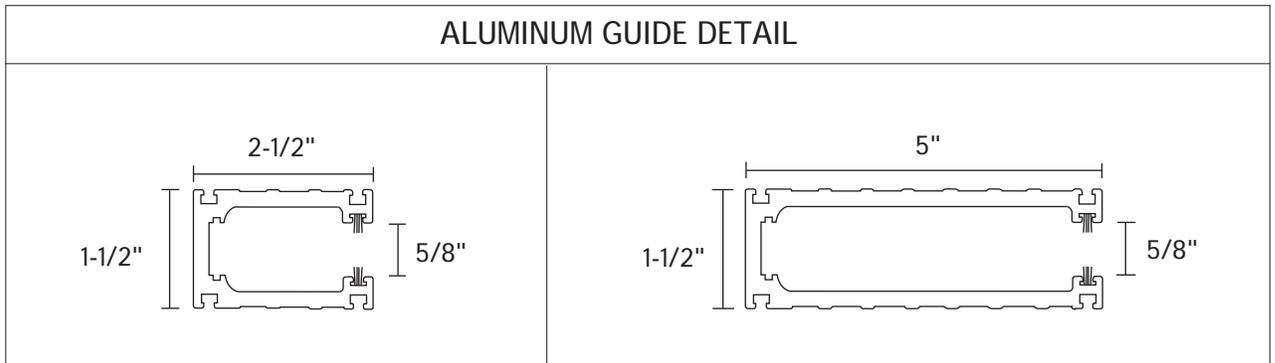
## ■ SLAT TYPES



# ALUMINUM INSULATED ROLL-UP DOOR



## ■ GUIDE DETAIL



## ■ CLEARANCES

OPENING HEIGHT	A	D	G
To 12' 4-7/8"	5-1/2"	5-1/2"	6-1/2"
12' 5" to 18' 4-7/8"	5-1/2"	5-1/2"	8"
18' 5" to 24' 4-7/8"	N/A	6-1/2"	8"
Over 24' 4-7/8"	N/A	Consult Factory	Consult Factory

OPENING HEIGHT	NO ENDLOCKS EQUIRED	
	D	G
To 9' 1"	12"	12"
9' 1-1/8" to 11' 1"	13"	13"
11' 1-1/8" to 13'	14"	14"
13' to 14' 7"	15"	15"
15' to 16'	16"	16"
Over 16'	Consult factory	Consult factory

\* Suffix letters indicate a particular finish or material of curtain.

AA = Anodized Aluminum  
PA = Powder Coated Aluminum

Maximum size recommended for manual push-up operation is 80 sq. ft. or 8' 4" high.  
3" dimension refers to top hood head and can be eliminated by turning bead down where headroom is limited.