

R•O•M Series IV Roll-up Shutter Door Design Notes



TO ORDER: Series IV use FM-8.2-401 / M4000 Power Door use FM-8.2-409 / MHS use FM-8.2-407 order forms.

SIZE & INSTALLATION GUIDELINES

***** Make sure that there is enough compartment depth to install the model door you have chosen. Minimum DEPTH and minimum HEADER requirements are shown below *****

- These door sizes have been fully engineered and tested to make sure they meet our stringent performance requirements
- In order to maintain the highest performance standards possible for our products, size outside of these ranges must be approved prior to accepting any orders

FRONT ROLL

| Internal Height (IH) | Minimum Internal Depth | Minimum Header Height * |
|----------------------|------------------------|-------------------------|
| UP to 33" | 10.5" | 2.625" |
| 34" to 53" | 11.4375" | 3.375" |
| 54" to 78" | 12" | 4.375" |
| 79" to 104" | 13.875" | 6.75" |

* Absolute Minimum Header Height is 2-5/8" other Header Heights shown serve to better hide the rolled-up door

REAR ROLL

| Internal Height (IH) | Minimum Internal Depth | Minimum Header Height * |
|----------------------|------------------------|-------------------------|
| UP to 33" | 15.25" | 2.375" |
| 34" to 53" | 15.25" | 2.375" |
| 54" to 78" | 15.25" | 2.375" |
| 79" to 104" | 15.25" | 2.375" |

| Minimum Opening Height (OH) | Maximum Opening Height (OH) | Minimum Opening Width (OW) | Maximum Opening Width (OW) |
|-----------------------------|-----------------------------|----------------------------|----------------------------|
| 14" | 97.25" | 15" | 90" |

- Any width door may be ordered with any height available

M4000 POWER DOOR

| Internal Height (IH) | Minimum Internal Depth | Minimum Header Height | Minimum Shutter Width | Maximum Shutter Width | Minimum Shutter Height | Maximum Internal Height | Maximum Opening Height (OW) |
|----------------------|------------------------|-----------------------|-----------------------|-----------------------|------------------------|-------------------------|-----------------------------|
| UP to 33" | 13.75" | 4.375" | | | | | |
| 34" to 53" | 14.72" | 4.875" | 15" | 90" | 16-3/8" | 104" | 95.75" |
| 54" to 78" | 15.82" | 5.875" | | | | | |
| 79" to 104" | 16.95" | 8.25" | | | | | |

MHS (Minimum Header Shutter)

| Maximum Internal Height (IH) | Minimum Opening Height (OH) | Maximum Opening Width (OW) | Minimum Opening Width (OW) | Minimum Internal Depth (ID) |
|------------------------------|--|----------------------------|--|---|
| 49" | 14" <i>Must have Min. OW of 28"</i> | 84" | 15" <i>Must have Min. OH of 36"</i> | IH + 8.25" <i>(IH) Internal Comp. Height</i> |

MHS Door: Stays on top of the compartment and does not roll-up
Requires only 1-1/2" of Header Space
Occupies only 4-1/2" at the Top of the Compartment when Fully Open

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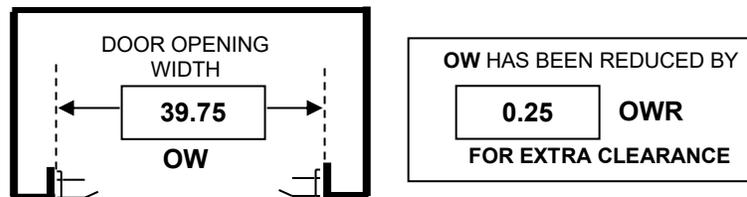
NOTES:

- Finished Opening Height is approximately 4-1/4" less after the door is installed.
- Finished Opening Width is approximately 2-3/4" narrower than the Door Opening Width.
- Track is reduced 1/16" less than the door opening height to allow for ease of installation.
- Bottom rail of the door is approx. 4-1/4" tall and extends below the header when the door is in a raised position.
- Also, a return flange is required at the side of the opening for track mounting.
- At top of the opening, behind the header there should be no flange, as the door must exit the top of the track.
- Absolute Maximum Header thickness is 1/2", when door is flush with the truck skin.

DEFINITIONS:

- **Door Opening Width:** The size of the opening prior to the installation of the door.
- **Door Opening Height:** The distance from the bottom of the header to the bottom of the compartment prior to the installation of the door. In the event there is a step down in the compartment, measure to the point where the bottom of the door will rest when closed. The Door Opening Height specified determines the length of the track provided with the door.
- **OWR (Opening Width Reduced):** An additional clearance beyond the standard that is built into the shutter width. This additional amount is deducted from the opening width by the customer and specified on the order form so that the drip rail, lift bar and sill plate match the original opening width.

OWR Example: Actual door opening width is 40", OWR is 1/4", so the door opening width is 39-3/4"



**** OPTIONS AVAILABLE ****

1. ROLL-UP SHUTTER DOOR MODEL

- **SERIES IV** use Order Form FM-8.2-401
- **M4000 Power Door** use Order Form FM-8.2-409
- **MHS (Minimum Header Shutter)** use Order Form FM-8.2-407

2. FINISH TYPE

- **SATIN** - door is made from a smooth, aluminum colored anodized material with a matte finish.
- **BRUSHED** - is an anodized aluminum slat with small lines milled horizontally into the face of the slat material. These "brush marks" enhance the appearance of the doors and tend to hide minor surface scratches that may occur during normal usage. Bottom rails, track and trim are not brushed finish.
- **PAINTED Perfect Match Wet Paint** - doors are painted with the color specified by the customer. This paint is normally matched to the rest of the vehicle. Wet painting results in a very high gloss, durable finish. We now mix paint in house in Sikkens BTLV and PPG Delta / Delfleet. For other brands or types, please consult with your Account Representative for prior approval.

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3. **ROLL TYPE / OPERATOR STYLE**

- **FRONT ROLL** – shutter has the rolled-up portion of the door is located just behind the header at the front of the compartment.
- **REAR ROLL** – shutter rolled-up portion of the door is located toward the rear of the compartment. Minimum compartment depth needed for rear roll door is 15-1/4". The rear roll configuration is not available with the M4000 power operated shutter.
- **MHS (MINIMUM HEADER SIZE)** – shutter door is designed for compartments where there is less than normal header space and the compartment depth is at least 8.1/4" greater than the Internal Height. This door requires only a 1-1/2" header however, there must be sufficient depth. Ask for the MHS Technical Bulletin for more details. *TO ORDER MHS – use ORDER FORM # FM-8.2-407.*

4. **DRIP PAN**

Drip Pans are available for mounting under the roll up door. Extra clearance is needed under the roll for mounting the pan. The pan serves to prevent moisture from dripping off the door and falling on equipment and protects the exterior finish of the shutter from being damaged by equipment stored within the compartment.

- **DRIP PAN only**
- **DRIP PAN with DRAIN** – routes water outside the compartment.

5. **DRIP RAIL STYLE**

- **2 PC. SNAP DRIP RAIL** - This is a 2-piece Aluminum extrusion consisting of a base and a fitted cover. When installed it creates a rain gutter for the shutter door.
- **LARGE PROFILE DRIP RAIL** - This is a single piece Aluminum extrusion 4.5 inches in height. When installed it creates a rain gutter for the shutter door. This drip rail extrusion can also serve as the compartment header.

6. **DRIP RAIL SEAL**

- **V-SEAL SNAP COVER** – This is a double edge design "V" used when the shutter pennant plate is mounted at the recommended 1-5/8 inch. This seal is the recommended seal for ALL painted shutters. Seal design does not contact shutter surface.
- **WIPER SEAL SNAP COVER** - This seal is a single edge design used when the shutter pennant plate is mounted at a distance greater than 1 5/8 inch. The seal is designed to cover the larger gap created in these instances. Seal can be trimmed for a custom fit. It is recommended that the seal does not contact the shutter during operation.

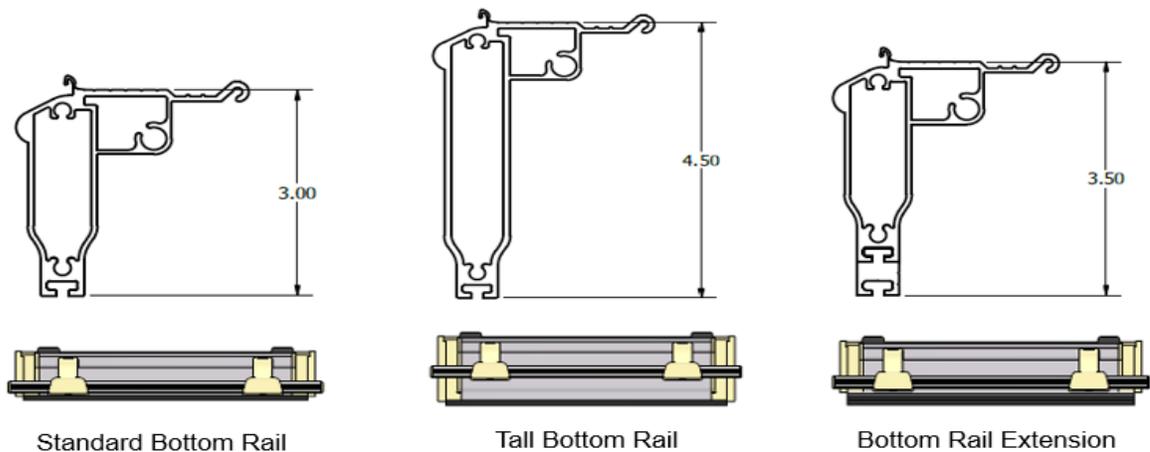
For all seals, if "STANDARD LENGTH" is chosen, the seal will be sized for the individual door openings. The Drip Rail for both the V-Seal and Wiper Seal doors is cut wider than the door opening specified. The drip rail will then form a square corner with the outside edges of the track if the opening dimensions provided were accurate. If a size other than the standard length is needed, please specify your exact requirements in the "Custom Length" box.

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7. BOTTOM RAIL HEIGHT

- **STANDARD BOTTOM RAIL**
- **TALL BOTTOM RAIL** - This single piece option adds approximately 1-1/2" of additional clearance between the lift bar and threshold. This option is best used when a compartment's threshold extends beyond the vertical plane of the curtain's outer surface.
- **BOTTOM RAIL EXTENSION** – This dual piece option adds 1/2" of additional clearance between the lift bar and the threshold. This option is best used when a compartment threshold extends beyond the vertical plane of the curtain's outer surface. (Option can only be applied to Standard Bottom Rail)



8. PULL STRAP OPTION

- **ELASTIC PULL STRAP** - is available for door openings that are tall or for doors that are mounted high on the vehicle. The pull strap makes it easier to pull down doors that could potentially be otherwise out of reach. Elastic pull strap contains bungee webbing sewn inside a nylon strap. One end of the strap is connected to the bottom rail and the other to the side of the compartment frame. When the shutter is opened it makes a loop, when the shutter is closed it straightens (stretches) and stays in compartment.
- **LENGTHS**
 - 20" for doors <35" OH
 - 30" for doors between 35" to 65" OH
 - 40" for doors > 65" OH

9. LIFT BAR

- **ALUMINUM LIFT BAR**

10. INTERIOR RELEASE PUSH BAR

- Push bar installed on interior side of bottom rail will enable outside lift bar to release and allow egress from compartment.

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11a. LOCK OPTIONS

- **NO LOCK** - The Standard Door has No Key Lock mechanism.

MANUAL LOCK – Manually operated key lock installed in bottom rail of shutter. The manually operated lock works by physically turning a key that extends lock rods located inside the bottom rail, into holes in the track at both sides of the opening.

- **POWER LOCK** – Left, Right, or Dual mounted power operated locks with mechanisms located on Left, Right, or both sides of the shutter door.

The single side power locking mechanism locks one side of the door only and is typically sufficient for openings up to 40" wide. For wide doors or doors requiring additional security, please order doors with lock mechanisms on both sides.

The M4000 has an electric powered operator for raising and lowering the door automatically. The M4000 system includes power locks on both sides regardless of shutter door width and a door ajar switch circuit. The switching mechanism to operate the doors must be provided by the installer.

11b. KEY TYPE

- **MODEL J-236** - The J-236 is a double sided, flat bladed key with dust cover
- **MODEL 751** - The 751 is a single sided, flat bladed key with no dust cover
- **MODEL 1250** - The 1250 is a single sided, flat bladed key with dust cover

11c. POWER LOCK LOCATION

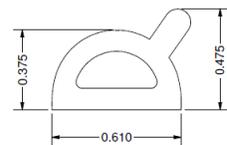
Select location(s) for Power Lock to be installed

- **LEFT SIDE** or **RIGHT SIDE** or **BOTH SIDES (LEFT & RIGHT)**

12. WEATHER STRIPPING

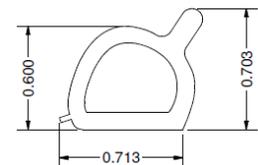
- **SMALL BULB** - A foam seal that is applied to the shutter after installation.

Smaller profile when additional clearance is required or if the shutter pennant (mounting) plates are installed to the top of the compartment.
Small bulb seal is standard for the MHS shutter.



- **LARGE BULB** - A foam seal that is applied to the shutter after installation.

Larger profile when additional clearance is not required or if the shutter pennant (mounting) plates are installed 1/4" or more from the top of the compartment.

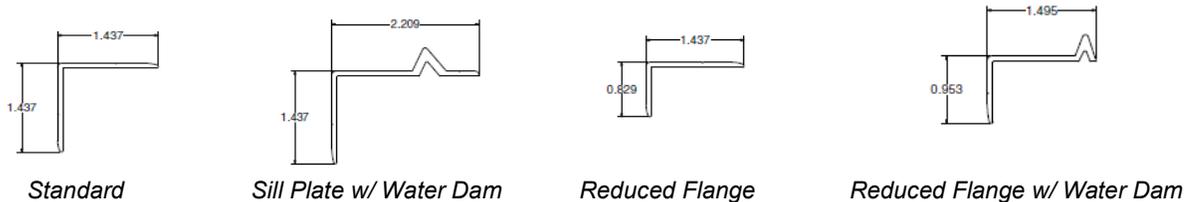


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13. **SILL PLATE**

Sill plate is available for the bottom of the opening. This 90-degree angle extrusion provides a perfect surface for the door to seal against when it is closed. The sill plate is ideal for use when the bottom of the compartment is not smooth as when using diamond plate. In addition, the sill plate provides the additional benefit of completing the framing of the door from a visual perspective.



- **STANDARD SILL PLATE** - Sill plate is an aluminum angle where both legs are flat.
- **SILL PLATE WITH WATER DAM** - Sill plate has an elevated "bump" on the top leg to prevent water from seeping into the compartment.
- **REDUCED FLANGE SILL PLATE** - Sill plate is an aluminum angle where both legs are flat and the front leg overlapping the compartment opening face is reduced in size.
- **REDUCED FLANGE WITH WATER DAM** - Sill plate has an elevated "bump" on the top leg to prevent water from seeping into the compartment. The front overlapping and rear leg are reduced in size.

14a. **DUROSTRIP™ LED LIGHTING FORMAT**

- DuroStrip™ Stand-Alone LED LIGHTBAR
- DuroStrip™ Integrated LED LIGHTBAR
- None

14b. **DUROSTRIP™ LED LIGHTBAR**

- V5 - WHITE
- V5 - RED / WHITE

14c. **DUROSTRIP™ LED VOLTAGE**

- 12V LED

14d. **DUROSTRIP™ LOCATION(S)**

Select location(s) that LED LIGHTING is to be installed:

- LEFT SIDE
- RIGHT SIDE
- BOTH LEFT & RIGHT SIDE - if "both sides" is selected, then (2) DuroStrip™ Lightbars will be ordered

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14e. **DUROSTRIP™ STAND-ALONE MOUNTING OPTION**

- **MOUNTING BLOCKS** - Ships with mounting blocks loose - without tape.
- **MOUNTING TAPE** - Dual-sided mounting tape, ships loose.
- **MOUNTING SLOTS** - Ships with pre-punched slots - without tape.
3/4" of extrusion length per end will be added automatically to length specified (total 1-1/2" added).

14f. **DUROSTRIP™ STAND-ALONE LED EXTRUSION LENGTH**

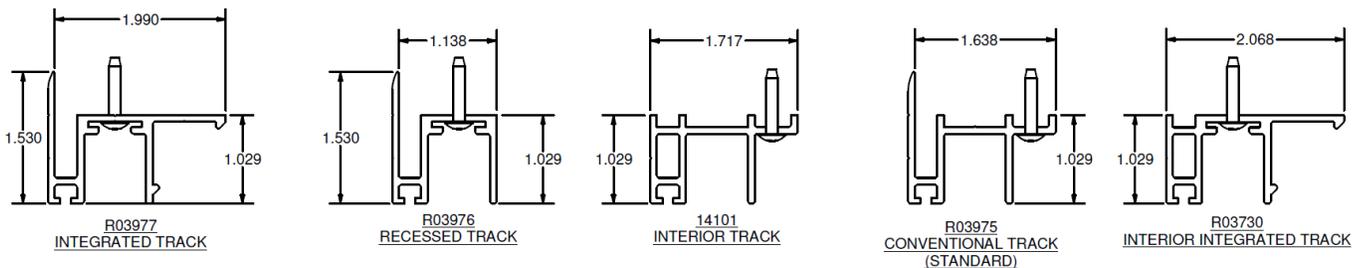
Specify any additional length you may want added to the Stand-Alone LED Lighting extrusion.
(Applies only to aluminum extrusion if extra surface area is required)

14g. **DUROSTRIP™ LED WIRE LEAD LOCATION**

For INTEGRATED TRACK - Specify LED Wire Lead Location

- **WIRE EXIT TOP** – wires will exit top of LED lighting.
- **WIRE EXIT BOTTOM** – wires will exit bottom of LED lighting.

15. **SERIES IV TRACK STYLE**



• **CONVENTIONAL TRACK**

has a finishing flange on the front to hide any small gap between the track and the side of the opening. This track also has a fastening flange behind the channel that the door travels in. This fastening flange is the location where the fasteners are inserted through the track. Because the fasteners cannot come into contact with the door, there is no danger that they will interfere with door operation. This track requires a 1-5/8" wide flange at the side of the opening to serve as a base for mounting the track. This track also accepts side seal.

• **INTERIOR TRACK**

has a fastening flange but no finishing flange. The interior track may be located at the front edge of the compartment or further back within the opening for unusual applications.

• **RECESSED TRACK**

also referred to as track with no fastening flange, has a recessed area in the bottom of the channel where the door travels. This recessed area is where the fasteners are inserted to secure the track. The recessed area in back of the extrusion minimizes the chances of the fasteners coming in contact with the door during operation. However, this track only requires a 1-1/8" wide flange at the side of the opening. This track also has a finishing flange and accepts side seal.

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- **INTEGRATED (LIGHTING) TRACK**

a one-piece extrusion that incorporates the adjustable compartment lighting to the rear of our recessed track extrusion. This requires a 2-1/16" depth clearance to allow for sufficient room to mount this extrusion.

If this option is selected you also need to select INTEGRATED LED on #13a - DUROSTRIP™ LIGHTING FORMAT, if not you will receive a "Stand Alone Light".

- **INTERIOR INTEGRATED (LIGHTING) TRACK**

a one-piece extrusion that incorporates the adjustable compartment lighting to the rear of our interior track extrusion. This requires a 2-1/16" depth clearance to allow for sufficient room to mount this extrusion. If this option is selected, you also need to select INTEGRATED LED on #13a - DUROSTRIP™ LIGHTING FORMAT, if not you will receive a "Stand Alone Light"

16. PRE-PUNCHED TRACK

- **YES** – ALL track ships with pre-punched mounting holes. The current holes are "punched" and are oblong in nature to allow for easy installation on vehicles that have been predrilled to accommodate our track. If the opening is to be pre-drilled before the track arrives, please request details of our standard drill pattern.

17. MDAS (DOOR AJAR SWITCH) / STRIKE BLOCKS

- **SERIES IV – MDAS 3-WIRE (DOOR AJAR SWITCH)** - Magnet controlled switch designed for low current (1/2 amp) ground to provide a signal that shutter is open. Switch is not load rated.
- **SERIES IV – MDAS 5-WIRE (DOOR AJAR SWITCH)** – Magnet controlled switch designed for 10 amp load. See wiring instructions located in Shutter Installation Manual for more information.

18a. MDAS (DOOR AJAR SWITCH) MOUNTING

If MDAS 3-Wire or MDAS 5-Wire is selected in item #17

- **SHIPPED LOOSE** - If shipped loose the holes can still be pre-punched at the factory for your convenience when installing strike blocks later.
- **INSTALLED – LEFT SIDE** / strike block on right
- **INSTALLED - RIGHT SIDE** / strike block on left
- **INSTALLED on BOTH SIDES**

18a. STRIKE BLOCK MOUNTING

If STRIKE BLOCKS ONLY are selected in item #17

- **SHIPPED LOOSE**
- **INSTALLED on BOTH SIDES**

Note: MDAS and Strike Block selection and mounting only apply to Series IV Front Roll, Rear Roll, and MHS shutter doors.

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19. PRE-PUNCHED MOUNTING HOLES FOR STRIKE BLOCKS / MDAS

If SHIPPED LOOSE was selected in item #18b

- YES – pre-punched mounting holes
- NO – do not pre-punch mounting holes

20. CRATED PACKAGING

- YES - CRATED - Crated option is available, if specified here on the order form.
- NO - Standard packaging will be used, which is a heavy duty corrugated cardboard box, unless the crated option is selected.

Note:

All information is subject to change without notice.

To confirm current requirements please contact Customer Service at 800-827-3692 ext. 5000 or by email to rom.orders@romcorp.com.

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