

SHUTTER DESIGN NOTES

FM-7.2-23

6800 E. 163rd Street
Belton, Missouri 64012
Toll: 800-827-3692
Phone: 816-318-8000
Fax: 816-318-8100

R•O•M ROLL-UP SHUTTER DOORS / SERIES III OPTIONS

To order use Form FM-7.2-22; for MHS Door use Form FM-7.2-176

Internal Height (IH)	FRONT ROLL		REAR ROLL	
	Minimum Internal Depth	Header Height	Minimum Internal Depth	Header Height
UP to 33"	10.5"	2.375"	15.25"	2.375"
34" to 53"	11.4375"	3.375"	15.25"	2.375"
54" to 78"	12"	4.375"	15.25"	2.375"
79" to 104"	13.875"	6.75"	15.25"	2.375"

FRONT ROLL & REAR ROLL
Absolute Minimum Header Height is 2-3/8"

Other Header Heights shown serve to better hide the rolled up door.

Internal Height (IH)	QUEST 2000	
	Minimum Internal Depth	Header Height
UP to 33"	11.25"	2.375"
34" to 53"	12.22"	3.375"
54" to 78"	13.32"	4.375"
79" to 84"	14.45"	6.75"

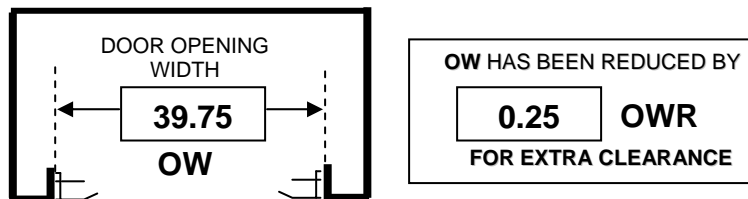
MHS SHUTTER (minimum header size)

Maximum Internal Height (IH)	Minimum Opening Height (OH)	Maximum Opening Width (OW)	Minimum Opening Width (OW)	Minimum Internal Depth (ID)
49"	14" Must have a Min. OW of 28"	84"	15" Must have a Min. OH of 36"	IH + 6.25" (IH) Internal Compartment Height

MHS DOOR stays float on top of the compartment & 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.

Please make sure that there is enough compartment depth to install the model door you have chosen. The minimum DEPTH and minimum HEADER requirements are shown above.

- Note:** - The bottom rail of the door is approximately 4" tall and extends below the header when the door is in the raised position.
 - Also a return flange is required at the side of the opening for track mounting.
 - At the top of the opening, behind the header there should be no such flange, since the door must exit the top of the track.
 - 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 TYPE / OPERATOR STYLE

- **FRONT ROLL** - shutter has the rolled up portion of the door located just behind the header at the front of the compartment.
- **REAR ROLL** - door has the rolled up door located toward the rear of the compartment. Minimum compartment depth needed for rear roll door is 15.25". The rear roll configuration is not available with the Quest 2000 power operated doors.

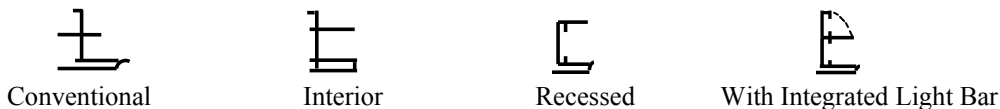
QUEST 2000 POWER DOORS with POWER LOCKS – this system includes:

- Patented power operated door – electric powered operator for raising and lowering the door automatically
- Patented power locks
- Door ajar switch
- Switch activated with multiple activation methods and locations
- Manual override in case of loss of power and an automatic cutoff switch

- The switching mechanism to operate the doors must be provided by the installer

- **MHS STYLE** - (minimum header size) door is designed for compartments where there is less than normal header space and the compartment depth is at least 6" 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 Door use Form # FM-7.2-176.*

2) TRACK STYLES



- **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 can not 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** - for applications not requiring a side seal. This 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 called 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 the back of the extrusion minimizes the chances of the fasteners coming in contact with the door during operation. This track only requires a 1-1/8" wide flange at the side of the opening however. This track also has a finishing flange and accepts side seal.
- **TRACK WITH INTEGRATED LIGHTBAR** - is 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 the light bar option is selected – note you will receive a “Stand Alone” light bar – unless the TRACK WITH INTEGRATED LIGHT BAR option is chosen.*

3) PRE-DRILL TRACK HOLES



- Track mounting holes are an available option. 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.

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 prevent moisture from dripping off the door and falling on equipment within the compartment.
- **DRIP PAN with DRAIN** - An optional drip pan with drain setup is available to route water outside the compartment.

5) 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. Two options are available:

- **STANDARD** sill plate is an aluminum angle where both legs are flat. 
- **WATER DAM** sill plate has an elevated "bump" on the top leg to prevent water from seeping into the compartment. 

6) UPPER SEAL / DRIP RAIL STYLE / TRIM

- **DRIP RAIL / V-SEAL SNAP COVER** - default option. This is a 2 piece seal system using a V-Seal behind the header and a weather strip attached to the face of the door. The two come together when the door is in the closed position, completing the seal. This type of seal is very quiet during operation since the seal does not touch the face of the door as the door is being raised or lowered. This seal should be used on all painted doors to prevent dirt and debris from abrading the finish on the door.
- **DRIP RAIL / WIPER SEAL SNAP COVER** - actually touches the face of the door during operation and wipes across the face of the door as it is opened. This type of seal will actually wipe any moisture off the face of the door as it is being raised. The Wiper Seal should not be used on painted surface doors.

- **BRUSH SEAL** - used when no drip rail is needed. This seal is normally mounted underneath the header of the opening using industrial adhesive tape. The brush seal is typically used when the manufacturer of the vehicle has supplied their own drip rail above the opening. The brush seal should typically not be used with painted doors. In the event it is used on painted doors, the installer should mount the seal so as not to touch the face of the door.

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 3/4" 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. The Brush Seal is cut the same length as the opening width specified. If a size other than the standard length is needed, please specify your exact requirements in the "Custom Length" box.

7) WEATHER STRIPPING

Form strip applied on slat of curtain to help prevent dirt and water from entering at the top of the compartment.

Weather stripping can be shipped installed (default) or loose.

8) BOTTOM RAIL

- **TALL BOTTOM RAIL** - This single piece option adds approximately 1-1/2" of additional clearance between the liftbar and threshold. This option is best used when a compartment's threshold extends out beyond the vertical plane of the curtain's outer surface.
- **BOTTOM RAIL EXTENSION** – This dual piece option adds ½" of additional clearance between the liftbar and the threshold. This option is best used when a compartment's threshold extends out beyond the vertical plane of the curtain's outer surface.

9) PULL ROPE

- Pull ropes are available for door openings that are tall or for doors that are mounted high on the vehicle. The pull rope makes it easier to pull down doors that could potentially be otherwise out of reach.

10) LIFT BAR

- **ALUMINUM LIFTBAR** – default option
- **STAINLESS STEEL LIFTBAR** – is also available

11) CRATED

Standard shipping is Heavy Duty Corrugated cardboard box. A crated option is available if specified.

12) FINISH TYPE

- **SATIN** Finish - door is made from a smooth, aluminum colored anodized material with a matte finish.
- **BRUSHED** Finish - 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.
- **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 either Sikkens Autocoat LV, PPG Delta / Delfleet, or DuPont Performance Coating products – Imron and Imron Elite brands. For other brands or types, please consult with your Account Representative for prior approval.

13) STRIKE BLOCKS / DOOR AJAR SWITCH

- **STRIKE BLOCKS** - default option. - may be shipped loosed or installed/pre-mounted. If shipped loose the holes may be pre-drilled at the factory for your convenience when installing strike blocks later. If there is any possibility that the opening height will not be exactly as specified, it would be wise not to pre-drill or install strike blocks in advance. This would permit additional flexibility in the event the size of the track needs to be adjusted at time of installation.
- **DOOR AJAR SWITCH (MDAS)** - is designed to turn on a compartment light and/or a door open indicator in the cab of the vehicle. Please see installation instructions for specific wiring information. The door switch can be pre-mounted at the factory on the right side or left side to ease installation. For better flexibility during installation, the switch may be shipped loose. If

shipped loose, we can either pre-drill mounting holes or leave it up to the installer to drill the holes needed at the time of installation.

14) LOCK TYPE

- **NO LOCK** - The Standard Door has No Key Lock mechanism.
- **MANUAL LOCK** - manually operated key lock, left mounted power lock which locks the left side of the door only, right mounted power lock which locks the right side of the door only, dual mounted power operated locks with mechanisms located on both sides of the door therefore locking both sides of the door.

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.

The single side locking mechanism used for power doors locks one side of the door only and is typically sufficient for openings up to 45" wide. For wide doors or doors requiring additional security, please order doors with lock mechanisms on both sides.

The Quest 2000 has an electric powered operator for raising and lowering the door automatically. The Quest 2000 system includes power locks and a door ajar switch. The switching mechanism to operate the doors must be provided by the installer.

14b) KEY TYPE

- **MODEL J-236** key is standard. The J-236 uses a double sided, flat bladed key.
- **MODEL 1250** lock is also available for those requiring this specific lock type. This model uses a single cut, flat bladed key. Model 1250 locks are sometimes used in other areas of some vehicles making it possible to have several locks keyed alike.

15) COMPARTMENT LIGHTBAR

- **LED LIGHTBAR**- Please choose between
 - INTEGRATED LIGHTBAR - To select an integrated lightbar – on Form FM-7.2-22 go back to item #2 – Track Style and make sure you selected with integrated
 - STAND-ALONE LIGHTBAR
- **TYPE – LED V3 LIGHTBAR** - Lightbar exceeds the 2009 NFPA compartment light standard.
 - Refer to FM-7.5-254 Technical Bulletin for more information.
- **LOCATION** - left side, right side or both sides.
- **WIRE LEAD LOCATION** – will wire lead be located on the top or bottom of the lightbar?
- **V3 STAND-ALONE LIGHTBAR – MOUNTING OPTIONS**
 - 3M VHB Dual Sided Mounting Tape – *default option* – ships with mounting tape pre-attached.
 - Mounting Holes – Ships with pre-punched slots - without tape.
3/4" of extrusion length per end will be added automatically to the length specified.
 - Adjustable Mounting Blocks – Ships with mounting blocks loose – without tape
3/4" of extrusion length per end will be added automatically to the length specified.

16) ADDITIONAL OPTIONS

- **REMOTE KEYLESS ENTRY** - is available for any shutter with power locks or power doors.

Note: All information is subject to change without notice. To confirm current requirements please call our sales staff at 1-800-827-3692.