



Product Description

The VMAG High Velocity Magnetic Gate Operator represents a quantum leap in gate operator technology and combines unprecedented speed and reliability, without moving drive components, making it the ultimate gate operator for homeland security and critical infrastructure.

VMAG propels security gates up to 8 feet per second, which effectively deters unauthorized access and tail-gating while dramatically increasing authorized throughput, enhancing both security and efficiency.

The patented design incorporates electromagnetic Linear Induction Motor technology, eliminating moving drive components, hydraulic fluids and lubricants and their environmental risks, making VMAG the world's fastest and most reliable gate operator utilizing proven green technology.

VMAG's industry leading XCP™ (*Xtreme Corrosion Protection*) materials and special coatings, with marine grade options, provide additional protection in coastal regions, industrial areas, or other corrosive environments.

The unique floating design, programmable speed control and self-calibrating feature adapt to any application and the integrated locking mechanism makes VMAG virtually impossible to defeat.





Models

VM1220 - (208-240 VAC, Single or 3-Phase)

VM1420 - (440-480 VAC, Single or 3-Phase)

VM1425 - (440-480VAC, 3-Phase)

Operators include reaction fins and mounting hardware for a standard 20' gate opening.

VMAG models VM1420 (440-480 VAC, 3-Phase) or VM1425 (440-480 VAC, 3-Phase) are recommended for maximum performance, HEAVY gates, and/or openings of 30' or more. Custom configurations are available for special projects, large openings and K-rated gates. Step-up transformers may be necessary depending on available power and the desired level of performance.

VMAG gate operators are functionally compliant with UL 325. (Certification listing pending.) Installation of external entrapment protection devices are required to meet UL-325 and industry safety guidelines.

Linear Induction Motors

Type: Linear Induction with internal thermal protection
Winding Insulation: Class H 1800C (3550F)
Class F 1550C (3100F)
Protection class: IP60

Required Electrical Supply

VM1220 *	208-240 VAC, 1 or 3 Ph, 50-60 Hz, 20 A Ckt
VM1420 *	440-480 VAC, 1 or 3 Ph, 50-60 Hz, 20-30 A Ckt
VM1425 *	440-480 VAC, 3 Ph, 50-60 Hz, Min. 30 A Ckt

** Model selection is based on gate mass, size of opening and desired level of performance.*

Shipping Specifications – (Complete Operator Package): VM12XX, VM14XX*

Complete operator package for standard 20' opening includes LIM assembly, control cabinet and (3) full RF1 reaction fins, (1) RF1RHK right hand end kit, (1) RF1LHK left hand end kit, (6) HB1 hangar brackets and all necessary mounting hardware.

Operator Pallet: (L x W x H) 42" x 42" x 19", Wt: 425 lbs.

Reaction Fin Pallet: (L x W x H) 86" x 10.5" x 17", Wt: 200 lbs.

* Add 20 lbs. to Operator Pallet for VM14XX models.





High Velocity Magnetic
Gate Operators

Options & Upgrades

RF1 - Reaction Fins (6.58 feet ea.) includes 2 RF1HB hanger brackets and mounting hardware.

The RF1 Reaction Fin is an integral part of VMAG's patented design and installs directly to new or existing gates using RF1HB Hanger Brackets. RF1 sections are connected using supplied hardware and may be added to accommodate gates of any length.

The RF1's precision machining also interacts with the LIM assembly's integrated locking mechanism making VMAG virtually impossible to defeat.

VMAG gate operators include: (3) RF1 Reaction Fins, (1) RFRHK right hand end kit, (1) RFLHK left hand end kit, (6) RF1HB Hanger Brackets and mounting hardware for a standard 20' gate opening.

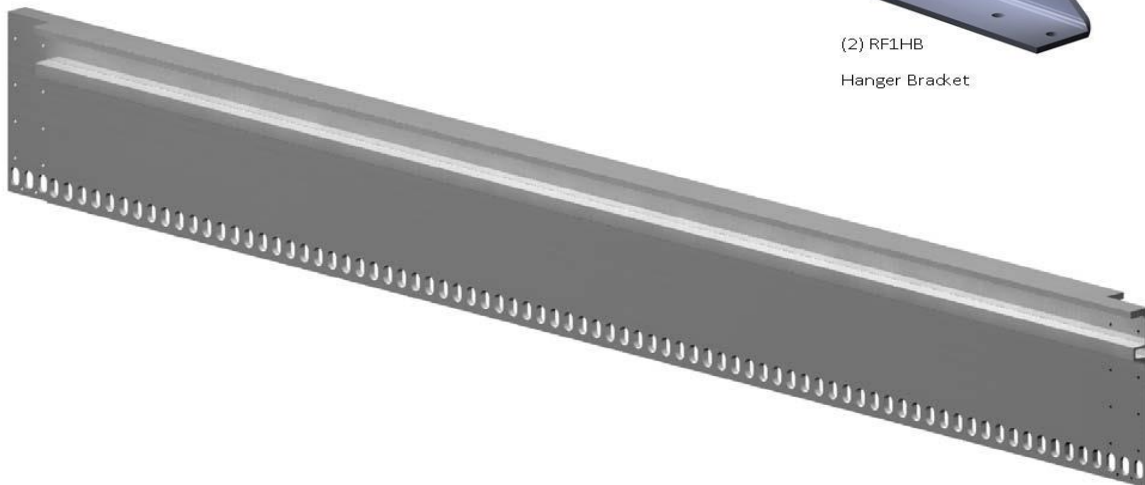
Formula for estimating total number of RF1 Reaction Fins required for installation:
(Total Feet of Clear Opening + 6 feet) Divided by 6.58 = Number of RF1s Required (Round up.)
Example: (24' Opening + 6') / 6.58' = 4.5 (Round up to 5 total Reaction Fins)

Material: 6061-T6 Aluminum Extrusion
Wt.: 37.55 lbs. ea. (approx. 5.3 lbs. per foot)
Length: 6.83 ft. (82") Overall
Width: Top 2.5", Main Fin 0.375"
Height: 9.78"
Finish: Clear Anodize - MIL-A-8625, Type II, Class 2

Shipping Specifications: (L x W x H): x 86" x 10.5" x 3.25"
Weight: 40 lbs.



(2) RF1HB
Hanger Bracket





Options & Upgrades

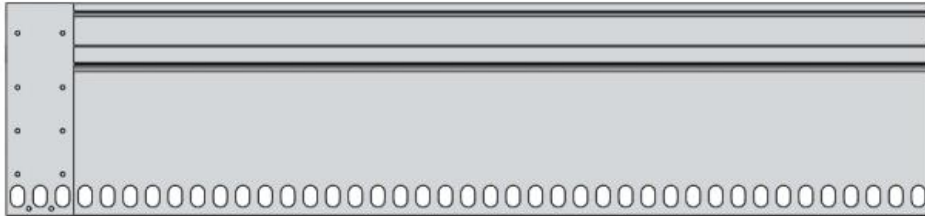
RF1RHK- Reaction Fin End Kit Right Hand Side

(Includes 1 RF1HB hangar bracket and mounting hardware.)

Material: 6061-T6 Aluminum Extrusion
Weight: 18.78 lbs.
Length: 38" (41") Overall
Width: Top 2.5", Main Fin 0.375"
Height: 9.78"
Finish: Clear Anodize - MIL-A-8625, Type II, Class 2

Shipping Specifications:

(L x W x H): 86" x 10.5" x 3.25"
Wt: 20 lbs.



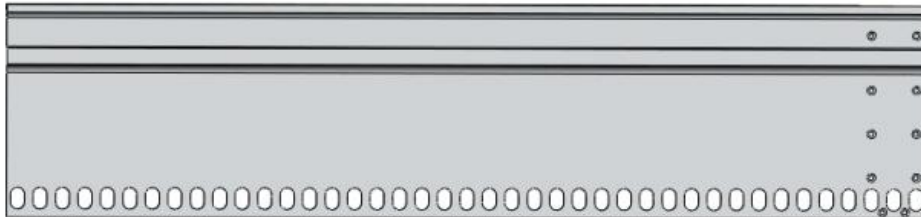
RF1LHK- Reaction Fin End Kit Left Hand Side

(Includes 1 RF1HB hangar bracket and mounting hardware.)

Material: 6061-T6 Aluminum Extrusion
Weight: 18.78 lbs.
Length: 38" (41") Overall
Width: Top 2.5", Main Fin 0.375"
Height: 9.78"
Finish: Clear Anodize - MIL-A-8625, Type II, Class 2

Shipping Specifications:

(L x W x H): 86" x 10.5" x 3.25"
Wt: 20 lbs.





Options & Upgrades

VMSSCC - 316 Stainless Steel NEMA 4X Control Cabinet Upgrade

The VMAG 316 stainless steel control cabinet is marine grade and provides maximum protection for coastal regions, industrial areas or other corrosive environments. Upgrading to the optional VMSSCC316 Control Cabinet completes VMAG's industry leading XCP™ (*Xtreme Corrosion Protection*) materials package.

Material: 14 gauge, 316-stainless steel.

Weight: 43 lbs.

Control box dimensions: 24" wide x 30" height x 13 depth

Mounting hole dimensions: Four 3/8" holes on 28.5" x 22.5" centers

Allow room for door to open (opens to left)

Listings:

UL 508 Types 3R, 4, and 12

CSA Type 3R, 4, and 12

Complies with:

NEMA Type 3R, 4, and 12

IEC 60529, IP66





Options & Upgrades

VMHP - Cabinet Heater w/Thermostat (Includes factory installation)

Recommended for environments where ambient temperatures may fall below the normal operating range of 0 degrees Fahrenheit.

Weights & Dimensions:

Heater

Weight: 1.6 lbs.

(L x W x H): 10" x 3" x 2"

Thermostat

Weight: 0.096 lbs.

(L x W x H): 2-21/2" x 1-1/2" x 1-1/2"





Options & Upgrades

VMDIK - Dual Interface Kit for Master/Slave Operation

(Required for installations involving 2 VMAG gate operators.)

Kit includes two interface adaptors with internal data communication cables.

(Product image not available)

2 Units

Weight: 0.164 lbs. ea.

(L x W x H): 4" x 1-1/2" x 3" ea.

VMDCC – Communication Cable for use with Dual Interface Kit (VMDIK)

Data communication cable is available by the foot direct from VMAG.

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Weight: 0.022 lbs/ft.

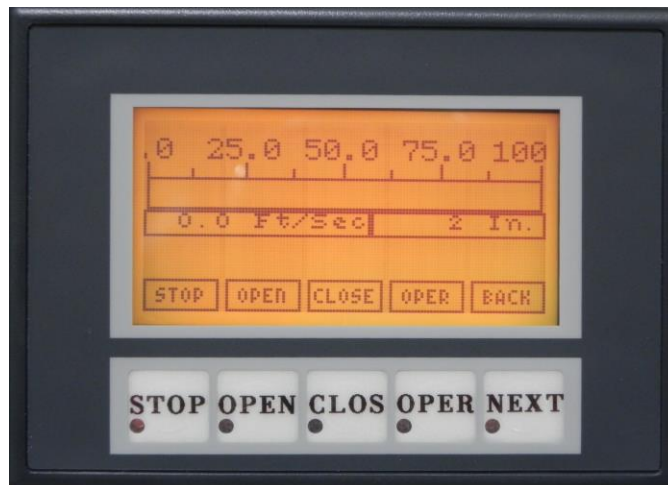
Diameter: 3/16"

P1 - Programmer with Cable (Certified Installers & factory trained end-users only)

The VMAG P1 Programmer allows direct interface with the control unit for customizing gate operation, including variable speed control.

Weight: 0.368 lbs.

(L x W x H): 4-1/2" x 3-1/2" x 1-1/5"





Keep Alive

Eliminates the need to relearn the Vmag after power interruptions or backup generator switch over.

The Keep Alive maintains power to the programmable logic controller and proximity sensors in the event of a power loss or drop. The kit includes two 12VDC rechargeable batteries, battery bracket, control module and wire for field installation or may be factory installed if requested.



Will your gate operator keep working during power outages?

NEW



VMUPS - Uninterruptible Power Supply

The VMUPS is designed for use with the VM1220 linear induction gate operator and may also be used with any other electrical equipment for continued operation during power outages. The VMUPS has been tested¹ to provide up to 8,000 linear feet (200 cycles) of gate travel when used with the VM1220.

- TWO 12 VOLT 75 AMPERE HOUR BATTERIES INCLUDED
- PURE SINE WAVE INVERTER AND PFC (POWER FACTOR CORRECTED) BATTERY CHARGER PROVIDES CLEAN, RELIABLE INVERTER POWER WITH LOW HARMONIC DISTORTION OF LESS THAN 5%
- POWER FACTOR CORRECTED CHARGER USES 25%-30% LESS AC CURRENT THAT STANDARD CHARGERS
- MULTIPLE PORTS INCLUDING RS485 COMMUNICATION PORT FOR NETWORK EXPANSION
- DOOR MOUNTED LED PANEL LIGHT ILLUMINATES WHEN OPERATING ON BATTERIES

SPECIFICATIONS:	Enclosure	14 ga. steel powder coated gray (316 stainless steel enclosure optional)
	Batteries	Two 12 volt 75 Ah AGM (Absorbent Glass Mat) sealed lead acid batteries (included).
	Inverter/Charger	
	Input power:	120 VAC or 208 - 240 VAC, Single Phase, 30 Amp service
	Output Power:	240 VAC (Split Phase 120 - Neutral - 120), 60 HZ, 30 Amp Max.
	Transfer time:	16 milliseconds (1 cycle of 60 Hz)
	Waveform:	Pure Sine Wave
	Operating temperature :	-20° F - 140° F (with heater & insulation option)
OPTIONS:	VMSSCC	316 stainless steel enclosure upgrade (shown)
	VMHPI	Enclosure heater w/thermostat (shown) and insulation package factory installed

Note 1. Test Conditions: Model VM1220 used with a 20' clear opening aluminum cantilever gate operating at 50% speed, 1 cycle per minute. Ambient air temperature 70°F.



www.vmagtech.com 210 495-3000

**Note: Currently compatible with Model VM1220 (208-240) ONLY.
30A Ckt. Required.**



VRMR - Vmag Remote Manual Release

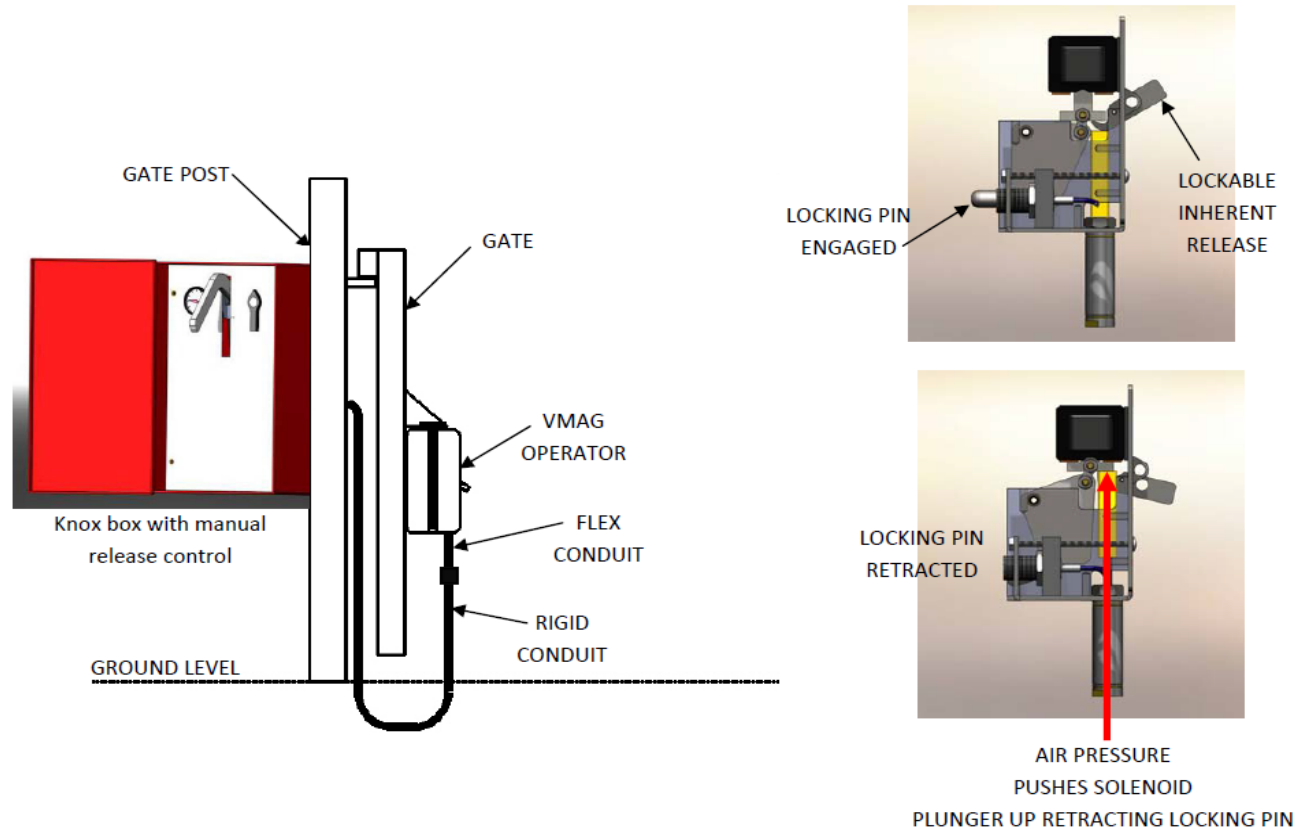
The VRMR remote manual release allows emergency access for manual gate operation in the event of a power outage.

Normal emergency access is achieved through a limit switch sending an OPEN command to the gate operator when the EMERGENCY Knox box door is opened. In the event of a power outage a manual lever located inside of the Knox box is activated by sending pneumatic pressure to a stainless steel cylinder mounted to the operator which mechanically pushes the lock solenoid up thereby retracting the locking pin allowing the gate to be opened manually. Once the pressure is relieved the locking pin will drop back to a normal condition.

The remote manual release overrides the inherent operator manual release whether it is secured with a padlock or not.

The pneumatic line from the Knox box to the operator should be run through rigid 1/2" conduit on the unsecured side but must be continued to the operator with flex conduit on the secured side to allow the operator to float with the gate movement.

Periodic tests should be performed to assure proper operation.



VMDEICE

De-Icing Package



Prevents ice & snow accumulation on the motor assembly, lock assembly and reaction fin in the vicinity of the motor assembly when icing conditions exist. Can be retrofitted in the field or factory installed when ordered as an option.

Available for VM1220 & VM1420 slide gate operators.

Requires PLC & Programmer version 021415.01 or later