



## MSG Series Technical Specifications

### **Product Name**

Maximum Security Gate– Model MSG, Model MSG1, Model MSGX, MSGX-PX and MSGX-E

### **Manufacturer**

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**Product Description:** The MSG gate is a self closing full height security gate designed to provide controlled access into and out of high security facilities often in conjunction with Alvarado's full height turnstiles. The following configurations are available:

**MSG –**            Entry Direction: Pull Handle  
Exit Direction: No hardware

**MSG1 –**        Entry Direction: Key Lock Control  
Exit Direction: Mechanical Push Bar  
Gate includes Infill Mesh to prevent reach through activation of the push bar.  
Gate arm swings in one direction.

**MSGX –**        Entry Direction: Magnetic Lock (fail safe) and Pull Handle  
Exit Direction: No Hardware.

**MSGX-PX –**   Entry Direction: Magnetic Lock (fail safe) and Pull Handle  
Exit Direction: Microswitch Push Bar  
Gate includes Infill Mesh to prevent reach through activation of the push bar.  
Gate arm swings in one direction.

**MSGX-E** – Entry Direction: Electric Strike Lock (fail lock), Key Lock Control, and Pull Handle  
Exit Direction: Mechanical Panic Bar  
Gate includes Infill Mesh to prevent reach through activation of the push bar.  
Gate arm swings in one direction.

**Materials:** All tubing and sheet metal materials meet ASTM Standard A513.

**Components:**

- The **Gate** is a fully welded assembly constructed of cold rolled carbon steel (or #304 SS) tubing. The gate arm assembly consists of a miter cut and welded border constructed of 2" square x 11 gauge cold rolled carbon steel (or #304 SS) tubing with four welded vertically aligned interior pieces constructed of 1 3/4" x 16 gauge cold rolled carbon steel (or #304 SS) tubing. The vertical tubes are spaced evenly across the width of the gate and are reinforced by two 1" x 3/16" thick cold rolled carbon steel (or #304 SS) flat bar welded horizontally across the gate arm. The gate includes a 8" x 1/8" thick cold rolled carbon steel (or #304 SS) kickplate. All welds are ground smooth and polished. The gate arm is 36" wide and 81 5/8" high. In a fully open (90 degree) position, the gate provides an opening of approximately 35". All gates include an adjustable hydraulic door closure.
- The **Gate Frame** is a fully welded assembly constructed of miter cut and welded 2" square x 11 gauge cold rolled carbon steel (or #304 SS) tubing with five welded vertically aligned interior pieces constructed of 1 3/4" x 16 gauge cold rolled carbon steel (or #304 SS) tubing and two welded 1/4" thick base plates with gussets. All welds are ground smooth and polished. The gate frame is 91" high and 40" wide.
- The **Infill Mesh**, if included, is 3/4" #9 type expanded metal fabricated from either cold rolled steel or #304 stainless steel. MSG1, MSGX-PX, and MSGX-E versions include infill mesh.

**Finishes:** MSG series gates are available in the following finishes:

- **Galvanized** – All exterior tubing and sheet metal surfaces receive a coating of hot molten zinc meeting ASTM Standards A123 through A153.
- **Powder Coated** – Available in a wide variety of colors. Sub-assemblies are sand blasted to prepare for the powder coat finish. The powder is electrostatically applied, then baked to assure proper curing and adhesion.
- **Stainless Steel** – All external fabricated materials are composed of #304 stainless steel (noted in the descriptions above as #304 SS) and polished to a #4 satin finish.

**Size:** MSG units have an overall height of 91", an overall width of 40" and a depth of 12" when the gate arm is closed.

**Shipping:** MSG gates are shipped fully assembled. Each MSG unit includes mounting hardware (anchors, bolts, washers, etc.) to mount the unit to a standard concrete pad. Alvarado ships products throughout the world.

**Installation:** All MSG units must be installed on a firm foundation (in a manner that allows the required power and activation signal cabling to be pulled to the top of the gate frame if the electric lock control option is purchased). The recommended platform is 48" by 18" by 4" deep, level concrete. No embedded fasteners are needed for installation. Installation should be performed by a skilled installer following the manufacturer's directions and instructions (supplied with the gate).

**Locking Component Specifications:**

**MSG1 – Manual Deadbolt Lock:** Manual key lock control in the entry direction.  
**Mechanical Push Bar:** Provides mechanical push exit control in the exit direction.  
Von Duprin Model 9975EO US2D.

**MSGX – Magnetic Lock:** Fail Safe only; Gianni Model GL-1200.

- Input power: 12 VDC
- Current Draw: 250 mA @ 12 VDC
- Holding Force: 1300 lbs
- 120 VAC to 12 VDC wall type power supply provided with gate.

**MSGX-PX – Magnetic Lock:** Fail Safe only; Gianni Model GL-1200.

- Input power: 12 VDC
- Current Draw: 250 mA @ 12 VDC
- Holding Force: 1300 lbs
- 120 VAC to 12 VDC wall type power supply provided with gate.

**Microswitch Push Release Bar:** Pushing the Microswitch Push Release Bar provides a contact to the Magnetic Lock to unlock the gate and allow exit. Gianni Model PBA-840.

**MSGX-E – Electric Strike:** Fail Lock only

- Input power: 12 VDC
- Initial Current Inrush: 16 A
- Holding Current: 0.25 A @ 12 VDC
- 120 VAC to 12 VDC power supply in NEMA style enclosure

**Mechanical Panic Bar:** Provides key lock control in the entry direction and mechanical opening in the exit direction. Von Duprin Model EL99-992LSP28.

Note: Must use Von Duprin Power Supply (supplied with gate).

**Activation Requirements:**

MSGX and MSGX-PX models require a sustained normally closed switch input to unlock the gate. The gate lock will not re-engage until the switch is released and the gate door is closed. The MSGX-PX includes a Microswitch Push Release Bar which, when depressed, provides a contact to the Magnetic Lock to unlock the gate and allow exit. Follow wiring diagrams in the installation manual supplied with the gate.

Model MSGX-E requires a sustained normally open switch input to unlock the Electric Strike Lock. The gate lock will not re-engage until the switch is released and the gate door is closed. Model MSGX-E includes a Mechanical Panic Bar which, when depressed,

mechanically unlocks the gate and allows exit. This model also includes mechanical key lock control in the entry direction.

***Options:***

- **Card Reader Mounting Plate** – Standard plate is 5” x 5”. Custom plates are available.
- **Magnetic Door Status Switch** – When magnetic contacts are broken, output signal indicates that door is open. Available on all models. Alvarado Part #10-1350
- **Push Button Assembly for Unlocking Gate Remotely** -- Available for use with MSGX models. Red activation button installed in a black plastic box. Alvarado Part #PB-2.
- **Small “Press to Exit” Button Assembly** – Alvarado Part #10-1422
- **Large “Press to Exit” Button Assembly** – Alvarado Part #10-1423