

Commercial High-Security Metal Door – 3 PART SPECS

ARCHITECTURAL SPECIFICATIONS: 083453 SECURITY DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes exterior 3' hinged ASTM F3038 high-security doors for secure entrances with egress release panic hardware

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's product data for all specified components, including specifications, finish information and installation instructions.
- B. Shop Drawings: Submit scaled shop drawings showing layout, sizes and types, product materials, components and accessories, fabrication data, wiring diagrams for motor driven operators, finishes, rough-in dimensions, anchorage with installation requirements and location details.
- C. Samples: Manufacturer's standard array of colors for selection by Architect.
- D. Quality Assurance Submittals:
 - 1. Test Reports: Engineer raised seal test reports showing compliance with specified requirements.
 - 2. Certificates: Engineering certification that design criteria meets specified requirements.
 - 3. Operating and Maintenance Instructions: Submit detailed maintenance requirements and operating instructions.
 - 4. Warranty: Submit specified warranty documents.

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Obtain security doors through one source from a single manufacturer with a minimum of 20 year's experience in manufacturing products comparable to those specified in this section.
- B. Installer Qualifications:
 - 1. This product may not be installed by non-certified QMi installers and no warranties or guarantees exist unless installed by factory authorized installer.
- C. Regulatory Requirements:

1. Comply with all local and governing code requirements.
2. Pre-Installation Conference: Conduct a pre-installation meeting to verify project installation and coordination requirements, and field conditions. Tele-conference is acceptable.
3. Electrical Certification: N/A

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver components in manufacturer's original, unopened, undamaged containers with identification labels intact. Store components protected from harmful weather conditions and damage from other construction activity.

1.5 PROJECT CONDITIONS

- A. Field Measurements: Record actual measurements of openings before fabrication. Show recorded measurements on As-Built drawings.

1.6 WARRANTY

- A. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by an authorized company official.
 1. Warranty period complete unit: Two (2) year parts and labor, not including scaffolding, lifts, or other means to reach the inaccessible areas.
 2. Locking mechanism and access control systems included with initial installation only. Limited warranty two (2) years parts only. Alarms, power transfers, power supplies, splice boxes and accessories one (1) year parts and labor.

(Specifier Note: Refer to manufacturer's product data and / or consult with manufacturer's representative for warranty information / requirements)

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. QMi Security Innovations
1661 Glenlake Avenue
Itasca, Illinois 60143 USA
800.446.2500

2.2 OTHER ACCEPTABLE MANUFACTURERS

- A. Substitutions: Not permitted.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.3 MATERIALS

A. Metal Door Components:

1. Door Slab:

a. Heavy-duty, SDI Level 2, 18-gauge steel faces

1. 1.75" thick, non-handed design with reversible hinge plates
2. Polystyrene or rigid honeycomb core
3. Inverted top and bottom channels for additional stability and protection
4. Heavy gauge hinge reinforcements and door closer reinforcement
5. Factory applied rust inhibiting primer

a. Exterior finish color to be Bronze, Gray, White, or Custom

b. Interior finish color to be Bronze, Gray, White, or Custom

(Specifier Note: Select color at time of order)

6. Code Compliance:

- a. Meets or exceeds ANSI A250.6
- b. Construction meets the requirements of ANSI 250.8

2. High-Security Components: Patent-pending anti-burglary devices to resist pry, impact, cut, and drill attack methods (ASTM F3038 rated for forced entry).

a. Active anti-cut system

1. Patent-pending active assemblies located inside door slab
2. Self-healing design stops repeated cuts at same attack location

b. Anti-drill plates

1. Patent-pending steel anti-drill plates bonded and fastened to interior face of door.
2. Resists Cobalt drill bit attack for minimum of 10 minutes

c. 2-part interlocking exterior astragal

1. L-Shaped steel angle on frame to seal off access to pry-bar attacks at door seam.

d. Hinge-side protection bracket

1. Z-bracket wraps around center-web of door frame to prevent pry bar from gaining access to door interior
 2. Mounting holes slotted for horizontal adjustability during installation
 3. Resists pry attack when exterior hinges are cut off during attack
- e. 5-point lock system
1. Fully surface-mounted hardware allows retrofit installation into pre-existing door frame
 2. Meets egress-compliance for single action release of door
 3. Two latch-side and two hinge-side bolts project into frame, center into surface mounted roller strike
3. Trident Egress-able Panic hardware with 5-point locking
- a. Emergency Exit Lock
1. Emergency exit security deadlock shall be Trident Series, a surface mounted multi-point deadbolt system with an emergency exit paddle on the interior which instantly retracts all moving deadbolts with one depression of the paddle. The lockset shall be capable of retrofit or new installation on flush steel doors.
 2. Moving deadbolts shall project a minimum of one full inch in each direction. The moving deadbolts shall all project horizontally and lock into the frame. The primary deadbolt shall project into a surface applied strike plate, affixed with 4 screws. A fixed bolt(s) shall be affixed to the hinge edge of the door for a fourth locking point.
 3. The lock shall be located at the lock edge of the door, installed at a height of approx. 42-1/2 inches. The upper and lower horizontal locking modules shall be factory connected to the primary lock mechanism via braided steel cable and shall not be removable or adjustable. The cable shall travel within aluminum channels which are affixed to the door by steel locking brackets which are affixed to the door with four self-drilling bolts per bracket.
 4. A thru-bolted anti-pry plate shall be provided for the main locking mechanism. The auxiliary horizontal locking modules and hinge side bolt(s) shall be thru-bolted.
 5. Locations requiring exit device models or fire-rated models should include the appropriate designations as listed below.
 6. Alarms, when specified, shall be operated by mortise cylinders (specified separately) and shall contain a tamperproof screw which generates an alarm when removed. Alarms shall be field adjustable for

Last Door Option and shall contain option to add direct power. Alarms to contain low battery alert. Alarms shall be wall mounted and contain an armored cable to connect to the exit lock.

7. All exit locks shall be capable of accepting a plug-in connector for alarm or remote signaling.

b. Trident Hardware Options: Designate operation and options as follows:

1. Lock Series:

- a. Self-Relock: TEL-200 series
- b. Manual Relock: TEL-100 series
- c. Fire-Rated Series: TEL-200F
- d. Delayed Egress: TEL-DES

2. Alarm Options:

- a. Direct Power: Designate "20" eg. TEL-220
- b. Battery Power: Designate "10" eg. TEL-210
- c. Direct Power Last Door Out Alarm with Re-Entry: Designate "20-LDO-RK-TCH4W"
- d. Battery Pwr Last Door Out Alarm with Re-Entry: Designate "10-LDO-RK-TCH4W"

3. Keyed Entry Options (all units supplied as exit only, entry options designated separately):

- a. Self-Relock, Keyed Entry: TEL-KLT-AP
- b. Self-Relock, Keyed & 24vDC Entry: TEL-KLDT-AP
- c. Self-Relock, "Last Door Out", Keyed & 24vDC Entry: TEL-KLDT-AP
- d. Manual-Relock, Keyed Lock and Unlock: TEL-MTT
- e. Manual-Relock, Keyed Lock and Unlock with pull handle: TEL-MTH

4. Push paddle options:

- a. Standard 12"
- b. California compliant 18"

B. Door Frame: Door frame must be minimum 16 gauge steel frame securely connected to adjacent wall with mortar or significant fasteners into structure to accommodate new QMI Heavy Duty door

1. Door weights 250lbs and structure must accommodate door mounting and support door when in open position
2. New door frames for existing structures or new frames for new construction by QMI are optional, and not standard.

(Specifier Note: Additional options and features available. Refer to product literature or contact factory for customization. Double door models and active-leaf locking options available.)

2.4 SHOP FINISH

- A. Steel door frames: paint by others and not within QMI scope of work.
- B. Door slabs (Color): White, Gray, Bronze and Custom
- C. Hardware finish: Stainless steel, silver, brushed & polished

2.5 APPLICATION & DESIGN

- A. Codes: Installed doors shall meet the required building compliance and documentation per Section 1.2 SUBMITTALS.
- B. Compliance: International Building Code (IBC) compliant, ASTM F3038 15-minute compliant

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify conditions of substrates to determine if acceptable for door installation in accordance with manufacturer's instructions. Correct all unsatisfactory conditions prior to commencing door installations.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
 - a. Maintain alignment and compatibility with adjacent work.
 - b. Steel frame Installation: To be plumb, straight and true, rigidly secured in place, and properly braced
 - c. Comply with the following:

- i. Manufacturer's installation instructions
- ii. Door and Hardware Institute (DHI) installation standards.
- iii. Steel Door Institute (SDI) installation and maintenance standards.

B. Install door frame (if required) and door to comply with project shop drawings and manufacturer's installation product approvals.

C. After installation, test and adjust door to operate properly.

3.3 CLEANING

A. Clean installed components in accordance with manufacturer's instructions prior to Owner's acceptance. Properly remove from the site all debris remaining from this installation.

3.4 PROTECTION

A. Comply with manufacturer recommendations and protect completed doors from damage during remaining construction so as not to void warranty.

END OF SECTION